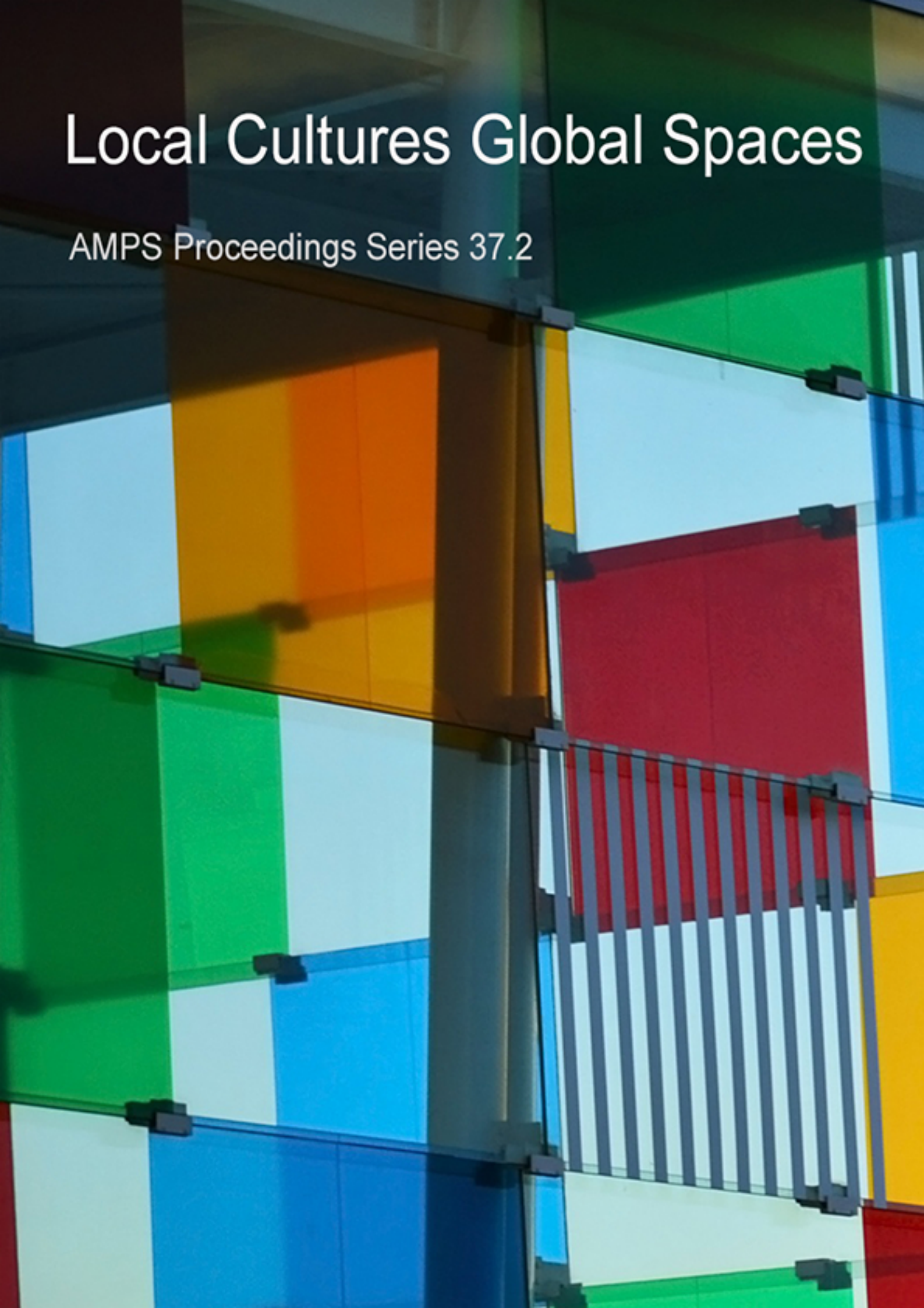


Local Cultures Global Spaces

AMPS Proceedings Series 37.2



AMPS PROCEEDINGS SERIES 37.2

Rochester Institute of Technology, Chinese University of Hong Kong, University of Melbourne
5-7 December, 2023

Local Cultures – Global Spaces
Communities, People and Place

ARCHITECTURE_MEDIA_POLITICS_SOCIETY
Amps

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AMPS PROCEEDINGS SERIES 37. ISSN 2398-9467

INTRODUCTION

Local Cultures – Global Spaces Communities, People and Place

The United Nations Human Rights and Habitat programmes connect how we live, to where we live. The association is premised on an understanding of cultures, communities and society through the lens of place. It sees them as inherently interlinked, and mutually reinforcing. Examining this liminal state, the Local Cultures – Global Spaces conference questions this idea as it appears at the intersection of cultural studies, sociology, human geography, architecture and urban planning.

It responds to debates around community networks and cultural traditions as independent of location. It addresses readings of the built environment as an isolated phenomena – as a series of constructed objects in, of, and for, themselves. Conversely, it acknowledges that how we live can be seen as inseparable from our built environments – our buildings, villages, towns and cities. In such readings, place may be defined as deterministic – as a central player influencing actions, and even identity. Positioning itself somewhere between these positions, Local Cultures – Global Spaces explores readings of societies and place as hybrid – as byproducts of the conflicting social, cultural and economic forces shaping our lives in multiple spheres.

In addressing questions of social and built environment theory and practice, then, these proceedings bring together a diversity of ideas. From the social sciences, themes of debate include cultural geographies, late Capitalism spatially manifest, and critiques of community and social justice, à la Lefevre and Harvey. In terms of architectural and urban design, it collects together texts that reflect concerns about participatory approaches in housing, examinations of queer space, Critical Regionalism, placemaking, and questions of race and planning, to name but a few.

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HYPER-LOCALIZING PEDAGOGIES IN DESIGN: THE SITUATING LEARNINGSCAPE AT THE FARM STUDIO

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INTRODUCTION

In densely urbanized Hong Kong, where land resources are premium real estate, and nearly 98% of food is imported, the traditional agricultural sector is marginalized, edging towards a ‘sunset industry’.¹ This scarcity of arable land, compounded by food security challenges, has catalyzed various responses, including experimentations with soil-less food production, precision agriculture, and urban farming.² In this context, the digital-centric, artifact-driven curriculum of design education may be at odds with such emerging food system interventions. Within this context, we conceived the Farm Studio, an off-campus design education program aimed at reinvigorating the ‘food-enabling’³ connections between urban life and rural agriculture. By engaging students in hands-on farm tasks alongside purposeful design work embedded in the village community, the Farm Studio endeavored to foster a new breed of designers—grounded experimenters, local soil nurturers, and globally aware citizens.

Ezio Manzini has underscored the importance of engaging with the “hyper-local”,⁴ a concept that aligns closely with the ethos of our Farm Studio. This emphasis on the hyper-local challenges us to re-evaluate our connections and to consider how localized design interventions can transform values, priorities, and actions.⁵ Such a perspective was the foundation upon which we conceived the Farm Studio, raising essential questions about the implications of rural “hyper-locality” for our design methodologies. Specifically, it led us to consider why a rustic, land-based farm setting provides evolutionary pragmatics and challenges conducive to design education and social innovation.

METHODS

The Farm Studio embarked on an empirical implementation of a work-integrated, service learning program developed by the School of Design at Hong Kong Polytechnic University from the summer of 2022 to the spring 2023.⁶ This program enrolled 20 Bachelor students from diverse design fields, including product, communication, environment, interior, and social design. Seven students leveraged the Farm Studio program to realize their final-year projects. The diverse backgrounds of this student cohort infused the learning dynamics and outcomes of the nine-month-long program.

Setting and Approach

Hosted within the Hong Miu Organic vegetable farm in Tai Kwong Po village, rural Hong Kong, the Farm Studio was part of an eco-social agriculture pilot.⁷ Over three years, the project has explored community-enabling strategies to redirect organic wastes from urban centers to regenerate local soils, bolster food production, enhance village cohesion, and strengthen agricultural capabilities. This initiative has involved Bachelor students and engaged diverse community members, including hotel kitchen staff, ethnic minority mothers, agriculturists, local villagers, and families of a food localization platform.⁸ Notably, the Farm Studio offered students an immersive rural experience distinct from their urban-centric education. This environment facilitated a novel learning model that intertwined practical farm work with conceptual instruction and systemic studio practice, as illustrated in Figure 1. This setting encouraged an apprenticeship-like framework, blending rigorous academic tutoring with practical farming experience. Students organized themselves into small workgroups and committed to weekly, day-long, immersive farm task assignments set out by the farm management. We complemented the farm immersion with tutoring sessions on campus for reflection with the entire cohort. This methodology fostered a holistic learning environment, emphasizing direct exposure to natural elements and the rural setting that was interspersed with intellectual exchange.



Figure 1. At the Farm Studio, design students prototyped farm tools, constructed playful shading structures, organized advocacy showcases, and created a multi-mode wayfinding system as part of their learning journey (photographs by Chin-hei Tom Kam and the authors).

Data Collection and Analysis

Our research into agriculture-integrated design education responds to the lack of empirical work on the subject. In this situation, qualitative research approaches are valuable since they allow insights from datasets with little conceptual structure.⁹ Thus, we collected data through longitudinal participant observation¹⁰ and in-depth, semi-structured interviews with 14 students (4 males, 10 females), focusing on their personal experiences, insights, and reflections related to the Farm Studio program. The collected data, including interview responses and observational field notes, were tabulated, coded, and examined using thematic analysis¹¹ aimed at understanding the pedagogical impacts and learning outcomes of this unique blend of immersive complexity immersion and applied reflexivity on design students.

FINDINGS: LIFE-WIDE ENVIRONMENTAL LEARNING AS RESOURCEFULNESS

Based on interview responses and empirical observation, our Farm Studio students had no prior agricultural experience. Some were even unaware of an agrarian sector existing in Hong Kong. This baseline finding underpins the students' educational journey throughout the program, leading to significant and transformative learning outcomes. Focusing on students' learning experiences, we identify in this paper the pedagogical impacts in six categories: experiential demands, multisensory learning, cooperative creativity, nuanced understanding, collectivizing transformations, and cognitive evaluations—as illustrated in Figure 2.

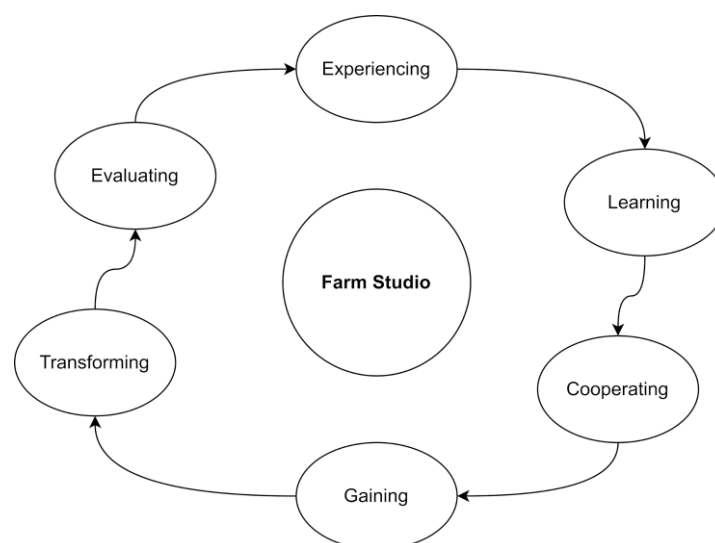


Figure 2. Six dimensions of life-wide learning at the Farm Studio

Experiencing: inspiring yet demanding

The Farm Studio, as described by the students, offered an inspiring, dynamic, and engaging alternative to the conventional indoor design studio. The heightened sociability derived from cooperative work in an outdoor setting, together with the uncertainty associated with farming challenges, has sparked their curiosity. Students' immersion in this setting broadened their perspective on design, adding depth to their understanding and application of design principles in everyday life. Contrary to conventional studios' conceptual focus, the Farm Studio allowed students to iteratively create tangible physical objects, monitor their usage, and receive concrete feedback. The Farm Studio also provided a distinctive opportunity for students to subject themselves to a wide range of farming techniques. This unique hands-on opportunity suspended pre-existing design knowledge and

presented a platform to solve real-world problems through design. The novelty of the experience, initiated by a community planting day as a pivotal induction event. It involved the creation of functional items out of recycled materials, maintain good rapport with villagers, and reinvention of self and group.

The students' perception of the eco-social farmland as "another, discoverable environment" shaped a salient part of their Farm Studio experience. The environment emerged as a recuperating oasis, offering relief from the stress of conventional academic settings promoting a sense of self-assuring tranquility. Its self-in-other enabling nature facilitated conversations among the ethnically diverse farm volunteers who were able to bridge cultural and linguistic divides. This nurturing backdrop promoted simplicity, devoid of competitive pressures often present in indoor design studios. Students could relish the "simple joy" of working together on joint farm tasks dictated by the conditions of the day and, thus, were freed from the need for constant comparison with their peers. Notably, the farm landscape also fostered a form of natural communication. It broke with rigid social norms and minimized social distance, often assimilating into daily life. The intimate and relaxed setting spurred storytelling, allowing for the sharing of personal experiences and narratives, thereby fostering a sense of camaraderie and mutual understanding. The Farm Studio served as an alternate educational platform and a holistic space promoting mental wellbeing, inclusivity, simplicity, and spontaneous communication.

While the Farm Studio offered intensely relational experiences, it also necessitates substantial effort and commitment on the part of students. Not only did the requirement for physical labor contrast vastly with the sedentary urban modes of conventional studios, but also subordinating one's schedule to the timelines of imminent farm tasks demanded from the students ample flexibility and perseverance. They learned to grapple with the disparity between expectations and reality, developing resilience to navigate an environment marked by the inherent uncertainties of farming. Moreover, the limited resources available posed challenges and stirred inventive thinking and resourcefulness. Through this holistic body-mind engagement and transformation, the Farm Studio experience also called on adaptability and determination, made possible by the collective agency of learning together.

Learning: multisensory and multidimensional

At the Farm Studio, students underwent a multifaceted learning journey, highlighted by direct (active) and indirect (passive) experiences, reflective thinking, collaborative activities, temporal suspension, and a unique sensory immersion.

It begins with learning through experiencing as a form of enlivening observation, a passive yet profound process. Here, students engage in a circular journey of life affirmation that extends from planting, growing, preparing, and finally, eating foodstuff, providing a holistic perspective of the larger metabolic meshwork we are all part of. Such direct experience deepened students' comprehension of farming realities, bridging abstract concepts like seasonality or biodiversity with tangible (tasty!) experiences.

Indirect education also relates to the lens of system thinking, where students tackle complex agricultural issues involving multiple stakeholders, including humans and nonhumans. Learning through making here becomes an embodiment of personal sensation, leading to unique reflections and outcomes as students' design interventions derive from and interact with the physical world surrounding them. Each touch, movement, and visual cue becomes part of a narrative that brings forth a multitude of unique reflections and learning outcomes, serving as tangible takeaways from their time at the Farm Studio. This intertwining of making and sensing deepens the students' relationship with their work and provides a richer context for their learning journey.

Active engagement in farming tasks equates to learning by doing, aiding students in acquiring farming techniques while exploring the principles underpinning these practices. The transformation from theoretical knowledge to hands-on practice exemplifies learning through process, enabling mutual understanding and learning among students from disparate disciplines and *modus operandi*. Furthermore, the practical approach provides a deeper understanding of farming tradition in Hong Kong, connecting students with local agricultural ecologies. Samuel articulates this sentiment fittingly: “we’re actually taking from nature.”

The Farm Studio experience also encouraged self-instructing insights. Students reflected on their time investment and changing roles enacted, which revealed previously unnoticed tensions. As Kit stated, “how long should I stay in this [experience] before I know enough about farming?” Belle observed, “[my] role is to bridge society with agriculture... using [my] skills to communicate with people about agriculture.”

Finally, learning through sensing, whether touching soil, the microbially active compost, or wild-roaming critters, creates bodily memories and thus evokes deeper connections with nature. Ricky’s recollection of “moving encounter... like when I touch the frog” illustrates the profundity of these tactile experiences, foregrounding the Farm Studio as a playground for active, experiential learning that could bring about developments in manifold ways.

Cooperating: from diversity to creativity

Cooperation was a significant vector at the Farm Studio, involving the interplay with individuals from diverse socio-demographic backgrounds, disciplines, and professional perspectives. The collective unfamiliarity with farming, particularly the use of agricultural tools, necessitated reliance on external assistance. It presented opportunities to enhance communication skills and learn from a variety of viewpoints. Working alongside farm instructors, peers, and other volunteers, students had to approach problems by balancing various vantage points. One student shared, “although it’s the same project, we will have different perspectives by working on the same thing.” This sentiment of contributing uniqueness combined with overarching purpose resonates with learning as a way of communicating and translating ideas across different knowledge bases.

Such collaborative learning and working experience are markedly different from conventional studio education, where design artifacts often exist as standalone entities aimed at securing design awards. In contrast, at the farm studio, students are encouraged to create physical objects, study their usage, and acquire robust feedback on their many intended and unintended effects. Particularly for product design students, the process of building something from scratch and witnessing its potential to improve farmers’ day-to-day work offered unpredictable revelations, driving them to seek less apparent approaches. The collaborative atmosphere, accentuated by epistemological diversity, not only fostered creative trouble-shooting since they were part of a team but also made students embrace the given situation or challenges posed by the farming environment, putting all involved on a plain-level field.

Gaining: encounter to understand

The Farm Studio experience provided students valuable opportunities for personal growth, introspection, and development based on encounters, sensibilities, and revelations.

First, students were able to have encounters with otherness conducive to self-discovery. Through what some students described as “encountering a new self,” they began to view themselves through a different lens that brings them closer to ethnic minorities and cultural diversity. The unique agency of farming facilitates this introspection, prompting them to reflect on their position also within the larger society.

Second, the experience imbues students with a profound sense of achievement. “Successfully arriving at the farm on time” exemplifies students’ determination to go the extra mile and stick to their commitment. The physical labor also brings a new appreciation for healthiness. But perhaps more significantly, the physical presence helps cultivate new sensibilities. Students learn to empathize with farmers’ situations and biographies, or as a student indicates, “meeting the person behind the vegetable.” They also started paying attention to how to use language – the first tool in design – to avoid disrespect, for example, by designating the walking path prone to stray dogs as “a dog lovers’ route” or food waste as “kitchen scraps.”

Third, the Farm Studio stipulates a stance on design that privileges first-hand exposure. As Ricky reflected, “design is not only about imagining things; you have to immerse yourself into something else to really feel it, to touch it directly.” Such immersive and embedded design made students reconsider their place as team members, and their role as designers was articulated by Mandy: “[I learned] not seeing myself as a designer but as a part of the users themselves.” Moreover, students came to understand the limitations inherent in design and human endeavors, recognizing that accepting them is not a setback but a part of the process. Students gained insight into environmental realities, fostering a deeper appreciation for local culture and the potential for community self-sufficiency vis-à-vis a fast-paced, commercialized world.¹²

Lastly, as mentioned above, students’ validation of cooperation and teamwork became evident. They develop a willingness to contribute as part of the team and keep a good rapport with the group. The Farm Studio, thus, is not merely an academic exercise but a rich, multidimensional experience and action space that shapes students’ perceptions, values, and professional principles.

Transforming: individual to society

The Farm Studio experience showed transformative potential within students based on the process orientation, communal agency, and embodied activation.

Transformativity begins with a newfound appreciation for embarking on a (shared) journey rather than merely rushing singlemindedly to the destination. Students learned to appreciate the subtle yet steady changes occurring in their natural surroundings, immersing themselves in larger-than-self ecologies, primarily conveyed through the cyclic renewal of life. Another profound shift occurs in the students’ mindsets as they transition from mindless consumers to reflective co-producers. For example, students began re-evaluating consumerism and its reliance on food miles, excess packaging, and external food certification. Their perception of local agriculture evolved as they started questioning the appropriateness of indiscriminate vegetable pricing. By understanding the hard work that farmers invest in, they came to understand farming as a fertile ground for societal change.

The transformation extended beyond individual experience, influencing relatives and broader communities. Students shared their newfound appreciation for unpackaged food and plant-to-mouth eating with their families, stating that “[raw crops] taste better than cooked ones,” forging connections across generations. As Belle described, her family started caring about the origin and quality of food. Some students even confessed how their farming experience opened a common ground to relate to their parents’ bygone village life and bridge generational differences.

This transformation was not only mental but physical. Design students, usually glued to desks and screens, were subjected to one morning of farm labor every week. This experience revealed their deficiency in physical exercise and proposed a healthier lifestyle, which could prompt concrete behavioral changes. In addition, the Farm Studio permeated everyday behavior. As Belle admitted, in order to reduce food waste, she opted to order less food, leaving the option for buying more food later if needed. Making time for sensing one’s satiety and realizing when is enough, can extend beyond food consumption towards thoughtful action in many other aspects of life.

The Farm Studio has rendered circular experiences whereby active engagement leads to new knowledge, which stipulates awareness, reflection, and follow-up action. In turn, it can prompt sharing and behavioral transformation, marking the opening of circularities elsewhere.

Evaluating: shifts and alternatives

The Farm Studio has significantly expanded the repertoire of the conventional educational paradigm, presenting a pedagogy of interdependency on multiple levels. It expands the spectrum of evaluation systems, emphasizing creative problem-solving and practical applications over rigid, outcome-based performance scales. It extends to alternative opportunities as students gain direct, hands-on experience in eco-social farming, diversifying their skill sets beyond the routine functioning in conventional design studios. This experience also reshaped students' perspective toward homework, reframing it from a stress-inducing, standalone assignment to a tangible, operational contribution to the Farm Studio's viability. Human relationships, too, undergo a shift as the cooperative work environment fosters mutual respect and a sense of collectiveness among students. These transformative shifts can manifest when students are suspended from regular stress-laden environments focused on singular projects, short-term competition, and outcome orientation. The Farm Studio opened up unprecedented learning arenas grounded in situated challenges and collective agency. It created a learning environment that propelled the reinvention of self and group, conducive to personal growth, cooperation, and even the transformation of students' economic imaginaries.

CONCLUSION

The Farm Studio was the result of a carefully structured and socially embedded facilitation for reshaping design education with a land-based pedagogy of interdependence. By immersing students in a socio-materially rich context with real-world pragmatics, challenges, and opportunities, the program has enabled a self-engaging, tangible learning journey for all learners. The transformative learning outcomes, categorized into six distinct realms, highlight the pedagogy's effectiveness in bolstering experiential affirmation, multisensory learning, cooperative creativity, nuanced sensibilities, societal transformations, and cognitive reflexivity. These outcomes encourage the evolutionary design committed to hyper-local complexity. The Farm Studio persuaded students beyond traditional classroom boundaries in biological, social, and psychological ways to follow through and grow stronger alongside the demands of the ever-evolving living environment. Land-based pedagogy suggests a middle path where human artifice remains firmly grounded in and subordinated to nonhuman ecologies so that future designers are attuned to their specific craft and committed to the locality of their environmental and societal contexts. Our single case study admittedly has limited external validation. Thus, it inspires future research. There is a need for more pedagogic exploration of integrative, experience-driven approaches in other application domains for preparing students to navigate the increasing eco-systemic complexities of our times.

NOTES

- ¹ Markus Wernli, and Kam Fai Chan, “Cosmotech Encounters: Designing with foodwaste, landscapes, and livelihoods,” *Contexts—The Systemic Design Journal* 2 (2023), <https://doi.org/doi:10.58279/v2001>.
- ² Shu-Mei Huang, “Urban Farming as a Transformative Planning Practice: The Contested New Territories in Hong Kong,” *Journal of Planning Education and Research* 41, no. 1 (2021): 32–47, <https://doi.org/doi:10.1177/0739456X18772084>.
- ³ Chiara Tornaghi, “Urban Agriculture in the Food-Disabling City: (Re)defining Urban Food Justice, Reimagining a Politics of Empowerment,” *Antipode* 49, no. 3 (2017): 781–801, <https://doi.org/doi:10.1111/anti.12291>.
- ⁴ Ezio Manzini, *Politics of the Everyday* (London: Bloomsbury, 2019), iv.
- ⁵ Gjoko Muratovski, “In Conversation with Ezio Manzini: Design for Social Innovation—What We’ve Learned So Far,” *She Ji: The Journal of Design, Economics, and Innovation* 9, no. 1 (2023): 76–85, <https://doi.org/doi:10.1016/j.sheji.2022.12.003>.
- ⁶ Markus Wernli and Kam Fai Chan, “Provocation Soil Trust: designing economies inside an interspecies world of feeders,” *Journal of Cultural Economy* 16, no. 4 (2023): 594–603, <https://doi.org/doi:10.1080/17530350.2023.2239823>.
- ⁷ Sara Nicli, Susanne Ursula Elsen, and Armin Bernhard, “Eco-Social Agriculture for Social Transformation and Environmental Sustainability: A Case Study of the UPAS-Project,” *Sustainability (Switzerland)* 12, no. 14 (2020): 5510–5526, <https://doi.org/doi:10.3390/su12145510>.
- ⁸ Markus Wernli and Kam Fai Chan. Are We Repairing Soils and Each Other Here? Exploring Design Cosmotech in the Waste Age. *Design/Repair: Place, Practice & Community*. Cham: Springer Nature (2023): 123–148. doi:10.1007/978-3-031-46862-9_6.
- ⁹ Melissa Graebner, Jeffrey Martin and Philipp Roundy, “Qualitative data: Cooking without a recipe,” *Strategic Organization* 10, no. 3 (2012): 276–284, <https://doi.org/10.1177/1476127012452>.
- ¹⁰ James Spradley, *Participant Observation* (Long Grove: Waveland Press, 2016).
- ¹¹ Victoria Clarke and Virginia Braun, “Thematic analysis,” *The Journal of Positive Psychology* 12, no. 3 (2017): 297–298, <https://doi.org/doi:10.1080/17439760.2016.1262613>.
- ¹² Shaw-wu Jung, “From resistance to co-living: rural activism in contemporary Hong Kong,” *Inter-Asia Cultural Studies* 21, no. 3 (2020): 406–424, <https://doi.org/doi:10.1080/14649373.2020.1796353>.

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THINKING INSIDE THE BOX: INNER-CITY REGENERATION THROUGH INTERIOR DESIGN PLACEMAKING STRATEGIES IN A CREATIVE CLUSTER

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INTRODUCTION

The Maboneng Precinct, in Johannesburg, South Africa, acclaimed for urban regeneration, thrives due to its creative reimagining of existing structures.¹ However, while urban design and architecture receive recognition for this transformation, the role of interior design remains overlooked. This study examines the symbiotic link between specific commercial interiors and the precinct's creative identity within Johannesburg's Central Business District (CBD). Recognising these contributions expands the scope of interior design, urging designers to consider influences beyond interior spaces. By acknowledging interior design's impact on creative placemaking, this research aims to foster collaboration among stakeholders in inner-city regeneration, ensuring cohesive integration of design solutions into the urban landscape. Conducted within a master's program, this study utilised interpretive methods, incorporating diverse data collection and analysis techniques. Four interior commercial spaces, The 12 Decades Johannesburg Art Hotel, Blackanese Wine and Sushi Bar, Unknown Union, and Cornerstone Café, were examined as case studies within the vibrant Maboneng Precinct. This exploration seeks to deepen our understanding of sense of place and placemaking, empowering interior designers to envision spaces in a broader context, fostering synergy among diverse role players in urban regeneration.

Exploring Interior Design's Role in Urban Regeneration: The Maboneng Precinct Case Study

Understanding the Creative City Approach

Various policy frameworks in South Africa highlight the pivotal role of creative industries in city and community economic growth.² Johannesburg stands at the forefront of this development, fostering creative clusters within its inner-city and surrounding areas.³ These clusters, instrumental in inner-city regeneration, redefine 'place' by cultivating a creative sense that sparks social, communal, and cultural revival.⁴

'Sense of place', as defined by Christian Norberg-Schulz,⁵ embodies how individuals interpret and connect with a designed space, while 'placemaking' deliberately shapes environments for deeper human bonds with the built world. Urban planners and architects have embraced these concepts to transform inner-city spaces into vibrant, meaningful environments, aiming for healthier communities and enhanced urban life quality.⁶

Johannesburg’s inner-city regeneration initiatives, modelled after creative clusters, encompass projects like The Maboneng Precinct and others, seeking to reconcile the city’s apartheid legacy with aspirations of global urban standing.⁷ The Maboneng Precinct, notably spearheaded by private developer Jonathan Liebmann through Propertuity, represents a paradigmatic property-led creative cluster fostering creative entrepreneurship.⁸

Once a zone of derelict industrial spaces, Maboneng’s revitalisation by Liebmann utilised art and design to repurpose abandoned factories into multifunctional artistic, residential, and commercial hubs, thereby cultivating a distinctive creative atmosphere, as can be seen in Figure 1.⁹ This strategy not only regenerated the physical and economic aspects but also nurtured a vibrant sense of place, contributing significantly to inner-city regeneration and community revival.¹⁰



Figure 1. The Maboneng Precinct_ using art and design to repurpose abandoned buildings.

Impact of Interior Design Strategies

John Habraken’s¹¹ theory on levels in urban development offers a lens through which the transformation of this inner-city area, particularly the Maboneng Precinct, can be analysed. It is evident that this regeneration initiative primarily operated at the infill level, leaving the urban planning and zoning relatively untouched. The area’s historical identity as a mixed-use, light-industrial zone remained intact, causing minimal change in the broader urban planning framework. Architectural alterations were modest, with some structures refurbished, others demolished, and a few new container-type buildings added.¹² However, the core transformation unfolded internally, emphasising adaptive reuse and retrofitting within existing structures rather than large-scale architectural interventions.¹³

Specifically, the regeneration of commercial spaces within the precinct focused on repurposing neglected warehouses and factories, as seen in Figure 2. This aligns with Habraken’s theory, showcasing the pivotal role of interior design in contributing to Maboneng’s success as an inner-city regeneration hub.¹⁴



Figure 2. An existing industrial space repurposed into a thriving commercial space.

Embracing Interior Design in Placemaking

Furthermore, Norberg-Schulz's perspective highlights the significance of design in cultivating a distinct 'sense of place'.¹⁵ According to this view, designers craft environments that resonate with users' emotions and behaviours, fostering a meaningful connection.¹⁶ A well-designed space not only attracts users but also nurtures a strong sense of place, fostering utilisation and community engagement. As an interior designer, I resonate deeply with this perspective, seeing interior design as a crucial element in shaping Maboneng's creative atmosphere.

Despite the acknowledgement of urban design and architecture in discussions about Maboneng's creativity, interior design's role remains underrepresented.¹⁷ There is a gap in understanding and documenting how interior design plays a pivotal role in successful placemaking within creative clusters like Maboneng. This gap in South African literature presents an opportunity to delve deeper into the significance of interior design in inner-city regeneration strategies. Comprehensive insights into interior design's influence could enrich existing knowledge on successful placemaking, offering valuable guidance for future urban regeneration endeavours.

PLACEMAKING DYNAMICS WITHIN CREATIVE CLUSTERS

The vision for The Maboneng Precinct

The rise of the Maboneng Precinct as a central hub for creativity within Johannesburg's inner-city, as revealed through my research in literature and interviews, is truly transformative. It attracts the creative class, elevates the city's image, and regenerates once-derelict areas.¹⁸ The precinct's design, aligning with existing urban structures, fosters a positive city brand, crucial for economic growth. Interviewees unanimously recognise Liebmann's vision, emphasising its pivotal role in inner-city regeneration and nurturing creative entrepreneurship.¹⁹

Observations in Maboneng align with Pancholi et al.'s²⁰ placemaking factors, establishing a link between the precinct as a creative cluster and a defined sense of place.²¹ It is acclaimed for its inclusive creative environment, reinforcing its world-renowned status.

Placemaking in Maboneng thrives on strategies such as spatial diversity, authenticity, and attractiveness, integrating existing structures with creative design elements to foster user participation

and innovation. Interior design drives this transformation, respecting the precinct's industrial heritage while infusing creative functionality into adaptive reuse, as seen in Figure 3. The reuse allows users to interact with history, spurring their creativity.²² Interior design creates vibrant spaces, attracting locals and tourists, enhancing investments, and boosting the local economy.²³

This process, essential for a functional creative cluster, involves strategic integration of creativity, flexible spaces, and a sense of place by considering context and materiality.²⁴ Dube and Nair,²⁵ who both play pivotal roles in the design outcomes of the commercial spaces, stress interior design's pivotal role in Maboneng's growth, attributing its success to attracting known creatives, visible artwork, and repurposing abandoned spaces. The precinct's deliberate design, offering creatively designed spaces at affordable rates in a secure and well-maintained environment, fosters a community for creatives.²⁶ It underscores how the Maboneng Precinct's purposeful exterior and interior design cultivate its distinctive creative sense of place.

Maboneng's evolution, driven by interior design's strategic contributions, underscores its success as a thriving creative hub and symbolises the transformative power of purposeful design in urban regeneration.



Figure 3. Interior Design strategies used in the process of placemaking.

Implementation of Selected Commercial Spaces

The commercial landscape within Maboneng is intricately woven with a unique character and a distinct sense of place. This essence is not haphazard but rather deliberately curated, fostering a symbiotic relationship between Maboneng's overarching vision and the selected commercial spaces. Liebmann, the visionary behind Maboneng, meticulously curated these commercial spaces, ensuring they resonated with his vision of nurturing creativity and entrepreneurship. This selectivity engendered a distinctive offering within these spaces, crafting an authentic experience that intimately engages users, fostering a creative sense of place.

Nair²⁷ highlights the intentional design of these commercial spaces, fostering a symbiotic relationship with Maboneng's creative essence. Termed an 'ecosystem' or a 'closed loop', these spaces and the precinct mutually influence and elevate each other, benefiting not only the creative community but also the targeted market. This reciprocal relationship underscores the significance of Maboneng's creative sense of place in moulding these interior commercial spaces.

The interior design of these spaces plays a pivotal role in Maboneng's external attraction. Nair²⁸ emphasises the importance of competent interior design aligned with the precinct's vision and

character. Commercial leases mandate an aesthetics clause, ensuring interior designs harmonise with Maboneng's envisioned sense of place.

Four specific commercial spaces within Maboneng were analysed, shedding light on their role in cultivating a creative sense of place through their offerings and character. Analysing these spaces firsthand suggested how their interior designs contribute to placemaking within the creative cluster. These spaces, alongside Maboneng as a whole, exemplify specific place attributes that stimulate creativity. Their design solutions uniquely captivate users, sustaining immersive experiences and resulting in highly utilised environments, embodying a strong sense of place, as seen in Figure 4.

This echoes Pancholi et al.'s²⁹ delineation of commercial spaces facilitating placemaking within creative clusters. This creative placemaking, as identified by Markusen and Gadwa,³⁰ not only defines atmospheres but also revitalises surroundings, bolstering economic vitality, public safety, and environmental sustainability. Its impact extends to community regeneration by attracting diverse individuals, locals, and visitors.

The strategies in interior design linked to placemaking within creative clusters, as per Pancholi et al.,³¹ encompass four key components: producing place as a feature, considering function, manifesting place as form, and shaping the space's perceived image to facilitate placemaking. These strategies align with wider contextual influences, contributing to the distinctive character of Maboneng's commercial spaces.

Employing multiple data collection strategies aided in comprehending these spaces' design qualities and users' perspectives. The four commercial spaces deliberately attract the creative class through unique design and authentic experiences. The interior design process imbues these spaces with significant meaning, character, identity, and human interaction, fostering a relatable yet creative environment.

Functionality plays a critical role in the placemaking process within these spaces. Observations demonstrate how the interior designs amalgamate practical functionality, industrial quality, and aesthetic innovation, aligning with placemaking methodologies by influential authors like Lorraine Farelly.³² Each space effectively communicates its purpose and appearance to users, influencing their emotional responses and contributing to a sense of place.

Heidegger's theories on embodied placemaking elucidate the interconnectedness of place and the human body within the built environment. The interior designers embraced this concept, emphasising a specific human experience within these selected commercial spaces, thereby enhancing their significance.

The physical interior space in each case study was meticulously considered, manifesting place as form. Designers tailored spatial compositions to suit social and individual programs, in line with Wilwerding's description,³³ thereby contributing to placemaking within these environments.

The designed user experience within these commercial spaces emphasises character while maintaining a strong link to Maboneng's context, fostering identification among guests and the community, also showcased in Figure 4. Various design approaches structure spaces for dialogue, enriching users' sense of place and creating sensory connections, as posited by Adjei.³⁴

Consideration of the context within the design of these interior commercial environments is paramount. Nair³⁵ notes the adaptive reuse of buildings within Maboneng, preserving the industrial style while infusing creative functionality tailored to each structure's current purpose. This strategy respects the buildings' heritage while innovatively layering elements that resonate with the Maboneng community.

In summary, the meticulously curated commercial spaces within Maboneng exemplify a symbiotic relationship with the precinct's creative vision. Their interior designs contribute significantly to the

creation of a distinct sense of place, fostering immersive experiences and fostering community identification within these spaces. The contextual considerations within these designs pay homage to Maboneng’s heritage while innovatively weaving in elements that resonate with its vibrant community.



Figure 4. Interior Design strategies used in the process of placemaking in the 12 Decades Hotel.

User Experience and Its Influence

The Maboneng Precinct’s success pivots on users’ experiences within its commercial spaces, serving as a linchpin for both attracting visitors and catalysing inner-city regeneration. Essential to this success is the establishment of a distinct sense of place, a pivotal strategy in sculpting a meaningful and engaging user experience. Maboneng’s creative sense of place not only significantly influences its status as a thriving creative nucleus but also acts as a magnet for the creative class while strengthening Johannesburg’s image as a vibrant hub of creativity.

INFLUENCE OF INTERIOR DESIGN ON MABONENG’S CREATIVE IDENTITY

Symbiotic Relationship of Commercial Spaces

Strategies aimed at captivating and retaining the creative class highlight the crucial role of purposefully designed environments within creative clusters. Florida³⁶ emphasises the creative city approach and the creative class as fundamental drivers of urban growth, highlighting the necessity of nurturing and sustaining these clusters to propel inner-city regeneration. Gregory³⁷ identifies clusters, like Maboneng, typically developed by private property developers, as particularly successful in attracting and retaining the creative class. Interviews conducted within Maboneng reaffirmed its appeal among the creative community due to its vibrant diversity and support for design-oriented commercial spaces, as shown in Figure 5. The physical attributes within Maboneng and its commercial spaces significantly contribute to attracting the creative class. These spaces, through their distinct ‘look and feel’, foster a sense of meaning, memory, and identity,³⁸ thereby nurturing a creative sense of place within Maboneng.



Figure 5. A design-oriented commercial space- supporting Maboneng's appeal to the creative class.

Crafting Distinctive User Experiences

Design strategies, as observed and articulated in interviews, focus on shaping a distinctive user experience. Interior designers keenly aim to understand user behaviours and experiences, crafting spaces that effectively communicate intended context, character, and function, as seen in Figure 6. This aligns with Vaikla-Poldma and Vasilevich's³⁹ approach, emphasising meaningful design elements and a unique user character. The 'body-space' relationship, as articulated by Norberg-Schulz,⁴⁰ highlights the dynamic sensory interaction between users and spaces. These interactions are dynamic, and shaped by personal, bodily interactions, temporal elements, and aesthetic encounters. Spaces are not passive; users dynamically engage with and within them. Leveraging access to users' realities, interior designers consider lived experiences and functional requirements, resonating with Abercrombie's concept.⁴¹ These lived experiences shape dynamic, lived places, imbuing spaces with meaning and value through user engagement. Strategic approaches by interior designers aim to facilitate placemaking within the identified commercial spaces. Spaces are deliberately designed with user experiences at the forefront, structuring environments to encourage social interactions and individual identities, thus integrating user memory and experience to foster a more engaging environment. The distinction between space and place, as highlighted by Madanipour,⁴² underscores the significance of physical environments in holding meaning and value. Observations reveal how these commercial spaces within Maboneng effectively promote user identification and meaningful experiences, aligning seamlessly with Norberg-Schulz's theories. Crafting 'strong places', as emphasised by Norberg-Schulz,⁴³ remains a focal point for interior designers, aiming to cultivate a sensory connection and thereby fostering meaningful encounters within these spaces. Lopez⁴⁴ advocates for places that engage all user senses, supporting behavioural goals and sustaining rich experiences.

By infusing a creative sense of place within Maboneng's interior design, the precinct becomes a facilitator of human activities, promoting cultural, social, and community renewal within its surroundings. Thus, the placemaking strategies embedded within Maboneng's commercial spaces significantly contribute to its success as a creative cluster, actively fostering inner-city regeneration.



Figure 6. Cornerstone Café_ employing strategic interior design principles to craft distinct user experiences.

CONCLUSION

This study highlights the pivotal role of creative clusters in inner-city regeneration, notably through their interior-designed commercial spaces. Despite employing professional interior designers, the discipline's link to strategies for inner-city regeneration remains underappreciated. However, this research presents elements in these strategies that distinctly align with interior design principles, especially evident in successful clusters like The Maboneng Precinct.

Acknowledging and identifying these unique characteristics within interior design are vital steps in understanding, replicating, and fostering similar successful processes observed in thriving creative clusters like Maboneng. It is crucial to recognise these strategies to bridge the gap between disciplines, defining their shared roles in creating a cohesive sense of place and fostering placemaking.

Understanding these overlaps and unique interior design attributes offers an opportunity to clarify the interactions between various stakeholders. By recognising individual contributions, a collaborative effort can emerge to develop design solutions that not only promote successful regeneration nodes within the inner-city but also seamlessly extend a defined sense of place from interior spaces to the broader urban environment. This acknowledgement paves the way for collective efforts aimed at cohesive and impactful urban regeneration, where interior design plays a vital and acknowledged role.

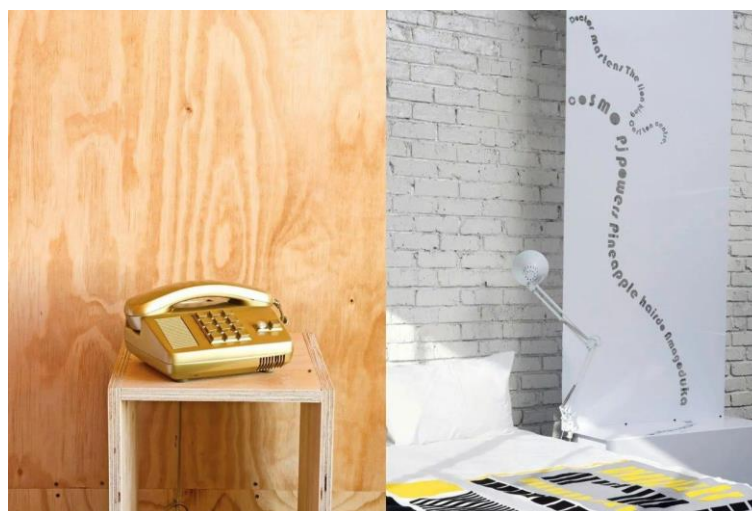


Figure 7. Unique interior design characteristics and elements used to facilitate placemaking and contribute to urban regeneration.

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LESSONS FROM THE BROWNFIELD: CONSIDERING THE SELF-GENERATING CITY

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INTRODUCTION

The brownfield figure lies at the crossroads of urban debates today, whether it concerns urban renewal,¹ cultural infrastructures,² social practices,³ or nature in the city.⁴ This contribution will focus more specifically on one particular feature of these spaces: their availability for unplanned reappropriations and reconfigurations. These phenomena will be considered here as a specific mode of space production,⁵ within the general framework of critical urban studies.

Urban Brownfields

In French, the term used to designate abandoned urban spaces is “friche”. In the Middle Ages, it designated abandoned land that had once been cultivated. By extension, it was adopted from the 1990s onwards in urban contexts to designate abandoned spaces that were once used. In English, it is usually translated as “brownfield”. “Wasteland” is also used, although the latter does not refer specifically to formerly used spaces. Unlike the French term, “brownfield” has no agricultural origins, but was born in connection with contemporary industrial and urban contexts. The French term “friche” explicitly refers to a state of waiting, a “time of standby” or uncertainty,⁶ during which a space “goes off the radar” of urban planning on the one hand, and of exploitation logics on the other. As reflected in the French etymology, urban brownfields are characterized by their *availability* on several levels: material availability – they contain spaces that can be used or even lived in –, regulatory availability – the usual restrictions on public space don't fully apply there –, and symbolic availability – the social gaze and control penetrate them less –, not forgetting a fundamental aspect: their availability to biological regeneration, whether spontaneous or provoked.

AVAILABLE SPACES VS POLITICAL APPETITES

Urban brownfields proliferated in Western cities as a result of accelerated deindustrialization in the 1960s and 1970s. To these abandoned industrial spaces were added the multiple vacant lands left aside, in the same time, by extensive urban sprawl from the post-war period. Parallel to the emergence of these particular spaces, new political imaginaries blossomed, of which May '68 was a crystallizing moment: pacifism, anti-authoritarianism and ecology spread into the public arena during the 1970s. In this context, a number of initiatives took over abandoned urban spaces to set up living communities that sought to set themselves apart from the constraints of modern society: cultural constraints –

patriarchal society, sexual and moral repression –, and economic constraints – contestation of the consumer society.

Among the most enduring of these experiments, the community of Christiania, founded in 1971 on an abandoned military site in the heart of Copenhagen, managed to preserve a status of partial autonomy until 2013, at the cost of numerous episodes of conflict with the authorities. Over time, the enclave gradually became a tourist attraction, drawing over a million visitors a year. We'll return to this type of mutation later on.

Berlin's Kreuzberg district in the 1970s is another significant case. There, abandoned buildings were also occupied to resist real estate development and the ensuing rise in housing prices. Squats then became places of political and aesthetic counter-culture, with the explosion of the Punk movement and the self-organization of a broad squatters' movement. The neighborhood was regularly raided by the police, but held out until 1981, when a law was passed criminalizing the squatter movement and leading to its forced dismantling.⁷ In most Western countries, the 1980s saw the advent of neoliberal politics, notably led by the Reagan (US) and Thatcher (UK) governments. This global trend was also to color urban policies.⁸



Figure 1. Gathering at the KuKuCK building, Berlin, around 1980. Photo Peter Homann © umbruch-bildarchiv.de

The neoliberal and cultural turn

In the beginning of the 1990, following the fall of the Berlin Wall, the squat phenomenon exploded once again in Berlin, this time in a different manner to that of the 1970s: far from the political radicalism of the punk movement, the more consensual model of the “artistic brownfield” was established in the many abandoned buildings of East Berlin. The first artistic squat, the huge and emblematic Tacheles, opened in 1990. Although different, this movement was nonetheless built on the social heritage of the 1970s, since groups from the Kreuzberg area were the driving force behind it⁹. Here, however, squats were regularly perpetuated in the form of temporary occupancy agreements with landlords. The mood was no longer for radical rupture. Nonetheless, these were still places of

counter-culture, licentious practices (partying, drugs) and a certain liberation from economic constraints, particularly with regard to the cost of housing.

In another context, 1992 saw the opening of Marseille's Friche Belle-de-Mai, an emblematic artistic site set up in a former tobacco factory on the outskirts of a struggling working-class neighborhood. Far from the spontaneous, counter-cultural initiatives of Berlin, this project was quickly taken up by the urban authorities and a number of key cultural players. It should be noted that, although it is still called a “friche” today, the Belle-de-Mai does not possess the 3 characteristics identified above (i.e., material, regulatory and symbolic availability): the site is a public institution with centralized management and controlled uses. It is therefore not – or no longer – genuinely a brownfield or a *friche* as defined above. This type of transformation of urban brownfields into cultural institutions has since acquired the status of an urban operation model, given its spread and repetition. This is a recurring aspect of the culture-based urban regeneration model, in search of a “Bilbao effect”¹⁰ and in the wake of “creative city” theories.¹¹ This model has been widely contested for its contribution to gentrification and social exclusion.¹² As Philippe Foulquié, then director of La Belle-de-Mai, told a journalist in 2005: “This injunction to build relationships with the neighborhood is a bit heavy”.¹³ We're clearly not in the Berlin spirit here, but, as Boris Grésillon points out, in an institutional logic that focuses on a “supra-regional” scale, and therefore a “hard” development strategy that has nothing to do with the idea of an available, undefined space.

These examples illustrate one of the highly political aspects that crystallize around the figure of the urban brownfield. The spontaneous uses to which it is put are the sign of needs and desires repressed in conventional public spaces, and which find fulfilment there thanks to a pause, a “time of standby”, a troubled time, which can sometimes extend over a very long period. Eventually, the brownfield is most of the time reintegrated into the institutional game, losing its true character as a brownfield.

Nurturing from the margins

So far, only social issues have been evoked, and for brownfield sites located in dense urban areas. But one of the current issues about brownfields in urban contexts is also the stage they set for relations between humans and non-humans: their availability to biological regenerations and agencies. Addressing this issue takes us back to the 1970s, with the emergence in the public arena of large-scale environmental movements in Europe and the United States. In line with these new political issues, the first theoretical discourses linking environmental issues more specifically to brownfields were to be found two decades later, even if some local experiences had already highlighted this link before, as we shall see later.

In the 1990s, Edward Soja began to theorize the extensive, chaotic urbanities that blossomed in the post-Fordist period, using the emblematic situation of Los Angeles as a starting point.¹⁴ At the same time, the Stalker collective was founded in Italy in 1995, around the idea of exploring what they called the “current territories” on the outskirts of Rome. The collective drew up a manifesto inviting to recognize the specific identity and paradoxical richness of residual spaces neglected by urban expansion, caught between the extensions and infrastructures of the diffuse metropolises that developed in the post-war years.

They form the negative of the built-up city, interstitial and marginal areas, abandoned spaces or spaces in the process of transformation. They are places of repressed memory and the unconscious becoming of urban systems. The dark side of the city, spaces of conflict and contamination between organic and inorganic, nature and artifice.¹⁵

The resonances seem obvious between what is pointed out here and the cases discussed above. Stalker's “current territories” are large areas, but they possess to varying degrees the features

previously identified to describe urban brownfields: uncertain status, pending future, and above all material, regulatory, symbolic and biological availability. Here too, these places are described as dedicated to accommodating what is rejected from the city, its repressed part, whether in terms of beings or practices. A few years later, in 2000, an architecture student in Bordeaux named Yvan Detraz extended Stalker's approach in a memoire entitled “Zone Sweet Zone”; a significant illustration of this new field of interest emerging in urban studies at that time. It, too, proceeded from an awareness of spaces abandoned by deindustrialization or neglected by urban sprawl, envisioning for it an expanded definition as a new form of public space.

Abandoned land can be to the peri-urban what the street and the square are to the traditional city: a fundamental public space. [...] The city has to take on the residual and indeterminate situations of its abandoned land. It must be able to relax and provide shelter for the wild, the nomadic and the unplanned; for a space that is economically unproductive but profitable from a social, symbolic and ecological point of view.¹⁶



Figure 2. Stalker walking in the outskirts of Rome, 1995 © Stalker

In 2004, landscape architect Gilles Clément published his “Manifesto of the third landscape”: a plea for recognition of the role played by various neglected or disused fragments of the landscape in maintaining fundamental biological richness and balance.

By its very nature, the Third Landscape constitutes a territory for the many species that cannot be found elsewhere. [...] The Third Landscape acquires a political dimension by virtue of its content, the stakes involved in diversity, and the need to preserve it - or maintain its dynamics. [...] The unwritten but proven status of the Third Landscape is global. Its continued existence depends not on experts, but on a collective consciousness.¹⁷

The work of Stalker, Yvan Detraz and Gilles Clément reflects a dual concern: considering a forgotten or disregarded side of physical space, and enhancing its role as a receptacle for multiple – sometimes repressed – diversities: diversity of species, uses, behaviors and even political ethos. But the association of these different types of diversities is not self-evident. While biological diversity acquired the status of an institutional value with the 1992 Rio Convention¹⁸, this is not the case for social or aesthetic diversities. In the work of Stalker and Detraz, however, an analogy is established between biological diversity and diversities of a social nature; and connections – even confusions –

are cultivated between them. This orientation reflects an ethical approach, to which we'll return after a brief detour through a last case study.

The slag heaps of Charleroi

Charleroi is an industrial city in southern Belgium. It was one of the main cities of the first industrial age, in the 19th century. However, deindustrialization began in the 1960s. As a result, it inherited a large number of brownfield sites, including numerous slag heaps. As soon as they were abandoned, these sites were taken over by pioneering vegetation and the inhabitants of nearby working-class neighborhoods.

In the 1970s, against the backdrop of the oil crisis, the Belgian government considered authorizing the exploitation of slag heaps as energy resources. Although promising a possible economic revival, this new policy met with fierce resistance from local residents, who were attached to these sites as spaces of leisure, play areas for children, memorial monuments of working-class culture, and also places of contact with nature in the face of a severely degraded urban environment. Among the many battles waged by local residents to protect the slag heaps from exploitation, the victory of the Martinet Neighborhood Committee is emblematic. They succeeded to make the site classified as a “natural site”, thanks to an ecological study that listed the plant and bird species present there. This is a particular example of an “interspecific alliance”, to phrase it the way some environmentalist intellectuals do today.¹⁹



Figure 3. Industrial landscape in Charleroi with slag heaps © Francis Pourcel

Since the 2000s, various social and agricultural activities, both legal and illegal, have taken place on the slag heaps of Charleroi: vegetable gardening, grazing, biomass production, motocross, hiking. The slag heaps also welcomed camps for the homeless, who found refuge there, protected from view but close to the city. Despite being privately owned, many of them offer to varying degrees the four *availabilities* mentioned above. Despite the absence of planning or institutional funding, they progressively embodied a range of positive values for the public, which echoed those described by their advocates in the 1970s. They are now places of nature, leisure, working-class memory and small-scale craft productions, as well as a refuge for other, more marginal practices – like sheltering homeless people.

These generally positive values associated with slag heaps have made them interesting objects for the city authorities, as well as for their private owners. In Charleroi, a major urban renewal project has been underway since 2010. Within this framework, the authorities developed an image policy that reconsiders the city's industrial past, seeking to rebuild a positive image. The slag heaps are mobilized in this process as legacies of the mining past, which nature's reinvestment has transformed into symbols of resilience. The city's new logo, created in 2015, features the letter C, topped by a design that evokes all at once a crown, the crest of the Walloon cockerel and the relief of the slag heaps. Their exploitation as a tourist asset is also ongoing.

As for the many remaining private owners of slag heaps, the temptation remains to exploit the newly rediscovered land value of these sites. Real estate projects are emerging around some slag heaps. Advertisements for these projects use their new social and ecological image to promote housing that is close to the city and close to nature at the same time. In these promotional speeches, references to the spontaneous social practices that reinvested these spaces are tangible.

From being a spectator, the slag heap inhabitant becomes a contributor. From a static object to be contemplated, the slag heap becomes a dynamic place to live, as shown by numerous examples of successful development in Europe.²⁰

As in the case of the Belle-de-Mai “friche” mentioned above, the values that have developed in the informality of these places – ecological values, but also social or symbolic ones – are thus mobilized, in a reified form, to generate commercial added value; an operation likely to ultimately alienate these values, in part or in whole.



Figure 4. Demonstration against the evacuation of the Tacheles, Berlin, 2010

Photo © Imago

Back to Berlin

In Berlin, the artists of the famous Tacheles were evicted in 2012, as were many other art squats born of the 1990s wave. The city is gradually gentrifying, and the Tacheles, under the aegis of its owner, is now the subject of a rehabilitation project by internationally renowned architects Herzog & De Meuron, to accommodate a luxurious complex of restaurants, boutiques and cafés.

Gap sites long dominated vast swathes of the Berlin cityscape. The wastelands held enormous potential, and the resulting creative scope and open-minded outlook were exploited in a diversity of ways. Berlin became both a field of experimentation for urban planners and architects, and a playground for culture and sub-culture.²¹

Strangely, these architects don't seem to conceive that the “gap site” on which their project is being developed was lately inhabited by a social and cultural profusion that had been a major point of attraction over two decades. Before being “field of experimentation for urban planners and architects”, Berlin's brownfields were the site of an entirely different kind of creativity, as we saw above. Marion Ernwein recently showed how, in Geneva, new green space management methods in the neoliberal urban policies were “putting the living to work”, using spontaneous biological processes to optimize productivity.²² Here, we might suggest that putting informal practices to work is at stake in these scenarios for the economic remobilization of brownfields. At the same time as these places and their human and non-human protagonists are discarded, their reified image is summoned up to support land valuation. The specificity of the neoliberal city is that this re-capture of added value is carried out by both the public and private sectors.

CONCLUSION

The symbolic remobilization of these processes by institutions or private operators, of which we have seen a few examples here, is a sign that the spatial values they generate are widely recognised, and therefore that they correspond to a demand that is not just confined to the margins of society. The cases evoked here reveal recurring patterns. Brownfields represent a stage in the life of a space, in a more general cycle that involves phases of destruction – or abandonment – and phases of creation, which generally neglect or subvert what has regenerated meanwhile. Yet these processes of spontaneous regeneration of human and non-human configurations produce spatial values that should be considered in all their richness and potential. In a general context where new arrangements are being sought between human development and ecological processes, on both a local and global scale, these places are experimenting with balances that could be studied and valued in the same way as other historical urban productions. Studying brownfields and the self-generating arrangements they host as a model that could have a place in the grammar of contemporary urbanism would be all the more relevant given that, as we've seen, these spaces owe their very existence to two phenomena that are also characteristic of our present condition: deindustrialization and the urban explosion, both still in progress.

Beyond that, this approach reveals an ambiguity of the production of space under the aegis of inter-urban competition and extensive private property. It is torn between an irrepressible tendency towards standardization – inherent to the needs of merchandization – and a desperate need for alterity, which leads it to seek values on its margins – while alienating these same values in the process. Incidentally, the original producers of these regeneration processes, both human and non-human, are generally left out of the final equation. To paraphrase what Gilles Clément wrote about the Third Landscape in the quotation above, we could suggest that the maintenance of values generated outside the field of governance does not depend on governance itself, but on a collective consciousness, meaning a more spontaneous and diffuse political process, which undoubtedly needs to be collectively awakened and nurtured.

NOTES

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THE INTERPLAY OF ART, URBAN DEVELOPMENT, AND ECONOMIC FORCES: A SPATIAL PERSPECTIVE ON FO TAN AS A MICROCOSM OF HONG KONG'S INDUSTRIAL AREA TRANSFORMATION

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INTRODUCTION

The development of contemporary art in Hong Kong saw rapid advancement in the late 1990s. As industries moved northward, grassroots artists took advantage of the drop in property prices during the financial crisis to move into industrial areas, transforming these vacant industrial spaces into personal art studios and gradually forming a scale, giving rise to various art activities. This promoted exchanges among different artists, revitalizing the industrial areas. Inspired by Western post-industrial cities like Bilbao and Glasgow, the Hong Kong government also saw art and culture as a driving force for successful urban revitalization. However, Hong Kong's speculation-dominated development tradition posed challenges to this art and culture-oriented redevelopment. Despite the important role of art and cultural development in revitalizing Hong Kong, artists are often overlooked in the city planning and development process. Rising housing prices and ongoing planning and regulations for industrial areas pose risks of gentrification and relocation to farther areas for artists. At the same time, the development of the internet and blockchain technology has also transformed the forms and market of art itself.

This paper has been focus on deindustrialization and urban redevelopment in Hong Kong, particularly through the lens of art spaces. It uses Fo Tan, an earlier industrial art community, as an example, exploring how artists and art development have been influenced by this deindustrialization and urban redevelopment process, and their interaction with other stakeholders.

CUHK AND THE FORMATION OF EARLY ART CLUSTERS

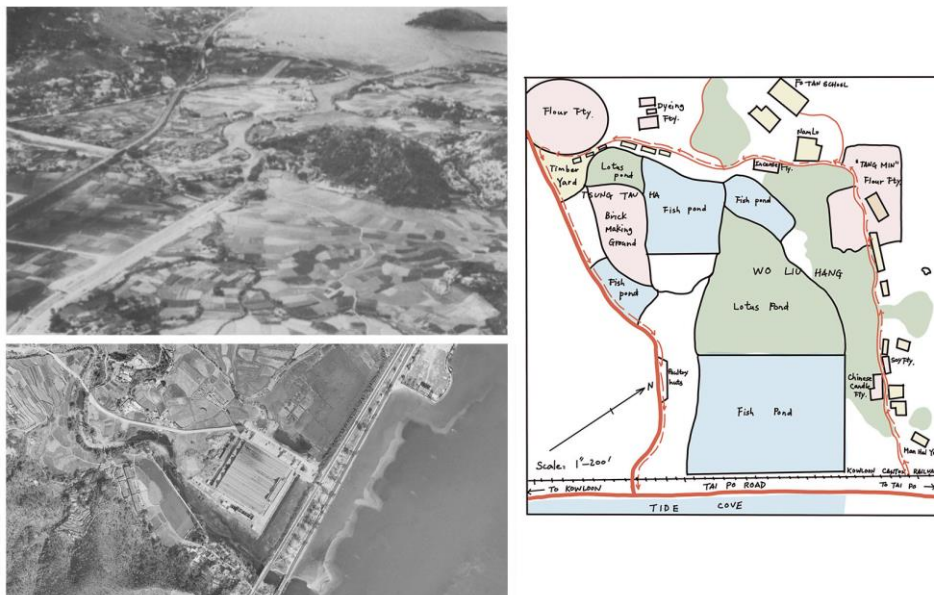


Figure 1. Views of Shatin and Fo Tan Left (Top): "Shatin, looking towards Tolo Harbour, 1961," photograph by Hills and Yeh. Left (Bottom): "Fo Tan in 1963, Aerial View," photograph, Public Works Department. Right: Redrew from "Report of Land Use Survey of Fo Tan Region of Shatin," by Tang Ping Leung, B.A. Thesis, 1964.

Shatin, initiated as Hong Kong's first new town in 1967, included Fo Tan, originally focused on industrial development. Transitioning from agriculture in the 1970s, Fo Tan evolved into a light industrial area, favored by artists for its environmental friendliness and convenience. Post-1978, many factories relocated north, further transforming Fo Tan. Limited by its geography, Fo Tan lacked heavy industry, making it suitable for art studios due to minimal environmental impact. The area's affordability, access to materials, and transportation convenience attracted artists, with Wah Luen Industrial Centre emerging as a popular hub. A fire at The Chinese University of Hong Kong's Art Department in the early 2000s prompted art students to seek alternative studio spaces, leading to the establishment of a vibrant artist community in Fo Tan.¹ This shift was further supported by the Asian Financial Crisis and SARS, which reduced property prices. Fo Tan's industrial buildings offered a new space for artistic creation, distinct from previous domestic and village house formats. The area's development into an artist community was partly due to its proximity to CUHK and the local amenities, fostering a supportive environment for artists. The Fotanian Open Day emerged from this community, marking Fo Tan as a significant site for Hong Kong's art production and reflecting the broader trend of repurposing industrial spaces amid deindustrialization.

The intersection between industrial and art development gradually emerged due to the northward shift of industries following the 1978 economic reforms. During this period, the government's focus was on implementing the 'one country, two systems' policy and addressing the financial crisis. Although there was a recognition of the need to reassess industrial land use, in-depth consideration was sidelined. Artists seized this opportunity to enter industrial areas, taking advantage of the spatial qualities and lower rents compared to other office spaces.

Although it's unlikely that any significant change happens suddenly, as there is always a process involved, a general overview suggests that between 1998 and 2008, a period coincided with diminished attention on industrial spaces, providing artists with a relatively free creative environment.

Fotanian Open Day also started around this time. Particularly in 2003, during the challenges of SARS and the Asian Financial Crisis, many artists seized the opportunity of declining property prices to purchase industrial units, especially in Fo Tan.

Consequently, when the government introduced the Revitalization Scheme in 2009, industrial buildings in other areas were quickly reclaimed by major developers, resulting in a faster pace of gentrification compared to Fo Tan. After introducing the Revitalization Scheme, which greatly impacted artists, debates arose. This policy, aimed at improving the city's buildings, often ignored the spatial inequality challenges some groups face. These developments are complex and contradictory.

THE MARKET, THE GOVERNMENT AND THE ARTISTS

Fotanian Open Day

From 2004 to the present, the Fotanian Open Studios event has been ongoing for nearly 20 years. It began as a self-funded model, then received government funding for a few years, and even fundings from developers for several years. Over these two decades, the studios participating in the event have also undergone significant changes.

Initially, the government started acknowledging the burgeoning art scene and artists' contributions to community building, brought into focus by the artists' grassroots efforts. This led to a growing recognition of place-making and cultural development in cities, at least theoretically. Consequently, more attention was given to the arts and cultural ecosystem in Hong Kong.

Developers aligned with the government by funding art events like Fotanian Open Day and providing spaces. The government aimed to support artists and creative industries with private financial backing, like mandating developers to offer affordable spaces to artists in the Industrial Building Revitalization Scheme. As developers saw the potential of industrial buildings, they began buying them, leading landlords to reclaim rented art spaces for higher profits or rent hikes. Although artists sought government grants due to financial pressures. However, differing views on art among artists, the government, and developers, each with their own goals and visions, led to conflicts in Hong Kong's art development, resulting in suboptimal outcomes.

The Indirect influence

The West Kowloon Cultural District project illustrates that some supporters are more interested in broader cultural development than specifically supporting Fo Tan's art scene. Businesses, like developers, often align with government cultural projects to enhance their corporate image and potentially benefit from major cultural constructions. For example, Sino Group's involvement in the Fotanian Open Day is partly because they own a building used by artists, with some speculating that supporting Fo Tan artists boosts their land value. A former Fotanian organizer suggests Sino was more focused on the West Kowloon project than Fo Tan. As he states "From the perspective of the collaboration at the time, Sino was more interested in the West Kowloon project rather than Fo Tan itself. The Fotanian Open Day was just one of the art-related activities they wanted to sponsor at the time."

Newspapers have reported developers' Fo Tan sponsorships as strategies for future conservation project bids. In Hong Kong, enterprise behavior is largely government-driven, with art investment and promotion often aimed at increasing land value, highlighting the intertwined nature of art and commerce in a capitalist market.

This case shows that artists and developers can support the same initiative despite differing goals. Artists started it for public engagement, while developers used it to enhance Fo Tan's appeal and promote their brand for future West Kowloon projects. Though no major conflicts were evident,

disputes arose over the target audience, excessive sponsor influence on Fo Tan's image, confusion between sponsors and organizers, and sponsorship specifics.

One of the artists mentioned, "We were thinking about what to do in Fo Tan, they were thinking about selling ads in Central and MTR stations. Even our approach to seeking newspaper interviews was different; we preferred the cultural section, while they opted for the most popular newspapers." Sino Group's sponsorship for Fo Tan was mainly for project promotion, "Interestingly, all the sponsors were brought in by Sino Group themselves, and they didn't give us any money. They felt the need to buy certain ads, so they went for it, and we didn't know how much they spent or if they had any collaboration or exchange with the MTR." It was understood that Sino Group's PR managed these matters. They dedicated resources to that department for public engagement, focusing on ideas related to West Kowloon.

The influence of artists

Fo Tan artists not only impacted Fo Tan itself but also attracted developers and other public institutions. In a way, Fo Tan brought recognition to this lifestyle and art groups in Hong Kong among the public. The flexible use of industrial space also made developers see a business opportunity. MetroLoft was the first project to combine a new concept of multipurpose loft space. Buyers can modify and connect multiple units or even entire floors based on their needs, offering great flexibility. It primarily appeals to those in the creative industries.

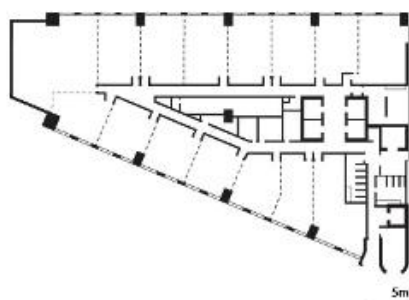


Figure 2. MetroLoft, Kwai Hei Street, Hong Kong

In addition to newly developed projects, some developers have purchased entire floors or buildings of older industrial structures, renovated them, and hoped to sublease them to artists. This phenomenon has occurred in various areas of Hong Kong, with some even forming a chain-like model.

Although various developers promote their projects as "for art studios and creative industries", in reality, the studios provided by developers differ significantly from artists' studios. If you compare the units in regular industrial buildings with these modified spaces, it's clear that they have become smaller, more expensive, and some even lack windows. While many young people initially chose Fo Tan for its affordability, the situation has evolved. Many of the advantages of industrial spaces have gradually diminished under market forces.



Figure 3. Left: V-Workshop by Glory Top, Wong Chuk Hang (Redraw by the author, 2023)

Chow mentioned several buildings near Fo Tan MTR station that have this form of subdivided units.² However, they are still largely used as warehouses instead of artist studios. He said: “In fact, I see many such cases in Fo Tan. There are shop units, or entire floors of parking lots divided up to make studios. Those buildings have transferred the land use and there are large property owners who want to do this. However, their concept of 'studio' still remains that of subdividing into small units, so it is not really working.” From the figure below, it is evident that both Valiant Creative Plaza and iPLANET have been repurposed from ground floor spaces, resulting in the absence of windows in each unit. The depicted partitioned space measures approximately 100 sqft and requires a monthly rent of HKD 3500. During the inquiry with the property agent, I was advised that the limited space might not be suitable for a painting studio and would be more appropriate for small-scale handicrafts. Although iPLANET's interior appears relatively new, it also lacks windows, with larger units costing HKD 4500. For spaces with an added mezzanine, the rent could be HKD 5000 or more.³

THE EVOLUTION OF OPEN STUDIO FORMAT

Since the opening of Open Studio in 2001, it has a history of 20 years. It began as an internal communication activity among several CUHK students and masters in the art circle. Then, various studios spontaneously opened to the public and shared the cost. It has also collaborated with large art institutions, HKADC, and real estate developers. The open model in Fo Tan has undergone multiple attempts and changes.⁴ At its peak, there were around 90 units participating in the Fo Tan Open Day, with the most diverse unit hosting eight different types of art mediums. These artists initially came from CUHK, but later, with the entry of galleries, artists from overseas, Mainland China, and Taiwan were attracted. While some artists participated in just a few or even one Open Day, the longest-standing artist unit has been involved in this event since 2004. According to statistics, 2014 was the peak period for the Fo Tan Open Day, with 90 units participating. Some of these units have stability, as they were purchased by artists during the real estate slump in the early 2000s due to SARS. Some are rented by artists, but the fluidity of these units can be observed through records. Although the tenants have changed many times, the space has always been used for artistic creation and has participated in several Fo Tan Open Days. From the statistical data collected, we can observe clustering patterns. For instance, several units are adjacent. While they may engage in different arts, this could be because artists tend to rent neighboring studios for mutual support and innovation.

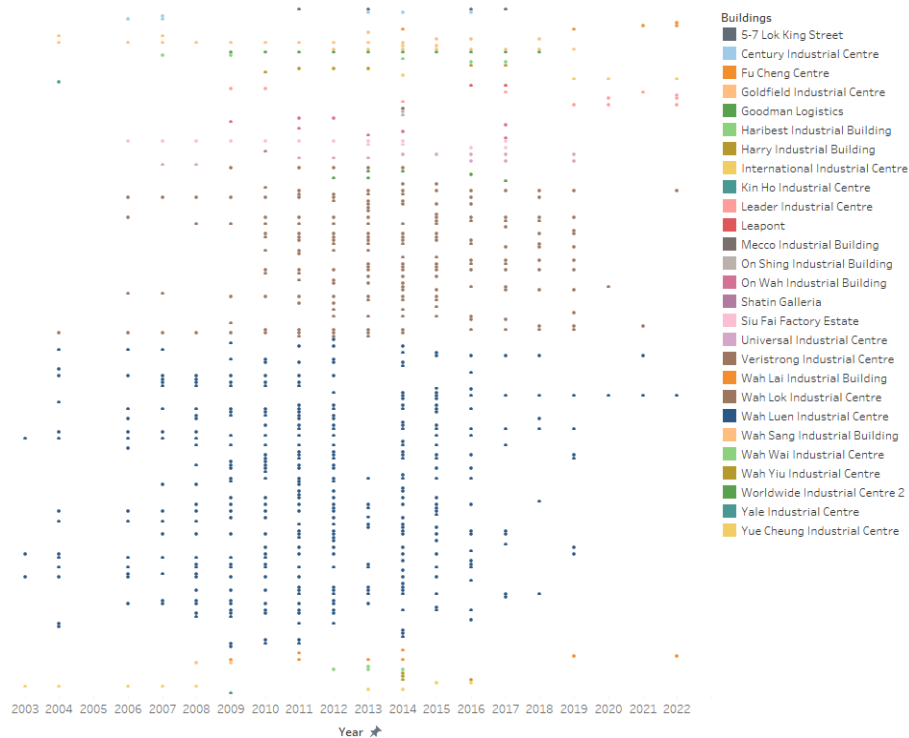


Figure 4. Statistics of Studios Participating in Previous Fo Tan Open Days (2003-2022)

In an interview with participating artists who participated in the early opening activities, the artist suggested that they had anticipated the continuous development of this area when they first settled in Fo Tan. Artists also anticipate an increase in rent, and some even anticipate a generative situation similar to those of Loft in the United States and the United Kingdom. But for artists, art is a process that is constantly changing, coexisting with society. “This model of open studio has passed.” The interviewer recalled, “This form of open studio may have been maintained for six to seven years, although there have been ongoing studio opening activities, I feel like it is already on the decline, and the state and effect of the things produced are already different.” One of the reasons might be that during the same period, other art institutions in Hong Kong have gradually increased, resulting in the opening of studios as a means for artists to promote their works to the public being no longer the only option. “However, although this model may no longer be as lively as it used to be, students of every era need a place for creation, as long as they want to continue after graduation.” The interviewer also emphasized the importance of industrial districts for artists and the art community. “If they don't have this space, they need to change the form of their creations. In terms of the art market in Hong Kong, even if art is being produced, it must be sold. Not only does it require sufficient production space, but collectors also need sufficient collection space. Therefore, the storage space in the industrial area is an indispensable part of Hong Kong's artistic ecology.”

Talking about the changes in Hong Kong's art ecology with a broader scale, in the past, about five to ten years ago, discussions with the government centered on the cultural policies in Hong Kong and their impact, and whether they were being reviewed by the government. For instance, we would talk about even after conducting surveys and identifying artists in certain areas, the government tended to overlook the arts industry. For example, on weekends, when the industrial areas are closed, music bands might find suitable locations for urban events, like turning a parking lot into a band show venue. “For us, it's a very ordinary thing, but now just hanging a painting in the garbage station will be considered against the rules.” Chow mentioned there has been a decrease in the flexibility afforded

to artists in recent times. In the past, there was more room to discuss cultural policies. Today, due to increasingly detailed regulations, there is even less space for such discussions. If you look at other areas in Hong Kong, while many art spaces once thrived, many have had to close their doors in recent times, such as Form Society.⁵ Although the number of commercial galleries has increased, these differ from the art spaces that were previously available.⁶

Fo Tan open studio model has also left an impact on Hong Kong's art ecology and urban construction. In the later stage, many property owners have reclaimed the ownership of one or several floors of industrial buildings and dividing them into small units, similar to what is commonly referred to co-working space today. For instance, in Fo Tan, there are Valiant Industrial Centre and iPlanet located at Fo Tan Industrial Centre. For example, SOLO, which is well-known in Hong Kong, has branches in many places, including industrial and commercial buildings. Its targets are not limited to, or even not focusing on artists. Several properties are located in commercial centers, the client are mostly small business owners. Therefore, the compartments may even be made of glass and devoid of privacy. In Wong Chuk Hang, a new gathering place for arts venues, there are also similar forms of properties that were rented by some artists, such as V-Workshop by Glory Top.

The decrease in participating studios is not solely due to conflicts between artists, developers, and the market, nor is it just about urban redevelopment and gentrification processes. On one hand, some artists point out that one reason might be the increase in alternative art spaces and organizations in Hong Kong, making studio openings no longer the only way for artists to promote themselves to the public. Another long-time Fo Tan artist, who no longer participates in open days, still believes that Fo Tan is viable for private painting studios. In recent years, partly due to COVID-19, new graduates have returned to Fo Tan, but the younger generation of artists may rely less on open days. "Their approach might be different from ours, who needed open days to meet the public and find buyers for our work. Some might use online platforms to sell paintings or other items to sustain their physical space."

ONLINE PLATFORM DIGITAL ART

Blockchain technology was first used in Bitcoin to create a decentralized digital currency. This technology was later adapted for NFTs (Non-fungible tokens), which are used to certify the originality and ownership of unique pieces of digital art. This emergence of NFTs has made a significant impact on the art market. It has allowed artists to sell their work directly to the public, bypassing traditional intermediaries like galleries. However, the long-term effects of NFTs on the art market remain to be seen.

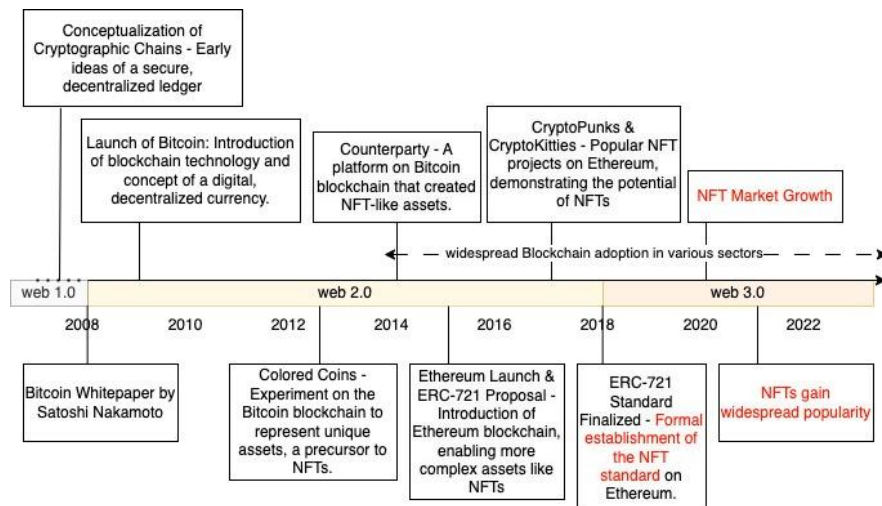


Figure 5. Timeline of the growth of Internet since 1990s

This timeline outlines the internet's evolution since the 90s, highlighting Bitcoin's introduction of blockchain, which led to NFTs impacting the art market. NFTs certify digital art ownership and authenticity, creating new opportunities for digital artists, including those previously unrecognized in the traditional art scene. NFTs facilitate global market access for artists without intermediaries like galleries. They apply to both digital and physical art, acting as digital ownership proof. Hong Kong's art scene has incorporated NFTs, though their long-term effects are still remain to be seen. The trend towards internet-based, blockchain-driven art trade grew during the pandemic, overcoming physical and national barriers in art trading. Hong Kong galleries and artists have increasingly engaged in online transactions with international buyers during the pandemic.

However, there are also voices of distrust, skepticism, and opposition. Secondly, although the emergence of NFT art has exhibited diverse trends in recent years. Its impact on traditional gallery spaces remains an active area of debate. On one hand, globalization has diminished the prominence of local galleries to some extent as business activities redistribute to other representative spaces like art fairs.⁷ However, research indicates that the attributes of NFT digital works have generally not conferred evident commercial benefits onto most galleries,⁸ and traditional oil painters also consider NFTs unlikely to substantively impact their practices.⁹ Even collectors prefer apprehending art through direct immersion in exhibitions professionally curated by artists. This indicates that no matter how fast or convenient online training is, it is difficult to completely replace the offline physical experience. Lastly, under the current Copyright Ordinance in Hong Kong, it is still challenging to fully protect artists in the digital environment, especially when we talk about AI-generated art.¹⁰ Open-source AI platforms like Tensorflow and Stable Diffusion may lead to copyright infringement through unauthorized uploading of art, an increase in disinformation, and potential job loss for artists. There are additional observations, for example, the integration of NFTs and AI-generated art has indeed made the art market and its commercial aspects much more intertwined.¹¹ This includes the establishment of AI-integrated, multifunctional spaces or new forms of purchasing art. Some blockchain-based platforms even allow multiple people to co-own partial ownership of single art pieces, which was difficult to achieve in the past. Therefore, this also opens up diversified options for art financing.

Overall, as technologies like NFTs integrate the arts, a diversifying ecosystem of physical and virtual spaces is emerging. Complementary blending of online and offline forums may expand audiences and discourse around art, culture and their intersections with techno-social changes. The "digital

revolution" is transforming the landscape of former cultural industries by disrupting established business models, enabling new entrants, and altering ways that audiences interact with, purchase, and remix cultural texts.¹² Thus, the effects of NFTs on the art world are complex and layered, and finding the right balance between encouraging innovation and protecting rights and equities is an ongoing, challenging task that needs continuous, data-driven adjustments.

NOTES

- ¹ Po-shan Anthony Leung. "Retreating from the Forefront of Officialization: The Example of Artists in Fo Tan Industrial Area/退下建制的前線——以火炭工業區藝術工作者社群為例," 2003, 126–43.
- ² Yiu Fai Chow. Face-to-face interview, March 18, 2023.
- ³ The two industrial buildings were constructed in 1982 and 1985, respectively. Valiant Creative Plaza underwent conversion in 2012, while iPLANET was converted in 2018. During the interview process, iPLANET's management personnel mentioned that constructing a mezzanine independently could cost as much as HKD 5000. For recent graduates, this might not be a cost-effective option, and it is recommended to rent units that already have a mezzanine in place.
- ⁴ Ching Ying Phoebe Man. "藝術社區的活動組織策略——藝術家主導的火炭工作室開放日模式/Strategies for Event Organizing in Art Communities: The Artist-Initiated Model of Fotan Open Studios." In 香港視覺藝術圖鑒2019. Hong Kong: The Chinese University of Hong Kong Press, 2019.
- ⁵ Openground and Form Society are art spaces that have been dedicated to community art in recent years, located in Sham Shui Po. Due to the news of the URA's redevelopment of Sham Shui Po and the impact of gentrification, Openground announced that it will close on February 26, 2023, and Form Society also announced that it will close in the spring of 2024.
- ⁶ Yiu Fai Chow, and Leung Leung Po-shan Anthony. Face-to-face interview, March 18, 2023.
- ⁷ Olav Velthuis, and Anna M. Dempster. "The Impact of Globalisation on the Contemporary Art Market: The Traditional Gallery Model at Risk." In Risk and Uncertainty in the Art World, 87–108. Bloomsbury Publishing Plc, 2014.
- ⁸ Artnet News. "Art Industry News: NFTs Barely Bring a Trickle of Profit to Galleries, a Report Finds + Other Stories." Artnet News, April 21, 2022, sec. Art World. <https://news.artnet.com/art-world/art-industry-news-other-stories-april-21-2102580>. Gerlis, Melanie. "Few Galleries Selling NFTs, despite the Hype." Financial Times, April 21, 2022. <https://www.ft.com/content/b2e1d22f-49b0-4d02-a0ab-6d2919a02c69>.
- ⁹ Yiu Fai Chow, and Leung Leung Po-shan Anthony. Face-to-face interview, March 18, 2023.
- ¹⁰ Gordon Lo. Face-to-face interview, January 5, 2023.
- ¹¹ Georgina Adam. "From "Wet Painting" to NFTs: The Art Market Is Moving on Faster and Faster." The Art Newspaper - International Art News and Events, March 2, 2023. <https://www.theartnewspaper.com/2023/03/02/from-wet-painting-to-nfts-the-art-market-is-moving-on-faster-and-faster>.
- ¹² Kate Oakley, and Justin O'Connor. The Routledge Companion to the Cultural Industries. Routledge, 2015. <https://www.routledge.com/The-Routledge-Companion-to-the-Cultural-Industries/Oakley-OConnor/p/book/9781138391871>.

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UKUXOXISANA: EMBEDDING CRITICAL PEDAGOGY IN UNDERGRADUATE ARCHITECTURAL DESIGN PRAXIS

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INTRODUCTION

“All pedagogy, when it matters, is contextual. Different kids come from different neighbourhoods, they come from different experiences, they come from different classes, and they come from different backgrounds. Context always matters in an educational setting and matters of difference have to be addressed if you are going to connect with young people. In order for education to work, you have to make it meaningful, to make it critical, to make it transformative.”¹

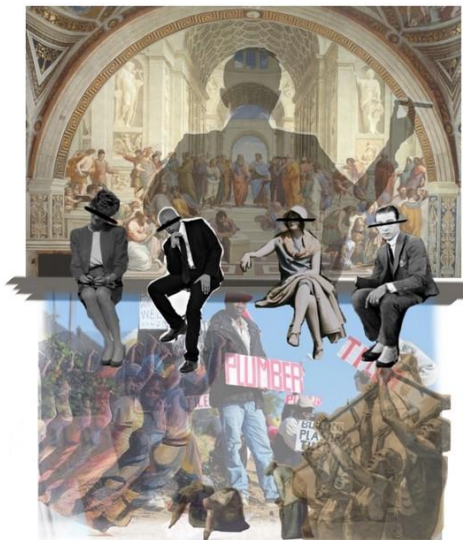


Figure 1. “the economic divide collage”: 2nd Year Bachelor of Architecture Student Project, 2020, UJ

In the global context of increased inequalities, socio political tensions and perpetual state of emergency affecting both young and old, both global and local contexts, critical pedagogy raises important questions to challenge the power imbalances in our classrooms, design studios and society at large, see figure 1.

Calls to decolonise education during the 2015/16 students protest in South Africa and spread across the world demanded of universities, faculty and students to act and reflect on their teaching and learning practices. Moreover Covid 19 pandemic imposed a shift in education due to the move to blended learning. While some might view both these events as crisis, they presented a rare opportunity to reimagine (design) education which has a long history of colonial and traditional educational approaches that disengaged with socio-political discourses. This paper draws on critical pedagogy to decolonise the dominant traditional approach in schools of architecture in [South] Africa. The paper uses the second year Bachelor of Architecture programme at the university of Johannesburg's architectural design module/studio to explore alternative, decolonial methods to architectural design. It discusses a sample of project briefs, pedagogical shifts/experiments, student design outputs between 2020 and 2023 academic years. Moreover, due to the diverse and multidisciplinary staff complement of the studio, discussions includes commentary on the pedagogic approach from staff, head of department and external reviewers. Students' inputs is based on voluntary and anonymous questionnaire that students within the 2022 cohort completed at the end of the academic year. These are used to argue and support the transformative impact of embedding critical pedagogy in undergraduate architectural design education.

The findings of the study revealed that undergraduate students are not only capable at engaging complex socio-political discourse they are also able as to spatially speculate how to respond to contemporary challenges. They found the critical pedagogical approach challenging and allowed them to bring themselves into the discourse by raising questions not often engaged with in architectural education, questions about identity, sexuality, race, class and access. The reviewers and head of department found that the approach adequately prepared students for rigours postgraduate studies. Moreover, externals examiners/reviewers found the briefs to be critical, transformative and exemplary for other schools exploring decolonial methodologies in architectural education, especially for those in the global south contexts.

Architectural Pedagogy

“Architecture pedagogy has always been a political act. It has never merely been a space of reflection, of training and rehearsal, but one of action, reaction and interaction.”²

In contemporary architectural education, both globally and within South Africa, there has been a discernible transformation, particularly catalysed by the student protest actions of 2015/2016. However, this shift has predominantly manifested at the postgraduate level, leaving undergraduate programs largely entrenched in traditional Bauhaus methodologies. While the Bauhaus approach offers advantages, such as emancipating students from the conventional architectural canon that prioritized theoretical aspects over practical application, its integration of workshops into pedagogy notably fosters innovation by allowing students to experiment with prototyping and design development at scale. Nevertheless, the Bauhaus emphasis on technological advancement and universal principles fails to adequately address the nuanced socio-political, cultural, and symbolic dimensions of architecture within local contexts.³

Architectural education centres around the design studio. Employing either a problem based or project based learning approach where in students are challenged to creatively and innovatively solve wicked problems⁴ (real or speculative) through design. The pedagogical challenge lies in the prioritization of foundational skills, often rooted in Western design fundamentals, such as drawing, writing, and making, at the expense of tacit knowledge and critical thinking abilities. This imbalance is perpetuated by professional regulatory bodies overseeing architectural education and practice, which tend to standardize curricula, inadvertently fostering complacency and a lack of critical consciousness regarding societal issues and their impact on spatial design. This conventional instructional approach

characterizes students as passive recipients of knowledge rather than active participants in their own learning process.⁵

To address these limitations, design educators must imbue awareness of the multifaceted social, political, cultural, and economic dynamics into the pedagogical framework. This necessitates a paradigm shift towards critical pedagogy, which encourages students to interrogate prevailing norms and challenge established conventions.⁶ By fostering an environment conducive to questioning and inquiry, educators can empower students to critically engage with the complexities of the built environment and redefine their roles within society. This approach opens avenues for discourse on complacency and potentiality, ultimately enabling a more nuanced understanding of spatial design's transformative capacity.

Critical Pedagogy

Emerging from the foundational tenets of critical theory, critical pedagogy endeavours to enact and advance the emancipatory aims inherent in education.⁷ Rooted in the philosophical underpinnings of Karl Marx, critical theory posits that societal inequalities stem from socioeconomic disparities and advocates for the establishment of a communal economy.⁸ Embracing a diverse array of theoretical frameworks, critical theory challenges the prevailing capitalist, oppressive, and hierarchical structures. Guided by the principles that knowledge is inherently political, should relate to the lived realities of its participants (students and teachers) and should be co-produced critical pedagogy is Critical pedagogues assert, albeit through diverse perspectives, that education must assume a transformative role aimed at liberation. Paulo Freire's seminal work, "Pedagogy of the Oppressed", critiques traditional banking models of education, advocating for a liberated approach wherein the oppressed (students) emancipate themselves alongside their educators, disrupting hierarchical student-teacher dynamics.

Henry Giroux's pedagogical praxis, rooted in anti-capitalism and pro-socialism, underscores the importance of contextual understanding and institutional critique, urging the interrogation of power dynamics, subject positions, and institutional frameworks. Scholars such as McLaren and Shor, closely aligned with Freire's principles, echo similar sentiments regarding the revolutionary potential of pedagogy. However, Shor extends this discourse by implementing it within classroom settings, pushing the boundaries toward a liberated educational environment where students actively co-create their learning experiences and occasionally challenge their instructors.⁹ Concurrently, hooks approaches critical pedagogy from a feminist lens, advocating for educators' self-awareness of their positionalities, particularly within the classroom context.¹⁰

While critical pedagogies present alternatives to perceived oppressive educational paradigms, they can also evoke polarization, particularly among individuals who have historically benefited from privilege, whether directly or indirectly.¹¹ Thus, while fostering environments conducive to complex socio-political dialogues wherein marginalized voices are amplified, it is imperative to ensure inclusivity that allows non-marginalized voices to be expressed without perpetuating a pedagogy of "cordial relations".¹²

ASIXOXISANE: Towards a Critical Spatial Pedagogy framework

The University of Johannesburg (UJ) is a comprehensive university that offers both academic and vocational qualifications. It came into existence in 2005 as result of a nation-wide government initiative to restructure higher education through a merger of certain previously white with previously black institutions to address the disparities because of colonial and apartheid legacies in South Africa. UJ was established from a merger between the Rand Afrikaans University a previously white

university, Technikon Witwatersrand also a then predominantly white institution with both academic and vocational offerings and part of Vista University which was an institution established by the apartheid government to provide black South Africans with tertiary education located within the black townships. Technikon Witwatersrand at the time of the merger was the only institution of the three that offered a national diploma in architecture and a Bachelor of Architectural Technology in architecture. This was only at an undergraduate level and based on the Bauhaus approach the training was more geared at technical skills targeted at producing architectural technicians (now referred to as technologists). As a result of the merger, the department of architecture had to develop theoretically oriented architectural degree programmes at both undergraduate and graduate levels of study.

Ukuxoxisana, originating from isiZulu language (one of the twelve official languages in South African and the most spoken after English) denotes a dialogue aimed at achieving mutual understanding or consensus, particularly in contexts marked by differing positionalities. Within pedagogy, power manifests through various channels such as language, institutional ethos, faculty dynamics, spatial arrangements, teaching and learning methodologies, curriculum selection, assessment modalities, review procedures, and the formulation of design briefs, which hold particular significance within architectural education studios. While attempts have been made to address power dynamics within these domains,¹³ the design briefs remain largely unexamined, despite their pivotal role in shaping the ethos, culture, and direction of studio pedagogy. This paper undertakes to explore the potential of scrutinizing design briefs as a strategic locus for integrating critical pedagogy into the praxis of the design studio.

Briefs in architectural design studio

Briefs play a pivotal role in initiating and guiding the design process, shaping both the perspective of instructors and the worldview imparted to students. However, they often carry inherent biases and political undertones. Regrettably, they are frequently perceived merely as sets of tasks to be completed rather than as the nuanced design artifacts they truly are.

In this conventional model, instructors dictate the briefs, relegating students to passive recipients rather than active participants in their formulation. What if, instead, we regarded briefs themselves as design artifacts? Such a shift would inherently challenge the existing paradigm.

Between 2020 and 2023, the second-year Bachelor of Architecture staff cohort at UJ undertook a deliberate exploration of embedding critical pedagogy within their curriculum. This approach aimed to transform the teaching and learning experiences for all involved. The architectural design course spans a full academic year, comprising two semesters, each cantered around a specific thematic inquiry. For instance, the themes ranged from the politics of public architecture in both semesters of 2020, to the exploration of Johannesburg's essence in the first semester of 2021, and the concept of the public domain in the second semester of 2022.

Recognizing briefs as a focal point for intervention, we applied the principles of critical pedagogy. This framework posits that knowledge is inherently political, necessitating relevance to participants' lived experiences, and advocates for the collaborative creation of knowledge.¹⁴ In line with these principles, we scrutinized all facets of our teaching approach, from interpersonal engagement to collaborative efforts aimed at breaking down disciplinary barriers within courses/modules. This encompassed reevaluating how we assess student performance, co-develop studio content with our students, and collectively shape each studio brief.

It became apparent that a single brief could not adequately encompass all these dimensions. Consequently, we adopted a multi-faceted approach, considering each brief through the following lenses:

Briefs as design artefacts that are coproduced collaboratively between staff and students

Briefs as a series of questions

Briefs as a series of guided dialogues between the self and the other

These considerations extend beyond the minimum requirements and outputs established by professional regulatory bodies, the Council of Higher Education, and institutional/faculty standards. In integrating critical pedagogy, our objective is not to disregard existing systems, frameworks, canons, and structures, but rather to utilize them to pose alternative inquiries, thereby fostering openness to alternative modes of practice.

For example, the initial brief typically revolves around a blend of conventional and alternative methods of representation. Central inquiries focus on students positioning themselves through personal narratives pedagogically, phenomenologically, and spatially within the studio. Questions may include, for instance, "What significance does public space hold for you and your grandparents?" Here, students are tasked with narrating the journeys they undertook with their grandparents (or older family members) to significant public spaces, places, or buildings. An excerpt from the 2020 brief 1 (see Figure 2) and two student outputs (see Figure 3) exemplify this approach.

Subsequent briefs throughout the first semester constitute a collaborative response to the questions raised in the initial briefs. They incorporate elements of student narratives as a means of integrating their voices into the discourse. This integration is evident in the background of Figure 4, which presents an excerpt from the first two pages of the 2023 project 2 semester 1 brief.

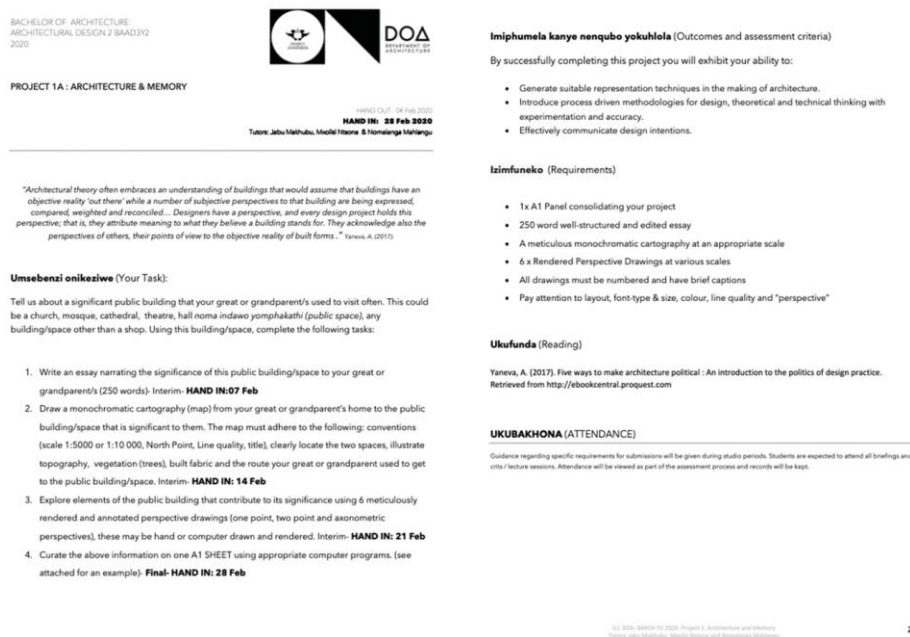


Figure 2. 2020 BArch Y2, UJ Architectural Design 2 Project 1A: Architecture & Memory, Brief



Figure 3. 2020 BARCH Y2 Architectural Design 2 Brief 1A: Architecture & Memory, Two Students Outputs

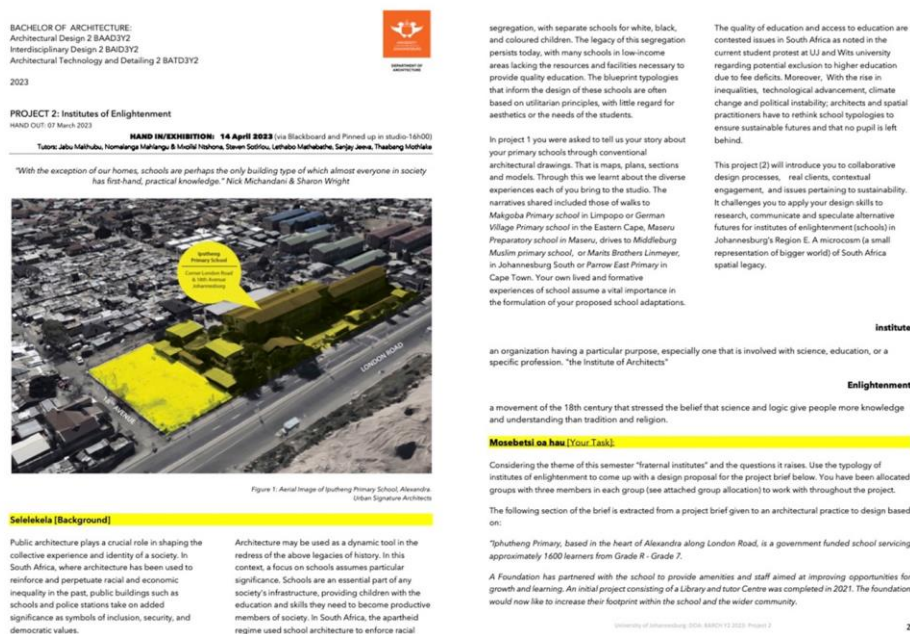


Figure 4. 2023 BARCH Y2 Architectural Design 2 Project 2 Brief extract

The second semester of our academic program is typically structured around a theme of both local and global significance, with a particular emphasis on relevance within the African context. This thematic focus permeates all aspects of the semester, including course modules and assignments, fostering a comprehensive exploration from diverse perspectives. To this end, five distinct briefs are formulated to examine various facets of the chosen theme (see figure 5), as outlined below:

1. **Introduction to Theoretical and Historical Contexts (Brief 1):** In this initial brief, students delve into the theoretical and historical foundations of the theme through mediums such as visual essays and creative expressions, encompassing art, film, and image-making.
2. **Neighbourhood Exploration and Documentation (Briefs 2 and 3):** Briefs 2 and 3 entail collaborative group work focused on a designated neighbourhood where design investigations will be conducted. Students engage in mapping, drawing, and documenting the neighbourhood, synthesizing their observations to formulate pertinent questions related to the theme. Outputs include

comprehensive mapping and analysis, creative and technical site documentations, site model construction, and multimedia storytelling.

3. Individual Architectural Brief Development (Brief 4): In Brief 4, students define their individual architectural (including landscape architectural) briefs and sites based on their research and findings from the previous briefs. This stage necessitates critical reflection on the skills and knowledge acquired throughout the academic year to inform their approach and design proposals.

4. Non-Architectural Design or Commentary Project (Final Brief): The last brief of the semester entails a short non-architectural design project or commentary, reflecting on the continental and/or global relevance of the theme. Collaboration with a partner from their groups is encouraged to foster dialogue and critical reflection.

Moreover, our program operates within a three-year thematic cycle, with each year probing different layers of the overarching theme. For instance, between 2021 and 2023, our focus revolved around "queer territories." In 2021, we examined the concept of the "queer clubhouse," exploring queer culture both locally in Johannesburg and internationally. Subsequently, in 2022, our attention shifted to the "public closet," investigating the intersections of queer politics with other politics such as feminism, race, class, culture, and religion. Lastly, in 2023, our thematic exploration centred on the "pink capital," examining the influence of capitalism on or influenced by queer culture. Each year, we selected a different neighbourhood within Johannesburg that resonated strongly with the thematic underpinnings of the studio, ranging from the inner-city district of Braamfontein to the affluent enclave of Sandton, famously known as the richest square mile on the continent.

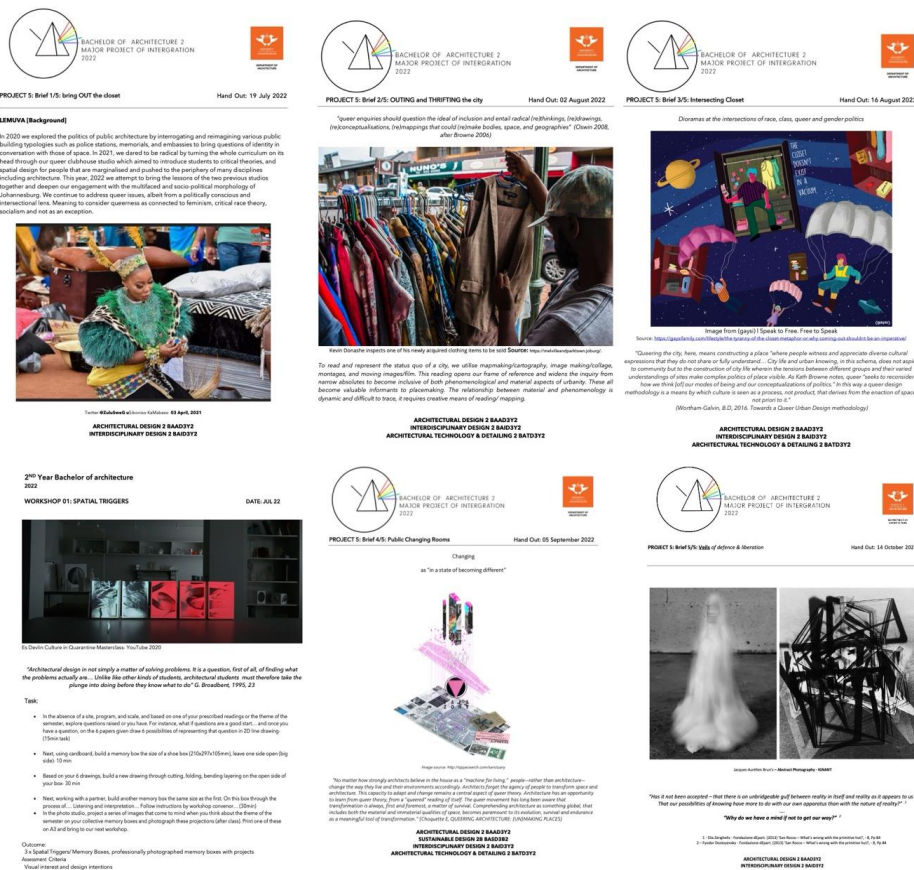


Figure 5. 2022 BArch Y2, UJ Semester 2 Design Studio Brief Collage

In addition to fulfilling the prescribed objectives, the pedagogical approach adopted within the studio encompassed a variety of components. These included structured studio workshops aimed at

enhancing proficiency in representation and presentation techniques, guided reading sessions designed to deepen and broaden our collective comprehension, and innovative speed dating critiques. During the latter, students presented their projects to peers in a succinct Pecha Kucha format, facilitating the synthesis of key points and the refinement of focus through constructive feedback. Moreover, the diverse composition of the teaching staff underscored the necessity of rigorous engagement. We approached each brief, workshop, reading, and methodology with intentionality, fostering critical discourse that enriched the overall studio experience.

Findings

Our research indicates that embedding critical pedagogy within undergraduate architectural programs is particularly advantageous due to the typically smaller class sizes compared to related disciplines like engineering, which can present challenges in effective management. However, it is crucial to strike a balance in the student-to-staff ratio to mitigate potential disruptions that may arise from this approach. Additionally, establishing collective agreements on engagement protocols among all participants from the outset is essential to ensure equitable participation.

Feedback from students underscores the transformative and challenging nature of the studio experience, with many expressing appreciation for its impact especially on their sense of self and confidence when presenting their work (see figure 6). Nevertheless, some students faced difficulties coping with the program's intensity and time requirements. External examiners, reviewers, and critics offered positive assessments of the briefs and their rigor. One examiner commended the excellence of the brief and the quality of the work, stating, "...well done again on an excellent brief and some very good work! Amazing to have a brief that goes to the heart of queer urban identity." Another remarked on the students' exceptional maturity, noting, "...students show a level of maturity higher than that of the level they are in."



Figure 6. 2022 BArch Y2 Semester 2 Examinations, student presenting brief 2&3 around staff and external examiners

CONCLUSION

The significance of the study illuminates a possible approach to decolonise architectural education in undergraduate level. For traditionally oriented design academics, the briefs discussed provide clear and practical rational on how to embed critical pedagogy in the design studio and therefore are easily adopted to suit specific geopolitical and institutional contexts. Additionally while one aspect of power relations in the studio, that is the brief, is discussed in this paper, this is but one place to embed critical pedagogy, more work should be done in other aspects such as the staff complement, the assessment methods and faculty ethos. We were fortunate to have support from our head of department, this is not always the case in many schools were any change is met with criticism and suppression.

NOTES

- ¹ Kelly Wilkins. "Henry A. Giroux: Neoliberal Capitalism Sets the Stage for Fascism." *Truthout*, August 22, 2019. <https://truthout.org/articles/henry-a-giroux-neoliberal-capitalism-sets-the-stage-for-fascism/>.
- ² Anna-Maria Meister, Beatriz Colomina, Evangelos Kotsioris, and Ignacio G. Galán. "The Radical Pedagogies Project." *Archis*, October 2015. <https://archis.org/volume/the-radical-pedagogies-project/>.
- ³ Wayland Bowser. "Reforming Design Education." *JAE* 37, no. 2 (1983): 12–14. <https://doi.org/10.2307/1424740>
- ⁴ Sally Stone, and Laura Sanderson. "Introduction." In *Emerging Practices in Architectural Pedagogy*. Routledge, 2021
- ⁵ Paulo Freire, and M. B. Ramos. *Pedagogy of the Oppressed*. New revised 20th-Anniversary edition. New York, N.Y: Continuum, 1993.
- ⁶ Henry A Giroux. *Schooling and the Struggle for Public Life: Critical Pedagogy in the Modern Age*. American Culture 1. Minneapolis: University of Minnesota Press, 1988.
- ⁷ Freire and Ramos, *Pedagogy of the Oppressed*.
- ⁸ Wilkins, "Henry A. Giroux."g
- ⁹ Ira Shor. *When Students Have Power: Negotiating Authority in a Critical Pedagogy*. Chicago, IL: University of Chicago Press, 1996. <https://press.uchicago.edu/ucp/books/book/chicago/W/bo3631380.html>.
- ¹⁰ Bell Hooks. *Teaching to Transgress: Education as the Practice of Freedom*. New York: Routledge, 1994..
- ¹¹ C. Greig Crysler. "Critical Pedagogy and Architectural Education." *Journal of Architectural Education* (1984-) 48, no. 4 (1995): 208–17. <https://doi.org/10.2307/1425383>
- ¹² Crysler.
- ¹³ Ashraf Salama, *Spatial Design Education: New Directions for Pedagogy in Architecture and Beyond*. London: Routledge, 2016. <https://doi.org/10.4324/9781315610276>; Ashraf Salama, *New Trends in Architectural Education: Designing the Design Studio*. ARTI-ARCH, 1995; Salama and Wilkinson, *Design Studio Pedagogy: Horizons for the Future*. ARTI-ARCH, 2007.
- ¹⁴ Stephen Cowden, and Gurnam Singh. *Acts of Knowing: Critical Pedagogy in, Against and Beyond the University*. 1st edition. New York: Bloomsbury Academic, 2013.

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HOW TO ESTABLISH AN EVALUATION FRAMEWORK FOR URBAN VILLAGES

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INTRODUCTION

Globally, urban expansion occurs at a high rate and on a large scale. Many immigrants moved into cities to pursue career opportunities. Since they often cannot afford high-priced houses in many regions, they tend to choose the urban villages (*Chengzhongcun*) as their residences, where the living prices tend to be cheaper.¹ According to the UN (2018), the percentage of the population living in urban areas of the world increased from 29.6% to 56.2% between 1950 and 2020; the number will increase to 68.4% in 2050.² It demonstrates that the number of immigrants in urban villages will grow, and the scale of urban villages will become bigger.

However, there are many issues about the living conditions in urban villages. In terms of the social aspect, firstly, there are many immigrants coming to urban villages. The population mobility degree is high in urban villages; therefore, people are not familiar with each other and have different cultural backgrounds, which may increase the crime rate and increase the difficulty of governance.³ Second, the capabilities of disaster prevention, such as fire protection and earthquake resistance capabilities, in urban villages are often not good, which increases safety hazards.⁴ Third, urban villages often suffer from insufficient public facilities and public services, which reduces the quality of people's lives.⁵ Fourth, the density of living space in urban villages is high; therefore, people often live in conditions of poor lighting and ventilation.⁶ Fifth, residents of urban villages usually need to spend a long time for commuting, which also impacts people's well-being.⁷

In terms of the economic aspect, the income of immigrants in urban villages is generally lower and more unstable than the incomes of the local residents of urban villages and urban residents.⁸ Therefore, there are widened economic gaps, which may reduce the purchasing power of low-income groups, and further hinder economic development.

In terms of the ecological aspect, due to the crowded artificial environment, urban villages may suffer from environmental problems such as pollution, inadequate waste management, and insufficient green spaces (Figure 1).⁹



Figure 1. The Appearance of Urban Villages

Although there are many issues in urban villages, such villages cannot be treated as slums to be generally replaced by new houses. This may increase house prices, triggering immigrants who hardly access cities to play their role in urban development and pursue their self-development.¹⁰

Therefore, the best way to deal with the issues of urban villages is to regenerate such villages. Identifying the value of urban villages is the foundation for their regeneration.¹¹ This is conducted to enable people to recognise the value of such villages. When their value is recognised comprehensively, their regeneration strategies can be formed scientifically, which is not to demolish these villages (which may occur gentrification, ecological population, and so on), but to reuse them to play their role in contemporary society, to deal the issues in urban villages, and improve the living conditions. Although there is much research carried out to research the values of urban villages, there is almost no research tried to establish an evaluation framework for them. A scientific framework can objectively identify their values. Therefore, this research tries to explore a suitable method to establish the framework.

HOW TO EVALUATE THE VALUE OF URBAN VILLAGES

The evaluation framework mainly contains two parts. One is the value kind. The other is the indicators to measure these values. In order to establish a scientific evaluation framework for urban villages, the first step is to figure out the values they carry. The research found that the value of urban villages is also mainly reflected in social, economic, and ecological aspects. In terms of social aspects, urban villages are firstly a bridge of cultural exchanges between local residents and immigrants, which can increase people's sense of belongingness and well-being and decrease social conflict.¹² Second, good living conditions in urban villages can provide houses, infrastructure, and public services to many low-income people and meet their basic living needs.¹³

In terms of economic aspects, urban villages are the step for immigrants and local residents to increase income. Immigrants can live in urban villages to find jobs in cities and engage in urban development, to pursue their self-achievement and increase their income.¹⁴ Conversely, cities also can receive the employees of immigrants in urban villages to achieve economic development. Additionally, local residents can rent their houses to immigrants to increase their income.¹⁵

In terms of the ecological aspect, effectively utilising urban villages can save resources and protect eco-environments.¹⁶

After the values of urban villages (social, economic, and ecological values) were figured out, set indicators to measure these values are needed. Documents and questionnaires can be used to propose the indicators to measure these values. The indicators can be firstly proposed by documentary research based on literature. Then, based on the reality of urban villages, the supplementary indicators can be supplied by questionnaires.

For proposing the pre-selected evaluation framework, this research, based on literature, firstly synthesises the following indicators, which can measure the social, economic, and ecological value of urban villages (Table 1).

Value dimensions	Indicators	Reasons
Social dimension	Scientific management (for example, the management of public security, village development, and interpersonal relationships) ¹⁷	Scientific management can alleviate social conflicts in urban villages and allow urban villages to develop well
	Enough houses ¹⁸	Meet people's housing needs
	Pleasantness of the living space (for example, natural lighting and ventilation) ¹⁹	Meet people's housing needs
	Good public security ²⁰	Safety
	Enough firefighting capacity ²¹	Safety
	Pleasant roads ²²	Infrastructure
	Enough water supply ²³	Infrastructure
	Enough power supply ²⁴	Infrastructure
	Enough network supply ²⁵	Infrastructure
	Sanitary condition is good ²⁶	Infrastructure, public services
	Enough place for public activities (for example, square) ²⁷	Infrastructure, public services for communities
	Enough schools for education ²⁸	Public services
	Enough hospital ²⁹	Public services
	Diversity daily services (for example, barber shops and restaurants) ³⁰	Public services
Shorter commute time ³¹	Shorter commute time can improve people's basic quality of life and well-being.	
Economic dimension	Low-cost living environment ³²	Provide an affordable living environment for immigrants in urban villages
	There are many employment opportunities in the surrounding area ³³	Provide employment opportunities to immigrants in urban villages and attract immigrants.
	Urban villages can provide the labour force to surrounding cities ³⁴	Provide the vitality of economic development to surrounding cities
	Rental benefits in urban villages ³⁵	Bring benefits to local landlords
Ecological dimension	Intensive construction costs ³⁶	Intensive construction can save resources and prevent the waste of resources
	No large-scale demolition or construction ³⁷	Large-scale demolition and construction often result in the waste of resources
	Save land and protect ecological land ³⁸	Intensive construction land can protect more ecological land.
	Ecological landscape ³⁹	The excellent landscape environment of urban villages can also improve the ecological environment

Table 1. The Pre-selected Framework Based on the Literature

Indicators of social value are selected from the aspects of scientific management, housing needs, safety, infrastructure, public services, and shorter commute time. This is conducted to improve people's living conditions and maintain social stability.

Indicators of economic value are selected from the aspects of affordable living environment, employment opportunities, labour force, and rental benefit. This is conducted not only to increase the income of immigrants and landlords, but also to promote the economic development of cities.

Indicators of ecological value are selected from the aspects of saving resources and preventing waste resources. This is conducted to protect eco-environments.

These indicators are selected by documents; the supplemented indicators can also be added by fieldwork in order to increase the scientific and comprehensiveness of the pre-selected framework. Therefore, a pilot study can be conducted in cases to add these indicators. A questionnaire can be used in the pilot study to obtain other indicators thought by stakeholders to propose the final pre-selected evaluation framework.⁴⁰ The content of the questionnaire is in the table 2. This enables stakeholders to give the scores of importance to indicators and supply other indicators, that can measure these values thought by them. This can verify the scientificity of indicators proposed by documents and can supply other indicators by practice.

Do you think the following indicators are important when evaluating the SOCIAL VALUE of urban villages? (please tick the marking questions. *must be answered)						
Indicators of social dimension	N/A (0 score)	Not Important at all (1 score)	Somewhat unimportant (2 scores)	Neutral (3 scores)	Somewhat important (4 scores)	Very important (5 scores)
Scientific management (for example, the management of public security, village development, and interpersonal relationships)						
Enough houses						
Pleasantness of the living space (for example, natural lighting and ventilation)						
Good public security						
Enough firefighting capacity						
Pleasant roads						
Enough water supply						
Enough power supply						
Enough network supply						
Sanitary condition is good						
Enough place for public activities (for example, square)						
Enough schools for education						
Enough hospital						
Diversity daily services (for example, barber shops and restaurants)						
Shorter commute time						
Please state any other social value indicators that you think would influence the value of urban villages. If there were any, please fill in their important degree. _____ (not must be answered).						
Do you think the following indicators are important when evaluating the ECONOMIC VALUE of urban villages? (please tick the marking questions. *must be answered)						
Indicators of economic dimension	0 score	1 score	2 scores	3 scores	4 scores	5 scores
...						
Please state any other economic value indicators that you think would influence the value of urban villages. If there were any, please fill in their important degree. _____ (not must be answered).						
Do you think the following indicators are important when evaluating the ECOLOGICAL VALUE of urban villages? (please tick the marking questions. *must be answered)						

Indicators of ecological dimension	0 score	1 score	2 scores	3 scores	4 scores	5 scores
...						
Please state any other ecological value indicators that you think would influence the value of urban villages. If there were any, please fill in their important degree. _____ (not must be answered).						

Table 2. The Example of the Questionnaire in the Pilot Study

After the pilot study, the supplemented indicators can be added to the pre-selected indicators to form the final pre-selected framework. Then, it can be verified whether these indicators can measure the value of urban villages.

Structural Equation Modelling is a suitable method, that can be based on SPSS and AMOS to explore the rationality of the hierarchies of the framework. This is a method to explore the relationships among indicators and values. Through this method, we can delete the indicators, that do not have a high co-relationship between values and indicators, and grant weight to important indicators.

The Structural Equation Modelling is processed based on the questionnaire (Table 3) to collect stakeholders' views on indicators to values. The specific process of Structural Equation Modelling includes two steps. One is Exploratory Factor Analysis. The other is Confirmatory Factor Analysis. Exploratory Factor Analysis can verify the reasonability of the hierarchy of the framework based on the results of the questionnaire. This not only includes verifying the reliability of the obtained results but also can verify the validity. The validity test involves verifying whether these indicators can effectively measure the social, economic, and ecological values, respectively. After the results pass the Exploratory Factor Analysis, Confirmatory Factor Analysis can be conducted to assign weights to pre-selected indicators and filter pre-selected indicators by deleting unimportant indicators based on the results obtained by the questionnaire.⁴¹

Do you think the following indicators are important when evaluating the SOCIAL VALUE of urban villages? (please tick the marking questions. *must be answered)						
Indicators of social dimension	N/A (0 score)	Not Important at all (1 score)	Somewhat unimportant (2 scores)	Neutral (3 scores)	Somewhat important (4 scores)	Very important (5 scores)
Scientific management (for example, the management of public security, village development, and interpersonal relationships)						
Enough houses						
Pleasantness of the living space (for example, natural lighting and ventilation)						
Good public security						
Enough firefighting capacity						
Pleasant roads						
Enough water supply						
Enough power supply						
Enough network supply						
Sanitary condition is good						
Enough place for public activities (for example, square)						
Enough schools for education						
Enough hospital						
Diversity daily services (for example, barber shops and restaurants)						
Shorter commute time						
Other supplemented indicators through the pilot study						
Do you think the following indicators are important when evaluating the ECONOMIC VALUE of urban villages? (please tick the marking questions. *must be answered)						
Indicators of economic dimension	0 score	1 score	2 scores	3 scores	4 scores	5 scores
...						
Do you think the following indicators are important when evaluating the ECOLOGICAL VALUE of urban villages? (please tick the marking questions. *must be answered)						
Indicators of ecological dimension	0 score	1 score	2 scores	3 scores	4 scores	5 scores
...						

Table 3. The Example of the Questionnaire for Structural Equation Modelling

Through the data processing, the evaluation framework can be established. Significantly, in order to achieve justice evaluation, synthesising the main stakeholders' values (government, landlords, immigrants) is needed. This could attributed to the fact that the stakeholders' values on the value of urban villages tend to be different, because they have different main needs.

For example, many governments want to renew urban villages into residences with good living conditions, which can prevent disasters (such as fires) and reduce social conflicts caused by crowded living environments. Therefore, they tend to highlight the indicators about management, facilities, and public services. For developing economies, governments tend to highlight the indicators about the labour force of cities brought by urban villages.⁴² For saving costs and protecting ecological environments, governments also tend to highlight the indicators about the reuse and ecological environments of urban villages.⁴³

Landlords tend to create more space for living to increase their rental income. Therefore, they may highlight the indicators about living conditions, enough houses, and shorter commute times.⁴⁴ All of these can attract immigrants to live in urban villages.⁴⁵

Immigrants often want to save living costs and increase the convenience of shopping, commuting, leisure, and so on.⁴⁶ Therefore, they tend to highlight the indicators about living conditions and cost.⁴⁷

Hence, when identifying the value of urban villages, obtaining and synthesising the stakeholders' values are essential. The regeneration of urban villages is a process of interest adjustment.⁴⁸ Only by synthesising the value of stakeholders can the regeneration meet the public's needs and achieve social justice.⁴⁹ In order to obtain and synthesise all stakeholders' views, the participants of the research need to involve the main stakeholders to establish a justice framework. In order to ensure the participants involve all stakeholders, demographic questions also need to be set in the questionnaire (Table 4). This ensures that the evaluation is based on each stakeholder's perspective.

What is your main occupation? (please tick the answer. *must be answered)
<input type="radio"/> Governments
<input type="radio"/> Landlords
<input type="radio"/> Immigrants
<input type="radio"/> Other _____

Table 4. The Example of Demographic Questions in the Questionnaire

The sample size of participants is also an important part of obtaining representative results. There are many sample size calculation formulas, such as Cochran Formula, Yamane Formula, and Formula for Sample Size for the Mean, that can be used to calculate it.⁵⁰ These formulas are mainly based on confidence level, margin of effort, and population size of total stakeholders to generate a scientific sample size. Scientific sample size can guarantee the accuracy of the obtained results. Furthermore, in order to objectively obtain all stakeholders' values, the sample size of each stakeholder can be calculated by formulas, which is a way to synthesis all stakeholders' views.

After the evaluation framework is established, to understand the reasons behind the stakeholders' value deeply, investigation can also be used to obtain the stakeholders' perspectives. This can solidly support the evaluation framework and enable the framework to become more scientific. Up to now, the method for establishing a scientific framework for evaluating the value of urban villages has been proposed (Figure 2), which is comprehensively constituted by documentary and fieldwork, quantitative and qualitative methods, and main stakeholders' views.

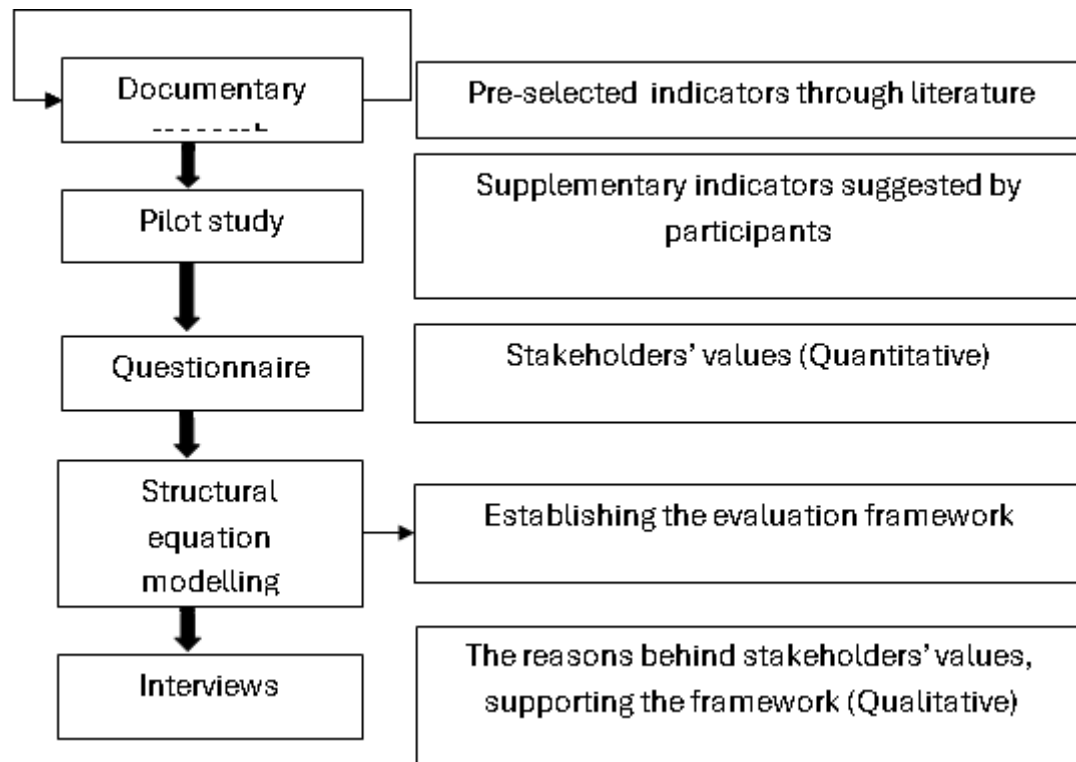


Figure 2. The Process of Establishing the Evaluation Framework

DISCUSSION

Urban villages mainly have three values: social, economic, and ecological. In order to measure these values, pre-selected indicators can be obtained from the literature. A pilot study can then be used to obtain the supplementary indicators supplied by participants in fieldwork to supply the pre-selected framework.

Stakeholders' scores about which the degree of each indicator affects their value can be obtained through questionnaires. The scores can then be processed based on Structural Equation Modelling. The effective degrees of indicators on value can be verified, indicators with few effective degrees can be deleted, and weights can be assigned to indicators based on effective degrees. Finally, interviews can be conducted to explore the reasons behind the scores to support this evaluation framework. Significantly, when establishing the framework, the main stakeholders' views need to be considered together to achieve justice evaluation.

CONCLUSION

Urban villages mainly have social, economic, and ecological values, and their values need to be accurately identified, which benefits setting a scientific strategy for urban villages based on their value. In order to identify the value of urban villages in detail, establishing an evaluation framework is needed. When establishing the framework, it is necessary to integrate the values of all stakeholders to meet the public's needs, which are conducted to improve social justice.

Structural Equation Modelling can effectively integrate public opinions on the importance of various indicators for measuring the value of urban villages, verify pre-selected frameworks, grant weight to each indicator, and filter important indicators to generate the final framework. Hence, it is suitable to establish an evaluation framework of the value of urban villages.

The evaluation framework can be established in a larger scope, based on the participants of this scope, to evaluate the urban villages in the scope. A specific evaluation framework can also be established for a specific urban village, based on the participants in the village, when necessary, because different urban villages may have different characteristics, which contain different values, and their evaluation framework can be established based on their characteristics. This can lay more specific and scientific regeneration strategies for different urban villages.

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WAR, BUREAUCRACY, AND MODERNIZATION: AN ALTERNATIVE MODEL IN THE PROCESS OF EARLY MODERN ARCHITECTURE OF IRAN

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INTRODUCTION

The 18th century witnessed three major revolutions that reshaped the world: the Industrial, the American, and the French. Iran was also affected by these global changes, as it faced a turbulent period of transformation in the 1800s. The political and economic landscape of Asia had changed dramatically, with the rise of new powers such as Britain, Russia, and France. These events challenged Iran's perception of the world and its place in it. The Qajar dynasty, which ruled Iran at the time, had to adapt to the new realities, either willingly or by force. Iranian architecture, which had a rich and diverse history, also underwent a process of modernization, influenced by the social and cultural trends of the era. However, modernization did not mean Westernization, as some scholars have argued. According to the theory of "Orientalism" by Edward Said,¹ "Hybrid Modernity" by Bhabha,² and "Multiple Modernity" by Eisenstadt,³ "Modernization" is not always equal to "Westernization", non-western societies experienced different patterns of modernity, based on their own civilizations and traditions. The non-western intellectuals had no choice but to choose and reinterpret modernity. These reinterpretations, which were related to the civilization and traditions of these societies, opened the way for changing the characteristics of Western Modernity and shaping new cultural models in these contexts.⁴

Following these theories, among architectural historians in non-western societies, Hosagrahar⁵ in *Indigenous Modernities: negotiating architecture, urbanism, and Colonialism* and Sadria⁶ in *Multidimensional Modernity in Islamic Countries*, respectively have considered the nineteenth- and twentieth-century Delhi and Islamic Countries architecture as an indigenous experience of modernity. However, most modernity critics in Iran still rely on an intransigent equation of Modernization with Westernization. Assuming that modernity is intrinsically a product of Western rationality, they see it as a slavish attempt at imitation or an "arbitrary and unsystematic copying from Europe."⁷ Therefore, critics who adopt this approach inevitably conclude that Iran has been afflicted by the diagnosis of ill-formed and derivative modernity. This idea is influenced by the classic historians' view of traditional architecture in Iran, followed by the writers such as Andre Godard,⁸ Arthur Upham Pope,⁹ and Karim Pirnia.¹⁰ This assumption has inspired even modern architecture of Iran historians, such as Saremi,¹¹ Kiani,¹² and Ghobadian.¹³ The domination of this assumption of rigidity is challenged by pioneer scholars in Iran, such as Bani Massoud,¹⁴ Mokhtari,¹⁵ and Haghiri.¹⁶

Vahdat¹⁷ examines how Iranian travelers in the early 19th-century criticized their traditional architecture and urbanism after being exposed to Western utopian architecture. Haghiri¹⁸ and Tazikeh¹⁹ explore the influence of these travelogues on the architectural features of Tehran in the late 19th and early 20th century. However, their methodological focus on the travelogues neglects other important factors. Besides the mental and creative aspects of Iranians, the process of modernity also involved a powerful external factor: war. War compelled Iranian architects to adopt Western military architecture and new governmental orders in town planning and architecture. This research, in line with post-colonial studies that aim to restore agency to non-western cultures in the modern world, argues that the Iranian society had an active and internal role in assimilating and engaging with the modern world.

To investigate the process of 19th-century modern architecture in Iran, this study offers a context-based theoretical framework.

THEORETICAL FRAMEWORK

This hypothesizes that the modernization in the architecture of northwest Iran is a different narrative and parallel to the current narratives about modernization in Iranian architecture. This article explores how modern architecture emerged in northwest Iran in the 19th century, influenced by various factors. To analyze the data, it uses Bhaskar's critical realism as a philosophical basis and Saunders et al.'s²⁰ research onion as a framework. It adopts an abductive, bottom-up, and comparative approach to theory development, and applies a mixed qualitative-quantitative methodology.

Qualitative data analysis is done through a Systematic literature review by coding, narrative analysis, thematic analysis, content analysis, and qualitative data quantification to identify the factors affecting the modernization process and its stages. This research examines the factors and stages of architectural modernization in Iran from the 1790s to the 1850s. It uses qualitative methods such as systematic literature review, coding, and thematic analysis to identify the factors from various texts. It also uses quantitative methods such as field observation and structural analysis to measure the reflection of these factors in the existing buildings and documents. The research is process driven and longitudinal. It analyzes the different perceptions of modernity in the architecture of Iran based on primary and secondary sources.

PERCEPTIONS OF MODERNITY IN THE ARCHITECTURE OF EARLY 19TH CENTURY IRAN

Different formats describe the modernity perceptions in early 19th-century Iranian architecture. In order to classify concepts, the data obtained from first-hand sources, including manuscripts, descriptions of court events, and travelogues were examined, and then second-hand sources were used to complete the data.

S1: Written sources from the Qajar court reports and the prince's letters and manuscripts; Donboli,²¹ Jahangir Mirza.²²

S2: Iranian travelogue and architectural comparison in the early 19th century; Shirazi,²³ Esfahani,²⁴ Afshar,²⁵ Rizaquli Mirza.²⁶

S3: Description of Iranian architecture in the early 19th-century by western engineers, consultants, and travel writers; Morier,²⁷ Jauber,²⁸ Drouville,²⁹ Bontemps,³⁰ Kotzebue,³¹ Jones,³² Porter.³³

S4: Description of the changes that occurred in the early 19th-century by Iranian writers and western travel writers who wrote in the second half of the 19th-century; Skyes,³⁴ Fowler,³⁵ Grothe,³⁶ Markham,³⁷ Dieulafoy,³⁸ NaderMirza,³⁹ Etemadossaltaneh.⁴⁰

S5: Contemporary authors who give first-hand data on the changes that occurred in the architecture of Iran in the 19th-century; Piemontese,⁴¹ Burger,⁴² Yunier,⁴³ Lachini,⁴⁴ Nafisi,⁴⁵ Mehryar.⁴⁶

Category selected from texts		The main components of modernity in the architecture of early 19th-century Iran	Written Sources				
			S 1	S 2	S 3	S 4	S 5
Factors affecting the formation of the process of modernity in Iranian architecture:	Contextual Factors	Exposure to modern European architecture was mainly driven by the war	*** *	*	*** **	*** *	*** **
		The strategic location of northwest Iran and the accounts of modern architecture witnessed by Ottoman and Caucasian migrants living there	***	*	***	*** *	***
	Effective Persons	The progressive Crown Prince and the state intellectuals	*** *	**	*** **	*** **	*** **
		The evaluation of Iranian architecture by Western experts, travelers and migrants: and the depiction of the excellence of architecture and urban planning in European cities and their recommendations for Iranians.	**	*	*** **	*** **	***
		The portrayal of Western architecture in Iranian travel writings	*	*** **	*	*	*** **
		European military engineers: constructing fortresses and other military structures and imparting new architectural concepts to Iranians	***	*	*** **	*** *	**
		Iranian young engineers who had acquired the fundamentals of modern architecture and initiated building in Azerbaijan	***	-	**	*	**
		Establishing a foundation for the adoption of modern architecture by western migrants and engineers, and Iranian travel authors	*** *	*** *	*** **	*	*
	Internal Factors of the process	The incentive to apply modern architecture in administrative, residential and urban structures with the success of previous experiments in Iranian castles and military structures and urban structures in the Caucasus and Russia.	**	**	*** **	*** *	*** *
		Modifying urban structures and facilities according to new patterns.	***	*	*** **	***	*** *

Table 1. The process of modernity and its components (5 stars with the most repetitions)

THE STAGES OF MODERNIZATION OF ARCHITECTURE IN EARLY 19TH CENTURY

Traditional society (Before the 19th-century)

Iran's traditional fortresses could not resist modern artillery. Iran had no barracks, training fields, or factories. Its cities lacked public spaces like schools, parks, or hospitals.⁴⁷ The streets were narrow and uneven, unfit for carriages or pedestrians. The houses were inward-looking and had low roofs and walls in dead-end alleys.⁴⁸ There was no urban planning or architectural regulation.⁴⁹



Figure 1. A traditional castle in Iran, Zanjan⁵⁰

Iran Russian war

Iran met modern Europe in the 18th century but did not see itself as backward until the 19th century. After losing to Russia in the early 1800s, Iran had to rethink its self-image. Iran's army was outdated and weak when it fought Russia. The war ended with the Golestan treaty, which gave Russia parts of northwest Iran. Russia then sent many trade missions to Iran. Britain, France, and Russia also competed to enter Iran's market, sending advisers, ambassadors, soldiers, and engineers.⁵¹ The first foreign architects in Iran were military engineers who built Western-style castles, factories, and workshops in Azerbaijan. Iran tried to copy Western designs for its military. Some of the fortresses built in the Vauban style in the early 19th century were Tabriz, Khoy, Abbas Abad, Ardabil, Kurdasht, Lankaran, Astara, and Yerevan.⁵²



Figure 2. Abbas Abad castle 1810s⁵³



Figure 3. Ardebil castle 1810s⁵⁴



Figure 4. Khoy castle 1810s⁵⁵

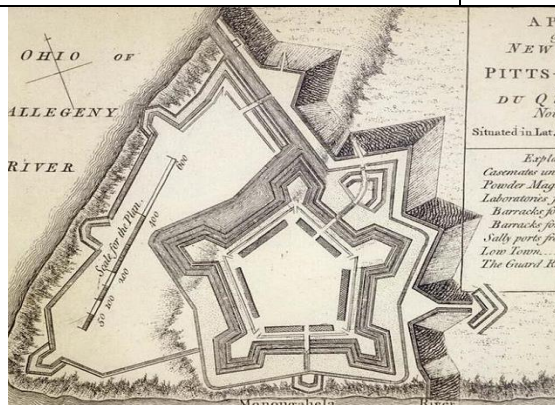


Figure 5. A Plan of the New Fort at Pitts burgh (USA), 18th century⁵⁶

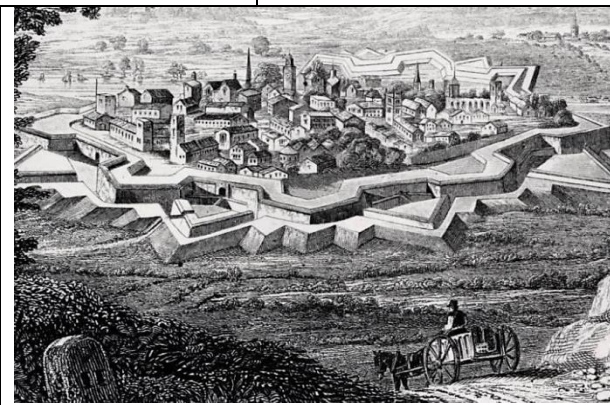


Figure 6. Fortifications in the style of the Vauban, 17th century⁵⁷

Geopolitical position

Iran’s trade with European countries like Britannia, Russia, France, and Germany boomed in the early 19th century.⁵⁸ Merchants from northern and eastern Europe reached Iran through the Caucasus, where they exposed Azerbaijanis to Western architecture and lifestyle.⁵⁹ Azerbaijan also played a key role in Iran’s military centralization after the war with Russia, earning praise from European travelers for its security.⁶⁰

1	Yerevan castle 1810s	
2	Nakhchivan castle 1810s	
3	Khoy castle 1810s	
4	Military buildings of Marand 1810s	
5	Abbas Abad castle 1810s	
6	Tabriz castle and military buildings 1810-20s	
7	Ardebil castle 1810s	
8	Astara castle 1820s	
9	Ərkivan and Lankaran castles 1820s	
		Original image source ⁶¹

Table 2. The direction of the Russian army and the new frontier; modern castles (numbers 1-9), other modern military centers (black dots) in the northwest of Iran

Iranians’ perception of modern architecture and urban development

Reformist ideas in Iran, like other Asian societies, first emerged in the state system and then spread to society.⁶² Europeans who served the court and the Crown Prince influenced modern architecture in Iran.⁶³ They criticized Iran’s military buildings, traditional town planning,⁶⁴ roads and streets,⁶⁵ building facades⁶⁶ and interior architecture.⁶⁷ Iranian intellectuals who visited Western countries also compared and criticized Iran’s architecture, town planning, and citizenship rights.⁶⁸ They praised the ideal and developed European cities (London, Paris, Dublin, etc.) and urged Iranians to emulate them. Khosrow Mirza, Amir-Kabir, Mirza Baba Afshar, Mirza Saleh Shirazi, Abolhassan-Khan Ilchi, Abu Taleb Esfahani,⁶⁹ and Mir-Latif Shushtari, by describing Russia, Caucasus, and other Western countries, shaped the modernization process of architecture in Azerbaijan and Iran.

Statesmen actions

Abbas Mirza, the Crown Prince, was the leader of the modernization movement in Iran, based on his reformist ideas and political power.⁷⁰ He funded and supervised new constructions and studied modern geometry with his sons.⁷¹ He also established institutions for new science and knowledge education, sending students to England to learn engineering and fortifications, and translating military, historical, and scientific books.⁷² To strengthen the urban infrastructure in Azerbaijan, he took several actions, such as:

- Settling Armenians in important cities and inviting European immigrants and investors to build Western style⁷³ towns.⁷⁴

- Exploring Azerbaijan’s natural resources and capacities.⁷⁵
- Reducing imports by establishing factories and printing houses.⁷⁶
- Establishing the first medical organization in the army and vaccinating the public against smallpox in Tabriz.⁷⁷
- Restoring the aqueducts and repairing the earthquake damage with government and private funds.⁷⁸

Western engineers and consultants

In the early 1800s, Iranian engineers learned from Europeans. Among the French delegation, there were several engineer captains, surveyors, and archaeologists like Trézel, Simeno, Perreo, Bontemps, Lamy, and Ledger. Trézel and Simeno mapped Azerbaijan’s cities and areas in 1826.⁷⁹ They also designed cities, castles, machines, and military schools.⁸⁰ Following the French; British engineers led by Major Christie had been invited to Iran. They strengthened the fortifications in the northwest of Iran, along with teaching military techniques to the army.⁸¹ Other Europeans and Americans also came as traders, consultants, and missionaries.

Educated Iranians

Western engineers trained talented Iranians in modern architecture. For example, Mirza Reza Tabrizi and Mirza Jafar Mohandas, who studied engineering and geometry in London, respectively, got related jobs in Iran after returning.⁸² Some engineers also learned in Iran from foreign engineers or Mirza Jafar and Mirza Reza.⁸³ Moreover, Iranian intellectuals, inspired by foreign travels, modernized society by setting up the first printing house in North-West Iran, translating foreign books,⁸⁴ and publishing the first newspaper by Mirza Saleh in Azerbaijan.⁸⁵ The books covered European history, Iranian travelogues, modern Western cities, and military topics.⁸⁶

Bureaucratization of construction affairs

Urban standardization and bureaucracy prepared society for modernization in architecture. New hierarchies and education in architecture and planning led to new principles and reforms in the town. Modernizing military and governmental buildings in Iran needed huge funds and administration. These reforms were radical, not superficial. They combined Iranian and Western architecture with the help of foreign and Iranian experts.

Action stages

Modern architecture in Iran originated from military fortresses and expanded to other structures, such as palaces and gardens. In the early 19th century, Northwest Iran had two main types of construction methods:

- 1) Renovation of efficient structures following vernacular architectural techniques that consisted of Interior design innovations for military; court, and residential buildings;⁸⁷ more diverse interior spaces in castles;⁸⁸ better urban spaces for public welfare;⁸⁹ Changes in facade, plan, decoration, and surroundings of palaces, e.g. “Green Streets;”⁹⁰ Expensive modern buildings;⁹¹ Hybrid traditional and Western spaces in new buildings;⁹² Construction and site analysis before new building design.⁹³
- 2) Constructions without precedents in Iran, such as new factories and production units;⁹⁴ Western furniture imports;⁹⁵ New building techniques and methods;⁹⁶ Western-style military buildings;⁹⁷ Crossover separation of neighborhoods in new cities;⁹⁸ Western interior composition of governmental buildings.⁹⁹

The Stabilization Stage of Modernization

The modernization process reached its result with a criterion for stable modern architecture. The structure of this process can be found in the following categories:

- Fath Ali Shah (1830s), supported the crown prince's modern actions and his advisers.¹⁰⁰ He invited French and British experts to Tehran¹⁰¹ and funded modern military buildings and city surveys.¹⁰²
- The crown prince's actions made the North-West prosperous. His powerful and intellectual leadership lasted until his death and beyond.¹⁰³ His successors followed his methods in architecture and town planning.
- Western experts trained Iranian youths in architecture, which helped new manner architecture and urbanism survive.¹⁰⁴ For example, Mirza Reza, the first Iranian engineer, designed military, educational, and hydraulic projects in the 19th century.¹⁰⁵
- To modernize Azerbaijan, urban infrastructures were upgraded. Roads, streets, bazaars, aqueducts, and forts were built or renovated.¹⁰⁶
- Newspapers increased public support for architectural modernization. Nonprofit buildings, houses for government workers, and citizenship laws improved security, welfare, and health in the cities.¹⁰⁷

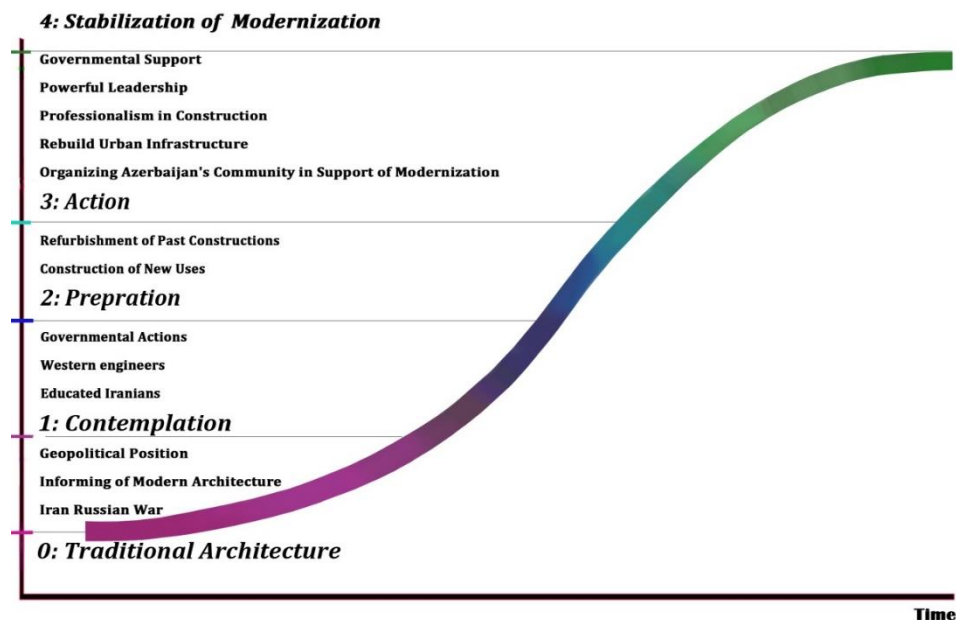


Figure 7. The Stabilization Stage of Modernization in early 19th century Iran

CONCLUSION

Iran's modernization in the early 19th century was a fast and planned movement that led to stable modern architecture. This transition had three stages: awareness, preparation, and action. Influenced by Western ideas, geopolitics, and the Iran-Russian wars, the court and the intellectuals rethought traditional architecture. With the help of Western engineers and Iranian intellectuals, Abbas Mirza's government made huge changes in architecture and town planning. They also institutionalized the rules, provided specialized education, and sent students abroad to study architecture. These measures resulted in new or modified buildings with different functions. The changes became permanent and widespread as more modern actions were taken. These features show the principles that enabled modern architecture to expand all over Iran after Abbas Mirza. Studies show that northwest Iran was the gateway of modernity to Iranian architecture. The modern architecture in Azerbaijan was more aesthetic and intentional than the later changes in Tehran, which were more driven by the court.

This research explores how the government, architecture, and urban planning changed under the pressure of war, necessity, and reforms in early 19th-century Iran. These changes mark the start of modernization in Iranian architecture. The research also offers an alternative story of modernization that considers the internal forces and structures that shaped the society, not just the external influences in the late 19th century. This story avoids simplifying history and its impacts and shows a more realistic view of the changes. The research also compares the Iranian case with other non-western societies that underwent similar modernization processes.

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THE ARCHITECT'S GAZE AND CRITICAL READING OF PLACE

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INTRODUCTION

In an international and emerging body of work, scholars situated in spatial disciplines have offered novel methodological approaches to document and reveal new and generative insights into complex place-based social and ecological phenomena. This essay draws on the work of key creative practice-based scholars Lillian Chee, Huda Tayob, Jane Wolff as well as a selection of my own work to illustrate that representational tools and techniques in architecture can be used to anchor and make visible situated knowledges that are social, material, and temporal, fostering a critical reading of place. Some methods and creative outputs capture the minutiae of everyday materialities that may not be noted by ethnographic methods, revealing unique insights into subaltern and minority occupations of place that rely on ephemeral and material appropriations tracking across time. Others use common architectural devices such as the plan and section to capture hierarchy, scale, relationships between spaces and objects in space, through which social relationships and social complexity can be articulated. Meanwhile as argued by Tayob, shifting from photo-realistic representation to drawing/diagramming allows for the de-identification of participants and research subjects and the insertion of conceptual meaning. The resulting creative outputs not only contribute to and extend disciplinary knowledge, but also communicate complex ideas in a way that appeal to a broad audience, shifting public perception and debate. The essay argues that this body of knowledge and the creative and critical capacities of spatial scholars has the potential to ‘transform a precarious present’ by documenting and deciphering complex place-based phenomena in this way.

Positioning my research and the role of drawing

My research typically looks at placemaking practices of multicultural communities mostly in Melbourne, Australia to see how that knowledge can expand conceptual understanding of the possibilities of space. I use ethnographic methods, observation, interviews, drawing on Sarah Pink’s approach to a sensory ethnography¹ and Henri Lefebvre’s concept of *rhythmanalysis*² which provide a framework through which we can analyse the interplay between the physical, cultural and social aspects of everyday interactions and track it across time. Multimodal rhythms associated with the occupation of space are recorded. Specific attention is paid to who or what produced the rhythms, and under what circumstances, with the interplay between bodies and the built environment noted in those moments. Ethnographic methods, participant and non-participant are used to gather experiential data that supplements the identified rhythms. The data collected spanned multiple media from sketches,

photos and reflexive text, to sound and video recordings. These are then synthesised into multimodal mapping diagrams that retained the conceptual framework underpinning rhythm analysis, that which interconnected time, space and the social body.³

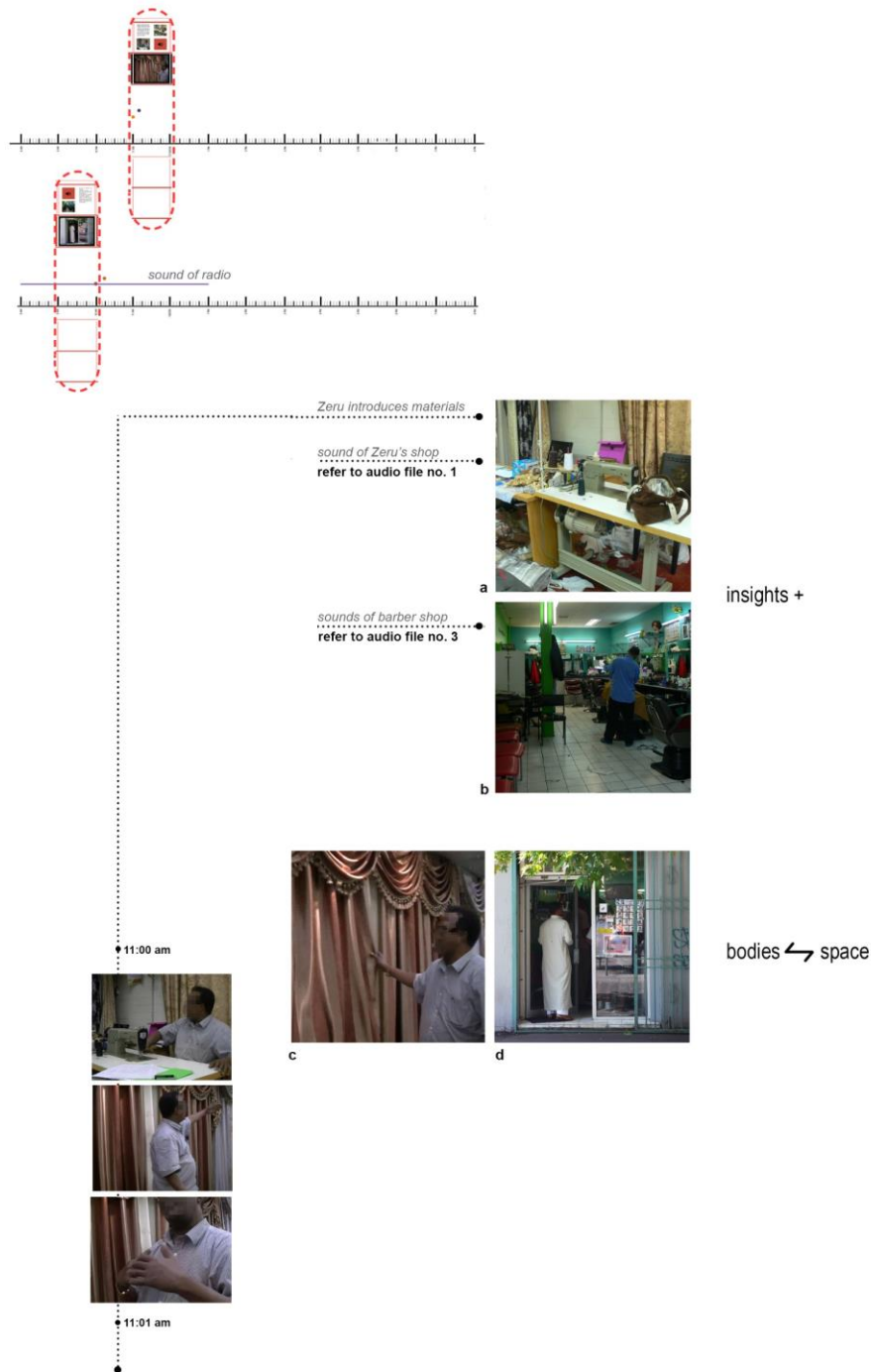


Figure 1. Multimodal mappings by Kelum Palipane

Photographs capture the immediate setting conveying a multitude of information, as Pink writes, “Photographs have the capacity to bring texture, surfaces and the sensory experiences they evoke right up close to the reader: they both invoke embodied reactions and offer routes by which, via our own memories and subjectivities, we might anticipate what it feels like to be in another place.”⁴

I focus today on drawing – unlike photos, sketches allow attention to be drawn to selective elements associated with a phenomenon. As Marion Wettstein writes on the practice of drawing in ethnography, “...visual representation [through drawing] becomes a statement in your line of argumentation; just like a sentence is a statement in your textual argumentation.”⁵ Ray Lucas argues that drawing is not only a form of theoretical inquiry but a way of knowing and arguing fostering a form of attention during fieldwork.⁶ In his own work Lucas’ uses axonometrics, elevations and sections to document objects. Interestingly absent from his work are spatial practices of bodies engaging with these objects, although they’re implied by the positioning of objects.

Recent Scholarship of Significance

In this section I review select scholarship from Lillian Chee, Huda Tayob and Jane Wolff while interspersing my own work to illustrate how our training as spatial designers has allowed us to draw on disciplinary specific representational tools to anchor and make visible, place specific knowledges.

Lillian Chee’s body of work begins as embodied experiences of architecture and place which are interrogated through feminist and affect theory while contextualized in broader historical discourse.⁷ Distinctive of her work is the use of architectural representation techniques and creative practice such as installation and film to not only visualize and document but to also insert criticality. Recent examples include the vignettes of creative work interspersed in the book *Architecture and Affect: Precarious Spaces*.⁸ In ‘Tracing the Last Tiger,’⁹ Chee in collaboration with Toby Fong use drawings that subvert popular nineteenth-century colonial tiger paintings to collate multiple sources of information surrounding tiger sightings between 1923-1930 in Singapore’s last undeveloped jungle areas. The resulting work – a long landscape scroll- is a spatial narrative that visually juxtaposes contradictions in accounts between the official and the anecdotal and traces them across space and time to illustrate how these tensions mirrored the anxiety felt around the rapidly urbanizing landscape of Singapore.

Meanwhile, the work ‘Anarchiving Public Housing’¹⁰ focuses on the shared spaces of Singaporean public housing blocks - the common corridor, the stairwell, and the ground level open area- to make visible the complexities of domesticity in such a housing typology. Chee writes, “Extrapolated from events recorded in local news and popular fiction, the drawing makes visible individual desires and tactics, documented in both sanctioned and illicit domestic practices.” In ‘Holes in the Ground,’¹¹ Chee in collaboration with Wong Zi Hao use what they term as ‘two-and-a-half dimensional drawing-models’ to document separate incidences around the exhumation of graves for redevelopment of a jungle cemetery in Singapore. Chee writes, “architectural plans are burrowed into; topographical sections are pulled apart. The textual fragments layered onto the drawing-models are excerpts recounting taboos, superstitions and spiritual encounters.”¹² The juxtaposition of multiple media through the use of text, image and material objects has allowed for discursive readings across them to convey the layered metaphysical and palpable nature of the place.

Huda Tayob is a researcher trained as an architect focusing on socio-spatial research and engages in a post-colonial approach to architecture mostly focusing on the African continent. Tayob has interrogated the relationship between drawing and fieldwork and written on how drawing and associate methods in the field can help raise subaltern consciousness.¹³ In the following case study Tayob uses architectural drawings as a means to study the often overlooked and unseen spatial practices of refugee markets. The project focuses on a series of markets largely run and established by refugees in Cape Town, South Africa. She writes, “the importance of these informal markets extends beyond their transactional nature, as they become the central sites of income provision, access to services and social spaces for these particular populations.”¹⁴ She highlights how these spaces go

undocumented and therefore unseen, reflecting the subaltern nature of the users. Her aim was to capture the contested and complex nature of these spaces by documenting and representing the material appropriations of space by the users. They follow certain architectural drawing conventions yet are detailed drawings that depict the materiality and minutiae of everyday objects. The drawings also indicate the relative scale of the space and point to the importance of smaller nested spaces for the inhabitants created through ephemeral and material appropriations.

Landscape architect and academic Jane Wolff's body of work explores the discursive relationships between drawing and language. Wolff writes that acuity is linked to vocabulary and the lack of a nuanced and shared language limits public discourse.¹⁵ Her projects *Bay Lexicon*¹⁶ offers a working, place-based language paired with annotated drawings of the San Francisco Bay to provide a nuanced understanding of the changing landscape of the bay. Through a similar pairing of drawing and vocabulary, *Delta Primer: A Field Guide to the California Delta*¹⁷ offers a complex reading of a landscape that layers the natural, and the cultivated. The relationship between images and words are explored in such a way that they easily translate from books to a deck of playing cards¹⁸ and exhibition of works¹⁹ which has led to a broad dissemination of the work. Occupying the public domain in this way has meant Wolff's work has helped decipher and make visible typically invisible landscapes through a shared vocabulary to strengthen the quality of public debate.

The Focus on Plans

The plan seems to be a recurring element or device throughout much of this creative work. As architects we're trained to gaze from above, and even as we engage in immersive methodologies on the ground, we soon return to that vantage point to make sense of things. Peter Blundell Jones in his essay 'Is the Plan Dying?' identified the usefulness of the plan through its suggestion of hierarchy and the relationship between spaces, between objects in space through which you can deduce social relationships.²⁰ We can add to that a sense of scale, dimensionality of space and I argue this has use in socio-spatial research.

For example, in one of my projects in Pettah, an intense area of informal urbanism in Colombo Sri Lanka, I identified a graded spatial sequence between the public and the private, accommodating multiple scales of commerce, goods and services and social networks at different socio-economic levels of consumption. The formal shop spaces sell higher end goods, and informal sellers (from surrounding underserved settlements) occupy the steps and niches of existing shop facades and sell complementary but cheaper goods. Even within the shops, the higher end goods are kept higher in shop levels, progressively getting cheaper as it gets to street level. It was revealed that importers sell excess stock to the informal street sellers who try to sell it off for a small profit. They often borrow money in the morning from lenders and attempt to pay it back by the end of the day. They position themselves in proximity to the formal shops to borrow or even intercept their client base. The depiction in plan form allows me to illustrate these adjacent relationships.

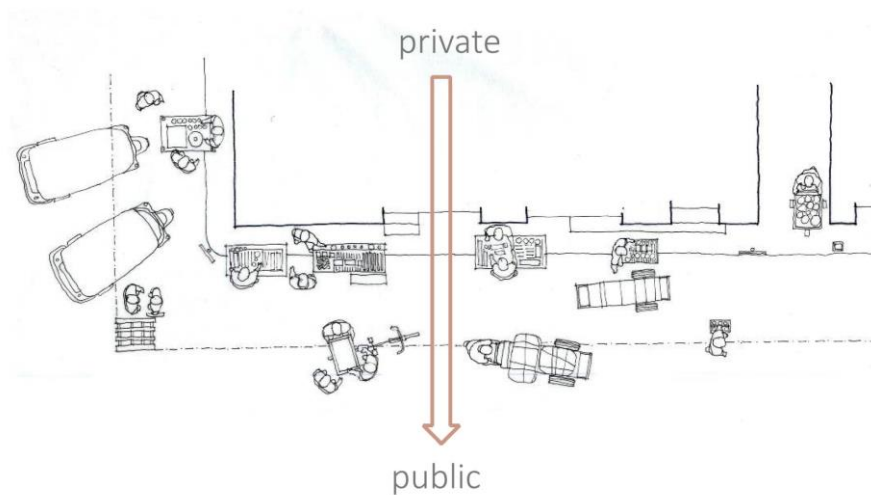


Figure 2. The plan form allows depiction of adjacent relationships by Kelum Palipane and Pulina Ponnampereuma

Observations across time showed that in the morning, nothing is here and early each morning, goods are unloaded from small vehicles, small scale infrastructure pieces that act as display stands are brought in from adjacent shops and arcades where they've been stored overnight. The use of these props is interesting. They're not merely micro-infrastructure that are used for the display of goods but act to define boundaries/territories. For example, this wooden pallet extends the boundary of the footpath forming a new edge to the street expanding the footpath and thereby the usable space for the sellers. At the end of the day this is all dismantled and stacked where possible, in façade niches and sometimes in the shops. Others are taken away. Interwoven with the permanent and temporary builtscapes are also wholly mobile groups of sellers using push bikes or hand-pushed carts for high manoeuvrability. They usually carry perishable goods – pickles, chickpeas, fried snacks, fruits that need to be prepared daily. They play a significant role in servicing the shopkeepers and temporary sellers. Packed lunch packets and tea in a small caddy are delivered to shop staff. Then empty glasses are collected by someone to be taken back and washed to be used again. These mobile vendors respond to fluctuating urban rhythms that are linked to school and office opening/closing hours, shifting demographics in the space across time, and to the weather conditions. Street porters form perhaps the most tenuous of these layers of mobilities. They are day labourers responding to immediate conditions of the wholesale markets. The plan view enabled me to anchor subaltern and minority occupations of space which rely on ephemeral material appropriations that track across time.

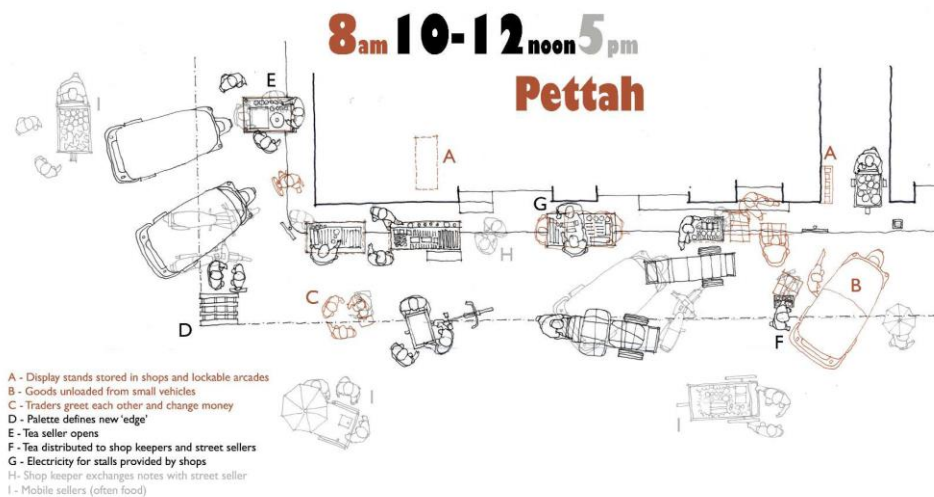


Figure 3. The plan view anchors subaltern and minority occupations of space which rely on ephemeral material appropriations that track across time.

Further illustrating the use of plans is the project *Living with Smoke* by Indonesian researchers Kristanti Paramita, Yandi Yatmo and Diandra Saginatri.²¹ It explores the experience of living with smoke in traditional fish smoking dwellings in a neighborhood in Central Java, Indonesia. The drawings, primarily plans, depict the material systems of smoke, the fluctuating behavior of smoke and associated bodily maneuvers and material responses to it. The plan has been used here to anchor a materiality that is fluid and temporal.

From photo-realism, to focusing on underlying relationships, to inserting conceptual meaning

In the following work I focus on the ways that migrants mobilise familial culinary traditions for building ontological security in new environments.²² Firstly, it captures how I've arranged and grouped things in my kitchen that simulate my mother's own arrangements. These sub-assemblages of items - a bowl holding bulbs of onions and garlic, the drawer full of spices and aromatics, and the kitchen sink with a grinder, rice cooker crowded around it- form points of reference around which my spatial movements primarily occur. It sits at odds in a kitchen designed according to the 'work triangle' a concept developed and touted for efficient kitchen design in the US in the 1940's where the reference points were the sink, stove, and refrigerator. An overlaying of spatial movements and their durational aspects across the two kitchens also reveal also an implosion in movement possibilities and of reach. My mother's kitchen allows for a seamless expansion outdoors into a covered verandah and appropriation of the floor for messy chopping and preparation. This conceptual diagram that overlays the two kitchens makes apparent the collapsing of spatial possibilities, of temporalities (in a durational sense), and also, of status during my migration journey.

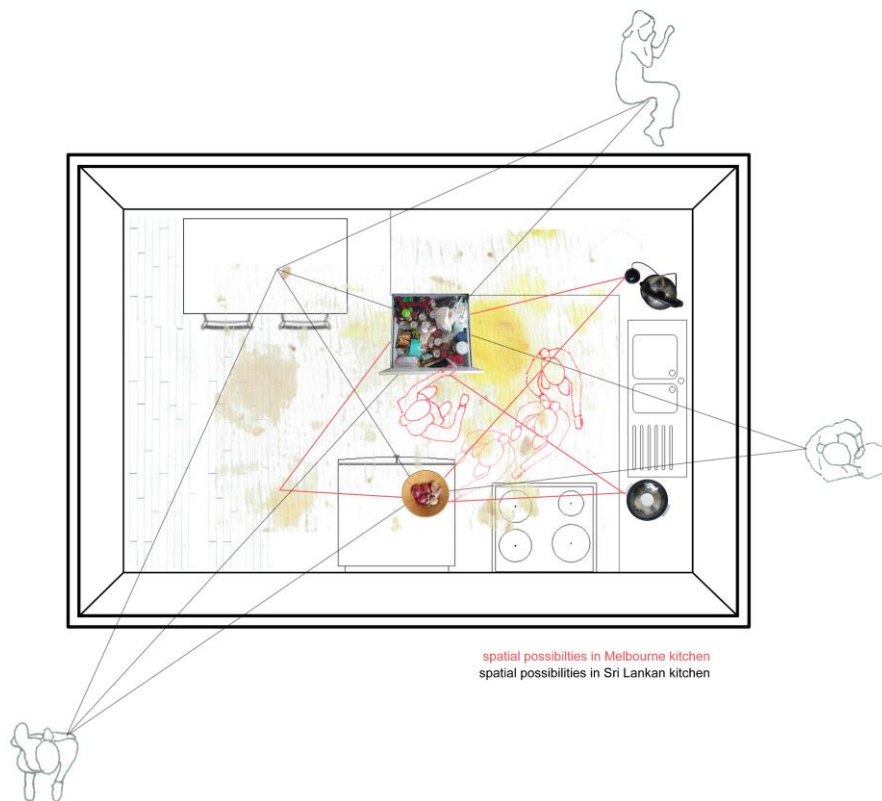


Figure 4. The conceptual diagram illustrates the collapsing of spatial possibilities, temporalities and status by Kelum Palipane

The examples of my work I have showcased here see a shift from direct photo-realistic representation to drawings that reveal underlying relationships, then to this last diagram where it is no longer about representation but the idea of inserting conceptual meaning. There are ethical implications, where on the one hand there is de-identification of participants and research subjects but on the other hand there is an essentialising of the subjects and an erasure of their subjectivities, and attribution. I am also inserting myself through my interpretation into the research site. This is concerning because of the unequal power relationship between the researcher and the researched. However, Tayob argues that by shifting from representation to analysis and then conceptual interpretation, it becomes a critical reading of place.²³

CONCLUSION

The selected creative works discussed in this essay revealed that visual methods underpinned by architectural techniques can document and decipher complex place-based phenomena. The plan drawing in particular, emerges as a recurring device that captures hierarchy, scale, relationships between spaces and objects in space, through which you can illustrate social relationships. They also have the potential to anchor situated knowledge that can be fleeting and ephemeral – the examples showed that this could be ephemeral material appropriations associated with how subaltern and minority groups occupy space, to fluid materialities, and occupation across time. While the inscriptive practices of architecture – drawings – can articulate the contextual, material and formal detail of place-based, socio-spatial phenomena, shifting from photo-realistic representation and inserting conceptual meaning allows for a critical reading of place. With such critical capacity, creative practice

scholars have an important role to play in countering a precarious present that erases particularities of place.

NOTES

- ¹ Sarah Pink, *Doing Sensory Ethnography* (Sage Publications Ltd: London, 2009).
- ² Henri Lefebvre, *Rhythmanalysis: Space, Time and Everyday Life* (Continuum: New York, 2004).
- ³ For details of methodology see Kelum Palipane, "Multimodal mapping - a methodological framework," *Journal of Architecture* 24, no. 1: 91-113. doi:10.1080/13602365.2018.1527384
- ⁴ Pink, *Doing Sensory Ethnography*, 136.
- ⁵ Marion Wettstein, "Ethnographic Drawing," *Marion Wettstein.com*, accessed February 14 2024, <http://www.marionwettstein.ch/ethnographic-drawing/>.
- ⁶ Ray Lucas, *Anthropology for Architects: Social Relations and the Built Environment* (Bloomsbury Visual Arts: London, 2020).
- ⁷ See <https://www.03-flats.com/>, https://www.youtube.com/watch?v=ZYtBmE4_Qrk
- ⁸ Lillian Chee, *Architecture and Affect: Precarious Spaces* (Routledge, 2023).
- ⁹ Chee, *Architecture and Affect*, 65-71.
- ¹⁰ Chee, *Architecture and Affect*, 161-167.
- ¹¹ Chee, *Architecture and Affect*, 247-253.
- ¹² Chee, *Architecture and Affect*, 247.
- ¹³ Huda Tayob, "Subaltern Architectures: Can Drawing "Tell" a Different Story?," *Architecture and Culture* 6, no. 1 (2018): 203-222, DOI: 10.1080/20507828.2017.1417071.
- ¹⁴ Tayob, "Subaltern Architectures," 204.
- ¹⁵ Jane Wolff, *Bay Lexicon* (McGill-Queen's University Press, 2021).
- ¹⁶ Wolff, *Bay Lexicon*.
- ¹⁷ Jane Wolff, *Delta Primer: A Field Guide to the California Delta* (William Stout Publishers, 2003).
- ¹⁸ Wolff, *Delta Primer*.
- ¹⁹ Bay Lexicon: Jane Wolff's writings guide visitors on a walk along San Francisco's waterfront., *Exploratorium*, accessed March 1, 2024, <https://www.exploratorium.edu/exhibits/bay-lexicon>.
- ²⁰ Peter Blundell Jones, "Is the Plan Dying?" in *Visual Research Methods in Architecture*, eds. Igea Troiani and Suzanne Ewing (Bristol: Intellect, 2021): 35-42.
- ²¹ Kristanti Dewi Paramita, Yandi Andri Yatmo and Diandra Pandu Saginatari, "Living with Smoke: A Fluid Domestic Environment," *Home Cultures* 19, no. 2 (2022): 79-102, DOI:10.1080/17406315.2022.2115753.
- ²² Anoma Pieris and Kelum Palipane, "'Persistent' Migrant Kitchens: Spatial Analogies and the Politics of Sharing," *Australian Feminist Studies* 37, no.112 (2022):169-187, DOI: 10.1080/08164649.2023.2199909.
- ²³ Tayob, "Subaltern Architectures."

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MIZORAM'S TRANSITION AS INDIA'S GATEWAY TO SOUTHEAST ASIA: CHALLENGES AND OPPORTUNITIES

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INTRODUCTION

As per the latest report on tourism from United Nations World Tourism Organization (UNTWO), by the first quarter of 2023, the international tourist arrival, worldwide, has reached 80% of the number it was before Covid-19 Pandemic. It was about 66% (about 960 million tourists) in the year 2022. This shows a steady upward growth in tourist influx after pandemic, which is favorable for tourism development, tourism researchers and tourist locations.¹ Mizoram, a north-eastern state of India, has also seen increase in domestic and foreign tourist arrival in the year 2022-23, the number stood at 2,18,000 and 3500 respectively. Mizoram, with its diverse and pristine landscape, adventure tourism and vibrant cultural tapestry, has been a magnet for tourists.² Its tourism potential has been compounded by the government projects, which aim to increase the country's international connectivity, consequently making Mizoram one of the nodes in this international network. India's 'Act-East' Policy aims to promote economic cooperation, cultural ties and develop strategic relationships with countries in the Indo-Pacific region through continuous engagement at bilateral, multilateral, and regional levels. The Kaladan multimodal project launched under the Act-East Policy,³ targets at connecting Myanmar's Sittwe port to India's Kolkata port and developing a road connectivity through Lawngtlai district in Mizoram, India to Paletwa in Myanmar. Another proposal for trilateral highway between three countries India-Myanmar-Thailand was proposed in 2002 in Yangon during a ministerial meeting.⁴ Also, in a press release in Mizoram on 16 December 2017, the Prime Minister of India addressed Mizoram as the 'soon to be the gateway to southeast Asia'.⁵ These policies and proposals reinforce the opportunities for Mizoram to be a thriving tourist destination, thereby making sustainable tourism an indispensable part of Mizoram's development.

Strong community bonds and the presence of Civil Society Organisations (CSOs) as resource mobilising agencies have been important assets in the development of Mizoram. These civil societies and their effectiveness find their philosophical origins in the traditional concepts of 'Tlawmgaina', 'Hnatlang' and 'Zawlbuk' hut. 'Tlawmgaina', which is the core belief of the Mizo group (people of Mizoram), can be broadly described as 'in service for others' i.e. voluntarily working for social welfare. 'Zawlbuk' is the place for gathering and teaching youth the skills to build homes, protect the village, learn traditional skills, and have entertainment. 'Hnatlang' which means community service/ community work is another principle followed by the community till present.⁶ The Young Mizo Association (YMA) with other CSOs account for the cohesiveness of the Mizo group. In common parlance, it is often termed as parallel government. During the worldwide Covid-19 pandemic, the

performance of YMA in actively taking charge and devising local task force has been evident in helping poor and families in need by providing essential items.⁷ YMA successfully controlled the spread of disease throughout the lock down period.⁸ The existence of civil societies and the social capital inherent in these groups has been crucial in the development of Mizoram. This cultural heritage embedded in organisations like YMA, Mizo HmeichheInsuihkhawm (MHEP), woman self-help organisation, Kristian Thalai Pawl (KTP), Mizoram Upa Pawl (MUP) which is an elders group, Mizoram Zirlai Pawl (MZP), and many more groups, have played important role in overall development of state through various developmental activities.⁹ These have brought the masses together for social service, drug abuse eradication and teaching daily hygiene practices through local newsletters. The YMA has helped in policy analysis, built social capital, enabled people to articulate their values and belief systems, encouraged participation in public affairs and spoke for the marginalised section of society.

Sustainable Development Goals number 8, number 12, and number 14 altogether defines the requirements of carefully utilising natural resources, encouraging conservation, creating livelihood for local communities while also promoting intangible and tangible heritage. All of these components are part of sustainable practices at local level for economic, environmental and social development.¹⁰ The tourism industry can be a positive force to protect and maintain the natural resources and help the local economy or it can be negative, which exploits and depletes the resources. It can lead to deforestation as well as it can lead to reforestation efforts, if planned properly.¹¹ Alternative types of tourism like rural and eco-tourism, which are subheads under sustainable tourism, have significant role in economic development of the area.¹² It naturally promotes sustainable use of resources, and protection of cultural heritage and environment. Feyers, Stein, and Klizentyte stated that ‘Tourism exists within, and in most cases is dependent upon, the environment in which it is located’. Tourism can project invisible burdens on the environment while industry is trying to gain economic benefit.¹³

This study investigates the opportunities and challenges that the civil societies, particularly YMA, face in Mizoram while implementing sustainable tourism practices. This investigation is of much importance as Mizoram is steadily progressing toward becoming a global space rooted in local culture. The study explores components of sustainable tourism to assess the effectiveness of YMA in pursuit of sustainable tourism for transforming Mizoram into global space. The study is based on a primary survey of two villages in Mizoram which implemented sustainable tourism concept named Ailawng and Reiek. Select indicators have been assessed through focus group discussion and unstructured interviews. These indicators deal with local satisfaction with tourism and community participation in tourism (social sustainability), protection of natural assets, managing scarce natural resources, limiting impacts of tourism (environmental sustainability), capturing economic benefit from tourism (economic sustainability). These two eco-tourist sites have various civil societies that formed eco-tourism groups and managed the operation and maintenance of these sites without any additional support from state. The challenges and opportunities are assessed for the civil societies working in the state.

CONTEXT OF MIZORAM

Mizoram is a bordering state in the northeast region of India and falls under lower Himalayan ranges. The area is 21,081 sq. km., with a population of approximately 12.38 lakhs, based on population projection.¹⁴ It shares two international borders with Myanmar in the east and Bangladesh in the west. Mizoram was earlier called Lushai Hills district, which by the Act of the Parliament (Act No. 18 of 1954), was renamed as “Mizo District”; Mizoram then became a union territory with implementation of North-eastern Areas Act 1971. With the Constitution’s 53rd Amendment Bill and Mizoram State Bill 1986, it became the 23rd state of country.¹⁵ In 19th century, under the influence British

missionaries, majority of Mizo tribe profess Christianity followed by Buddhism later.¹⁶ The main occupation of Mizoram is agriculture. It has the second highest literacy rate in India.

Tourism in Mizoram

India is looking forward to developing its sustainable and responsible tourism sector. The Ministry of Tourism India has launched Sustainable Tourism and Responsible Traveller Campaign (Swadesh Darshan 2.0) in June 2022 and launched a National Strategy for Sustainable Tourism 2022.¹⁷ Mizoram is trying to encourage the possibilities in the tourism sector through different schemes of Government of India. There are about 53 protected monuments and sites in Mizoram, 11 wildlife sanctuaries and very diverse landscapes in different districts to be promoted as various adventure sports. The State is endowed with natural beauty and grandeur, forests, rivers and mountains, as well as calm, pleasant, and comfortable atmosphere that is ideal for all types of tourism.¹⁸ In the ‘National Best Tourism Village Competition 2023’ launched by the Ministry of Tourism, village Reiek in Mamit district of Mizoram was awarded Gold category along with 4 more villages from across country.¹⁹ After the B20 conference of the India’s G20 summit, the Mizoram tourism envisioned to become a safest and most sustainable tourist location in the country.²⁰ Promoting local tourism and empowering local communities was one of the emphases of G20 summit. Since the biggest challenge in the northeast India has been connectivity, harnessing technology in tourism, and development of infrastructure is prioritized by the Mizoram government.²¹

Civil Society and its role in various activities in Mizoram

Today involving people is vital for the success of any plan, policy, mission, rule, or regulation. Whether it's a government agency, planning authority, or implementing organization, their goal is to engage the public at every stage, from decision-making to implementation. Voluntary organizations, where people come together for a common goal, play a crucial role in this matter. The concept of civil societies has been discussed by various influential theorists throughout history, including Marx, Neo-Marxist theorists, and recently Robert Putnam. Neo-Marxists, such as Gramsci, perceived the term more positively; according to him, civil society consists of value systems, beliefs, customs, and concerns that relate to the people. Theorists Tocqueville and Oommen call it ‘secondary power’, parallel to the state.²² Such organizations ensure good governance through a well-defined functional domain, possess adequate resources, and ensure accountability and transparency when performing their functions.²³ Civil society plays a pivotal role in mobilizing social capital,²⁴ which, according to Robert D. Putnam, means "the features like trust, norms, and networks of social organizations,"²⁵ that are found in any community.

In Mizoram various organisations can be termed as civil societies such as YMA - a non-governmental public group, churches of various statures, youth groups - Local Youth Christian fellowships, MHEP - women self-help group etc. Awareness about HIV, awareness on drugs and AIDS, successful elections are also function of youth groups in Mizoram at local level.²⁶ The civil society group’s performance during the worldwide pandemic was also noticeable. The death rate because of Covid-19, in the State of Mizoram was least amongst all Indian states.²⁷ This was made possible because of the Task Force which was formed for the prevention and containment of outbreak and spread of Covid-19, by the Health and Family Welfare Department of Mizoram. The organizational structure of Task Force made for fighting Covid-19 is illustrated in Figure 1. The task force was successful in the state because of active participation of various civil societies along in tandem with the administrative departments.

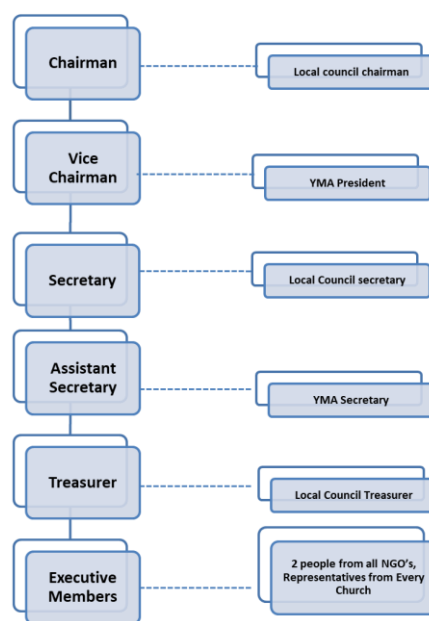


Figure 1. Structure of Local Task force formed during Covid-19.

COMPONENTS OF SOCIAL CAPITAL IN THE CIVIL SOCIETIES

Based on the study on community participation and social capital, Thammajinda summarised social capital as total of potential resources shared mutually between networks of institutionalised connections, connection between individuals, network and norms of reciprocity and trust based on theories of Bourdieu and Putnam. They also posited that this trustworthiness among individuals will accomplish more than the community where trust does not exist.²⁸ Civil societies construct social capital, trust amongst people, and coagulate shared values which help in political setting and hold the society together. However, they cannot act in isolation from the government machinery; it demands a group of people with shared belief and value system based on strong social capital. Thus in Mizoram, civil society through the social capital can play a vital role in potential sustainable tourism development in Mizoram.

There are four components of social capital trust, sense of belongings, norms, and networks. According to the study, trust amongst members of society works in two ways, one is horizontal social relations (relation between society and interaction among community) and vertical social relations (relationship between society and government).²⁹ The relation between government and local stakeholders can be strengthened with the help of common platforms such as a tourism forum where the suggestions from stakeholders are taken for the development of tourism in area. The second component is sense of belonging, includes community endorsement, solidarity, unity, and cooperation with others.³⁰ Being in a faith-based community, Mizoram also qualifies for having a sense of belonging in its residents. The villages in this study Ailawng and Reiek have small population of Mizo people 765 and 1100 approximately. Their tangible and intangible heritage is associated with Mizo culture and the Mizo language binds them together, their ethnicity and cultural values are common. Community participation through the eco-tourism society and Tourism board strengthens their sense of belonging. The third component of social capital is norms,³¹ which means general rules or habits of members of society. These are unwritten results of mutual agreement on the same belief system. So, their expected pattern of behavior in social interaction is pre-determined. These are not

created by government but by the traditions, history, or community leaders. In Mizo society, as per the traditional concept of ‘Hnatlang’, the members of society are expected to contribute labour for the welfare of the community. So, the natural resources in both villages are voluntarily protected as a norm. The trekking route is cleaned occasionally, and the natural streams of water are kept unharmed, as a practice, by locals. Lastly network is the fourth component of social capital³² and it is in line with the characteristics and orientations of the civil societies (AVEDSOC and Tourism board). Both groups from two villages have members from traditionally formed groups like MHEP, MUP, MZP, YMA etc., having shared belief system, which makes them more cohesive, as these networks have existed from before as a bonding agent.³³

SUSTAINABLE TOURISM, INDICATORS AND THEIR RELEVANCE

The tourism industry can be a positive force to protect and maintain the natural resources and help the local economy or it can be negative, which exploits and depletes the resources. Alternative types of tourism like rural and eco-tourism, which are subheads under sustainable tourism, have significant role in economic development of the area. The rural and eco-tourism depends largely upon location, natural resource, vernacular heritage, local culture, and human resource.³⁴ The significance of Sustainable Tourism Indicators has been acknowledged by researchers. Sustainable tourism cannot thrive if not monitored. It’s impacts, positive or negative, needs to be managed carefully. Many researchers worked on finding suitable indicators for measuring impacts and analysing various sets of issues and indicators covered under those aspects. These indicators help the decision makers and tourism managers and also help in precautionary measures from tourism activities.

The National Tourism Policy 2022 has identified some pillars of sustainability to be developed. Based on the pillars of sustainability the indicators are shortlisted. The list is as follows.

- Promoting Environmental Sustainability,
- Protecting Biodiversity,
- Promoting Economic Sustainability,
- Promoting Socio-Cultural Sustainability³⁵

Based on above considerations and based on the indicators listed in the work of Anna Torres-Delgado and Jarkko Saarinen,³⁶ the two villages namely Ailawng and Reiek (location in Mizoram is shown in Figure 2) have been selected to test the indicators shortlisted below. Information has been collected through unstructured interviews and Focus Group Discussions (FGDs) with the eco-tourism society and village council members (Government Administrative body).

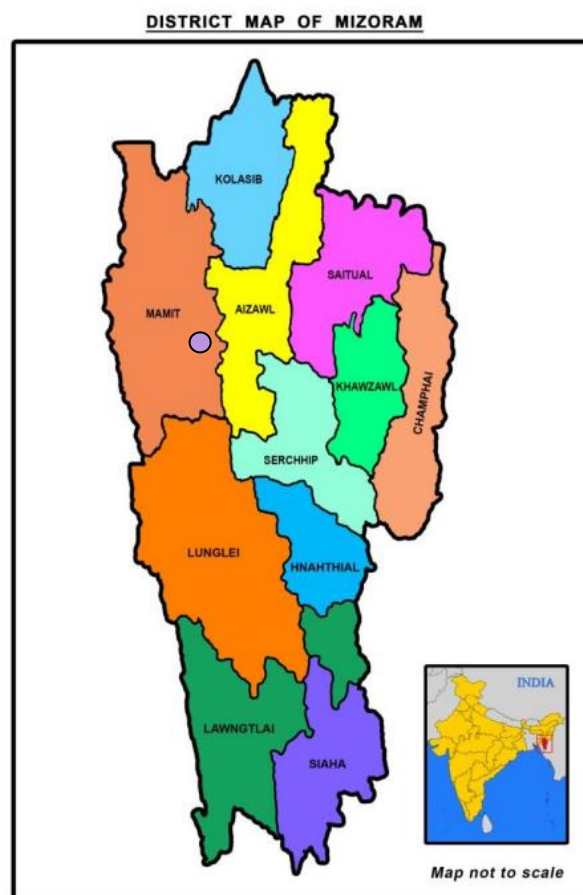


Figure 2. Map of districts of Mizoram.

Source: <https://dms.tiss.edu/jspui/bitstream/123456789/317/5/MIZORAMstateprofile.pdf>

● Reiek and Ailawng

Ailawng Village

Ailawng Village is located near to the state capital Aizawl. It has scenic beauty, caves, hiking sites and waterfalls. The AVEDSOC is present in the village and had received one-time funding from Environment Forest and Climate Change Ministry (EF and CC Ministry) for 2 phase development of the village in terms of eco-tourism. In the first phase a memorial, a tourist café, cable bridge etc. were made and second phase was dedicated to training of AVEDSOC members and renovation of existing buildings. During FGD with society members, information of AVEDSOC was collected. The society consists of 30 members, of which 5 elected office bearers are the chairman, vice chairman, secretary, assistant secretary, and treasurer. Rest of the members works voluntarily and is members of various CSOs of Mizoram such as MHEP, MUP and other active members from village. Figure 3 shows inaugural day of AVEDSOC and the community hall at the back where meetings for AVEDSOC are held.



Figure 3. Inauguration of AVEDSOC in Ailawng (2017).



Figure 4. Site for tent hiking maintained by AVEDSOC.



Figure 5. Zokhua sample village.

The site they have developed under this initiative is used for tent hiking (Figure 4), and the tents and basic toilets are provided at the site. Water is bought by society as there is no formal connection of water on the site. The cleaning of the site, trekking route (Figure 7) and cave (Figure 6) is done through volunteers from society from time to time. The funds are raised by the fees they receive from the site for hiking. The objectives are to promote tourist attractions in Ailawng, promote local crafts, protect wildlife and forests in Ailawng, and provide employment opportunities to Ailawng villagers

through eco-tourism. Zokhua, sample village is made and maintained by the same organisations (Figure 5).



Figure 6. AVEDSOC maintains such type of cave located at Ailawng.



Figure 7. Trekking route maintained by AVEDSOC.

Reiek Village, Mamit District

Reiek is one of the highest peaks near Aizawl city (25 km and about 1200 m above sea level) and one of the famous tourist locations. Reiek has one Tourist Resort under Tourism department, but part of the premise has entry to trekking route, one sample village, children's park, one community hall, shooting range etc. So, the premises are maintained by a civil society named Tourism Board Reiek. Also, the management of tourist resorts takes help from local volunteers. Some activities are even based on annual bond for locals for employment such as taking care of tents and management of hiking site and toilets. Apart from this maintenance of cleanliness of Reiek village, beautification of retaining wall on the way to trekking site, maintenance of roads are the activities of tourist board in Reiek. A sample village is maintained in Reiek village as well with several types of huts for different occupations (Figure 8). A Mizoram Government Resort (Figure 9) is maintained in the village from where the trekking and adventure sports start.



Figure 8. Zawlbuk, type of traditional hut.



Figure 9. Cottage in Tourist Resort.

ISSUES AND INDICATORS

The issues and indicators listed here are shortlisted from the guidebook on ‘Indicators of Sustainable Development for Tourism Destinations’ published by WTO.

Issue and Indicator analysed	Ailawng	Reiek
Local satisfaction with tourism	<ul style="list-style-type: none"> • 50 % of people are benefiting from tourism. • No of people involved in local Art and Crafts. 	<ul style="list-style-type: none"> • 30% of population is benefiting from tourism directly in Reiek. • No of people involved in local Art and Crafts.
Community participation in tourism	<ul style="list-style-type: none"> • One community for eco-tourism in Ailawng. • The eco-tourism community AVEDSOC meetings take place every 3 months. • The information is spread through annual even and society meetings. • The Information is advocated through Sign boards. It is not on the tourism website. 	<ul style="list-style-type: none"> • Local church elder (MUP) and some volunteers help the tourism department in tent hiking with formal bond for a year. • The Tourism Board Meetings takes place every month. • The information is spread through meetings only. • Information is not advocated by any mode.
Capturing economic benefit from tourism	<ul style="list-style-type: none"> • No full-time jobs in Ailawng related to Tourism. • Tourist Season is from August-February (7 months' peak season) • About 50 people know the traditional art of Bamboo Hut making. 	<ul style="list-style-type: none"> • Some Roadside food joints stays occupied whole year. • Very less full-time jobs in Reiek. • Tourist season is from September – February (6 months) • March-May is less tourist arrival rate. • June-August is off season
Protection of natural assets	<ul style="list-style-type: none"> • No of people involved in protection of Natural assets are mostly whole village. 	<ul style="list-style-type: none"> • No of people involved in protection of Natural assets are mostly whole village.
Managing scarce natural resources	<ul style="list-style-type: none"> • Water source is natural above ground streams for the site. • Water shortage months are 6 months from Nov-Apr • Water price if 300/- per thousand litres of water. • The water quality is very good and never harmed any tourist. 	<ul style="list-style-type: none"> • Water source is natural streams for the site. • There is no shortage of water as the stream is always running. • The water quality is very good and never harmed any tourist.
Limiting impacts of tourism	<ul style="list-style-type: none"> • Solid waste is collected twice a month from trekking trails, hiking site etc. • There is no Air or Noise pollution in the village 	<ul style="list-style-type: none"> • Solid waste is collected twice a month from trekking trails, hiking site etc. by Tourism Board Reiek (Civil society in Reiek) • There is no Air and Noise pollution in the village or tourist site.

Table 1. Issues and Indicators Analyzed for Ailawng and Reiek

Most of these indicators are looking into community involvement in the sustainable tourism activities in the villages of Mizoram.³⁷

DISCUSSION

In both the villages, the civil society groups AVEDSOC and Tourism Board Reiek, consists of members from YMA, MHEP, MUP, MZP by default. It shows the active involvement of civil societies in success of eco-tourism. These chosen issues and indicators meet the criteria for sustainable tourism because of the networks and trust that the village people have developed through participation in these groups. With assistance from the village council, the local government, issues, and indicators pertaining to the management of limited natural resources are addressed. The Public Health Engineering Department (PHE) provides water supply during the three months when it is insufficient. Under the issue of capturing economic benefit from tourism, the villagers are employed for small activities such as managing tents and levying fees from the same and giving it to tourism board, maintenance of sample villages. Community participation in tourism is ensured as solid waste is collected by sanitation workers from state government employed under ‘Swaccha Bharat Mission’ from trekking routes. All the above activities are made possible as civil societies have efficient information sharing networks. The meetings in both the groups are regular amongst the members. With adequate policy framework at local level, such organizations can overcome challenges listed here and make use of the opportunities, through the civil societies.

Challenges

- Language – out of the two social groups in two villages, only 30% in Reiek and 10% in Ailawng can speak English, which is the common language for communication in the state.
- Food –People are not able to adapt to the culinary needs of the tourists.
- Local transportation – both the locations are 20-30 Km from the city center. And after reaching there is no mode of local transportation. Only private taxis are available, which is not an affordable choice.

Opportunities

- The English-speaking people from the community can hire and teach more youth for the activities for eco-tourism, under Yuva Tourism club launched by the ministry.
- There is opportunity of income generation for the locals as tourist guides if properly trained.
- Locals can be trained more for tourism and hospitality and open food stalls/joints for income generation.
- There can be a platform for selling their local craft as a small shop along with these sites which board members can decide during festivals and peak tourist season.
- Their knowledge of craft and bamboo architecture skills which are used for vernacular building installations can be used for small workshops for design students and craftsmen from other places.

CONCLUSION

The study based on two major eco-tourism sites in Mizoram explores the involvement of CSOs working for implementation of sustainable tourism at village level. It involved the members of both civil societies and focus group discussions with them. While the indicators which are shortlisted has been tested in two villages, the communities working in both villages shows some characteristics of dependence on social capital because of shared networks and norms. Visit to these locations and pictures collected shows the picturesque beauty of this state. These organisations can take advantage from upcoming initiatives under ‘Travel for Life’ and ‘Dekho Apna Desh’ schemes launched by Government of India.

Initiatives like Yuva tourism club with adequate IEC, training on hospitality and culinary arts for such active organizations can go long way as the motivation already exists in such locations. Also, these two societies in two locations can channelise the existing knowledge of arts and crafts during the festivals and seasonal tourism. If the government provides specific funding for capacity building and asset generation as one-time investments, it can support the economic and environmental development of these organizations, which will increase their social capital. The ‘National Tourism Strategy’, which emphasizes sustainable tourism, can be successfully implemented in this area because it relies less on local government departments and more on public participation.

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DEFINING URBAN VOIDS FOR INDIAN CITIES, A CASE OF PUNE

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INTRODUCTION

Indian cities are multilayered entities that have been growing organically, devoid of any catastrophic events that were sort of witnessed in Europe during the World Wars. Hence to understand Indian cities, it is crucial to understand the growth of the city right from its roots. Various aspects influence the growth of the city, and its expansion creates various vacuums at the intersection of urban and suburban regions and neighbourhoods affecting their interaction. The differences in these interactions, along with the ideological or functional vacuums present in the city lead to the creation of urban voids. The voids exist as large vacant plots among large commercial developments or as smaller multipurpose residual spaces scattered in the dense morphology of the city. Starting with a basic definition of the term ‘Void’, we aim to redefine this term for Indian context by considering Pune as the case study for this research. The research attempts to understand this phenomenon which we call “voids”, by deriving a taxonomy that classifies the voids according to various growth patterns. The research considers influences of various local and global influences while deriving the taxonomy of voids as they affect the city’s growth and morphology. The research also aims to present a critical analysis of the value of these voids with the taxonomy being used as a reference to understand the voids in other Indian cities.

Research Questions

The research attempts to understand the definition of voids for Indian cities and to classify them into a taxonomy accordingly. The research considers a morphological point of view with socio economic and cultural influences.

The following are the main research questions:

- What is the definition of a void for Indian Cities?
- What value do these voids hold?

Methodology

The methodology through which the research has been conducted relies on the changing definition ‘Urban Voids’ and its evolution per varying scales i.e from Global to Local due to the various actors and influences involved. Figure 1. explains how growth patterns lead to the creation of voids in different contexts consequently leading the research towards adding to the existing definition of ‘Voids’ and supplementing it.

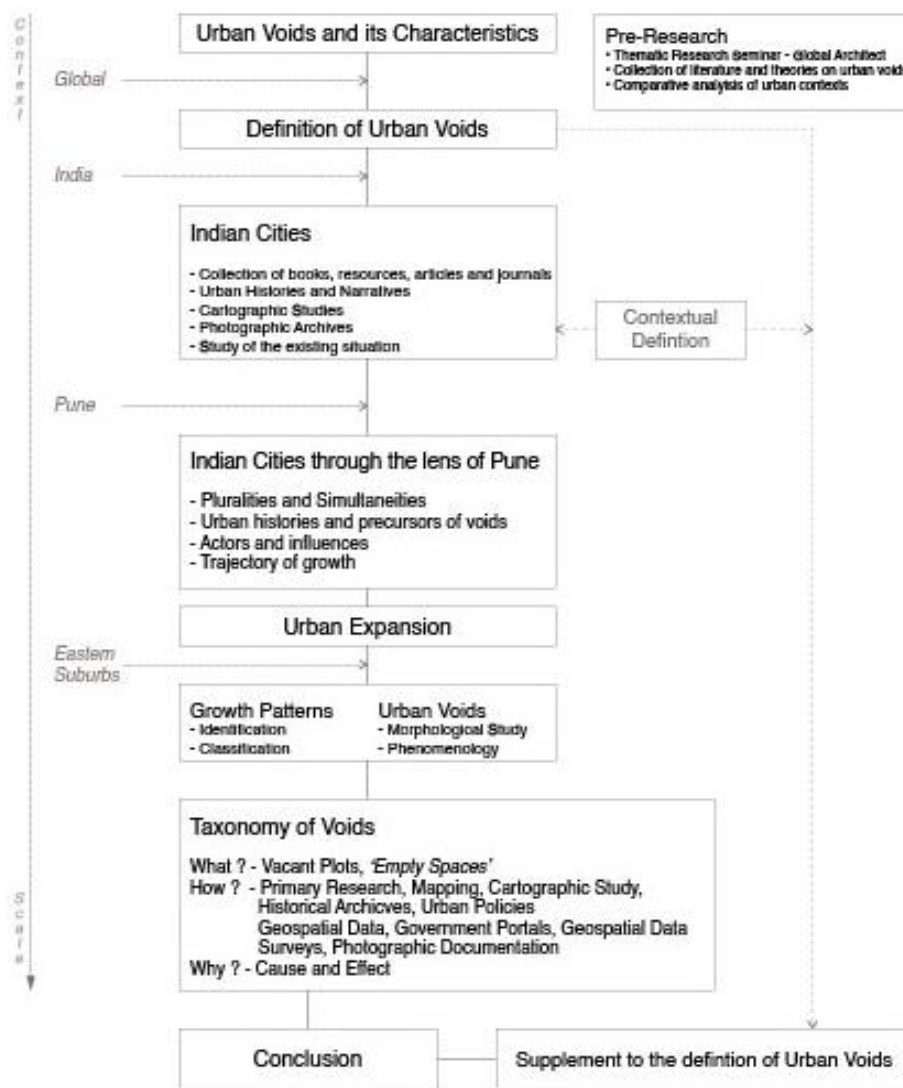


Figure 6. Methodology Source: Authors

INDIAN CITIES AND VOIDS

Colonial India, comprising provinces and princely states, retained cultural identities while fighting for an independent India, marked by ongoing urbanization despite a predominantly rural populace at the time of independence in 1947. The role of India's political figures, freedom fighters, princely states, and the migrating population was key in the changing urban landscape. Different ideologies coordinated or clashed with each other in different parts of the country. For example - Mahatma Gandhi strongly believed in and romanticized the rural life of India. His views remained largely uncontested except by some prominent leaders like Dr. B.R. Ambedkar and Pandit Jawaharlal Nehru. Ambedkar believed in the decentralisation of the villages and Nehru, the first prime minister of independent India, saw potential in the urbanization of Indian villages and towns as the key to building a new nation. One such example is Chandigarh where Le Corbusier became the transnational expert.¹

Thus, key figures in Indian history held diverse visions for representing independent India's ideology, leading to divergent approaches that influenced urban development and growth. A contextual

approach that responds to culture, climate and society was followed by the latter generation of architects like BV Doshi and Charles Correa who evolved from the bold visions of urban environment of Nehru and Le Corbusier. Termed under the umbrella of ‘Critical Regionalism’ by Kenneth Frampton.²

Consequences

The impact of these dualities in ideologies and identity was palpably visible in the policy statements contained in the early five-year plans. Hence, urbanization continued to be under-prioritized and not worthy of attention leading to a ‘haphazard’ growth of the cities. The narratives emerging from these dualities were responsible for some of the first gaps that appeared in the continuity of the Indian cities. Without a clear direction, cities grew beyond their limits by embracing selective and convenient narratives from a pool of choices, instead of following a single or a strong ideology. The definitions of towns and cities were constantly amended during the census every ten years, due to the rising population and the changing landscape of rural India as mega-cities were already facing the challenges of migration, slums, and unplanned urbanization.³

However, the growth of diversity and cultural enrichment was also seen in urban areas enabling the inhabitants to create a unique environment for themselves that differs from any adjacent settlements or a city. Thus, backed by regional and cultural context and with the aid of architects and urban designers across India shaped themselves into the blend of narratives that we see today. While some cities progressed on the ideologies they were founded on, others turned the leaf to establish a new identity which was heavily influenced by various actors.

Understanding and Defining Voids

Voids in Indian cities, like the cities themselves, are multifaceted. This research focuses primarily on the physical voids in urban morphology and their abstract value in the urban context.⁴ Through the reading of various definitions of voids and literature of urban voids the authors express their understanding of voids and start the investigation on voids for Indian Cities. The nature of the definition of ‘voids’ and the abstract notions associated with them changes across different commercial, ecological or urban perspectives and scenarios. The term ‘void’ can be subdivided and categories that represent different ideas or spaces without naming them. For an urban void to be called so, it is important not to reduce its existence to a ‘name’.⁵

Definition of Void

A ‘void’ is not ‘emptiness’, but voids can be described as spaces without the prevailing identity or ideology that the city represents. The ‘phenomenon’ this thesis focuses on is the break in the continuity of the urban fabric which repeats and differentiates itself from its immediate context through function, spatial setting, or public perception. A void today may not remain a void tomorrow, and space within urban limits may transform into a void as the city grows based on several ‘actors’ that influence its existence. Spaces that are emptied of the existing ideology may facilitate a better understanding of the cities while unlocking the potential to support sustainable growth.

Pune

The research stages Pune as the object, to understand the trajectory of voids in India. Interpreting voids in an Indian city requires a historical perspective, tracing Pune's evolution from its origins to its present state. A parallel study identifies actors and influences shaping the city's identity today. The city's radial growth pattern facilitates the study of urban sprawl expansion in all directions, illustrated through cartographic and timeline analyses (Figure 2 and 3 respectively).

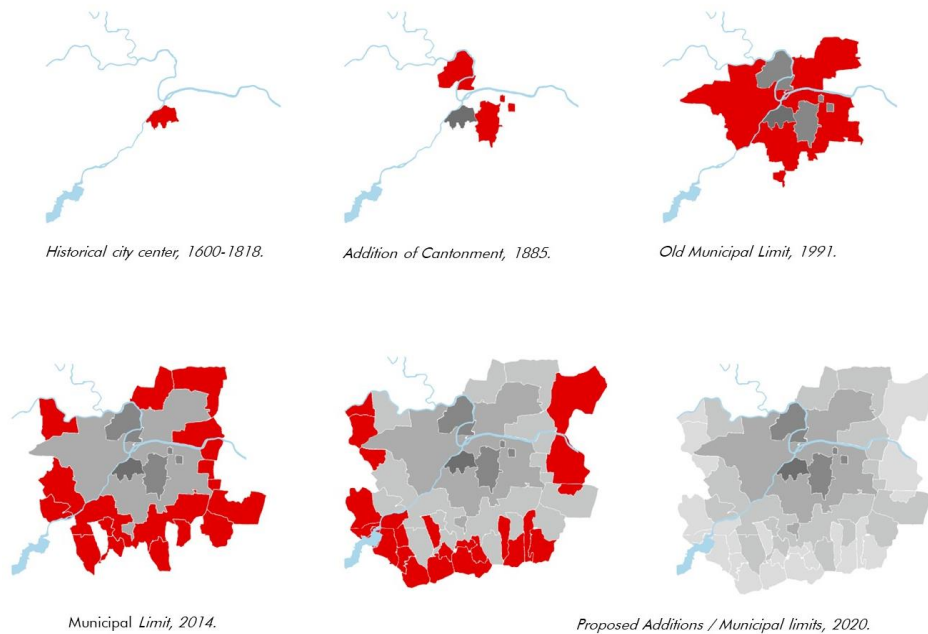


Figure 2. Cartographic Study - Growth of Pune. Source: - Developed by authors from historic maps.

Pluralisms and Coexistence: A History of Urban Voids

Pune's cultural, socio-economic, political identities have evolved over the centuries, making it one of the most livable cities in India.⁶ The “Cultural Capital” of Maharashtra, Pune rose to prominence during the rule of Peshwas and the Maratha Empire, and the unique architectural identity of ‘temple architecture’ trickled through to its present. This was followed by the colonial style of the 19th century during the British Raj. Over the past decades, a noticeable increase in youth population was seen due to Pune's rise as an educational and IT hub stimulating an influx of migrants looking for better employment opportunities.⁷

PHENOMENOLOGY OF VOIDS

Pune's simultaneous identities generate pluralities shaping the city's morphology. Each identity stimulates specific architectural styles or directional expansion, overlapping in zones of influence. This blend of identities serves as precursors to causes that manifest into voids. The historical transformation of Peshwai Pune that started with addition of military cantonment areas during the British Raj created the first voids that still affect the socio-cultural character of Pune.⁸ Post independence industrial prowess and influence of Mumbai transformed Pune into a bustling centre for trade and commerce spurring the development along the Pune- Mumbai Corridor. Suburban villages in the peri-urban, fringe areas began developing with a mixture of housing, agriculture, informal economy and addition numerous information technology and biotechnology parks due to population explosion. This demand has allowed private stakeholders to dominate the growth, though not necessarily in a sustainable manner. These differences laid the foundations of divergence from a uniform growth pattern, resulting in a multimodal expansion of the city's immediate peripheries and suburban areas.

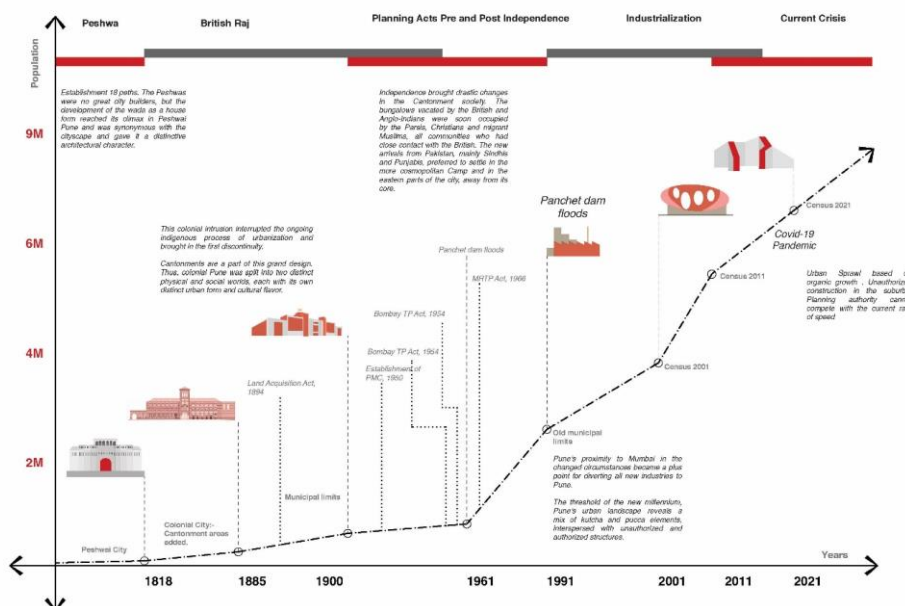


Figure 3. Timeline Study of Pune with important thresholds and its identities. Source: - Authors

Actors and Influences

To visually understand Pune’s expansion and urban growth patterns, the city was subjected to graphical cartographic analysis which became the first step towards understanding Pune’s expanding urban sprawl that saw a phase of spontaneous growth in ‘pockets’ along with major road networks, the river Mula-Mutha, and the surrounding hills.

Literature on Pune’s urban expansion reveals interconnections among actors influencing growth patterns, with overlaps contributing to void formation. Despite each actor possessing a distinct character, there are instances of overlap between their influences, leading to the formation of voids within the city. The distribution of the actors across the city is based on the prevalent functions they cater to in a particular suburb or “pockets”.⁹ The actors – global and local – can be subdivided into typologies based on how they interact with each other and the city. The circles in figure 4 represent the zone affected by a specific actor. Figure 5 attempts to investigate the interrelationship of various actors and the themes which get generated in the process are grouped in the different bubbles.

special economic zones. Proposed infrastructural additions aimed to support this growth, prompting modifications to urban limits to incorporate surrounding 'rural' areas into municipal limits due to their newly acquired 'urban character'.¹¹

Areas outside the jurisdiction of municipal bodies exhibit unsustainable growth patterns characterized by unauthorized developments, encroachments, and architectural discordance due to inadequate speed of planning authorities' response to rapid suburban urbanization. Consequently, pockets of urbanized spaces lacking infrastructure emerge, remaining underutilized, disconnected, and isolated from the surrounding urban fabric and Pune's heritage. Additionally, a shift in architectural styles, socioeconomic dynamics, and urban morphology is noticeable towards the eastern peripheries of Pune, attributed to the rising migrant population in suburban regions contributing to economic and cultural changes, influencing the city's socio-cultural fabric.

TAXONOMY OF VOIDS

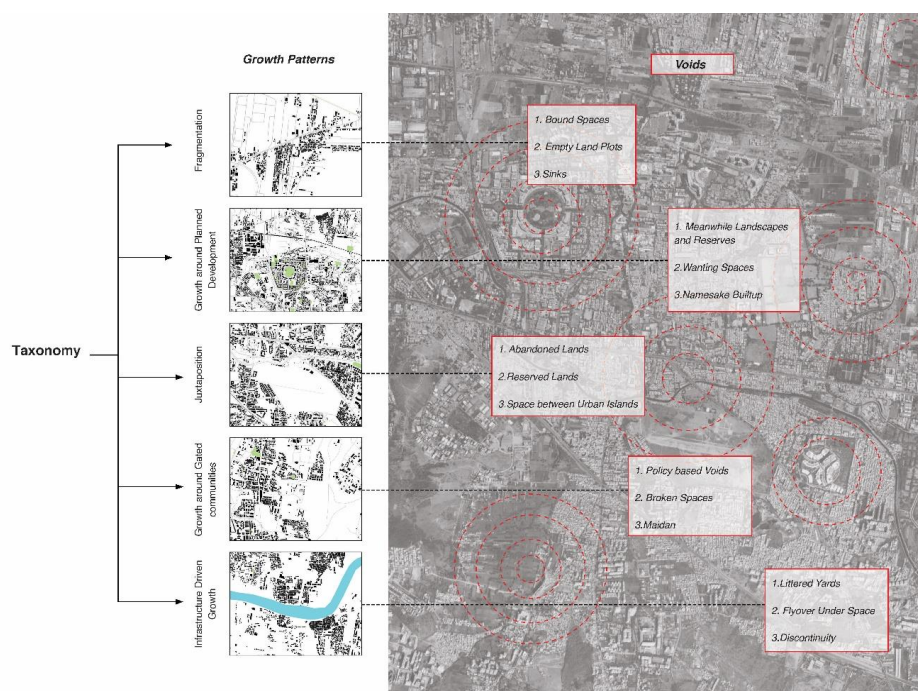


Figure 6. Taxonomy of Voids developed by Authors.

Through a taxonomy of voids, it becomes simple to categorise voids and understand their nature and the influence they create on urban morphology. Taxonomy simplifies the process of defining the voids, through their state of the art, potential. Considering these aspects, figure 6 is an attempt to define the voids using the taxonomy for the case of Pune's eastern suburbs, as well as other Indian cities that are facing the consequences of rapid urbanisation. The initial step in the taxonomy is the identification of growth patterns, ultimately culminating in the classification of voids. Urban voids, traditionally perceived negatively and associated with emptiness or 'nothingness'.¹² have also been found, through primary research, to possess positive attributes and potential value for the city.¹³

Voids due to Fragmentation

The division of family property and land holdings among the heirs of the next generation results in the fragmentation of land. Consequently, with each successive generation, there is a reduction in independent landholding that individuals possess, as plots continue to be divided among the children

of each landowner. This occurs at a morphological level, where the division of land results in varying rates of growth and development. The continuous change in land use patterns leads to the creation of "Bound Spaces," empty land plots, and "Sinks," which generate a lack of continuity within the urban fabric, causing irregular expansion that does not align with current needs and policies.



Figure 7. Fragmentation of land parcels. Source: Authors.

Voids due to Planned Development

Planned developments assert themselves either through their architectural styles or through the range of activities they can accommodate. The profitability of such projects and the employment opportunities they offer through various channels affect the physical and socioeconomic environment of their immediate surroundings. This creates voids such as "Wanting Spaces" that remain underutilized as they await the right moment or financial resources to proceed with the planned projects. Until such a time arrives, some of these spaces either transform into "Meanwhile Reserves" or green areas, or they become "namesake-built ups" to safeguard themselves from encroachment or policy changes.

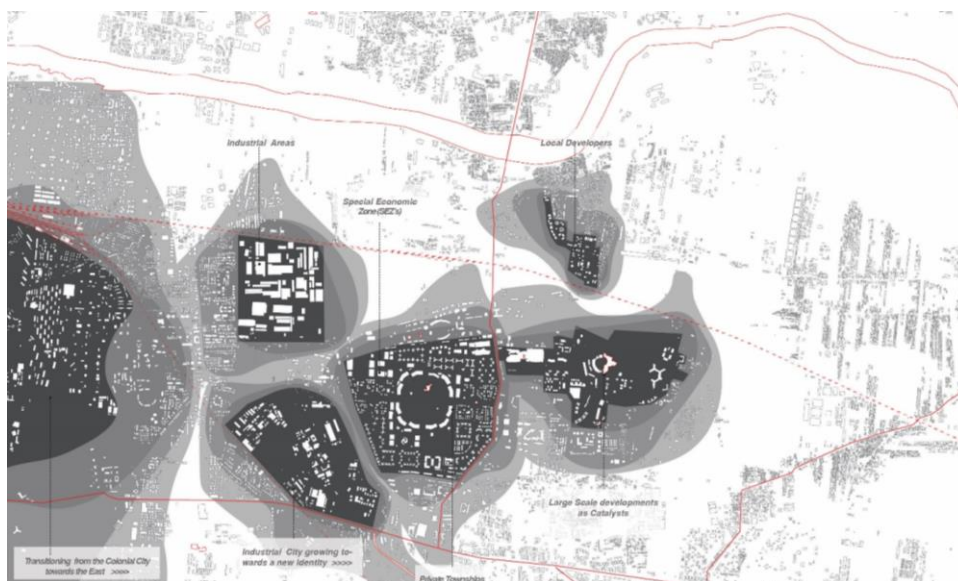


Figure 8. Planned developments influencing the growth. Source: Authors.

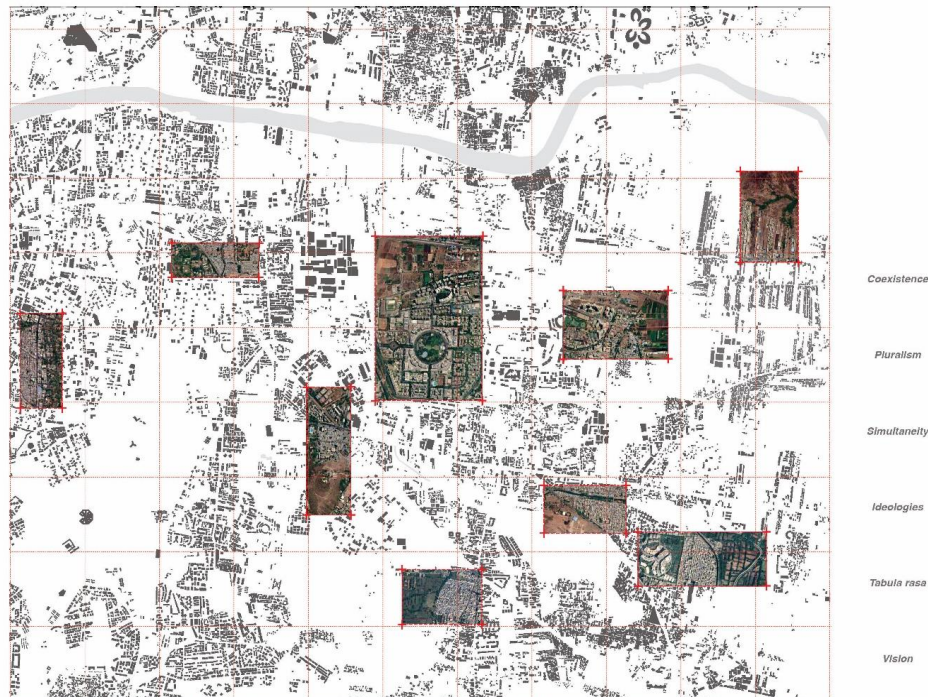


Figure 9. Various urban islands juxtaposed to create voids. Source: Authors.

VOIDS DUE TO JUXTAPOSITION OF ELEMENTS

The eastern areas exhibit a striking contrast in land use, where large land parcels owned by private stakeholders, the military, or the government, are reserved for specific developments but now are abandoned. Amidst suburban expansion, these parcels often find themselves encircled by urban sprawl influencing the surrounding growth. This juxtaposition of built and unbuilt areas creates challenges for urban development with conflicting interests among diverse landowners preventing sustainable growth. This clash is evident as fragmented holdings of multiple landowners contrasts with vast sectors controlled by a single entity. Such morphological differences often translate into metaphorical or ideological distinctions, creating urban islands or archipelagos, which introduce a discontinuity in the morphological character of the suburbs. The "in-between" space assumes a generic nature that does not align with any aspect of the city's plurality, rendering it a void that remains invisible to the surrounding islands.

VOIDS DUE TO GATED COMMUNITIES

Gated housing projects have become a popular solution for new residential developments on greenfield sites in suburban Pune. Developers provide essential services and amenities within the gated community or nearby, incentivizing commercial integration to maximize profits and increase the dominance of gated projects in the suburban regions. However, these communities isolate the residents from the urban fabric, reducing their interactions with the city. Despite this, residents view gated communities to achieve a higher standard of living and enhanced safety. Enabled by urban policies, this disconnect led to the creation of 'Broken Spaces', some of which hold an intangible value. 'Maidans' became hosts of cultural and recreational elements and events, creating multipurpose spaces that would adapt as per the needs of the people. While limited interaction with the rest of the city may be seen as a drawback, the intangible values associated with such voids represent a positive aspect.



Figure 10. Influence of Gated Communities on the growth around. Source: Authors.

Voids due to Infrastructure

Pune's historical urban expansion faced constraints from infrastructural elements like railways, rivers, canals, and highways. Recent growth along state or national highways has boosted suburban connectivity and urban density. However, this expansion often exceeds governing bodies' regulatory capacity, leading to infrastructural elements being engulfed by urban morphology. Without comprehensive development plans, suburban growth is largely influenced by these features, causing conflicts among stakeholders and hindering planned growth models. Differences in the spatial nature of land plots along infrastructural elements compared to vacant plots elsewhere are noticeable. This suggests that voids result from infrastructural elements interacting with the suburban urban fabric, where they serve as a physical, socioeconomic, and ideological divide. Bridging this gap is essential for achieving continuity in areas marked by significant discontinuity.

CONCLUSION

The history of voids in Indian cities put in evidence that urban voids adapt to the setting hence calling for a collective re-interpretation of the cities. Spaces that were once a void cannot be categorised as the same today. Their existence is overlapped between timelines where even though they are physically present, the value these voids hold has changed over the course of documented history and its changing narratives. The taxonomy helps in understanding the ground situation of Pune's suburbs, which sequentially reveals how growth patterns are responsible for shaping the urban morphology and manifestation of voids. It is necessary to lay emphasis that the resulting taxonomy of voids is 'A' taxonomy and not 'the' taxonomy. The identified voids can be defined or reclassified into other categories as most of them are interconnected and interlinked to history through multiple threads of narratives.

Considering the evolution of Pune and other Indian cities over the past decades, the enriching and elaborating on the current definition of urban voids can be attributed to a group of influencing factors like contextual history, actors, geographical parameters, predominant identities and ideologies of a city and so on. Hence, concluding on the research and within the scope and limitations, the definition of 'void' can be rephrased as: A physical space or metaphorical perception of an 'emptiness' that affects the continuity of the existing urban morphology, but not necessarily be a cause of discontinuity

within the urban fabric of a city. Though some voids might be ‘physically’ empty or unbuilt, they bind the city together through the way they interact with their context. This interaction is also intangible in nature and is subjected to evolution depending on the growth patterns and timelines. Voids are a product of pluralities and simultaneities acting on an urban morphology of one or more identities. They are influenced by multidisciplinary actors and the ideologies upon which the cities are built. Beyond their perception as negative elements, voids are temporal and, in some cases, add vibrance to the context while holding the potential that allows the reimagination of urban elements in the city.

ACKNOWLEDGEMENT

The authors would like to thank Prof. Gaia Caramellino and Prof. Paolo Scrivano from Politecnico di Milano for their mentorship and valuable guidance in the research process. The author also thank Prof. Dhvani Yagnik from S.P. Pune University her valuable guidance to understand the current scenarios of Pune city.

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“SEOUL FOOD”: EDIBLE FOOD PRODUCTION BETWEEN TRADITION, RESISTANCE AND SUSTAINABILITY IN SOUTH KOREA

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INTRODUCTION

The paper investigates ties between urban agriculture, cultural food practices and the cityscape in Seoul by offering some insights into how informal food cultivation practices coexist with formal urban farming initiatives. Underpinning the paper is an exploration of tradition, resistance and sustainable practices in a changing urban landscape, which provides a lens for understanding the dynamic human-spatial relationships in the urban environment of Seoul. In taking a close look at how urban food cultivation is intertwined with everyday life, this case study wants to offer an insight into the manifestations and meanings of these practices rather than being an evaluation of the efficacy of urban agriculture policy. In doing so, what is presented is an interpretation of how tradition, forms of resistance and sustainability play out amidst an evolving urban space.

EDIBLE URBAN LANDSCAPES

In the Global North forms of Urban Agriculture (UA) are thought to be less motivated by emergency food subsistence and supply, and more about defending urban green spaces, the creation and strengthening of urban communities, the construction of recreational spaces or proposals of an alternative model to a hitherto hegemonic neoliberal capitalist urban development paradigm.¹ Yet the socio-spatial impact of UA policies and practices remains a subject of intense debate with some scholars focusing on the social justice possibilities contained in UA projects, whilst others are drawing attention to how UA unintentionally fosters revalorization and gentrification processes through an aesthetic and environmental improvement of marginal and working-class neighbourhoods and suburbs.

Capturing the Edible Landscape in Seoul

Although definitions of what UA comprises remain contested, this paper points to multiple forms of urban edible food production that exist in Seoul, South Korea, drawing upon UA definitions provided by Seoul Metropolitan Government's UA policy. Alongside other East Asian countries,² a sensibility towards food traditions in everyday life which extend from practices of consumption to practices of urban food cultivation is also manifest in South Korea. Vegetables are omnipresent in Korean culture, not just on the table but also in its urban landscape. Whilst Seoul Metropolitan Council also has a formal and extensive support program for increasing urban agriculture (both commercial and non-

commercial) what is striking about the city landscape is the retention of informal food cultivation practices in and above the streets of Seoul.

Edible plants are integral to the landscape in Seoul and to the personal lives of many Koreans. Formally, “urban agriculture” is defined as growing or cultivating crops, trees or flowers as well as raising insects “by utilizing land, buildings or various spaces in an urban area”. The term “urban farm” is applied to mean “land, various types of unused land, in-between spaces, parks, green zones, and other spaces in which urban agriculture is practiced”.³ So whilst “urban farming” is a broad semantic term applied to any scale, effort and longevity of engaging in edible plant cultivation or Urban Agriculture (UA),⁴ Seoul has placed its policy clearly within narrative of a population (an ageing society and community issues) and an urbanisation challenge (a need for more green infrastructure and wellbeing spaces).

Tending to plants is thus framed as something meaningful beyond providing edible food and this is most manifest in the recent recognition of “pet plants”. The emotional attachment and care for plants are recognised as akin to having pets, considering them a family member.⁵ This is accompanied by health support for pet plants in the form of pet plant clinics which have appeared since 2021 for citizens to access, diagnose and treat health issues with their pet plants. Formal wellbeing programmes especially framed around combatting isolation for elderly people are also part of the 3rd iteration of Seoul UA strategy.

Urban food cultivation in Seoul thus contains an emotional human-plant connection in the frequent iterations of “healing plants” or “healing farms”. Enabling this emotional connection to plants is manifest in many usual and unusual ways such as “box farms” (meaning a variety of containers, recycled and new) used on rooftops, verandas, or liminal urban spaces. “Box farm” equipment is available through the district office and comes with the provision of compost and seeds to encourage people and/or groups to cultivate. Many of these formal schemes are in the green belt, office rooftops or existing green infrastructure.



Figure 1. Box Farm at bottom of Ingwansan Mountain



Figure 2. Box Farm outside Residential Care Home, Seodaemun gu

Formal and Informal Food Cultivation

In addition to government supported schemes informal forms of plant and vegetable growing are also omnipresent (analogous to the formal “box farms” I term them “pot farms”). These are assemblies of non-uniform containers that people have found and re-purposed in the many “in-between spaces” that Seoul offers up, such as left over, non-concreted ground between paved areas and walls, pavements outside houses, and more.



Figure 3. In-between edible plant growing, Insadong, Seoul

Also analogous to the difference between the district-supported “box farms” and the informal “pot farms”, there are district-supported land farms and private land farms. Liminal spaces such as some ground on a parking lot, or a built structure outside multi-family houses, or a mixture of these and pot farms get appropriated for vegetable growing in Seoul.



Figure 4. Pot Farm in Mapo gu

The benefit of these informal growing spaces is that people can use vertical structures for growing and trailing plants without impacting passers-by. These are tended to lovingly on a daily basis by residents (women mainly when outside dwellings) or workers (men mainly in the case of car park attendants) who spend substantive time in close proximity to the growing space.



Figure 5. Hanok rooftop edible plant growing, Gahoe-dong, Seoul

The overall edible urban landscape in Seoul is therefore constituted by both formal UA policy informed initiatives and traditional informal practices (as observed in 2023 in an ethnographic project on urban food growing entitled “From Seed to Compost”). With regards to urban food cultivation, a concerted policy effort to support UA was launched in 2012 with a “year of urban agriculture” and, since then, support has steadily increased across its 25 districts for individuals, groups, schools and businesses to be able to engage in practices of urban farming.

These formal provisions are supported by dedicated Urban Farm Managers and an extensive online network of Urban Farmers.⁶ UA policy in Seoul follows several greening initiatives of the urban landscape (amongst these Cheongyecheon river regeneration in 2003, Geongui Forest Line and Book Line have rightfully acclaimed some fame) and has also been accompanied by the policy and practice shift towards food waste collection and recycling (from 2% in 1995 to 99% in 2023).

Socio-environmental Background of Seoul

Seoul is the capital of South Korea and more than half of South Korea’s total population can now be found to reside in the capital city of Seoul and surrounding metropolitan cities. As of December 2023, the registered populations in Seoul, Incheon and Gyeonggi Province recorded up to 26.1 million residents, which made up 50.7 percent of the country's total population. Out of the 26.1 million, 9.39 million were registered in Seoul whose population has peaked in 2010 and has since been on a slow

downward trajectory (mainly because of unaffordable housing) whilst the surrounding cities in the Gyeonggi Province have been growing).

The rapid development of South Korea since the Korean War has led to features of “compressed modernity”⁷ and social issues related to continuing urbanisation as well as an ageing society present socio-political issues. The housing stock in Seoul is now atypical of Korean cities in that it still contains 18.8% multi-family housing units in 2021⁸ as well as 26.1% of single storey houses/detached dwellings which stands in stark contrast to the prevalent skyline of high-rise apartments blocks often shown.⁹

These account for 43% of housing in Seoul and contribute to the (albeit declining) population density on average of 15,560 in 2022. With land management policies clearly protecting green belt spaces efforts to grow Seoul are now being pursued by growing more housing space vertically (the 35 floor cap has been lifted by the government in 2023) despite the lack of affordability for many people.

With the fertility rate in Seoul being at its lowest ever (0.6 below the national average of 0.78) Seoul is also a major contributor to South Korea becoming a super-aged society. Estimates are that in 2025 the proportion of those aged 65 and older will be 20% of the total population. Currently (2023), people aged 65 or older constitute 18.4% of the population – plus 6% 50-59, forecasting a rise to 46.4 percent in 2070.

Old-age poverty is already a major problem in South Korea, which has the OECD’s highest poverty rate among retirement-age individuals, even though this rate has fallen from a high of 45% in 2016 to 43% in 2018. Pensions are small, and most older adults today lack coverage under a national pension system that excluded a large share of the workforce until its expansion in 1999. National pension benefit levels are low (with an average monthly pension of KRW 520,000, equivalent to \$440), and furthermore employees in private companies are often pressured to retire long before the legal retirement age of 60.

FOOD CULTIVATION AT INTERSECTIONS OF NECESSITY AND WELLBEING

Urban food cultivation in Seoul is pursued by different demographic groups and for possibly different reasons. Middle-class families who live in desirable apartment block buildings are more likely to be involved in government support formal UA initiatives through weekend and community farms in the green belt, or be recipients of “box farm” equipment¹⁰ which can be located (and moved) in a suitable location. Seoulites who are in more precarious situations ingeniously use different growing places for vegetable cultivation. Stepping behind the front stage image of Seoul and its main transport arteries with tall development reveals older residential and commercial areas where edible plants are being grown in the smallest of spaces in public view or public spaces by people alongside their everyday practices.

Urban Agriculture Support and Policies

In 2022 Seoul published the 3rd update of the revitalization policy since the “initial year of urban agriculture” launched a decisive programme to encourage its citizens to engage with edible food cultivation on various levels. Its aims are to keep spreading the value of urban agriculture and expand its base whilst also visualising the quantitative success story of the expansion of UA in Seoul so far. Aiming at getting 1 mio people involved in urban farming by 2024, the path is well prepared with an increase from 45,000 in 2012 to 660,000 in 2021. The policy framing of UA Seoul aims “to give further support to the creation of urban agriculture spaces in each district to activate information, education, and experiences, and contribute to the enhancement of social values through urban agriculture to problems caused by aging and urbanization”.¹¹

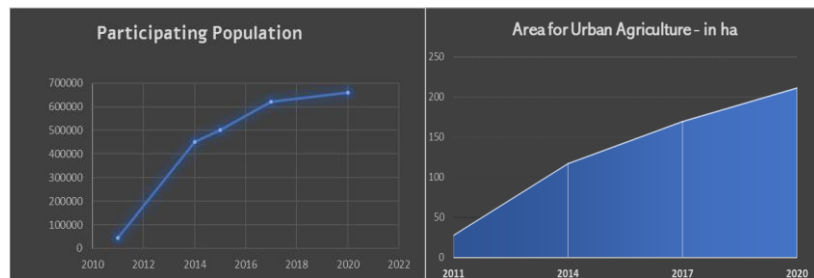


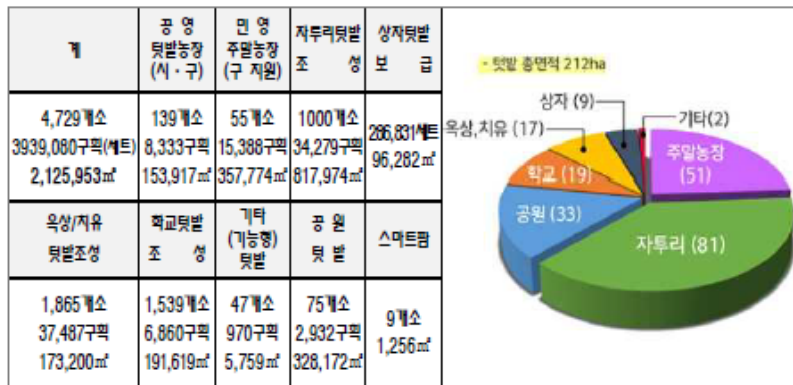
Figure 6. Participating population increase since 2012; growing space increase since 2012

The current plan is explicit in its background framing of UA policies against the twin backdrop of the demographic challenge of ageing citizens as well as the problems caused by urbanisation. Whilst it is not unusual for urbanites to (re)turn to food cultivation in advancing years, Seoul’s UA policy is explicit about this frame of ageing, even though the remainder of the policy document is less explicit how precisely UA is to mitigate against what social problems of ageing.

Indeed, from a reading of the policy paper and its funding scope it would appear that combatting isolation and supporting wellbeing, rather than combatting economic inequality, is the primary focus. For middle-class dwellers, the cultivation practices might be motivated by restorative and “healing” aspects which mitigate against the stresses of daily life, for other growers the harvests of quickly growing plants constitute a strong contribution to their nutrition.¹²

It is thus within this context that urbanisation and the concomitant loss of connection to green and blue spaces present a challenge to individuals, families and communities. The 2021 plan provided 24 bio WON (ca. 18 mio \$) for urban agriculture projects for the year 2022, in a bid to further increase the 660,000 Urban Farmers so far involved with formal projects across the 212 ha.

- 유형별 현황



Total	Public garden farm(city/gu) [5-6 per gu]	Private weekend farm (gu support) [2 per gu]	Lottery distributed small garden [our participants]	Box farm distribution
4,729 locations 3939,080 plots (set) [106,249] 2,125,935m ² (212 ha)	139 locations 8,333 plots 153,917 m ² (15 ha) [18 m ² per plot]	55 locations 15,388 plots 357,774 m ² (36 ha) [23 m ² per plot]	1000 locations 34,279 plots 817,974 m ² (81 ha) [23 m ² per plot]	286,831 boxes [0.33 m ² per box] 96,282m ² (9 ha)
Rooftop/Healing Garden	Creation of school garden	Other functional vegetable gardens	Park vegetable garden [3 per gu]	Smart farm
1,865 locations 37,487 plots 173,000m ² (17 ha)	1,539 locations 6,860 plots 191,619 m ² (19 ha)	47 locations 970 plots 5,759 m ²	75 locations 2,932 plots 328,172 m ² (33 ha)	9 locations 1,256 m ²

Figure 7. Distribution of the 212 ha of formal UA programmes into different types

The highest land use types here are 'Jaturi teosbat' which have been set up as part of an eco-friendly urban agricultural revitalisation (with a mandate for sustainable practices). Further notable is the high number of what is called “box farms” (‘sangjateotppat bo geup’) which this author has not encountered elsewhere in this format nor extent of use.

Food cultivation beyond policy

The ethnographic research¹³ informing this paper has revealed a substantive diversity of food growing practices across the Seoul landscape and I contend that within radius of 200m edible plants can be found in pots, in liminal in-between-spaces and on rooftops. Thus, UA policy formalises traditions and remnants of what used to be a self-sufficient society with strong food traditions which exists across the landscape. Yet it is notable and part of a self-definition of a modern and modernising discourse that the new UA policies also re-define the meanings of urban food growing in relation to wellbeing, health, green therapy and, application of new agri-technologies (especially in the case of the indoor vertical farms) which distance themselves from the need to self-sufficiency.

To the author both are manifest of a particular Korean sensibility towards food traditions in everyday life which extends from practices of consumption to practices of urban food cultivation. And it is precisely the creativity and diversity that make Seoul such an exciting place for exploring urban food cultivation. Some practices are temporary, others are permanent appropriations of urban space – thereby constituting a form of resistance and counter-hegemonic practices.



Figure 8. "Pot farm" outside a Hanok, Jogno-gu, Seoul

The prevalence of creative repurposing of space for food growing across the backstreets of any Seoul neighbourhood that still contains older housing (pre 1990s and no higher than 5 stories) also challenges, to some extent, the production of urban space in only capitalist terms. There are household or individual based food growing practices that make use of any growing space available in ways that appear unprecedented to the author. Despite its front stage image of the glass towered downtown and the high apartment complexes familiar in any image of Seoul these neighbourhoods still cover large parts of the city.

In these neighbourhoods, edible plants are being grown in the smallest of spaces in public view or public space by people alongside their everyday practices, often based on familial traditions and a relatively close cultural connection to an agricultural past within familial memory: From older women who tend to large pots outside their houses or roof gardens to male parking assistants who repurpose available ground and space for growing vegetables.

This results in a different typology of Seoul urban agriculture which reconciles the "bottom up" everyday household and individual practices as well as the policy driven municipal initiatives.

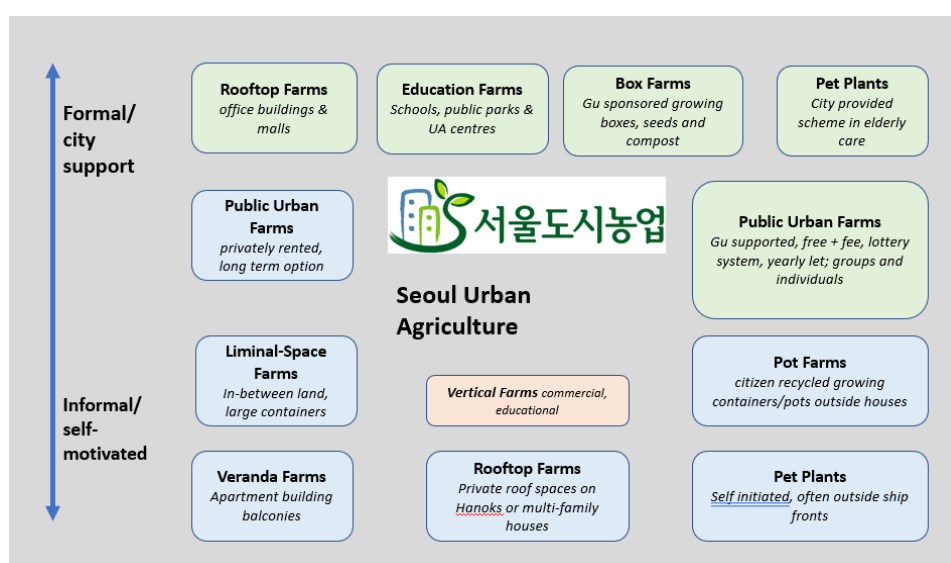


Figure 9. Typology of Seoul Urban Agriculture

CONCLUSION

The paper has attempted offer an insight into the rich tapestry of urban food growing practices in Seoul, some which are formally supported, others which are adopting an informal character of traditional, familial and cultural practices that remain woven into the urban landscape. The diversity of manifestations and motivations for urban food growing has been placed at the intersection of cultural traditions, resilience, sustainability as well as resistance to neo-liberal co-option of urban space.

In terms of policy recommendations, the most incisive revelation from the Seoul case study is the way in which the smallest of space can be turned into very productive spaces. Further notable is the fact that in Seoul scale of food production is now a deciding factor in being an “urban farmer”. This framing allows an integration of food growing into everyday city life and city planning in ways that other cities do not afford. A final commendation to Seoul must be the online farmer’s network with its incredibly rich resource and knowledge base and networking aspects.

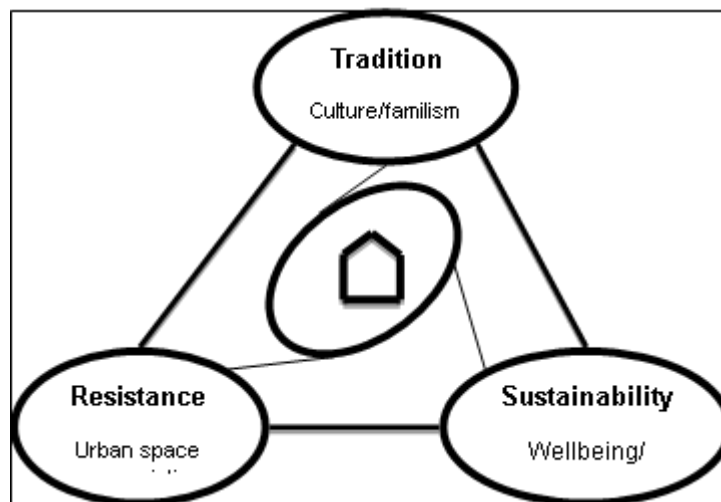


Figure 10. Tradition, resistance and sustainability interrelated.

On the other hand, it should be noted, however, that whilst sustainability is actively sought in relation to the seasonal land management practices, the lottery system jeopardises citizens’ effective long-term participation, and thus potentially impacts on the positive assets they derive from growing. Also, whilst formal programmes can be evaluated and their progress quantified, the vast array of informal growing leads to a large hidden figure of citizen-led greening of the built up urban landscape, as well as productivity.

NOTES

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- ⁶ 서울농부포털(도시농업) (seoul.go.kr)
- ⁷ Chang, Kyung- Sup *South Korea under Compressed Modernity: Familial Political Economy in Transition*. London: Routledge (2010).
- ⁸ The only other administrative districts to have more than 10% multi-family housing stock are Incheon, Gyeonggi-do and Jeju.
- ⁹ According to KOSIS statistics from 2021 this actually puts Seoul into 4th bottom with other administrative districts having up to 66.9% of their housing in high-rise apartments accounting for the national average of 51.5%.
- ¹⁰ UA policy is administered by the 25 districts which use a lottery system to allocate resources of the varied initiatives. Recipients of all schemes generally get access to tools, some seeds and compost as well as educational and training opportunities.
- ¹¹ Seoul Government *2021 Seoul City Urban Agriculture Promotion Implementation Plan* (2022).
- ¹² Neither this research nor existing research contains more quantified information on this.
- ¹³ This paper I draw on the 2021 UA policy plan as well as qualitative research from a 3 week stay in Seoul in June 2023 for which 22 participants were interviewed and 160km of walking the streets of Seoul have resulted in an archive of photographs. Almost all the growers observed were 45 years old and above (with the exception of the French growing collective and 3 people involved in education).

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THE SOCIAL PRODUCTION OF SPACE: A CASE STUDY ON MIGRANT WORKERS' ACCOMMODATION SPACES IN MALAYSIA

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INTRODUCTION

Unemployment, poverty, and poor economic situations in lower-income origin countries produced voluntary economic migrants who sought cross-border work opportunities in higher-income nations.¹ The familiar scenes of migrant workers living in precarious conditions have been common in news reports globally. In Malaysia, various attempts have been made to improve the situation, including the introduction of Malaysian Standard 2593:2015, which provides recommendations for temporary construction site workers' amenities and accommodation, and the gazettment of Act 446 (Workers' Minimum Standards of Housing and Amenities Act) in the year 2020 that sees the regulations of workers' accommodations being extended to workers of all fields. Despite these efforts, recent reports indicate that there is a lack of implementation of Act 446, which led to the repeated occurrence of substandard living conditions among migrant workers, especially in rural areas.² Migrant workers' poor living conditions remain a concern during the transition period from existing temporary living quarters to CLQs, as seen in recent news reports.³ The violation and poor compliance with Act 446 and other relevant regulations raised questions on whether the employers are solely responsible for these reoccurring problems. The main reason for this is that Act 446 clearly indicates that employers are obliged to provide adequate accommodation and amenities for their workers. Nevertheless, there are also concerns about the lack of enforcement that further worsens the situation of poor accommodation provisions.⁴

Minimum spatial standards

From an architectural perspective, it is crucial to acknowledge the complexity of migrant workers' housing environment in Malaysia, which was not commonly recognised and considered in prevailing studies. Although the enactment of Act 446 improves migrant workers' housing rights, there remain areas to be pondered upon, especially on the appropriateness of these regulations within the actual context of migrant workers' living environment. With the regulations focusing only on minimum physical spatial standards, the socio-spatial qualities of these accommodation typologies are often ignored and deemed unnecessary due to their temporariness. In fact, most employers only adhere to minimum spatial standards due to economic considerations since workers' quarters are impermanent.

The persistent issues within workers' living environments may be a sign that minimum spatial standards are insufficient to guarantee better housing experiences. Notably, the lack of implementation and compliance is closely related to the appropriateness of these requirements. Therefore, this research focuses on the spatial standards extracted from Act 446, which is compulsory to comply with upon the contractor's application for accommodation permits.⁵ Furthermore, Act 446 forms a basis for all other workers' accommodation standards at a local council level.

Actual spatial usage

The relevance of workers' housing spatial standards is closely related to the actual spatial usage and socio-spatial production of migrant workers in these accommodation spaces. Spatial practices, defined as how spaces are used, include everyday practices and the appropriation of space that produces "different spaces" according to the users' purpose.⁶ By examining the spatial practices of migrant workers within accommodation quarters, this research aims to discover the unaddressed gap between migrant workers' spatial needs and the spatial standards specified in Act 446. The research explores the following questions: How do migrant workers utilise spaces in the accommodation? What are the spatial changes initiated? What are the areas not covered by Act 446 that contribute to the quality of the living environment?

WORKERS' HOUSING REGULATIONS

Globally, governments with a vast population of migrant workers use international recommendations as a base to draft accommodation policies and guidelines. In Malaysia, prevailing studies discussing workers' accommodations in relation to regulations generally focused on the comprehensiveness and implementation of such guidelines in the workers' quarters, especially MS 2593:2015, which was launched in 2015. Khamis et al. conducted a qualitative comparison of MS 2593:2015 and standards from Australia (Guidelines for Workplace Amenities and Accommodation), the United States (US1910.142) and IFC & EBRD (Workers' Accommodation: processes and standards) using document analysis and concluded that the provisions within MS 2593:2015 are on par with the other standards.⁷ Yaman et al. studied the compliance of MS 2593:2015 in construction sites and discovered that only 13 out of 58 criteria were fully complied with. This indicates a significant gap between current practices and the guidelines, especially in washing and drying areas, leisure facilities, and signage.⁸ Overall, the studies pointed out that although the guidelines are comprehensive, compliance by employers remains unsatisfactory. It is also worth noting that the recommendations in MS 2593:2015 are not compulsory to be complied with.

Meanwhile, fewer studies have been conducted on Act 446 as it is relatively new. Among these, a study by Nasir et al. discusses the relevance of Act 446 from the perspectives of relevant stakeholders: employers, workers, government officials and NGOs.⁹ The study recognised the contribution of Act 446 in improving migrant workers' living conditions while recommending that employers and local officials be educated on the need to provide adequate housing environments to encourage compliance with these regulations. Yet, no further details were disclosed on the actual socio-spatial qualities of migrant workers' quarters based on the spatial standards indicated in Act 446. Complicated procedures and financial considerations are concluded to be the main reasons for the lack of compliance.

THE SOCIAL PRODUCTION OF SPACE

The theoretical framework of this research refers to Lefebvre's theory of space production, which conceptualizes that spaces are socially produced. Lefebvre defines space with the trialectics of spatial production, which includes Spatial Practice, Representation of space, and Spaces of representation. According to Lefebvre, the interaction of these three dimensions produces space while they are also produced in space.¹⁰

In his writings, Lefebvre expressed his concerns about the disappearance of everyday spatial practices due to the primacy of the conceived space/ representation of space. This corresponds to the situation of migrant workers' accommodations, where the residents are to settle down in a living space adhering to the regulatory spatial standards and design planning. In the context of this research, the representations of space (referred to here as authority regulations and spatial requirements) are prioritised in the production of migrant workers' accommodations, thus affecting the everyday practices of the resident workers. From another point of view, investigating spatial practices provides important clues about the compatibility of the implemented spatial standards.

Although limited studies focus on both spatial practices and accommodation guidelines, spatial practices in migrant workers' everyday lives were observed to investigate their socio-spatial needs. Chua discussed socio-spatial exclusions of migrant workers in Geylang, Singapore, based on observation of their spatial practices and space production. These observations took place in urban spaces where spatial practices happened daily, including appropriating open car parks as 'spaces of privacy' where they could sit, eat, and drink without being regulated in the dormitory.¹¹ In a Qatar labour camp, spatial practices of migrant workers include small gestures such as decorating and customizing the sleeping room, adding extensions to beds or hanging a piece of fabric due to the lack of privacy.¹² In the context of refugee camps, spatial practices were also investigated to understand refugees' spatial negotiation strategies.¹³

METHODOLOGY

The research objective of investigating migrant workers' space production requires a method that is suitable for discovering spatial practices and appropriation of spaces in the accommodations. A qualitative case study approach through field observations and architectural analysis is adopted.

Field observation refers to observations of a natural spatial setting, such as a neighbourhood with the physical presence of the researcher.¹⁴ These observations are often used to assess and map features of social and physical environments. Due to limited accessibility to these quarters, a physical trace field observation is adopted for this investigation, where the traces of migrant workers' spatial practices are observed and recorded through sketching, field notes and photography. The observations are then compared with the list of spatial requirements that are indicated in Act 446. Furthermore, the existing architectural layout of the quarters is analysed in conjunction with the field visit observations to identify the transformation of spaces and the connection between various functional areas.

The main pre-condition for this investigation is that the case accommodation complies with the regulatory spatial standards. Hence, the investigation does not focus on compliance and instead prioritises the areas that are unaddressed by current regulations.

The case

The selected case in this research is a construction site workers' quarters in Klang Valley, Malaysia. Due to the lack of space at the construction site, this workers' accommodation is located inside the building structure under construction with the local authority's approval. Approximately 180 workers resided in this accommodation with bedrooms, a kitchen, a dining area, a rest area, toilets, a prayer

area, and a canteen. Resident workers mainly originate from Bangladesh, with a mix of other workers from Pakistan, India, Nepal and Indonesia. The compactness of such quarters requires careful spatial planning and is commonly implemented in urban areas to save costs and commuting time. It is also preferred by employers as the compactness allows for easier control and maintenance. As opposed to more permanent structures such as apartment-style quarters typically adopted by the manufacturing industry, the temporariness and flexibility of construction site workers' quarters provided a rich context for investigating migrant workers' spatial practices.

FINDINGS AND DISCUSSION

Observations and photography records were conducted in three different migrant workers' bedrooms and common areas, including the kitchen, dining, prayer room, laundry, and toilets. The three bedrooms hosted different numbers of occupants: Bedroom A with eight pax, Bedroom B with twelve pax, and Bedroom C with thirty pax.

The investigation reveals that the case workers' accommodation spaces are dynamic and fluid. Improvisations constantly happen despite this being a temporary living quarter. In general, Act 446 provide minimum standards for living conditions, namely bedroom size, toilet numbers, and other public facilities. For areas that are not regulated, options are limited to relying on the initiatives of employers or resident workers to ensure a comfortable, liveable environment.

In this case, the architectural plan has been altered to suit the different requirements of resident workers and has varied from the original spatial planning. Minor alterations that did not involve functional planning were also observed, especially within the bedrooms. This includes the expansion of personal territory and utilisation of undefined public areas. Contradictory to some beliefs that migrant workers are ignorant of the quality of living in these temporary environments, there are indications of attempts to achieve a better environment.

The following discusses key aspects that arise during the field observation but are not addressed by the existing workers' quarters regulations.

Spatial planning: the changing common areas

Common areas are equipped with supporting infrastructures for community living, which is essential for the social life of migrant workers. By comparing the original spatial planning (Figure 1) with the layout mapped during field observation, it is discovered that some common areas have been rearranged and expanded (Figure 2). The extension of the kitchen indicated the need for a larger cooking space, as migrant workers tend to cook individually or in smaller groups rather than sharing cooking hobs. Rice cooking stations were also allocated for a vast amount of individually owned rice cookers.

The dining space has been relocated to beside the kitchen, improving the connection between these two areas. During lunchtime, it was observed that the workers placed their personal belongings in the rooms before heading to the kitchen to warm food, then settled down for lunch at the dining tables. Prayer rooms were relocated to near the toilet and bath area. A shorter distance between the washing area and prayer rooms is more convenient for migrant workers to perform ablution before praying rituals. The location of the rest area also differs from the original layout plan. The only "rest area" observed was three plywood platforms located between the bedrooms and the dining area. A few workers were seen sitting at the resting platforms to take a break during lunch hours, but most workers were present in the dining area instead.

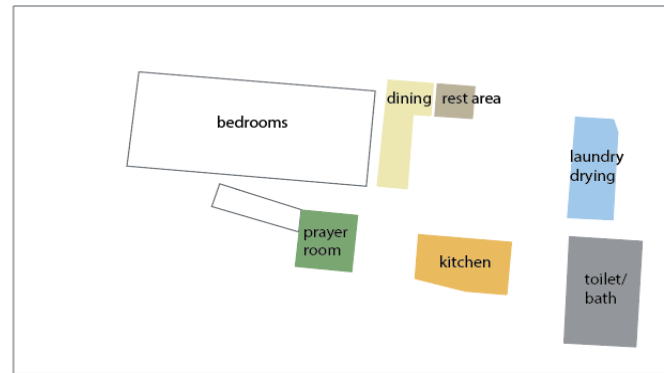


Figure 1. Original spatial planning



Figure 2. Current layout with expanded common areas

In Act 446, the spatial standards for common areas are not detailed and only require the provision of ventilation and lighting. However, the socio-spatial qualities of common areas in this case study indicated that further considerations should be made when designing these areas. The layout changes observed suggest the importance of migrant workers' participation in the production of space to ensure a better living environment apart from adhering only to spatial standards.

Placement of objects

The placement of objects defines space and forms the spatial experience of users in a living environment.¹⁵ In the context of migrant workers' accommodation, such acts could even expand personal territories for the purpose of achieving better environmental comfort. For example, as shown in Figure 3, the owner of the upper bunk bed extended his space by fixing plywood boards to the edge of his bed. Metal frames were also erected beside the bed for laundry hanging. This act of space appropriation elevated spatial comfort by creating spaces for a desk fan, his clothes, or other personal belongings rather than placing these items on the bed or the floor.



Figure 3. Horizontal plywood extensions of a bunk bed in Bedroom A

Existing research recognises that the lack of storage space is one of the main factors that negatively affects the quality of the living environment and residents' well-being.¹⁶ While Act 446 required the provision of a lockable cabinet (size 0.35m x 0.35m x 0.9m) for each migrant worker, storage spaces are still insufficient. Various additional storage solutions were seen to be initiated by the workers. Some workers utilised leftover building materials from the construction site to build wall storage racks (Figure 4), and some used plastic racks to store small items. Most of the time, a variety of items were stored underneath the beds in recycled paint buckets, luggage, or just left scattered on the bedroom floor (Figure 5). There were self-made racks at the entrance of each bedroom to store shoes and personal protective equipment (PPE), such as safety boots and safety helmets.



Figure 4. Self-built wall racks in Bedroom A



Figure 5. Items stored under the bed in Bedroom B

Storage requirements are important in common areas as well. In this case, a large number of self-built cabinets were placed near the kitchen to store migrant workers' kitchen utensils and food despite there being no requirements for these storage spaces in the regulations (Figure 6). As seen in other workers' quarters, the lack of storage space in the public kitchen may lead to the scattering of kitchen utensils and food packages. In comparison, the existence of such self-built cabinets reflects the storage requirement of resident workers and improves the quality of the environment.

The observation of object placement and storage spaces in bedrooms and common areas suggests that minimum spatial standards in Act 446 are insufficient to ensure a comfortable living environment for temporary workers' quarters. The tidiness of these quarters very much relies on the spatial appropriation of resident workers.



Figure 6. Self-built cabinets between bedrooms and dining area

Privacy and personal space

Overcrowding issues were commonly discussed in research focusing on migrant workers' accommodations, and one of the consequences of overcrowding in bedrooms is the lack of privacy, leading to poor mental health and well-being.¹⁷ However, no spatial standard addresses privacy concerns in Act 446. The only relevant clause indicates that a minimum of 3 sqm shall be allowed for each worker in the dormitory rooms to avoid overcrowding. Nevertheless, the minimum distance between beds and the placement of beds is not regulated, while there is no limitation on the maximum number of workers hosted in one bedroom.

From the field observation, the resident workers initiated various attempts to ensure privacy and living comfort. In Bedroom C, fabric sheets were hung on the bunk beds, covering the sleeping area. Some workers added plywood boards on the beds to obstruct views and create smaller sleeping compartments, as seen in Figure 7. Locker cabinets were also placed between beds as a visual barrier. Meanwhile, no alterations related to privacy were observed in Bedrooms A and B, which have smaller capacities than Bedroom C.



Figure 7. Plywood boards as a visual barrier in Bedroom C

The findings suggest that privacy is a significant requirement even in temporary living environments, especially in rooms with more occupants. Similar observations were made by Misselwitz and Steigemann, which indicated spatial appropriation by refugees in camps to establish physical boundaries for privacy.¹⁸

CONCLUSION

Through a Lefebvrian lens, this research explores the social production of migrant workers' accommodation spaces that were seldom discussed in social research and architectural studies. The appropriation of spaces, either initiated by migrant workers or the employer's accommodation management team, reflected the actual space usage within the quarters and indicated spatial practices beyond the existing regulatory spatial standards. It is worth noting that if such initiatives were not implemented, the issues of poor environment due to inefficient and inappropriate planning would worsen. The findings also indicated that deeper considerations of workers' accommodation design could not be addressed by only adhering to minimum spatial requirements in regulations. In fact, the limitations of regulatory spatial standards can only be overcome by architectural design considerations due to the complexity of such accommodation contexts. The diversity of workers' backgrounds and site conditions requires a design framework that is adaptable to the changing socio-spatial needs.

In conclusion, by taking into consideration the actual spatial production of migrant workers, there are areas that can be strengthened within the existing regulatory spatial standards while recognising their limitations and supplementing them with other design frameworks. Extending from the findings above, further research can be conducted to investigate migrant workers' perspectives on their living

environment, providing further details to the observation findings. This research can also be extended to refugee camps and other temporary living environments.

FUNDING

This research was funded by the Ministry of Higher Education Malaysia under the Fundamental Research Grant Scheme (FRGS), FRGS/1/2021/SS0/TAYLOR/02/2.

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DIFFERENTIATED SOLIDARITY AND THE OBLIGATIONS OF PROXIMAL DWELLING

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INTRODUCTION

This paper seeks to advance the notion of ‘differentiated solidarity’ presented by political theorist Iris Young and consider its implications for dwelling, embracing diversity whilst maintaining respect for the particularities of place and culture. The paper is divided in three parts. The first will outline , the theoretical proposition of ‘differentiated solidarity’ and the ‘Obligations of Proximal Dwelling’ which builds upon it. The ethical position that underpins that proposition is presented as an approach that could assist in offering an alternate perspective in addressing political debates addressing contemporary diversity. The second part considers the context of the decolonization focus in Australia and acknowledgement of the layers of meaning that are overlaid on place. This is presented as the temporal stratigraphy of places which distinguishes these layers of meaning in both a temporal and spatial form. The third part will look at a grounded example of this on a prominent site in Sydney Australia. The paper concludes with consideration of how that example could be more successfully approached by considering our obligations of proximal dwelling.

Differentiated solidarity and obligations of proximal dwelling

The proposition of differentiated solidarity draws attention to the fundamental determination of *how we structure relatedness*. Iris Young’s formulation of *differentiated solidarity*, assumes respect owed to people and is opposed to acts of exclusion or segregation of groups of people. It does not presume mutual identification or affinity as a necessary condition for solidarity. Openness to unassimilated others involves affirming relationship with them at the same time as one affirms a respectful distance. This frames *recognition* or *acknowledgement* neither as tolerance nor as communal identification. What is important here is that recognition in this sense is more a pre-condition for political discussion and decision-making than one of its goals. People dwell together “in complex causal relationships” and these relationships result in mutual obligations of justice.¹ Similarly, Onora O’Neill² explains that people (as creatures) who dwell together stand in relations where principles of justice ought to apply. When considered in the context of air and water pollution impacts, local actions can have global consequences, and as such O’Neill argues that this conceptualization implies that the scope of obligations of justice is global.³ This is significant because a culturally diverse democracy depends on finding ways to relate diverse solidarities to each other rather than trying to overcome them⁴. Butler also discusses the vexed relations that hold among ethics, proximity and distance with reference to Emmanuel Levinas and Hannah Arendt.⁵ Butler suggests that Levinas’s position allows the following:

that the set of ethical values by which one population is bound to another in no way depends on those two populations bearing similar marks of national, cultural, religious or racial belonging.[that] we are bound to those we do not know, and even those we did not choose, could never have chosen, and that these obligations are strictly speaking, *precontractual*'.⁶

Not only tolerance but solidarity is required for people to live together and join in democratic self-governance. The proposition of differentiated solidarity is offered as a framing technique to find ways of working across differences when living in proximity to others who hold different cultural and sometimes political- mental models. This paper proposes that embracing a broader shared common environmental condition by which we are all mutually bound serves as the starting point for recognizing what we share. This recognition then serves as the precondition from which we can navigate discussion of what is appropriate in that context, bound by our relatedness and respect for our mutual condition.⁷

For this reason, when using differentiated solidarity to frame the obligations of proximal dwelling, the first step is acknowledging relatedness to those who dwell in proximity to you. Without this acknowledgement of relatedness and recognition of others you live amongst, further dialogue is fraught if not impossible. The second stage- once one has confirmed acknowledgement of those whom you live among- opens opportunity to proceed together in determining what obligations they believe they owe one another. Thus, the proposition of differentiated solidarity as a mechanism to frame the obligations of proximal dwelling does not seek to overcome difference, but rather acknowledges differences without precluding cooperation and respect for sovereign others. I will return to this later in the paper.

Decolonization + Temporal Stratigraphy

Dispossession as a Sustained Phenomenon: In Australia there is no Post Colonial

'All places in Australia, whether urban or otherwise, are Indigenous places. [...] It is a deliberate, even required, feature of the settler-colonial dynamic to systematically and publicly *forget*.'⁸ In Australia, like in other British settler states, land was stolen from first peoples. Colonization requires the alienation of land in the interests of colonial possession and domination and this settler-colonial project is alive today, insofar as dominance is continuously reasserted to survive.⁹ As demonstration of this, Porter describes that despite acknowledgement of the deeper and enduring temporal relevance of Indigenous relationships to place, the theoretical frames for explaining urban process are fundamentally silent on that underlying endurance. Consequently, the possibility of learning from Aboriginal place governance is denied.¹⁰ The imposition of systems of land tenure, property law and planning regulations perpetuate dispossession and create new layers of order upon that which was already there.

When speaking of the significance of place, Aboriginal people refer to it as 'country'. For Aboriginal Australians all country is bound in an interrelated network of connected relationships. Each place has its own particular identity, life forms who call that spirit country their home and custodians whose job it is to keep everything 'standing up alive'¹¹. Custodians share identity with the place of origin, and their being is considered a continuation of that place. This way of seeing the land was confronted by colonial mapping techniques, which, on the assumption that the lands were 'uninhabited' promptly set about marking new boundaries unrelated to the deeper stories of the creation of those places. In the Indigenous cosmogony of every region in Australia, the foundation of names, spirits and ontological structure had already been established. The imposition of naming and mapping in terms derived from another culture, as with the imposition that followed of considering land as personal property that could be owned, was overlaid upon that which was already there existing since creation times. Despite

the impositions of the colonial encounter, these foundations continue to provide enduring significance for Aboriginal people. For these reasons places are not interchangeable nor homogenous as space, nor can they be understood as alienable personal property¹². The term ‘Country’ also points to the discrete yet interconnected sociocultural and economic systems each with responsibility for and with specific places. The point is that just like planning, this is a relationship of human systems of governance to place.¹³ And that enduring Aboriginal system stands in stark contrast to the Enlightenment informed system Australia’s colonizers brought with them and overlaid upon the Land in Australia. The device of visualizing temporal stratigraphy assists here to capture both the spatial and temporal dimensions of this.

Temporal Stratigraphy

For Aboriginal Australians, Ancestral events are themselves coterminous with the present through place, and act as the primary means of orientation. Elkin made the useful analogy that Aboriginal time could be understood “not as a horizontal line extending back through a series of pasts but rather as a vertical line in which the past underlies and is within the present”.¹⁴ A particular site of significance is simultaneously the evidence of ancestral action in creation times, and their continued presence in that place. Thus, time is not understood as cyclical, chronological or linear, but perhaps best analogized as a spatial or seasonal field, or rather simply as Land itself – where past and present can occur simultaneously through the continuity of the Land. As Yuin (Aboriginal) woman Daniele Hromek describes “We did not need to construct major monuments, as Country itself has always been our monument, both tangibly and intangibly”¹⁵. Place provides people with connection to the past, present and future simultaneously.

Archaeology as a discipline uses the device of temporal stratigraphy to classify ‘layers’ of time as evidenced in the process of digging under the earths surface to reveal details of past material culture. In the context of decolonization however - and considering the overlaying of meaning and political systems of planning- the use of temporal stratigraphy draws together both a western and Indigenous spatial understanding simultaneously. From a colonizers perspective layers of order were placed upon the Land as it stood mute in the background. Upon the land in Australia which forms the enduring ground of experience, new systems of land tenure, property law and planning regulations were established as additional layers and continue to be perpetuated in contemporary times. These are attempts to re-structure the relationships between people and country. In a city, the planning and licensing codes which flow from this are not neutral but rather establish the distribution of power, hierarchy, who is acknowledged or considered, and who is not and the circumstances under which certain voices are considered relevant. For Aboriginal people however the past and present are coterminous as place embodies the past in ever present experience. Returning to the first part of this paper, considering interdependence and the obligations of proximal dwelling; If we are to ask then who do we live amongst, a western perspective might assume to consider only those acknowledged by the contemporary Land Tenure, property law and planning regulations. Whereas an Aboriginal response to that same question would encompass the deeper layers, unseen yet known, embodied and ever present. This is important in the context of this paper’s proposition for the obligations of proximal dwelling, because the first step is to acknowledge those you live among, and this Aboriginal response provides acknowledgement of the Land and its original people in a way the contemporary planning systems and laws do not. Some progress has begun in this area by the government of NSW Planning policy and guidelines called ‘Connecting with Country Framework’, a guideline of Seven objectives which define the key considerations in the design of the built environment.¹⁶ However, space precludes further discussion of this. The obligations of proximal dwelling is presented in this

paper as an approach which embodies this sensibility of starting with respectful acknowledgement of the conditions to which we are subject and for which we share mutual responsibility

GROUNDING EXAMPLE_ REFLECTING ON WORK FROM DJON MUNDINE, AN INDIGENOUS SCHOLAR IN RELATION SPECIFICALLY TO SYDNEY COVE [WARRANE]

The following example located on Sydney Harbour demonstrates the difference in orientation to place, outlined in this paper, and proposes a more successful approach to understanding by applying the obligations of proximal dwelling.

Djon Mundine OAM is an Aboriginal Australian artist, curator, activist and writer. He is a Bundjalung man known for having conceived the 1988 work *Aboriginal Memorial*, on display at the National Gallery of Art in Canberra. In his 2016 publication *'An Assertion of Continued Presence'*,¹⁷ Mundine wrote about a proposed artwork for Bennelong point which is located in Sydney Cove, known more popularly as Sydney Harbour. The artwork he proposed would be located on the sandstone cliffs adjacent to the iconic Sydney Opera House. As he explains, inspired by a book on rock art sites in Sydney produced in 1898 by the New South Wales Department of Mines, he wanted to make an interpretation of this with two Aboriginal figures. He wanted to etch these figures with outline drawings or silhouettes into the rock which faces the Sydney Harbour Bridge. This vertical rock face was originally cut from the rocky escarpment between 1818 and 1821 to allow for a road to be built around the point from Sydney Cove (now Circular Quay) to Farm Cove (east of the Sydney Opera House). The rockface itself curves and rather than have the proposed figures face the Opera House, Mundine explains the placement would see them face the bridge.¹⁸ As Mundine explains:

As a public artwork I thought it better that it be on this rock face rather than in the ground... I began to call the work *The Song of Bennelong and Pemulwuy* rather than just *Bennelong and Pemulwuy*. Calling it a song means that it's alive, it has another dimension as an artwork

In 2010 the work was proposed to the *Biennale of Sydney's* Artistic Director David Elliott, [and] it's participation [was] flagged in the *Biennale Free Guide* [as quoted below]

The Song of Bennelong and Pemulwuy (2010) ... signifies two great themes of Aboriginal History since 1788—resistance and engagement—and is based on enlarged figures of men from traditional rock art, which will be carved into the tall rock face on Tarpeian Way, a part of the Royal Botanic Gardens opposite the Sydney Opera House. The project will stand as the first permanent Aboriginal memorial in Sydney and refers to the freedom fighter Pemulwuy (c. 1750-1802) who fell in battle, and Bennelong (c. 1764-1813) who first taught the English colonists about Aboriginal culture.

There was an asterisk caveat at the bottom, "This project is in the process of being realized." It wasn't.The project was canvassed widely amongst all possible interested parties but still it has failed to materialize.¹⁹

Despite Botanic Gardens (who are the designated owners of the wall) and Land Councils being onsite and approving of the work, Mundine is circumspect that the work has not yet been realized. The project remains one Mundine would like to see realized. As Mundine explains;

The proposal for the *Song of Bennelong and Pemulwuy* has been recycled and represented over the years. Its monumentalism and physicality have seemingly been problematic from its first conception; it has been seen perhaps as too permanent a marker with its bold engraving into the rock wall. Some responses have even suggested that its intended location is a historic site, which seems dubious given that it was carved from the original landscape by the early colonists to create a road.

Over this lengthy period of re-conceptualizing and re-proposing the project it has sustained the support of the greater Sydney Aboriginal community (elders from La Perouse and the Darug people from Blacktown) and given that the Royal Botanic Gardens is responsible for the wall, it had received

their support as well. The project was canvassed widely and supported by all possible interested parties but still it has failed to materialize.²⁰

It is disappointing this work has not been appreciated for its capacity to demonstrate the deeper temporal and spatial presence that endures at this iconic site. If the approvals process had sought to ask the question ‘who do we live amongst’ as the first step in the obligations of proximal dwelling, they’d have acknowledged that the proposed work simply makes visible that which is already there in response to that question from an Aboriginal perspective, and that the Aboriginal perspective deserves acknowledgement and celebration at this location especially, given its proximity to the site of alleged first contact with the colonizers of Australia. Nonetheless, this opportunity has been sadly overlooked.

CONCLUSION

The common ground of the embodied dimension of place is highlighted as a useful starting point in addressing the complexities of managing contemporary diversity. The value proposition to frame differentiated solidarity and the obligations of proximal dwelling specifically with respect to place has been presented and an example of where it could be successfully applied to resolve an injustice was provided. To approach agreement upon the baseline which holds difference together, this paper has argued that if we take the present moment as all there is, place can be that grounding baseline, both as what we share through a common moment of experience and also in an embodied sense, as the proximity which requires us to acknowledge we are accountable to one another because we live together, literally side by side, on the same street, in the same neighbourhood, city, nation and planet. We are all implicated in the outcomes of our choices. Despite this, discourse is becoming increasingly fragmented and there is a need to improve our ways of working across difference.

NOTES

- ¹ Iris Marion Young *Inclusion and Democracy*, (New York: Oxford University Press, 2000) p 224
- ² Onora O'Neill, *Toward Justice and Virtue* (Cambridge: Cambridge University Press 1996) chapter 3
- ³ Iris Marion Young *Inclusion and Democracy*, (New York: Oxford University Press, 2000) p 224 Citing O'Neill 1996
- ⁴ Craig Calhoun *The Class Consciousness of Frequent Travelers; Towards a Critique of Actually Existing Cosmopolitanism in *Conceiving Cosmopolitanism, Theory, Context and Practice* 2002 eds. Vertovec Steven & Cohen Robin. (New York Oxford University Press 2002) p 109*
- ⁵ Judith Butler 'Precarious Life, Vulnerability, and the Ethics of CoHabitatation' in *The Journal for Speculative Philosophy* Vol 26, no.2 special Issue with the Society for Phenomenology and existential philosophy (2012) pp134-151
- ⁶ Judith Butler 'Precarious Life, Vulnerability, and the Ethics of CoHabitatation' in *The Journal for Speculative Philosophy* Vol 26, no.2 special Issue with the Society for Phenomenology and existential philosophy (2012) p140 emphasis in original
- ⁷ Angelique Edmonds, *Connecting People place and Design Intellect* Bristol UK and University of Chicago Press, Chicago IL 2020 p 181
- ⁸ Libby Porter 'From an urban country to urban *Country*: confronting the cult of denial in Australian cities' in *Australian Geographer*, 2018 VOL. 49, NO. 2, p239 <https://doi.org/10.1080/00049182.2018.1456301>
- ⁹ Libby Porter 'Indigenous People and the Miserable Failure of Australian Planning' in *Planning Practice & Research*, 2017 VOL. 32, NO. 5, 559
- ¹⁰ Libby Porter 'From an urban country to urban *Country*: confronting the cult of denial in Australian cities' in *Australian Geographer*, 2018 VOL. 49, NO. 2 p240 <https://doi.org/10.1080/00049182.2018.1456301>
- ¹¹ David Mowaljarlai, *Yorro Yorro: Everything Standing up Alive: Rock Art and Stories from the Australian Kimberley* (Broome: Magabala Books, 1993).
- ¹² For more see Angelique Edmonds *Connecting People, Place and Design* 2020 Intellect Books UK, particularly Chapter 1 'Significance of Place' p16-46, Chapter 2 'Modern Shift of Perception' pp46-65 and Chapter 4 'Order Imposed' pp96-120
- ¹³ Libby Porter 'Indigenous People and the Miserable Failure of Australian Planning' in *Planning Practice & Research*, 2017 VOL. 32, NO. 5, 557
- ¹⁴ Angelique Edmonds *Connecting People Place & Design* Chicago University Press, Chicago ILL 2020 p23
- ¹⁵ Daniele Hromek *Reading Country: Seeing Deep into the Bush* in *ArchitectreAU* online May 2021 <https://architectureau.com/articles/reading-country-seeing-deep-into-the-bush/> (accessed May 30 2024)
- ¹⁶ NSW Planning 'Better Placed: *Connecting with Country*' June 2023
- ¹⁷ Djon Mundine *An Assertion of continued Presence* in *Di'Van* 88 Dec 2016
- ¹⁸ Djon Mundine *An Assertion of continued Presence* in *Di'Van* 88 Dec 2016 p 91
- ¹⁹ Djon Mundine *An Assertion of continued Presence* in *Di'Van* 88 Dec 2016 p 93, See <https://www.scribd.com/document/124409305/2010-Biennale-Sydney-Free-Guide>
- ²⁰ Djon Mundine *An Assertion of continued Presence* in *Di'Van* 88 Dec 2016 p 93

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CREATIVE APPROACHES TO REGENERATE THE CULTURAL HERITAGE OF CITIES IN TRANSFORMATION

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INTRODUCTION

Settlement system regeneration could be the rendition of cultural heritage as the main developed resource for balancing the merging of tangible and intangible values of the built environment. Considering tangible culture as the product of creative action that a community imprints on the available resources, the intangible culture is the value derived from such operations and that, in a circular perspective in turn, produces a materiality that affects the strategies of city redevelopment.

The research investigates how cultural heritage can regenerate itself over time by introducing key performance elements in a continuous urban transformation.

The methodological approach is based on binomial slowness/creativity. Such a relationship influences the way of life in the temporal and physical dimensions and assumes the transferability, in other contexts, of this creative approach to face the dynamics of gentrification and touristification of contemporary cities. The urban metabolism, increasingly accelerated, is rethought through a process of slowing down typical of the lifestyle of the Italian social movements of the slow city. The latter can be declined, according to four main aspects: proximity, circularity, walkability, and liveability.

The research introduces a rehabilitation model aimed at increasing social cohesion and improving the quality of the built environment. The slowdown in urban metabolism brings the city back to a human dimension. The proposed model aims to counteract the negative effects of touristification for cities with high tourist attractions. The community's involvement can reactivate dialogue between the parties and the care of the context. Experimentation in Sciacca, the next UNESCO site in South Italy, reveals how the art-based approach could build a heritage community. The systemic analysis process of the art infrastructure of the historical center, redeveloped by the collaboration between the artisans and the local community, assumes the transferability requirements in other contexts to face the dynamics of gentrification and touristification of contemporary cities. The paper offers a new way of rethinking the city by looking at cultural heritage as a paradigm of urban change.

The paper is developed into 5 main sections. The first one concerns the international background, related to the regeneration strategies of cultural heritages compromised by touristification and gentrification. The second section concerns the methodological approach, based on the slowness-creativity pair that can influence the temporal and physical dimensions of the built environment. The third section concerns the case study of the 5 Senses Open-air museum of Sciacca, in Italy. It represents a best practice to stimulate processes that build heritage communities. The fourth section

concerns result and discussion related to the validation of the method through comparison with other virtuous case studies, and conclusions.

THE REGENERATION OF CULTURAL HERITAGE IN INTERNATIONAL BACKGROUND

Settlement systems can be interpreted as the overlaid expression of a common culture built over time by the community that inhabits them. Cultural heritage is a set of resources inherited from the past that communities identify with value, and are committed to passing on to future generations through preservation, enhancement, and synergistic processes that contemplate contemporary creativity.¹ This cultural heritage is the result of interaction over time between populations and places: a balanced mix of tangible and intangible values (Fig.1), which constitute the main resource for the development of the territories in which they insist.² Tangible value is the physical product of creative action that a community imprints on the available resources. The intangible value is the value that derives from such operations and that, in a circular perspective, in turn, produces a materiality that affects the strategies of territorial redevelopment.



Figure 1. Cultural heritage: tangible and intangible values.

In the European context, an effective tool for the enhancement and awareness of cultural heritage was the European Commission's establishment of the "European Year of Cultural Heritage 2018". This initiative has been key to strengthening communities' sense of belonging to their territories and traditions.

Urban centers have reacted to the impacts of globalization through forms of creative reuse of resources in their territory. The tangible and intangible value represented the sediments of a strongly territorialized identity, which was the main tool opposed to the impacts of globalization. The interpretation of the city as a dynamic system of synergic relationships between places and identity has allowed the development of innovative forms of urban regeneration, linked to the creative capacity of culture to trigger circular synergies.³ Urban dynamics finalized to the reactivation of a respectful territorial attractiveness means exploiting the cultural identity of a place through a process of degrowth that reconstructs the complex bonds of reciprocity and interdependence between nature, culture, and economy. The concept of degrowth, which originated in the early 1970s in France as *décroissance*, is taken up by avoiding globalization activists at the beginning of the new century: population growth and economic and material development are no longer regarded as indicators of societies' well-being.⁴ In contrast, the degrowth vision is one of "prosperity without growth",⁵ which, by turning the recent energy-economic crisis into opportunity,⁶ overcomes the concept of the traditional fast economy and its social and ecological effects, in favor of the concepts of community, sharing, simplicity and care. The movement also strongly criticizes the progressive homogenization of identity values in globalization, which is leading to a progressive loss of intangible values, consequently leading to a loss of quality in the built environment.

The creative reuse of available material resources is an innovative strategy for the protection of intangible heritage and the preservation of the roots and values of the community.⁷ Intangible value has a formative capacity that, through cultural strength, helps to stimulate processes that build communities. In the same way, it has a connective capacity capable of multiplying the bonds of a fragmented society, protecting the collective memory, and regenerating cohesion with the settlement system. To decrease, the slowdown of urban metabolism is a good practice to rebalance dissipative and degenerative processes, restoring to the community an active role towards the construction of hybrid links between the different components of reality that contribute to the sustainable development of cities. Doing so requires states to adopt an innovative approach of collaboration and cooperation among government agencies at all levels, private stakeholders, and civil society for cultural heritage governance, putting the spirit of community adaptation and resilience at the forefront.⁸

The hypothesis is based on the binomial slowness/ creativity, relationship that influences the order of housing in the temporal and physical dimensions. Conceptually, it refers to a planned slowdown of cities, based on a creative principle of renewal of urban policies. Settlement systems change through a planned slowness,⁹ the temporal dimension of which helps to discover creative ways of living in cities. The latter maintain their capacity to accommodate different dimensions in multiple spaces but become slow in the way they are living. The case study refers to the city of Sciacca, the next UNESCO site in South Italy, where the principles of the *Cittàslow* were verified.

METHODOLOGY

The research investigates how cultural heritage can regenerate itself over time by introducing key performance elements within continuous urban transformation. The study investigates how the renewed slowness of urban processes and creativity mitigates the degradation of settlement systems and increases social cohesion.

The slowdown in urban metabolism brings the city back to a human dimension attentive to the involvement of the community capable of affecting the reactivation of dialogue between the parties and the care of the context.¹⁰ Experimentation reveals how the art-based approach affects the speed of processes by validating art as a regenerative potential of cultural heritage.

The method (Fig.2) derived from the observation of the case study Sciacca, through the identification of the strategies adopted and the extrapolation of key actions. For validation, the method was finally compared with other virtuous case studies.

The methodological approach interests the slowness-creativity pair because it influences the temporal and physical dimensions of the built environment.

The concept of slowness draws on the *Cittàslow* movement, initiated in Italy in 1999 to counter the rapid phenomenon of globalization. The speed of change affects cultural heritages: the continuous transformation of sites, which are hyper-connected to each other, and touristification lead to a progressive homogenization, often resulting in a destitution of tangible and intangible values.¹¹ *Cittàslow* promotes a philosophy related to degrowth and slowness, through the concept of circularity and the preservation of values that contradistinguish cultural heritage. Slowness, associated with urban heritage, consists of four main aspects: proximity, circularity, walkability, and liveability.

The concept of creativity links collaboration among local stakeholders in a heritage community, with the integration of new technologies in line with embedded values. Creativity progressively generates a sense of affection in local communities toward cultural heritage in which citizens become active stakeholders in the care of the cultural heritage. This process, warding off the threat of touristification,

induces people to constitute a heritage community to regain responsibility for its cultural heritage through key actions for the regeneration of a sustainable and circular built environment.



Figure 2. Model of the cultural heritage self-regeneration over time by introducing key performance elements in a continuous urban transformation.

MATERIALS

In the case study of Sciacca, the next UNESCO site on the South-Western coast of Sicily, the principles of the *Cittaslow* were verified through the analysis of actions directed towards making this heritage accessible to others. It produces an economic model where ethics and results are no longer in opposition.

Sciacca, a small coastal town of 40,000 inhabitants, has a rich cultural heritage (Fig.3). It is characterized, on the one hand, by intangible values such as the carnival, the typical coral processing and the preparation of anchovies, the culinarian culture, and local crafts. On the other hand, tangible values are recognized in the landscape distinguished by Mount Kronio, and in the built environment, divided into the farmers' suburb (in the upper town), the workers' suburb (small stores of the ceramic artisans), and the sailors' suburb (the small harbor). The cultural heritage that distinguishes Sciacca is the result of layering over the centuries by communities who shaped it.

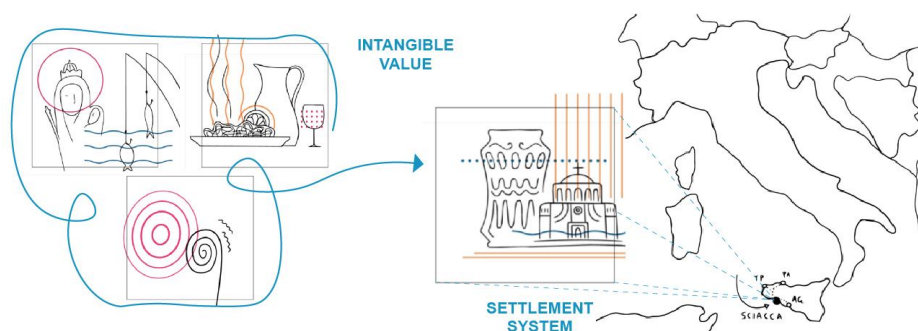


Figure 3. Intangible value has a formative capacity that, through cultural strength, helps to stimulate processes that build communities.

The town, with the closure of the city's thermal baths in the early 1990s, was hit by a deep economic, social, and cultural crisis, which led to a drastic decrease in local tourism.

In this emergency scenario the bottom-up action of the community, to save Sciacca from the crisis, has been a key performance elements to transform the built environment. Applying the concept of "regenerative tourism",¹² the city with high tourist potential begins to transform itself into a city with a

tourist-cultural destination, with a view to a sustainable and responsible development of the territory.¹³

The project, implemented in 2019, is called "5 Senses Open-Air Museum" (Fig.4) and it concerns the involvement of the local community of tourism businesses. Both with associations, accommodations, restaurateurs, artisans, associations, schools, and museums - who, aware of the deep-rooted and ancient tangible and intangible values of the Sicilian city, they all proposes Sciacca as an open-air museum, where tourists can be involved in quality experiential proposals linked to the territory.



Figure 4. Concept of Sciacca "5 Senses Open-Air Museum"

The museum curators themselves state: "A magical place, where emotions are perceived with the 5 senses, and where the 5 city gates transform into entrances to the Museo Diffuso, a Museum of experiences, a sensory Museum. The streets become the corridors of the Museum, the squares become the exhibition halls, the monuments are the attractions, and the commercial businesses with accommodations and dining places complete the picture of sensory experiences between tradition and natural, artistic, and cultural beauty. And Sciacca becomes, or rather discovers itself, as a great community."¹⁴

The project outcomes the concept of sustainability and circular economy, through the enhancement and reuse of local resources, offering tourists the true essence of Sciacca's culture, according to the keys of the five senses (sight, taste, smell, hearing, and touch). A networking of local people, who share their skills, proposes local culture and products as a fundamental tool to enhance the values of the area: the visitors, thus, are no longer a tourist, but they become temporary citizens.

The heritage community, called "Identità e Bellezza", is the innovative model pioneered for community transformation in the Sciacca (Fig.5).

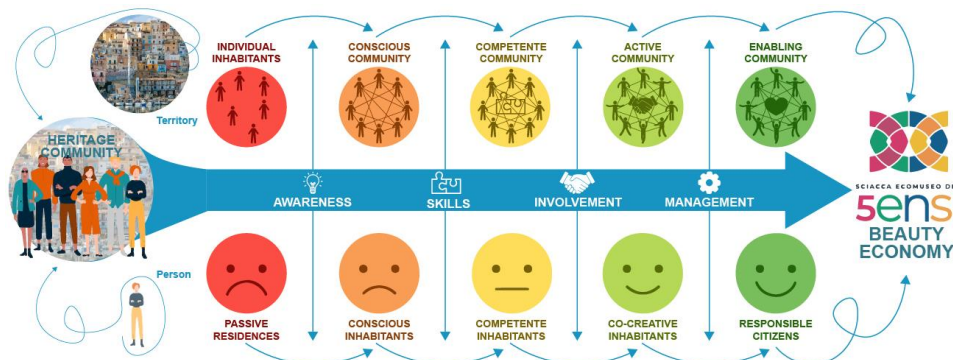


Figure 5. Concept of heritage community

It consists of several stages:

1. Transferring to individual inhabitants the awareness of the tangible and intangible values of their territory, and transforming them from passive residents to conscious inhabitants.
2. Connecting conscious inhabitants, they begin a conscious community, and so transferring their skills, they shift from competent inhabitants to competent communities.
3. The competent community, then, through active involvement in the actions of care, enhancement, and protection of tangible and intangible values, mutates into co-creative inhabitants, united in an active community.
4. An active community became a heritage community through the management of cultural heritage and led the transformation from an active community to an enabling community, formed by responsible citizens, generating a true "beauty economy."

According to this model, therefore, the action of each inhabitant within the connected community generates multiple outcomes,¹⁵ transforming it into a Heritage Community. The process of regeneration and enhancement of the built environment as well, through art-based point actions (Fig.6), involved local artisans and the community itself. The response from local institutions has been positive that public-private management projects have been spontaneous started.



Figure 6. Art-based experimentation in Sciacca.

The heritage community “Identità e Bellezza” with the project of “5 Senses Open-Air Museum” won national recognition as the best Italian start-up in the tourism-cultural field (Bravo Innovation Hub – Ministry of Enterprise and Made in Italy's network of business accelerators, 2021). They won the best community project award (Welfare che impresa, 2021) by Invitalia, the Italian government agency for investment attraction and business development, to be a virtuous example for the use of government incentives for cultural promotion too.

RESULTS AND DISCUSSION

The validation of Sciacca's heritage communities model was possible through comparison with other virtuous case studies (Fig.7), all characterized by four key performance elements: community, identity, sustainability, and beauty.



Figure 7. Validation of Sciacca's Heritage Community

The first key performance element of “community” refers to the bottom-up approaches applied to improve the shift from citizens to heritage communities. Inhabitants should be aware of their cultural heritage and take responsibility for passing on and enhancing this legacy of the past.

The second key performance element of “identity” refers to the meaning of places, in which tourists who visit the sites are no longer visitors but are transformed into temporary citizens.

The third key performance element of “sustainability” refers to social, cultural, but also economic and ecological should guide transformations from the local community for the sake of future generations. Finally, the fourth key element of “beauty” includes the history, culture, traditions, gastronomy, architecture, landscape, and agriculture that have the right to be protected and enhanced.

Applying the model to case studies of York (UK), Tampere (Finland), Urși (Romania), Hoorn (Dutch), and Athens (Greece) was a way to validate it and the entire process of methodology, testing the transferability of results. The value of these practices lies in promoting actions that lead to the regeneration of the entire settlement system, including the economy. In these practices, the active involvement of stakeholders shows that the ability to preserve heritage can increase conditions of creativity and that the slowdown of urban metabolism offers a new opportunity to read the links of the city. From the mixture of these factors, it is possible to generate forms of sustainable economy related to cultural production, sharing, and cooperation.

The results return the potential for interaction between cultural heritage, artistic production, and community empowerment. The slowdown of the aggressive urbanization of cities through practices of rediscovery, awareness, and consolidation of intangible values of cultural heritage, is a sustainable evolutionary tool. The progressive slowness assumed allows the user to regain his dimension within a complex system like that of contemporary cities.¹⁶

CONCLUSION

This paper aimed to demonstrate how the application of the slow-creativity pair can lead to new processes of urban regeneration driven by cultural heritage. The adoption of integrated and participatory approaches, which place the community at the center of cultural heritage preservation and management operations, leads to a raising of the quality threshold about interventions on cultural heritage itself.¹⁷

The model has been deduced from the virtuous example of the "5 Senses Museum" in Sciacca and has been validated against other best practices. The proposed model is easily applicable to small and medium-sized contexts, where recovering the community of care dimension is still possible. The difficulty lies in applying the model to large urban centers, rather than to historic and artistic cities,

where social and governance dynamics are more complex. There people's ability to network is almost totally lost, and touristification has now imprinted enormous changes to intangible values. The model, therefore, to be applied to more complex realities must take into account more variables.

NOTES

- ¹ Council of Europe, Convention on the Value of Cultural Heritage for Society (Faro, 2005), <https://rm.coe.int/1680083746>
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MAPPING THE PAST FOR FUTURE RESILIENCE: EVOLUTION OF LANDSCAPE AND WATER REPRESENTATION IN HISTORICAL MAPS OF JAKARTA AND BOGOR

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INTRODUCTION

Five centuries ago, Greater Jakarta, including Bogor, was within the domain of the Sunda Kingdom, an animist community that valued topography, influencing spatial practices and decisions regarding societal organization, including dwelling, agriculture, water management, and cultural practices. However, the intrusion of Dutch colonial power brought fundamental transformation of both the region's societal organization and its topography, expanding agricultural lands for capital gain. Local communities experienced dispossession, compelling them, among others, to shift their belief systems. To this date, Jakarta is a post-colonial city that became the capital city of Indonesia, although it may lose that status in the following years, necessitated by the need to relocate the city due to the inherent risk of natural disasters, particularly urban floods.

Given its extensive history, Greater Jakarta stands as a complex urban amalgamation, requiring a dissecting approach for comprehending the social construction of its territory. This paper aims to build such an understanding by using topography as a lens to examine the natural and artificial aspects of the built environment, and how topography, nature and society co-evolve. Topography has undergone diverse interpretations across different regimes: the Sunda with its ancestral knowledge, the Colonial with its exploration and experimentation, and the modern with its standardization. The interpretative nature of maps¹ adds an intriguing dimension to the discussion, offering insights into how topography has been represented in maps, which, in Jakarta, show how the colonial project was deeply intertwined with the manifestation of capitalism in the region.²

This paper analyses historical maps crafted from diverse perspectives. It seeks to elucidate the early production of nature, emphasizing the significance of reviewing the process of primitive accumulation.³ The primary focus is placed on dissecting topography not just as a technical element, but as having social, political, economic and cultural meaning. Topography is perceived differently by various regimes based on their beliefs or temporal knowledge and understanding. Topographical transformation, as socioenvironmental change, is not a natural occurrence but rather a political ecological project. Nature is actively shaped within the socio-natural relationship dictated by the capitalist mode of production and socio-natural metabolism. Human practices continuously shape and reshape the physical and socio-political landscape, imbuing it with characteristics aligned with the

reproduction of the capitalist political economy.⁴ The interrelation of politics, environment, space, and design cuts across sites and often between institutions and on-the-ground communities.⁵

The paper further addresses topographical change, as a socioenvironmental phenomenon, through the filter of mapping.⁶ Maps serve as a tool for regional control and governance, albeit with inherent limitations and flaws. Consequently, maps are socio-political, introducing alterations to reality. Since the colonial era, topography has predominantly been represented through maps. As a link between architecture and landscape, topography becomes a valuable element for dissecting projects across various regimes. The paper employs the mapping of urban and rural tissues and digital elevation modelling to reconstruct a floodplain map, illustrating topography as a social construction. The research incorporates historical analysis literature to illustrate how each regime has left its imprint on the transformation of the landscape.

TOPOGRAPHY IN DIFFERENT ERAS

The history under consideration can be categorized into three key episodes: pre-colonial, early colonial, and late colonial. The pre-colonial era witnessed the decline of the Sunda Kingdom instigated by the Coastal Muslim or Moors. During this period, the use of maps was not common, but the introduction of Portuguese involvement marked their emergence. The colonial era unfolds in two distinct stages: the early colonial era, characterized by the VOC (Vereenigde Oostindische Compagnie or Dutch East India Company) exploiting the land for agriculture solely for colonial capital gains, and the late colonial era, which focused on state-building and governance, particularly after the French Revolution.

Pre-colonial Era: Last Century of the Sunda Kingdom, masters of topography (1500-1625)

The Sunda Kingdom did not have a tradition of using maps. However, when the Portuguese explored the kingdom, they created a limited number of maps for this region. The Portuguese introduced their own methods of mapmaking, thereby shaping their own perspective for understanding the region. Historically, reliance on tangible sources, such as Portuguese maps, has led to ignoring the Sundanese perspective on topography. Nevertheless, this section analyzes the topographic detail of the Sunda Kingdom and the western part of Java Island as drawn in Portuguese maps.

Apart from the oral traditions circulating within the Sundanese community, there is limited literature available about the Sunda Kingdom. Notably, “Suma Oriental” by Tome Pires (1486-1540), a Portuguese apothecary, stands out as the first official and detailed report providing insights into the land of Sunda.⁷ Pires portrayed Sunda as a non-Muslim Kingdom, perceiving Muslims as a potential threat. The available records do not indicate a customary practice of wet-rice cultivation among the Sundanese, unlike the Javanese. Pires’s account mentioned rice as their market product, albeit in limited quantities compared to other vegetables. Furthermore, the Sundanese also possessed the “Warugan Lmah”, loosely translated as the Scroll of Landscape, written in Sundanese Script. This scroll outlines eighteen ways of settling in topography to shape their destiny.⁸

The most recent map predating the Dutch colonial era is attributed to João Baptista Lavanha in 1615 (figure 1). This map highlights the primary city of the Sunda Kingdom, referred to as Daio, positioned to the east of a river in the western part of Tangaram (or Tangerang). This river must be the Cisadane River which traverses the modern city of Tangerang. Daio is situated further inland, precisely at the point where the river originates, just before the mountain range. Interestingly, this topographical characteristic bears resemblance to the modern city of Bogor (formerly Buitenzorg during the colonial period). National history claims that Pakuan Pajajaran, the main city of Sunda, is in the modern city of

Bogor. Therefore, it is reasonable to infer that Daio corresponds to Pakuan Pajajaran, representing the pre-colonial Bogor.



Figure 7. Map of Java by João Baptista Lavanha from 1615, published in *Decadas da Asia*.⁹ Cropped and rotated North-up.

According to Pires, Daio served as the main city, and the Sunda Kingdom comprised six major port cities: Bantam, Pontang, Cheguidé, Tangaram, Calapa, and Chimanut. Figure 1, when analyzed topographically, suggests that the Sunda Kingdom tended to establish a main city where the king spent most of the year, situated in the hinterland with a mountain range as a backdrop. In contrast, the port cities appear smaller and more numerous, resembling satellite cities.

However, a critical examination of the map reveals an inaccuracy in the Portuguese understanding of the Sunda Kingdom's regional structure. The depiction of rivers running in parallel from the mountain range to the coast may misrepresent the actual topography. Specifically, rivers on Cheguidé, Tangaram, and Calapa should converge in Daio, as cross-referenced with the current topographic map. This suggests that the Sunda Kingdom had a preference, strategically sitting the main city at the convergence of these rivers for efficient addressing and water controlling.

In figure 1, port Calapa was replaced with Xacatará, named after a Muslim or Moor prince. This new name, Xacatará or Jayakarta, translates roughly to “city of victory.” The inspiration for Jakarta's name can be traced back to this historical context, suggesting that the capital city of Jakarta symbolizes the victory of the Muslim empire. The nomenclature of the city provides insights into the topographical conditions and how the coastal Muslims conquered the Sunda Kingdom – primarily by controlling trade routes on the coast, resulting economic decline in the main city at hinterland.

Early Colonial Era: Introduction of Sawah agriculture through transformation of topography (1625-1799)

The VOC initially established in the coast of Jakarta, emphasizing their Dutch culture, particularly settling in the lowlands. It was only after approximately half a century that they began exploring the hinterland. During this period, they admired the Sundanese topographic preferences and chose to build their palace on the site of the previous kingdom, creating the city of Buitenzorg, the colonial name of modern Bogor city. The VOC facilitated Javanese expansion of agricultural techniques under its control, contributing to the establishment of an intricate irrigation system. The VOC supported this

system by creating innovative topographic maps that delineated floodplains. It also significantly transformed the topography in this region, with Sundanese tropical forests being converted into agricultural lands. The introduction of an innovative irrigation system showcased the intricate interplay with topography, reflecting a dynamic evolution in land use and cultivation practices.

The VOC established the city of Batavia as their base at the mouth of the Ciliwung River in 1625, a move that involved eradicating the Coastal Muslim settlement of Jayakarta. As a joint-stock company, the VOC's primary goals in Asia were straightforward: the establishment of trade monopolies, with Batavia positioned as a main trade port city. Batavia was purposefully designed as a water city, drawing inspiration from Simon Stevin's ideal city.¹⁰ Over 50 years, Batavia evolved into a prominent international trade port, strategically weakening the position of Bantam city, the Coastal Muslim's primary trade port located to the west of Batavia.

After a half-century, the VOC initiated explorations into the hinterland. The first map detailing the hinterland was created by Scipio in 1687, marking the rivers that he traversed. Notably, mountains were graphically represented as symbols rather than precise topographic features. Impressed by the topographical features of Pakuan Pajajaran city, particularly its strategic location where the Ciliwung River leading to Batavia is near the Cisadane River leading to Tangerang, the VOC decided to construct the Governor-General's palace on the site around the 1760s. While the exact location of Pakuan Pajajaran city remains unconfirmed to this date, there is speculation that the Governor-General's palace might have replaced the existing Pakuan Pajajaran city.

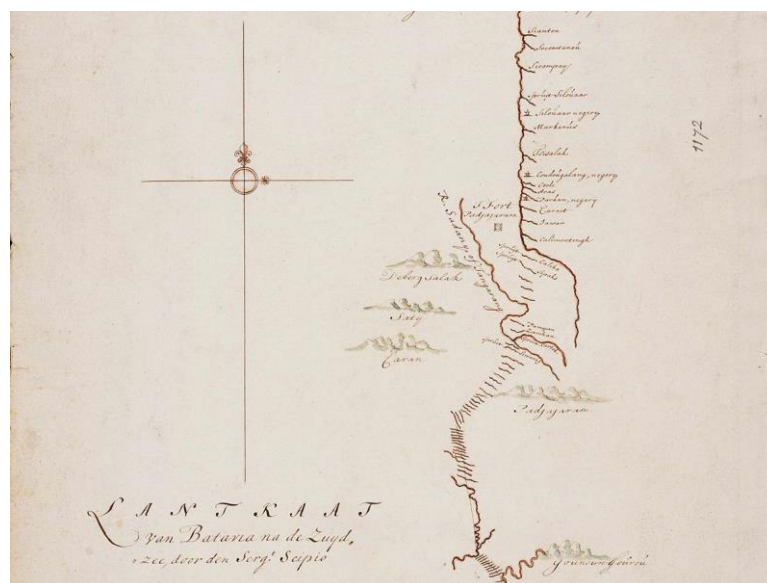


Figure 8. cropped version of Scipio's journey map from Meester Cornelis to Pelabuhan Ratu, via Fort Pajajaran.¹¹



Figure 9. Map of a part of Buitenzorg estate, 1760, cropped, showing the radial design of palace's garden adjacent to the Ciliwung River.¹²

The expansion into hinterland, renamed Buitenzorg, signifies the VOC's control over the region surrounding the Ciliwung River. The entire landscape underwent a significant transformation into sugar plantations. The workforce consisted mainly of Sundanese and migrated Javanese workers who taught Javanese farming techniques of *sawah* to farmers in this region. In 1792, a European farmer observed the impact of sugar planting, noting, "sugar planting has led to the clearing of land up to seven hours' travel from town, paddy cultivation and cattle-raising has also spread so that up to the mountains no forest is left to provide fuel for sugar mills."¹³ This underscores the extensive influence of the sugar industry in reshaping the local landscape, affecting not only agricultural practices but also the broader environmental dynamics.

The VOC actively supported the expansion of *sawah* in the region and initiated significant irrigation projects to enhance the agricultural system. The concept involved creating a freshwater channel at a higher elevation to nourish the agriculture before allowing it to drain into the river. The first major project, Oosterslokkkan (East Canal), diverted water from the Ciliwung River at an elevation around 335 meters above sea level. A dedicated topographical map (Figure 4) was created for this project, specifically indicating the lower part of the land surrounding the river, which, in geological terms, would be considered a floodplain. The map illustrates how the new irrigation channel avoids the floodplain area, ensuring a consistent water flow. It also reveals the settlement preferences of local villages, highlighting their inclination to settle near water sources and higher ground.



Figure 10. Map of the Numbered Posts Between Meester Cornelis and Buitenzorg split into two parts, showing the river's floodplain and the Oosterslokkan which stays in between floodplains, in the higher ground.¹⁴



Figure 11. a zoomed part of figure 4, showing how settlement prefers the water sprout instead of settling in the floodplains.

The second project, Westerslokkan (West Canal), diverted water from the Cisadane River, ultimately merging the water from Cisadane River with the Ciliwung River. These irrigation projects exemplify the VOC's commitment to infrastructure development for agricultural expansion in the region through topographic interplays.

Late Colonial: Nation Making through transforming topography representations (1800-1945)

The late colonial era was characterized by a specific agenda – the nation-making of the Dutch East Indies. In the pursuit of creating a state, the necessity to simplify complex language and measurement systems emerged, facilitating scalability.¹⁵ This simplification is evident in various aspects, including mapping styles and the representation of topography. While this approach facilitated regional projects such as railways, roads, and suitability analysis for agriculture, it diminished the topographical emphasis in maps. Consequently, these maps often failed to adequately portray the contested nature of topography between colonial and local settlements during this period.

In 1799, facing bankruptcy, the VOC relinquished control, transferring it to the Dutch government. The impact of the French Revolution in 1811 led the British Empire gaining control over much of the VOC's territory, including Batavia and Buitenzorg, for a period of five years. During this brief occupation, substantial changes were implemented, notably transforming the canals in Batavia into roads and upgrading the garden in the Buitenzorg Palace into an English-style garden. The adapted garden soon evolved into an experimental botanical laboratory, profoundly influencing agricultural practices. This unique land, shaped by the region's topography and climate, played a pivotal role in defining the cultivation of various agricultural products such as massive quinine and tea plantation.

In the maps created by the Topography Bureau in Batavia [see Figure 6 and Figure 7], the topographic style simplifies into mere topographic lines. The land, previously recognized for its numerous small floodplains along each river, is now depicted with intricate topographic lines that fail to accurately represent any floodplains. This shift in topographic representation figuratively results in the absence of floodplains in the visual narrative of the land.



Figure 12. Four sheets of Batavia maps including Buitenzorg from 1866¹⁶, stitched by author. The original print is a very accurate map with a scale of 1:10,000.



Figure 13. Zoomed version of figure 6, showing Ciliung River and the railway (left). The continuous brown line represents the topographic line.

In contrast, the topographic lines style on maps facilitates the standardized understanding of topography across regions, enabling the planning of regional projects such as roads and railways. The Grote Postweg (Great Post Road) project in 1808 connected major cities across the entire island of Java. The railway project, a more technically demanding work than roads due to the train's gradient limitations, required a nuanced understanding of topography.

However, maps alone may not convey the complete story. For instance, the railroad from Batavia runs alongside the Ciliung River until Buitenzorg, where it then shifts to the east bank of the Cisadane River. Figure 7 may not capture nuance that the railway is not only on the west part of the Ciliung River but also avoids the floodplains of the Ciliung. In Buitenzorg, Danasasmita argues that the railway is placed where Pakuan Pajajaran's moat, originally constructed for defense at the edge of the river's terrace, once stood.¹⁷ The gradient characteristics of the moat align with the railway's requirements, making it pragmatically logical for the railway to replace the moat.

As explained in the previous chapter, Buitenzorg's defining feature was its location between two parallel rivers, which is not easily discernible in Figure 6. A 1920 map (Figure 8) coincidentally highlights this feature, as it only depicts the area between the two rivers, the political boundary of Buitenzorg at the time. Despite the preceding discussion, the floodplain style from Figure 4 is absent in Figure 8. Figure 9, reproduced using the floodplain style from Figure 4 with topographic data from GLO-30,¹⁸ shows that most of the formal urban tissue, mostly colonies, is located in the higher ground while the locals settle in the floodplains, although locals never preferred to live in the floodplain.



Figure 14. Stitched two sheets of 1920 Buitenzorg map¹⁹ with a scale of 1:5,000 in the original size, showing the two rivers as the boundary of Buitenzorg.



Figure 15. A reproduction of floodplain map using GLO-30 topographic data, traced with figure 8 urban tissue (green is kampung, red and orange are formal lots)

As maps became less topographical, the Palace also underwent a planar expansion. In 1942, the Palace Garden extended to the other side of the Ciliwung river, adopting a circular boundary. This circular shape influenced the city's main road extension, resulting in a large roundabout at the city center, evident in the 1945 map [Figure 10]. Subsequently, the circular botanical garden became the city's symbol, replacing the characteristic of the two parallel rivers from the Sunda Kingdom era.



Figure 16. A 1946 map of Buitenzorg,²⁰ showing the expansion of the palace's garden and the road, creating a circular shape which is more dominant than the two parallel rivers.

CONCLUSION

This paper highlights that the interpretation of topography in maps varies based on the socio-environmental dynamics and topography-nature-society interactions of the time. Initially, Portuguese maps depicted the Sunda Kingdom with its main city in the hinterland, using coastal cities as satellites, but failed to illustrate the main city's two parallel rivers and the Sundanese complex relations with topography. In the early colonial era, maps were experimental, serving specific topographical transformations aiming to exploit agriculture, exemplified by floodplain maps for well-planned irrigation systems. Later, topography became standardized for regional projects under the state-making agenda, focusing on roads and railways, thereby omitting tailored topographic details.

Seen from a socio-environmental perspective and as a social construction, topography is also contested. The Sunda Kingdom's preference for living in a strategically advantageous topographical area, with high ground and parallel rivers, influenced the Dutch in establishing Buitenzorg. However, only formal structures could occupy the higher ground, leading locals to create kampungs in the floodplain, contrary to their historical preference for using floodplains for agriculture. The socio-politics of topography became obscured as maps transitioned into state-making styles with simplified topographic lines.

This paper underscores the significance of mapping topography and comprehending the social construction of both mapping and topography. As we navigate an era acknowledging nature's intricacies, it prompts questioning how maps can lead and mislead the understanding of both social dynamics and nature, particularly in topography. The socio-ecological construction of topography examined here serves as a template for understanding this construction in various regions with similar colonial backgrounds, advocating for a deeper topographical interpretation of maps. Ultimately, this

paper contributes to the critique of the sovereignty of maps, challenging their dominance as the foundation for spatial development.

NOTES

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SUSTAINING CIRCULAR COMMUNITIES THROUGH THE GRANVILLE ISLAND CREATIVE WALK

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INTRODUCTION

The exploration of the evolving landscape of makerspaces in Canada has become a focal point for understanding the intersection of innovation, creativity, and sustainability at the local community level. At its core is to unravel the essence of makerspaces and the application of Circular Economy (CE) principles within these dynamic hubs. Makerspaces, traditionally perceived as collaborative workspaces equipped with tools and resources for creative endeavors, increasingly have potential to become incubators of circular practices.¹ Circular Economy, with its emphasis on regenerative practices, has grown beyond an economic model—it has the potential to foster a holistic approach that encompasses community - society dynamics and analyze what makes a Circular Community (CC).² For Makerspaces, Circular Community can include practical models such as sustainable use of materials, production within the workspace and/or an emotional model addressing inclusivity, diversity, and camaraderie fostering co-creation adding impact to cultural values.³

Granville Island—a unique urban park in Canada, zoned for urban experimentation, innovation, to nurture arts and culture hosting an array of exceptionally talented creatives and makers. The Granville Island Creative Walk showcases the interplay between the sustainable practices of local cultures and what community means. This effort originated from a co-taught course between Planning, Geography and Environmental Studies (Dr. Cherie Enns, RPP) and the Graphic and Digital Design (Miranda Ting, IxDA) department entitled GEOG/GD 464 Urban Design Planning Studio: Urban Regeneration, Art, and Sustainability. Students of this pilot project worked closely with local businesses and government stakeholders, fostering application of placemaking principles, Sustainable Development Goals (SDG), and Human-Centered Design (HCD). The Granville Island Creative Walk is a celebration of creativity embodying the sustainable principles of Circular Communities and the future of Circular Economy. Interdisciplinary collaboration can sustain and nurture places like Granville Island, where creativity, culture, and business and community thrive together in harmony, inspiring initiatives in other urban environments.

History

To comprehensively grasp the circularity of Granville Island, an examination of its history is imperative. Originally a sandbar and serving as a gathering place for First Nations, Granville Island witnessed a significant transformation during its colonial history when settlers assumed control. Throughout the early 20th century, it played a pivotal role as an industrial manufacturing district,

housing factories, mills, and warehouses.⁴ In the 1970's rapid industrialization resulted in environmental degradation, with the proliferation of pollution and overcrowding leading to the decline of living forms in False Creek. During the 1980s, a profound recognition of the adverse impact of industrial practices on the local ecosystem led to an ambitious attempt to rejuvenate the False Creek area.



Figure 1. Matthews J.S Major, *Pacific Dredging Co. Ltd. Vancouver, B.C. March 26, 1917, AM54-S4-3- : PAN N96, City of Vancouver Archives Database. Available at: <http://searcharchives.vancouver.ca/pacific-dredging-co-ltd-vancouver-b-c-march-26-1917>.*

This initiative marked a turning point for Granville Island, prompting a revitalization effort that involved the construction of new infrastructure over previously utilized industrial waste zones.⁵ The old buildings could offer mixed-use, affordable rents for experimental businesses. The public embraced this creative and cultural re-use of the island, and with public input and visionary foresight it was designated by the Government of Canada as the site for redevelopment, the vision was to align Granville Island with the broader vision of transforming public space into a “People’s Place” or “urban park”- terms that were coined specifically for the use of this 42-acres of land.⁶ The resulting consensus emphasized inclusivity with the notion of "something for everyone," a sentiment encompassing a diversity of voices, needs, and industries.⁷



Figure 2. *Miranda Ting, Vancouver International Children’s Festival hosted on Granville Island, May 29, 2023, photograph.*

This marked the inception of a multi-disciplinary environment where industries, businesses, and creatives could coexist harmoniously, catering to the varied interests of the local public. Being federally administered has meant that municipal land-use rules do not apply; this has allowed for non-specific and mixed-use zoning which offers an extraordinary opportunity for nurturing diversity, cultural cross-pollination, urban and social innovation, and experimentation.⁸ Granville Island's unique evolution signifies a community built upon the remnants of its industrial past, where the driving force for innovation and adaptability shapes the island's vibrant and dynamic character.⁹

Current Challenges

Within the vision of a "People's Place," the challenge lies in establishing a harmonious balance among the needs of the local community, the interests of industry, creative retailers, and the role of federal bureaucratic management of this urban makerspace.¹⁰ What issues arise from their convergence, and how can they be effectively addressed to ensure that all voices are heard and represented when embracing the idea of a Circular Community? The current success and gentrification of Granville Island in attracting tourism underscores the importance of finding solutions to these questions. As this cultural enclave thrives, it's crucial to navigate the complexities of circularity through fostering an inclusive environment where the contributions of local community needs, thriving industry/creative businesses, and effective bureaucratic management are acknowledged, leading to collaborative synergy. Fostering this relationship does not come without challenges when these entities converge in the pursuit of Circular Community dynamics, impediments can surface. One significant challenge lies in aligning the diverse interests and objectives of these stakeholders. The intricate dance between public engagement, community needs, strategies of creative businesses, driven by economic viability can create tensions. A notable challenge in the cultivation of circular community dynamics arises from the potential for unequal participation and representation within the convergence of these entities. While the amalgamation of these stakeholders offers a prospect for inclusive representation, there exists a significant risk of certain voices being marginalized within the representation process. Achieving equitable representation, particularly for marginalized communities, necessitates a purposeful initiative to amplify diverse perspectives and rectify systemic inequalities.

Illustratively, within the context of Granville Island, a distinctive concern has emerged whereby individual maker studios express a sense of inadequacy in their representation. These studios contend the local community has failed to recognize their presence, and bureaucratic managers have not made sufficient investments to promote their unique contributions to the general public.¹¹ The threat of non-representation can mean loss of maker culture traditions and knowledge not passed onto the next generation.¹² This discrepancy in acknowledgment and support has led to a feeling of underrepresentation among certain Makers, highlighting the importance of rectifying such imbalances to foster an inclusive Circular Community. Addressing this demands effort to bridge the gap between Makers and broader community, ensures that their contributions are acknowledged and valued. While the convergence of local public, creative businesses, and bureaucratic government entities holds immense potential for creating circular community dynamics, addressing challenges related to stakeholder alignment, representation, resource allocation, and regulatory frameworks is crucial.

Multidisciplinary Collaboration and Community Regeneration

How might a collaborative initiative involving education, grassroots organizations, government entities, and local businesses be structured to disseminate awareness of circular principles? The GEOG/GD 464 Urban Regeneration, Art, and Sustainability course at the University of Fraser Valley attempts to address the challenges inherent in cultivating a Circular Community through evaluating the Maker culture of Granville Island. This led to the design of a placemaking event reflective of the island's cultural identity, expressing the importance of Circular Community practices. Partnering with a multitude of community members and stakeholders, it aims to assess the practicality and feasibility of applied "Community-Driven Design."¹³ This involves incorporating diverse perspectives from local makerspaces on Granville Island, grassroots organizations such as Friends of Granville Island, and federal government stakeholders (CMHC). The collaboration fosters a hands-on application of

placemaking principles, with the goal of addressing Sustainable Development Goals (SGD) through human-centered design (HCD) processes.

This initiative stands as an outcome of interdisciplinarity, uniting diverse fields and welcoming students from various backgrounds, including Graphic Design, Geography, Environment, Education, and Social Work, for example. The purpose of this co-creation seeks to explore the practicalities of community-driven design and tactical urbanism by leveraging diverse perspectives to enrich the design process and gain valuable insights. The experience underscores the role of effective placemaking solutions to conscientiously address complex “socialtechnical systems.”¹⁴



Figure 3. Miranda Ting, Students of GEOG/GD 464 Urban Design Planning Studio: Urban Regeneration Art and Sustainability course, May 16, 2023, photograph.

The Process

The term tactical urbanism emerged as a pivotal concept which is related to Don Norman’s Community-Driven Design approaches; both share a common focus on grassroots, participatory, and community-led approaches to shaping the urban environment. Tactical urbanism and community-driven reflect commitment to community involvement, towards a more inclusive and participatory approach in urban development.¹⁵ Tactical urbanism encourages rapid, temporary interventions initiated by the community, fostering a sense of ownership and immediate impact. Similarly, Community-Driven Design embraces collaborative decision-making, involving community members in the entire design process, ensuring that the resulting solutions authentically represent their needs and aspirations.¹⁶ Both processes take center stage in the exploration of Circular Community. Recognizing the transformative potential of hands-on, small and deliberate interventions, the class embarked on a field trip, immersing themselves in the ethos of empathy-driven fieldwork.

During this experiential process, students engaged with Makers on Granville Island. The uniqueness of Granville Island’s Maker culture lies in the “open studio” concept where visitors can openly engage with makers about their craft, and gain insights to processes.¹⁷ This forms a reciprocal relationship between Makers and the public fostering community engagement the Vancouver community may not be aware of. In hopes to encourage the public to visit these Maker studios, disseminate the Makers perspective of Circular Community and thus enriching the overall cultural tapestry of Vancouver, a well-defined problem statement provided a direction for this initiative. The problem statement emerged, “To create an interactive event that highlights creative members of the Granville Island community and how they engage in sustainable circular practices.”¹⁸ This statement serves as a guide to the general public, emphasizing the intersection of creativity, community, and sustainability of Granville Island.



Figure 4. Mara Haggquist, Field study of GEOG/GD 464 Urban Design Planning Studio, students talking to makers of Granville Island, May 25, 2023, photograph.

The Concept

The concept of the wayfinding event encompasses a 'Creative Walk' featuring a map of Granville Island with scavenger hunt-like objectives where the participants can find 'Fun Fact' clues about each Maker. The 'Fun Fact' clues highlight each Maker's ethos of Circular Economy / Community / or process. Participants then engage with a virtual map guiding them to featured locations, each hosting a visual component and QR code. This QR code links to a landing page dedicated to an individual Maker, offering participants insights and videos in circular practices. Importantly, the 'Creative Walk' highlights the Makers and promotes the circular concept of walking in your own neighborhood, encouraging participants to gain new perspectives, understand the value of local culture, and forge connections that contribute to a vibrant and sustainable community. This approach promotes a deeper understanding of the Circular Community on Granville Island to the general public and fosters a connection between participants and Makers, in hopes of creating a meaningful experience that aligns with the principles of tactical urbanism.



Figure 5. Miranda Ting, Images of wayfinding, QR Codes, student involvement of pilot event Granville Island Creative Walk, June 24-25, 2023, photograph.

Seven Participating Makers

The narrative of the wayfinding event on Granville Island unfolds with the participation of seven distinctive makers, each contributing a unique facet to the cultural tapestry of this vibrant local culture. The collaborative journey commenced with the grassroots organization, Friends of Granville Island, initiating a dialogue with island makers to gauge their interest in participating in this co-collaboration. The response was resounding, drawing together a diverse ensemble of Makers; sharing their craft and stories. Among these contributors are New Leaf Editions; Unity, Excellence, Legacy (UEL); Sita Fine Jewelry; Kasama Chocolate; Kroma Acrylic Paint; Studio 13; and Hamuhk Hangout

Place. Each Maker brings a distinctive perspective, weaving together the threads of creativity, tradition, and community engagement, highlighting aspects of circular process and their meaning of Circular Community.



Figure 6. Frankie Fowle and Mara Haggquist, Images of Makers from left to right: Peter Braune (New Leaf Editions), Vincent Garcia (Kasama Chocolate), Jocelyn Peirce (Kroma Artist Acrylics), June 9 2023, photograph.

New Leaf Editions – Peter Braune

Peter Braune, the Maker behind New Leaf Editions, provides a nuanced understanding of his journey in printmaking, integration into Granville Island, and reflections on the island's evolving landscape. A self-taught printmaker, Peter relied on hiring other masters to share their craft with him when he took a step to buy a studio on Granville Island in 1986.¹⁹ This knowledge sharing / knowledge passing contributes to Granville Island's Circular Community concept. Peter's artistic practice incorporates collected materials from the streets of Vancouver into his art. The process of reusing materials that are from nature or would otherwise be discarded to be given a new purpose reflects his version of a sustainable and circular approach and ties his creative process deeply rooted in place.

Kasama Chocolate

"Kasama" in Tagalog means "togetherness, friendship, camaraderie, and collaboration".²⁰ The discussion delved into the technical nuances of their process, highlighting the uniqueness of their bean-to-bar approach. A distinctive element emerged in their sourcing practices, characterized by direct partnerships with farms and family connections. In fact, Vincent's family (owner of Kasama Chocolate) runs one of the bean farms in the Philippines showcasing the interconnectedness between their chocolate-making endeavor and familial roots. Kasama Chocolate's recognition within the industry and their innovative approach to flavor creation and sourcing materials from local farms. Community is intricately woven into Kasama's processes, from the thoughtful design of their packaging to the incorporation of a funky DIY machine that they created from buckets from Home Depot.²¹

Kroma Artist Acrylics

Kroma's journey began with a profound inspiration that ignited their passion for creating acrylic paints. Kroma was attracted to Granville Island's culture revealing a tenure of over 40 years and originally started in a Vancouver garage.²² Kroma emphasizes the desired impact their products have on artists such as high-quality pigments with longevity. Kroma's differentiation from other paint

makers became evident through insights into their meticulous batch-making process and the intriguing creation of Vancouver Grey. Vancouver Grey is created from leftover mud and color is inspired by the pigments generated throughout the year, symbolizing a dynamic connection to the changing seasons. Each year the pigment is released and changes color due to the different mud sediments.²³ Vancouver Grey contributes to the idea of reuse showcasing creativity and ecological mindfulness as an ethos.

Sita Fine Jewelry – Carli Sita

Carli Sita, the creative force behind Sita Fine Jewelry collection takes a classic approach and infuses it with a contemporary twist, resulting in high quality pieces. Carli's commitment to sustainability is further highlighted as she shops locally for gems, creating timeless yet modern high-quality jewelry expected to last forever and be passed down through generations.²⁴ Carli draws inspiration from ethically sourced materials, adding a distinctive character to her creations. Carli feels Granville Island's supportive and diverse community, coupled with its vibrant atmosphere, has become an integral part of Sita Fine Jewelry's identity. Granville Island's Circular Community provides the ideal backdrop for businesses and creativity to converge.



Figure 7. Frankie Fowle and Mara Haggquist, Images of Makers from left to right: Carli Sita (Sita Fine Jewelry), Skai Fowler (Studio 13), Colin Moore (Hamuhk Hangout Place), Michael Robinson (Unity Excellence Legacy U.E.L.), June 9, 2023, photograph.

Studio 13 – Skai Fowler

Skai Fowler, is one of three the makers from Studio 13 is a long-time artist on the island, Skai not only founded the gallery but curated a collective of artists based on shared compatibility, fostering a space where creativity and collaboration thrive in a circular fashion. Studio 13, beyond being a gallery for displaying and selling art, operates as a dynamic workspace where the artistic process is transparent, inviting visitors to witness the evolution of each creation.²⁵ Skai's inspiration is drawn from the sky, outer space, and impressionistic landscapes. Skai's perspective on Granville Island is that it is a special place unique like no other, offering a compelling glimpse into the heartbeat of the island's circular and artistic spirit.²⁶ Skai reuses a painting that isn't selling, she paints over the existing canvas, giving it a second chance at new life—a circular gesture that mirrors the continual renewal within process and production.

Hamuhk Hangout Place

Hamuhk Hangout Place, intertwines cultural appreciation with sustainable practices. The inception of the Hangout Chair in 1989, inspired by a visit to Costa Rica, marked the beginning of a 28-year journey on Granville Island. With a commitment to circular practices, the shop sources its Mayan hammocks directly from families in Mexico, fostering a relationship with over 800 weavers.²⁷

Operating since 1995, Hammock Hangout Place stands as the sole hammock shop in Canada, offering a diverse range of ornate cotton hammocks from Nicaragua, Brazil, Indonesia, and Colombia.²⁸ The sourcing of materials with a circular mindset includes the shop's impact on supporting Latino communities involved in hammock production, and the intricate process of finding suppliers abroad, strategies for repurposing or recycling hammocks.

Unity Excellence Legacy (UEL)

Unity Excellence Legacy (UEL), the storefront for Black Business BC a hub for books, skincare, haircare, and clothing created by Black Canadians, embraces the ethos of "Out of Many, One People," reflecting its commitment to unity and inclusivity.²⁹ This ethos further highlights the process of selecting and supporting Black Canadian artists, showcasing how UEL fosters community by providing a platform for underrepresented voices to the diversity of Granville Island and its business practices that contribute to community support. UEL production process reveals items are crafted from natural ingredients and skincare items are vegan.³⁰

CONCLUSION

The Granville Island Creative Walk sought to highlight the diverse and circular practices of Granville Island's makers through a platform to engage the local community in a more immersive and interactive manner. This project attempts to enrich a holistic learning experience and also demonstrates the potential of collaborative, innovative solutions in shaping the future of community and society. The implementation of the Granville Island Creative Walk as part of an educational project brought forth valuable insights that underscore the significance of community-driven design within a local context.

One key takeaway is the importance of forging stronger local connections and partnerships. The challenges faced in garnering support from certain makers and dropouts of original partnerships highlighted the need for building robust relationships within the community. Future initiatives should focus on fostering collaborative efforts with well-established local businesses and other local schools in the neighborhood to participate in the Creative Walk as an educational exercise to ensure sustained engagement. The constraints of the seven-week classroom timeframe emphasized the need for a more extended lead time and locally oriented approach. A less digital concept and incorporating physical engagement such as street presence of the event so the Community-Driven Design process can be more deeply rooted in the local environment.

In essence, this pilot project has provided valuable lessons on the importance of local engagement, realistic project timelines, strategic planning, and reinforcing circularity. The takeaways from this pilot project informs what a Circular Community can look like that other urban spaces can draw inspiration from.

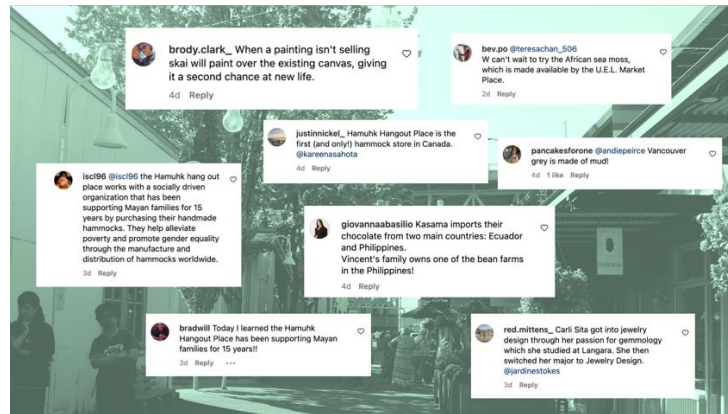


Figure 8. Miranda Ting, Social media comments from public on insights on circularity from Granville Island Makers, June 26, 2023.

ACKNOWLEDGEMENT

This project draws on research supported by the Social Sciences and Humanities Research Council. Thank you to Dr. Cherie Enns, Friends of Granville Island and to the students of GEOG/GD 464 Urban Design Planning Studio for their innovation, ideas and contributions, without the hard work of the students this project would never have come to life

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- ²⁰ Vincent Garcia, interview by Mara Haggquist and Frankie Fowle, June 2, 2023.
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- ²² Jocelyn Peirce, interview by Mara Haggquist and Frankie Fowle, June 9, 2023.
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WISDOM IN THE DUNES: UNDERSTANDING DESERTIFICATION FACTORS AND INDIGENOUS ECOLOGICAL KNOWLEDGE

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INTRODUCTION AND OVERVIEW

Desertification poses increasing impact to one-third of the globe's land surface,¹ where it changes natural desert biomes into non-productive land, and thereby effects a reduction in productivity and ecological functioning.² While existing literature has commonly identified factors such as overgrazing, substandard land-use management and deforestation as contributors to desertification,³ some researchers have highlighted the role of declining traditional interactions between local communities and surrounding ecosystems.⁴ This has further implications: it is not only deleterious to natural ecosystems and the culture of communities that lived there, it also jeopardises significant cultural heritage sites and their environments.⁵ As Reed⁶ indicated, heritage conservation cannot be achieved without the ongoing involvement of local communities and their knowledge in a healthy environment.⁷ This paper explores this relationship in the northwest of like Saudi Arabia where desertification increase.⁸

Within the Middle East, a comprehensive indigenous ecological management system based on an understanding of the surrounding ecology developed over long spans of climate fluctuations, was developed to create a stable, interdependent relationship between local communities and surrounding natural resources. This system is known as *hima*, which literally means 'protected area'. It is a place where flora, fauna and other natural resources are protected from random harvesting and sustainably managed, monitored and used by local communities.⁹ It is the only practice that has remained constant for 1500 years to sustain the biodiversity of the Arabian Peninsula.¹⁰ Arguably, it is also a highly successful practice for combining natural preservation with human well-being.¹¹ This traditional practice involves techniques to combat desertification, harvest water and regenerate ecosystems.¹² This form of traditional ecological knowledge (TEK) is flexible, adaptable and tailored to the environmental context of a region. However, this practice has declined over the years due to multiple factors, such as changes in land management practices and shifting lifestyles within local communities.¹³ In many areas, *hima* has been abandoned altogether. Nevertheless, experts have indicated a need to study this system and understand how it works, since reviving these traditional practices may contribute to combating desertification and conserving natural and cultural heritage sites.¹⁴ The National Commission for Wildlife Conservation and Development's report confirmed the

need to study the *Hima* system and involve it in future plans.¹⁵ It stated that ‘Functioning local *himas*, agricultural terraces, rainwater harvesting methods and wildlife populations that are protected by local people all provide initiatives of tremendous value for achieving the objectives of the conservation of biodiversity’.¹⁶

One of the places where local communities still practice *hima* is AIUla County, located on the northwestern side of the Madinah region of Saudi Arabia. The vast area, covering 22,561 km², includes a lush oasis valley, high sandstone mountains and ancient cultural heritage sites dating back thousands of years.¹⁷ Its population is 64,300 people. The most well-known site in AIUla is Hegra, which is the first UNESCO World Heritage Site in the Kingdom. Hegra was the principal southern city of the Nabataean civilisation (2nd century BCE to 1st century AD; the Nabateans are best known internationally for their northern capital at Petra in Jordan) and includes nearly 100 well-preserved ancient tombs.¹⁸ Additionally, AIUla is home to multiple historical and archaeological sites, such as Dadan, the capital of Dadan and Lihyan kingdoms; and the AIUla Old Town, surrounded by ancient Cultural Oases and thousands of ancient rock art features.¹⁹ Nowadays, these natural and cultural heritage sites face several environmental threats, such as erosion, rock-fall and rock-slides, weathering²⁰ and flash floods,²¹ all resulting in alteration of the natural environmental dynamics of the region.

The significance of this research lies in its alignment with and potential augmentation of the ‘Journey Through Time’ masterplan for the AIUla region, unveiled in 2021 by the Royal Commission for AIUla. Crafted to preserve the region’s natural and cultural heritage while facilitating international ecotourism, the masterplan offers a pivotal role for heritage conservation in realising the goals of Saudi Vision 2030, the national strategic plan for the whole of Saudi Arabia. The masterplan was established based on twelve development principles, including safeguarding the natural and cultural landscape, sustaining the ecosystem and wildlife, celebrating heritage and culture, enabling the local community, and revitalising, restoring and regenerating the built environment.²² However, the comprehensive development principles that guide the project, are not very forthcoming in recognising the potential of integrating indigenous ecological knowledge and the practice of *hima* in the new development framework. This paper claims that the TEK of the local community needs to be understood and integrated within the new development framework to reverse desertification and achieve sustainable development that addresses the issues of cultural heritage conservation, ecosystem enhancement and local community well-being. This study analyses TEK perspectives of the local communities in AIUla regarding desertification. In the discussion section, the practical application and design aspect of TEK, as well as how it effectively addresses environmental challenges, are illustrated with several examples.

KNOWLEDGE HOLDERS AND HERITAGE SITES

We adopted a qualitative case study approach to answer the research question of what desertification factors are observed by elders and how these factors can be mitigated traditionally. Several data collection methods were used. These included conducting eleven semi-structured interviews with local leaders and elders, considered knowledge holders, exploring their insights and experiences on combatting desertification and managing natural resources and local heritage conservation. In addition, thirty-four site visits across twenty-four locations were undertaken, mostly in the company of local elders, to observe firsthand the nuances of desertification issues and traditional practices.

The research then adopted elders’ perspectives and speculated on their application in landscape design documentation, which was then used for further discussion with elders and other experts. The documentation entailed drawing landscape sections for selected heritage sites across different

temporal periods – past, present and future. This holistic approach aimed to unravel the intricate factors influencing these sites and foster meaningful discussions around them. For data analysis, we adopted the thematic analysis approach proposed by Braun and Clarke,²³ providing a robust framework for interpreting the gathered insights.

DESERTIFICATION AND ITS MITIGATION

Based on the local elders' viewpoints, including the data collected from the site observations and visits, two interlinked themes were identified. The first theme involved the factors causing desertification from an indigenous perspective, and the second theme involved the indigenous methods used to combat this multi-shaped threat. While the second theme highlighted the traditional methods for combatting desertification, the first theme acknowledged the factors behind the formation of traditional practices and techniques. The way the elders understood environmental issues led them to develop several traditional responses to protect local communities' surroundings.

Desertification factors

The data showed desertification factors, viewed through the lens of local indigenous knowledge, encompassing both human and non-human factors. The elders identified the following five human factors that contribute to accelerating environmental degradation:

- Using new technologies to facilitate vegetation removal
- Abandoning land
- Forsaking TEK
- Following unsustainable water irrigation practices
- Adopting substandard land-use planning

Elders stated that the introduction of new technologies in the region has a significant impact on the natural resources. Removing trees, extracting underground water, accessing natural resources, and overgrazing have become very easy, which has led many individuals to misuse resources. Additionally, due to the change in lifestyle, locals, especially younger generations, left their areas for new opportunities, making the areas no longer actively managed according to *hima* principles. Moreover, elders stated that forsaking TEK for 'modern' farming methods has in effect accelerated desertification. For example, traditional techniques like *Uqoom* (sand berms) and *Washea* (traditional fence made with palm leaves), which act as traditional barriers against sandstorms and flash floods, require consistent maintenance to avert oasis degradation. Therefore, neglecting this requirement may lead to desertification. On the other hand, it was observed in many sites that there are signs of unsustainable water activities, whether in traditional or modern irrigation systems. Elders also stated that substandard land use planning, such as locating industrial activities near Cultural Oases, significantly impacted vegetation. While common desertification factors seen in other regions, such as overgrazing, deforestation and poor land-use management, are also clearly present in the AIUla region, it is imperative to underscore these other dimensions emphasised by local elders. The elders indicated six non-human factors causing desertification:

- Sandstorms
- Sandy soil conditions
- Flash floods
- Decreasing flow in natural water springs
- Bird and insect pests
- Reduction in oases and vegetation cover

Sandstorms were reported to damage not only ecosystems but also traditional oases and associated structures, especially around Hegra. Additionally, sandy soils that cover many areas require complex and careful management practices. Water is not easily retained within sandy soils and evaporates or infiltrates to lower layers quickly before plants' root systems benefit from it. The decreasing flow of water springs contributed to accelerating the desertification process, given the region's reliance on these limited water sources. Locals usually mix sand with clay to improve the quality of soil for vegetation purposes. Another factor was mentioned: flash flooding events, which damage the oases and associated structures, such as those witnessed in 1970 and 1986. The elders also mentioned that bird and insect pests, such as locusts and red palm weevils, are another factor impacting the oases' ecological functioning. It was observed that there is a reduction in oases and vegetation cover, which accelerates the desertification process. This has been exacerbated by reduced interactions of inhabitants with the surrounding landscape, given that this process traditionally requires regular observation to notice negative alterations in the ecosystem.

Although scientific metrics of desertification are essential to understanding the processes and causes of environmental degradation, indigenous knowledge can complement these metrics to build a comprehensive understanding of the region, especially in AIUla, which is undergoing rapid urban development. The following section presents the indigenous techniques required to combat these issues.

Indigenous approaches to combat desertification

There are three types of indigenous activities and approaches for combating desertification, which can be classified as being embedded in agricultural activities, water management activities and community activities.

Agricultural mitigation

Combating desertification through traditional agricultural activities involves seven steps.

- Cleaning and maintaining oases
- Implementing barriers
- Ethical respect for the natural environment
- Planting native plants
- Managing soil
- Eradicating insect and bird pests
- Recycling farm waste

The elders stated that removing waste, such as dead leaves and branches and fallen and rotting fruits, is an important step to mitigate desertification. Regular maintenance also aims to provide the conditions that oasis vegetation needs to thrive. In terms of groundcover being impacted by floods and sandstorms, the elders mentioned the role of traditional barriers, such as *Uqoom*, *Washea*, windbreakers and rocky walls, in protecting oases and associated heritage structures. They also highlighted a form of ethical respect for the natural environment by saying that their parents taught them how to respect natural elements, such as native plants and waterways, by avoiding over-clearing vegetation, shade and valuable trees and avoiding undertaking agricultural activities impinge on natural water systems unless there is an over-riding purpose or need. To enhance regional groundcover, the elders mentioned a conscious practice of planting native plants. Note that the use of native plants is not just a key technique to reverse desertification but one that can also enhance local identity and culture. Soil requires special treatment and sometimes modifications by being mixed with clay to make it healthy and to sustain the ecosystem and improve water absorption. Regarding the

eradication of insect and bird pests, elders mentioned at times using smoke to drive out insect and bird infestations, in addition to the cleaning step mentioned earlier. Finally, locals recycle most of a site's waste, such as leaves, branches and animal waste, to improve soil quality or sometimes reuse wood to make tools and elements such as doors or chairs.

Water management mitigation

The second approach for combating desertification involves traditional water management activities, comprising the following five key strategies:

- Maintaining waterways
- Managing the extraction of water
- Modifying irrigation systems
- Implementing water harvesting techniques
- Creating *hammams*

Elders take care of the waterways and water spring canals by cleaning and removing obstacles, which responds to the decline in freshwater springs across the region. The elders also emphasised the need to manage the extraction of underground water. Additionally, they advocated for reviving the traditional irrigation systems of the region to reverse desertification factors. They stated that the system has some flexibility to be modified. This point covers multiple guiding principles mentioned by the elders, such as redistributing water to important areas like drought-intolerant vegetation in the case of a drought. In addition, people can develop parts of the traditional water network to conserve water or reduce evaporation. Another factor mentioned is the implementation of water harvesting techniques, such as water ponds and storage, rock dams and water canals. These methods not only control and manage surface water but also contribute to recharging aquifers. The last technique mentioned by the elders is creating *hammams* – public water basins. This technique allows locals to access water easily while reducing the consumption of other natural water resources that can be used during dry seasons.

Community mitigation

The third traditional category for combating desertification includes six community activities:

- Establishing a community association
- Conducting regular inspections of key resource areas
- Limiting accessibility
- Storing palm dates traditionally
- Being self-sufficient
- Transferring traditional knowledge

To mitigate desertification, a community association needs to be established. Traditionally, when managing natural resources or dealing with environmental issues, community elders appointed a specific group for protecting and managing natural resources. They also highlighted the role of conducting regular inspections of natural resource areas to ensure their quality and security. Conversely, the elders pointed out the importance of limiting public accessibility to natural resources. They said that this would allow natural resources to recover and increase. They also highlighted the need to store palm dates traditionally as part of desertification combat. The main reason for this is to reduce the pressure on other natural resources, especially during periods of drought, given that palm dates can be stored and relied on for years. Another factor is being self-sufficient. This mindset of producing the required materials by the locals instead of finding them within the surroundings positively impacts sustainability of the productivity of the surrounding ecosystem. The last factor is

related to education for new generations. Because these indigenous values are at risk of dying out, these values must be transferred to new generations.

DISCUSSION AND CONCLUSION

The results presented the human and non-human desertification factors from the elders' viewpoints and the three types of traditional methods developed to contribute to combating desertification. By documenting these indigenous ecological practices, this paper contributes to the realisation of Saudi Vision 2030, aiming to preserve the traditional and heritage values of the society, which is a part of the first pillar of the Vision.²⁴

While this paper reports some major environmental practice issues and the associated responses of the local community in the AIUla region, its results can be a source of guidance for urban designers, planners and landscape architects when handling urban development and environmental planning projects to combat desertification and conserve cultural and natural heritage sites in other arid regions in Arabia and the Middle East and North Africa in which *hima* or related traditional indigenous knowledge have been practised for centuries. For example, the elders explained the role of traditional barriers in mitigating desertification factors, such as flash floods and sandstorms. The elders may combine multiple techniques, such as traditional fences, *Uqoom* and windbreaker plants to enhance and strengthen the protection of an oasis or a heritage element, as illustrated in (Figure 1). However, sometimes, they may rely only on a fence or *Uqoom* when the potential impact of the floods is low. In many places, they may support the traditional sand berm with productive plants, such as *Moringa peregrina*, *Olea europaea* or *Tamarix*, to stabilise the berm while benefiting from the plant. Most of these plants are multipurpose, as they do not just contribute to combat desertification but also produce some fruits or oil for the local community. Another observed aspect proposed is that traditional ecological techniques can be used within urban areas (Figure 2). Locals may use traditional rock dams to control rainwater and protect houses and heritage elements from the impact of flash floods coming from the nearest valleys and mountains. A third approach is a practical one developed to illustrate how TEK can be integrated into the new masterplan (Figure 3). These speculations rely on both an understanding the traditional methods, and the future plan of some areas in AIUla. The traditional values have capacity to enhance the site's protection and realise the heritage conservation proposed by official institutions.

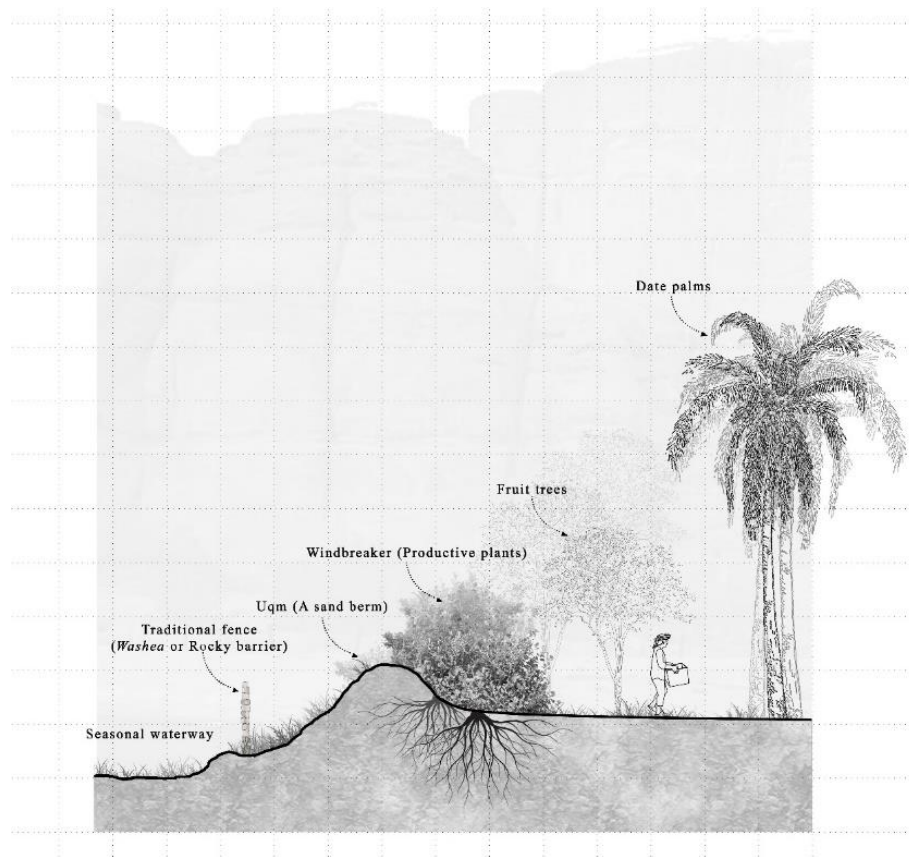


Figure 1. A combination of traditional techniques contributing to the conservation of oases and associated heritage structures.

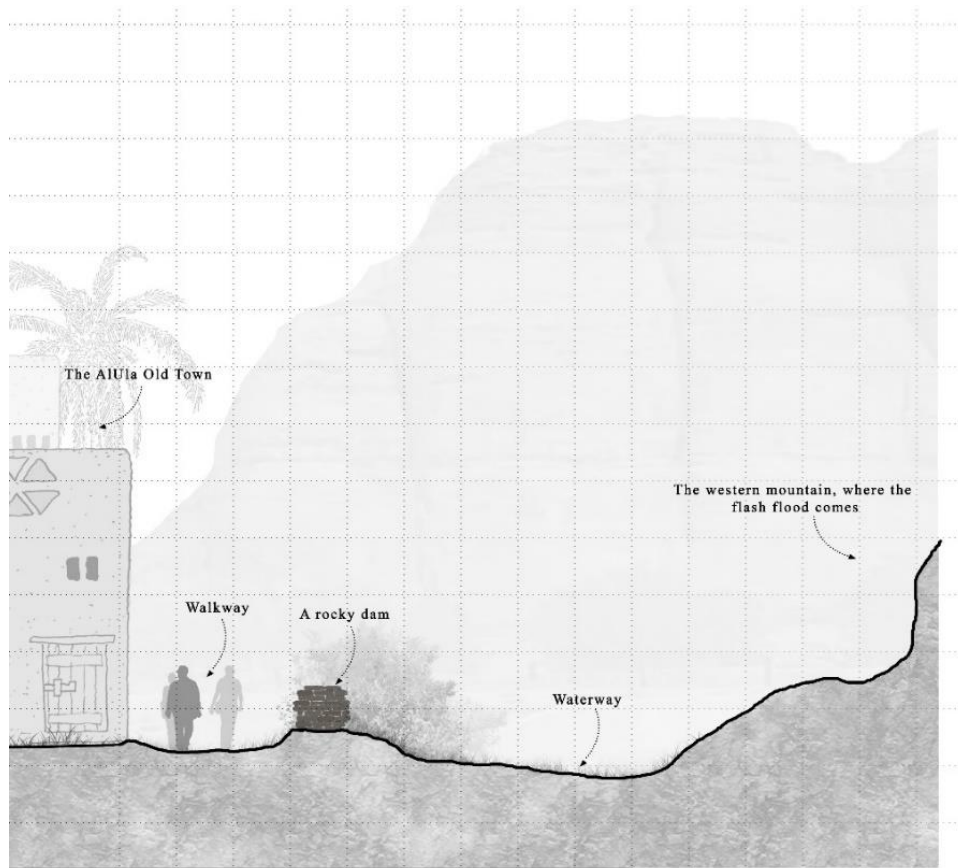


Figure 2. A traditional ecological technique used to protect urban areas.

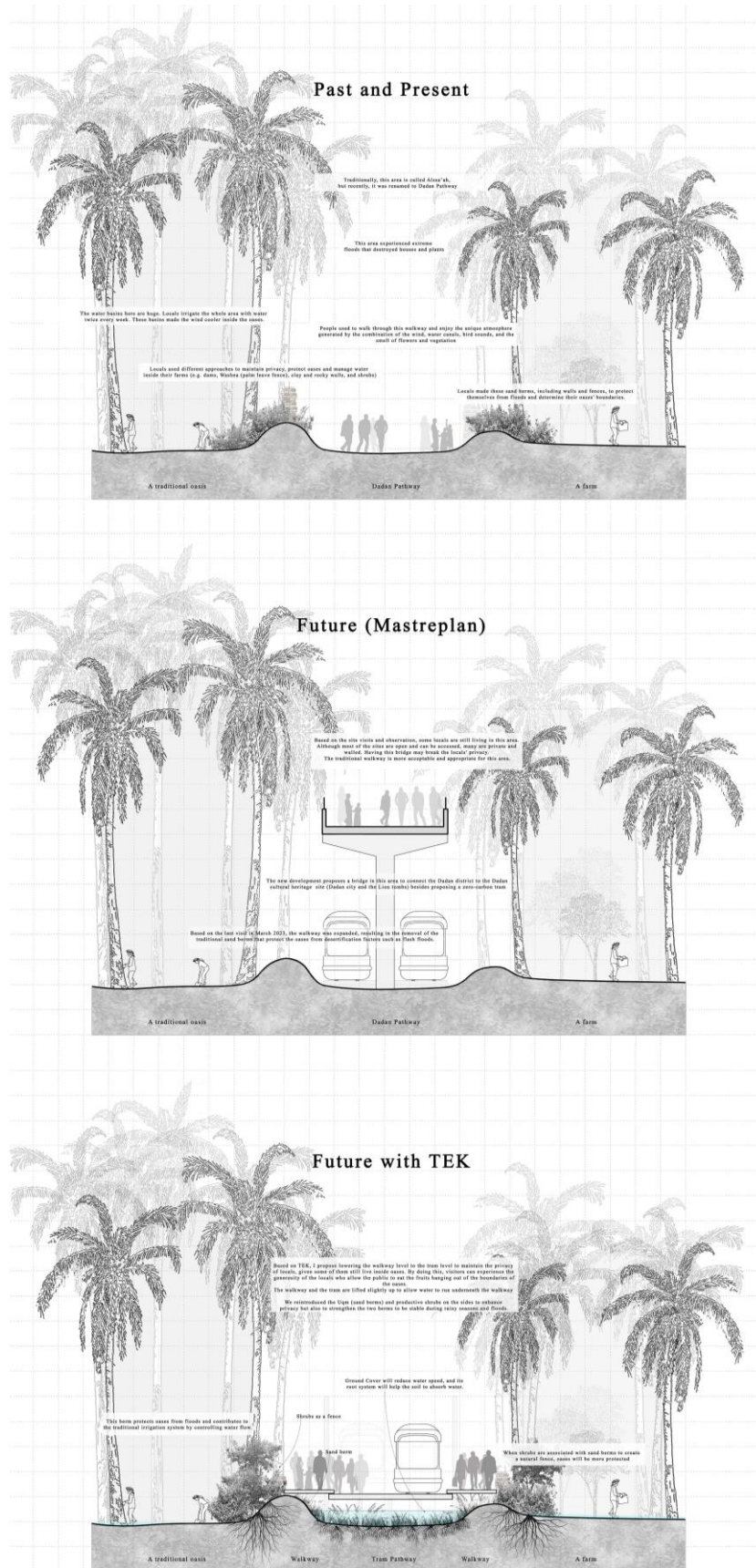


Figure 3. These drawings illustrate an exemplary integration endeavor aimed at integrating the traditional values of TEK into the future masterplan.

The data show opportunities for local TEK and its practices to be integrated into the AIUla regional masterplan to combat desertification, in addition to realising the overall AIUla vision. TEK and its associated practices are a holistic approach covering different aspects of ecosystem functioning, conservation and management. To do this in places of heritage value, this research has shown that meetings with community elders and extensive site visits are required to comprehend how local *hima* practices work to mitigate desertification and conserve cultural heritage sites while maintaining their long-term environmental sustainability. Integrating the wisdom of community elders contributes to the preservation of the practice itself as a form of living cultural heritage and further enhances the idea of a ‘living museum’, which is an official objective of the development plan for AIUla.

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CIVIC TECH FOR THE REGENERATION OF COMMUNITIES

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INTRODUCTION

Practices, experiences and reflections on ecological and digital transition prove that in order to achieve desirable social, environmental and economic sustainability, society must mobilise all the resources at its disposal, starting with ensuring enabling citizens to be proactive and collaborative in regenerating their communities and rehabilitating of the relationship between people and built environments. Today, this relationship with places and spaces also consists of digital and online relationships. In fact we cannot avoid taking into consideration the mix of physical and virtual spheres in our lives. So the question is: can digital technologies respond to this challenge, can they help communities achieve sustainability goals? Civic digital technologies can respond to this challenge by supporting participation in all its expressions, by enhancing actions of care and proximity, by giving voice to needs, stories and proposals, by allowing people to find their own space, by supporting active citizenship, by enhancing connections and networks, by facilitating self-organisation, by enabling the coordination and monitoring of community actions, and by supporting the generation and circulation of valuable (including non-monetary) assets.

This paper explores how an interdisciplinary and transdisciplinary approach to applied research in technical and social sciences on co-designing localised digital platforms to enable civic actions can contribute to improving social sustainability. Following an introduction summarising the approach and conceptual background, we will present two intertwined digital applications and report on concrete experiments where they have been embedded in local contexts. These applications suggest a new way to foster bottom-up cooperation and empower citizens, with a focus on living better together in more beautiful, sustainable and inclusive cities.

THE RESEARCH GROUP AND ITS APPROACH

The research presented in this paper is carried out by a computer science based academic research group with an interdisciplinary and transdisciplinary approach involving collaboration with experts on computer ethics, economics, economic sociology, urban studies, geography, and pedagogy. In addition, we rely on professional expertise to help establish experiments in local social contexts through participatory design, community development, social policy, and diversity management.

Interdisciplinarity and transdisciplinarity are strongly required to design and develop digital technologies that meet the needs of people and communities. First, digital technologies are not value-neutral: socio-political visions and imaginaries are encoded in the design of the software.¹ Intentional actions are required from both developers and users to ensure that the design is informed by sustainability principles. Secondly, social science scholars must have knowledge of the characteristics

and functionalities of the technology they are studying.² At the same time, technical developments must be based on sound knowledge of their potential impact on social contexts, on the everyday lives of people,³ and on peoples' motivations for engaging with digital activities.⁴

Our research is focused on achieving social sustainability for contemporary local communities (neighborhoods, cities, spaces of everyday life and work) via digital as well as non-digital means with the help of civic technologies. Civic technologies are digital platforms for collaboration and participation to support and improve social economies and community relationships.⁵ We assert that they can also strengthen the relationship between physical and virtual reality by rehabilitating the relationship between people and their built environment and by supporting actions of care and proximity. In this way, they are tools for regenerating communities.

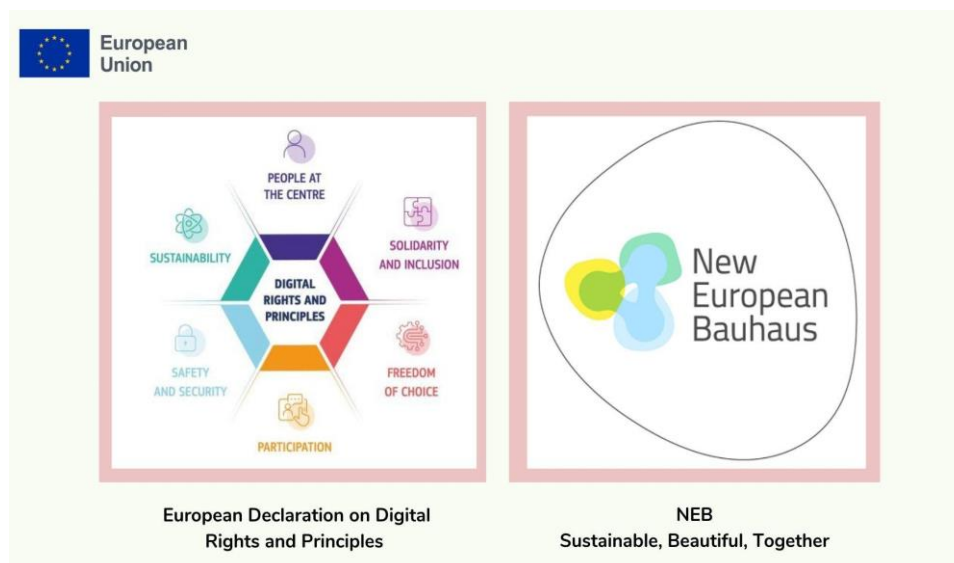


Figure 1. European Union (EU) instruments to help put humans at the centre of sustainability

Civic technologies are related to the efforts of the European Union (EU) to put humans at the centre of sustainability and promote co-creation approaches with two instruments: the European Declaration on Digital Rights and Principles⁶ and the New European Bauhaus.⁷ The first commits the EU to enabling a secure, safe, sustainable and people-centred digital transformation, in line with the EU's core values and fundamental rights. The second is a creative and transdisciplinary movement that bridges the world of science and technology with the world of art and culture, bringing together citizens, experts, businesses, and institutions to reimagine sustainable living in Europe and beyond. New European Bauhaus is about addressing complex societal problems together through co-creation. In addition, and in accordance with this approach, our research group designs free-of-charge digital tools, developed as open-source software, to ensure that everyone can access good practices and tools to support meaningful exchanges in their daily lives and to give them a sense of belonging to their own places.

THE CONCEPTUAL BACKGROUND

The core of our work and research concerns the multifaceted concepts of just sustainability, care, proximity, and hybrid proximity. We build on these concepts to reflect on how to make digital tools sustainable and provide the opportunity to bridge physical and digital spheres.

By sustainability, we mean the concept of just sustainability as defined by Julian Agyeman: "[...]sustainability cannot be simply a 'green', or 'environmental' concern [...]. A truly sustainable

society is one where wider questions of social needs and welfare, and economic opportunity are integrally related to environmental limits”.⁸ So we need to foreground issues of equity and social justice in most “green” approaches. How do we shift the paradigm?

It can be done by introducing two other pillar concepts: care and proximity, as defined by Ezio Manzini, a prominent figure in the culture of design for sustainability. Manzini argues that regeneration means care for human beings and the environment, both urban and natural, and that there is no regeneration without human presence. Therefore, sustainability is a concept that is strongly connected to physical contact. Caring for a local area requires physical presence, and it is impossible to face problems of the largest scale without starting with what is around us. For this reason, we must maintain and enrich our capacity to be physically present, active and collaborative. But it is also important to note that these days presence is not necessarily physical⁹ because the system of relationships around places and spaces is also made up of online relationships. We cannot avoid consideration of the digital sphere of our lives, and so, we need a new means to define proximity for today.

Twenty years ago, Ron Boschma, in the context of social geography, suggested five dimensions of proximity: geographic, cognitive, social, organisational, and institutional.¹⁰ Inspired by the studies of Ezio Manzini, we can add another dimension: hybrid proximity, made possible thanks to a paradigm shift in digital technologies. In the last few years, the use of technologies to bring everything home (work, studies, entertainment, products and services) has resulted in a growing trend of individualisation, with ensuing inequality, solitude and marginalisation. Today, a new sensibility is growing in the sphere of civic digital technologies which proposes an entirely different scenario: the existence of augmented spaces and an expanded sense of proximity, by which we mean a system of nodes that interact when they are close in both physical and virtual reality.

In this scenario of hybrid proximity, civic technologies can facilitate, enhance and enable citizen participation in democratic processes, collaborative governance arrangements, community actions, and in the pursuit of the public interest or common good.¹¹

THE DIGITAL PLATFORMS

Inspired and supported by all the research, principles and concepts above, our research group develops digital platforms in the form of software as a service (SaaS)¹² as instruments for collaboration and participation with civic technology and services in order to support social economies. The focus is on participatory design and planning, and local social and solidarity economies.

The research group has developed two intertwined online platforms: FirstLife and CommonsHood. Their aim is to foster citizen co-design, co-production and co-management of urban services. These tools are designed to improve our daily lives with a focus on living better together in more beautiful, sustainable and inclusive cities by fostering bottom-up cooperation and empowering citizens with a new way to create value. They have been experimented upon in more than 35 projects in 8 years, providing local solutions to universal problems such as making life in cities sustainable and ensuring financial inclusion. Both are web apps, rather than apps downloadable from a store, so they are available on all devices with a browser and an internet connection, including mobile phones. This makes them accessible and affordable, particularly since their use is free of charge. The design has been carefully devised so that the interface is most intuitive.

FirstLife and CommonsHood

FirstLife is a local social network based on a newsfeed paired with an interactive map.¹³ Citizens can publicly post news, activities, places, and events, and they can create groups for coordination tools such as questionnaires and chats. The aim is to foster cooperation and regenerate places by connecting people who live or work in those places. FirstLife is inspired by mainstream social networks and geographic information systems (GISs), but it integrates their functionalities at the local level. The focal point is a map whose content can be updated by all subscribers (unlike Google Maps, where users can only put reviews), and this is coupled with a newsfeed. Users are connected to entities on the map and, from there on, they can access uploaded content via updates, participate in relevant chats, and complete questionnaires. Connections are fostered among people who do not necessarily know each other rather than just those who are already in close friendship bubbles. FirstLife excludes undesirable functionalities such as biased recommendation algorithms, extraction of personal data, etc.

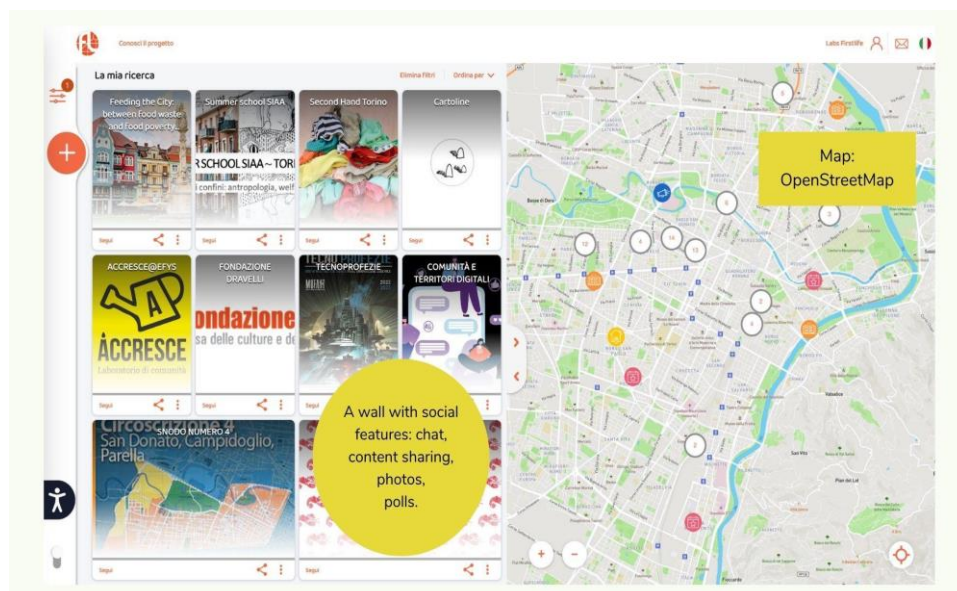


Figure 2. FirstLife, a local social network based on a newsfeed and an interactive map

CommonsHood is a wallet app based on blockchain.¹⁴ It promotes a civic approach to blockchain technology¹⁵ and follows the “Internet of Values 2.0” principle of allowing citizens to create their own types of tokens to support the local economy. Tokens can be used to create discount coupons, purpose-driven tokens (to incentivize positive behaviours) or digital collectibles, and for the operation of time banks, group buying schemes, and complementary currencies.

It transforms blockchain — a technology that was initially created to allow global monetary interactions among unrelated people without trust relationships — into a source of local financial instruments to sustain local economies and commons. Unlike most blockchain applications, CommonsHood does not provide a single token type whose value is pre-defined by its developers. Instead, it provides a simple way for users to create and distribute their own socio-economic interaction models and tokens based on smart contract templates.

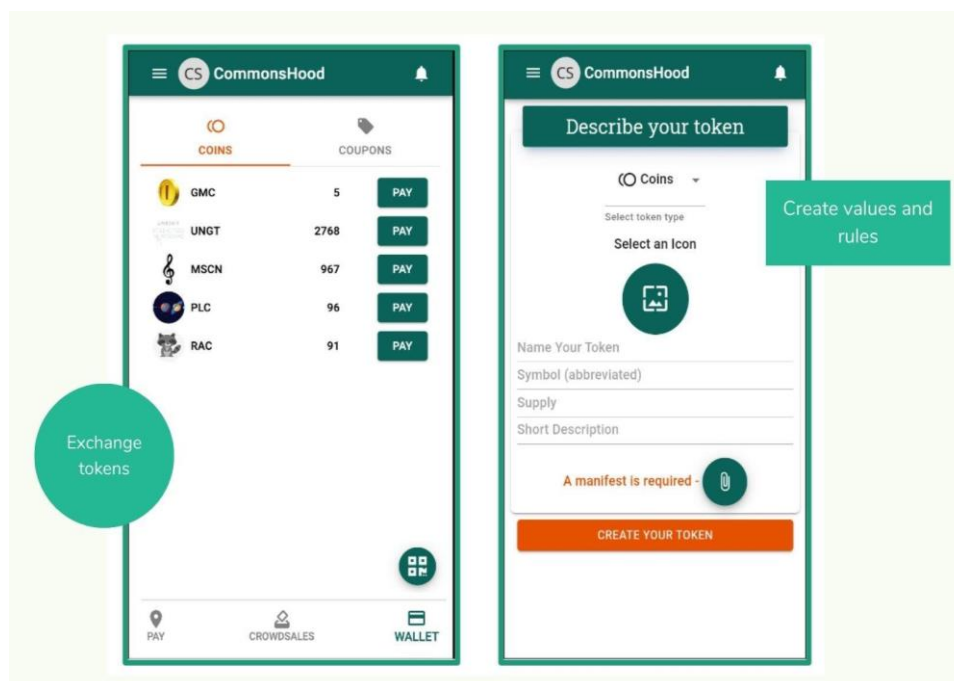


Figure 3. The CommonsHood blockchain-based wallet app

FirstLife and CommonsHood are the result of a co-design process involving several meetings with representatives of different stakeholder groups: associations, schools, local authorities, citizens, and local businesses. This approach has characterised every implementation of the two platforms, whose flexible functions allow the tools to be adapted to context-specific needs. FirstLife was first developed through seven “open labs” in Turin where more than 300 people helped to design the platform. CommonsHood was first developed through co-design workshops as part of the Urban Innovation Actions (UIA) Co-City project in Turin.¹⁶

The tools also play an active role in the ethics and aesthetics of local areas. Following recent developments in urban planning, we define beautiful urban places and urban projects as those that combine aesthetics with ethics, matters of physical form with quality of experience, and relations among people with civic participation, especially since the relational and civic aspects are increasingly managed online.¹⁷ Civic technologies help to make local stakeholders responsible for bringing about positive social changes starting from the physical dimension (the urban territory in FirstLife) or the material dimension (the social and economic values in CommonsHood). And they encompass new systems of relations and social values where the digital is not set against reality but is functional to real-world interactions. As regards the pillar concept of beauty, FirstLife allows peripheral, ugly and chaotic urban spaces to be augmented with informational spaces by enabling citizens to enrich dynamic maps with what they care about the most. And this transforms maps from a traditional instrument of power into a collective effort to allow new meanings, new cultural and artistic dynamics, and new lifestyles to emerge in connection to the places people live in. In a similar way, CommonsHood, with its customisable tokenization system, allows citizens to represent assets of value that are important to them — reciprocal care, time, volunteering — which are the essential components of the informal economy.

The apps are used by municipalities to empower citizens and urban stakeholders to manage their services in an urban commoning fashion; they allow information exchange and coordination with the social networking map, and the creation and exchange of values with the blockchain. FirstLife makes it possible to combine inclusion with improving the quality of urban experience and citizenship.

Citizens can collectively create an augmented version of the place they live in, share information, create groups, and coordinate with one other. This augmentation gives rise to a new way of experiencing urban places. Meanwhile, blockchain technology makes it possible to support the sustainability of urban communities in both economic and social terms via financial inclusion. CommonsHood allows users to: create their own types of tokens, attribute a value to these tokens, and make liquid otherwise illiquid assets such as time or the right to use shared spaces and goods.

CONCRETE EXPERIMENTS

FirstLife is a customisable tool. It isn't a single platform, but rather an ecosystem of platforms dedicated to different topics and projects. Civic,¹⁸ inspired by the concept of 15-minute cities, is used by projects with civic aims to, for example, map places and services relevant to reducing food waste, or to list projects and initiatives in the field of co-design. Edu¹⁹ is used for educational programmes in the field of civic education as a tool to learn how to look at the city in a critical way but with a proactive attitude.²⁰ Re-discover Resources²¹ is dedicated to helping young people from certain small city centres in the metropolitan area of the city of Turin to map resources in their neighbourhoods and co-design and co-construct the upgrade of these resources with a do-it-yourself (DIY) approach. Gender Equality Map²² gathers information about companies, associations, and formal and informal groups concerned with the wellbeing and security of women in the urban context, and provides visibility to projects that can dialogue with each other and contribute towards bridging gender and digital gaps. Moreover, in the H2020 project Digital Disruptive Technologies to Co-create, Co-produce and Co-manage open public services along with citizens (CO3),²³ FirstLife was integrated with augmented reality functionalities to support participatory mapping of urban voids and public spaces in Turin, Paris and Athens by allowing citizens and students to share bottom-up proposals for regeneration.

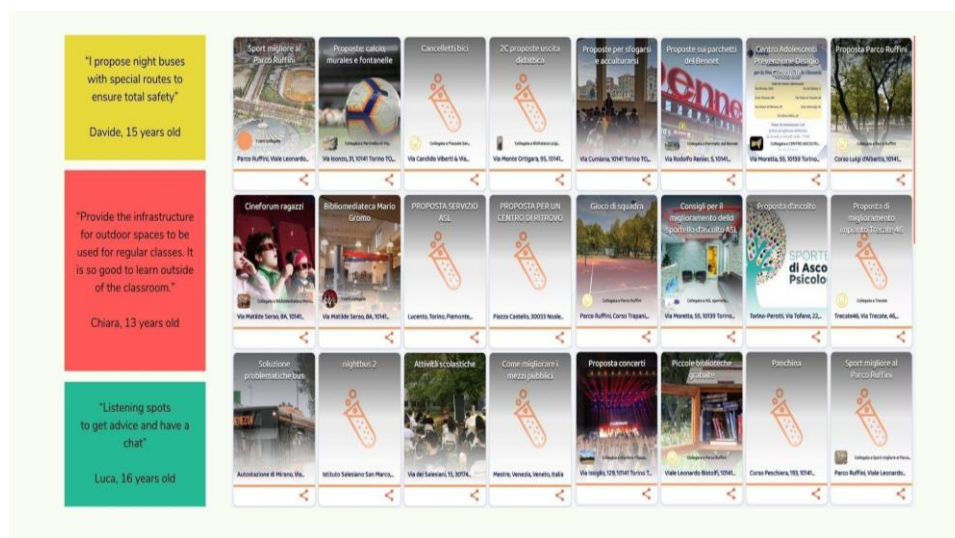


Figure 4. Young people's needs and proposals for a better city



Figure 5. Teenagers map the resources of their neighbourhoods and upgrade them by participating in processes of co-design and DIY construction.

CommonsHood introduces local financial instruments that can be tailored to the needs of local stakeholders to support social and collaborative economies as demonstrated in the following pilot projects. Within the Collegno Local Lab, the app was tested in a small city in the metropolitan area of Turin to implement a system of rewards for youth volunteering and encourage those teenagers to use their reward tokens for social and commercial services in their local area. The C.O.S.O.²⁴ project implements a “library of things” in a small neighbourhood in the centre of Turin: participants lend and borrow objects of everyday use in a decentralised way and without the need for a physical library. They do this by making digital twins of the objects with non-fungible tokens, and making community coins with fungible tokens. Community coins are given as rewards for activating relationships and reusing objects in accordance with circular economy principles. The CommonsHood in the Garden pilot is testing a system designed to bring together the reward scheme and library of things functionality mentioned above to foster a micro-circular urban economy around collective urban gardens managed by volunteer students and other citizens. The *Tecnoprofezie* project has co-designed a neighbourhood social economy where a science fiction museum acts as a catalyst to trigger civic participation. *Tecnoprofezie* uses different kinds of cryptographic fungible and non fungible tokens as community coins and as examples of digital art, while also conducting awareness-raising activities about the potential of digital technologies for civic participation.

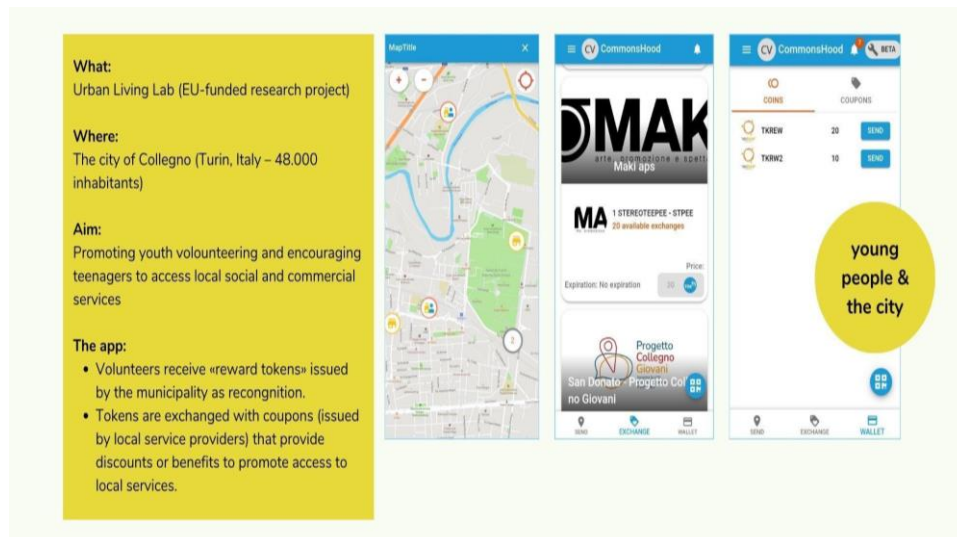


Figure 6. COLLEGNO LIVING (local) LAB



Figure 7. C.O.S.O. Organized Communities for the Exchange of Objects

CONCLUSIONS

The urban environment has tangible and intangible aspects, and we are living in an era characterised by the power of connections, relationships, care, and hybrid proximity. In this complex scenario, our efforts are aimed at improving social and political sustainability by improving participation, promoting equality, and working to serve the interest and wellbeing of citizens. Our interdisciplinary and multidisciplinary approach fosters a bridge between academia and communities and stimulates the connections and relationships that inspired the development of free-of-charge and open-source digital tools to support ethical relations in community building, democratic participation, financial inclusion, education, and user awareness.

This paper reflects on the value of synergistic work carried out by researchers, policymakers, planners, communities, and PAs, and on the relevance of concrete experiences in the design and implementation of civic technologies contributing to a just sustainable future. Moreover, it shows how the field of regeneration and urban planning needs to take into account the use of human-centred digital tools to defend the strong relationship between physical and virtual reality with the aim of preserving and stimulating hybrid proximity.

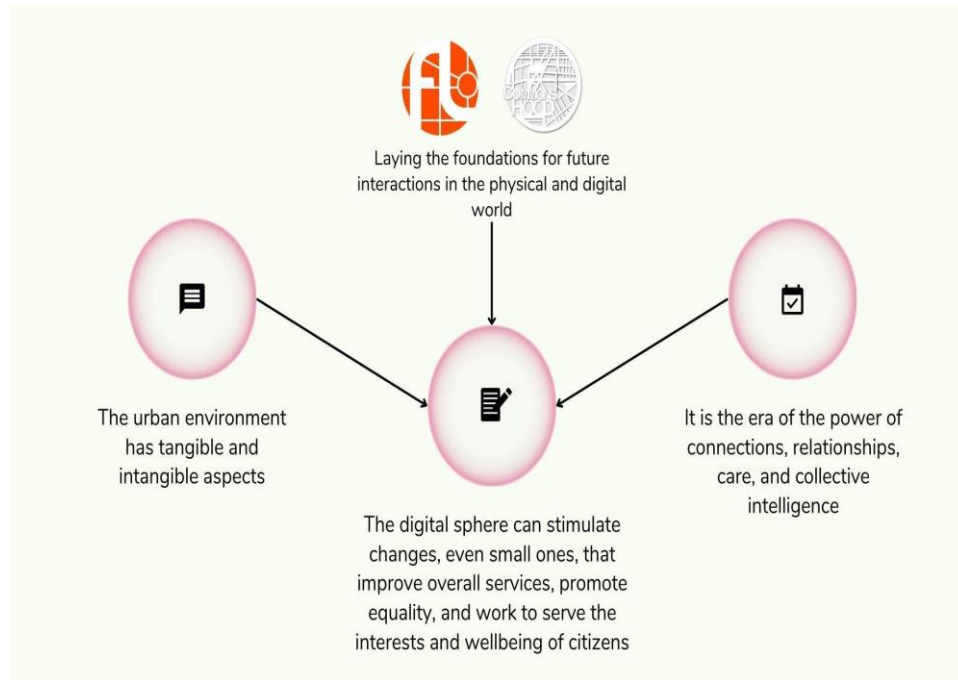


Figure 8. The interdisciplinary and multidisciplinary approach of the research group

NOTES

¹ Fabio Iapaolo et al. “Do Digital Technologies Have Politics?”, in *A Research Agenda for Digital Geographies*. ed. Tess Osborne and P Jones. (Edward Elgar: 2023).

² Jame Ash et al. “Digital Turn, Digital Geographies?”. *Progress in Human Geography* 42,1 (february 2018): 25–43.

³ Sarah Lenz. “Is Digitalization a Problem Solver or a Fire Accelerator? Situating Digital Technologies in Sustainability Discourses”. *Social Science Information* 60,2 (1 june 2021): 188–208.

⁴ Jessica McLean. *Changing Digital Geographies: Technologies, Environments and People*. (Cham: Springer International Publishing, 2020).

⁵ Jorge Saldivar et al. “Civic Technology for Social Innovation2. *Computer Supported Cooperative Work (CSCW)* 28, 1 (1 april 2019): 169–207.

⁶ “European Declaration on Digital Rights and Principles” Shaping Europe’s digital future, accessed December 15, 2022. <https://digital-strategy.ec.europa.eu/en/library/european-declaration-digital-rights-and-principles>

⁷ “beautiful | sustainable | together” New European Bauhaus, accessed January, 2024. https://new-european-bauhaus.europa.eu/index_en

⁸ Julian Agyeman. *Introducing Just Sustainabilities*. (Bloomsbury, 2013).

⁹ Ezio Manzini, Andrew Spannaus and Anne Kendall trans., *Livable proximity. Ideas for the city that cares* (Milano: Bocconi University Press, 2022), 30-31.

¹⁰ Ron Boschman, *The Handbook of Evolutionary Economic Geography* (Edward Elgar Pub, 2010).

¹¹ Jorge Saldivar et al. “Civic Technology for Social Innovation”. *Computer Supported Cooperative Work (CSCW)* 28,1 (1 april 2019): 169–207.

¹² SaaS is a distribution model where subscribers access software online rather than installing it on individual computers. Thanks to a cloud provider that hosts applications and makes them available to end users over the internet, the application is accessible to any device with a network connection.

¹³ Guido Boella et al. “Firstlife: Combining social networking and VGI to create an urban coordination and collaboration platform”. *IEEE Access*, 7, (2019). 63230–63246

¹⁴ Stefano Balbo et al. “CommonsHood: A Blockchain-Based Wallet App for Local Communities”, 2020 IEEE International Conference on Decentralized Applications and Infrastructures (DAPPS), Oxford, UK (2020). 139-144.

¹⁵ Cristina Viano et al. “Civic Blockchain: Making blockchains accessible for social collaborative economies”. *Journal of Responsible Technology*, 15 (2023). 100066 .

¹⁶ “CO-CITY, the innovative project to promote the shared management of common goods implemented by the city of Turin”, accessed February, 2024. <http://www.comune.torino.it/benicomuni/co-city/index.shtml>

¹⁷ Emanuele Carreri, “Venustas blog cit. Dialogo su bellezza, architettura, mercato, democrazia” (paper presented at the 5th edition of the European Days on Architectural and Urban Research “Eurau 10 - Venustas, architettura/mercato/democrazia”, Faculty of Architecture at the University of Naples Federico II, Naples, Italy, June 23-26, 2010).

https://opcit.it/cms/?p=190https://www.academia.edu/6357876/eurau10_venustas_architettura_mercato_democrazia

¹⁸ “Civic, the FirstLife platform for 15-minutes city”, FirstLife platform, accessed February, 2024.

<https://civic.firstlife.org>

¹⁹ “Edu, the FirstLife platform for schools and educational communities”, FirstLife platform, accessed February, 2024. <https://edu.firstlife.org>

²⁰ Matteo Adamoli et al. “Civic education between digital platforms and new forms of citizenship: a case study”. *Italian journal of health education, sport and inclusive didactic*, 7(2) (2023).

²¹ “Let’s restore value to small urban spaces”, FirstLife platform, accessed February, 2024.

<http://www.riscopririsorse.it/>

²² “Guide to women organizations in Turin”, FirstLife platform, accessed February, 2024.

<https://risorseinretetoxd.firstlife.org/wall>

²³ “CO3, Digital Disruptive Technologies to Co-create, Co-produce and Co-manage Open Public Services along with Citizens, aims at assessing the benefits and risks of disruptive technologies”, CO3 website, accessed February, 2024. <https://www.projectco3.eu/>

²⁴ An Italian acronym meaning Organised Communities for the Exchange of Objects.

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THE COLLECTIVE VERSUS THE INDIVIDUAL: JUXTAPOSING SMARTPHONE-GENERATED ARCHITECTURAL REPRESENTATIONS AND AFRICAN MUSLIM SPACES IN NORTHERN RIVERAIN SUDAN

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INTRODUCTION

The aim here is to do the opposite of finding reasons to stand out as uniquely African or Eastern, or Roman Catholic or Muslim. But rather, this article aims to gather evidence of what binds us together and makes us similar; what “language” unites us? Juxtaposing vernacular space-making with contemporary digital collages of urban form seems like an odd comparison because scale, context and historical timelines do not match, yet it is believed that there are common principles that apply to both cases and these may be of value to students in the architectural design studio in a decolonised method of teaching.

When considering the collective versus the individual, Dictionary.com explains “versus”: “as compared to or as one of two choices; in contrast with.” In this exploration, it is found that collective identity is valued over individual expression and that this is expressed in a visual similarity observed in architecture, during certain time eras and across geographic borders. By so doing, this study presents a unique technique of architectural analysis that traverses disciplinary boundaries and offers an alternative to a restrictive euro-centric viewpoint in the understanding of the built environment.

Juxtaposition

As a way to address the above issues, a question is put forward: How interchangeable have the local and global become in the social media age? This section presents the two contexts of the study.

1. Vernacular Muslim communities in the northern riverain Sudan. This is a predominantly Sufi community with unique space-making traditions. It is important to note here that this particular context is used as a case study, but this could be interchanged with any other vernacular context.
2. Exit-level Bachelor of Architecture students representing GenZ who grew up with social media and are here referred to as cyberflaneurs, armed with smartphones allowing for physical movement through cities and space while engaging virtually (thus, not being confined to a desktop in a specific location).

These two distinct contexts are juxtaposed. This juxtaposition become meaningful when considering that cities are comprised of citizens originating from other contexts – sometimes rural, sometimes from outside of the national borders. So in many cases, the city is inhabited by, and navigated by,

people who originate from the non-urban areas, who also have access to the advanced technology of a smartphone.

When looking at the vernacular setting of rural riverain Sudan, the essential and incidental attributes of a culture can be articulated and thus become a tool for interpretation. Religious and cultural belief systems of African Muslims directly influence how their residential architecture manifests and becomes evident in vernacular-built form – this is sometimes not given prominence or significant in institutionalised architecture or historical architectural texts – in a way, it is considered non-architectural. This makes this study of significance in a dialogue on decolonisation of education and practice. In vernacular contexts, intangible culture – one of the main aspects being the unique influence of Sufism and mysticism – has a direct influence on the nature of physical artefacts. This is not something that conventional architecture has been able to grapple with.

The vernacular will be juxtaposed with imagery – architectural representations, which are the outcome of an assignment given to the cyberflaneurs, to document a fifty or hundred year old building with a medium-density typology from a curated list in the inner city urban contexts of Johannesburg and Pretoria in South Africa, and Maputo in Mozambique; to do so, they use available technology on their smartphones to render these images. It can be classified as subjective readings as no precedents were offered. The collages become visual representations of how it looks to be simultaneously immersed in the physical and virtual realms. As the digital manipulation of the photographs depends on current technology, these collages also represent the zeitgeist. It is postulated that the zeitgeist inescapably allows, or restricts, the creative process based on the available tools, dictated by socio-economic, cultural or technological factors. Human artefacts, be it an adobe wall, a smartphone or a digital representation, are mirrors of current social structures and current technologies. Designing is about interpreting and reassembling exiting ideas, that then become a refraction of the mirror image. Finding recognisable patterns informs the design process, assisting in the rearrangement of the existing.

GLOBAL/LOCAL; THE COLLECTIVE/THE INDIVIDUAL

What is meant by the “global” in today’s parlance? Is our local experience at the southern tip of Africa representative of a global one? It must be taken into account that in large portions of the Middle East and Africa, globalisation has often been equated with “Westernisation” and is still widely regarded as an external threat rather than as an opportunity.¹ In vernacular settings uniformity is embraced. Value systems and religion have over time influenced people’s daily rituals and which in turn influenced spatial and built form; the intangible influenced the tangible representations of a culture. The environmental and climatic has equally had a role in shaping intangible heritage.

In the social media age cultural difference is celebrated. Freedom of self-expression, and self-curation allows cross-cultural, generic or global traits. Recently interviewed by Chan, Chinese artist Ai Wei-wei states: “This is the only time in human history which equips us to be individuals. The overflow of information means we can make our own judgements and express ourselves independently.”²

Currently, all cultures have outposts in almost every urban environment today; cultural and religious diversity defines global cities. Eck uses the example of the greater Los Angeles, where nearly half the population (40%) are foreign-born.³ Eck states: “Cities are the very place where we see the effects of global migration and face the questions of identity in a complex multicultural society. Today there are a multitude of cities that are, symbolically, the world with all its diversity”. She continues to highlight the opposite side of this: “And the globalisation of people, communications, and transportation has created a world, that is, in many ways, a city”.⁴

It is no different in our local context, the cyberflaneurs represented by the student body have diverse cultural backgrounds and religions; their home languages include ten of the eleven official ones in South Africa.

Similarity and typology

As much as diversity is present, this study wants to underpin that, at least in terms of visual culture, the zeitgeist often produces serialities or self-similar artefacts, be it buildings or anything human-made. A good example of twentieth-century urban typologies is documented by Christ and Gantenbein who identify typologies in Paris, Delhi, São Paulo and Athens. They confirm that “the quantitative criterion is likewise important: only those building types produced in great numbers have a significant impact on the quality of a city”.⁵ Just like any artefact, be it a bowl or a pair of denim jeans, the architectural object “could not only be repeated, but also was *meant* to be repeatable”.⁶ They see most buildings that constitute the modern city having been developed mainly in the twentieth century, and each has a direct historical connection with classical Modernism.⁷ At first glance, the typologies of the four cities look similar if one considers the footprint, scale, height, and part of a city block in a medium-density context. If one investigates further, each city developed its own version, each for a different reason. One example is Athens where building regulations restrict the height. The type is called *polykatoikia*: “This generic modular architecture assures a highly homogeneous urban structure and street space. Its usage likewise necessitates only minimal typological modification: apartment buildings, office blocks and garages are often deceptively alike.” Christ and Gantenbein explains that “so much so, that the name *polykatoikia*, which means apartment building, has erroneously become a synonym for ‘urban building’”.⁸

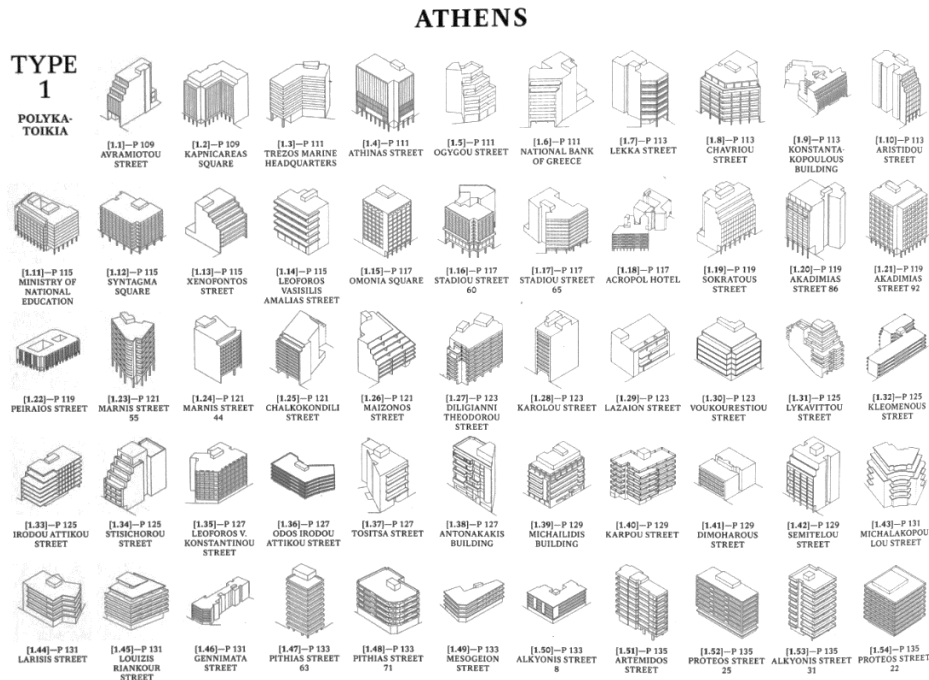


Figure 17. Type 1: Polykatoikia, Athens by Christ and Gantenbein

Clothing versus fashion

Artefacts, codes and languages are the expression of culture. At play are various levels of control and agents of control in the built environment. Osman studies the culture of northern riverain Sudan at various levels progressing from individual to the collective forms of expression. It is presented that the body, garment, utensils and furniture, partitioning and built form, neighbourhood and city levels are all manifestations of individual and collective decision-making as well as reflections of intangible heritage and its impact on how we shape our tangible culture.⁹ In this particular context, the agents of control are mostly groups rather than individuals. There are determined ethical systems where social control is maintained through social sanctions and people do not want to stand out as being different. There is a well-known saying: “Eat what you like, dress what other people like.” This basically means that what is valued is adhering to unwritten social norms.



Figure 18. Traditional handcrafted Sudanese Markoob worn with traditional clothing by Muslim men of all generations, pictured here in snakeskin

Van Winkel raises the notion of equalisation versus differentiation suggested by how all of us clothe ourselves: “It belongs to the unique properties of fashion that distinction and adaptation are not just opposed values kept in balance, but two sides of the same coin. The dictate of fashion is a peculiar kind of law – those who conform to it, make themselves noticed”.¹⁰ Distinction and adaptation also happens in architecture. The individual elements, be it a whole façade or a window detail, would have been found in the same image bank that other architects choose from and search. In the spirit of the zeitgeist, an image bank can refer equally to the Ten Books of Vitruvius as to Pinterest.

Oosterman presents an image of a cultural artefact, the Nike Air Force 1 Jester xx, from Off-White/Nike, as follows: “With the recurrent derision of authenticity, streetwear has recently completed its takeover of High fashion, flipping the ecosystem of references, taboos, inside jokes. “I edit things three percent”, said architect turned fashion mogul Virgil Abloh. “I don’t want another shoe; I want something that makes me recognize the shoe I already have.” When Culture is designed by Instagram’s infinite scroll, can ‘the familiar’ be the antidote to informational overdose?”¹¹ Robaard comments: “People imitate each other. All resemblances have a social origin. Either through custom, tradition, education, sympathy, obedience, or precept, any manifestation or expression triggers a certain degree of contamination. Fashion plays an important part in this [...] It merely confirms or sublimates what already exists”.¹²



Figure 19. Nike Air Force 1 Jester xx, Off-White/Nike

ARCHITECTURAL FORMS OF EXPRESSION AND REPRESENTATION

Space, place and built form are expressed in different ways across different geographical contexts, climate zones as well as cultures. This is not only in terms of visual image, materiality, form and colour, but also in terms of spatial configurations and systems of construction. Over time, it is realised that some spatial configurations remain fixed and function-specific, while in other contexts they are more fluid and multi-functional.

These concepts are represented in the figure below. In all contexts, an ecosystem of cultural heritage may be developed where all built form and spatial expressions may be understood within a theoretical framework of codes/languages which translate into tangible and intangible culture. Tangible culture is strongly influenced by intangible values and beliefs which may be detected in socio-economic patterns and corresponding activities, religious and social ritual, general attitudes to art, artefacts, knowledge and creativity as well as in literature, philosophy and language and the unique use of words. By understanding this ecosystem, no built artefact, nor its representation can be understood in isolation; the ecosystem thus helps the researcher identify the themes and patterns that determine both built form as well as place-making activities. Today this ecosystem can be global – a person can join any tribe online through social media.

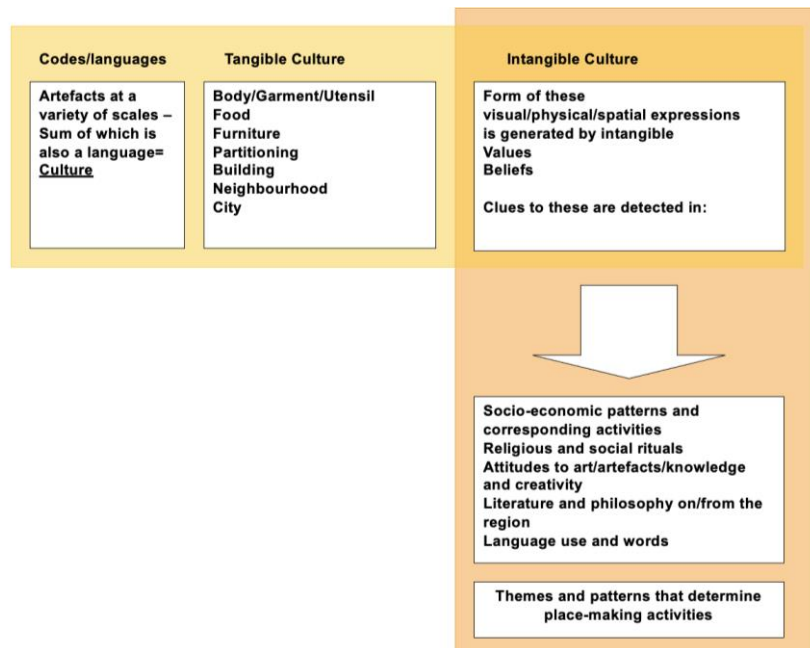


Figure 20. Tangible and intangible culture: Construct of aspects of culture relevant to the context, explored through various themes and patterns by Amira Osman

The article uses this framework in comparing two phenomena and identifies parallels between them. It is a “transferable” experiment in the sense that the cyberflaneurs and the specific vernacular context may easily be exchanged for others while still maintaining the significance of the study in:

1. Understanding that the outcome of a creative studio, be it fashion or architecture, is to create reproduceable artefacts, and importantly to use existing parts to be assembled in a new way, while maintaining a sense of familiarity.
2. Urban citizens’ ability to “code-switch”¹³ comfortably between individual expression and collective identity as well as between the local and the global – this being reinforced and supported through modern technology.
3. The breaking down of barriers in the form of geographic borders and cultural enclaves through the use of the smartphone and virtual/online presence emphasising the role of the zeitgeist and celebrating “sameness”.

Collective identity and values of frugality in a vernacular setting

The investigation is initiated by referring to Habraken, who explains the environment in terms of levels of intervention, systems of creation and agents of control over each level.¹⁴ These levels of intervention progress in scale from the body to the settlement or city level. These levels vary in control from private to public. Patterns of interaction are what identify the community as a unit through their adopted activities, schedules and routines. Excessive social activities originate in values that have become an identifying feature of the Northern Sudanese people. The same symbolic meaning is experienced in these various activities and this is what makes up the community’s culture.¹⁵



Figure 21. Floor plan of similarly scaled built form arranged around courtyards in a Tunis medina by John Habraken

Reinforcing this concept of social conformity is also the high reverence in Sufi culture for frugality. Sufis aspire to minimising the importance of material aspects of life and physical comforts because of their focus on spirituality. This approach may not be unique to Sufism. All city centres of the middle ages, as well as old medinas appear to conform to this ideal where the individual building does not stand out but rather blends with the overall urban fabric to create one cohesive whole. This is in stark contrast to a culture of “my house is my castle” or the culture of architectural modernism which celebrated the individual building as an object in space and celebrated the individual designer.

The homogeneity of the northern Sudanese built environment and the lack of variety in built form, materials and colour palette, also relates to the fluid use of space, the frugality in physical expression and cycles in the use of space. Historically spaces were more mono functional and with the advent of Arab nomads’ patterns of habitation became more nomadic and spaces became multi-functional. Nomadic patterns were detected in the use of space within the home and in the surrounding streets and open spaces.

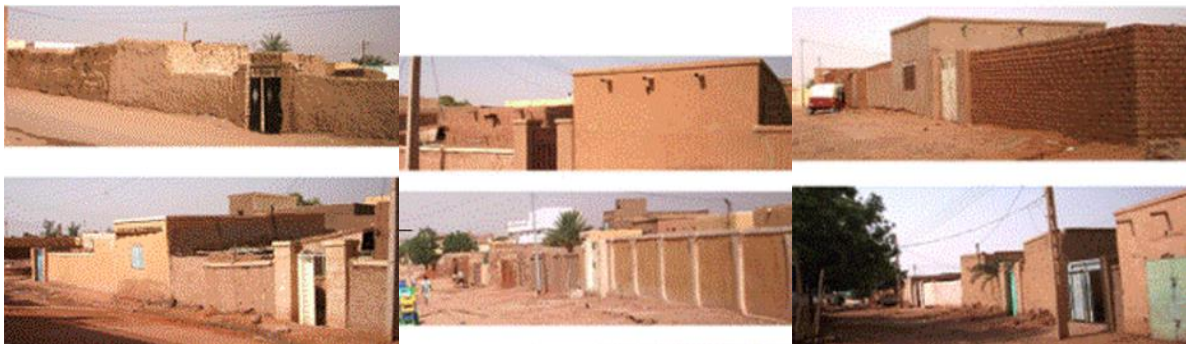


Figure 22. Rural residential architecture in northern riverain Sudan. Photographs by Amira Osman

Smartphone-generated architectural representations

Today images are the primary tool of communication.¹⁶ It is estimated that image gallery Instagram will have 1.4 billion users by 2024.¹⁷ The archive of imagery¹⁸ produced by the cyberflaneurs was collected over four years (2019-2022) and displays common characteristics if viewed as a collective. Van Alphen’s argument that images circulating on social media lack meaningful contexts and background becomes clear in this gallery.¹⁹ The physical signs represent the global, not the local – KFC or an SUV brand – making it difficult to place oneself geographically.



Figure 23. Left: 1920s digital collage by Heino Viljoen, SA Catholic Bishops Conference (Hanya House), Pretoria. Right: 1920s digital collage series by Mark Tromp, Johannesburg Park Station

Flusser sees images produced through technology as having a “tendency to reduce the dimensions of space to the image of space, that is, two-dimensions”.²⁰ This gallery of visual work can be described as superficial, as limited meaningful clues are offered, like the tsunami of images on social media. The viewer’s short attention span does not allow for excessive amounts of detailed information, only snippets.

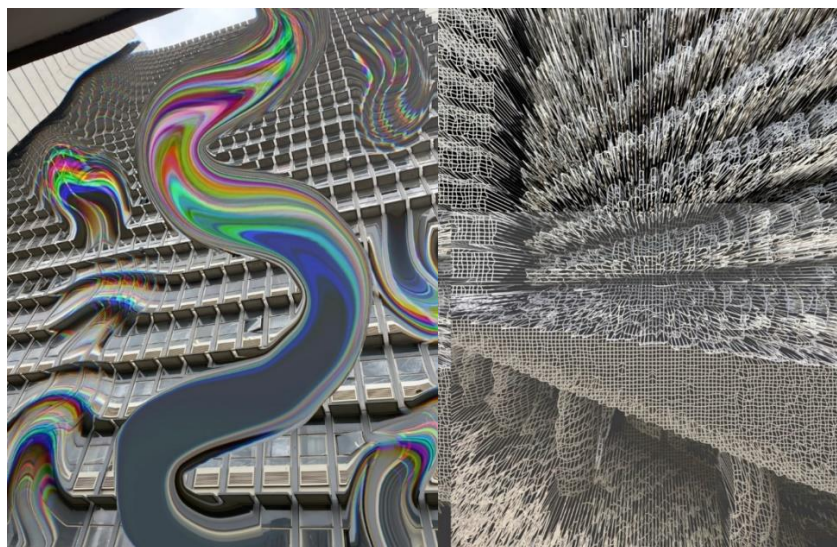


Figure 24. Left and Right: 1970s digital collages by Mafase Sodi, Poynton Centre: Department of Defence, Pretoria

The mirror filter was one of the most popular ways to collage. Gen Z, and the current spirit, has prioritised the selfie, a social ritual demarcating socio-economic patterns. The mirror symbolises the obsession with the self. Faber sums it up: “Modern technology forces us to gaze at ourselves constantly: from the front camera, which has been a key feature of mobile phones for a decade, to the self-view which is automatically turned on for Zoom calls”.²¹

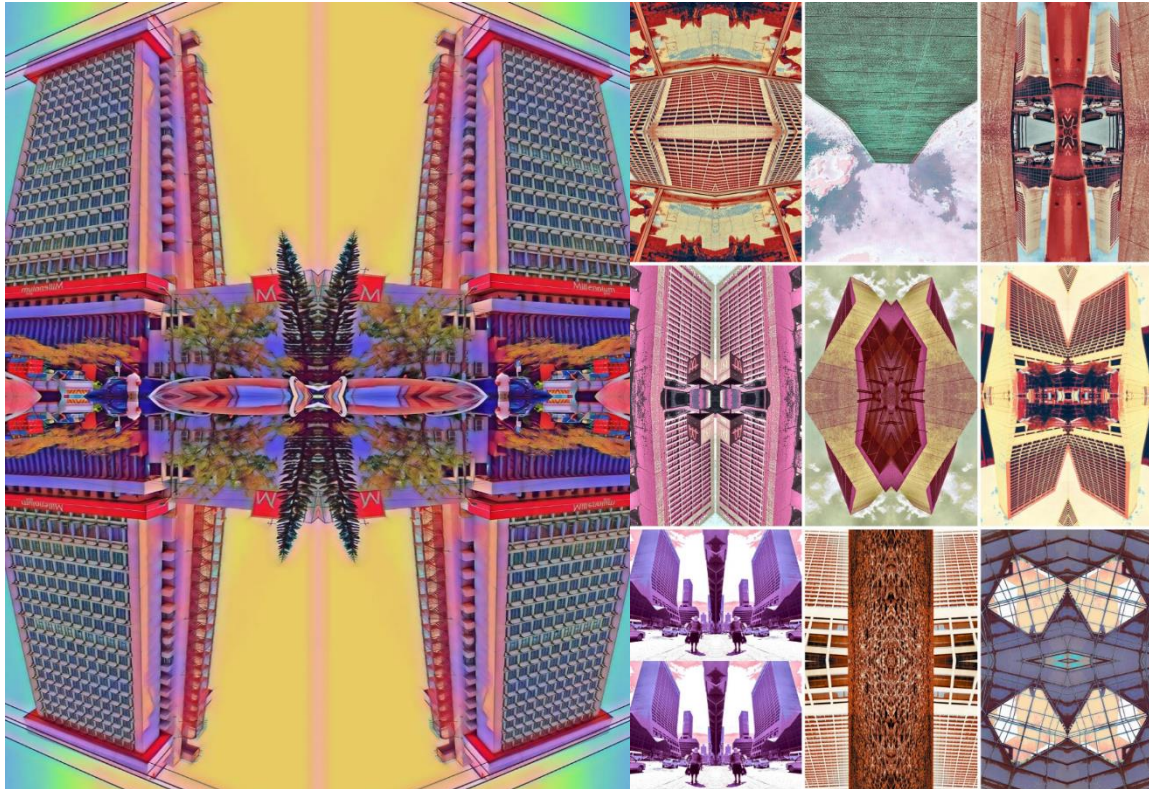


Figure 25. Left: 1970s digital collage by Mauritz Maritz, *Mozambique International Bank, Millenium Bim, Maputo*. Right: 1970s digital collage series by Lebatha Carr, *Carlton Hotel, Johannesburg*

The tools used to manipulate photographs are familiar to the users; they recognise patterns in the digital realm referred to as algorithms. Wark explains that “an algorithm – for present purposes – is a finite set of instructions for accomplishing some task, which transforms an initial starting condition into a recognisable end condition”.²² Similarly, Meta’s Facebook and Instagram use powerful algorithms to target specific audiences for specific content based on their browsing history. One recognises one’s own interests targeted for one’s consumption. The existing only needs to be consulted and simulated or copied in one’s own unique way to fit in – and stand out.

CONCLUSION

In exploring the concepts presented in the article, some themes emerge regarding the collective versus individual forms of expression and how they may be considered at the level of the local and the global contexts. It is demonstrated that the former can be uniquely identified and the latter becomes a more generic and globally-accepted visual language. It is found that cities, as conglomerations of diverse cultural codes, become a place where this diversity co-exists while at the same time retains its uniqueness. In the same way humans navigate their personal behaviour and style by code-switching from their tribe to their urban, or virtual community.

In terms of architectural representations, the study looks at homogeneity versus individual expression. Some images of the vernacular context are presented as well as the representations generated by the smartphones. The former showcases the “sameness” as the cultural norm in the northern riverain Sudan while the latter reveal its own recognizable patterns, nowadays referred to as algorithms. Although complex, the arrangement of pixels on these digital collages are contextless and superficial. These images are a reflection of our zeitgeist – mirror-images of how the physical and the virtual

contaminate each other. Each of us presents a different version of the mirror-image – reassembling the existing parts and giving it new meaning.

In the context of vernacular beliefs, one is encouraged not to stand out. In the context of the smartphone there is always some form of duplication that takes place – be it the algorithm that dictates your feed or the filtered imagery that similar smartphones produce. Similar patterns are revealed emphasising the collective, yet the personal freedom that the overload of information – true or false – provides, puts the emphasis back to the individual, the subject of one’s own gallery. Be it through culture or technology, our smartphone apps is as much based on societal norms as the vernacular building conventions of northern riverain Sudan.

NOTES

- ¹ Sarah Whiting and Rahul Mehrotra, “Editors’ Letter.” *Harvard Design Magazine. Issue 50: Today’s Global.* (Spring/Summer 2022), 11.
- ² TF Chan, “Root Master. Ai Weiwei digs deep for a new show at London Design Museum.” *Wallpaper 288.* (April 2023), 190.
- ³ The Latino population is so large that it was called a “Latino subcontinent”. The Asian population is represented by many Japanese, Chinese, Korean, Cambodian and Vietnamese subcultures. Muslim Iranian immigrants living there dub it “Irangelis”. Buddhist, Christian, Jewish and Muslim communities make up the city of Los Angeles. Diana L. Eck, “The World-City of the Global Age.” *Harvard Design Magazine. Issue 50: Today’s Global.* (Spring/Summer 2022), 18.
- ⁴ Eck, 15.
- ⁵ Emanuel Christ and Christoph Gantenbein, *Review No111. Typology – Paris, Delhi, São Paulo, Athens.* (Zurich: ETH Zurich and Park Books), 2015, 7.
- ⁶ Rafael Moneo, “On Typology”. in: *Christ, Emanuel and Christoph Gantenbein, Review No111. Typology – Paris, Delhi, São Paulo, Athens.* (Zurich: ETH Zurich and Park Books. 2015), 9.
- ⁷ Christ and Gantenbein, 3-4.
- ⁸ The recognisable feature of this building type is the band of horizontal balconies that “extend on each storey over the entire length of the building’s front façade”. Christ and Gantenbein, 4, 6.
- ⁹ Amira Osman, *Space, place and meaning in northern riverain Sudan.* (Thesis. PhD Architecture. Pretoria: University of Pretoria, 2005).
- ¹⁰ Camiel van Winkel, “The Assembled Self. Part II: Ruins in Reverse,” in: Joke Robaard, and Camiel van Winkel, *Archive Species. Bodies, Habits, Practices.* (Valiz: Amsterdam, 2018), 399.
- ¹¹ Arjen Oosterman, ed., “Intangible cultural heritage.” *Volume 55,* (2019), 34.
- ¹² Joke Robaard, *Archive Species. Bodies, Habits, Practices.* (Valiz: Amsterdam, 2018), 430.
- ¹³ According to McCluney, et al.: “Broadly, code-switching involves adjusting one’s style of speech, appearance, behaviour, and expression in ways that will optimize the comfort of others in exchange for fair treatment, quality service, and employment opportunities.” As illustration they use a famous incident: “In 2012, a video of President Barack Obama entering the locker room of the U.S. men’s Olympic basketball team went viral. In the clip, viewers can see that there’s a clear difference between how Obama greets a white assistant coach and how he greets the black NBA player Kevin Durant.” Courtney L. McCluney, Kathrina Robotham, Serenity Lee and Myles Durkee, “The Costs of Code-Switching.” *Harvard Business Review,* November 15, 2019, accessed February 15, 2024, <https://hbr.org/2019/11/the-costs-of-codeswitching>
- ¹⁴ John Habraken, *The structure of the ordinary. Form and control in the built environment.* J Teicher, ed., (Cambridge: MIT Press, 1998).
- ¹⁵ V. Vagenes, *Women of interior, men of exterior, the gender order of Hadendawa nomads, Red Sea Hills, Sudan.* (Dr. Polit. Degree, Bergen: University of Bergen, 1998), 152.
- ¹⁶ Vassallo writes: “If we speak about the relationship between photography and architecture, it is important to consider the question of technology implicit in the fact that we live in a digital era that generates images to the point where they may be read as texts, descriptions, manifestos and even projects, without which we would be able to understand practically nothing”. Jesús Vassallo, *Seamless: Digital Collage and Dirty realism in Contemporary Architecture.* (Zurich: Park Books and Houston: Architecture at Rice, 2016), 9.
- ¹⁷ Oberlo Statistics, “How many people use Instagram”. Accessed April 19, 2023, <https://www.oberlo.com/statistics/how-many-people-use-instagram>
- ¹⁸ The image as photograph – a tangible artefact printed by a professional – is outdated. Muellner relays how before: “Making doubles was a minor investment in the pre-digital image sharing economy”. Family and friends would make copies of important events. He continues: “Today, the concept of doubles, or any multiples of images, is nearly moot. The image is both singular – a specific file with a specific arrangement of pixels – and infinite. It is no longer ‘reproduced’ [...]. Perhaps, within that new ontology of photographs – always there and always singular – [...] is available – almost anywhere. There are no longer any copies”. Nicholas Muellner, *Lacuna Park: Essays and Other Adventures in Photography.* (London: SPBH Editions, 2019), 20.
- ¹⁹ Ersnt Van Alphen, ““Poor Images” and the Affect of Exhibitionism,” in: Höner, Julia and Kerstin Schankweiler, (Curators). *Affect Me. Social media Images in Art.* (Leipzig: Spector Books, 2017), 84.

²⁰ Jesús Vassallo, *Seamless: Digital Collage and Dirty realism in Contemporary Architecture*. (Zurich: Park Books and Houston: Architecture at Rice, 2016), 254.

²¹ Tom Faber, “Beauty is in the AI of the beholder”. *Dazed & Confused. Volume V. Issue 278*. (Winter 2022): 226.

²² McKenzie Wark. *Gamer Theory*. (Cambridge: Harvard University Press, 2007), 22.

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AVIAN LANDSCAPES: A PEDAGOGICAL APPROACH TO EXPLORING THE POTENTIALS OF A MORE-THAN-HUMAN LENS

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INTRODUCTION

When the ecological term habitat was introduced in the 1950s in the avant-garde circles of CIAM (Congrès Internationaux d'Architecture Moderne) and Team 10, it became a subject of fierce debate. In addition to rethinking the housing issue, habitat brought a profoundly new way of looking at architecture and urbanism. Cities and buildings could no longer be seen as isolated objects, but instead were considered part of a larger whole, an environment or habitat. In the light of climate change, ecological issues are receiving more attention today and are an important reason to reconsider the discipline of architecture¹ and the way it is taught. Currently, with diminishing resources and rapid species extinction reaching unprecedented levels globally, much of this a result of human interaction, it is fundamental to reconsider the role of architecture and its effect on climate change and biodiversity loss. By challenging the way future architects think about their impact on the environment and the living systems their projects become a part of, the importance of the relationship between human, animal and plant life is reflected upon as is the role of design disciplines in catalyzing social-innovation outcomes.

From Human-Centered Design Thinking to a More-than-Human Future

While architectural design methods over the years have shifted from a range of approaches varying from a design thinking method which takes place predominantly in the office to a user-centered approach which brings the architect out of the office or participatory design tactics which incorporate an external citizen design team. The issue with these approaches is that they continuously place the human at the center of the design process. These methods compel the architect to acquire an empathetic understanding of the humans that will inhabit the space they are designing. By focusing on the human's needs as the main variable we place ourselves at risk of ignoring other facets of the problem.

Climate Change and Biodiversity Loss in Architecture Education

Building Materials and the Climate: Constructing a New Future, a report developed in 2023 by the United Nations Environment Programme, Yale Center for Ecosystems and Architecture in the framework of the Global Alliance for Buildings and Construction (GlobalABC) highlights the buildings and construction sector as being by far the largest emitter of greenhouse gases, accounting

for a staggering 37% of global emissions.² In line with this, The University of Queensland’s School of Architecture, Design and Planning coordinated a cross-institutional research group Architecture Climate Futures to survey 899 Australian practitioners working in architecture in late 2022. The survey found that architects felt a strong sense of responsibility when it comes to climate change and eighty-three per cent of architects surveyed said they were using self-education to up-skill about climate action and sustainability.³ A similar survey coordinated by the same research group in March 2022 placed comparable questions to Australasian Schools of Architecture drawing findings from students, academics, sessional academics and higher degree researchers. The report concluded that while there are still gaps in architectural knowledge, as well as opportunities for future research on climate literacy related to architecture education, there was an overwhelming desire for transformative change in architecture education in response to climate change.⁴ While it is encouraging to establish that current and future architects have a strong sense of responsibility towards climate change the same cannot be said about the architectural response to biodiversity loss.

According to the World Economic Forum, more than half of the global GDP is dependent on nature⁵ and while the main driver of biodiversity loss remains humans’ use of land,⁶ climate change is playing an increasingly important role in the decline of biodiversity having altered ecosystems around the world and caused the loss of countless local species.⁷ With climate change and biodiversity loss interlinked they need to be tackled together and cannot be separated. This notion was underlined in an interview with Elizabeth Mrema, the Executive Secretary of the United Nations Convention on Biological Diversity, where she stated “climate change depends on biodiversity as part of the solution.”⁸ The role of architecture in mitigating biodiversity loss is beginning to appear in the fringes of the discipline in practices such as Studio Ossidiana, an award winning practice working at the intersection of architecture, design and landscape or Superflux, an experiential research practice that explores the future of more-than-human politics with its co-creative director Anab Jain, serving as Professor of Design Investigations at the dieAngewandte, University of Applied Arts in Vienna where she instils a culture of radical inquiry in her students. But the topic of biodiversity loss is yet to reach the same levels of response from the architecture community as does the equally concerning issue of climate change.

A Move Towards Multi-Species Architecture

In 2021, the 17th International Architecture Exhibition curated by Hashim Sarkis and organized by La Biennale di Venezia posed the question ‘How will we live together?’⁹ It was somehow ironic, given at the time the global COVID-19 pandemic was in full swing, although this made the question even more pertinent and timely. Several projects responding to the theme presented a broader vision and a more inclusive design approach that sought to respond to architecture’s role in the ongoing biodiversity crisis. *Refuge for Resurgence* by London-based studio Superflux celebrated a multi-species banquet where humans sit alongside species of fauna and flora in a speculative post-Anthropocene future that highlights human’s dependence on other lifeforms.¹⁰ Alessandra Covini and Giovanni Bellotti of Netherlands-based Studio Ossidiana presented *The Platform for Humans and Birds* which presented a modular cast landscape allowing for a negotiation of boundaries between humans and birds enabling spaces for activities such as eating, sleeping or playing. This piece is a development from a previous work *Variations on a Bird Cage* (2020) which investigated the spatial relation between a human and a bird and how they might coexist through the cage as a mediative object¹¹. Boonserm Premthada’s elephant shelter highlighted the bond between elephants and the Kuy people, an ethnic group in Thailand’s Tha Tum district where humans and elephants have lived side by side for years.¹² By placing human, animal, and plant life equally at the center of the

problem, the proposals highlighted the symbiotic interdependence of all of earth's species and underpinned the importance of architecture's role in mitigating biodiversity loss.

In the same year, the topic of human and other-than-human interdependence was presented in *The Architecture of Multispecies Cohabitation*, an exhibition by Feral Partnerships (Beth Fisher Levine, Matthew Darmour-Paul, James Powell, Enrico Brondelli di Brondello, and Francesca Rausa) at The University of Sydney School of Architecture, Design and Planning¹³ bringing the responsibility of architecture in protecting biodiversity closer to the academic realm. Feral Partnerships itself is an architectural research and design collective that states it was “born out of a shared frustration with standards in architectural practice towards ecology and biodiversity loss”.¹⁴ Similarly, *Feral Atlas - The More-Than-Human Anthropocene*, a digital monolog published by Stanford University Press in 2021 is the result of interdisciplinary collaboration between several university scholars, resulting in an unusual exploratory tool that has a clear pedagogic function that emphasizes the challenges of forging new directions in architecture, as well as other fields, taking into account the interwoven narratives of humans and non-humans.¹⁵ While it is encouraging to see new ways of architectural thinking about our interconnectedness with nature beginning to flourish on the edges of the discipline, it is important to keep in mind that architectural pedagogy and its wide reaching influence holds a strong responsibility in maintaining a long-term outlook on how future architects and theorists approach biodiversity loss, therefore a broader dissemination is critical to forging new possibilities for building worlds with the more-than-human in mind.

AVIAN LANDSCAPES: A PEDAGOGICAL CASE STUDY

The following section presents the findings of an educational case study carried out within the framework of a speculative design studio which explored the challenges posed by climate change and biodiversity loss by investigating multi-species cohabitation with a particular focus on birds, humans, and native plant life. The case study involved twelve master of architecture students and one architect supervisor with officers from the Canning River Eco Education Centre (CREEC) and an expert on mycelium as advisors. The focus of the study was to inspire students to reflect upon the role of design in catalyzing social-innovation outcomes that work towards mitigating both climate change and biodiversity loss.

Small Visions for the Canning River for Cross-Species Exchange

Canning River Regional Park

The selected site was the Canning River Regional Park, along both edges of Perth's Canning River (Dyarlgard) limited between Leach Highway and Nicholson Rd in the City of Canning in Perth, Australia. The Canning River Regional Park extends for six kilometers along both edges of Perth's Canning River (Dyarlgard) and is comprised of salt marshes, billabongs, lush forest, and woodland, and is home to birds and other wildlife that shelter in the eucalypts, sheoaks, paperbarks and sedgeland. It is traditionally owned by the Whadjuk people¹⁶ (See figure 1). While some areas of the park have restricted public access due to habitat protection for water birds and other fauna, other areas allow for limited development of active recreation pursuits such as buildings and landscape areas.¹⁷ While students took policies and land management of the park into account this was not a compulsory requirement of the brief given its speculative nature.



Figure 1. Detail from Chart of Swan and Canning Rivers by J. Stirling, 1827, State Records Office of Western Australia, item 408 cons 3844

Cultivating Spaces for Multi-Species Relations

Heavily inspired by the response to the 17th International Architecture Exhibition at La Biennale di Venezia and in particular the work of Studio Ossidiana associated with human and bird relations, the design brief specified the creation of small visions along the Canning River that allowed for architecture to become the mediative object where eco-systems could thrive, and cross-species exchange could take place. Birds were of a particular focus as animals which, along with humans, through migration, seed dispersal and adaptation, have most contributed to the globalization of nature.¹⁸ Students were required to research and identify one or more local bird species that would be the focus of their proposal but also keep in mind that species diversity ensures ecosystem resilience and conserving local species populations helps safeguard their long-term survival.¹⁹

Bio-Based Materials: Mycelium

With the notion that climate change and biodiversity loss are interwoven and need to be tackled together rather than separately, students were also encouraged to explore new material expressions that translate concepts into engaging spaces and objects. Students were given the opportunity to study mycelium-based bio-composite materials. Mycelium, which is the vegetative part of a fungus, has the unique capability to utilize agricultural crop waste (e.g., sawdust, rice husks, cotton stalks or straw) as substrates for the growth of its network, which integrates the wastes from pieces to continuous composites without energy input or generating extra waste.²⁰ Students were provided with a mycelium workshop and access to materials. The low-tech nature of mycelium-based bio-composite materials allowed students to explore possibilities using 1:1 prototype models of their proposals.

From Research and Contextual Analysis to a Developed Design Proposal

Students began by mapping the site using research and analysis methodologies, looking at the site in a series of distinct layers of information and then selecting particular layers for specific analytical purposes to identify areas of potential implementation. These layers might reflect buildings, void spaces, and streets but also the experience and use of spaces by humans, birds, and other species.

Once these elements were defined it was important to research and present information concerning the selected elements, surrounding environment, available materials and construction techniques and any other relevant information necessary to fully understand the existing context. This information was fundamental to comprehend the needs and desires of the user groups.

For example:

- Living habits, characteristics, daily activities, and routines of the chosen bird species.
- Sociocultural aspects of the local community such as languages & ethnics, family, religion and rituals, neighbor relations, etc.
- Similarities and differences between human and animal daily activities.
- Geographical context such as climate and natural disaster threats.
- Local biodiversity such as species richness, analysis of native vegetation and fauna, etc.
- Existing context which may investigate infrastructure and characteristics, communal areas, access to services, etc.
- Potential building materials, construction equipment, skills needed and local knowledge.

Finally, students presented an initial program that incorporated spaces that allow for different opportunities of interaction between our species and others as they go about their daily activities – this might include but was not limited to places to live, eat, work, play, sleep, nest, feed, rest, hunt, grow and die. Figure 2 provides an illustrative example showcasing the outcomes of the research and analysis phase.

Based on the research and contextual analysis students then initiated a project vision and strategy, progressing from a preliminary design scheme to developing site plans, building plans, elevations, sections, details, axonometric projections, and models to communicate design intent.



Figure 2. Detail from research and analysis of the Australian Reed Warbler by Jessica Gibbs, 2022

A strong sense of architectural responsibility towards species interaction

The outcomes of the speculative design studio highlighted the overwhelming interest from students in the role of architecture in promoting spatial opportunities for species interdependence based on a linked response to the issues of climate change and biodiversity loss. It is worth noting that conservation bias, where a disproportionate number of resources are allocated to more charismatic species rather than those perceived as ugly, scary, or boring,²¹ may have taken play to a certain degree due to the lack of knowledge in ecological thinking among architecture students. For the same reason, not all students were able to account for dependent groups of fauna and flora choosing to focus on a singular species, although this only occurred in a smaller number of cases – four out of twelve students. Similar limitations were noted in the case study *Architectural Multi-species Building Design: Concepts, Challenges and Design Process* by Grobman et al.²²

Of the twelve design proposals one student opted to not focus on a bird species selecting the Gould's Wattle Bat - a species of microbat commonly found in Australia and native to the Canning River region - due to its relevance in local ecosystems as a 'night shift' pollinator. The remaining eleven proposals selected a range of bird species that varied in type and size including land birds and common water birds found in Perth's rivers and wetlands.

The size of the proposals ranged from the macro scale to the micro scale, taking on large areas such as the ecologically irreplaceable wetlands along the Canning River where the proposal sought to empower suburban homeowners to return areas of Perth's wetlands that had been lost to urban development by renegotiating the boundaries and transforming them into liminal spaces capable of hosting both human and animal interactions.

Another proposal sought to respond to the escalating nutrient load in the Canning River waters, which prompts phytoplankton blooms, resulting in low oxygen levels that can make the ecosystem uninhabitable and directly affecting the presence of herons which are great indicators of river health. The student proposed a modular biofilter system which incorporated mycelium and is strategically located at the exit of storm water drains in order to purify the water as well as establish spaces where human and heron can interact.

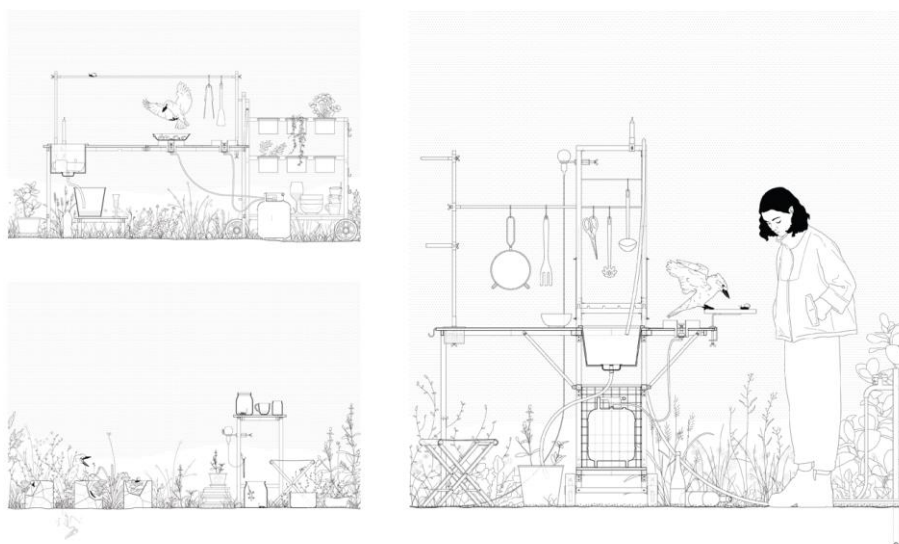


Figure 3. Sections from *Becoming Fungivore's* portable kitchen by Fynn Turley, 2022

Of particular interest was the small-scale proposal *Becoming Fungivore* which delved upon the dining experience of both the Kookaburra - a terrestrial tree kingfisher native to Australia – and humans

encouraging the exploration of future food systems through experimental eating and foraging in a controlled environment without impacting the existing native reserve. The dining experience promoted multi-species interaction between a variety of different ‘pests’: Fungi, Kookaburras, Moluscs, Insects, Weeds, and Humans. In reference to Cooking Sections’ ongoing project *Becoming Climavore*,²³ *Becoming Fungivore* investigated the potential for mycelium to negotiate the different needs for multi-species diets in the face of a looming food and climate crisis. Through a series of modular mycelium blocks and a portable ‘Shabby Kitchen’, *Becoming Fungivore* facilitates a performative dining experience atop a digestible mycelium platform intended to provide food for resident species of the Canning River. See figure 3.

Becoming Fungivore and *The Unexpected Encounter* (Figure 4), another small-scale proposal focused on the creation of a seasonal platform in the form a wall that allowed for local plant species, animals, insects and humans to thrive by learning from each other, were both nominated for the West Australian Cameron Chisolm Nichol award, which is awarded to the student who has completed the most outstanding architectural design studio in the Master of Architecture degree course at a particular university. *The Unexpected Encounter* took first place in a win for a poignant but powerful response to the complex interconnected relationships of the natural world raising the possibility of a more-than-human future.

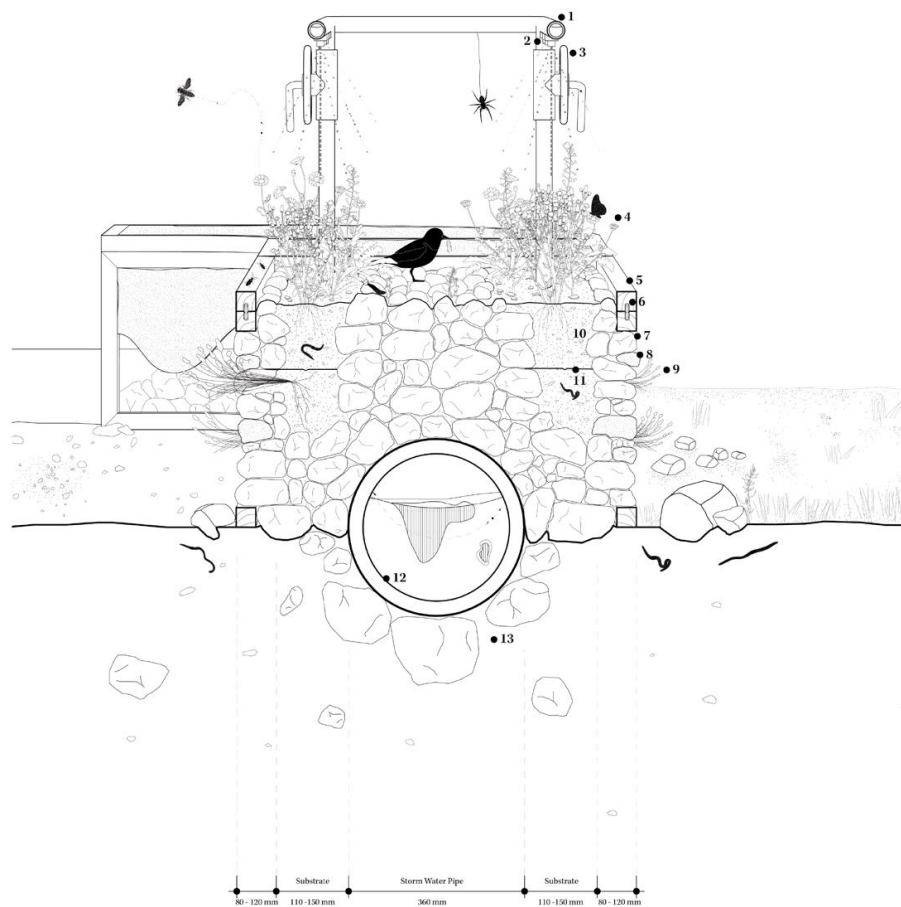


Figure 4. Section from *The Unexpected Encounter* by Jess Gibbs, 2022

CONCLUSION

This paper has identified potentials and challenges of introducing architecture students to a new pedagogical approach to design problems which emphasizes all living systems and their complex relations and concludes that a revision in architecture curricula is required to incorporate further research and teaching in the areas of ecology and architecture to fill current knowledge gaps related to simultaneously designing for animal, plant, and human needs. Furthermore, the academic case study determined that there is an eagerness amongst the current generation of architecture students to reevaluate the role of architecture and its effect on both climate change and biodiversity loss and that this desire to have a greater impact is replicated in fringes of the discipline in both practice and academia. Further dissemination is required at all levels of the discipline in order to make a meaningful impact on human interaction in the environment and consequently all life on earth.

NOTES

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TAKING THE LEAD: WOMEN AND TRANSPORT CHALLENGES IN THE PHILIPPINES

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INTRODUCTION

Filipino women are celebrated in global rankings, such as in the World Economic Forum’s Global Gender Gap Index, as the most gender-equal country in Asia placing 16th out of 146 countries in 2023.¹ The Gender Gap Index measures gender equality based on economic participation and opportunity, educational attainment, health and survival, and political empowerment. Yet according to the 2022 Philippine Statistics Authority (PSA) *Fact Sheet on Women and Men in the Philippines*, Filipino women occupy only 23.1% of total elective government positions in the country.² They face multiple challenges to accomplish their tasks in the different spheres of life.

One of the pressing concerns that women face in daily life is how to move around given that traffic congestion is the top concern of daily urban life among Filipinos.³ Far from being an enabler that allows Filipino women to get to destinations and accomplish their purpose for travel, the Philippine transport system demands enormous physical effort, poses threats to safety and security, requires substantial economic costs, and poses multifaceted ecological challenges, such as flooding and urban heat. It is also notable that the complexity of travel for women is more pronounced than men as they usually perform trip chaining by making multiple travels to accomplish their domestic duties together with their work responsibilities.⁴ It is in this regard that this research provides a discussion of the interconnected barriers to transport that Filipino women face. Through interviews with women from various sectors such as cycling groups, urban poor organisations, students, persons with disability (PWDs), senior citizens, and a local government, the research identified how women take the lead to ensure the realisation of dignified commuting through the lens of gender justice.

Challenges to Women in Transport

Historically, transport planning, policymaking and provision assumed of a “neuter commuter.” This resulted in the transport exclusion of groups like women who are experiencing challenges in accessibility, availability, and affordability, which contribute to transport poverty. Transport poverty continues to exacerbate existing temporal and spatial inequities which were already in place, with women generally bearing the brunt of these impacts, affecting their everyday lives, and hindering their potential societal contributions.⁵ There is also the persistent problem with safety and security wherein women experience different forms of sexual harassments and threats to their lives whenever they travel regardless of the mode of transport.⁶ There are also policy and cultural barriers that limit

women in travelling seamlessly and with ease. Lastly, climate change challenges pose barriers to women as flooding and urban heat impede their mobility options.

Accessibility

The accessibility of the transport system is a challenging ordeal to many types of commuters given the fragmented transport system in the Philippines. Gender issues amplify the problem with accessibility. The physical infrastructure for public transport such as roads, train stations, and public utility vehicles (PUV) stops are mostly disconnected, difficult to traverse or otherwise inexistent. The lack of proper PUV stops and the ill-maintained or lack of standard sidewalks pose threats and difficulties to commuters, especially for persons with disabilities (PWDs), pregnant women, the elderly, and children. According to a representative of the Women with Disabilities Leap to Social and Economic Progress, Inc. (WOW LEAP, Inc.), the poor connectivity and ill-maintained transport infrastructure in the Philippines force people to buy cars.⁷



Figure 1. Difficult to climb footbridge in Kamuning Avenue, Quezon City. Photo by Author

Furthermore, with women taking on multiple roles in different settings, such as at work and in the household, they have been well-documented to take on trip chaining in their travel patterns.⁸ They usually climb steep stairs carrying their loads because elevators and escalators in train stations are not working most of the time or run after moving buses and jeepneys just to get a ride contributing to the difficulty in travel. As Rivera's 2010 study in Davao City, she documented how women especially from lower socio-economic conditions do trip chaining as they fulfill their reproductive roles in between doing their jobs as market vendors.⁹ In doing multi-tasking, they are often marginalised by the lack of accessible walkways as the mention of people are generally absent in vehicle-oriented transport policies and infrastructure.¹⁰

Availability

The availability of transport options is a concern shared by women across socio-economic status, ages, and abilities. It relates primarily to the scarcity in supply of public transport modes to connect urban centers and the residential areas of workers and students. As shared by a Board Member of the Pandi Residence Housing Association in Bulacan province, the urban poor who were relocated from Metro Manila to Pandi municipality face the stressful situation of waiting indefinitely due to the

scarcity of jeepneys.¹¹ Such long waiting time is associated with the issue of affordability (see next subsection) as the lack of available modes of transport limit the work opportunities for people from this town. A student member of the inclusive mobility organisation Move-As-One Coalition also shared that even point-to-point (P2Ps) buses are also limited since they are only operational during rush hours.¹²



Figure 2. Passengers rushing into a congested bus in EDSA, Metro Manila's major road. Photo by Author

The issue with availability is also faced by cyclists. Both a member of the cycling group Tiklop Society of the Philippines¹³ and the all-women cycling group Pinay Bike Commuters Community (PBCC)¹⁴ highlighted the lack of continuous bicycle lanes, such as in Metro Manila, which endanger the lives of cyclists. This is despite the increase in bicycle usage in the Philippines in 2023 as shown by a Social Weather Station (SWS) survey that 36% or around 10 million households in the country are cycling households.¹⁵ These cycling households have at least one household member who cycles for any activity in 2023. This survey also revealed that there are four bicycles for every car in the Philippines in 2023, which is a significant increase from just two bicycles for every car in 2020.¹⁶

Affordability

The affordability of transport is a major concern in the Philippines as fuel prices continue to soar and cause fare increases. With the increase in fuel prices globally, the impact to public transport rates have been deeply felt especially by people from lower income groups. Gasoline prices, for example, continue to fluctuate with its retail price reaching as high as 1.55 USD per liter from May to June 2022 as the country attempted to bounce back after the Covid-19 pandemic.¹⁷

According to a member of PBCC Iloilo City, even with the implementation of the Public Utility Vehicle Modernization Program (PUVMP) with modern jeepneys plying around city streets, people take the brunt of increased fares due to the changes in routes entailing longer commutes.¹⁸ A member

of the anti-poverty organisation Gawad Kalinga (GK) in Valenzuela City further emphasised that the modern jeepney's feature of having air-conditioning meant charging passengers higher fares, which makes the PUVMP not necessarily pro-poor.¹⁹



Figure 3. Inside a modern jeepney with a minimum fare displayed in 2019. Photo by Author

Urban poor women who tend to work and reside in the peripheries of cities or in nearby provinces are also affected by the high costs of transport.²⁰ They experience transport poverty as distant government relocation sites of their residential areas limit their access to quality jobs and health care.²¹ The representative from Pandi Residence Housing Association attest to the difficulties experienced by people in disadvantaged socio-economic conditions as they face the problem of limited public transport options making their commutes more expensive.²² Many of those relocated in the housing project of the National Housing Authority (NHA) from Metro Manila to Pandi municipality were forced to forgo their employment in the city due to expensive fares of P2P buses in the absence of jeepneys.

Safety and Security

Studies show women being concerned about the different threats to their safety and security.²³ According to the first ever commissioned survey on sexual harassment done by SWS for the Quezon City local government and the United Nations Entity for Gender Equality and Women's Empowerment (UN Women) in Quezon City in 2016, it was alarming to find out that three out of five women experienced sexual harassment in public transport around Metro Manila. Furthermore, one out of three of these women experienced the worst forms of sexual harassment, which include "witnessing male public exposure and masturbation, and rubbing or groping (*panghihipo*) inside the MRT/ jeepneys."²⁴ While there is a policy that aim to protect women from gender-based violence in Metro Manila, such as a dedicated to women train coach in the MRT-3 line, the sheer number of passengers riding this train line push many of them to the mixed gender train coaches. Research participants also

lamented that streets without lights, for example, pose threats to women, especially for cyclists and public transport commuters.²⁵



Figure 4. Share the road advocacy in Iloilo City²⁶

Another issue that the research participants raised is the frequent discouragement that women experience when they ask questions about cycling and commuting. As PBCC members shared, women become objects of jokes and are blamed for risking their lives because they are stereotyped as “vulnerable” whenever they raise questions about cycling.²⁷ Women are subjected to judgments that they should already know what to do and just use their “common sense” whenever they raise questions in mixed gender social media groups. They even receive scornful comments when they ask for suggestions pertaining to reproductive health (e.g., cycling when one has her menstruation period).

Safety and Security

Transport policies in the Philippines remain to be car-centric and male-dominated. According to several research participants, there are gender stereotypes in government policies and cultural barriers which assume that roads are exclusive conduits for cars with predominantly male drivers.²⁸ Meanwhile, women drivers are stereotyped as slow and not as good as the male drivers. There are also the problems of the lack of continuity in transport reforms and programmes and having knowledgeable personnel in government.²⁹ These issues derail long term planning. As an example, there is the missed opportunity from the Covid-19 pandemic for sustained institutional support from government transport agencies to build and to maintain bicycle networks.³⁰ A PBCC representative highlighted how the concept of the “new normal” meant moving towards a worse traffic situation than pre-pandemic times because the government is hard wired to equating mobility as simply about moving cars.³¹

Climate Change Challenges

Climate change aggravates the already difficult experience of travel for women in the Philippines. Having gender lens on mobility and work can help in unpacking the impacts of climate-related risks, such as floods, on vulnerable communities.³² While the country is not one of the top emitters of carbon dioxide in the world, it is in the top three most severely affected by climate change.³³ The increasing level of motorisation in the country contributes to the worsening levels of air pollution. The toxic emissions from the increase in volume of cars create a vicious cycle that entails cutting trees to

accommodate road widening projects.³⁴ These projects contribute to the increasing frequency of flooding and rising temperature causing trapped urban heat and add to the burdens of women as they accomplish their numerous tasks.



Figure 5. A woman crossing a flooded Taft Avenue, City of Manila³⁵

As women, especially those with low socio-economic status, are most likely taking public transport or walk to their destination, they experience impediments to everyday mobilities.³⁶ Flooding aggravates the problems on accessibility due to road closures, availability of transport as traffic congestion worsens, and affordability as some drivers take advantage of increasing fares to frustrated passengers.³⁷ The country's transport infrastructure, especially its road networks, are not also well-maintained and are not suited to drain floodwater. While there are government attempts to mitigate the effects of climate change, such as through greening projects, local government units tend to plant the wrong trees.³⁸ Instead of planting native trees, local councils promote invasive trees or invest in greening projects that are not appropriate to the Philippines' ecosystem.

DIGNIFIED COMMUTING THROUGH GENDER JUST POLICIES

Many Filipino transport reform advocates are in the pursuit of dignified commuting for the millions of commuters who rely in the country's current fragmented transport system. The experiences of women are also fundamental in ensuring that dignified commuting is achieved through gender just policies and transport planning practices. This research points to policy recommendations that promote women support groups that help fellow women to move, ensure the meaningful participation of different sectors in policymaking, push for evidence-based transport planning, enforce policies on safe space and make sure grievance mechanisms respond to address complaints, and institutionalise education in transport.

Promote Women Support Groups

Promoting women support groups that encourage fellow women to be confident in finding ways to move is a crucial way of empowering them in their daily lives. Such groups like the PBCC through its online community in *Facebook*, for example, enables women to ask questions regarding commute or anything that concerns or distresses them while travelling. As an all women group, the PBCC *Facebook* provides them a platform where women call each other "sis", a shorthand for sister, and is designated and kept as a safe space for them to ask questions and receive suggestions without the fear

of being judged. Women are given a venue to assist each other by giving suggestions and valuable information that can help fellow women to control their time, plan their commute, and boost productivity. These groups help shatter the cancel culture against women speaking and asking questions, particularly about cycling.³⁹



Figure 6: Women teaching a fellow woman cycling⁴⁰

Meaningful Participation in Policy-making

Many of the research participants underscored the importance of meaningful participation of different sectors to effect positive changes to the transport system. Participants emphasised that it is important to give women a seat on the table so they can discuss matters that affect them. But participation must not be tokenistic, must be thoughtful, and should be inclusive of all sectors including transport providers and those from lower socio-economic status.⁴¹ Women from diverse professions can also assist and lead through their various expertise to craft inclusive transport policies and be involved in the different stages of the project management of infrastructure.⁴²

Evidence-based Transport Planning

Closing data gaps through rigorous methods on physical and sexual violence and women and the environment should be made available so the Philippines can meet its gender-related commitments, such as in the UN Sustainable Development Goals (SDGs).⁴³ By having reliable data, transport agencies can be directed towards evidence-based transportation planning. To accomplish this goal, it is important to collect data on how many women, children, PWDs, senior citizens benefit from the infrastructure projects built. It is also necessary to monitor and evaluate transportation projects to ensure they contribute to improving the quality of life of women in the Philippines.⁴⁴

Responsive Grievance Mechanisms

The enforcement of policies on safe spaces and ensuring that grievance mechanisms respond to address women’s complaints on gender-based violence is a major step to achieving gender justice in transport. New laws such as the *Safe Spaces Act* must be properly implemented, such as through including information dissemination in driver’s education.⁴⁵ It is also important for grievance mechanisms not to stop in merely receiving complaints but ensure that these are properly resolved.⁴⁶

Collaboration among different sectors is key in ensuring that justice through swift and without prejudice to complainants.



Figure 7. Safe City Metro Manila campaign with Filipina actress Glaiza de Castro as advocate against sexual harassment⁴⁷

Institutionalisation of Education in Transport

Research participants highlighted the necessity of institutionalising education in transport. Education should begin as early as possible with children to ensure that they develop awareness and civility in treating diverse people in the transport system. Government agencies such as the Department of Education (DepEd) can be involved in creating a curriculum that teach students about road safety, transportation infrastructure, and the benefits of cycling.⁴⁸ It is important to educate children that getting a license to drive is a privilege, not a right that entails being responsible and respectful especially to vulnerable road users. Infomercials can also be used to continuously educate the public about transport policies.

CONCLUSION

Filipino women are facing multiple barriers in finding ways to move given the state of the Philippine transport system. This study on women in transport dealt with the barriers commonly shared by women, which include issues on accessibility of transport infrastructure, availability of transport modes, affordability of fares, safety and security, policy and cultural barriers, and climate change challenges. But despite these enormous challenges, women are active players in creating an inclusive and sustainable transport system. Many of the research participants in this study took the initiative to spark actions that help tackle these barriers and shared their experiences that amplify the need to realise dignified commuting through gender just policies. These policy recommendations include the promotion of women support groups that help fellow women to move, ensuring the meaningful participation of different sectors in policymaking, pushing for evidence-based transport planning, enforcing policies on safe spaces, and making sure grievance mechanisms respond to address complaints, and institutionalise education in transport.

By building on what was experienced by Filipinos before and during the Covid-19 pandemic, the study presents post-pandemic opportunities that can leverage the growing number of women taking the lead to find solutions to pressing mobility problems. Learning from the good practices of local governments, civil society organisations, and individual champions that embraced inclusive mobility in their local policies, such as those yearly recognised by the Mobility Awards,⁴⁹ to transform the Philippine transport system, the research highlights the pockets of hope pursued by women champions

of inclusive mobility. The growing number of mobility champions from different sectors, such as the government, private sector, academia, and civil society organisations present hopeful futures that can make commuting much more dignified and gender just.

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BOTTOM-UP URBAN PLANNING IN THE ERA OF DATA: THE “HUMAN PARAMETER MAPPING” TOOL AS A CONTEMPORARY PLANNING STRATEGY ALTERNATIVE

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INTRODUCTION

Changes in urban development are closely tied to human revolutions, particularly concerning equality and control, as argued by Yuval Noah Harari in his book "21 thoughts on the 21st century".¹ Initially, the agricultural revolution gave rise to the culture of material possession and property, leading to social classes and human control. Urban development used to be organic and focused on fulfilling needs, but the industrial revolution introduced a top-down system and the emergence of urban designers, creating a gap between planners and users. In the Data era, the emphasis has shifted to non-material aspects, such as information and control. The implications of this transformation on the design of our society's environment are still a critical question.

In the "Global Happiness Index" one of the measured parameters is the degree of social involvement and the degree of familiarity with the people in your environment. As some papers point out, the number of acquaintances of an individual cannot exceed a certain level, and this is how the degree of success of virtual communities being tested. The total bridge that futurists predict between the virtual world and the physical world may happen as an augmented reality.² Will an "authentic identity" exist in such a world?

While hybrid prediction might become reality this paper adds that as long as we hold onto the physical material, we should balance the immaterial consciousness. This would be the wisdom.

And how should it effect the urban planning system?

THE LANGUAGE OF THE PLANNING FRAMEWORK

The field of architecture undergoes constant changes, influenced by social, political, and cultural dynamics. It continuously evolves in response to technological advancements and material innovations. However, it also faces limitations imposed by static management practices in today's digital era. "Static Management" entails the conversion of abstract linear plans into tangible structures within a specified timeframe. Similar to systems theory, an architect's perception defines the boundaries of a project. During the planning and design stages, decisions regarding the extent of influence from the surroundings, the environment's content, and the project's scale are made, whether in physical or virtual form. Critical to architectural expression is the ability to go beyond immediate constraints and understand the project's broader impact.

A linear boundary is crucial for defining confined or unconfined spaces, relying on spatial-natural or stylistic-structural characteristics and social attributes. Human nature involves conceptual demarcations rather than just physical spaces, such as cultural practices like the "Sabbath area" which is time-dependent border. A border should not be a floating line without substance. Territory is essential in architectural planning, with planners responding to the concept to generate outcomes. This involves a dialectical process of thesis and antithesis, aiming to engage with the environment's essence or transform it. The consideration of time in interpreting the environment and whether boundaries should encompass time is a question that arises in this evolving process.

Space-Human Relations Throughout History

In his book "Architecture Without Architects".³ Rudofsky initiates a discourse on the progression of the fundamental essence that emerges from necessity throughout historical eras. This essence is not dictated by an expert architect-planner, but rather manifests through an ongoing natural process, whether it be a physical or communal requirement. The evolution of needs and the dynamics of development are inherently captivating, as they trace back to the inception of "static architecture" when humans settled and community activities expended. With the advent of the "industrial revolution," architecture played a pivotal role in urban expansion and the formation of modern urbanism, encompassing diverse architectural styles. It can be said that the developmental dynamics were primarily influenced from the bottom-up, gradually transitioning to a top-down approach.

Analyzing an urban environment is a complex task as it involves the breakdown of variation, temporal and spatial dynamics that affect people and spaces. The urban space is a temporary phenomenon that is constantly changing. Cities go through a constant process of construction and reconstruction, based on redundancy and reuse.⁴ The built environment is never perfect or completely stable, in essence the 'unfinished' is part of the urban situation.⁵ The dynamics between humans and space both in existing situations and throughout periods is examined from both the qualitative-physical perspective and a cultural-value standpoint. The studies also try to mobilize the existing technological tools for mapping in order to understand behaviors and meanings in relation to 'place'. 'Place' is actually a concept that attributes a person's connection to the environment and not just a landmark. Cultural context, means territorial marking.

This need is noted here: "The results of this investigation force us to stop presenting landscapes as if they were perceived in a homogeneous way by their inhabitants. We should start to consider how to visualize the ways that the inhabitants of a region were involved in different activities in various spaces at particular times and how this created their own sense of the world. The new challenge therefore is to explore new methods of utilizing analytical tools such as GIS in more innovative ways in order to expand our understanding of past experiences of space".⁶

The influence of mapping is already known at the historical level. In the Middle Ages maps were often used as a representation of royal power, as royalty were the ones who usually commissioned and used maps. Representation of geographic information through maps is never neutral and cannot be separated from the expansion of territory and the perspective of power relations.⁷ Since colonial times, elites have used maps to justify their demands for land, without proper consideration of local communities.⁸

Various factors shape Tel Aviv's borders, impacting communal spaces, parking areas, and defining individual spaces. Branding, economics, and practical needs all influence these boundaries. International decisions, like the UNESCO declaration, indirectly affect neighborhood divisions. Plans such as the neighborhoods and Geddes plans contribute to defining borders. Natural features like Nahal Yarkon and the historical union of Jaffa and Tel Aviv also shape or blur existing boundaries.

Urban decisions and borders are typically guided by administrative processes and are constrained by certain limits. Despite the original goal of the Geddes plan to establish a utopian city environment, there seems to be a gap between those making decisions and their grasp of individuals' personal spaces. This raises the question of the true implications of democratizing borders and mapping.

Historical View on Urban-Human Relations

In addition to mapping on an urban level to mapping human-personal space, there is a middle level of observation - the community. This community consists of interconnected individuals who share common ground. The significance of the community space has experienced a resurgence in recent times, with its scope extending beyond the immediate local community. Previously confined to villages, it now encompasses neighborhoods, virtual spaces, and even communities of diverse nature. The definition of a community plays a crucial role in delineating its boundaries and territory. It comprises a group of individuals who share a common connection, foundation, and set of values, often organized through physical or virtual spaces. Over time, scholars have explored the relationship between individuals, places, and communities, yielding varied interpretations. According to recent research, this connection is viewed as a means of constructing identity through spatial experiences.⁹ Notably, one perspective highlighted in the book *PLAYOFFICE* associates the loss of identity with the "industrial revolution" and the functional aspects of industrial civilization.¹⁰

Currently, there is a shift towards a more holistic approach to personal identity, encompassing cognitive, emotional, and behavioural dimensions.¹¹ This approach is reflected in the analysis of place, which aims to establish a unique identity for communities. If a place does not meet the needs or values of individuals, it can lead to negative experiences. The concept of placemaking in urban planning explores how to create a sense of identity for communities. As virtual communities become more prevalent, there is a debate about whether similar experiences can be replicated online to shape identity. Some believe that virtual communities are the future.

Over the years, discussions have focused on the relationships between individuals, communities, and planning. These discussions have revealed the connections between material and non-material aspects, as well as between the micro and macro levels. The design itself serves as the central point that brings these elements together. In urban settings, a city's essence includes functionality and the integration of identity, individuality, and community. It's important to note that the quality of architecture improves when these aspects are more sophisticated and environmentally conscious. Historically, there have been different approaches and ways of conveying criticism.

In the 1950s, Jean Jacobs authored a manifesto and subsequent books advocating for a transformation in the American planning approach. She proposed a departure from the suburban development model and instead advocated for the revival of urban centers. Jacobs emphasized the importance of observing and understanding human urban situations, and proposed establishing connections between them to achieve positive urban renewal.¹² Kevin Lynch also explored similar ideas in his book, published in 1960, but with a slightly different approach. Lynch focused on the understanding of individuals through 'mental maps' and utilized this knowledge to develop an external human mapping system for diagnosing urban issues and creating planning methods for institutions.¹³ Building upon Jacobs' concepts, David Sim expanded the discourse in his 2019 book "Soft Cities," incorporating contemporary notions such as sustainability and climate. Sim also emphasized the significance of urban public spaces in his work.¹⁴

An alternative strategy, known as bottom-up planning, diverges from traditional theorists' approaches by emphasizing individualized planning to achieve similar objectives. In the 1950s, the "situationists" challenged established values through 'counter culture' and anti-conservative actions, promoting new

ideas and granting citizens the freedom to shape urban spaces according to their preferences. The Bottom-up approach today became ‘Tactical Urbanism’, which has gained widespread support and has become almost institutionalized. It advocates for community-driven initiatives in public spaces, fostering unique creations that promote a sense of identity and connection among people. Similarly, the concept of "public participation" encourages a DIY approach to understanding the relationship between individuals and their environment, providing tools for interpretation and design rather than dictating outcomes. Another avenue for advancing urban development is through "smart cities", where technology is utilized to enhance city living by engaging with residents for feedback and continuous improvement, ultimately creating a more efficient urban environment.

Mapping Human Personal Space

Mappings were actually a method for classification or alternatively for creating order. An order of functions that took a two-dimensional and then a three-dimensional form. Later on, the mappings expressed social, economic and even political orders, mappings of transportation or human flow and even of information. Over time and with the multiplicity of levels of information, geospatial mapping has become an analytical tool beyond a tool of organization and order. Mapping, as an abstract tool, organizes data in a certain typology and produces order and distinguishes differences. Noted here one more potential use: “Mapping is generally seen to articulate an existing city while planning and designing engage with the possible city; yet mapping also discloses and unfolds potentials and possibilities”.¹⁵

It is imperative to achieve a level of mapping that accurately reflects the human scale and the evolving nature of human society and identity. The tool suggested here as "human parameter mapping" is designed to capture these aspects and potentially influence urban planning process. The tool is envisioned to consist of three layers: behavioural mapping, which involves tracking daily activities such as GPS location data and duration of activities; experiential-cognitive mapping, which focuses on sensory experiences including the senses involved, specific locations, and the quality of experiences; and memory mapping, which entails recording selected memories, their locations, essence, and timing. This tool is intended to contribute to a "bottom-up" planning approach.

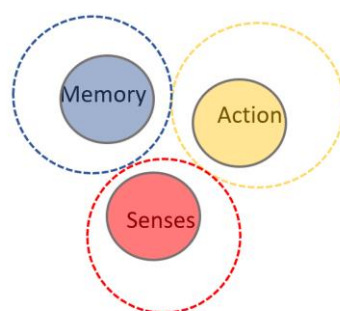


Figure 1. The three layers and their colors of “The human parameter” mapping tool.

The personal human parameter mapping has the potential to significantly influence the planning of public spaces in the city in a more democratic manner. As a result, it has been determined that a portion of the mapping process will be conducted through conscious choices. While some aspects will be automatically entered over time with the aid of sensors, other information will be verbally inputted, including the rationale and guiding principles behind the choices made. Additionally, the memory mapping component will be recorded in a non-technological fashion, focusing on identifying essential

elements and highlighting the collective memory, particularly the communal and social aspects of the community as a whole.

Utilizing personal information in big data helps identify an individual's residence and other details, aiding in data analysis. Using network data will enable AI systems to draw accurate conclusions and deliver values as planning objectives. This allows AI systems to draw accurate conclusions. Considering ethical implications and privacy rights, it's important to recognize that planning is based on individual needs and desires. Therefore, the impact of data is significant. Open discussions should be held to determine the best course of action.



Figure 2. The Human Parameter Mapping Tool

The mapping remains dynamic, being constantly refreshed, necessitating prompt decision-making. The utilization of artificial intelligence enables the establishment of connections among data within the network and various mappings, excluding the involvement of authorities and decision-makers in the process. Consequently, efficiency is enhanced, leading to a distribution of power. Furthermore, architects are granted the freedom to create more enriching spaces, while concerns regarding data, regulations, and interests are alleviated.

The 'output' that can be deduced from the mapping are diverse: Identifying problems to fix, Identify planning for improvement, Conclusions for the study, Conclusions for re-planning and Conclusions for future planning.

One of the most important points of the mapping is the possibility of producing social and urban zoning. In this way, a symbiotic system exists between the city and its users (human society). It is possible to produce population values and its characteristics in border lines through the three characteristics of the space in the mapping. They can be identified based on age/generation values and according to research data, the needs that sociologically characterize the given generation can be extracted.

At any given time, the lines of the open urban space can be based on this data also produce planning values for the architects. Statistically, along with the mapping, it will also be possible to be updated on the extent of the influence that "immigrants" who do not live in the neighborhoods have, as well as to be updated on values for different populations not necessarily according to the age cut-off used today.

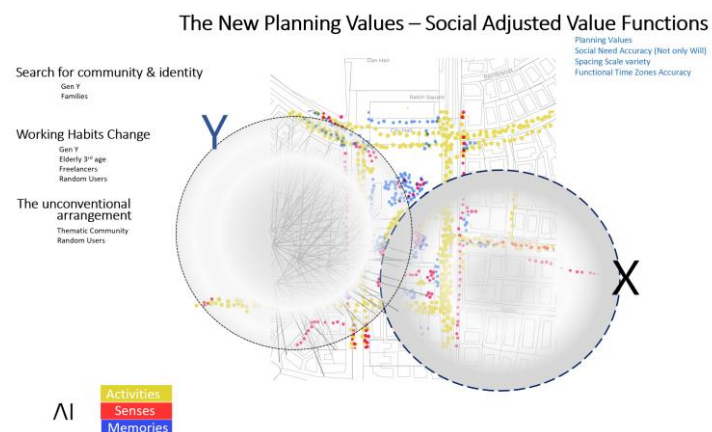


Figure 3. The Planning Zoning and Values



Figure 4. The New Zoning Borders

It is feasible, for example, to revise the district plan implemented in Tel Aviv since 1967, thereby presenting a more precise narrative of the urban areas through visual representations. The original plan delineates the borders in black, while suggestions for potential future border adjustments are highlighted in red, with updates scheduled every five years. It is crucial to emphasize that an increase in border complexity corresponds to a greater diversity of communities. A continuous paper will elaborate how this mapping system identifies values as well as ways to suggest improvements on the classic urban planning.

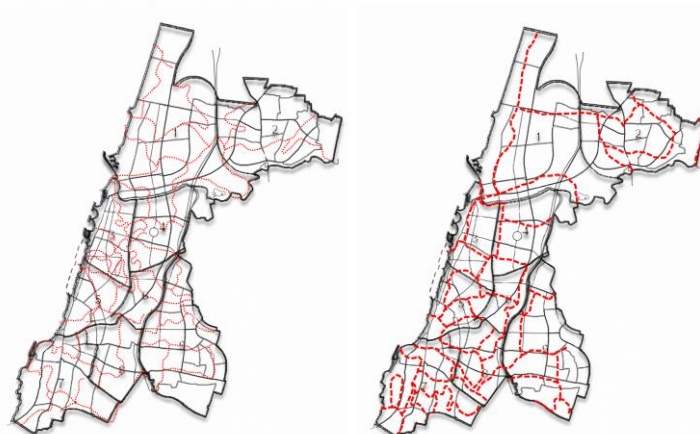


Figure 5. Simulation of The New Zoning Borders of Tel Aviv

CONCLUSION

Architecture predominantly relies on the correlation between form and substance. It gives rise to shapes, or rather outline lines, and encompasses essences within its context, encompassing the indigenous human community and its principles. In the field of biology, within nature, one can observe connections between form and purpose. The biological environment of earth has not yet integrated human society as a component of its system functionality. By looking at humans as the microcosm of the urban environment this paper offers the "human parameter mapping" as a tool that works under the aforementioned basic concepts but gives them contemporary content and meaning. The idea of using the same abstract tools in a process that renews the new binary design code for city planning where the jumps from the macro to the micro back to the macro will gather complex information and translate it into a more adapted plan, changeable and adaptable over time.

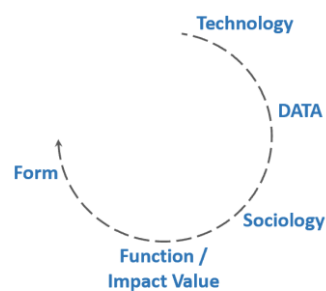


Figure 6. The New Planning Process

The mapping of 'the human parameter' is a communication tool that brings to light the changes in real time, and drives transparency in the transfer of information to both the user and the planner. This mapping is suggested to be a fundamental tool in urban planning and from its valuable end goals can be produced for planning compatible with society and place. The planning proposed here relies on innovative mapping tools to promote more sensitive local planning, at the right scale and at more intensive times. And since it is a dynamic process, the new urban planning will give birth to another change and will be re-expressed again and again. This paper calls for a primary priority for human society as a parameter, and to change the accepted system of considerations in the planning process today. In contemporary urban planning, planning definitions remain signs of a previous generation, while this tool calls for refreshing the planning guidelines and creating a new horizon that experiences the social changes as they occur. Another effect of the change in the planning process is also in the change of the power center of the decision makers from authorities to those who enter and process the information. As designers and planners who produce environments for a society that wants to be more present and identified by the space in which it lives, we work through all levels of material, also at the level of information, the non-material. This time, with the help of a "bottom-up" mapping tool, it is proposed that the design-planning responses will be compatible with time changes, period changes, environmental changes and societal changes. This signifies a consciousness- rational planning era.

NOTES

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SOLAR STREET ART FOR A PARTICIPATORY ENERGY TRANSITION

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INTRODUCTION

Urban image transformations brought about by façade-integrated solar technologies within the context of the energy transition can face social acceptance challenges, calling for more participatory approaches to implementing such changes. The issue is explored in this paper with a focus on the art-rich Bristol setting, through a review of the public exhibition which displayed outcomes of a speculative co-design process that engaged local community members in imagining solar facades for the city.

The reviewed exhibition was part of the UWE Bristol project *Towards Solar Facades as Participatory Public Art*, led by the author of this paper. The project was funded by the Arts and Humanities Research Council (AHRC), part of UK Research and Innovation (UKRI), under the Design Accelerator scheme (Grant Ref: AH/X003574/1). The project partners were Upfest and BIPVco.

Energy Transition and Urban Transformation

The work presented in this paper sits within the context of the renewable energy transition in relation to the transformation of cities and architectural facades that contribute to a sense of place.

Energy Transition

As reported in the World Energy Outlook 2022 by the International Energy Agency,¹ while we are facing the challenges posed by global warming, we are immersed in a deep energy crisis with a general impact on all countries. This is affecting people's access to electricity as well as food, which requires urgent action. Speeding up the transition to energy supply from renewable sources and moving away from fossil fuels would help reduce the impacts of the current crisis. If we look at the issue of electricity access in particular, we know there is a global rise in the demand for electrical energy, to which transport contributes greatly as electric vehicles become more widespread. However, electric-powered building services also affect the rising electricity. Photovoltaic technology is among the renewable energy technologies that are making a growing contribution to the energy transition.²

Transforming Cities

In this context, research has shown³ that due to their high energy demand, cities play a major role in the energy transition and the spatial transformation that it entails. The decentralisation of energy generation is a key element of the energy transition. Spatially distributed energy generation entails

changes in the scale and technologies employed as well as in the involvement of different stakeholders that can contribute to decision-making around decentralised power plants. Considering the specific characteristics of local contexts and communities is essential not only to understanding the dynamics of the energy transition in cities, but also to facilitating and accelerating the transition. In other words, the changes to urban environments that energy transition prompts require a ‘place-based perspective’. In informing the energy transition in cities, it is critical to engage a variety of stakeholders and local communities who need to be among the beneficiaries of the transition. Such civic involvement can improve the social acceptance of the changes brought about by the energy transition and can help to speed it up.⁴

Retrofit

Research supports the adoption of ‘adaptive reuse’ strategies for extending buildings’ life.⁵ While it comes with challenges, reusing the existing building stock, rather than demolishing and rebuilding it, is considered a beneficial approach to improving the sustainability of the construction sector. The advantages of reusing and adapting existing buildings were found to include economic benefits, the conservation of heritage, urban renewal, cost and energy savings, reductions in carbon emissions and waste, and enhancements in people’s lives.⁶ Thus, retrofit practices have an important role in implementing urban transformations within the energy transition.

URBAN FACADES IN THE ENERGY TRANSITION

The significance of alterations to the building envelope is demonstrated by earlier scholarly work.⁷ Within a reuse context, retrofitting facades is a recommended strategy for improving the energy performance of existing buildings and facilitating the decarbonisation of built environments. Solutions that involve modifications of the building envelope include, besides renovating roofs, replacing windows, increasing the thermal insulation capacity of both glazed and opaque enclosures, and adding photovoltaic (PV) installations.⁸

Retrofit with Building-Integrated Photovoltaics (BIPVs)

Photovoltaic technology generates electrical energy from sunlight, and this occurs as the flow of electrons is triggered by sunlight in semiconductor materials which ‘photovoltaic’ or ‘solar cells’ are made of.⁹ Retrofitting existing buildings by integrating photovoltaics into facades can supply properties with electricity from a renewable source while increasing their energy efficiency and thus lowering their energy use, as well as enhancing buildings’ exterior appearance.¹⁰ Photovoltaic technology can contribute to ‘zero-energy’ buildings that generate locally the energy they demand and from renewable sources.¹¹ Besides helping to achieve net-zero energy targets, building-integrated photovoltaics used in renovation contexts can contribute to achieving positive-energy districts or communities where a sharable surplus energy is generated from renewable sources.¹² Research on urban development¹³ shows that as urban renovations are driven more and more by investments of the private sector in real estate, local communities of residents tend to be excluded from the decision-making process that transforms urban areas. Residents seldom have a say on the changes that raise the value of properties making them more profitable for property investors.¹⁴ Thus, they tend not to be engaged in renovation processes that involve the redesign of building facades and therefore the appearance of buildings.

Facades as Media

A ‘sense of place’ is understood as a feeling of fondness that people have for the spaces they experience and associate meanings with.¹⁵ By being physically part of, and framing, urban open spaces, building facades inevitably have an impact on the ‘sense of place’ in cities. Facades can also serve as media for urban communities, which is demonstrated by the spread of street art in many cities.

Street art turns exterior walls into ‘canvas’ for painting new images displayed in public spaces and can enhance life in cities.¹⁶ Unlike other elements of urban environments, surfaces are less easy to distinguish as private or public, and people may use them to develop forms of artistic expression and inform the image of a city.¹⁷ It was found that in the United Kingdom, street art can serve as means of expression to channel criticism on issues of politics and society, by encapsulating people’s responses to changes in policy or guidance for the collectivity, which was evident during the COVID-19 pandemic.¹⁸ Earlier research¹⁹ highlighted that by occupying surfaces in urban open spaces, street art communicates to large audiences. It noted that distinctive attributes of street art include its being ‘site-specific’ ‘performative’ ‘ephemeral’ and ‘participatory’. It pointed out that this art is also vastly shared through online media. Bristol is an example of a city where street art has particularly developed and can contribute to boosting tourism.²⁰

SOLAR FACADES FOR BRISTOL

Given Bristol’s richness in street art, questions arise about this city in the context of the energy transition. What could the facades of the renewable energy transition look like in Bristol? How could facades be designed to continue serving the role of media for expression for the local community?

Earlier research showed that combining a participatory approach with speculation or imagination about the future can facilitate transformations for sustainable development.²¹

This paper examines the outcomes of activities that engaged members of the Bristol community in the speculative co-design of solar façade concepts for the city, considering the role of street art. The engagement activities consisted of a series of co-design workshops coordinated by Upfest as part of the project *Towards Solar Facades as Participatory Public Art*. The workshops involved the whole project team, including the non-academic partners, and engaged local building design stakeholders and residents in Bristol in learning about building-integrated photovoltaics and envisioning solar facades for the city. Local artists facilitating the workshops then elaborated on participants’ views to develop illustrations of solar façade concepts, that were later shown in a public exhibition.

Exhibition of Concepts for Solar Façade Artworks

This paper reviews materials from the public exhibition *SOL-ART Visions*²² which showed illustrations of design concepts for solar facades integrating photovoltaics and street art, created by five renowned Bristol artists. These were Andy Council, Bex Glover, Dave Bain, Elaine Carr and Luke Palmer (Acerone). The illustrations are presented below in Figure 1.



Figure 1. Illustrations from the ‘SOL-ART Visions’ Exhibition, presented by Upfest

The work presented in the exhibition considered ongoing developments in research on Building-Integrated Photovoltaics (BIPVs) and how applying them in façade retrofit may enhance buildings' energy performance and appearance in relation to the local context.²³ As clarified in earlier research, Building-Integrated Photovoltaic (BIPV) technology enables replacing common building envelope materials with energy-generating elements embedding photovoltaics that provide electrical energy generated from sunlight.²⁴

As Bristol features a strong presence of street art, this could be combined with BIPVs. Such potential was explored through the exhibition which showed the artists' visualisations of concepts for solar façade artworks elaborated from perspectives that emerged from co-design workshops with members of the local community.²⁵

The concepts for solar façade artworks that were created are presented and discussed below.

Solar Heart by Andy Council

The concept for a solar façade artwork *Solar Heart* by Andy Council is illustrated in Figure 2.

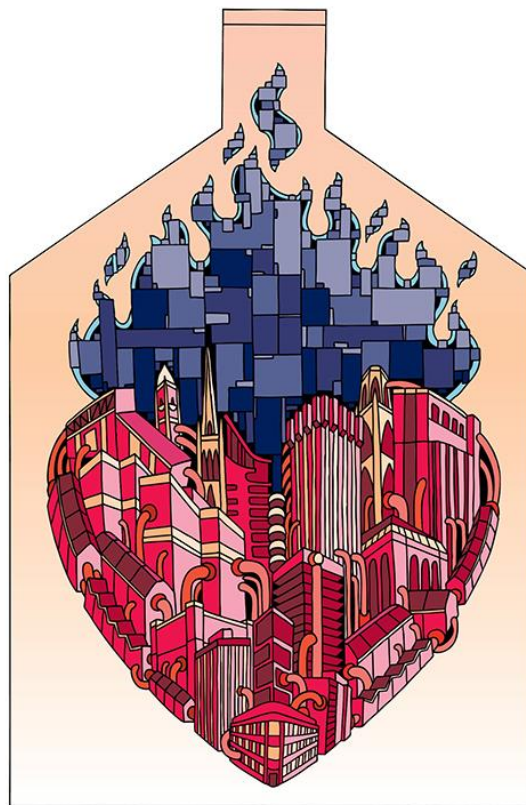


Figure 2. '*Solar Heart*' concept for a solar façade artwork by Andy Council

As explained by the artist,²⁶ the concept originated from community members' wish to see photovoltaics distinguishably integrated into a façade as part of an artwork. The concept envisioned photovoltaic panels to be arranged in the top part of the façade where more solar energy was expected to be available²⁷ according to information on areas with higher potential for photovoltaic energy generation that had been considered during the co-design workshops.²⁸ The visualised results from simulations of solar potential influenced colour choices in Andy Council's concept by means of

inversion, and buildings were illustrated in warmer colours to depict the issue of the Heat Island Effect²⁹ raised by workshop participants.

It can be observed that this concept proposed an original interpretation of people's views, channelling their concern for urban overheating and using typical visual features of photovoltaic panels, such as their blue colour and rectangular forms, as part of an artistic composition. However, the relatively small photovoltaic would likely generate an unsatisfactory amount of energy. Unlike conventional installations, the proposed photovoltaic array presents variations in the colour and dimensions of photovoltaic panels. As emerged from earlier research,³⁰ such variations can raise challenges in terms of manufacturing and energy generation efficiency.

Light for Life by Bex Glover

The concept for a solar façade artwork *Light for Life* by Bex Glover is shown in Figure 3.

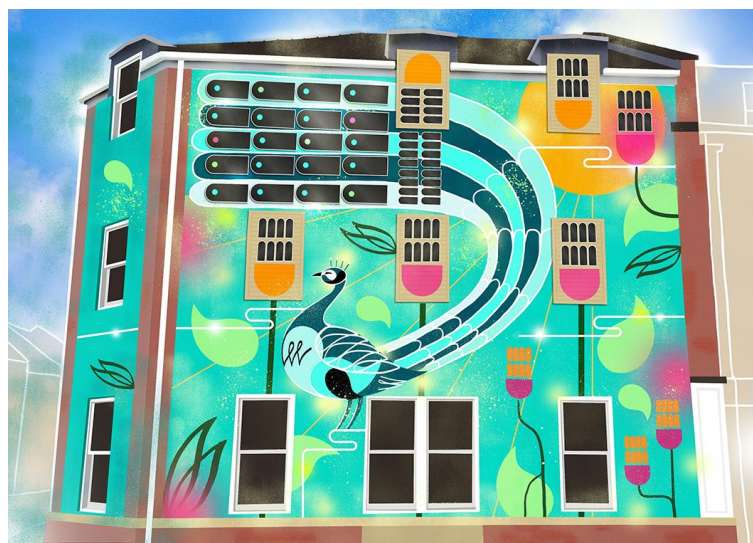


Figure 3. 'Light for Life' concept for a solar façade artwork by Bex Glover

As described by the artist, reflecting on views expressed by local community members,³¹ the concept arose as a celebration of nature and solar energy as a sustainable resource, by considering the modularity of photovoltaic panels while departing from their standard shapes and sizes. By taking BIPV technology's progress into account, freedom is promoted in conceiving solar modules' shapes and sizes while they are arranged in the upper portion of the façade with higher solar potential, which also enables integrating photovoltaics into shutters. It is suggested that printing graphics on solar panels could also enhance their appearance. Through the proposed approach, photovoltaic modules can contribute to composing an artwork including forms and motifs like those found in nature, such as 'the tail feathers of the peacock' and 'flowers.'³²

It can be observed that while expressing a desire for design freedom through the preference for unconventional solar panel forms and graphic alterations, the proposed visual configuration is characterised by limited photovoltaic coverage on a façade. Hence, it relies on technological development to generate useful energy through smaller and highly efficient photovoltaic installations.

Soaking up the Rays and *Hive Energy* by Dave Bain

The proposal developed by Dave Bain took form into two variations, both integrating photovoltaics with art evoking natural scenes. The concept for a solar façade artwork *Soaking up the Rays* and *Hive Energy* by Dave Bain is shown in Figure 4.



Figure 4. 'Soaking up the Rays' (top) and 'Hive Energy' (bottom) solar façade concept by Dave Bain

The artist's description of the concept,³³ reflecting views expressed by local community members, shows an intent to create a visual composition which integrates art and solar modules in ways that would allow design flexibility and maximise photovoltaic energy generation while celebrating it and inspiring positive feelings. In *Soaking up the rays*, solar modules of black colour predominantly occupy the upper part of the façade where there are only minimal graphics, representing sun rays so that the shading of solar cells can be minimised. The black colour transitions into an artistic representation towards the bottom of the façade. With a similar intent, *Hive Energy* proposes the use of a less conventional 'honeycomb pattern' as the modular configuration of the photovoltaic array, to combine black, hexagonal photovoltaic modules with a lively illustration of bees.³⁴

It can be observed that Dave Bain's concept strives to maximise photovoltaic coverage and energy generation while reflecting community aspirations. However, it relies on qualities that are unconventional for photovoltaic installations, such as solar panels' alternative forms or ability to perform efficiently when overlaid with graphics. Covering solar panels with a layer that has the function of displaying graphics would cause partial shading on the photovoltaic modules. As highlighted in earlier research,³⁵ partial shading can considerably lower the efficiency of photovoltaics and special consideration is required in the electrical design of BIPVs.

Solarsynthesis by Elaine Carr

The concept for a solar façade artwork *Solarsynthesis* by Elaine Carr is illustrated in Figure 5.

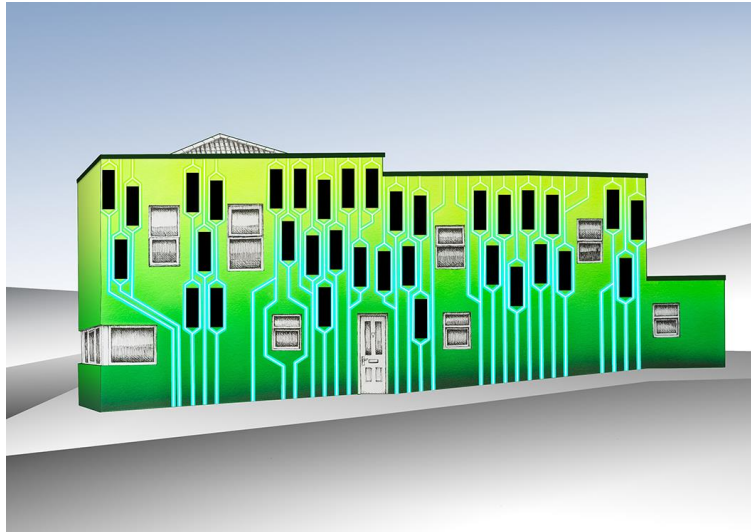


Figure 5. 'Solarsynthesis' concept for a solar façade artwork by Elaine Carr

As explained by the artist,³⁶ *Solarsynthesis* by Elaine Carr intended to celebrate nature. It represents the process of photosynthesis, or how in nature sunlight is turned into a different energy form within plants. The artist reflected on the cellular structure within leaves and sought to translate it graphically, drawing attention to the importance of solar panels that become focal points in the visual composition. This reflected the community's preferences for integrating photovoltaics visibly into façade designs.³⁷ It can be noted that in this concept photovoltaic modules are arranged sparsely on the façade. Such configuration may increase the difference in irradiance across the photovoltaic array. Increasing the spacing between the modules reduces photovoltaic coverage while increasing the length of electrical connections. Thus, it can be suggested that higher efficiency photovoltaics would need to be employed, rather than conventional and established solar panels, to generate a relevant amount of energy.

More Power to You by Luke Palmer (Acerone)

The concept for a solar façade artwork *More Power to You* by Luke Palmer (Acerone) is shown in Figure 6.

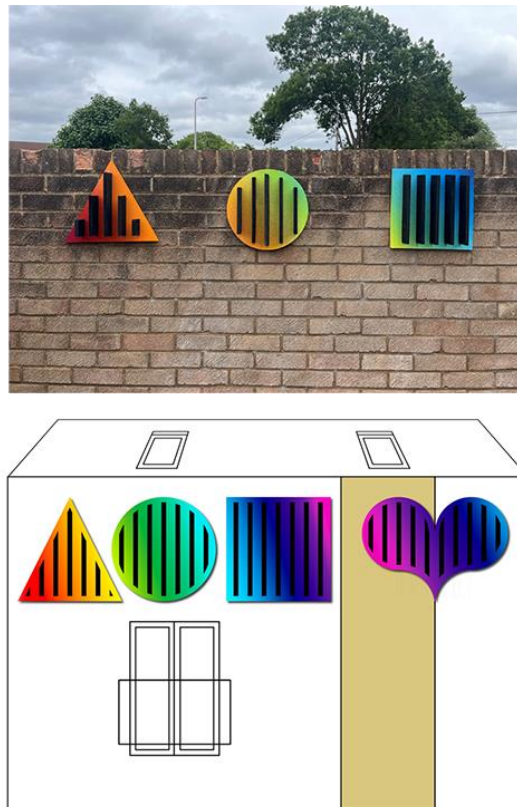


Figure 6. 'More Power to You' concept for a solar façade artwork by Luke Palmer (Acerone)

According to the artist's explanation,³⁸ the concept explores the possibility of creating three-dimensional street art integrated with photovoltaics, as a way of increasing the absorption of sunlight and generating more energy than through two-dimensional façade configurations with photovoltaic cladding. The concept reflects discussions with local community members about the trade-off between energy generation efficiency and an appealing visual design. It considers that a 2D configuration would offer a limited area to accommodate both photovoltaics and art, and proposes to increase the available surface by utilising three-dimensional configurations to increase energy generation.³⁹

The idea which emerges here can be related to research on three-dimensional photovoltaics presenting, for instance, a corrugated form,⁴⁰ bifacial modules⁴¹ or even spherical solar cells,⁴² that can increase the absorption of sunlight and therefore, the generated electrical energy output. This is also a concept which departs from conventional applications of photovoltaics and calls for further exploration.

CONCLUSION

As emerged from the discussion of the work shown in the *SOL-ART Visions* exhibition, the displayed illustrations represent concepts that require further research to materialise into full-size, energy-generating façade artworks. More work is needed towards understanding the potential for constructing building-integrated photovoltaic installations with high energy generation efficiency and visual features proposed in the presented concepts.

Nonetheless, the illustrations, which are the outcomes of a speculative co-design process, show that in Bristol, the facades of the renewable energy transition could be conceived to integrate both photovoltaics and street art. Collaboration between local artists, residents, building design

stakeholders and solar energy experts can generate innovative concepts for façade designs that facilitate the transition to renewable energy generation while respecting the sense of place and the local community's aspirations.

The *SOL-ART Visions* exhibition demonstrated the important role that street art has for the local community of Bristol as well as its potential for facilitating the energy transition. By sparking creativity and stimulating collective imagination, street art, and street artists, can involve people in conversation about the future within the context of the climate crisis and the energy transition. As shown by the content of the exhibition, street art can engage audiences not only through full-size murals visible in public spaces but also by involving them in the process of shaping the transformation of urban spaces from early, speculative design stages. Street art can help residents imagine the changing landscape of their city in the energy transition. It can channel and visualise residents' perspectives, including issues they care about and environmental concerns, such as the worry about urban overheating, which was depicted in Andy Council's artwork. By visualising the perspectives of local community members in conversation with experts, the work of street artists can raise awareness about the possibilities of renewable energy technologies. In particular, the presented work can help to raise awareness about the opportunities for integrating photovoltaics into facades in Bristol.

The examined artworks proposed some surprising possibilities for the visual design of solar façades, which can be explored through further research. They can facilitate future collaborative discussions among stakeholders about how to shape transformations of the local urban environment within the energy transition. Thanks to its capacity for engaging audiences, street art has the potential to act as a catalyst for a more participatory and inclusive energy transition.

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GHOSTLANDS: MARKING AND REMEMBERING DISAPPEARING CULTURES, COMMUNITIES, AND LANDSCAPES THROUGH DESIGN BUILD

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INTRODUCTION

One January morning in 1990 in a little corner of Blanco County, Texas, the Arnosky family was preparing for a barn raising. In a once thriving agricultural region, the Arnosky farm was facing budget constraints and looked to the local community and an old-fashioned custom that epitomized the spirit, unity, and work ethic of an earlier way of life. Like most historic barn raisings, especially in the Amish and Mennonite communities, the Arnosky's was supported by skilled but unpaid craftsmen and amateur volunteers, mostly strangers, who came to the farm purely to experience the event. What began as act of labor culminated in a celebration of cooperation, food, music, and making – the basic ingredients that have formed the foundation of human culture and society from its beginning.¹

At the time, the event at the Arnosky farm would likely not have been considered as a case of cultural heritage. Throughout the twentieth century, cultural heritage was primarily artefact based and limited by a Western museological perspective to classical examples of art, buildings, and monuments deemed by experts to be “great.” The purpose of heritage law was the protection and conservation of property, particularly those endangered and of high aesthetic or material value.² In 2003, however, UNESCO adopted the Convention for the Safeguarding of Intangible Cultural heritage, marking a shift toward the recognition of non-material cultural expressions and processes such as performing arts, rituals, craft processes, and other manifestations understood in terms of time and utility, not just aesthetics.³ While the widening of the lens on cultural heritage was an important move, it challenged established methods of judging heritage value and called for new ways to evaluate cultural impact and significance. Based on UNESCO's revised criteria,⁴ broadened to account for intangible heritage, new empirical approaches have been developed to evaluate intangible forms of heritage.⁵ Considering barn raisings, their historical tradition and perhaps a few outstanding examples will almost certainly become viewed as cultural heritage, but cases like the Arnosky farm event are elusive, remain difficult to evaluate, and may never be deemed individually significant.

In an effort to reconsider and reposition a body of work within a larger intangible cultural heritage context, this paper questions the impact and significance of three projects spanning nearly twenty years including *Neonomads*, a mobile desert shelter and research station in the Arabian desert, *Ghostlands Studio*, a series of small infrastructure projects in a dying town in Iowa, and *The House of Dance and Feathers*, a Mardi Gras Indian Museum in the Lower Ninth Ward, New Orleans, as acts of cultural heritage through community engagement.

NEONOMADS

In 2012, the first woman crossed the Rub' al Khali, a 650,000 km² sea of sand, known as the Empty Quarter, a spectacular desert landscape and home to 'Uruq Bani Ma'arid, recently nominated as a UNESCO World Heritage Site. Hajar Ali made the six day vehicular crossing through one of the “driest, hottest, and most unyielding environments” in the world.⁶ A year later, three South Africans became the first outsiders to cross the desert “unassisted,” on foot.⁷ Although Bedouins have been traversing the Rub'al Khali for thousands of years, foreigners weren't able to breach the Quarter until 1931, or map it until Wilfred Thesiger did, between 1946 and 1950.⁸ Except for Bedouin and a few extreme explorers, the rest of us have been left to wonder at its edge.



Figure 1. Neonomads Prototype 3, Author, 2018.

Despite the relatively recent push toward conservation of the Arabian desert, the scale of development due to modernization in the United Arab Emirates since the 1970's has exploded, resulting in the rapid loss of ecosystems and heritage landscapes, drawing the attention of environmental advocates and experts worldwide. By 2013, it was estimated that twenty-five percent of the world's construction cranes were operating in Dubai.⁹ The dramatic rise in population requiring intensive urbanization, infrastructure, and local agricultural production has led to widespread native ecosystem fragmentation and overall decline. Along with landscapes, the UAE continues to lose many of its traditional customs and practices, as well.¹⁰

Neonomads began in the fall of 2017 with no client, no site, and no program except as basic shelter providing protection from the harsh climate and to allow people to get a bit farther out into one of the most isolated and beautiful landscapes on earth. Given the region's rapid development quickening the loss of its desert ecosystems, engaging students is the history and traditions of the people, place, and its customs is an essential step toward preserving its cultural heritage. Further, the impact on students over the past one-hundred years of social engagement through design-build evidences its transformative ability to foster citizenship, advocacy, and empathy, in our case for the environment in particular.¹¹

To challenge students' predetermined notions about architecture and the desert, we asked them to consider building strategies and systems that allowed for elements to be carried to site and assembled solely by hand. When midway through the first semester we found our client, a local agency responsible for the protection of the environment and heritage landscapes, their criteria for desert architecture serendipitously mirrored our own. We were asked to provide a basic desert shelter with access to off-the-grid power, lighting, and refrigeration, allowing scientists to carry in less gear to support longer term site visits. Vehicular access to the protected areas was restricted and required all building components, materials, and supplies to be walked to site up to two kilometers across the desert.



Figure 2. Neonomads Prototype 4, Author, 2018.

The resulting process embedded students in the nomadic desert culture in two ways. First, they researched, translated, and prototyped traditional nomadic tent building techniques into contemporary systems designed to be lightweight, demountable, transportable, able to protect from wind, sand, and intense sun, while providing all aspects of daily human inhabitation. Second, once deployed, the structures supported and facilitated the ongoing study and conservation of a disappearing landscape.

GHOSTLANDS

Between 2005 and 2013, working with architecture students in multiple dead and dying towns in the US states of Kansas and Iowa, we examined the shifting social, economic, and environmental landscape through a hybrid approach of expeditionary learning, community engagement, and design build. In 2005, it was difficult to find data on the hundreds of dying towns throughout the Midwest and there was no set definition of “ghost towns” other than the complex combination of factors leading to their existence.¹² Based on information available, the historical reasons for the plague of dying towns in America’s heartland were primarily political and economic, depending on location and climate, although for any town there is no single cause for its abandonment.¹³ More modern causes range from shifting cultural factors, like “brain drain,” the loss of manufacturing, drug epidemics, and

natural and man-made disasters,¹⁴ as in the cases of New Orleans' Lower Ninth Ward following Katrina, tornado ravaged Picher, Oklahoma, and Centrailia, Pennsylvania, which had to be abandoned due to an persistent underground coal fire burning since 1962.¹⁵ Whatever the reasons, the continuing disappearance of Midwest communities through the twentieth and twenty-first centuries is a crisis of cultural heritage.



Figure 3. Mackey town sign installation, Chelsea Britis, 2012.

When we arrived in Mackey, Iowa, there were only about a dozen residents remaining, the majority of who were in their eighties. As far as local governments were concerned, the town did not even exist and was known officially as Harrison Township. There was an historic one room schoolhouse, a cemetery occupied by most of the past residents, and a church still operating and serving as the final anchor of a dying community. When we first met the community one Sunday in the summer of 2012, resident Keith Carlson remarked that, “after eighty years of living in the same place and thinking that nobody cares or notices your existence,” it was as if aliens had landed. Although never platted as an official town, Mackey once had a post office, a thriving farming and lumber industry, and even a general store, destroyed by an explosion when a customer accidentally dropped his cigarette into a box of dynamite. Its population peaked in the 1920’s and declined steadily after that until, in 2010, the census recorded a population 354 for Harrison Township, of which Mackey is a very small part.¹⁶ Like many other small dying towns in Iowa that attempt to sustain a sense of sprit and identity with community festivals, like Fenton Iowa’s “Sweet Corn Days” and Walker’s “Pickle Days,” Mackey hosts an annual Ice Cream Social around the fourth of July as an opportunity to reunite with former residents who have since become part of the diaspora of Midwesterners now living in other parts of the country. Like the Arnosky barn raising, the event brings back together the broader community to reconnect and celebrate through food, music, storytelling, and arts and crafts.



Figure 4. Ghostlands Outhouse Micro-Museum, James Spiller, 2014.

Between 2012 and 2013, we worked in Mackey for several weeks leading up to the Social, taking advantage of the swell of community spirit and support. The students, strangers to Mackey, self-financed their work, anonymously spending the average amount of money that they would on a typical design studio for modeling and drawing supplies, while supplementing the construction budget with free or cheap reused, recycled, and repurposed materials. The town donated paint, gardening supplies, planting materials and, in the reverse of a barn raising, helped the students deconstruct a one-hundred year-old corn crib to use for its Western cedar as the primary lumber source for the project. One family offered the use of their garage and welding machine to help facilitate our metal fabrication. Over two summers, the students and town members improved and beautified the site, made repairs to the school and church, and constructed a series of small pieces of infrastructure, including a town sign, cemetery bench, community picnic table, and replica of an old outhouse reimagined as micro-museum for Mackey. With an understanding between both the students and the community that the town would likely eventually cease to exist, the project was less an act of resilience or recovery than an opportunity to acknowledge and remember the cultural heritage of a place that was once a flourishing part of the larger national identity.

THE HOUSE OF DANCE AND FEATHERS

In March of 2006, just more than six months since Hurricane Katrina devastated New Orleans with the loss of 200,000 homes, 220,000 jobs, and the creation of a diaspora more than 1,000,000 strong, Herbert Gettridge was the first resident to return to the Lower Ninth Ward to rebuild his home. To call the Lower Ninth devastated is a massive understatement. What 82 year old Gettridge returned to could more accurately be described as an apocalyptic landscape, a war zone, a world of complete and absolute ruin. There was no electricity, no drinkable water, and none of the basic infrastructure necessary for modern survival. But he came from a place and time in New Orleans that was seasoned by struggle and adversity and was committed to rebuilding his home and his neighborhood. Unknown to us, his story had garnered national attention from CNN, PBS, and celebrities like Billy Crystal. A

fifth-generation New Orleanian, former merchant seaman, and grandson of a Choctaw Indian man, Gettridge was a plasterer, part of an extraordinary group of craftsmen who helped to build the city, and a member of the elite Plasterer’s Union, made up of mostly creoles, blacks, and the ancestors of slaves.¹⁷



Figure 5. *The House of Dance and Feathers*, Author, 2006.

Like the barns raised in Amish communities up north, fellow craftsmen built together many of the historical architecture in New Orleans, mostly on weekends, and for no pay except for the food, music, and company provided by their neighbors. This tradition, along with the heritage of craft in New Orleans, is disappearing.

When we started rebuilding Ronald Lewis’ home and *The House of Dance and Feathers* Mardi Gras Indian Museum in his back yard in the Lower Ninth Ward during the summer of 2006, we experienced this all-encompassing community spirit firsthand. Born out of the failure of the Freedmen’s Bureau established at the end of the Civil War, a network of organizations now referred to as Social Aid and Pleasure Clubs sprang up across the city of New Orleans. With a similar purpose, these clubs were supported by dues paid meant to provide food, shelter, clothing, medical treatment, and funeral services to community members unable to afford it. Intertwined with Mardi Gras Indian Tribes, Second Line parades, and the birth of Jazz, this network of community aid and social wellbeing has been an essential system of infrastructure for the city.¹⁸ It was due to this network that we were offered the corrugated aluminum from a soon-to-be-demolished shed that provided us with just enough roofing material for the museum, for free; and the free housing that summer, just north of the French Quarter, for more than 35 students and volunteers on a rolling basis who came down to New Orleans to help us rebuild, for free and for no college credit; and for so many things including the ultimate success of the project. And it was how we met Herbert Gettridge.

Known to us then only as “the Wizard,” Gettridge walked onto the job site on Tupelo Street in mid-July to help us plaster the side of Ronald Lewis’ home. By that time, about two months in, we had dried-in the Lewis home and were finishing the exterior envelope of the museum in the back yard.

Both structures were ready for electrical and plumbing work, and we were busy contracting with local trades. Gettridge, however, showed up rather unannounced and offered his plastering services for free, not as a celebrity or local artisan, but as a neighbor, known to Ronald through his association with the Big Nine Social Aid and Pleasure Club. I remember him working quietly, quickly, but meticulously over the next three days until his job was done. A month later, when the Lewis home and backyard museum were substantially complete, we handed over the keys to Ronald and his wife, Charlotte, and threw a party. When I read about Gettridge in a National Geographic Magazine article later, I was stunned by who we had in our midst but were unable, at the time, to appreciate. Herbert “the Wizard” Gettridge passed away in 2014 at the age of 91 in the New Orleans home that he rebuilt on his own after the storm. A part of the history of the city, the art and craft of plastering, and a way of life died with him.

LOOKING BACK

Understanding what constitutes culture is about looking back. What scholars refer to as the age of sedentism at the origins of society when mobile bands of people began to form large permanent settlements, about 15,000 years ago, is characterized by a set of fundamental activities including the sharing freely of food, music, language, belief, ceremonies and rituals, and social cooperation, especially through traditions of craft and making.¹⁹ Understanding the difference between culture and heritage, however, can be more difficult to discern. As an outsider with no education in cultural heritage, to me the distinction is that, while *culture* involves daily life happening around us in the present and in constant change, *heritage* is those tangible and intangible parts of culture that we deem valuable enough to maintain and preserve, pass down, and be inherited by future generations in an effort to remember the fundamental aspects of our identity that make us who we are. Judging the heritage value of acts and artefacts, whether from a public or professional perspective, is contentious as “we tend to focus on its scientific, educational, political, and market value, to the exclusion of its more fundamental value,”²⁰ the importance and meaning that people derive from them through their everyday lives. This value, which could be described as measuring the persistence and potency of a cultural thing, is perhaps the best lens through which to view the work described above.

The most recent project, *Neonomads*, may be too young to adequately evaluate, although it has proven to be the most impactful work of my professional life when measuring its recognition through awards and publications, due likely to the societal shift in focus toward environmental concerns and, in that context, the relative cultural importance of this particular desert landscape. Despite only having been completed a few years ago, however, it is the least utilized and least visible of the three projects and, in my opinion, will be forgotten soonest. In contrast, the *Ghostlands* work in Iowa received relatively little recognition professionally and perhaps even less public attention, although the project was centered around ghost towns and abandonments, which has grown in popular culture over the years. From a historical standpoint considering the magnitude of cultural loss through dying towns in the Midwest, the project should have considerable value to local and state agencies. More than ten years on, due to the pandemic, old age, and changing priorities, Mackey is dead, the church closed, and all that remains is the cemetery and a few markers left behind by students. The most persistent and potent of the projects has been *The House of Dance and Feathers*. Over the past two decades it has survived seven hurricanes, economic hardship, and aging construction only to lose its curator, Ronald Lewis, to Covid in 2021. Although it did not prove the most impactful work for me professionally, the project exploded into the cultural scene of New Orleans and beyond, becoming an emblem for persistence and community spirit while finding its way into mainstream media through print, television, and motion pictures. It continues to be visited, documented, and told about and loved by the public,

celebrities, and scholars alike. And although the New York Times referred to it as a “glorified shed,” Ronald Lewis earned a space on the pages of their obituaries when he died.



Figure 6. Ronald Lewis and the Crew, Aubrey Edwards, 2006.

I have discovered in the end through writing this that there may be no way to truly evaluate the value of these projects in terms of their cultural heritage, and if there is, I am not the person to do so. The best I can do is remember and preserve the many critical and hard won lessons from each experience and pass them on, as I will continue to do as long as I can. My education through this work was broad and deep, and the significance and impact of my learning has been lasting and immeasurable, as I hope it has been for my students. While the value of this work and other acts of intangible cultural heritage may continue to be debated amongst experts, for those who projects like these immediately affect, like the Arnosky’s, the Lewis’s, and the residents of Mackey, Iowa, their importance and meaning are absolute.

NOTES

- ¹ Phil Auldridge, "A barn raising." *Ranch and Rural Living* 88, no. 4 (2007): 23-26.
- ² Janet Blake, "On defining the cultural heritage." *International & Comparative Law Quarterly* 49, no. 1 (2000): 66.
- ³ Chiara Bortolotto, "From Objects to Processes: UNESCO'S' Intangible Cultural Heritage'." *Journal of Museum Ethnography* 19 (2007): 22.
- ⁴ UNESCO, *Revised operational guidelines for the implementation of the World Heritage Convention* (WHC. 05/2, 2 February 2005). Paris: World Heritage Centre.
 1. Represent a masterpiece of human creative genius.
 2. Exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning, or landscape design.
 3. Bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living, or which has disappeared.
 4. An outstanding example of a type of building, architectural or technological ensemble, or landscape which illustrates (a) significant stage(s) in human history.
 5. Be an outstanding example of a traditional human settlement, land use, or sea use which is representative of a culture (or cultures) or human interaction with the environment, especially when it has become vulnerable under the impact of irreversible change.
 6. Be directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance. (The Committee considers that this criterion should preferably be used in conjunction with other criteria).
 7. Contain superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance.
 8. Be outstanding examples representing major stages of earth's history, including the record of life, significant ongoing geological processes in the development of landforms, or significant geomorphic or physiographic features.
 9. Be outstanding examples representing significant ongoing ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal, and marine ecosystems and communities of plants and animals.
 10. Contain the most important and significant natural habitats for in situ conservation of biological diversity, including those containing threatened species of outstanding universal value from the point of view of science or conservation.
- ⁵ Maria Jose Del Barrio, María Devesa, and Luis César Herrero. "Evaluating intangible cultural heritage: The case of cultural festivals." *City, Culture and Society* 3, no. 4 (2012): 235-244.
- ⁶ Janice Ponce de Leon, "Ali Stakes Claim as First Woman to Cross Empty Quarter." Uae – Gulf News, October 29, 2018. <https://gulfnews.com/uae/ali-stakes-claim-as-first-woman-to-cross-empty-quarter-1.1005166>.
- ⁷ Nadeem Hanif, "1,000km trek across the Empty Quarter comes to an end in Dubai." Accessed February 20, 2024. <https://www.thenationalnews.com/uae/1-000km-trek-across-the-empty-quarter-comes-to-an-end-in-dubai-1.292703>.
- ⁸ Rory Stewart, introduction to *Arabian Sands* by Wilfred Thesiger, (Penguin, 2008), viii - ix.
- ⁹ Ahmed K. Nassar, G. Alan Blackburn, and J. Duncan Whyatt, "Developing the desert: The pace and process of urban growth in Dubai." *Computers, Environment and Urban Systems* 45 (2014): 50.
- ¹⁰ Christophe Tourenq, and Frédéric Launay, "Challenges facing biodiversity in the United Arab Emirates." *Management of Environmental Quality: An International Journal* 19, no. 3 (2008): 292-294.
- ¹¹ Anna Gloria Goodman, "A history of community design/build in the United States in four moments." In *102nd ACSA Annual Meeting Proceedings, Globalizing Architecture/Flows and Disruptions*, (Washington, DC: ACSA Press, 2014), 503-512.
- ¹² Patrick Rhodes, "Ghostlands Studio: Expeditionary Learning and Local Design Build in Response to America's Dead and Dying Towns." 213 – 215.
- ¹³ John Wesley Morris, *Ghost towns of Oklahoma*. (University of Oklahoma Press, 1977), 3 – 9, 147 -149.
- ¹⁴ Patrick J. Carr and Maria J. Kefalas, "The rural brain drain." *The Chronicle of Higher Education* 9 (2009): 1-4.
- ¹⁵ Simon Worrall, "These Ghost Towns Once Thronged with Life." History, May 4, 2021. <https://www.nationalgeographic.com/history/article/160501-atlas-lost-cities-ghost-town-travel-chernobyl-pompeii-ngbooktalk>.
- ¹⁶ *2010 US Census Iowa Township and Other Subdivision Population*. Accessed February 20, 2024.

<https://sos.iowa.gov/elections/pdf/2010census/subdivisions.pdf>, 12.

¹⁷ *The Old Man and the Storm*, Produced by June Cross and Julia Elliott, featuring Herbert Gettridge. (Boston, PBS Home Video, 2009).

¹⁸ Rachel Breunlin and Helen A. Regis, "Putting the ninth ward on the map: Race, place, and transformation in desire, New Orleans." *American Anthropologist* 108, no. 4 (2006): 744-747.

¹⁹ Gregory K. Dow and Clyde G. Reed. "The origins of sedentism: Climate, population, and technology." *Journal of Economic Behavior & Organization* 119 (2015): 56-57.

²⁰ Sarah Harding, "Value, obligation and cultural heritage." *Ariz St. LJ* 31 (1999): 293.

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ARCHITECTURE: FROM TRUTH TO MEANING

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INTRODUCTION

Over the past decade, prominent figures in architecture have depicted the discipline's current state as devoid of shared beliefs or symbols. It's perceived as non-referential, non-ideological, poised either at the end of history or on the verge of a new pre-history, marking the conclusion of both traditional theory and practice.

This prevailing ambiguity, as many assert, can be attributed to the discipline's fragmentation over the past 25 years. This splintering largely stems from increased specialization, the delegation of core duties, and a technocratic shift that threatens to confine architecture between the realms of social sciences and humanities on one side and science, technology, and truth on the other.

Such a division becomes strikingly evident in the emergent social and environmental movements, often labeled as the climate and social emergency. These movements have given rise to a multitude of new specializations, anchored in notions of justice or truth. The amalgamation of humanities and social sciences with science and technology has bred a belief in the quantifiability of human relationships, leading to the measurement of individual actions, their repercussions, and the accompanying accountability.

Within this context, this paper seeks to make a case for an architecture rooted in intentionality and meaning (where they are the same), with the potential to inspire novel structures and possibilities, contrasting with an architecture based purely on causality and truth.

BACKGROUND

Within the last decade some prominent voices in architecture have described the current state of the discipline as being at a turning point. Valerio Olgiati describes our world, as one without shared beliefs or signs, non-referential or non-ideological,¹ Robert Somol states that we are at the end of history,² Mauricio Pezo proposes that there might be opportunities in the beginning of a new pre-history,³ Philip Ursprung asks if it is the end of theory,⁴ and Charlotte Malterre-Barthes advocates for the beginning of new forms of practice.⁵

In recent years there has even been calls to take both the *archi-* (from the Greek *arkhi-* meaning chief), through discussion about authorship and the role of the architect,⁶ and *+tect* (from the Greek *+tektion* meaning builder or carpenter) through discussion about the impact and need to build,⁷ out of *architect* (from the Greek *arkhitekton*⁸). This anti-architecture movement, one suspicious of authorship and building, has taken the responsibility to put the architects and architecture on trial, and to hold it accountable.

THE FRAGMENTATION AND DELEGATION OF ARCHITECTURE

This situation has not come unexpectedly, as some have shown, and can be attributed to the fragmentation of our discipline over the last 25 years,⁹ the result of the specialization and delegation of its duties,¹⁰ a technocratic impulse,¹¹ which has threatened to reduce architecture to social sciences and humanities on the one hand, and science, technology, or truth¹² on the other.

This tendency to relate architecture to other things, however, is nothing new, and can be seen as an attempt to find relevance.¹³ Currently, this tendency may be nowhere clearer, than in the growing social and environmental movements within architecture, which has seen new specializations in bio-based materials, maintenance, re-use, deconstruction, energy consulting, circular building, policy whispering, influencing, activism etc.

The teaming up of these movements (or the climate and social emergency as some call it)¹⁴ have resulted in a socio-environmental truth (or justice) movement, with a focus on the relationships between us, and between us and the physical world. This merging of science and technology with the humanities and social sciences, has resulted in the belief of the measurability of these relationships, or in other words the quantification of our individual actions and its consequences. This is well explained by Charlotte Malterre-Barthes when she writes about politicizing the architectural detail, “Every decision architects, urban designers, and planners make has an impact when implemented, not only on the site of construction, but also on the site of extraction and of production. From the window frames of a house to the concrete pillars of a highway bridge, from the wood flooring of a living room to the asphalt of our streets, and from the steel bolts of a door to the tree species of a park, choices about the materiality of the built environment have a global knock-on effect.”¹⁵

This movement has given architecture the task of saving the world,¹⁶ or even civilization.¹⁷ A task which must be viewed as setting itself up for failure, a task both overestimating and undermining architecture’s potential.¹⁸ As Robert Somol writes in 2009, “Not long ago, architects would bemoan their powerlessness by citing that they were involved with only 5% of buildings constructed, while today, they would assume responsibility for the greenhouse effects of the remaining 95%. This can only be understood as an act of professional suicide or self-hatred, one that identifies itself as at once powerless and responsible.”¹⁹

This obsession with the consequences of our actions on the individual level and how it relates to the whole, has led to a renewed interest in our relationship with the material world, and subsequently a growing interest in new forms of materialism. To name a few, Jane Bennet proposes a vital materiality that runs through human and non-humans alike, actively participating in events²⁰ Phillippe Rahm, proposes a New Realism or Neo-Materialism where form follows climate,²¹ Ilka & Andreas Ruby looks at constructing in a new environmentally conscious way, drawing lessons from vernacular architecture as a source of knowledge,²² Space Caviar investigates the social and environmental consequences of the constructing industry, and the possibility of alternative paradigms,²³ Calder Barnabas ask how humanity’s access to energy has shaped the world’s buildings through history.²⁴

ARCHITECTURE OF TRUTH

To understand this development better, next to the fragmentation and specialization of the architectural discipline, we also must consider the exploration of subjectivity since the 1960’s²⁵ as a reaction on modernism,²⁶ and attempts to liberate architecture from the extra-architectural.²⁷

Of these explorations, but not exclusive to, the critical project is of great importance for the growing current interest in new forms of materialism. This project tried to overcome the problem of modernism’s idea of shared values or symbols, by focusing on process, and its legibility. In this way a work could be critically read, without needing an understanding of any shared or external references.

Two prototypical approaches within this axis were that of the notational, with a focus on the design process and the geometric, and the tectonic with a focus on the production process and assembly. With the digital organicists, these two positions start to merge in the 2000's which married the focus on materialization of the tectonic with that of the design process of the notational, into a double indexical project.²⁸ This resulted in an architecture that tried to rid itself of meaning and intention, through a belief in emergence and truth, a process separate and outside the subjectivities of the architect, and by attempting to do so, shifted the role of giving meaning onto the beholder.

Today this has evolved into approaches that look to make architecture legible, to find common ground, a new readable starting point, an origin, before language, or signs, an architecture of traces, before history or meaning. An architecture which is not so much concerned with meaning, but rather in the potential or conditions leading to meaning. As Michael Hays puts it, talking about his recent book with Andrew Holder, "Architectural inscription defines this project, and it appears in these practices as highly varied organization of materials marks designed not to usher in immediate references or direct meanings but rather to enact a displacement of these by what perhaps precedes figuration..."²⁹ or Valerio Olgiati in his recent book, "Non-referential architecture, on the other hand, is unconcerned with meaning - it is concerned with possibilities."³⁰

These new approaches, and more specifically those materialist approaches, looking at materialization as a legible process or truth, provide the perfect carrier, for the environmental and social movements to attach themselves onto. With their introduction, quantifying the architectural, can become a tool to measure the consequences of the architects' actions, socially and environmentally, and hold them accountable.

Here the process of creating architecture, should be seen as completely rational materialist, where any trace of intention by the architect is removed, in forming a quantifiable whole. This whole aims for an objective scientific reading, while the subjective and giving meaning is shifted onto the beholder, communicated as the social dimension of the architecture, open to interpretation and inclusive of all perspectives.³¹ From this position, everyone is allowed to let their imaginations go, as long as they are not architects.³²

The ambition and effect of this approach is best illustrated by structures such as the kofun on Mars, the monolith of Phobos, or the pyramid of Antarctica. These structures are the result of natural quantifiable processes, and them happening to look like pyramids or monoliths are solely in the eye of the beholder. However, unlike these naturally formed structures, architecture is formed by intentions, and as such any attempts to separate the architect from the architecture or its meaning, is impossible. Furthermore, whether it is a manmade structure or natural, what you think of something, and what something is, is not the same. A naturally formed structure on Mars, that happens to look like a Japanese kofun, has nothing to do with what it is. In the same way, some stacked stones in Mauritius, that reminds you of ancient pyramids, has nothing to do with its meaning.

Architecture's social capacity or public contribution lies not in what the work makes us feel, but in trying to understand the meaning of the work. For when we shift the meaning to the user/beholder, or how it makes us feel, we limit the work to difference in perspective, where there is no real conversation to be had. However, when we focus on the meaning of the work, we are talking about the same thing, and our exchange becomes public. Walter Benn Michaels explains this distinction and social capacity best when he writes, "...what I'm talking about is the space between the user and the work, the conceptual space in which you understand the work, regardless of how you respond to it . That's where contradiction is possible, since you and I can disagree about what we think it means, and our disagreement (or, for that matter, our agreement) puts us in a relation to each other that our personal responses do not. If you feel comfortable and I feel uncomfortable, we just have our feelings. If you think the point of the work is to produce discomfort and I think it isn't, then we're doing

something more than having feelings—we’re making claims *about* the world and *on* each other: I think you should understand it my way, and you think I should understand it yours. Our disagreement is public in a way that our responses are not.”³³ In this way, there is a social potential to look at architecture for what it is, and as such in an architecture that asks of us to be understood.



Figure 1. A naturally formed structure on Mars.

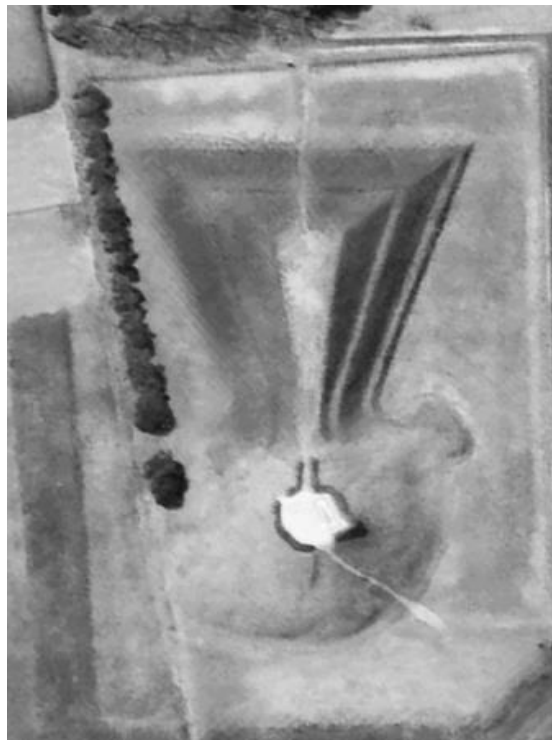


Figure 2. A kofun (burial mound) in Japan.

A SHIFT IN ARCHITECTURE'S STATUS

For multiple reason not limited to the ones discussed here, there has been a shift in the way we look at architecture, towards the materialization of our actions. If in the 1970's the focus was on architecture that could not be built, and in the 1980's it was about architecture that was built,³⁴ today it is about how architecture is built. This way of looking has resulted in a feeling that our understanding of construction has become too narrow,³⁵ and an optimism and openness in the potential of doing things in new ways.

With this focus on construction, there is the opportunity to reconsider the act of building, and its potential to bring meaning into the world,³⁶ which can be perceived in the material³⁷ and the space³⁸ as the intention or energy that went into it.³⁹ After all, the reference of construction itself is impossible to escape, as Akos Moravansky writes in his book *Metamorphism: Material Change in Architecture*, “*In the 1960s minimalist artists as Donald Judd and Robert Morris attempted to eradicate any immaterial ideas which were hidden within a material... The “specific object”... should have a presence which is completely free of references except to itself.*” He goes on to describe the impossibility of this idea, “*At the end of the day anonymity and serial production also have to be recognized as qualities of this art.*”⁴⁰ And so too, it is impossible to reduce architecture's perception to only the way in which it was constructed, as Deplazes writes in his book *Constructing Architecture*, “*For me, designing and constructing is the same thing. I like the idea that form is the result of construction; and material, well, that's something finite. Nevertheless, confining myself to this formula would be a mechanistic reduction because the shape of the form, deliberate or not, bears – beyond its material or constructional component – information, an intent. Yes, even the absence of intent is information.*”⁴¹ Even in cases where a strict materialist approach is applied to construction, we cannot escape our arbitrariness.

For example, Eugene Viollet-le-Duc believed in a rational materialism, that nature had a set of clear rules waiting to be discovered. He applied this belief of a causal nature to his architecture, and in his later career to large scale projects, like his attempt at retracing the original form of Mont Blanc (to a state before erosion).⁴² Gottfried Semper, one of his contemporaries, criticized Viollet-le-Duc's attempts at a rational materialism, in the following statement, “*The principle itself, interpreted with the utmost sophistry, encouraged the greatest arbitrariness; in its dotage the system became comical and played humorous games with its own nature!*”⁴³ Viollet-le-Duc's project of attempting to retrace the primary form of Mont Blanc before any erosion, seems to have some rational until it becomes arbitrary, through the steps he takes in doing so. In the same way Walter Andrae's attempts to retrace the origins of the Ionic column to a reed bundle, seems credible initially until the leaps of faith needed in connecting the final dots.

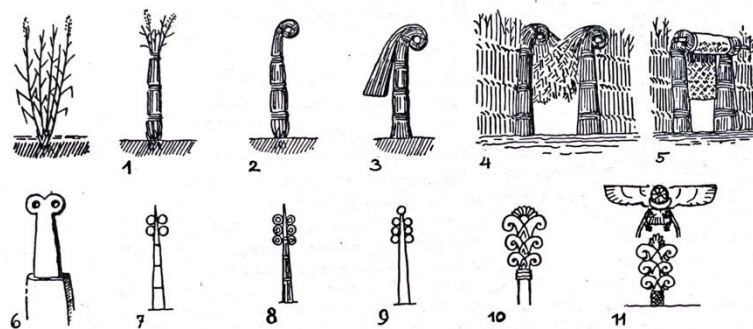


Figure 3. Walter Andrae's origin of the ionic column.

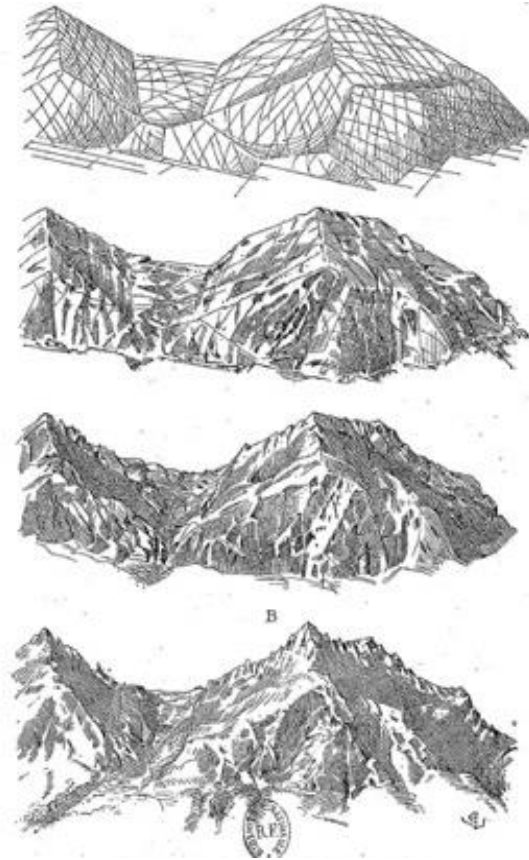


Figure 4. Viollet-le-Duc's retracing of Mont Blanc.

In this shortcoming, illustrated by Viollet-le-Duc's project of Mont Blanc or Andrae's origin of the ionic order, lies potential for a new approach, as the arbitrary allows for a gap, where the fictive can slip through. And when intentionally applied, can give meaning, and propose a vision, rather than a truth. If materialization cannot escape the reference of intention, and intention cannot escape the reference of materialization there lies great potential in their relationship, which overcomes the problem of not having external references or intentions. This relationship between construction and intention (or meaning), where construction becomes intention, and the other way around, presents the opportunity to evoke the immaterial through the material, and the other way around. Construction, not as truth, but as meaning, construction as materializing the real, and to summoning the imaginary.

ARCHITECTURE OF MEANING

Instead of focusing on the quantifiability, subsequent accountability or truth of our actions, and the shift of meaning onto the user/holder or our personal truths, which undermines architecture's cultural capacity, a focus on the intention (or meaning) of our actions, has the potential to inspire new possibilities and new forms of architecture. An architecture that is not necessarily legible or readable, but rather viable or capable of existing on its own.

In a world without shared beliefs or signs, non-referential or non-ideological, at the end of history, or the beginning of a new pre-history, at the end of theory, or the beginning of new forms of practice, there is a need for architecture to produce a vision,⁴⁴ or an alternative to the present,⁴⁵ which can modify expectations and transform lives.⁴⁶ Otherwise, if we limit architecture to scientific or personal truths, we are reducing architecture to difference without disagreement, which makes it understandable why certain groups raise questions about the relevance of the idea of architecture or architects still existing today.

NOTES

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- ³ Harvard GSD, “*New Materialisms: Panel 2, Histories Make Practice*” 2017. Mauricio Pezo at the Chicago Architecture Biennial. https://www.youtube.com/watch?v=QM_OtghazqE
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- ¹³ Valerio Olgiati and Markus Breitschmid, *Non-referential Architecture* (Zurich: Park Books, 2019), 19; Hermann Czech, *Nur keine Panik, Protokolle 2.* (1971), 143; Robert Venturi, *Complexity and Contradiction in Architecture* (New York: MOMA, 1966) 14.
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- ³⁷ Peter Zumthor, *Thinking Architecture* (Basel: Birkhäuser, 1999), 11.
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THINKING THROUGH CRAFT AND THE DIGITAL TURN

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INTRODUCTION

Thinking through Craft and the Digital Turn: Writing our Future (CDT) is a three-year funded (2023-2026) partnership development project aimed at investigating the profound economic, social, aesthetic, and methodological transformations that have taken place in the field of craft during and in the aftermath of the pandemic¹ As a transnational initiative between universities, craft organizations and independent makers involving groups from both the Global North (Canada, United Kingdom) and the Global South (Australia, Mexico, and Brazil), the project's primary objective is to explore the relationship between craft and digital ubiquity, tools, processes, and networks, and through this investigation better understand how conditions of cultural production can foster equity, diversity, and inclusivity.

To start building a common understanding between the globally diverse research team's interests and expertise, we use this paper as an opportunity to explore the contrasts of craft and digitality, and how it is perceived in vastly different cultural and geographic domains. To understand the complexity of attitudes, craft cultures and their intersection with global digital spaces, the research team reflects on their individual backgrounds and preconceived notions coming into the project. Although the project is in its infancy, and this is its first report, our intention is to create a cultural space for dialogue between those engaged with craft that exists outside of the physical restraints of place. Whilst still acknowledging local cultures and paradigms, our reflections begin to open-up a range of questions and discussion points that can be utilized to map the interconnectedness of both craft and digital methods, as well as highlight the global and transnational nature of practice.

Preconceived notions

Thinking Through Craft

Lynne Heller, Ph.D: Adjunct Professor, OCAD University, Canada

CDT² has been a central research initiative of mine since 2017. In partnership with OCAD University colleague Dorie Millerson, we worked together to elucidate questions and frame contexts that kept coming up in our work as craft educators and makers. Questions and theories have a way of becoming more complicated and nuanced the more inquiry you undertake. Naturally, that is what happened with

this project. Deciding what we meant by “craft”, the “digital turn”, and “thinking through” were foremost in our minds as we surveyed colleagues and took the pulse of the craft community pre-pandemic. This research led us to tightening our scope, honing our interests, and finding a few nuggets of knowledge gold. Along with that came even more questions and areas of investigation, and externally, the culture rocking advent of the pandemic.

With equal amounts of excitement and trepidation we have started a new phase of CDT with a much wider lens of international involvement beyond Canada and a focus on pandemic and post-pandemic shifts in the relationship between craft and digitality. My expectations are few but profound. I am most interested in hearing from on-the-ground makers and educators about what the events of the last four years have meant for their practices, students, and courses. Where have we gotten to and where do we think we are going? Have the effects of distance learning, outsourcing, self-reliance, and aspects of digital ubiquity, such as the popularization of AI, irreparably changed the craft landscape?

Documenting Creative Gestures

Tricia Crivellaro: Contract Lecturer, Toronto Metropolitan University, Canada

Having been involved in CDT since 2021, I am delighted to pursue another chapter in this project with an extended, international team. In the context of this global research, I hope there will be space for exploring modes of documentation. I am enthusiastic to hear—quite literally—the voices of artists and makers both from the craft and digital realm. To this end, interviews will be conducted and recorded in person, via Zoom or through other exploratory methods for discussion. With the intent that aspects of process documentation will take place simultaneously, the data will provide a mechanism for identifying and delineating specific dimensions of the art-making process. Amongst our long list of candidates to contact, I will be focusing on artists located in the province of Québec, Canada and will study connections between the francophone and anglophone artistic communities in that region—interrogations on the importance of language and artistic vocabulary as a means of expression will be discussed.

Expanding on thoughts of documenting creative gestures, the “process of practice” can act as an artistic methodology to research knowledge about and within creation.³ My objectives are to find new ways to interact with the data and documentation of craft and digital practices, as well as identifying contributory elements to the creative process.

Given the difficult times we are presently living through globally, it is hard not to consider sustainable and ethical considerations to craft and the digital. It will be important to examine connections with issues of sustainability, as well as the alignment of artists and makers with capitalism more generally. I also wish to explore with artists, researchers, and makers what they envision for the future; what is next? What will art, craft and the digital become? Gaining a better understanding of current creative practices in a global context will, hopefully, entail inspirational, resilient, and concrete ways to shape craft and digital differently. I am fervent to discuss, make, question, and participate in this new turn for craft and the digital.

Alternative Manualities and Materialities

Pablo Gobira, Ph.D: Director LabFront, University of the State of Minas Gerais, Brazil

When we think about the relationship between craft and the digital, it is inevitable to think about the current decentralized infrastructural configuration of what is known as the metaverse. The metaverse, which implies the understanding that the physical and the non-physical, the digital and the non-digital, cross paths and coexist in a “natural” way, allows us to move forward in the discussions proposed in our project. What's more, we have instruments that will enable us to confirm this integration: distributed infrastructure based on technologies such as blockchain, the cheapening, multiplication,

and miniaturization of stereoscopy equipment, and the increasing appearance of haptic devices. This allows us to find a path for "digital craft" that establishes other "manualities" and other materialities with different perspectives to those that have predominated until now.

One of the non-predominant perspectives is emerging from the global south. That is why looking at their characteristics is essential, often anchored in decolonial perspectives. We have seen a rapid development of debate and public policies focused on non-core knowledge since the beginning of the 21st century. As a result, intersectionality has been strengthened, empowering identity dimensions enhanced by new ways of connecting through technologies. In this way, we have increasingly accessed the ancestral knowledge of the original peoples of South America and, more specifically, of Brazil and its excluded populations in general, such as LGBTQIAPN+ communities, black people in general, and quilombolas in particular, and women who are victims of violence.

By combining the discussion of craft and the digital with a Latin American perspective, we understand the revelation of alterity that forms particularities that are now expressed in the face of—and even facilitated by—notions such as the "metaverse". In Brazil, we had a debate throughout the 20th century from this post-colonial perspective, which we can partially recall here, supported by authors such as Gilberto Freyre,⁴ Sérgio Buarque de Holanda,⁵ Darcy Ribeiro⁶ anchored and dialoguing in perspectives of the mestizaje of the people of the south, or authors who question the mestizo constitution, such as Kabengele Munanga.⁷ These authors are concerned with a broader vision that enables the constitution of a new reality for this otherness. They are joined by thinkers such as Paulo Freire⁸ and Milton Santos,⁹ among others. We believe these characteristics allow us to see an increasingly empowering craft reality in developing its field globally.

Inclusive and De-colonised Global Perspectives

David Grimshaw: Deputy Head of Design, Manchester School of Art, Manchester Metropolitan University, United Kingdom

Being involved in this research project will be fascinating. It will reveal how perspectives, definitions and approaches to Craft practices are developing globally, and whether the material, cultural, societal, economic, and philosophical differences are either underpinning or challenging current Craft practices. In an increasingly connected world, do we still retain global cultural differences that influence the development of local Craft practices, and are these local traditions and perspectives impacting on the adoption of new digital technologies within Craft and making?

It will reveal whether our growing familiarity and use of digital technologies more generally in society, and especially over the global Covid lockdowns, has broken down barriers for previously non-digital users. Has this familiarity led to a more comfortable relationship for makers with their digital screens, and as a result smoothed the passage for the wider integration of digital technologies, especially when makers are often perceived as championing the preservation of the historical making traditions, and as such, disconnected from the new Digital Industrial Revolution 4.0.

As part of a team of academics, designers, makers, and researchers based at Manchester School of Art, I approach this from a UK and European perspective where the adoption and integration of digital tools and technologies within our design and making practices has been a natural progression for many of us. Whilst the learning curve for developing new digital Computer-Aided Design (CAD) skills can be steep, especially for makers more used to developing traditional haptic and physical skills, the natural curiosity of makers to investigate the potential of new tools within their making practices has led to many of us adopting digital processes within our making. These digital tools are now central to the making innovations we are developing across all our material specialisms. We are creating new material languages and form generation that integrate the traditions of direct material engagement of Craft, with a wide range of digital processes and technologies. It is this relationship

that is becoming fundamental to many of the distinct definitions and directions for future Craft we are evolving.

We also observe this digital adoption being widely evidenced in Craft and materially led making cultures across the UK and Europe. So, the fact that this adoption might be in question and might not be the case elsewhere is interesting to us, even quite surprising. It has, however, brought into focus Europe's general position of privilege, with widespread and often open access to many of these costly tools and technologies, especially within our universities. This research will reveal these differences to further inform our academic knowledge of global Craft practices and support the continued development of inclusive and de-colonized global perspectives, which is essential when working with increasingly global student cohorts.

I am excited to be part of this important research to investigate and evaluate the access, adoption, and impact of new digital technologies across our diverse Global Craft cultures. It will develop wider knowledge and perspectives on the current state of Craft, appraise and determine the contemporary relationship of traditional material making practices with new digital technologies, and inform the debate on the future of Craft within an increasingly digital world.

Pandemic Pedagogy as Disaster Capitalism

Kathleen Morris: Independent Artist and Scholar, Canada

The preconceptions I bring to this project center on the ways in which the urgent global upheaval of early 2020 opened the door to a hasty and significant revisioning of post-secondary art and design education. In Ontario, this revisioning was well-aligned to disinterested government funders: online delivery would make physical space redundant, course caps could be lifted, the faculty complement would shrink, and international enrolment would flourish. As the post-secondary sector with the lowest funding in Canada, Ontario universities seized the opportunity to be on firmer footing. While touting resilience amidst global disruption, the move to remote delivery also used the model of disaster capitalism, a time-honored approach in which extraordinary top-down change can be imposed under the cover of crisis.¹⁰

I am interested in the ways in which political and economic directives have superseded pedagogical ones in the revisioning of art and design education internationally. To what extent has the short-term solution of remote delivery become a longer-term institutional measure amongst those on the research team, redefining the landscape of craft instruction? What role did political and economic imperatives play in changing course curricula and delivery at our respective institutions? Finally, how has studio-based learning been impacted at these institutions because of these measures?

Digital Tools as Allies

Rohan Nicol, Ph.D: Associate Head of School, School of Creative Arts and Media, University of Tasmania, Australia

I bring to this project a set of evolving attitudes on “craft and the digital turn” that have been shaped by the spaces I have learned, applied, and shared my practice across 30 years. My preconceptions continue to evolve as circumstances shift around me. I continue to learn and am shaped by many things including the places, people, issues, opportunities, and technology that surround me. I currently see digital tools, processes, and networks as part of a connected suite of methods that I can use to practice, with no ideological separation between analogue and digital. I simply see a hammer and a 3D printer as tools with distinct affordances. I do not see craft's purpose as a nostalgic project, a ‘museum for skills’, nor as an antidote to the excesses of production and consumption. However, I do see it sharing something with digital technologies and in particular coders and network hackers. Craft's people—like coders and hackers—can get under the skill of our world through a hard learned

ability to literally shape the objects, spaces, and experiences as alternatives to mass produced commercial offerings that we must otherwise accept. In my mind, digital tools can be our ally in exercising this ability. Where that makes sense, my preconceived notion is that it is a worthy path to a crafty outcome.

A Mosaic of Multiple Cultures

Cynthia P. Villagomez Oviedo, Ph.D: Professor and Researcher, Guanajuato University, Mexico

The initial ideas that personally arose upon receiving the invitation to participate in CDT focused on a preconception about craftwork. According to the theorist J. Acha, this craftwork is the result of traditional manual labor, often ornamented, stemming from religious practices and social structuring. These objects are frequently produced in small series, usually made to order with limited trade, and are the outcome of empirically transmitted processes.¹¹

Mexico boasts vast cultural richness. Historian Daniel Cosío Villegas remarked that Mexico is not a singular culture but rather a mosaic of multiple cultures.¹² Presently, 68 indigenous ethnicities reside in Mexican territory. It is hard not to think of the crafts produced by these ancestral communities when the word 'craft' is mentioned. Historically, these communities have created a wide array of handmade objects such as textiles, ceramics, sculptures, among others, through which they have communicated their daily life, traditions, and cosmogony. Hence, the ubiquity of digital craft initially seems to contradict the traditional idea of craftpersonship.

It is important to note that in Mexico, something produced digitally is not commonly referred to as a craft. The Dictionary of the Royal Spanish Academy (RAE) defines craft as “the art or work of artisans”, and an artisan as a “person who practices a merely mechanical art or trade, modernly referring to someone who independently creates household objects, imprinting them with a personal touch, as opposed to a factory worker”.¹³ Partially departing from this initial idea of craftpersonship in those terms constitutes the path of study and the innovative approach of this research project. This approach opens the possibility for analyzing the intervention and transformation of crafts due to the digital shift, especially introduced by the COVID-19 pandemic, although it had already begun earlier by incorporating digital tools into traditional processes.

Crafting Diverse Perspectives

Niklavs Rubenis, Ph.D: Coordinator of design; Coordinator of object + furniture; School of Creative Arts and Media, University of Tasmania, Australia

Craft has long been predicated on the making of “stuff”, and stuff has become a significant meta-problem. Stuff is everywhere—places, spaces, and environments. Craft (and design) is therefore implicated in current linear cycles of produce, use and discard. Being positioned in Australia, a country that, “compared with a selection of other developed economies ... generates more waste than the average”,¹⁴ my approach stems from a certain position that interrogates making practices set against this broader backdrop of consumption and waste systems. Why make more stuff? I am constantly re-evaluating what it means to make and to put more things into the world, especially considering too the collective slew of social, environmental, and cultural problems humanity is facing. I come to CDT with this in mind, which may seem at odds with the impetus of the project and its connection between craft and digital domains. Yet, there are many parallels but perhaps at the fore is a curiosity of how universal or centralized themes, such as those posed in the project, can facilitate, and bring together a diversity of global voices, insights and lived experiences, and in doing so potentially offer new ways of learning and being in the world that can be adopted as alternative models to entrenched systems of consumption and waste. This may also raise questions about roles,

responsibilities, and ethical imperatives for both educators and practitioners in a post-pandemic setting, and perhaps spark debate around craft's impact in rapidly changing transnational contexts. With all of that stated, let us see where this project takes us ...

NOTES

- ¹ CDT has been funded by the Social Sciences and Humanities Research Council, Government of Canada.
- ² “Craft and the Digital Turn”, accessed December 15, 2023, <https://www.craftandthedigitalturn.com/>.
- ³ Linda Candy and Ernest Edmonds, “Practice-Based Research in the Creative Arts,” (*Leonardo* 51 2018): 65.
- ⁴ Gilberto Freyre, *Casa-grande & senzala: formação da família brasileira sob o regime de economia patriarcal*. (Schmidt, 1938).
- ⁵ Sérgio Buarque de Holanda, *Raízes do Brasil*. (1ª edição. Companhia das Letras, 1936).
- ⁶ Darcy Ribeiro, *As Américas e a Civilização: Processo de Formação e Causas do Desenvolvimento Desigual dos Povos Americanos*. (Português edição. São Paulo, SP: Global Editora, 1969); Darcy Ribeiro, *O Povo Brasileiro*. (1ª edição. São Paulo, Brazil: Companhia das Letras, 1995).
- ⁷ Kabengele Munanga, *Rediscutindo a mestiçagem no Brasil - Nova Edição: Identidade nacional versus identidade negra*. (5ª edição. Autêntica, 1999).
- ⁸ Paulo Freire, *Pedagogy of the Oppressed*. Translated by Myra Bergman Ramos. (A Continuum Book. New York: Herder and Herder, 1970).
- ⁹ Milton Santos, *O Espaço do Cidadão*. (7ª edição. São Paulo, SP: Edusp, 2007).
- ¹⁰ Naomi Klein. *The Shock Doctrine: The Rise of Disaster Capitalism*. (Toronto: Vintage Canada, 2008).
- ¹¹ Juan Acha, *Introducción a la Teoría de los Diseños*. (México: Trillas, 2009).
- ¹² Daniel Cosío Villegas, *El sistema político mexicano*. (Ciudad de México: Joaquín Mortiz, 1972).
- ¹³ The Dictionary of the Royal Spanish Academy, accessed December 15, 2023, <https://dle.rae.es/>
- ¹⁴ Joe Pickin, Paul Randell, Jenny Trinh and Bill Grant, ‘National Waste Report 2020’, *Blue Environment Pty Ltd*, last accessed 1 February 2024, (2018). <https://www.dcceew.gov.au/sites/default/files/env/pages/5a160ae2-d3a9-480e-9344-4eac42ef9001/files/national-waste-report-2020.pdf>

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TRAVELING WITHOUT A VISA- BUILDING INTERCULTURAL KNOWLEDGE THROUGH STUDYING GLOBAL URBAN ISSUES

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INTRODUCTION

The need to study world cities or global spaces is evident when one considers that the most pressing issues do not respect borders. Climate change, migrations, housing crises and civil unrest are some of these problems. Each of us is familiar with many of these issues, independent of the motivations for our future and experience of our backgrounds. They are visible in the news and in everyday life.

This paper explores the topics concerning global concerns as they are addressed in a graduate course in Advanced Urban Issues taught in a first year Master of Architecture program at the University of Hartford. The course has traditionally focused on a variety of complex topics through consideration of urban theory and design as it affects urban culture. However, class topics traditionally have been limited to European and American cities. The class has not always examined world cities and the range of critical issues they face. What are the commonalities and what are the particularities of these cities? What can be learned from studying them?

The intent of the course is to introduce a variety of cities and urban issues and to promote intercultural exchange through researching them. Students learn about various cities from each other through sharing investigations. Some students in the course are international students with various geographical, linguistic and cultural backgrounds. Many have lived in cities. However, while some may be from a community as simple as a crossing of roads, others hail from a metropolis as complex as Mumbai. Through our studies, we become familiar with the cities themselves but also with the magnitude of the issues currently facing all cities. The issues do not always respect borders.

In my experience, the best teaching and learning are rarely done in isolation. For this reason, at the outset, I would like to thank my colleagues for sharing discussions and course material from which this work has benefitted. Many years ago, I taught a first-year architectural design studio to design a World's Fairs at the School of Architecture at Southern University and A&M College.¹ Later I inherited a class on Inclusive Urbanism from inventive colleagues at the University of Oregon.² I taught an Architectural history class on multicultural architecture in the 'Canadian Mosaic' at the School of Architecture and Landscape Architecture at the University of British Columbia.³ Finally, to my colleague Theodore Sawruk at the University of Hartford, with whom I co-taught this class in 2021, thank you. I inherited this course the following year and took it around the world.

Advanced Urban Issues

The relationship between cities and culture is complex. It has been suggested that architecture and culture have a reciprocal relationship, where one influences and energizes the other.⁴ The understanding and consideration of the cultural contexts is important, if designers are to attempt to accommodate complex cultures in our cities. Additionally, as the relationship is reciprocal, it is important to understand that the designs we make in our cities and buildings can influence cultures themselves. It is the extrapolation of cultural issues from formal architectural and urban contexts that allows consideration of the importance of urban contexts to cultural knowledge.

The course syllabus states that “contemporary patterns of urbanization around the world challenge traditional notions of urbanity and public space”. Herein, each student investigates what can be learned from these “notions of urbanity” through close studies of a world city. Urban situations such as the informal housing at the Chinatown gate in Portland, Oregon, photographed by Benjamin Brink, or a street in New Orleans neighborhood are analyzed both as an example of challenging urban patterns and as sample of methods for interpreting the urban structure.⁵ The aim to explore the ideas in order to further deepen the investigations.



Figure 1. views of MLK Boulevard in New Orleans, Louisiana; photos © Jill Bambury

The individual studies of world cities undertaken in class, are augmented by lectures, and discussions of theoretical texts to understand how architects, urban designers and planners conceive of urban culture and the meaning of cities. This allows us to trace the lines of complexity inherent in each city. For example: settlement and migration issues resulting from climate change and natural disaster force refugees to flee from their homelands and travel to other parts of the world. The cities and people which receive them may not always understand the cultures and traditions they bring with them. Forms of urban space which accommodate cultures ‘traditional’ to the area and activity may be very different from those to which the newcomers are accustomed. Some newcomers feel welcomed and others are less comfortable. This may be a result of the design of the urban spaces.

The Selection of World Cities

Cities from around the world were carefully selected at the beginning of the course and randomly assigned to each student. Although randomly assigned, initially, the cities were chosen because of a variety of conditions they embody and present. These range from being considered places of great beauty to places known to have been traumatized by problems such as natural disaster or civil war. Some are cities in which a variety of multicultural and multilingual populations live together. Others are cities which have been segregated, currently or historically.⁶ In the process of study, it was discovered that despite their different characteristics in population, topographical features or locations, the cities often shared sets of concerns.

CITIES OF INTEREST			
Nairobi	Guangzhou	Lahore	Lagos
Nicosia	Astana	San Francisco	New Delhi
Mecca	Monrovia	Nairobi	Jerusalem
Rio de Janeiro	Lima	El Paso	Buenos Aires
Panama	Saint John	Seattle	Tegucigalpa
San Miguel	Birmingham AL	St. John's	Tijuana
Vancouver	Stockholm	Varanasi	Halifax
Detroit	Nairobi	Antananarivo	Birmingham AL
Birmingham UK	Brasilia	Santa Fe	Reykjavik
Amsterdam	Cape Town	Dejenne	Belfast
Florence	Paris	Jacmel	Bologna
Brisbane	Amman	Manila	Christchurch

Figure 2. Sample Cities Assigned to Students 2021-2023

Students identified particular urban issues in the cities with a critical eye, informed by course readings that covered both histories of the urban form of cities and ways of looking at them. For instance, while studies of New Orleans revealed that racial inequities and natural disaster were at the forefront, for Cairo, the issues identified were related to water shortages. In Beirut, critical urban problems surrounded post-war economics and physical destruction, while Lima was a city ‘on the edge’ of economic crisis and fraught with pollution. Bombay suffered problems related to overly dense population, while Detroit was an empty city. The cities were explored in a series of exercises which, at different times, which fore fronted either the good features or the problems in the cities. This allowed similarities and differences in urban issues faced by the cities of the world to be informally investigated.

Through presentations made on the cities following each study exercise, the entire class was introduced to all of the cities. Students came to be identified with the cities they studied. This enabled a possibility for discussion and a comparative approach which deepened as the semester progressed. The intent was twofold: to learn about a particular city and to investigate ways to understand and learn about cities in general and the issues they share.

The Lectures and Readings

At the same time that the preliminary investigations on the city were occurring, two parallel investigations were taking place. One was a series of lectures on topics in the city. These often began with discussions of urban form that came from reading a map or plan of a city. For this, students were encouraged to draw maps of cities as they were discussed to serve as mnemonic devices for remembering each analysis. The second was a set of student presentations of topics addressed in assigned readings, made available through a bibliography online. Students presented the topics on a regular basis, again with randomly assigned group members.

The lectures and readings followed parallel lines of chronology: the first half of the course dealt with the ‘urban form of cities’ and their design. For this, topics ranged from the Roman Vitruvius’ description of an excellent city⁷ to descriptions of the making and features of medieval cities and to modernist proposals for ideal cities and towns.⁸ The second half of the course, addressing ‘cities and their people’ comprised interpretations and critiques of current urban issues and interpretations of cities as well as strategies and techniques for designing cities.⁹



Figure 3. study trip to Mumbai and surrounds- photo © Jill Bambury

Through leading discussions on the readings, students became broadly familiar with both the cities studied and theoretical ways of investigating them. Students reported on their own performances on the presentation and performed peer reviews of each other's' work. This allowed consideration of similarities and differences in issues such as historicity, topographical influences and cultural characteristics. Discussions were lively. Topics ranged from techniques of urban design to formal analysis of a city from its plan. These addressed complex issues such as segregation, multiculturalism, migration, and 'top down' or 'bottom up' influences in the planning and design of the cities.

The Good, the Bad and the Ugly: Investigating the Cities

The random assignment of a city to each student was approached with the intent that the city would be seen with 'fresh eyes' and some degree of objectivity. Augmented by the theoretical approach of the lectures and presentation of multiple readings in the class, the cities were subjected to scrutiny according to a series of processes. These comprised the methodology for the study. They consisted of three parts: the design and presentation a travel poster representing the city; a timeline illustrating critical issues in the life of the city; and a paper, discussing the issues about the city that were most pressing for each student. Finally, students selected a song to amplify the culture or issues in each city. These were often presented to the class in the form of videos.



Figure 4. Travel Posters for Mexico (Algahmi); Cairo (Campbell) 2021

The design of a travel poster required only a basic understanding of the ‘best’ features of the city; those that might attract a visitor. Words on the posters were restricted to the name of the city and a few words to forefront the images. Students introduced their cities to the class in very brief presentations of the posters. Initially, some of the cities were familiar to some students, while others were completely unknown to the entire class. The travel posters introduced the ‘best view’ of each city and presented them to others, who learned about the cities through the presentation of their most enticing features.

The second phase of the city study was the making of a timeline or ‘histomap’.¹⁰ For this assignment, students created a chronology which represented a specific set of issues that interested them.¹¹ After examining a series of timelines, made by previous classes or for other purposes, such as Banister Fletcher’s “Tree of Architecture”. His timeline is a schematic diagram detailing what Fletcher identified as the “branches” of architectural style beginning with five periods (Peruvian, Egyptian, Greek, Assyrian, and Chinese and Japanese) and culminating in the Modern American style. From these examples, students were inspired to consider carefully each choice of representational convention and material to amplify the depth of the material.¹²

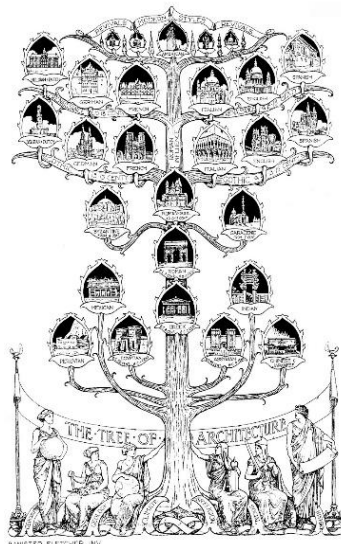


Figure 5. “Tree of Architecture” Banister Fletcher

The representation format of the timeline provided an opportunity for a focused critical consideration of a series of events, using them to forefront the issues most important to each student. The challenges posed were to understand the city both in its physical-temporal broader context and to investigate certain issues in the city in more depth. The making of a timeline also promoted the definition of research questions or issues for further investigation.

The city timeline is a variation on timeline assignments often specified in history classes. Because a visual component is emphasized, this medium was engaging for visually competent students who proved their skills in simultaneously presenting chronological events and illustrating them within a spatial realm. In other words, the timelines were creatively designed by the students to include both spatial mapping of the cities and to bring to focus several temporal issues, viewpoints and experiences at once. The combined graphic form and written description afforded a presentation that could be swiftly understood with considerable complexity. The selection of events to highlight presented a way to critically consider relevant issues, opening possibilities for understanding a city and its underlying histories in context, while, at the same time promoting exploration of issues of the students’ particular

interests. In this manner, students were able to concentrate on issues that concerned them most and to allow historical events of lesser concern to recede.

Some of the topics which were most enticing for students included physical urban patterns, demographic shifts, climate changes, development patterns, transportation routes, changes in monuments, landmarks, urban development and resilience. The timeline encouraged the presentation of both space and time around these events in the city. The exercise evolved to become an assignment an in historical and contemporary research as well as in graphic presentation, design and words. During this time, the representations were given ‘pithy titles’ to draw the viewer in.

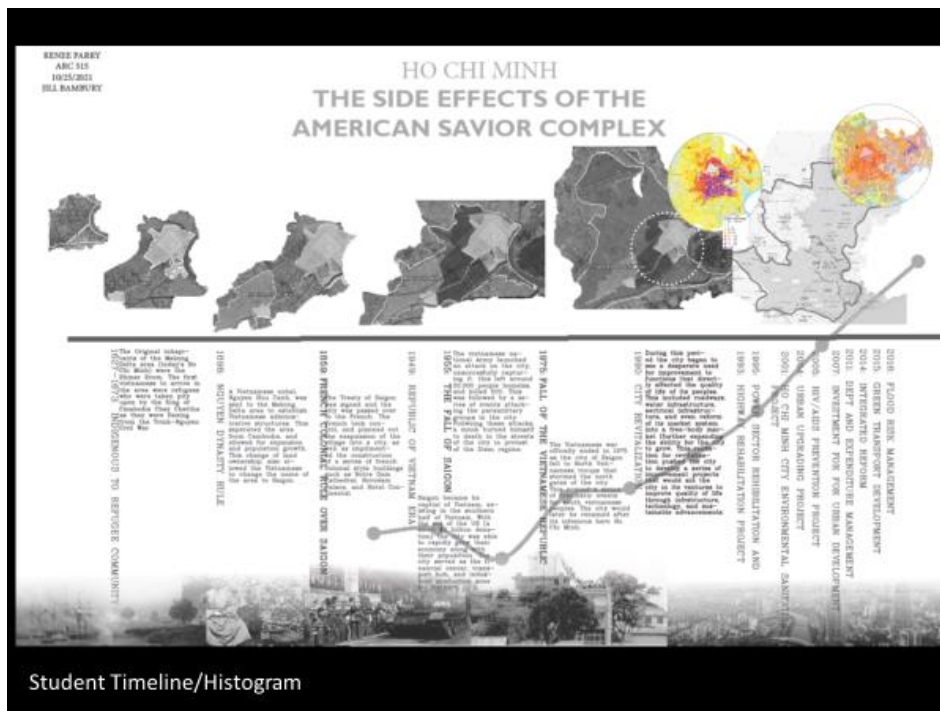


Figure 6. Student Timeline Ho Chi Minh City, (R. Parry) 2021

Sharing the timeline research became an important part of the exercise. The timelines were presented to the class along with a research question. Following class presentations, students had a wide range of possible issues from which they might select a topic for investigation in a research paper. This was in addition to the panoply of issues discussed in lectures and class readings. From the timelines, a set of themes was compiled relevant to both ‘their cities’ and to their individual interests and concerns.

As reinforcement, themes of interest to the students were imagined and reconsidered during writing exercises in the class. These were undertaken in privacy in the first phase. Later, they were shared with classmates; represented in one or two questions that ‘drew out’ the information of interest. This sharing enhanced other students with ways of thinking intellectually about their own project. Some of the topics which emerged included investigations of transportation systems, racial divisions in the cities, pollution and climate changes, natural disasters and resilience. For example, the city of Reykjavik, Iceland, was investigated as a city where the tourist trade drove up prices for the local inhabitants. Surprisingly, this was also found to be an issue for San Miguel del Allende, Mexico. However, unlike in San Miguel, the situation in Reykjavik was somewhat ameliorated by wages offered for workers as well as zoning regulations within the city. The comparison of cities was often a topic of consideration as the timeline and research questions became the foundation for a short paper to be developed later.

Critical Paper Investigations

There was always another truth behind the truth. Siempre hubo otra verdad detrás de la verdad.

Gabriel Garcia Marquez

Following the timeline exercise, an assignment for the writing of a research paper was introduced. The intent and format for the paper is similar to many paper writing formats. The instruction was to take a provocative urban issue(s) or topic(s) and develop them in a research paper, using the city selected as a point of reference and using the evidence brought from a variety of scholarly sources. The paper was structured so as to introduce the city and the issues to be addressed; present the hypotheses; organize the ideas as an argument; support the theses with evidence; offer analytical perspective; on the issues; and conclude with reflections. Clearly, the travel poster and the timelines provided the foundation for the introduction of the city as well as the critical issues to be addressed.



Figure 7. Student Timeline, Kabul, (J Santiago), 2021.

To support the process for writing an academic papers, a series of writing workshops was held during class that included 'writing in layers' and 'structuring an argument', often facilitated though 'writing to prompts'.¹³ Sparked by conversations with colleagues sponsored by a university wide grant, peer reviews of the writing were also structured into the processes.¹⁴ Through the writing exercises, the inclusion of visuals, the sharing of travel posters and timelines, the lectures, and the presentations of the readings on the cities, understanding of a once unfamiliar city was deepened. The students used their critical thinking and writing skills along with their design and graphic expertise to enriching the development of ideas in their studies.

Finale

In the most recent iteration of the developing class, a final course exercise was designed to visually bring the research together in a strategic tripartite presentation. For this, a brief summary of the paper was written to form a segment of a three sectioned panel including the poster, the timeline and the paper brief. Finally, each student was given the opportunity to research a song and add it to a playlist of songs about the respective cities.¹⁵ This would become a mnemonic device to remind us of the

cities and their issues as well as the classmates who ‘adopted them’ for a semester. These results are being compiled for future presentation.

CONCLUSION

The forays into unfamiliar cities, navigated through the tripartite of course exercises have produced some fascinating outcomes. Students have been drawn into the investigations with the travel poster, compelled to examine the critical issues presented in the timeline and finally intrigued to investigate issues of personal concern in the paper summary. In addition to the learning accomplished, a tangible result for the students are that the work has become a page in a portfolio and/or a poster, as illustrated here. The less tangible results are the extrapolation of what is shared and what is different among our respective cities, as we reveal ‘the truth behind the truth’.¹⁶ We all (professor included) have learned a good deal about the intricacies of cities of the world and the issues they face. New revelations will emerge as the study continues. We extrapolate from urban contexts to enhance our understanding of local cultures and global spaces; and to build intercultural knowledge. This will serve us well as we visit new cities, welcome newcomers to our own cities, and are called upon to practice design in cities which we have not yet visited.



Figure 8. Welcome to India- © Jill Bambury

NOTES

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REALITY AT PLAY URBAN SPACE AS A PLAYABLE PLACE

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INTRODUCTION

The change that has characterised our society in recent decades constitutes an acceleration in educational research, in learning methods and in the idea of learning space. This conquest defines an advance towards continuous, participative and shared learning, aimed at nurturing new possibilities, especially in terms of typological experimentation and shared functioning, as the design of relationships between elements and processes at different scales.

The forms of learning, which today take place in various spaces and times, go beyond educational institutions by conquering pieces of the city in which to do school. “Democratic” urban spaces become occasions for educational experience, moments of sociability and play. They are the theatre of actions and events linked to education in which the child – no longer a simple observer of the world – becomes an active protagonist in a process that recognises play as a powerful trigger mechanism in the construction of the city.

Playful devices, accumulators of knowledge that could find a place in those places that the architect Aldo Van Eyck defines as “interstitial spaces”¹ that, cut out in the urban fabric of the city, can represent a concrete attempt of playful rewriting to play at the margins and in the margins. This interpretative process reduces the distances between urban space, architecture and play, as it extrapolates through an “impertinent”² gaze pieces of the city that are transformed into new playful environments. Inhabiting the city with play implies the initiation of certain events that suspend and disrupt the boundaries between public urban space and private domestic space, capable of inducing new public perspectives of action. The dialogue between play-learning-architecture, in addition to allowing an innovative reading of the urban environment, gives rise to social dynamics in which the citizen participates, designs and rewrites the city by playing.

The city and the learning space

The “City as Classroom” «is the splendid slogan invented by Marshall McLuhan and placed at the beginning of a didactic work that, together with K. Hutchon and E. McLuhan, the Canadian scientist addressed to teachers, as a tool to initiate pupils to read their own city and to understand – at the same time – the media. [...]. *La città come aula* is the last chapter. It opens with a splendid affirmation, «your city is a cultural reservoir», after which we would expect some philosophical, urban planning or historical insight, to make an all too familiar and shared awareness more elaborate and newer. Instead, here is the academic proposing his exercises: «by what signs do you realise that that particular

institute is the university?», or, «by what details of clothing do you guess the people's occupation?», and, then, after that, various activities, among which the invitation to walk around the city, equipped with a tape recorder, to draw a sort of “soundscape.” [...] To know, says McLuhan, we must make our object of study emerge from its background.»³

The city, by the very fact of being the environment in which one lives, forms the backdrop to ordinary, everyday existence and, for this reason, as Antonio Brusa states, is already given as a perfect «cultural reservoir».⁴ In fact, if we think of urban and social relations between the city and the school, then it is immediately to think of the potential for stimulating knowledge that urban space holds, and it is possible to glimpse how games could be used to learn what the city is and how one can live in the city, especially for “students,” but not only for them, using the city as a laboratory for experimentation, play and learning (Figure 1).

Within this interpretative framework, the role of education is crucial, “The educating city,”⁵ “The formative city,”⁶ “The city as a classroom,”⁷ or, again, “The child and the city. Growing up in an urban environment,”⁸ and as Giancarlo De Carlo suggested in a 1969 text, “The city as an educational experience,”⁹ are ideas of the city that tend to play a leading role in shaping a diffuse education where instead of the school there is the city that branches out educational spaces, becoming a connective place and a platform for open and inclusive learning.



Figure 1. Play and learning. Photo: Rita Cuggia.

Body, play, space

So, it is possible to learn through play. Play is a quality of human beings, a natural activity of women and men.¹⁰ Playing is undoubtedly «a pleasurable occupation in itself»¹¹ and involves «no other interest than passing the time without being noticed.»¹² This is what the philosopher Immanuel Kant says in *Critica del Giudizio*. A definition that intercepts a substantial aspect of play: its non-utility, the delight that arises from it, which has no purpose except in itself. Play and learning would, therefore, have many aspects in common because, like learning, play is a fundamental and ineliminable practice inherent in human nature, as an opportunity for cognitive, creative and social growth. Everyone plays: children, adults and animals. «Play is isolated from ordinary life in place and duration [...] it takes place within certain limits of time and space. It has an unfolding of its own and a meaning in itself.»¹³ The Dutch theorist Johan Huizinga, in the text *Homo Ludens*, formulates this strongly explicative notion of the meaning of play, capable of embracing all types of play and all living life forms (animal

and/or human) that practise this activity. A vision that, at a distance, could still identify a common sense that establishes a form of shared knowledge capable of acquiring value in different contexts through the practice of the playful act.

Architect Alberto Iacovoni in *Game Zone. Playground tra scenari virtuali e realtà* constructs a series of dichotomies¹⁴ helpful in understanding the plurality and complexity of playful practice for the construction of an abacus of playable possibilities.¹⁵ Each of these components is undeniably afferent to various types of games, but attempting to give a universal definition «is in fact an improbable task, far worse than speaking of “games”, in the plural» because any notion must refer to a specific and well-circumscribed sphere, delimited by the peculiarities that characterise each type of game.¹⁶ In this case, if one wanted to classify the sphere of investigation, the observation would fall on the relationship between play and city, which would become for the citizen his playground and each architectural component an opportunity for concrete interaction to build new worlds, playing in the city and with the city.

What if the question was instead: what is not play? Observation of urban public space highlights how play can foster learning phenomena in the city's construction and in determining new points of view on the world. The play has an “autonomous” and “subversive” character, especially when the possibility of using it for “cultural” or “educational” purposes is proposed; it invades and conquers urban space, takes possession of all its limits to free it and designs it through play. The term “public” used here is capable of catalysing many meanings on itself; «it recalls in the collective imagination something that concerns everyone indistinctly; it solicits the general interest by evoking the neutrality of rights to access, to use, to benefit from places, resources and services.»¹⁷

Conceiving the play space as a safe place of refuge, where one can express oneself freely, is the basis of certain principles of playfulness: safety, participation and spontaneity. Through it, it is possible to eliminate forms of social discrimination – at home, at work, at school – through socialisation spaces mediated by shared systems of norms, «a small ordered system of rules» that, while preserving the distinctiveness of human interactions, builds protected and safe contexts capable of reducing all forms of social inequality present outside play.¹⁸ For example, the recent *Manifesto Rosa del Gioco* addresses the play's theme as a powerful tool of social and political impact, conceived as a “place” of equity supported by a regulatory apparatus valid for all because it is accepted when the game begins. Without rules, there can be no play.

Playful operations for the city

At the same time, however, the spontaneous aspect of play is another of its essential components. Urban space could equip itself with flexible tools for its unconditional use, leaving spontaneity of action to the user, without necessarily adhering to a regulatory system governing its use. Giuseppe Lorini and Stefano Moroni, in their article *Ruling without Rules: Not Only Nudges. Regulation beyond Normativity* speak precisely of “regulating without rules,” highlighting the mistaken belief that human conduct must be governed primarily by rules.¹⁹ The playgrounds designed by Aldo Van Eyck explore a formal combination of things with each other through the unrestricted use of highly intuitive and «unfinished, that is, not too finished» games.²⁰ Playable devices designed to stimulate relationships between inhabitants, dialogue between buildings and their surroundings, and, above all, evocative of a strong sensitivity to the needs of the inhabitants of a place. The focus shifts to reconstructing specific interstitial spaces in the city of Amsterdam, «embedded within the living fabric of the city»²¹ and inhabited by playful artefacts with elementary forms, intuitively playable.²² These play devices are part of a series of play space maps for the city.

Equally interesting in formulating specific categories that recognise the spontaneous and intuitive character of the play is the production of the American sculptor and landscape architect Isamu Noguchi from the early 1930s onwards. «I think of playgrounds as a primer of shapes and functions; simple, mysterious, and evocative; thus educational.»²³ His research constantly reflects on the best way to make the natural world move, think and explore through play. As in the case of Van Eyck, these playgrounds do not tell the child what to do but invite him into an endless exploration of the context. In this case, the land's morphology suggests how to play with its topography, «exploring how art can shape and mould the urban landscape;»²⁴ depressions of the earth to be climbed that then become ramps and slides, steps or water catchment areas.²⁵ To enrich his playful topographical work, metal or concrete play equipment dedicated to the bodily exploration of space took over in a second phase of his career. Mounds to climb on, swings with a climbing profile, square blocks for climbing and a metal tower that plays with the idea of up, down and around, again suggesting dialogue with the surrounding context.²⁶

This mingling of art and play in the city also belongs to the work of the Parisian collective Group Ludic, which has been active since the late 1960s. Their production carries within it a search for personality in the use of playful artefacts manoeuvrable by creativity and, simultaneously, a study of forms according to the possibilities of technical realisation.²⁷ The child integrates the outside world into his play without asking questions and appropriating the sculptural element created, transforming it into a «play machine or dream machine».²⁸ Offering them environments and sculptures that can be integrated into the play area promotes the construction of an essential form of education. Starting from these assumptions, the French group also designs play devices in simple shapes (sphere, cube, parallelepiped, rectangle) with variable dimensions, capable of activating participatory processes in the body-object relationship, which are decisive for a spatial design in the use of these artefacts.

Play, then, would allow the learning of rules and conventions but also the possibility of modifying them. Indeed, as Gregory Bateson tells us, one learns from play the existence of roles – that is, types of behaviour – and not so much the fact of behaving according to specific rules. In the play, one can choose how to behave and learns that rules are conventions and that, as such, can be changed.²⁹

Learning-Playing-Architecture

The city played through the total involvement of the person and his body, is explored as a powerful mechanism of human-play-city dialogue. In this investigation, space and play are contextually inserted as alchemical agents within the urban public space. The context is transformed into the scenic space in which the man-player becomes the active protagonist, determining a playful rethinking of the city. In observing what happens, one could speak of play as a «combinatory process, as an ability to assemble: taking a doll to pieces in order to reassemble it differently.»³⁰ Elvio Manganaro, in the article *Del gioco e del montaggio*, highlights how children, in their constant “disassembling and reassembling” of their toys, go in search of new possible combinations, interrogating the object in an attempt to reveal new and unexpected functions. This process can also be intercepted – albeit on a different scale – within the city; Huizinga speaks of play as an act of great seriousness and explains how play can be «capable of modifying one's point of view on the real in which we are immersed, seen deterministically as the only existing world, but in reality only one of many possible ones.»³¹ Urban space thus becomes the scenario within which we can construct new imaginaries to inhabit, a source from which we can continuously draw new material to be reorganised. In this investigation between learning-playing-architecture, playing is to be understood as «[...] performance and improvisation, as a creative attitude that opens the mind towards many possible configurations and allows the activation of lateral and divergent thoughts that can stimulate new directions of knowledge in fields such as architecture.»³²

Like the school concept, play also changes and evolves; from the mid-nineteenth century onwards, *Game Studies* laid the theoretical foundations for the scientific discipline that studies play. The practice of play today is no longer extended to be understood as a “disqualifying device,” a puerile act;³³ on the contrary, not only in the field of play but especially in learning contexts – educational and otherwise – play holds a widely demonstrated and recognised value. This is the case, for example, of the “school squares,” places close to the school, fundamental for learning, socialising, meeting and playing; foundations of a strong «educational potential beyond the threshold where the school hands over the baton to the city and its visionary project.»³⁴ They are, therefore, not spaces designed to be played in but sometimes wear “the dress of play.” When the space in front of a school is a “square,” the space ceases to be one to become a place.³⁵

Play School: Learning from the city

This investigation, which seeks in the space between school and play the privileged context for the formation of citizens and the transformation of the public city, finds a concrete occasion for reflection in the project experience *Play School: Learning from the city* conducted on one of the nine collateral events of the Venice Architecture Biennale 2023 entitled: *Students as Researchers: Creative Practice and University Education*³⁶ (Figure 2). A design exploration that highlights how a conjunctural crisis of shifting paradigms, environmental crises and the futility of a generation of architects still committed to safeguarding their authoritative positions has become an articulate, lively and complex framework of other ways of making space in the city, learning from the city, and implementing a pedagogy of transition, which acts towards sustainability, considers the social impact and gives space to education.

These considerations glimpse into university education and students the possible space for research to reverse the obsolete metabolism of the city from a devourer of energy to a sustainable energy source and contrast to the inevitable environmental revolution.

On this assumption, the project experience *Play School: Learning from the city* conducted by the heterogeneous group of student-teachers from two Departments of Architecture in Sardinia (DICAAR-UNICA; DADU-UNISS) transforms the “relevant environmental issue into play”³⁷ (Figure 3).



Figure 2. Collateral event: Students as Researchers.



Figure 3. Play School: Learning from the city.

It is well known that games and toys are part of the heritage of objects, as well as the city and urban space, if placed on a play table, could tell the story of popular culture, conveying roles and the built environment. In this way, critical environmental issues are observed through a playable model, which brings three subjects into play: learning, play and urban space (Figure 4). Thus, a combinatorial synthesis in “Play” and “School” develops the deconstruction of school and urban space into conventional elements that, in play, identify openness and unconventionality as educational tools.

Play School: Learning from the city is played in a white box lined with mirrors and populated by a series of architectural elements borrowed from the city, the school and the environment (Figure 5). The game board is colonised by protagonists, who lie above a grid measuring the urban environment; the player's interacting action on the object metaphorically represents the infinite manipulative possibility of the city and the school in its components on the user's part (Figure 6).

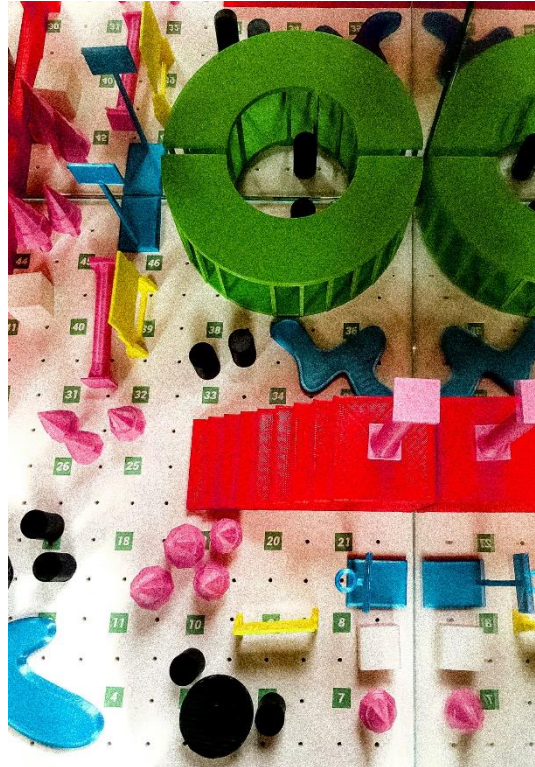


Figure 4. Playable model.

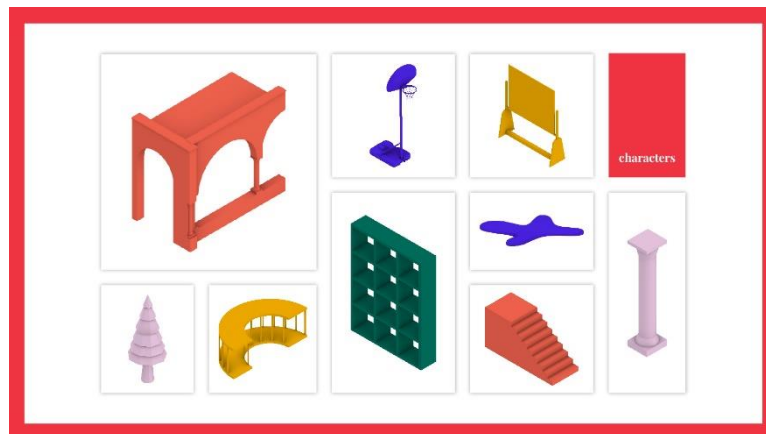


Figure 5. Game characters.

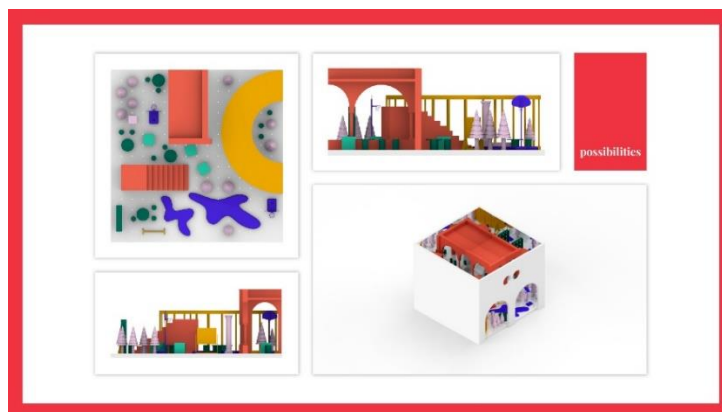


Figure 6. Urban possibilities.

With this game, conventions are broken in the search for one's ideal environment in a city that expands beyond any theoretical or urban construct. Players are the designers of new urban dialogues and learning spaces (Figure 7).³⁸ Playful activity, imagination, the process of decontextualisation and the rewriting of the urban introduce the player into the living fabric of the city and into a “provisional world,” made of experiential places and urban contexts. The mirror and the infinite combination of architectural elements give rise to an environment that simulates the infinite possibilities of the design of inhabited space, giving substance to the event title: *Global Mass - Living Mass. Beyond Artificiality: Living Materials.*

If playing thus represents a mirror of human evolution, games are nothing less than a cultural and educational testimony to the past, present and future. In its continuous manipulation, the action on the playable object can reveal social, cultural, political and religious changes that have characterised specific eras. Just as “places” – emptied of their social meanings – can take on the simple or only value of “spaces,” so does the game, if freed from these collective community constructs, end up remaining a simple object. This is how play can manifest itself as a recognisable “find” of previous cultures and be handed down to future generations.

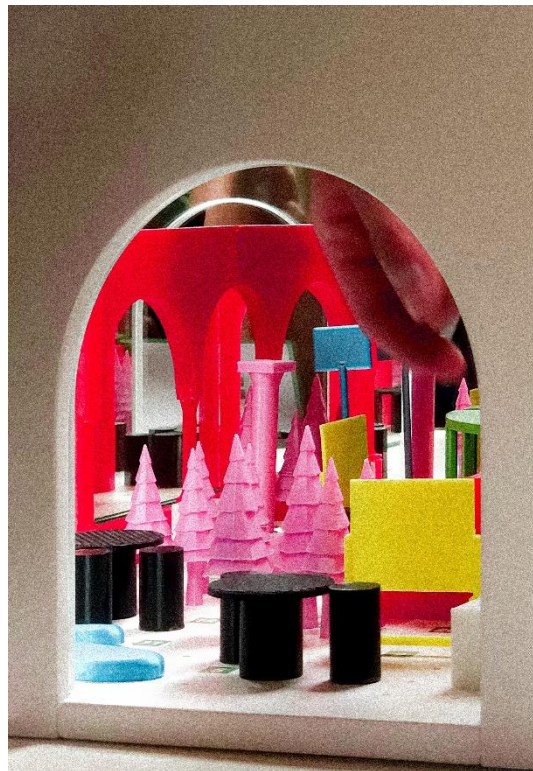


Figure 7. User action on the object.

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- ³ Arnaldo “Bibo” Cecchini, “Ti senti di volare, ti senti libero. La città come ambiente di apprendimento,” in *Il paesaggio agrario italiano medievale. Storia e didattica. Summer school Emilio Sereni (24-29 agosto 2010)*, ed. Istituto Alcide Cervi (Gattatico: Istituto Alcide Cervi, 2011), 196.
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- ⁹ Giancarlo De Carlo, “Ordine-istituzione educazione-disordine,” *Casabella*, no. 368-369 (1972): 65-71.
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- ¹¹ Immanuel Kant, *Critica del giudizio, par. 43* (Bari: Laterza, 1997), 140.
- ¹² Kant, 141.
- ¹³ Johan Huizinga, *Homo Ludens* (Torino: Einaudi, 2002), 35.
- ¹⁴ Alberto Iacovoni, *Game Zone. Playground tra scenari virtuali e realtà* (Roma: Edilstampa, 2006), 8.
- ¹⁵ Alberto Iacovoni in his book *Game Zone. Playground tra scenari virtuali e realtà* constructs a series of dichotomies helpful for constructing an abacus of playable possibilities: short or endless; serious or effervescent; poor or complex; disinterested or functional.
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- ¹⁷ Enrico Cicalò, *Spazi pubblici. Progettare la dimensione pubblica della città contemporanea* (Milano: FrancoAngeli, 2009), 15.
- ¹⁸ “Manifesto Rosa del Gioco. Orizzonti politici intersezionali per la comunità ludica,” Gilda del Cassero, accessed August 31, 2023, <https://rewriters.it/il-manifesto-rosa-del-gioco-giocando-col-mondo/>.
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- ²¹ Arnaldo Cecchini, Amina Crisma, Daniela Dutto et al., *I giochi di simulazione nella scuola* (Bologna: Zanichelli, 1987).
- ²² Archetypal concrete constructions, metal tubulars, light elements, arches or funnels, similar lopsided, amorphous: simplified elements for jumping, sitting or climbing.
- ²³ “The Story Behind Isamu Noguchi’s Playscapes in Atlanta,” Alexandra Lange, HermanMiller, <https://www.hermanmiller.com/stories/why-magazine/the-story-behind-isamu-noguchis-playscapes-in-atlanta/>.
- ²⁴ Shaina D. Larrivee, “PlayScapes: Isamu Noguchi’s Designs for Play,” *Public Art Dialogue* 1, no. 1 (March 1, 2011): 53-80, doi: 10.1080/21502552.2011.536711.
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- ²⁸ De la Salle, 309.
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³⁰ Elvio Manganaro, “*Del gioco e del montaggio*,” FAMagazine. Ricerche E Progetti Sull’architettura E La Città 51, no. 51 (2020): 9-11, doi: 10.1283/fam/issn2039-0491/n51-2020.

³¹ Huizinga, *Homo Ludens*, 12.

³² Valerio Perna, *L’attività ludica come strategia progettuale. Regole e libertà per una grammatica del gioco in architettura* (Torino: Einaudi, 2020), 41.

³³ A moment of escapism from everyday life or a secondary activity of lesser value than other educational and didactic experiences.

³⁴ Paolo Pileri, Cristina Renzoni and Paola Savoldi, *Piazze Scolastiche. Reinventare il dialogo tra scuola e città* (Mantova: Corraini Edizioni, 2022), 10-14.

³⁵ Giovanni Ferraro, “Il libro dei luoghi,” in *Piazze scolastiche. Reinventare il dialogo tra scuola e città*, ed. Paolo Pileri, Cristina Renzoni and Paola Savoldi (Mantova: Corraini Edizioni, 2022), 15.

³⁶ The work *Play School: Learning from the city* is conducted by the University of Cagliari (DICAAR) and the University of Sassari (DADU), with Professors Massimo Faiferri and Samanta Bartocci as scientific referees and Lara Marras (PhD Student), Giacomo Vittorio Bua, Anna Di Girolamo and Roberto Ibba as students.

³⁷ The game is currently part of an installation that informally assembled the works realised by the students at the participating universities.

³⁸ An easily replicable experience that can become an immediate opportunity to reflect on the theme; the creation of the game objects was carried out through a simplification of architectural elements from the city and the school environment, which were then reconstructed through 3D modelling and printed using homemade 3D machines, with a recyclable and reusable material.

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BUILDING AND LEARNING WITH THE NATIVE PEOPLE OF SOUTH AMERICA: THE TRAVESÍAS OF THE VALPARAÍSO SCHOOL AS A FORMATIVE MILIEU IN ARCHITECTURE

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INTRODUCTION

This paper analyzes the case of the Travesías (a journey across) of the Valparaíso School of Architecture and Design. Every year, the school members embark on journeys across the South American continent, reaching different places where they stay some days to build ephemeral works of architecture and design. The paper explores the pedagogical potential of these journeys, proposing three key dimensions: the preparation of the journey as a project, the sensible observation of space and the ways of living, and the cycle of projecting, building, and inhabiting an architectural space. The paper examines these dimensions by reviewing Travesías made to indigenous communities, focusing on the Travesía to Tekoa Pindo Poty visiting a Mbyá-Guarani community in Brazil.

The author argues that integrating these dimensions enables students to develop a distinct way of architectural thinking rooted in the relationship between space and human acts of life. Additionally, the Travesía fosters autonomy in learning and enhances skills related to architectural language as a complex linked to the project. As a result, the Travesías provides a format in which the collective praxis of thinking and doing an architectural intervention in situ nourishes students' formative experience, enabling the design of an architectural space sensitive to the worldview and cultural practices of the native communities.

The Travesías of Amereida

The Travesías are journeys carried out in response to Amereida, a poetic vision of the continent conceived by poet Godofredo Iommi in the 1960s.¹ The poet acknowledged the absence of a foundational myth on the continent, for which he proposed reconstituting the Latin tradition—inherited in language—in South America.² For this, the Iommi turned to Virgil -the poet who sang Latinity in the Aeneid- and took the notion of pietas, understanding it as openness: “the open expanse to make our world.”³ Thereby, Amereida (portmanteau of America and the Aeneid) is an epic poem that seeks to produce an opening by singing about the constitution of the American being while asking about the origin and possible destiny of the continent.

In light of these questions, Iommi organized the first journey across the continent in 1965.⁴ The group traversed the continent's interior from South to North, making periodic halts at various locations to execute Poetic Acts that aimed to poetically reveal the land from Amereida's sense of openness.⁵ After the journey, the group published the poem Amereida and integrated the concern for the

continent and the poetic endeavor of Amereida into the Valparaíso School's ethos. Since 1984, the school has organized annual Travesías, where students and professors engage in architectural and design projects across South America.

THE PEDAGOGICAL DIMENSIONS OF THE JOURNEY: TRAVESÍA TO TEKOA PINDÓ POTY

The continent, as proposed by Amereida, is open. This openness is the source of multiple questions about the American being and the continent, making each Travesía an opportunity to encounter diverse realities. One of these questions relates to the native peoples; thereby, some Travesías have departed to experience this reality of the continent. Professor Rodrigo Saavedra Venegas led several Travesías to such communities, including those to Marimenuco, Willoq, Paraty Mirim, and Tekoa Pindó Poty. All of these Travesías involved approaching the highly particular context of each native community (Pehuenche, Huayruro, and Guaraní) with their cultural practices, worldviews, and ways of inhabiting the territory.

Understanding these contexts became a fundamental task for the group participating in these Travesías, establishing a fruitful field of study. Accordingly, although the nature of the Travesía is poetic and not academic, after 40 years of practice, the school members have also recognized a pedagogical dimension in them.⁶ After examining the group of Travesías mentioned above, the author identifies three relevant pedagogical dimensions: the preparation of the journey as a project, the observation of space and the ways of living, and the cycle of projecting, building, and inhabiting an architectural project. The paper reviews these three dimensions in the context of the Travesías to the native communities, focusing on the Travesía to Tekoa Pindó Poty, a Mbyá-Guarani community located north of Lagoa dos Patos in the state of Rio Grande do Sul, Brazil.

The Journey as a Project

The first pedagogical dimension that a Travesía can accommodate is related to the preparation for the journey. The execution of a Travesía involves a time of preparation in which the students project and prepare the multiple aspects of the journey, such as the finances, the route, the camping, the food, the tools, and materials, amongst many others.⁷ The Travesía to Tekoa Pindó Poty required extensive planning to allow 44 students and two professors to travel to the Mbyá-Guarani community in Brazil to conceive and materialize an architectural project in six days.

The journey spanned 2,400 kilometers, separating Valparaíso from Porto Alegre and crossing the continent from the Pacific to the Atlantic shore. The studio decided to carry the journey by land to experience the geographical magnitude of the Andes mountains and the Argentinian Pampa to apprehend the continental scale. This crossing required calculating the kilometers of travel, road conditions, travel times, stops for refueling, systems for cooking, eating, and holding meetings aboard the bus, documents for crossing the borders of three countries, and dimensioning the cargo space volume for luggage, food, and tools.

School members refer to this organizational endeavor as the "calculation of the Travesía," it is an action of projection later verified during the journey.⁸ Approaching the journey as a project becomes part of the learning process at the architectural studio, where the relationship between projecting and verifying through practical experience plays a crucial role. This verification provides specific knowledge related to the task at hand, for example, the volume and weight of the amount of water that 46 humans need to drink during 24 hours, the distance between fuel stations on a continental scale, or the space required for a person inside a bus with different body postures to sleep, eat or study during 35 hours. By projecting aspects of the journey, students generate frameworks and plans that are later verified through experience, enabling a genuine comprehension of the matter. This genuine

comprehension comes from the evaluation and reflection that the students can do from the outcomes of their initial calculation, enabling a meaningful understanding of measurements related to time, space, and human life.



Figure 1. Students traveling across the Argentinian Pampas, by Oscar Andrade Castro.

Moreover, the projection and verification of the journey provide the students with an active engagement in their learning process through the development of critical thinking. By actively engaging in their learning process, students incorporate practices such as questioning assumptions and considering alternative perspectives in their projection. As a result, the Travesía is an opportunity to accommodate projection and verification as an experience that empowers learners to construct their knowledge and projective skills actively.

The Observation of Space and the Ways of Living

The second pedagogical dimension that a Travesía can accommodate relates to architectural observation. This creative practice is a cornerstone of architectural education at the Valparaíso School and involves contemplating inhabited space and human acts of life through drawing and writing.⁹ In architectural observation, drawing is approached as a process of abstraction in which the attentive gaze of the observer grasps the surrounding reality in lines. Through drawing, the observer creatively reveals an order of the relationship between space and life, collected on a written note next to the drawing.¹⁰ Practicing architectural observation, students come to articulate the theoretical foundation of their projects. Hence, their projects originate not from references or positions of others but from their own experience in the city.¹¹ In this sense, architectural observation aims to assert a project departure point based on the creative capacity to name the qualities of space and the acts of life it accommodates.

During every Travesía, professors, and students continuously observe, collecting their drawings and notes in travel journals. These observations later inform creative actions, such as the architectural projects built in the places that every Travesía visits. For the Travesía to Tekoa Pindó Poty, the project was an unknown aspect before the departure; it was a dimension the group would only find upon arrival. Once in the Mbyá-Guarani village, the Cacique (or community leader) expressed the community's desire for a space of encounter. Each family had a minimum domestic space, but the village needed a communal space to encounter in everyday life. With this in mind, professors and students dedicated a morning to experiencing the place, observing its space to discover how the encounter of the community occurs in the village's daily life.

The group observed that the domestic sphere occurred inside and outside the houses in this community. The house's interior accommodated the family's intimacy but left moments such as cooking and eating associated with an outdoor community fire. The bonfire was the communal domestic space where the community welcomed the sun every morning in a circle of conversation around the herb of mate and the pet ÿpipe. That same fire was maintained during the day and used for cooking; it also provided a center and first measurement of a circle where the voice of the other reaches the interlocutor and where objects were within the hand's reach for sharing. Architectural observation gives space a qualitative measure of the acts of life, which in this case was the act of the encounter.



Figure 2. Mbyá-Guarani family preparing a bonfire for cooking, by Oscar Andrade Castro.

The practice of architectural observation makes the Travesía a time of sustained dedication to creativity and study. In this particular temporality, the students can submerge themselves in an experience where architectural reflection takes place as a continuum, dissolving the apparent boundaries of the discipline in the broader field of the everyday and allowing them to recognize the experience of the journey as a source of knowledge.

The Cycle of Projecting, Building and Inhabiting

As part of the journey across the continent, every Travesía aims to engage with the land from a sense of openness by donating a work of architecture or design as a gift.¹² Consequently, the participants of these journeys establish in a particular location for some days to conceive and materialize an architectural project on-site. This aspect of the journey is the third pedagogical dimension proposed in this paper: experiencing the complete cycle of projecting, building, and inhabiting an architectural project.

In the Travesía to Tekoa Pindó Poty, projection departed from clarifying the fundamental act of life that architectural space would accommodate: the communal encounter around the bonfire. The professors leading the Travesía presented the idea to the Cacique, who welcomed it and pointed out

the available site to build the project. The architectural commission became clear: the proposal should transform the site into a center and accommodate the communal domesticity of fire.

The first action was to determine a center on the site where to place the bonfire and, from this center, draw a basal layout of the project on the ground with the first measurements of the architectural proposal. The layout consisted of a geometrical figure composed of two concentric squares. The larger square had a side of 4.65 meters and could inscribe a circle of around 50 people, a measurement from an in-situ activity carried out by the entire studio. The smallest square had a side of 3.5 meters, corresponding to the average circle of the Mbyá-Guarani around the bonfire measured in the community. Thus, the project size originated to accommodate the day-to-day encounters and larger groups when visitors from other communities arrive to celebrate special occasions.



Figure 3. Students measuring the act of encountering around the bonfire, by Oscar Andrade Castro.

After drawing the basal layout of the project on the ground, the group began with the design and construction. This process was approached in successive steps that could advance in parallel with relative autonomy without waiting for the other to be completed or fully designed. Indeed, the architectural projects done in a Travesía are, in various senses, an open work. As such, they require a creative approach that allows them to advance in the indeterminate. The steps for the project at Tekoa Pindó Poty were attached to the five main architectural elements: pillars, roof, floors, skin, and staircase.

The structure consisted of four pillars at the corners of the larger square, articulating a cube of 4.65 meters side, which was the main volume of the project. Four trusses were installed along the diagonals, whose connecting key in the center was a ventilation element for the bonfire smoke. The roof, consisting of three trapezoidal panels with a waterproof core structured with bamboo, was installed over the trusses. The construction processes with the bamboo were carried out with the help of a group of Mbyá-Guarani, establishing an exchange of knowledge and opening the chance for integrating traditional crafts and local construction methods.



Figure 4. Wooden structure, trusses, and construction of the roof trapezoidal panels, by Oscar Andrade Castro.

The floor levels had differentiated surfaces according to uses: floor, seats, and tables. All were built around the central fire and were fragmented by four channels that receive the logs that feed the bonfire according to the Mbyá-Guarani community practices. The skin had a structural role, bracing the facades by employing tensors that linked the structural nodes of the floor and roof. Finally, the staircase reached an upper level to rise above the treetops, opening the view to another distance beyond the village. Another cube was located under the landing of the stairs, with a side of 2.20 meters, and was equipped with a drinking fountain for cooking and cleaning purposes.



Figure 5. Design and construction of the floor levels and staircase to the treetops, by Oscar Andrade Castro.

The five elements that composed the project were designed while constructing, using the materialization process to measure, adjust, and conceive space. The students began to draw with the materials by presenting the wood pieces and testing the measurements with their bodies, identifying unsolved aspects, and integrating observations as the work unfolded. Indeed, the channels that fragmented the floor levels to feed the bonfire with logs, as well as the staircase leading to the roof, were integrated during the construction based on observations—one regarding the preparation of the bonfire each morning and another concerning the children's play as they climbed to the treetops. Once we delivered the project, brooms, chairs, and pots appeared—signs of domestic life that revealed the community's immediate appropriation of this space. On the last day of the journey, the community and the participants of the Travesía gathered around the fire to celebrate together, which gave them a chance to inhabit what was initially projected and adjusted during the construction. The opportunity to engage with the complete trajectory of projecting, constructing, and inhabiting an architectural space is a critical pedagogical dimension in the Travesía.¹³ Architectural knowledge is embedded within diverse processes and formats; thus, immersing students in this cycle fosters a

holistic understanding of architectural design. By experiencing each phase firsthand, students cultivate a multifaceted comprehension of design principles and knowledge. In the case of the Travesías to native communities, this approach has revealed its potential to conceive an architectural space sensitive to their worldview and cultural practices.



Figure 6. Traces of domestic life and appropriation of the project, by Oscar Andrade Castro.

CONCLUSION

The three proposed pedagogical dimensions that a Travesía can accommodate shape a milieu in which students can acquire a particular approach to architectural design.¹⁴ As examined in the Travesía to Tekoa Pindó Poty, with the practice of architectural observation, students can develop a sensibility towards the place grounded on a way of thinking architecture that locates at its center the relationship between the qualities of space and the human acts of life. Furthermore, although architectural observation is an experience in itself, this sensible comprehension of the built environment becomes measurable when inhabiting the projected idea, bridging ideas and tangible structures. Likewise, approaching the journey as a project contributes to establishing this formative milieu where students can approach their learning experience, cultivating autonomy and critical thinking.

The Travesía, while not being an academic activity, presents a relevant potentiality as a learning experience. Throughout their studies, students can participate in a Travesía every year, crossing South America to build an ephemeral project while staying in a place for some days of construction. The Valparaíso School's design approach seeks to reveal the sense of place by accommodating human acts of life and celebrating them through abstract space. This celebration is, therefore, spatial. The architectural project aims to praise human acts spatially by gifting them an original dimension through the qualities of space. Thus, the *raison d'être* of the project is grounded in the creative formulation of the act through architectural observation. The Travesía is an action where students can verify how the formulation of the act opens the possibility of conceiving a spatial experience grounded in local ways of living. These journeys enable immersion in architectural language, taking practice and thinking into the complexity of the project, from which students can emerge with an understanding of the richness involved in the construction of the built environment.



Figure 7. Finished project and Mbyá-Guarani children reaching the treetops, by Oscar Andrade Castro.

NOTES

- ¹ Godofredo Iommi (1917-2001) was an Argentinian poet, founding professor of the Valparaíso School of Architecture and Design and the community of the Ciudad Abierta in Ritoque, Chile.
- ² Godofredo Iommi. "América, américas mías." *Atenea revista de ciencia arte y literatura*, No.447 (April 1983): 19.
- ³ "Exposición 20 años Escuela de Arquitectura UCV," Wiki Casiopea, accessed December 18, 2023. https://wiki.ead.pucv.cl/Exposición_20_años_Escuela_de_Arquitectura_UCV.
- ⁴ The group of poets, architects, philosophers, and artists who participated in the journey were Godofredo Iommi, Edison Simons, Michel Deguy, Jonathan Boulting, François Fédier, Alberto Cruz, Fabio Cruz, Claudio Girola, Henri Tronquoy, and Jorge Pérez Román.
- ⁵ Iommi proposed the Poetic Act as a mode of poetry in action detached from literature, in which the poet summons a group of people to participate in a collective poetic game. The participants engage in this game with their voices and bodies to trigger an unforeseen poetic event that opens a new sense of place.
- ⁶ Rodrigo Saavedra, "Las travesías por América aprender arquitectura a través de los viajes," (PhD thesis, Universitat Politècnica de Catalunya, 2007), 140.
- ⁷ Escuela de Arquitectura UCV, *amereida travesías 1984 a 1988* (Viña del Mar: Escuela de Arquitectura UCV, 1991), 160.
- ⁸ Escuela de Arquitectura UCV. *amereida travesías*, 160.
- ⁹ "Improvisación del Señor Alberto Cruz." Wiki Casiopea, accessed November 12, 2023. https://wiki.ead.pucv.cl/Improvisación_del_Señor_Alberto_Cruz.
- ¹⁰ "¿Qué es la Observación?." Wiki Casiopea, accessed November 14, 2023. <https://wiki.ead.pucv.cl/Observación>.
- ¹¹ "Sobre la observación." Wiki Casiopea, accessed November 14, 2023. https://wiki.ead.pucv.cl/Sobre_la_Observación.
- ¹² Patricio Cáraves, "La Ciudad Abierta de Amereida Arquitectura desde la Hospitalidad," (PhD thesis, Universitat Politècnica de Catalunya, 2007), 10. <http://hdl.handle.net/10803/6810>.
- ¹³ Saavedra, "Las travesías por América," 199.
- ¹⁴ Oscar Andrade, "Ronda: Architectural education and practice from the construction of a milieu in common: The PUCV School of Architecture and Design and Ciudad Abierta, Chile," (PhD thesis, Delft University of Technology, 2021), 438. <http://resolver.tudelft.nl/uuid:6af4a1aa-6c3c-494a-b9e9-d653736e6303>.

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VIRTUAL SPACES OF PERFORMANCE: WHAT PANDEMIC EVENTUALLY BROUGHT TO ATHENS' MUSIC LIFE

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INTRODUCTION

“Empty (spaces) in this case (pandemics), seem to broadcast fragments of the voices that existed in them at some point, but also those waiting to be heard. Here, absence finds me in ‘plural time’”¹

These are the words of Michalis Kloukinas, the man who photographed the empty performing spaces in Greece, during pandemics, a work assigned to him by the director of Athens Festival, Katerina Evangelatou. The pandemic era was a big pause for live performances in every music genre. Kloukinas gave a series of photographs of a cluster of spaces mainly used by the Athens Festival. It was like an homage to the “paused” performance life, depicting its silence and the fear of the unknown. An unexpected break to this situation was the digital work and transformation of the National Opera that began in the first covid spring, a breakthrough cluster of projects that transformed live music performance of classical music into a digital one, offering hope that things may turn back to normal. Another breakthrough was the Molyvos International festival, organized by two musicians, Danae and Kyveli Dorken at the island of Mytilene (Lesvos). A summer festival that also was streamed online in front of one of the island’s castles. These festivals were a new form of cultural performance leading to the reverse of physical space of performing classical music to the digital one. This reversal is characteristic of the interconnection of these spaces as Boellstorff discusses,² mirroring in this case the work and route and of classical music in Greece over the years -a music genre that is not quite popular in Greece.³

The “Spring” of the National Greek Opera

From the 17th of May to the 30th of June 2020, the Greek National Opera staged online the “Exodus Festival” or “Spring” Festival. The only online festival that was realized at the beginnings of the Greek Covid 19 era, was a result of a parallel performance schedule to the already announced 2019-2020 season one of the Greek National Opera, which was eventually cancelled. It was an attempt to keep the opera organization alive. For the Opera’s director, George Koumendakis, it was clear that the outbreak of the pandemic made everything vague, and it was impossible to predict what would happen with the initially scheduled performances. Would they ever take place? And even if they could, how many people were going to participate in? Under which conditions and protocols? He affirmed that he was in an increased state of alert to respond to the changes and that the Opera is an organization which acts and works with great flexibility and adaptability.⁴ “What will kill us, will be: doing nothing”. Koumendakis predicted that the online festival(s) will continue at least till the end of the year, regardless of live performances.

From May to the end of June, twelve productions were streamed online and remained free for streaming for a short period. Eleven of these twelve productions were new. Only one, the ballet “Rite of spring” was an older performance, recorded in April of 2019. Most of the productions were clearly connected to the theme of spring, presenting performers indoors and at various spaces of the National Opera House. The audience could virtually wander from stages and rehearsal rooms to the dressing rooms and halls of the Opera House.⁵ The “Dance homage to Martha Graham” on Aaron Copland’s music was filmed outdoors, at the Stavros Niarchos Foundation Cultural Park,⁶ where the building of the Greek National Opera (GNO) is set. This video was representing the motto of the festival which was “An exodus to spring, an exodus to life we make together”.⁷

The “Behind bars’ percussion duet paid an homage to the empty spaces of Athens at 25.05.20. What is classical music doing in an empty city? An invisible driver, passing by areas of the center of Athens, like the Athens Conservatory and the National Gallery, incarnated the intention of the Opera’s director to feel the gap of emptiness step by step, note by note, phrase by phrase with music, lots of music, ‘blossomed music’, as he stated in his description of the Greek National Opera’s first online festival. The Opera produced this first online festival as a part of the FEDORA platform, the European Circle of Philanthropists of Opera and Ballet. FEDORA platform which is under the support of the Creative Europe Program is devoted to testing new models of raising money and new ways of awarding it to institutions across Europe for opera and ballet projects, on a quest for creative funding models and younger audiences.⁸ Being a part of such an ecosystem and a member of such kinds of ecosystems,⁹ especially the Stavros Niarchos Foundation who steadily supports GNO and granted the construction of the whole Cultural Park, proved to be quite important for its digital transformation and extroversion.



Figure 1. First online festival of the Greek National Opera. ‘Behind the bars’ percussion group.

Digital transformation and beyond

The digital transformation did not happen for other concert halls, or it appeared quite belated and restricted. GNO also offered during the first lockdown ten previously staged productions: *The emperor’s nightingale* with music of the Greek composer Lena Platonos, Purcell’s *Fairy Queen*, *The swan lake* and more. During the summer of 2020, the Opera’s productions became a part of the Ministry of Culture’s project “Whole Greece, one culture”, a project on hosting performances at archeological spaces all around Greece. And when autumn came, the Opera launched the second online festival (27.09.20-31.10.20) called “Counterpoints” lasting about a month. A quite Greek repertory was presented at the second online festival. An anthology of Greek Art music, spreading in time from the Cretan Renaissance until nowadays with Greek composers like Leontaritis,

Konstantinidis, Kalomiris, Xenakis, Papadatos, Chatzis and Alexiadis along with Ravel and Orlando di Lasso. Performances took place at some of the well-known architectural monuments of Athens, like the Ancient Market (Ancient Agora), the French Institute, the Athens Conservatory, the Small Exchange Stock Market/Melas Mansion and the Athens International Airport. The last concert, filmed at the airport, had two parts and the second one with the strings of GNO orchestra performing on the airport's track was the first ever recorded performance there. During the second online festival, "Rebonds" for solo percussion, a composition of Iannis Xenakis, were filmed at the spaces of the Athens Conservatory, the building of the architect Ioannis Despotopoulos that has become a protagonist in cultural life during the last decade.¹⁰ It was clear that with the second online festival GNO was leaving its home at the Cultural Park. Gradually, in its every digital step, the Opera House was re-introduced in new spaces.

Following the health-protocols, GNO started its 2020-2021 season and staged between the two Greek lock downs *Madama Butterfly* with Ermonela Jaho. *Madama Butterfly* was a production that managed to realize almost the total of its scheduled performances -only two were cut- with thirty percent of audience able to attend and an orchestra score adjusted for a limited orchestra. When the second lock down was imposed at the beginning of November 2020, GNO moved to another aspiring step, the launching of its online channel, the GNO-TV. A ticket of 10 euros made it possible for everyone to attend performances -and it still does. The intention of the Opera House was to formally launch the channel's function beginning in January 2021. After virtually leaving the Cultural Park, GNO was ready to 'leave' the country. The channel functioned as a vehicle of quickly and effectively introducing the GNO's work and identity around the world.¹¹ Online performances streamed at the channel contributed to building and strengthening the extroversion of Greek classical music -and by Greek I name the performances created and staged in the country. GNO extended in this way its fame, while many operas at that time stayed closed. The coin for GNO was turned and the covid crisis became an opportunity for thousands performance streams and virtual tickets.¹² Eventually, it launched three more online festivals, "The music of speech", "The Mediterranean dessert" and the «Body, remember».



Figure 2. *Madama Butterfly* at the Restart of the Greek National Opera

How did we get here?: A short history of Metamorphosis

The online identity and streaming described is the result of multiple processes. The National Opera, founded in 1939, became a formal legal entity in 1944 and inaugurated at the Olympia Theatre staging its first opera on the 1st of April in 1944. A few days later, on the 22nd, Maria Calas had her debut. In 1958 the theatre was renovated and became the official home of the GNO until 2017, when it moved

to the Stavros Niarchos Foundation Cultural Park. It was renovated in 2018 and opened again as the Municipal Theatre in December 2018. Therefore, in March 2017 the National Opera moved to the Stavros Niarchos Park, next to the National Library. The park was designed by Renzo Piano and the Opera had two stages, the Stavros Niarchos stage (1400 seats) and the experimental stage (300-400 seats). The whole Cultural Park was finished in 2016 and was delivered in February 2017 in an area of 1.8 million squares. It is the winner of the Royal Institute of British Architects award (RIBA) as one of the most inspirational and significant buildings across the globe.

A video was created to celebrate the two first years of the Cultural Park's operation and its delivery to the state. Up to then, it was fully managed by the Stavros Niarchos Foundation who funded its building and projects. The park as a whole entity, the National Library and Opera, Pharos, the river and pathways as one and unbreakable whole, is a concept deriving from the architectural planning but quite successfully applied to all the park's activities. You can walk, you can talk, you can do sports, you can read inside and outside the library, you can hear the music fountains and you can attend a performance at the opera, at the Pharos (the lighthouse), somewhere in the gardens or near the river. The first priority of the park's webpage is to state that it is a way to redefine public space.¹³ During the last years the Park contributed to the introduction, promotion and marketing of many different genres of music, especially classical and jazz. As an open public space, approachable by everyone, it made quite a difference from what already was happening in art music in the capital.

The cultural park and the moving of the opera followed the opening of the Athens Concert Hall three decades before, a breakthrough for the cultural life of the city of Athens, since, until then, it did not have a proper stage to welcome concerts and performances from around the world. The Athens Concert Hall was inaugurated in 1991 with two halls and now it has four (since 2004). Designed by the Greek architects E. Vourekas and I. Skroumpelos, it initiated the first stages of the metamorphoses of classical music in Greece. This process was invigorated by the introduction of music in higher education in Greece, with the establishment of University Departments on music studies and gradually on music performance from 1984 to 1996.

Summer power

A characteristic example of the reproduction of strong connections with space and community are the summer music festivals. In 2015 Dimitris Tryfon, Danae Dörken and Kiveli Dörken founded the Molyvos International Music Festival. 2015 was an extremely difficult year for Greece, especially its summer, due to the capital controls that were imposed. Nevertheless, the festival kicked off that year and it annually takes place on the island of Lesbos, at the Aegean Sea, in August. Most performances are given at the second largest castle of the island, the Byzantine castle of Molyvos, with a capacity of 500 seats but it partially expands to other closed and open spaces of the island.

Its artistic directors, Danae and Kyveli Doerken, two young pianists with a dynamic presence as piano performers, direct a festival that combines young rising musicians with established ones. This applies also to the festival planning, which is supported by a team of established musicians, like the conductor Sir Roger Norrington and the pianist Lars Fogt. In 2016, Molyvos Festival won the Karolos Koun award for the music organization working at the Greek periphery. The award was given for the high level and the international character of the festival, taking place in a symbolic part of Greece, the island of Lesbos, which consists a geographical and cultural bastion for a united Europe. In 2017 Molyvos International Music Festival (MIMF) won the Classical: Next award, specifically the innovation award. This award was an important distinction for classical music in Greece, since it gives international recognition to the people who are working hard to push things forward with daring yet intelligent, effective and successful “out-of-the-box” thinking, planning and action. The first festival in 2015 was titled “Metamorphosis” as an attempt to metamorphose, for a few days, the life

rhythms of the island along with the fact that many musical pieces of the concerts are going through, according to its art directors, the stages of a metamorphosis. In 2016 it appeared as “Crossroads”. In 2017 it was named “Catharsis” (purification), in 2018 “Genesis” and in 2019 “Dialogos” (dialogue).



Figure 3. Molyvos International Classical Music Festival, 2020. Synchronicity

Synchronizing

In 2020, the festival managed to take place for two days (17-18.08.2020) contrasted to other chamber festivals, like the Saronic Chamber Music Festival, which was cancelled. Its theme was ‘Synchronicity’, a symbolic title to music’s ability to transcend the boundaries of time and space, and to send a message of strength, hope and unity.¹⁴ Danae Dörken was convinced that music could show the way out of the coronavirus crisis. She emphasized that in times when it has never been more important to keep a physical distance, music brought us close to one another. It created connectedness at a time when our lives were shaped by separation.

For the first time, the MIMF was streamed live on YouTube and Facebook, and it was broadcasted at the Greek radio and Ronomagazin's facebook page. The festival was lively introduced by the President of the Hellenic Republic and the Secretary of the Ministry of Culture. The artistic directors and a total of thirteen musicians promised to feature many exceptional moments – including the first performance of the commissioned “Moments” by Nickos Harizanos. Conductor Dionysis Grammenos and the clarinetist Sebastian Manz were not physically present for Mendelssohn's Concert Piece on the first day of the festival but appeared on the screen via video link. There was also a virtual performance of the Greek national anthem by musicians who have participated in MIMF.

The festival was realized in front of the castle of Lesvos and not in it, due to health-security protocols, with a breath-taking illumination by the Greek film director Dimos Avdeliotis. On the 24th of July, six musicians who already appeared in MIMF, gave a concert at the SWR2 radio station in Stuttgart, a performance which was also broadcasted. Even if performance restrictions were applied due to the pandemics and the future was uncertain, the young directors responded powerfully and showed their potential to create a new and different experience adjusted to the new circumstances. Due to streaming the concerts, they persisted on highlighting the island as a destination for travel and culture and as an ambassador of the classical music community -as they do every year. The magazine of the Aegean Airlines, one of the biggest air carriers of the Greek country, suggested Lesvos as a travel destination and the Molyvos classical music festival. In fact, they managed to echo again their festival moto: extraordinary venues, extraordinary programs, extraordinary musicians. And, by doing so, they also put across the hopeful message that life goes on – not as it was before, certainly, but in a different, special way that is no less exciting – and that perhaps offers the potential for completely new experiences precisely because of the situation. “It was always a symbol of hope and persistence in difficult times. Even in the past, one of the festival's main objectives was to be a positive counterforce in challenging times (Schimmer Pr excerpt).

CONCLUSION

The aspects of metamorphoses are multiple. The strengthening of classical music in the country¹⁵, but also the change needed to respond to the current unforeseen pandemics and the lack of ability for concerts to move on as before, was once more connected to the concept of festivals. Their digital facet proved that they are not exactly only one system, one and only framework within classical music is contextualized. Even if they have a limited time span, a beginning and an end, an organized program of activity and a set of performers, their interaction with space, virtual space and virtual audiences, gives a powerful mix, rich in meanings, abilities and interactions. The virtual music stage is transformed in a new, special and unique public space incorporating different repertoires, introducing new or unknown composers and progressive productions and reproducing strong connections with other spaces.

NOTES

- ¹ Michalis Kloukinas. *Spaces in waiting*. Athens and Epidaurus Festival. Athens: Kappa Ekdotiki, 2020, p 7.
- ² Tom Boellstorff. *Coming of age in second life: An anthropologist explores the virtual human*. Princeton: Princeton University Press, 2015.
- ³ Vasiliki Sirakouli. "Exploring cultural policies: First thoughts on 'difficult' music genres going public". In Katy Romanoy (ed.) *Aspects of Greek and Serbian Music*. Edition Orpheus, 2008. pp. 238-250
- ⁴ Arno Hoeven van der and Erik Hitters. "The social and cultural values of live music: Sustaining urban live music ecologies". *Cities* 90 (2019): 263-271. Accessed March 2024. doi 10.1016/j.cities.2019.02.015.
- ⁵ Lies Boucakert Kelsey E. Onderdijk, Edith Van Dyck and Pieter-Jan Maes. "Concert experiences in virtual reality environments". *Virtual Reality* 27 (2023): 2383-2396. Accessed March 2024. doi: 10.1007/s10055-023-00814-y.
- ⁶ The Stavros Niarchos Foundation, an international philanthropic organization, created the new home of the Greek National Opera as part of the Stavros Niarchos Foundation Cultural Center. In 2019 made a grant of twenty million euros to the National Opera for a four-year plan.
- ⁷ Spring micrographies <https://www.nationalopera.gr/diadiktiako-festival/item/3129-monaxikes-mikrografies-tis-anoiksis>
- ⁸ Sam Baker. "On the quest for creative funding models and younger audiences for opera and ballet. *Forbes*. June 13, 2019. Accessed March 03, 2023. <https://www.forbes.com/sites/samanthabaker1/2019/06/13/on-the-quest-for-creative-funding-models-and-younger-audiences-for-opera-and-ballet/>
- ⁹ Lies Boucakert Kelsey E. Onderdijk, Edith Van Dyck and Pieter-Jan Maes. "Concert experiences in virtual reality environments". *Virtual Reality* 27 (2023): 2383-2396. Accessed March 2024. doi: 10.1007/s10055-023-00814-y.
- ¹⁰ Vasiliki Sirakouli. When Jan Despo met jazz: Space and music performances in cultural performances. In Eftichis Priovolakis, Maria Mikedaki and Pablo Berzal Cruz (eds) *Performing Space*. Athens: Nissos Publications, 2023.
- ¹¹ Haydeé Calderón-García Ouazzani Yacine and Bera Tubillejas-Andres. "Opera streaming: Perceived value as an explanatory factor for loyalty and intention to attend an opera in an opera house. *Journal of Marketing Management* 39 (5-6)(2023): 414-442. Accessed March 2024. D oi: 10.1080/0267257X.2022.2105936.
- ¹² Femke Vandenberg and Michaël Berghman. "The show must go on(line): Livestreamed concerts and the hyper-ritualisation of genre. *Poetics* (2023). Accessed March 2024. doi: 10.1016/j.poeti.c.2023.101782
- ¹³ <http://snfcc.org>
- ¹⁴ <https://www.molyvosfestival.com>
- ¹¹ Sirakouli. *Exploring cultural policies*, pp. 238-250.

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A STUDY ON A TRANSFORMATION OF THE AINU TRIBE'S HOUSES UNDER JAPANESE ASSIMILATION POLICY

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INTRODUCTION

Hokkaido, a northern island that celebrated its 150th anniversary of naming in 2018, has been developed by the Japanese government since 1869, Meiji era. The words "Ezo-ti" were used to refer to the place where the Ainu lived in the Edo period, before 1868. The "Act Promoting Measures to Achieve a Society in which the Pride of the Ainu People is Respected", enacted in 2019, specified the Ainu people as the indigenous people of the northern part of the Japanese archipelago, particularly Hokkaido, for the first time by the Japanese government. The Ainu, a hunter-gatherer people, developed their own culture before the Meiji era, but since the Meiji era, the beginning of the development of Hokkaido, their lives have been changed by the Japanese assimilation policy. This paper illustrates the transformation of Ainu houses, mainly from the 1940s to the 1960s, when previous studies have not yet clarified, through Japanese policies and a case study in Biratori-town, which was selected as an 'Important Cultural Landscape' under the Law for the Protection of Cultural Properties in Japan, to understand in part how they adapted their way of life to housing.

Why Houses?

Traditionally, when there was a death in the family, the house was burned down. Therefore, Ainu houses were not permanent. Also, the previous study of Ainu ethnic houses, called "chise" in Ainu, began in the 1920s and was mainly conducted in the late 1930s and early 1940s when the number of "chise" rapidly declined.¹ Dr Fukuhei Takabeya, a professor at Hokkaido University, studied and recorded them in 1940² (Fig.1). However, the aim of the studies at that time was mainly the origin of the architecture. In other words, the history of architecture studied Ainu houses, "chise", by asking where they came from.

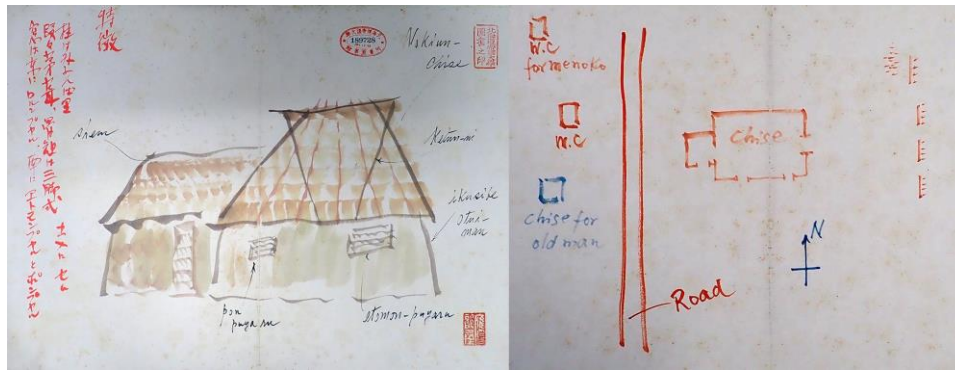


Figure 1. Dr. Takabeya's drawing of "chise" (left)³ and its layout(right)⁴

Few studies have looked at the contemporary context of the Aino people,⁵ nor have they looked at the architectural context to see how their houses have changed.

One of the "Important Cultural Landscapes" under the Cultural Property Protection Law is in Biratoritown, which has been evaluated as an Aino landscape that reflects their lives and livelihoods, as well as a landscape that illustrates the early Meiji administrative unit for the development of Hokkaido.⁶ It is the first and only "Important Cultural Landscapes" to be selected as an Aino life and livelihood landscape in Japan, and the only "Important Cultural Landscapes" in Hokkaido. We can trace the historical continuity of the settlement site there, but the houses have already been modernized and we can only see "chise" in the open-air museum, Nibutani "Kotan", which means Nibutani village.

JAPANESE ASSIMILATION POLICY

The Hokkaido Former Aborigines Protection Act of 1899 was a Japanese law enacted to protect the Aino people of Hokkaido. It attempted to Japanize the Aino by promoting agriculture while banning their hunting and fishing activities, and by integrating their children into the Japanese education system in schools. The main provisions of the law included providing a maximum of 15,000 tsubo (about 5 hectares) of land per household, protecting livelihoods and establishing elementary schools. It was amended several times in response to social changes and realities, which will be explained later, and repealed in 1997 with the enactment of a new law, the "Law for the Promotion of Aino Culture and for the Dissemination and Advocacy of Aino Traditions and Aino Culture".⁷ Now, from 2019, the "Law Promoting Measures to Achieve a Society in which the Pride of the Aino People is Respected" is an existing law. For the first time in this 2019 law, the Japanese government defines the Aino as the indigenous people of the northern part of the Japanese archipelago, particularly Hokkaido. The policy has recently shifted from "protection" to "promotion of culture".

Regarding the restructuring of the "Hokkaido Former Aborigines Protection Act", the most important changes were made in 1937 and 1946. In 1937, an article was added to provide funds for those wishing to improve defective housing. After the Second World War, it was partially amended by the enactment of the Public Assistance Act in 1946, which abolished special administrative measures through equality before the law. The Hokkaido Former Aborigines Protection Act was only used to restrict the transfer of payroll land until it was repealed in 1997.

House Improvement Standard Design in 1937

The Hokkaido government surveyed the living conditions of the Aino in 1935 and counted a total of 3,713 house numbers.⁸ It found that only a third of the houses were adequate (1,227 houses), and that the rest needed partial repair (715 houses), extension and reconstruction (697 houses), and demolition and rebuilding (1,074 houses).

The Hokkaido government had made improvements to poor housing conditions, in particular to prevent lack of ventilation and lighting as a cause of tuberculosis. The standard housing subsidy was given on the basis of some conditions, such as a 20% co-payment. The government also designed two types of standard houses for the Ainu, based on interviews with Ainu⁹ - as shown in Figure 2. The layout follows the "chise", facing south with an east window. The mud floor was replaced with a raised wooden floor and the thatched roof with wooden walls.

The output of the project was recorded as 46 houses in 1937, 49 in 1938, 35 in 1939, 16 in 1940, 4 in 1941 and 20 in 1942.¹⁰ It was then interrupted by the war and left to the Public Assistance Act after the end of the war in 1946.

Due to partial funding and difficult conditions, not all Ainu who wanted new houses were able to live in these standard houses. In the end, many Ainu lived in thatched houses as they had in the past.¹¹

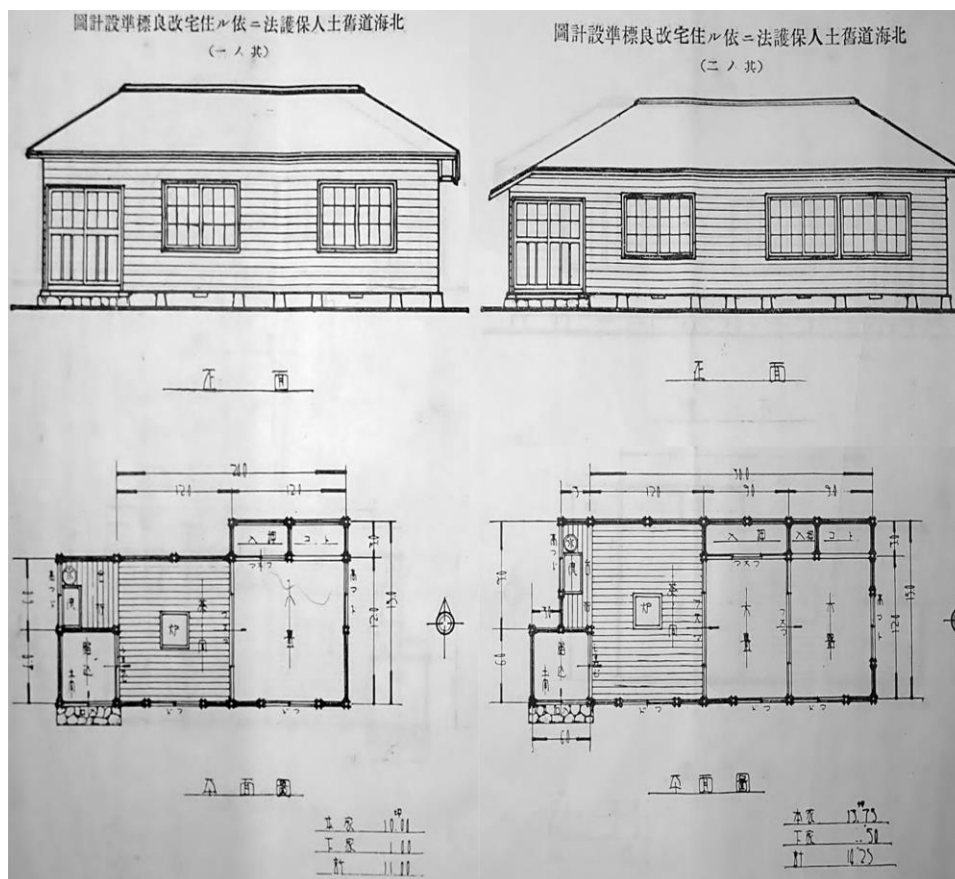


Figure 2. House Improvement Standard Design in 1937¹²

Government-funded Project from 1961

After the enactment of the Public Assistance Act in 1946, which abolished special administrative measures for the Ainu people through equality before the law, the government-funded project to Eliminate Poor Environmental Neighborhoods was launched in 1961, based on the results of the survey in 51 neighborhoods where more than 20 households with 100 Ainu people lived, which showed that more than 30% were in the extreme poverty level without water supply, drainage or bathing facilities.¹³ The project was based on the five-year plan for the development of local improvement facilities by the Hokkaido government, which subsidizes welfare and housing facilities under the Ministry of Health and Welfare.

The Seven-year Hokkaido Ainu Welfare Measures with the Ainu Association of Hokkaido

The Ainu Association of Hokkaido is an organization made up of Ainu who live in Hokkaido, which aims to "work to improve the social status of Ainu people and to develop, transmit and preserve Ainu culture in order to establish the dignity of the Ainu people" established in 1946.¹⁴ The association plays an important role between Ainu People and the government.

In 1974, with the cooperation of the Association, the Hokkaido government began the seven-year Hokkaido Ainu welfare measures based on the 1972 fact-finding survey. Since then, the survey has been conducted every 7 years and executed four sets of welfare measures over a period of 28 years based on the outcomes.

The objectives of the first set of welfare measures were to promote the self-reliance of Ainu people and enhance their social and economic standing through the improvement of social environment and social welfare provisions, the promotion of stable employment, the enhancement of education and culture, and the advancement of production bases. There were three major policy areas: 1) district measures (improvement of living, employment, and welfare conditions; and the promotion of education and culture); 2) individual measures (housing loans and employment, education, and welfare measures); and 3) support for the development of relevant organizations such as the Ainu Association of Hokkaido and its branches.¹⁵

TRANSFORMATION OF THE AINU TRIBE'S HOUSES

As mentioned above, the study of Ainu tribe's houses began in the 1920s and was mainly conducted in the late 1930s and early 1940s by focusing on the origin of the architecture. Referring to Dr Takabeya's photo album, the actual conditions of Ainu tribe's houses in 1940 were clarified by Sakuma and Habuka in 2014. This is the only study that has analyzed the changes in the houses of the Ainu tribe so far.

Considering the actual conditions in 1940, in the midst of the transition from indigenous to modern, they categorized them into four types based on their external forms: "thatched-wall hipped-roof architectural structure" (Type A), "spindle-wall thatched-roof hipped-roof architectural structure" (Type B), "thatched-roof gable-roof architectural structure" (Type C), and "tin-roof architectural structure" (Type D).¹⁶ Type B were the main architectural structures where the roof structures were retained, but the thatched walls were replaced with those made of spindle and further modified with glass pane windows and wooden doors. Type C was only found on warehouses that were not used for housing. Type D were the dwellings modified by the government in 1937 (Fig.2). Therefore, there were three types of houses in 1940, Type A, Type B and Type D - as shown in Figure 3.

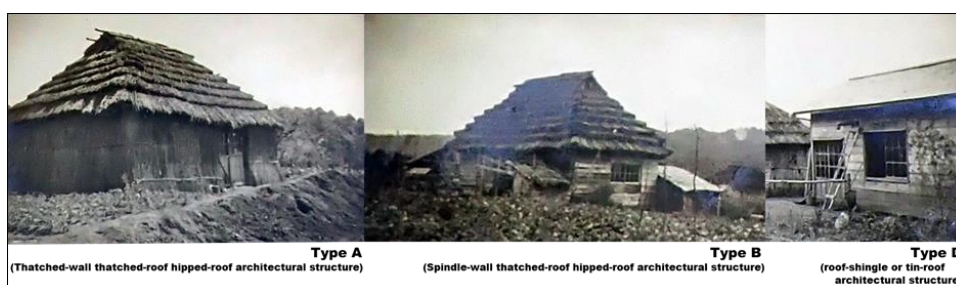


Figure 3. Three types of houses in 1940¹⁷

The house of Mr. Shigeru Kayano (1926-2006) in Nibutani, Biratori-town

Mr. Shigeru Kayano was born in 1926 in Nibutani and raised with Ainu as his mother tongue under the influence of his grandmother who spoke only in Ainu. After graduating from primary school, he earned his living as a lumberjack. He was distressed by the exodus of Ainu folk tools from kotans (villages)

and began collecting and recording Ainu folk tools and folk tales from around 1953. In 1960, under the influence of Dr Kyosuke Kindaichi and Dr Mashiho Chiri, who were researchers of the Ainu language, he began recording the Ainu language. He became active as a writer from around 1973, and had written numerous books by the time of his death in May 2006.¹⁸

This study interviewed his wife, Mrs. Reiko Kayano, and his second son, Mr. Shiro Kayano, and found his house history from his birth to his death¹⁹ – as shown in Figure 4.

Place: the first house he was born in was on the other side. After moving to about 600m to the north, his second to fourth houses were built on almost the same site. His wife now lives in the fourth house.

Houses: the first house, his father's house, was photographed by Takabeya in 1940. Referring to Sakuma's study, it was "spindle-wall thatched-roof hipped-roof architectural structure" as Type B. The photo taking from north to south direction, the two windows were on the east and south sides in Takabeya's drawing.

When he bought the land, he built the second house himself and used it for almost twenty years, adding outdoor bathrooms, etc. The photo was taken from south to north, facing south as in the original "Chise" layout (Fig.1). The toilet was outside on the west side of the house. According to Mrs. Kayano, they had "Nusa", a sacred altar, on the east side of the house.

The third house was built by local carpenters in concrete block construction with galvanized steel shingles, a two-storey house with an 8-tatami mat kitchen and an 8-tatami mat living room and bathroom on the 1st floor and two rooms (6 tatami mats) on the 2nd floor. The toilet was outside but was later added to the house.

The fourth house was built by his youngest brother, a carpenter, as a wooden structure with a single asphalt roof. The toilet was inside the new house.

The biggest change in construction, layout and scale was the third house, built in the 1960s.



Figure 4. The house of Mr. Shigeru Kayano (1926-2006)²⁰

Considerations - Transformation of houses

This study, which found the greatest change in the construction, layout, and scale of Ainu houses in the 1960s, looked at the government's general housing policy. In 1953, the "Law on the Promotion of the Construction, etc., of Houses with Protection against Cold Weather in Hokkaido" was enacted. It required all public housing and other government-funded housing to be of basic or higher fireproof construction. At that time, most public housing was built with concrete blocks. In Nibutani, the first house with concrete blocks was built in 1954.²¹ Nowadays, however, most houses are not built with concrete blocks. As they have become more airtight, the problem of condensation has become more apparent. As Mr. Kayano's house was rebuilt in 1990 with timber construction, the same problems were heard from Mrs. Kayano at the hearing.

It seems reasonable to conclude that Mr Kayano's house, built in 1967, is affected by these laws. One is the government-funded "Project to Combat Poor Environmental Neighborhoods", launched in 1961, and the other is the "Act to Promote the Construction, etc., of Houses with Protection against Cold

Weather in Hokkaido", launched in 1953. Then, because of the problem of condensation, the house was rebuilt with wooden construction.

TRANSITION OF NIBUTANI AND OTHERS

In 1960, Nibutani's occupation was farmer (58.8%), day laborer (35.1%) and unemployed (4.4%), and the rate of dilapidated houses in Nibutani was 70.2%, below the average of 69 per cent,²² meaning that the village was slightly poorer and less modernized. With the help of the Biratori-town, the villagers discussed ways to overcome their situation.

The government-funded project from 1961, which subsidizes welfare and housing facilities, focused on such villages, and in 1961 the first "Seikatsu-kan", a community center that also provided vocational training such as woodcarving, and public housing were built in Nibutani. The Nibutani Community Pig Farming Association was formed with the help of a poverty alleviation grant in 1961. The communal wells and collaborative workshop were constructed in 1963. In 1965, with the opening of the Nissho Road, a national highway linking the Pacific Ocean to inland Hokkaido, the number of tourists increased,

and the Nibutani shopping street and folk craft shops were established along the road. District roads have also been upgraded by the project.²³

Fact-finding survey in 1972,²⁴ 1979,²⁵ 1986,²⁶ 1993²⁷ and 1999²⁸

As above mentioned, with the cooperation of the Association, the Hokkaido government began the seven-year Hokkaido Ainu welfare measures in 1974 based on the 1972 fact-finding survey. Since then, the survey has been conducted every 7 years and executed four sets of welfare measures over a period of 28 years based on the outcomes.²⁹ One of the results on the employment of Ainu by industry is shown in Figure 5. The proportion of agricultural workers was rapidly declining in the late of 1970s, while the construction and manufacturing industries and the service sector were increasing.

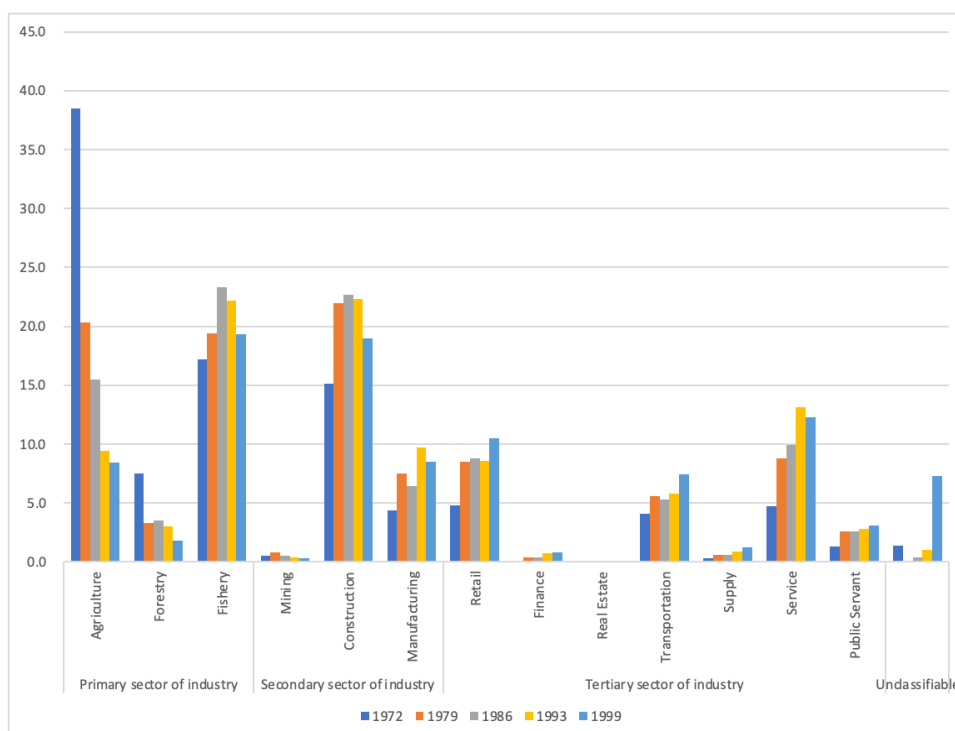


Figure 5. Percentage of employment by industry of Ainu People³⁰

CONCLUSION

Under Japanese assimilation policy, most Ainu lived in 'chise' until the 1960s, although the government had drawn up a standard plan in 1937 showing the inheritance of Ainu living culture on the plan. After the enactment of the Public Assistance Law in 1946, which abolished special administrative measures for the Ainu people through equality before the law, the government-funded project to eliminate poor environmental neighborhoods, launched in 1961, later the Hokkaido Ainu Welfare Measures, was the basic measures to rebuild Ainu houses. However, the houses were rebuilt without inheriting "chise" because the government support required the houses to be of basic or higher fireproof construction. After the 1960s, the Hokkaido Ainu Welfare Measures, comprehensive measures, brought about the greatest change in the construction, layout, and size of Ainu tribe's houses.

Better jobs, from farming to woodcarving, etc., led to an improvement in their livelihoods after the 1980s. A detailed analysis of the change in housing culture will be presented in a future paper.

NOTES

¹ Manabu Sakuma et al. “Actual Conditions of Architectural Structures of Ainu Settlement at Nibutani in 1940. Based on “Collection of Thatched-Roof Houses of Ainu” by Fukuhei Takabeya,” *Journal of Architecture and Planning, AIJ*, 79 (709) (2014):2733, doi: 10.3130/aija.79.2733

² Fukuhei Takabeya, *Nibutani Village Photo Album* (privately printed, 1940), 1-12
Hokkaido University Library collection, call No.720/TA/別ア

³ Takabeya, *Photo Album*,5

⁴ Takabeya, *Photo Album*,3

⁵ Toru Onai, “Problem Awareness and Survey Outline,” Report on the Hokkaido Ainu Living Conditions Survey: Ainu Report, Part 1(2011):1,
https://eprints.lib.hokudai.ac.jp/dspace/bitstream/2115/48203/1/AINUrep01en_002.pdf.

⁶ “Database of cultural property”, Agency for Cultural Affairs, Government of Japan, accessed February 19, 2024, <https://kunishitei.bunka.go.jp/heritage/detail/412/00003550>

⁷ “Law Search”, Government of Japan, accessed February 19, 2024, <https://elaws.e-gov.go.jp/document?lawid=431AC0000000016>

⁸ Government of Hokkaido, *History of the Protection of Hokkaido Former Aborigines*, (Sapporo: Government of Hokkaido,1937),340-341

⁹ “Former Aboriginal housing is finally being improved,” *Hokkai Times*, June 19,1937

¹⁰ Government of Hokkaido, *Promotion of measures to combat poor environmental areas* (official document,1960), 12

Hokkaido Prefectural Library collection, call No. 7.49/HO

¹¹ Yuji Kawakami, *The Story of Saru-unkur*, (Tokyo: Suzusawa Book, 1976), 54

¹² Government of Hokkaido, *Standard Design for Housing Improvement in Relation to Hokkaido Former Aborigines Protection Act*, (official document,1937): *attached plans*.

Hokkaido Prefectural Library collection, call No. 7.52/HO

¹³ Government of Hokkaido, *Promotion of measures*,1-2

¹⁴ “Outline of the Association,” Ainu Association of Hokkaido, accessed February 19, 2024, <https://www.ainu-assn.or.jp/english/outline.html>

¹⁵ Teruki Tsunemoto, “Requests for Ainu Policy Measures,” Report on the Hokkaido Ainu Living Conditions Survey: Ainu Report, Part 1(2011):117,
https://eprints.lib.hokudai.ac.jp/dspace/bitstream/2115/48212/1/AINUrep01en_011.pdf

¹⁶ Sakuma, “Actual Conditions at Nibutani in 1940”:2737

¹⁷ Takabeya, *Photo Album*, 5,6

¹⁸ “Shigeru Kayano”, Kayano Shigeru Nibutani Ainu Museum, accessed February 19, 2024, <https://kayano-museum.com/>

¹⁹ This study interviewed his wife, Mrs. Reiko Kayano on December 9, 2022, and did again with his second son, Mr. Shiro Kayano on January 19,2024. The two photos, the third and fourth houses, were the courtesy of her on 19 January 2024

²⁰ (Photo in 1940) quoted in Takabeya, *Photo Album*,5, (Photo in 1960s) quoted in Reiko Kayano. *Kayano Shigeru's life in pictures*. Rural Culture Association,2008:9, (Photo in 1989 and 1990s) the courtesy of Mrs.Reiko Kayano on January 19, 2024

²¹ Nibutani Village History Editorial Committee, *Nibutani*, (Nibutani Autonomous Association, 1983),160

²² Government of Hokkaido, *Promotion of measures, appendix*

²³ Nibutani Committee, *Nibutani*, 162

²⁴ Government of Hokkaido, *Hokkaido Utari Fact-Finding Survey Report in 1972*, (official document,1973)
Hokkaido Prefectural Library collection, call No. 7.35/HO

²⁵ Government of Hokkaido, *Hokkaido Utari Fact-Finding Survey Report in 1979*, (official document,1979) Hokkaido Prefectural Library collection, call No. ㊴.35/HO/S54

²⁶ Government of Hokkaido, *Hokkaido Utari Fact-Finding Survey Report in 1986*, (official document,1986) Hokkaido Prefectural Library collection, call No. ㊴.35/HO/S61

²⁷ Government of Hokkaido, *Hokkaido Utari Fact-Finding Survey Report in 1993*, (official document,1994) Hokkaido Prefectural Library collection, call No. ㊴.35/HO/H5

²⁸ Government of Hokkaido, *Hokkaido Utari Fact-Finding Survey Report in 1999*, (official document,2000) Hokkaido Prefectural Library collection, call No. ㊴.35/HO/H11

²⁹ Tsunemoto, "Requests for Ainu Policy Measures,":117

³⁰ Quoted in notes 24-28

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Government of Hokkaido. *Hokkaido Utari Fact-Finding Survey Report in 1993*, official document,1994.

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KAN YAKHCHĀL AS A MEETING PLACE FOR IRANIAN COMMUNITIES AND AFGHAN IMMIGRANTS

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INTRODUCTION

In today's world, electric freezers have become an essential tool for making ice. However, it is important to remember that ice is a natural form of water and the process of making ice in freezers is just an imitation of this natural process. This raises an interesting question - how did people in hot and arid regions, like many parts of Iran, cope with the heat before the invention of electric freezers? In travelogues like Chardin's,¹ Polak's,² and Dieulafoy's³ it is mentioned that Iranians used to enjoy ice cream on hot summer days, which raises the question of how they managed to do so. The answer lies in the utilization of ancient yakhchāls which are bioclimatic structures in which, ice was produced, stored, and sold. The produced ice provided cool water, helped keep foods and fruits fresh, and even produced tastes like ice cream without using electricity. The structure was built using cheap and easily available materials that were obtained through thousands of years of indigenous knowledge. These ancient structures are often overlooked, neglected, either abandoned or demolished in modern times because it's thought that they are useless nowadays.

Iranians and Afghans still refer to modern refrigerators as "yakhchāl," which means "ice pit" in English. This is not because they are unaware of the modern term for a refrigerator, but rather because they understand the historical significance of the word. Even though refrigerators no longer resemble pits or trenches, the use of the term "yakhchāl" is a nod to its origins and cultural heritage.

The yakhchāl in Kan, which is the subject of this article, is currently in a state of disrepair, but it is still standing. There is a large area next to it that was previously used for growing summer crops. In the surrounding area, there is a relatively high number of Afghan immigrants and refugees, as well as many internal immigrants. Immigration, whether it is legal or illegal, is changing the world, and it is crucial to have physical places where people from different backgrounds can come together and communicate beyond the digital age. The vacant land beside the historical site has the potential to serve as a meeting place for people to gather and promote peace. In this era, peace largely means peace with the environment. It is essential to use direct and indirect ways to educate people about the importance of environmental issues and the steps that can be taken to improve the quality of life on this planet. Spending time in and around such an ancient bioclimatic structure, observing it, and learning about it, may serve as an inspiring place for learning from the past and creating a better future.

A Short background of Iranian bioclimatic architecture

Iran has a rich history of architecture that coexists with the environment. This is because the Iranian people have lived in diverse lands that present unique challenges in terms of geography, climate, and limited resources. This approach to living in harmony with nature has been given various names in modern times, such as environmentally friendly architecture, sustainable architecture,⁴ ecologic architecture,⁵ or bioclimatic architecture.⁶ There are many well-known bioclimatic structures in Iran with historical backgrounds dating back as far as thousands of years ago, including qanāt⁷ or kārīz (an underground water channel), āb-anbār⁸ or water reservoir, kabūtar-khāneh⁹ or pigeon house, khār-khāneh¹⁰ or thorn house, bādگیر¹¹ or wind-catcher, asbad¹² or Persian windmill, āsiyāb¹³ of watermill, and yakhchāl¹⁴ or ice house/pit.

YAKHCHĀL

Yakhchāl is a traditional structure found mostly in Iran, Tajikistan, and Afghanistan. Its purpose was to produce, store, and provide ice during the warmer months of the year. While the geographical and climatic conditions were the main determinants in the shape and components of yakhchāls, they were typically composed of a large shade wall, which could be up to 10 meters high and situated in an east-west direction to cast a shadow on the ice during the day. This allowed the ice to remain frozen for longer hours. A pool was located in the north of the shade wall, and a subterranean storage space or pit, usually covered with a dome or vaulted roof, was used to store the ice. The shape of the storage space could be either square or rectangular, depending on the plan. Since the land on the outskirts of the cities was cheaper, yakhchāls were typically constructed in a vast area, relatively far from the cities or villages, but close to rivers, streams, or qanāts.¹⁵

Design and the combination of local materials and mortar like lime, sand, cement, and sarooj (a kind of mortar out of clay, water, and the white part of an egg), their proportions, and thickness, and the measurements (like depth and height), with subtleties of indigenous knowledge preserved ice for hot summer days.¹⁶ More details are illustrated in Figure 1.

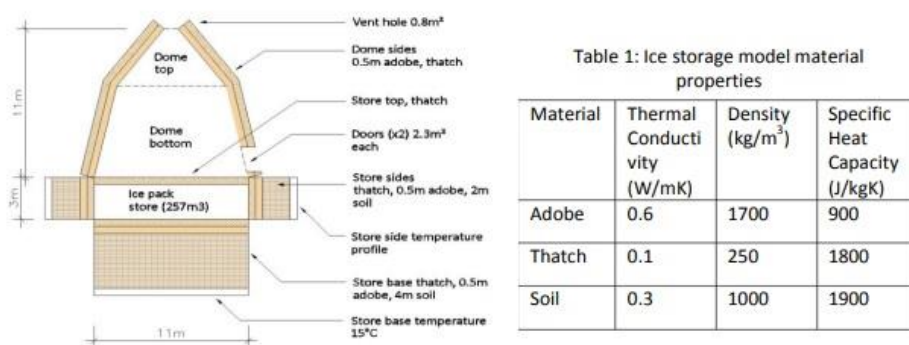


Figure 1. A schematic section of a typical yakhchāl and local insulation materials by Pochee, Gunstone, & Wilton, 2017

How did a yakhchāl work?

Water was directed from a river or qanāt to the pool through a stream on freezing winter days. The shading wall kept the ice cold enough for the time of harvesting. The ice pieces were broken into smaller pieces and taken to the reservoir or pit. There, water was added to get a more homogeneous ice. Then straw or wicker was put on each layer. The harvest was repeated over and over and new layers were added. This, facilitated break and use of ice during the summer sales.

Jean Chardin in his travelogue (1643-1713) gives a detailed description of how ice is produced in the yakhchāl. He writes about the good quality, cleanliness, and brightness of the produced ice,¹⁷ while Jakob Eduard Polak, the Austrian Physician in the Qājār court (1855-1860), writes about the bad and dirty quality of the ice brought from yakhchāls.¹⁸ Jane Dieulafoy, who visited and excavated in Iran three times between 1881 to 1884, also gives a short description of ice production in yakhchāl and its price and annual income.¹⁹ In an illustration in her travelogue, a structure very similar to a yakhchāl is seen in a village close to Shūshtar, in Khuzestan province.²⁰ See Figure 2.



Figure 2. 1. An illustration of a yakhchāl in Kashan in John Chardin Travels in Persia 1673-1677
 2. A yakhchāl in Qom by Cornelis de Bruin Dutch Painter 1703-1704
 3. A yakhchāl in Garmsar by Jules Joseph Augustin Laurens French Artist 1846-1848
 4. A yakhchāl near Shūshtar by Jane Dieulafoy 1881-1884

Typologies of yakhchāls

The shape and components of yakhchāls depend on the geographical and climatic conditions. Valibeyg et al. classified yakhchāl types into six main types:²¹

1. Simple yakhchāl, with a roofed reservoir and no wall and pool. This design was built in cold areas like Hamedan where crushed snow was turned into ice and stored in the roofed reservoir.²²
2. Without a roof, which was built in hot and arid southern semi-desert climates like Isfahan. This type of yakhchāl featured a wall that was over ten meters high and more than twelve meters in length and a pool, about three meters deep, that ran parallel to the wall.²³
3. Without a shading wall, it was found in hot and arid north-eastern semi-desert climates, such as Semnan. These were built in such a way that the oblique angle of the sun had little influence on the pools, which were not too deep. Additionally, the large temperature difference between night and day in these areas made it easy and fast to store ice in the yakhchāls.²⁴
4. Complete yakhchāl, with pool, shading wall, and covered reservoir, is typically found in hot and dry desert climates on the edge of low and relatively warmer plains, like many parts of Iran. The winters can be freezing while the summers are very hot. In this climate, the angle of the sun and the high temperature make the shading wall essential for preparing ice. In these yakhchāls, the storage is usually covered with a dome.²⁵
5. Underground with domed or vaulted reservoirs, this type of yakhchāl was built in the hot and dry climate of the northern semi-desert areas like Tehran and Saveh, as well as in some cold climates such as Tabriz. These yakhchāls functioned similarly to the ones with domed reservoirs, but the plan and

roof shape were different. The reservoir was semi-sunken in the ground, and thick walls were made with carcass stone or bricks and mortars like sarooj. The roof was generally covered with vaults, ribbed vaults, or barrel vaults in brick. To make the ice, the plots or pools were frozen, and then the ice was poured into the reservoir. Water was sprinkled on the ice every time it was poured in so that the mass of ice became one piece. The layers of ice and the top of the ice were not covered with straw in these yakhchāls because of their relatively cold climate, and the ice inside the yakhchāl remained frozen until summer. In the western and northwestern regions of the country where the weather is cooler in the summer compared to the warmer areas of the desert, the consumption of ice was less, and so the number of these types of yakhchāls is less than the dome-shaped yakhchāls. From an economic point of view, most of the underground yakhchāls, just like the dome yakhchāls, needed a relatively large area for the preparation of ice due to their large dimensions.²⁶

6. Tunneled yakhchāls that their reservoirs are in the form of long rectangular corridors which are measured about five meters in width and ten meters in length. They usually are covered with barrel vaults in brick. Next to the corridor, there is a semi-sunken vault leading down into the basement through several stairs.²⁷ These types are seen in Figure 3.

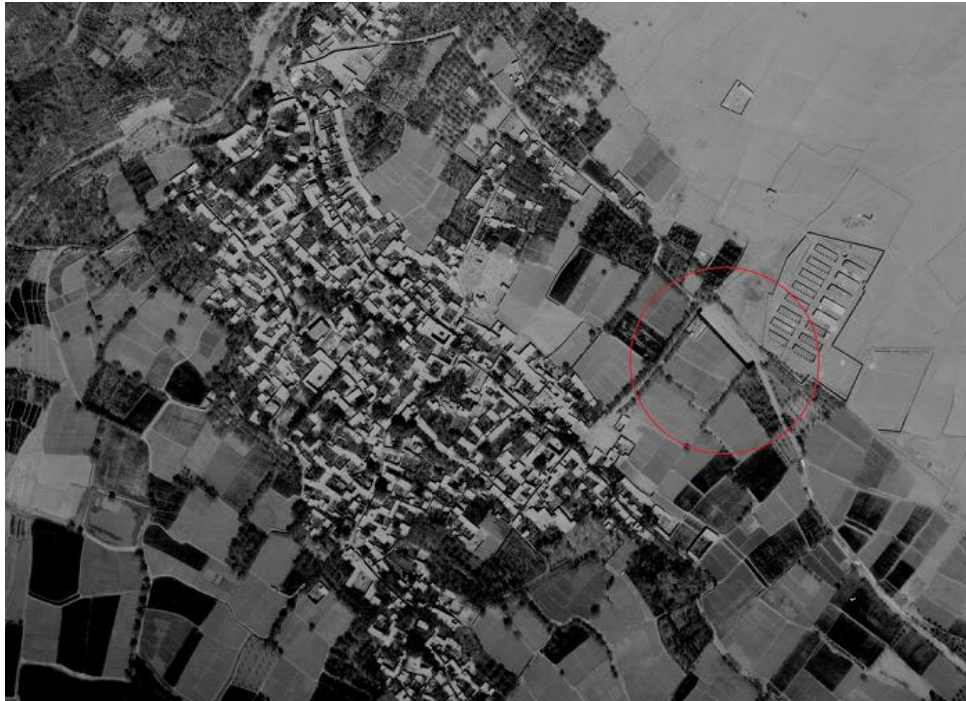


Figure 3. 1. A simple yakhchāl 2. A yakhchāl without a roof 3. A yakhchāl without a shading wall 4. A complete yakhchāl in Maybod 5. Two underground yakhchāls in Qom 6. A tunneled one in Tabriz Hemming Jorgenson, Mokhlessi

KAN

Kan, which is now a part of Tehran in the northwest, used to be known for its beautiful natural scenery, fruit orchards, hunting grounds,²⁸ and cool climate, courtesy of the Kan River. The area was one of the most popular recreational spots for the residents of Tehran, during Qājārs (1789-1925).²⁹ Kan is often mentioned alongside Ray in historical texts. Ray is one of the oldest cities in Iran and predates the capital, Tehran.³⁰

Today Kan is surrounded by highways, which divide the residential core and orchards. Kan can be divided into five neighborhoods. In recent decades, Kan has become a popular destination for both local and foreign immigrants, especially Afghans, due to its affordable rural housing. Despite the development of new urban spaces, constructions, and apartment buildings, the main old core of the village has preserved its original form, with small houses, narrow streets, and plenty of greenery. Under the shadow of historical Plain trees, a brick bridge, a hammam (public bath), one water reservoir, a tekyeh (a religious building of Shia Muslims), and the yakhchāl are among historical places in Kan.



*Figure 4. The residential core of Kan with the yakhchāl indicated with a red circle
Aerial photo from The National Geographic Organization of Iran in 1962*



*Figure 5. Today's Kan with the yakhchāl indicated with a red circle
Satellite photo from the Google Earth in 2023*

The Yakhchāl of Kan

Valibeyg et al. have categorized the yakhchāl of Kan as an underground yakhchāl.³¹ It has all the necessary components of a complete yakhchāl, including a shading wall aligned in the east-west direction with a slight angle towards the east, a pool on the north side of the wall that is about two meters deep, and a semi-sunken ice reservoir on the south side that is seen in Figure 6. However, the shading wall has collapsed except for its eastern and western parts, as is seen in Figure 7. The entrance to the ice reservoir from the wall remains intact, but it is filled with relatively large river stones. See Figure 8. The pool has been filled, and some of it has been given to the sidewalk. The roof of the ice reservoir has fallen in, except for a small part near the shading wall, which indicates that the

roof had collapsed and was repaired at least once in the past. See Figure 9. The pillars are made of bricks and the walls have remained standing. Pillars are made of bricks while the walls in between are made of river stones. The shape and size of the bricks suggest that they probably belong to the late Qājār period.³²



Figure 6. The yakhchāl of Kan in 1960 (left) and 2023 (right)

Aerial photo from The National Geographic Organization of Iran & Satellite photo by the Google Earth

The National Geographic Organization of Iran's aerial photos from 1960 depict the yakhchāl in excellent condition, with the wall, pool, and reservoir all intact. The shadows of six small continuous oval domes (cheshmeh-tāq) are visible, which may have had holes in their tops for ventilation and light inside. Unfortunately, the shading wall collapsed around 2004 or 2005, according to the neighbors.³³ The western and southern sides of the large area to the south of the yakhchāl, which was used for preparing ice during the winter and growing summer crops, are now occupied by small houses. The main part remains without any specific function. As a result, this historically significant site is currently unsecured and at risk of being demolished by the municipality. It's worth noting that the yakhchāl of Kan is not registered in the National Heritage List.



Figure 7. The shading wall of the yakhchāl of Kan



Figure 8. The entrance in the wall to the ice reservoir of the yakhchāl of Kan



Figure 9. The ice reservoir of the yakhchāl of Kan is seen with the shading wall and its entrance in its new surroundings

AFGHAN CITIZENS IN IRAN, IN KAN

During the 1979 revolution in Iran, many Afghan citizens sought asylum in various cities of Iran. Over the past few decades, the number of Afghan citizens has fluctuated. With the recent return of the Taliban, the number is close to five million.³⁴ They face various social and political issues and need adequate housing. Many families have found affordable housing in the outskirts of Tehran, such as the Kan district, which offers small houses, far enough from the city center to be affordable, yet close enough for daily commutes.

According to the latest update from UNHCR Iran on the arrivals from Afghanistan to Iran, between January 1st, 2021, and December 31st, 2023, 39% of the new arrivals from Afghanistan have settled in Tehran.³⁵ 31% of people flee due to fear of persecution based on their profile, 27% due to economic reasons, 19% due to public disorder, 18% due to fear of the Taliban, and 5% due to other reasons relating to vulnerable groups.³⁶

Kan is one of the districts hosting plenty of Afghan families, either for the short or long term. One of the popular online newspapers writes in a report titled: "Directly from Kabul to Kan, what do immigrants do in the west of Tehran?" and discusses the interdependence of Afghans and native people in Kan.³⁷

Yakhchāl in Afghanistan

Despite the lack or absence of formal academic sources on historical yakhchāls in Afghanistan, informal sources and dialogues with Afghan people indicate that there are many yakhchāls in Afghanistan, still referred to as yakhdān and yakh-khāneh, both Persian terms meaning "place of ice" or "ice-house". Some of them are Gazorgah, Bagh-e-dasht, Howz-e Karbas, Baba Khan, Azadan, and Sardar Noor Mohammad Khan. Despite their significance, many of these yakhchāls have fallen into disrepair and are neglected or abandoned. However, they represent an important part of the shared tangible cultural and architectural heritage between Iranians and Afghans, and there is still a chance to explore and learn from them, as seen in Figure 10.



Figure 10. A few examples of yakhchāls in Afghanistan
Photographs shared on social media

Yakhchāl of Kan as a meeting place to promote indigenous knowledge and peace

The yakhchāl of Kan is in a unique situation, as it is home to many Iranian and Afghan immigrants, who have different backgrounds, similarities, and differences. The yakhchāl used to be far from the residential area, but now it is situated at a crossroads between the old part and the new apartments, which is advantageous. Despite the rapid development of Kan, the yakhchāl has managed to maintain its original form and vastness, making it quite extraordinary. Although it is currently in a dilapidated state, its fundamental components are still easily discernible. What sets the yakhchāl of Kan apart from other yakhchāls is its roof with cheshmeh-tāq, which is typically used to cover the roof of bazaars.³⁸ All of these factors make the yakhchāl of Kan an ideal place for gatherings, interactions, meetings, and learning. It is important to recognize that global peace is closely linked to the improvement of global environmental conditions. By gathering in and around unique and valuable bioclimatic buildings and sites, one can provide insights for future generations to learn about indigenous knowledge, stay up-to-date, and work towards a better world. This historic and bioclimatic site needs to be restored, and the land previously used for growing summer crops has the potential to be designed as a meeting place. The whole place can be revitalized and turned into an exceptional open-air meeting place for all residents of our unique planet.³⁹

CONCLUSION

Migration occurs worldwide due to various reasons including political instability, the pursuit of a better lifestyle, and climate change.⁴⁰ There are estimations that global climate change triggers more migration and displacement.⁴¹ Countries, whether origin, transit, or destination, need to have more

tolerance and knowledge about each other, which require more interaction, acquaintance, and meeting. Besides academicians and scientists, Ordinary people, including young generations should be encouraged to learn about indigenous knowledge and technologies of the past as a source of inspiration for the future. A study conducted in Yazd showed that the traditional ice-making process of yakhchāl has the potential for contemporary applications, despite global warming. Providing creative activities and spaces, like yakhchāls, for people to meet and interact may bring more inspiration.

NOTES

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MEMORIAL OF THE 1980 RIO SUMPUL MASSACRE, CHALATENANGO, EL SALVADOR: THE PARTICIPATORY DESIGN AND COLLABORATIVE REALIZATION OF A GRASSROOTS PROJECT

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INTRODUCTION: THE RIO SUMPUL MASSACRE, 14TH OF MAY 1980

From the late 1970s until 1992, the Salvadoran Army (*Fuerza Armada de El Salvador*), the National Guard (*Guardia Nacional*), and the paramilitary group ORDEN perpetrated numerous massacres against civilians in rural El Salvador, as part of a US-backed government strategy of violent oppression, including assassinations, disappearances, torture, forced displacement, and scorched earth tactics (*operaciones de tierra arrasada*). Victims were targeted because of their perceived support of different factions of guerilla groups opposing the repressive regime.

In Chalatenango, particularly the territories near San José Las Flores, Arcatao, and Las Vueltas, civilians sought refuge in a hamlet known as Las Aradas,¹ by the Sumpul River, on the Honduran border, in early 1980. By mid-May, thousands had gathered there, some escaping the military operations in the region and others repelled from across the border by the Honduran army.²

In the morning of the 14th of May, the Salvadoran Armed Forces, ORDEN, and the National Guard massacred approximately 600³ civilians with the passive support of the Honduran armed forces, who prevented people from crossing the river. Many were killed on land, while others were shot or drowned in the river as they attempted to escape the onslaught. Access to the site was denied in the weeks following the massacre, preventing the retrieval of bodies for proper burials.

The Rio Sumpul Massacre (*Masacre del Rio Sumpul*) – as it is now known – was among the first large scale massacres in the region, marking a significant moment precipitating the civil war, alongside other events such as the assassination of Monseñor Romero, the archbishop of San Salvador, on the 24th of March, 1980.

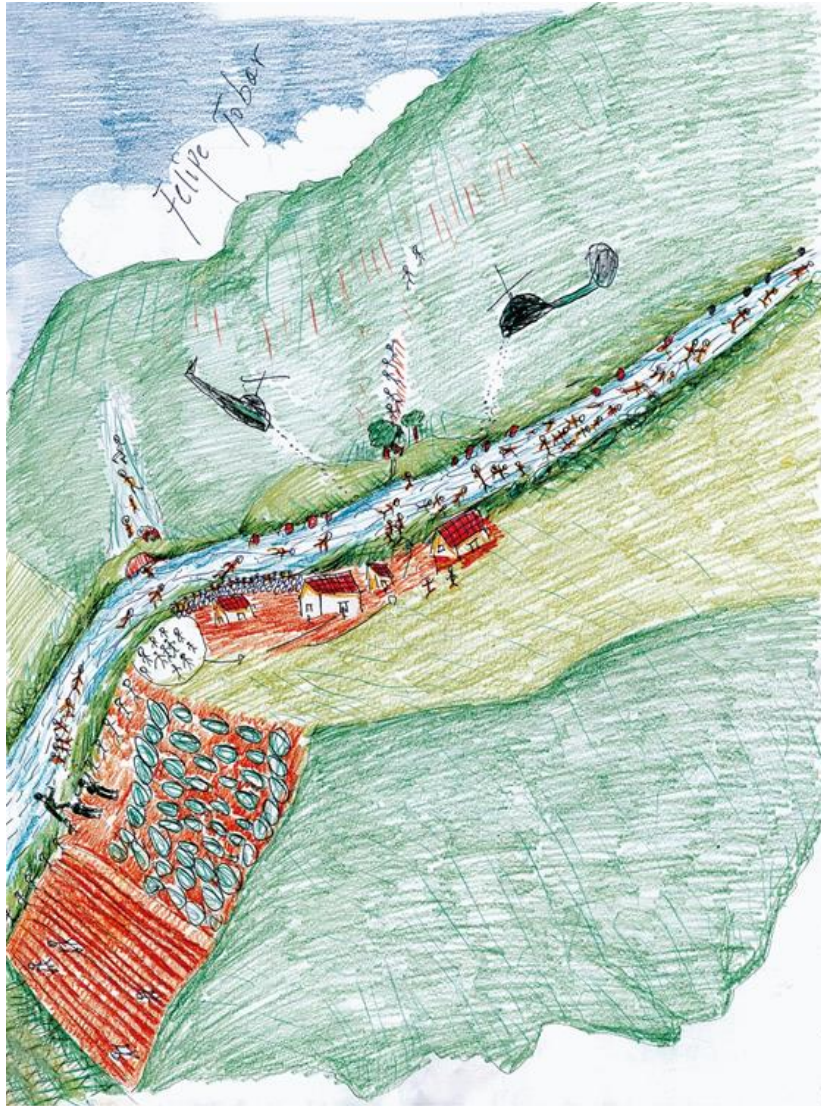


Figure 1. Map of Las Aradas, according to the remembrance of Felipe Tobar⁴

FROM MASSACRE AND VIOLENCE TO GRASSROOTS COMMUNITY BUILDING

After the massacre, surviving Chalatenango populations were forced into displacement. Some relocated in Honduras, mostly in the refugee camp of Mesa Grande. Some remained in El Salvador, living in constant flight from military operations (*guinda*⁵). Many sought periodic protection in the guerilla forces.

In the context of the guerilla, *guindas*, and refugee camps, civilians acquired emancipating skills and knowledge. Violeta Menjívar, a doctor in clandestine hospitals during the civil war and later the national Minister of Health (2014-2019, FMLN⁶), illustrates how this situation catalyzed empowerment, especially of women, amid repression:

“These young girls of 12, 16 years old, transformed and played an impressive role. Attending to seriously injured people under very precarious conditions was quite a tough task. Being trained in medical work and receiving education, these young girls underwent a transformation that empowered them, taking them away from domestic work and leading them to save lives.”⁷

From 1986 on, villages such as San José Las Flores and Las Vueltas were gradually repopulated despite ongoing repression and paramilitary harassment. Building upon the experience gained during

the displacement, grassroots organizational committees emerged, essential in the repopulated areas, which were excluded from state support. Collectively, they addressed most aspects of life in their communities. Belén Monge, born and living since 1987 in San José Las Flores, recounts:

“The village was completely destroyed. The knowledge each person had acquired from wherever they had been, was used to form committees. A health committee attended to injuries or illnesses. Popular teachers who had learned to read and write during the conflict composed an education committee. Another committee worked in the cornfields, planting and harvesting for the entire community. Another group was fixing the roofs, since it was the rainy season.”⁸

Having no legal status, these committees were born from spontaneous and solidary organization, to the benefit of the entire community. Their specialization guaranteed efficiency and rested upon a principle of complementarity, quite in the sense of Kropotkin’s idea of voluntary associations in self-governing communities.⁹

THE EMERGENCE OF A COMMUNITY-BASED COMMEMORATION ORGANIZATION

Miriam Ayala, a survivor who participated in the first clandestine commemoration at Las Aradas in 1987, describes the experience:

“The war was ongoing. There was fear. A considerable number of people took part. We carried small white flags to identify ourselves as civilians in case a plane passed by, since the army could attack and massacre us”.¹⁰

After the Peace Agreements, the first documented commemoration in 1992 and a small monument in 1993 led to the formation of a historic memory committee (*Comité de Memoria Histórica*). By 2016, the committee had acquired the land of Las Aradas through community fundraising, aiming to create a memorial. The committee formalized into a non-profit organization in August 2017, known and further referred to as “Asociación Sumpul”.¹¹ Felipe Tobar, president (2017-2020), states:

“The survivors said that we should make a beautiful memorial park there, to remember the children, the women, and the elderly who died there (...) This is the commitment that we have: listening to the people, representing them, and working towards making this place a holy and living space”.¹²

Contemporary commemorations include a 2-3-hours walk to reach the site, departing at dawn – reminiscent of the *guindas* –, evening activities, camping on site, and a mass with survivors’ testimonies and a representation of the massacre by a youth theater group.

Although the massacre was recognized by the 1993 United Nations Truth Commission Final Report¹³ and cultural heritage protection of the land in 2012,¹⁴ local communities still struggle for the official acknowledgement of the more than 60 community-identified massacres in Chalatenango.¹⁵

The Asociación Sumpul was fortified by the completion of a strategic planning process in 2017 with the support of Dr. Amanda Grzyb, professor in the Faculty of Media Studies at Western (London, Canada). On the association’s behalf, Grzyb invited architect and ceramist Evelia Macal whom she had met as an election observer in 2014, to attend their first General Assembly, accompanied by her husband, architect Harold Fallon of AgwA and professor at the KU Leuven Faculty of Architecture (Belgium). This event marked the beginning of a collaboration between the two universities,¹⁶ Evelia Macal, AgwA, and the Asociación Sumpul for the participatory design process of a memorial at Las Aradas.



Figure 2. Commemoration at Las Aradas (unknown photographer, 1992)¹⁷

A TRAJECTORY TOWARDS DESIGN: PARTICIPATION AND PREPARATION

In October 2017, KU Leuven students Melina Doutreloigne and Justine Morlion, supervised by Fallon, began a Master Dissertation design studio focused on the design of the Memorial at Las Aradas. In January 2018, the students and architects conducted a participatory workshop in San José Las Flores. Three rotating groups of about 15-20 survivors and community members each, discussed the themes of Commemoration & Celebration, Landscape, and Construction. Referential photographs displayed on the walls stimulated interventions and suggestions from the workshop participants.

The first workshop discussion investigated rituals, communities, symbolic elements, spaces for celebration, etc. The second group addressed the role of the Sumpul River, plantations, trees, topography, etc. The third discussion delved into construction methods, investment, maintenance, existing skills, etc.

These interactive discussions, while not based on specific design proposals, provided critical insights for the design process and helped shape community expectations.



Figure 3. Workshop moderated by student Melina Doutreloigne (Morlion, 2018)

Notable outcomes included the preferences for steel over wood and adobe over concrete masonry, which led to considering a balance between industrial, ancestral, and popular building techniques.¹⁸ The idea to plant flame trees (*arbol de fuego* - *Delonix Regia*), blooming red in May, emerged from collective reflection. The community confirmed the importance of the monument from 1993 and agreed on its restoration. Discussions on the representation of Monseñor Romero, who was the “Voice of the Voiceless”¹⁹ until his assassination in 1980, led to a consensus on avoiding distant monumentality aiming for a more authentic connection with his legacy.

Prior to the workshops, students and architects, accompanied by Father Rogelio Poncel,²⁰ visited the government and church designed memorials in El Mozote in Morazán.²¹ This experience, combined with Macal’s documentation of the lively commemoration at Las Aradas in May 2018, solidified the vision for the memorial. In order to avoid the formal monumentality observed in El Mozote, the team focused on creating a space open to appropriation rather than representation, thereby nourishing solidarity and unity among participants. An implicit objective of community-based memorials is possibly to fluidify the connections between past, present, and future, by enabling the transition from the reality of loss, death, and trauma to the possibility of hope, life, and resilience.

In June 2018, Morlion and Doutrelouigne presented two design proposals, which contributed to the process as an exploration of potential design strategies, rather than as finalized solutions. Concurrently, Thomas Montulet, an architect at AgwA and a Ph.D. candidate at UCLouvain (Belgium) researching transgression in spaces of mourning, scale models, and ruins, joined the project, contributing his architectural design and theoretical insights.

After nearly a year of research, observations, visits, community interaction, and student designerly investigations, the architects collaboratively developed a concrete architectural proposal. This proposal was then presented and discussed at a General Assembly of the association in October 2018.

NOT MONUMENTS, NOT A CHAPEL: ON SYMBOLS, SPACE AND CONSTRUCTION

The design’s main feature is the planting of over 250 flame trees in a 7m*7m grid by community members. The irregular exterior edge of the plantation blends into the natural surroundings, while a central 63m*63m “square” forms a distinctive void,²² revealing the massacre’s original soil, without pointing to a specific locus.

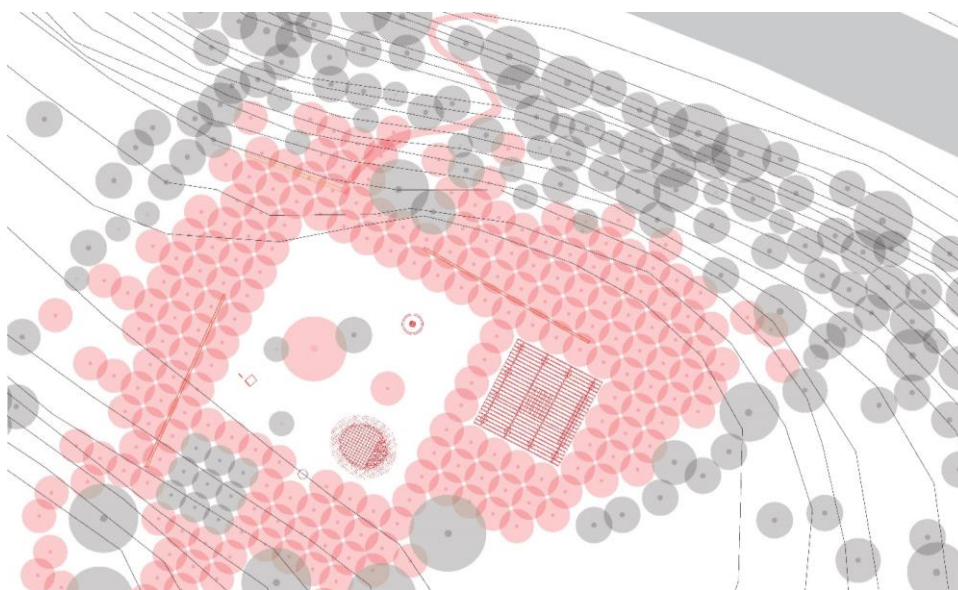


Figure 4. Plan of the Memorial of the Rio Sumpul Massacre²³

Key symbolic elements within this space include the 1993 monument, a rounded memorial with ceramic plaques listing the victims' names slightly below the ground level (referring to the dispersion and unknown exact number of bodies), a circular bench and collective fireplace; a Maquilishuat (Tabebuia Rosea, the national tree of El Salvador), and a ceiba (Ceiba Pentandra, the sacred tree in Maya theology connecting the upper, middle, and underworld,²⁴ traditionally marking new settlements).

Bordering the central square, one flame tree is replaced by a polychrome, life-sized, and realistic statue of Monseñor Romero, inspired by the mural painting ornamenting the exterior of the cathedral of San Salvador since 2017.²⁵ Devoid of any base, Romero stands on the same soil as the participants, a humble observer to the commemorations.

The statue and the memorial were created in collaboration with Professors Lourdes Calero and Miguel Mira of the University of El Salvador (UES Escuela de Artes), involving students from their respective sections. Numerous community members, stakeholders, collaborators, and scholars participated to the transport and installation of the art pieces during two large-scale collective activities.²⁶

The most imposing element of the memorial is a large, single sloped roof offering shelter to the commemoration and to a mural painting on a 15m long adobe wall. A grid of 16 columns continuing the pattern of the flame trees and a lightweight, prefabricated steel structure supports the roof. Matiz, a local collective of painters, is creating the fresco to be finalized after the completion of the works in May 2024. Three benches containing river stones frame a space for activities. Similarly to the memorial and the statue, avoiding monumentality but embracing dignity, the roof quietly navigates characteristics of sacred, utilitarian and popular architecture.



*Figure 5. Installation of the memorial and statue of Romero*²⁷

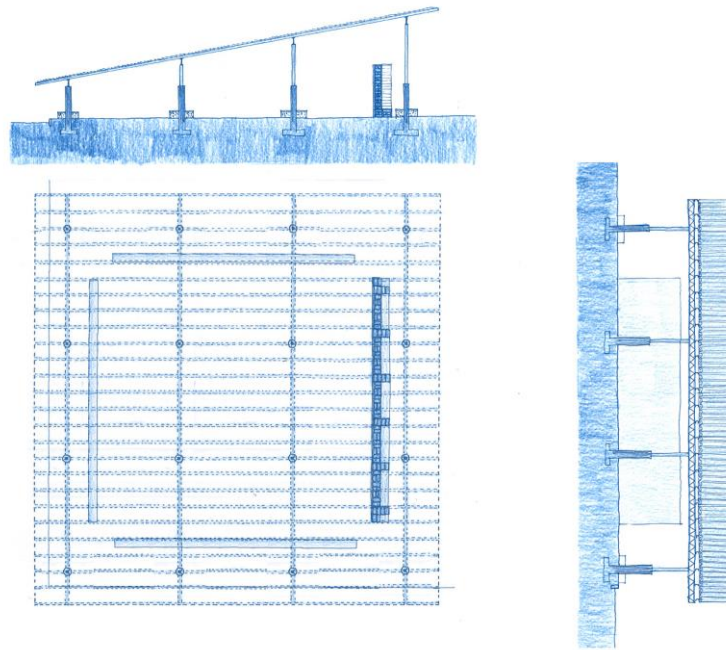


Figure 6. Plan and construction details of the roofed space²⁸



Figure 7. the site at Las Aradas, with the different elements of the memorial under construction²⁹

The adobe wall represents ancestral, low impact building techniques supporting local economics. The rationality of industrial building techniques, such as the prefabricated steel structure, is essential for the feasibility of the project. Popular building strategies, such as the benches of cement and river stones, the formwork made with reused corrugated metal sheets for the concrete columns, or the steel bars supporting the roof tiles, facilitate construction and identification. Together, they create a hybrid yet rooted architecture, resting upon the equal treatment of different types of knowledges and skills.

Fundraising for the construction was a significant effort, with scholars, architects, and artists surpassing their usual roles to support the Asociación Sumpul in this aspect and to activate international solidarity.³⁰



Figure 8. The memorial at Las Aradas under construction in May 2023 with flame trees in the foreground³¹

MEMORIAL FOR THE EL MOZOTE MASSACRE: A COMPARISON

The memorial in El Mozote, Morazán, is associated with a massacre comparable in magnitude to the Rio Sumpul Massacre. The Interamerican Court of Human Rights' decision (Article 370) mandates constructing spaces for memorial and remembrance, and protecting the community-erected monument.³² Situated on the village's square, it consists of a modest wall with the victims' names, a memorial to Rufina Amaya Márquez,³³ and a stylized representation of a family. Next to the church, the Garden of the Innocents (*Jardín de los Inocentes*) includes a mural with the names of the children killed. On the main square, a roofed podium with an informative wall, erected by the FMLN government, was replaced in 2022 by the Nuevas Ideas government with a non-commemorative, walkable fountain. A painted brick wall, representing a brief timeline with key moments leading to the memorial's construction, was added at the back of the Garden of the Innocents. It omits specific naming of the perpetrators and shows signs of degradation. A House of Memory (*Casa de la Memoria*), built in 2022, is currently nonfunctional due to roof leaks.



Figure 9. Memorials and public spaces in El Mozote ³⁴

The Catholic Church's Monument to Peace and Reconciliation ³⁵ (*Monumento a la Paz y la Reconciliación*) is located at a crossroads, offering limited commemoration space, and avoiding explicit references to the massacre, except for the family profile reused from the community's monument. According to Padre Rogelio Poncel, ³⁶ who guided the architects in 2018, the community members view the statues composing the monument as critiquing the civil population's organization and the emergence of the guerilla in the repressive context. The statues include Pope John Paul II, who criticized the Liberation Theology embodied by Archbishop Romero's positions; ³⁷ Mahatma Ghandi and Martin Luther King, known for their pacifist struggles; and Mother Teresa, who was awarded the Nobel Peace Prize in 1979, when Romero was nominated. A parklet in the back of the memorial features a statue of Saint Francis of Assisi, "who loved the animals," as Padre Rogelio Poncel remarked with a smile. The figure of Archbishop Romero himself is notably absent, except for a distant statue on a fenced house set back from the street.

These memorials, supported by the church or government, appear to serve an agenda disconnected from the event's commemoration and the community's feeling and experience, contrasting with a community-driven approach to memorialization. Despite fundraising challenges and lengthy processes, it allows communities to define and embed their agenda, to reflect, participate in design, and collaborate on realization. This results in a space that mirrors their expectations and promotes solidarity and community building. They strengthen the connection between past, present and future, by enabling the transition from the reality of loss, death and trauma, to the possibility of hope, life, and resilience.

CONCLUSION : AN ARCHITECTURE OF RESISTANCE

In April 2021, the now called Surviving Memory in Postwar El Salvador research team received a significant Partnership Grant from the Social Sciences and Humanities Research Council of Canada and was further supported by Western and KU Leuven. The team, including new partners and collaborators, transformed into a deeply multidisciplinary initiative, grounded in participatory, community-based, and decolonial methodologies. ³⁸

Architecturally, the project includes the commemoration sites such as *Guinda de Mayo*, massacres of Laguna Seca/Laguna de San Ramón, Gualsinga and El Higueral, community-based museums in Arcatao, Las Vueltas, San José Las Flores, an Ecclesial Base Community in Comunidad Segundo Montes, Morazán, and the extension of the Museum of the Word and Image in San Salvador. This expansion aims to empower the association on a regional level and to establish a self-sustaining network of historic memory museums in El Salvador, promoting solidarity networks.

Recent commemorations have seen survivors criticize the anti-historic rhetoric and policies of El Salvador's president, who dismissed the Peace Agreements as a "farce",³⁹ and suppressed their commemorations since 2021. Community members often highlight the youth exodus led by fear of arbitrary or targeted imprisonment, under the current state of emergency and the "war on gangs".⁴⁰ The country's trend of centralization, illustrated by the fusion of the country's 262 municipalities into 44 entities,⁴¹ is another source of concern.

In this environment, preserving memory and supporting grassroots organizations, the fundamentals of societal engagement, is vital. The physical spaces embodying this empowerment, as constant public reminders, are crucial for community building, democratic processes, and resistance to authoritarianism. It is not a coincidence that the plan of the Memorial at Las Aradas resembles the foundation of a new city. Architecture has a role to play.



Figure 10. Map of the City of México (1572, based on a previous map dating from 1524)⁴²

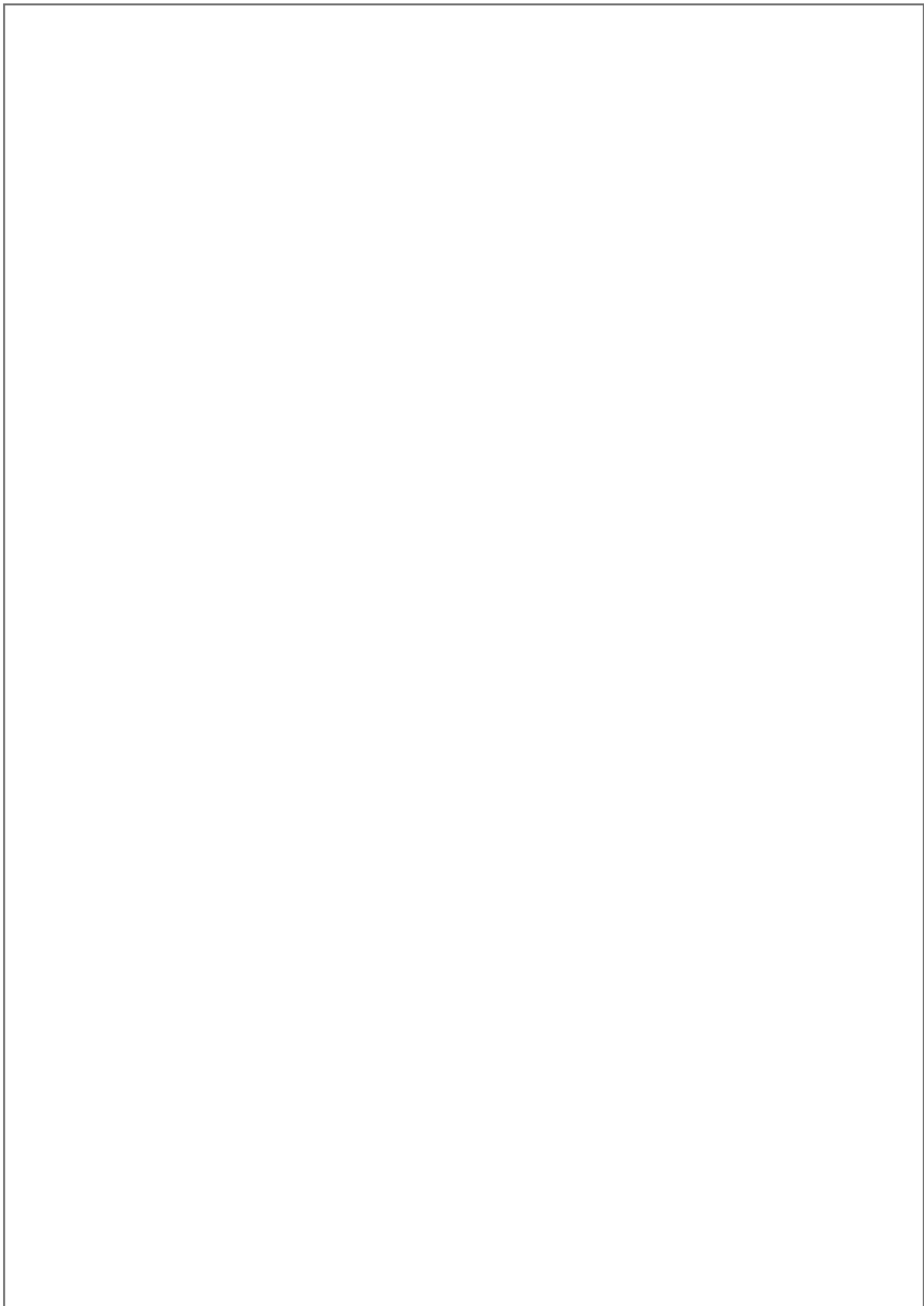
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- ³ United Nations Security Council, "From Madness to Hope: the 12-year war in El Salvador: Report of the Commission on the Truth for El Salvador," S/25500 (1993): 5-8, accessed February 10, 2024, <https://archive.org/details/S25500EN/page/n5/mode/2up>.
400 death are acknowledged in the UN Report on the Civil War in El Salvador. Due to numerous unidentified victims, the Asociación Sumpul estimates a minimum of 600 death.
- ⁴ Molders, *Memorias del Sumpul*, 104
- ⁵ Harold Fallon, Amanda Grzyb, and Thomas Montulet, "Guinda," in *Vesper Journal of Architecture, Arts & Theory*, No. 3, Nella selva-Wildness, IUAV (Venezia: Quodlibet, 2020).
- ⁶ FMLN, Frente Farabundo Martí por la Liberación Nacional, is the umbrella group from five guerrilla organizations during the civil war, and a left-wing political party after the Peace Agreements of 1992.
- ⁷ Evelia Macal, interview with Violeta Menjívar, February 2024.
- ⁸ Evelia Macal, interview with Belén Monge, February 2024.
- ⁹ Pyotr Alexeyevich Kropotkin, *The Conquest of Bread* (Paris, 1892).
- ¹⁰ Evelia Macal, Interview with Miriam Ayala, February 2024.
- ¹¹ "Asociación Sumpul", accessed February 10, 2024, www.asociacionsumpul.org.
The Association of Survivors of the Sumpul Massacre and Other Chalatenango Massacres (*Asociación de Sobrevivientes de la Masacre del Sumpul y las Otras Masacres de Chalatenango*) is also known and referred to as Asociación Sumpul.
- ¹² Interview with Felipe Tobar, "Parque Memorial de Las Aradas, El Salvador", <https://www.youtube.com/watch?v=46U3umBXYKc> – accessed 10/02/2024
- ¹³ UN Security Council, Annex, "From Madness to Hope: the 12-year war in El Salvador: Report of the Commission on the Truth for El Salvador", S/25500, 1993, 5-8.
- ¹⁴ Decision of the Secretariat of Culture of the Presidency of El Salvador in 2012 under the first FMLN-led government: Secretaría de Cultura de la Presidencia de la República, Resolución Interna 007/2012 (San Salvador, 2012), accessed February 10, 2024, http://biblioteca.utec.edu.sv/hemeroteca/NOT_svdo_/2012/DO_20120607f395n104.pdf.
- ¹⁵ Amanda Grzyb, et al., "Mapping the Chalatenango Massacres: Community-Based Research in El Salvador," presented at the FIMS Seminar Series 2023/24, Faculty of Information and Media Studies, Western University, January 17, 2024.
- ¹⁶ The project was funded by a Social Sciences and Humanities Research Council of Canada Partnership Development Grant from 2018 and 2022, and matching contributions from Western and KU Leuven.
- ¹⁷ Molders, *Memorias del Sumpul*, 190
- ¹⁸ Harold Fallon and Thomas Montulet, "Las Aradas Memorial: Engaging in Popular Building Techniques," in *Structures and Architecture: A Viable Urban Perspective?*, Proceedings of the Fifth International Conference on Structures and Architecture (ICSA 2022) (Aalborg, Denmark: CRC Press, 2022), 317-320.
- ¹⁹ Oscar Romero, Michael J. Walsh, Jon Sobrino, and Ignacio Martín-Baró, *Voice of the Voiceless: The Four Pastoral Letters and Other Statements* (New York: Orbis Books, 1985).
- ²⁰ Padre Rogelio Poncel (Father Roger Poncele) is a Belgian priest living in Perquín, Morazán, and who accompanied the communities during the entire civil war.
- ²¹ Rafael Medina Alarcón and L. Binford, "Revisiting the El Mozote Massacre: Memory and Politics in Postwar El Salvador," *Journal of Genocide Research* 16, no. 4 (2014): 513-533.
- ²² A reference used during the design process was : Barry Flanagan, "A hole in the sea", 16mm colour film, Black & white copy held in the collection of Stedelijk Museum, Amsterdam, The Netherlands, 1969
- ²³ Lisa De Visscher, Lara Molino, and Iwan Strauven, *AgWA 2006-2022 – 23 Projects* (Cologne: Verlag der Buchhandlung Walther und Franz König, 2022).
- ²⁴ Charles Zidar and Wayne Elisens, "Sacred Giants: Depiction of Bombacoideae on Maya Ceramics in Mexico, Guatemala, and Belize," *Economic Botany* 63 (2009): 119-129.

- ²⁵ Iván Escobar, "Cristian López, Monseñor Romero y el mural," Puntosdeencuentros, October 24, 2017, accessed February 10, 2024, <https://puntosdeencuentros.wordpress.com/2017/10/24/cristian-lopez-monsenor-romero-y-el-mural/>.
- ²⁶ Memoria Histórica Sobreviviente en El Salvador, "La memoria en camino / Memory on the Way (Las Aradas, El Salvador)," YouTube video, accessed February 10, 2024, <https://www.youtube.com/watch?v=NwkEC237juA>. Memoria Histórica Sobreviviente en El Salvador, "Construir la memoria / Building Memory (Las Aradas, El Salvador)," YouTube video, accessed February 10, 2024, <https://www.youtube.com/watch?v=-0mYTtrkHsU&t=324s>.
- ²⁷ Lisa De Visscher, Lara Molino, and Iwan Strauven, *AgwA 2006-2022 – 23 Projects* (Cologne: Verlag der Buchhandlung Walther und Franz König, 2022).
- ²⁸ Lisa De Visscher, Lara Molino, and Iwan Strauven, *AgwA 2006-2022 – 23 Projects* (Cologne: Verlag der Buchhandlung Walther und Franz König, 2022).
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- ³⁰ The main funders are the Canadian Workers Union LiUNA local 183 and LiUNA OPDC, SSHRC for the art works, and the Arthur Fallon Donations in Belgium. In-kind donations by the United Nations Development Program (UNDP) El Salvador for roof tiles and other materials, and civil engineer Guillermo Candela (CIVING) for the structural design and calculations.
- ³¹ Lisa De Visscher, Lara Molino, and Iwan Strauven, *AgwA 2006-2022 – 23 Projects* (Cologne: Verlag der Buchhandlung Walther und Franz König, 2022).
- ³² Inter-American Court of Human Rights, "Case of the Massacres of El Mozote and nearby places v. El Salvador, Judgement of October 25, 2012 (Merits, Reparations and Costs)," 2012, accessed February 10, 2024, www.corteidh.or.cr/docs/casos/articulos/seriec_252_ing1.pdf.
- ³³ Rufina Amaya Márquez was the sole survivor of the massacre, and she was instrumental in the United Nations investigation and the trial at the Interamerican Court of Human Rights.
- ³⁴ Harold Fallon, and Thomas Montulet. "Las Aradas Memorial: Engaging in Popular Building Techniques." In *Structures and Architecture: A Viable Urban Perspective?*, Proceedings of the Fifth International Conference on Structures and Architecture (ICSA 2022), 317-320. Aalborg, Denmark: CRC Press, 202
- ³⁵ Medina Alarcón and Binford, "Revisiting the El Mozote Massacre," 513-520.
- ³⁶ Father Roger Ponceele (*Padre Rogelio Poncel*) is a Belgian priest living in Morazán since the early 1980, who accompanied the local populations and the guerilla movements during the entire civil war and after the peace agreements.
- ³⁷ Peter Hebblethwaite, "Liberation and John Paul II: The Vatican's Perception of Latin America," *Index on Censorship* 12, no. 5 (1983): 10.
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AMPS PROCEEDINGS SERIES 37

Front cover image: Q K

Rochester Institute of Technology, Chinese University of Hong Kong, University of
Melbourne
5-7 December, 2023

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