



# LIVABLE CITIES LONDON

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## Livable Cities - London A Critique of Issues Affecting Life in Cities



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# INTRODUCTION

## Livable Cities - London

### A Critique of Issues Affecting Life in Cities

Today, the societies, cultures, and the places in which we live and work are increasingly intricate phenomena. Globalization eradicates spatial boundaries to business. Gentrification involves social and political pressure. Pandemics are never site specific or confined to the past. Architecture and urban design are global endeavors. Sustainability requires material and political action. Patterns of criminality are not place bound. Similarly, the need for education and housing are universal and land rights are essential legal tools for First Nations and communities everywhere.

Within this mode of thinking, when we discuss sustainability we must consider local planning and global politics. When we speak about smart cities, we are obliged to consider cyber security and civil rights. When we discuss law and human rights, we cannot ignore economic or social policy. Equally, when we think about food production and consumption, we must consider transportation costs, public health, and more.

In reading livability as an aggregate of forces then, Volume Two of the Livable Cities – London proceedings, seeks to explore how the physical and designed nature of the city informs the livability of our cities, sitting alongside a plethora of other agendas, practices and disciplines. As an inherently interdisciplinary publication then, it explores cities first and foremost as a series of material questions of spatial design and planning but, importantly, accepts that such approaches sit alongside issues of politics, sociological trends, cultural tendencies, media representations, economic policy, planning, the provision of public services and more.

By juxtaposing, comparing and sharing work in various fields then, it is expected that a broader and richer picture will emerge in these pages with respect to what makes the places we inhabit more, or less, livable.



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# BUILDING ADAPTABILITY TO ADDRESS UNRECOGNIZED URBAN PRACTICES

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## INTRODUCTION

Schmidt et al. defined 'adaptability' as a building's ability to change its built environment to respond 'to' and 'fit' with the growing demands of its users while maximising value throughout its lifetime.<sup>1</sup> In the principle of converting buildings, Douglas stated that adopted uses typically necessitate structural, functional, and spatial changes that differ from the original state in order to support the new function.<sup>2</sup> This conversion is often considered sustainable in order to maintain the existing building. In Dhaka, which is the capital city of Bangladesh, not all adaptations or conversions adhere to the established principles. With the scarcity of land, informal urban growth with boosting economies, and ineffective law and supervision of building codes, many of the urban built forms are being used with unrecognised functional adaptation, which directly influences the urban social aspects and built landscape at different scales in Dhaka. This building adaptation is a growing trend and a popular method among business entrepreneurs because it leads to an increase in land prices and encourages pressure on residential users to move out and make way for commercial buildings to be economically viable.<sup>3</sup>

The urban regeneration process is inevitable in a city due to the demand for revised density and function. A sustainable built environment should be able to adapt to unknown future requirements efficiently.<sup>4</sup> Research on the changing notion of urban adaptivity in the built form is gaining momentum due to the rapid user growth of megacities, the emerging real estate market, and the globalisation of trade and production. According to Habraken, the concept of adaptability originated from three spatial strategies: flexibility, convertibility, and expandability.<sup>5</sup> Flexibility, or enabling minor shifts in space planning; convertibility, or allowing for changes in use within the building; and expandability or facilitating additions to the quantity of space in a building, are being prioritised through alternative material, technology, and design approaches for sustainable functionality of resources. Stressing the point from the user's perspective, Habraken mentioned that even if the flexibility is there, a building's longevity is not guaranteed in the absence of the affection and pride of its users.<sup>6</sup>

Following these theories, this paper examines several typical cases of adaptation in residential communities in Dhaka city, with a focus on analysing the spatial strategies involved. This also seeks to lay the possible foundation for future analysis of the adaptive built environment's effects on the nearby neighbourhood.

## **RATIONALE OF ADAPTATION**

It's not always the case that built-form adaptation produces the desired results. The adaptation process and its outcome include benefits and drawbacks. According to Civan, it is cheaper to remodel than to demolish and reconstruct the entire building to remain functional.<sup>7</sup> Corporate offices frequently look for exclusive, independent premises. This typically rents out for less money invested. Therefore, it looks more practical to modify rather than purchase a tiny space in the high-rise office building. Because of the remodelling modifications made by the offices or a third party, landowners generally do not need to invest very much. The prospect that adaptation will lead to a greater narrowing of the gap between the client and designer groups and the building user group supports Zeisel's<sup>8</sup> theory. Therefore, increasing a building's economic life is considered to be sustainable.

Adaptive buildings are being used more efficiently for a longer period of time at a lower cost and with improved environmental performance.<sup>9</sup> Consequently, the duration of a residence is indicative of the evolving requirements of its occupants, who consistently update and modify the space they live. The process of adaptive reuse is beneficial from an economic standpoint, as it allows for the utilisation of the inert value of an asset to prolong the lifespan of a building. Therefore, it is advisable to contemplate the development of properties and structures in accordance with a reuse outcome approach to guarantee extended functionality and expedite the revitalisation process.

Zaman<sup>10</sup> indicated the economic benefits of adaptive reuse of different buildings in the context of Dhaka to save on development costs. He added that the adaptive reuse strategy eliminates the expense of building destruction and site clearing, allowing more effective resource utilization. He proposes that we can save on services, materials, and civil engineering expenses by reusing the superstructure. It reduces waste and saves money. Adaptive reuse schemes also reduce redevelopment costs and construction worker demand due to reduced building durations. Owners can generate income faster due to the shorter building procedure. Thus, adaptive reuse projects with lower costs and a faster return on investment can cut loan or capital investment interest rates. In the building and development business, adaptive reuse offers significant economic, environmental, and social benefits.

## **APARTMENT BUILDING ADAPTATION AT UTTARA, DHAKA**

Newly constructed apartment and residential buildings in Dhaka frequently serve a variety of commercial, institutional, and non-residential functional purposes. Despite lacking a suitable and rational function, most of the edifices have maintained their original physical state by serving various purposes. To figure out how residential buildings in cities like Dhaka adapt in real-life situations, this study examined a few instances in a planned residential area called 'Uttara Residential Model Town' in Dhaka. Uttara has been developing in phases 1, 2, and 3 (Figure 1)<sup>11</sup> since the early 1970s. Phases 01 and 02 have reached a significant level of development, while phase 03 continues to progress. Over time, both phases 01 and 02 have experienced diverse interpretations of functional adaptation within the planned structure, resulting in a complex and unplanned process. This is primarily due to the changed demands of the community for the growing populations, the lack of required functional facilities on a neighbourhood scale, and the rigid spatial configurations of the buildings to align with the changed functions.



Figure 1. (left) Dhaka Metropolitan area (source: adapted from Commons, Wikimedia 2014), (middle) Uttara Model Town (source: adopted from Vectorstocks, 2024, (right) Uttara Development Phases (source: Kabir, Saimum, and Mohammad Ibrahim, 2018)

The research pertains to the suitability of the new roles assigned to the original structures. Three distinct adaptations have been analysed, which identify that various functional adaptations have taken place in the pre-existing apartment buildings. Table 1 outlines the classification of the original uses of the primary buildings into three distinct categories: educational, commercial (shops, banks, and offices), and health.

Type of the project	Original use	Adaptive use
Apartment	Residential	School/Institution
		Commercial (Shops, Banks, Offices)
		Hospital/Clinic

Table 1. Case categories

Case 01: Apartment building adapted into academic institution

Figure 2 depicts the apartment building's design, which spans approximately 1600 square feet per floor and consists of six stories to accommodate two flats per floor. The original owner was not available for contact, making it impossible to ascertain the exact rationale for the modification of usage. The discourse with the present proprietor has elucidated that the proprietor's nonattendance could be the principal factor behind the alteration. The absence of a property management entity was a significant factor contributing to the challenges and inconveniences encountered in the monthly collection of rent from tenants, ultimately prompting the decision to alter the operational function. The school's financial proposal received generally positive feedback, which was essential in enabling the implementation of the building's operational changes. The absence of spacious classrooms, conventional hallways, fire exits, and recreational areas was noted. A north-facing building with adjacent six-story building blocks on each side causes inadequate cross-ventilation. Converted from bedrooms in the southern region, the classrooms lacked proper ventilation and were predominantly dimly lit. The initial observed plan of the apartment building allocated the ground level for the accommodation of approximately 6 to 7 automobiles. The ground floor was adapted to function as a communal area for children, featuring a play zone and space for physical or cultural activities. Additionally, it occasionally serves as a waiting area for parents. The information office room is located in the southern corner of the ground floor. The ground floor's inability to accommodate cars in their designated area led to vehicles parking on the adjacent road during school hours, causing traffic congestion in the surrounding area.



Figure 2. (left) Original (adopted by observation) two unit apartment plan: Approx. 1600sft total, (middle) Adapted layout for a primary school, (right) the exterior view of the typical apartment building front (Source: Author)

### Case 02: Apartment building adopted as hospital

One of the main reasons for the initial conversion of the six-story apartment building into a local hospital was its proximity to the main neighbourhood road, which has attracted a significant patient population by providing access to highly skilled medical professionals. The study finds that it was recommended that the hospital acquire the neighbouring apartment complexes and repurpose them as an extension of the hospital and a centre for physiotherapy. Because the ground-floor parking area has been converted into hospital facilities, a significant number of vehicles park on the hospital's front and back side roads. Figure 3 suggests that the main roadside parking is the primary cause of traffic congestion in the local area. The lack of certain physical amenities, such as vertical transportation mechanisms for the relocation of hospital beds, was not sufficient. As a result, patients' mobility became significantly more difficult. In order to accommodate a greater number of individual or shared cabins, the apartment layout was predominantly partitioned into smaller rooms, which unfortunately resulted in inadequate ventilation. This resulted in significant circulation conflicts among the patient, hospital staff, and other services. The modified hospital design lacked a designated area for segregating patients with specific medical conditions. The waiting area's capacity was insufficient to accommodate the number of patients and accompanying individuals. The presence of hospital waste in the immediate vicinity behind the apartment building poses a significant biohazard to the health of neighbouring residents, as shown in Figure 4.



Figure 3. top left) the exterior view of the typical building front, (bottom left) Original (adopted by observation) two unit apartment plan ~1800sft, (bottom right) Adapted plan for a hospital, (Source: Author)



Figure 4. Medical rubbish dumped into the immediate and adjacent to the residential building (Source: Author)

### Case 03: Apartment building converts to mixed use building

The six-story apartment building was initially designed entirely for domestic use. However, a pre-existing community market was located on the opposite side of the structure. The commercial influence of the market zone had a direct impact on the apartment building's user pattern, which was the initial cause for the residential building's adaptation to a mixed-use pattern. The study revealed that this



possible future impact was not considered during the design phase of the building. Initially, the building's ground floor was modified to accommodate five small grocery stores. This modification immediately gave the building a mixed-use character, allowing the upper floors to be converted to similar uses. Typical grocery stores on the first or upper floors would not function for walk-in consumers in the same manner as they do on the ground floor. An empirical study says ground-floor facades provide links between these scales and between buildings and people. The proprietor of the building then decided to rent it out for use as an office, bank, or saloon. The remaining upper floors are reserved for residential use. This conversion enabled the proprietor to profit from the lower floors without sacrificing rental income from the upper floors. This type of development frequently engages in pedestrian surface encroachment without permission from the city corporation. Therefore, the municipality needs to demolish an unauthorised extension of the development. Unfortunately, they grow again.

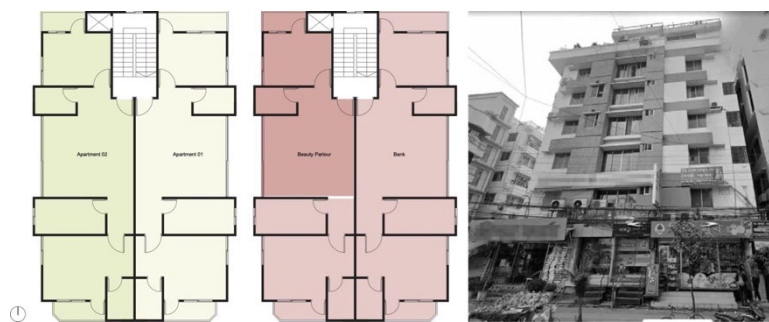


Figure 5. (left) Original (adopted by observation) two unit apartment plan ~1600sft, (middle) Adapted plan for a Beauty Parlour ~450sft and Bank ~1200sft, (right) the exterior view of the typical east view (Source: Author)

### Adaptation Analysis

Each of the cases, as illustrated in Figure 6 and Table 2, included ground floor parking as a new building function. In all cases, this practice created neighbourhood traffic congestion. Both school and hospital conversions compromised the standard required space design for the changed use, which created issues like ventilation, circulation, and user satisfaction. The study revealed that, due to the substantial demand for new facilities in the neighbourhood, adapting existing buildings proved to be more feasible, faster, and profitable compared to demolition or new construction. The high financial cost associated with demolition faced significant opposition from most stakeholders, who preferred the financial savings achieved by avoiding it. However, the adaptive reuse of existing structures presented notable challenges, particularly related to space and infrastructure limitations. Building owners and managers highlighted the benefits of remaining at their current sites if they were in excellent condition, such as avoiding relocation disruptions and saving on maintenance and operational expenses. However, this approach often undermines dedication to a sustainable built environment and frequently overlooks user satisfaction. The vertical functional adaptation in individual plots often took place on the owner's personal initiative, without much analysis of the future urban impacts and instead focussing on immediate profit generation.

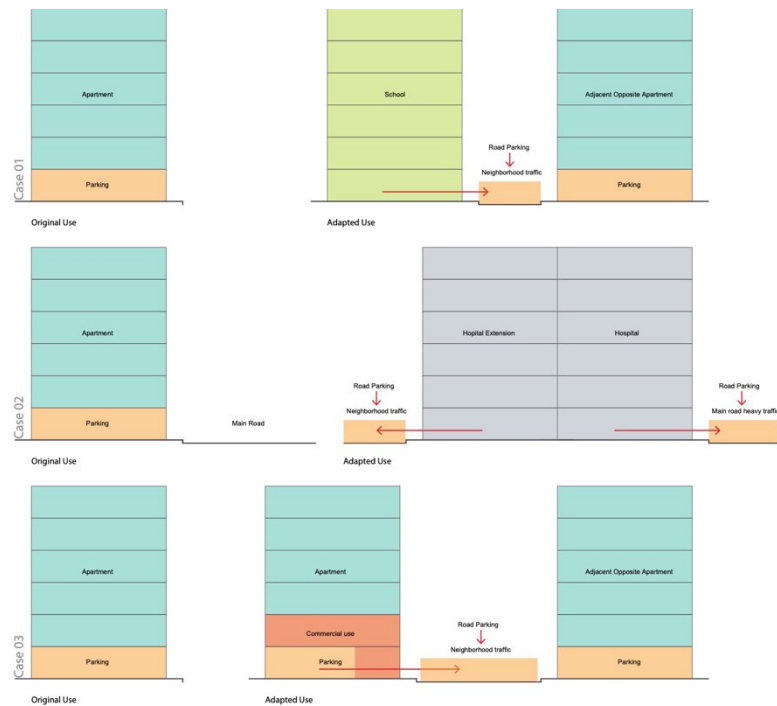


Figure 6. Vertical Functional adaptation analysis between cases

Cases	Before	After	Functional Analysis	Climatic Analysis	Neighborhood Analysis
Case 01	Six storied apartment building	School	Compromised functional space for academic institution	<ul style="list-style-type: none"> <li>Only front side of the building has access to daylight and cross ventilation</li> <li>Both passive and active ventilation</li> </ul>	Created traffic congestion on immediate surrounding
Case 02		Hospital	Medical facility provided without any appropriate regulations and laws	<ul style="list-style-type: none"> <li>Completely active ventilation</li> </ul>	
Case 03		Mixed-use space with commercial shops on the ground floor	Improved functionality by accommodating businesses	Both active and passive ventilated spaces	Revitalized neighborhood with increased foot traffic, vibrant commercial activities, and improved property values

Table 2. Adaptation analysis

## CONTEXTUAL STIMULUS

This study deliberately looks at residential structures to identify existing, unrecognised, and unplanned practices. After examining the local practices in Dhaka, the study observed a multi-faceted functional transformation. This approach involves the participation of users, owners, architects, and local artisans. In this process, retrofitting and refurbishing are becoming popular options, as they often take place without much technical expertise. This way, it increases the life span of an existing building and reuses the structure's embodied energy at lower development costs.

The various stakeholders identified economic justification as the most viable rationale for the initial adaptation decision. Another reason stated and observed by the owners was the need for altered functions. This study identified several common contextual rationales for adaptation, as demonstrated in the case of Dhaka.

- Locational advantage/disadvantages
- Landowners often migrate to overseas countries, leaving no one to manage their properties, leading to resistance towards forming partnerships with developers.
- Corporate offices provide landowners with high-end rent and deposits.
- Corporate offices or banks carry out the majority of the redevelopment, resulting in high income on limited investment.
- Landowners can retain their land for a longer period of time, allowing them to explore more options, such as a high return on investment through development.

## DISCUSSION

In general, it was considered that because of the significant demand for the new facility in the neighbourhood, it would be simpler to adapt to it than to demolish specific buildings within its existing structure. The demolition would have required a huge amount of financial involvement, which was not an acceptable idea for the stakeholders. Without demolition, there were considerable financial savings, but the adaptive use was often very difficult to fit because of the space and infrastructure constraints. According to many building owners and managers, there are advantages to staying at one's current site if it is in good shape, such as avoiding the disruption of relocating and saving money on maintenance and operating expenses. However, in most cases, the responsibility for a sustainable built environment was significantly compromised. Additionally, users' satisfaction received minimal consideration.

Buildings constructed between 1960 and 2000 were regarded as the most likely candidates for demolition, while relatively modern structures were thought to be in high demand for adaptation. Once the new apartment buildings had been in operation for five to ten years, the quick implemented technique used to convert them to a completely different functional use, such as a school, hospital, or commercial space. The study found a wide range of potential risks that could arise before, during, and after an adaptive reuse project. The analysis revealed that, even though they were going through adaptation phases, there was always a chance that the structure wouldn't satisfy the needs of the end users. The truth, however, indicated that the crowd would probably be content with the bare minimum of amenities.

Through adaptive reuse, a structure can change to suit new needs. Any constructed form, both physically and from the user's attachment point of view, sustainably improves upon the quality of its initial state. To improve efforts towards sustainability, decision-makers, developers, and owners should address many adaptive reuse challenges during the early stages of the design process. The research suggests that early-stage decisions should not only be addressed but also implemented in future adaptation policies.

## CONCLUSION

This study explored the adaptation of residential buildings in Dhaka, particularly in the Uttara Model Town, highlighting the complexities and challenges associated with such practices. The research tried to establish the fact that while building adaptation offers a cost-effective alternative to demolition, it is not uncommon that the quality and sustainability of the built environment are often compromised. However, the findings also reveal this adaptation is quite a common practice among stakeholders, even though the adaptations, driven primarily by economic incentives, frequently lead to functional inadequacies. These adaptations, which occur with minimal technical expertise and without comprehensive planning, contribute to broader urban issues, including traffic congestion and compromised neighbourhood environments; hence, we need more in-depth research on them. The research highlights a critical need for more rigorous planning and regulatory oversight in the adaptive reuse of buildings to ensure that these practices contribute positively to the urban fabric.

In conclusion, while adaptive reuse can extend the life and functionality of buildings, it requires careful consideration of both spatial and infrastructural limitations. Decision-makers, developers, and building owners should engage in more comprehensive planning during the early stages of adaptation to address these challenges and enhance the sustainability of the built environment. Future policies should incorporate these considerations to ensure that adaptations not only meet immediate economic goals but also support long-term urban resilience and user satisfaction. The paper acknowledges that this research is at an early stage; it invites broader discussion on the topic, including approaches and methods for the ongoing research.

## NOTES

- <sup>1</sup> Robert Schmidt III et al., "Adaptable Futures: A 21st Century Challenge" (Changing Roles - New Roles, New Challenges, Noordwijk AAN ZEE, The Netherlands, 2009).
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# DESIGN AS A TECHNOLOGICAL ARTEFACT: DECODING THE HOUSING DESIGN IN THE CITY OF DELHI

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## INTRODUCTION

Science and Technology are considered objective, neutral, and specifically not influenced by social forces in their day-to-day work. This assumes the character of science and technology renders it mystical. The discourse assumes that sciences display the forms of nature exactly as they are, while technology gives new shape and form to old materials, making useful and beautiful objects. Technology works with material objects, while science deals with nature itself.<sup>1</sup> Technology is manifested in its materiality and, for the purposes of the current inquiry, in the artefact. Due to the assumed character of technology, the product is also ordained with the same qualities of neutrality, objectivity, and, most importantly, apolitical character. While Science and Technology correspond with each other, this inquiry will only focus on the domain of technology and, precisely, Technological Artefacts.

Following up, this inquiry aims to render technology out of the realm of mysticism and challenge the assumed neutrality and apolitical nature of technological artefacts. This inquiry builds upon the work of Langdon Winner, where he asks a fundamental question in the form of the title of his research paper: *Do Artefacts Have Politics?* Winner claims that artefacts, here intended as technical objects, have political properties and can embody forms of authority and subordination. He suggests that we pay close attention to the properties of the technologies that surround us and the meaning of those properties.<sup>2</sup> Winner provides examples of technical systems of various kinds, which, at first sight, may not explicitly express any form of political intent but have, in reality, been designed to produce concrete social consequences.<sup>3</sup>

Winner employs the example of the height of bridges on the paths of Long Island Park, which is one of the most relevant in terms of this enquiry. Robert Moses, the chief architect, built them to specifications that would discourage the presence of buses. Consequently, it limited the access of racial minorities and low-income groups to Jones Beach, the widely acclaimed public park of Moses. This particular example shows how some technologies have been deployed to discriminate, pose threats, and maintain a regime of power. Most importantly, it demonstrates how architecture and design can embody a technological conception with a particular political inclination.<sup>4</sup>

Similarly, this inquiry understands architecture and design as political and, most importantly, having certain inculcated values that are far from neutral and objective. Furthermore, the enquiry focuses on a particular aspect of design, namely, the design of the residential quarters, and it tries to locate them critically.

This inquiry to examine the design adopts the method employed by Winner. Whereas he locates the meaning of technology in the social and economic system in which it is embedded, this inquiry explores how the adoption of technology can be understood through human needs. He writes: “One strength of this point of view is that it takes technical artefacts seriously. Rather than insist that we immediately reduce everything to the interplay of social forces, it suggests that we pay attention to the characteristics of technical objects and the meaning of those characteristics.”<sup>5</sup>

To understand the dimension of design as a spectre of inquiry and bring it out of the veil of objectivity, the work of J.B. Harley is particularly important for this inquiry. Harley sheds light on the nature of maps as representatives of power. He critiques the traditional rules of cartography—rooted in scientific epistemology—that have tried to establish themselves as an objective form of knowledge. Furthermore, Harley points out how maps are uncritically accepted as an unbiased form of knowledge. He writes: “We believe that cartographers engage in unquestionable ‘scientific’ or ‘objective’ forms of knowledge creation.”<sup>6</sup>

Harley situates the enterprise of map design/making within the discourse of power, drawing on the work of Foucault and Derrida. First, maps are situated within a discourse of power. Second, borrowing from Derrida, Harley suggests employing the method of deconstruction to decode the enterprise. Deconstruction provides a way to inspect the normalcy that maps want to create. Understanding what is assumed to be normal while designing accommodation becomes particularly important for the current enquiry. Although Harley’s method can be directly adopted for the inquiry, it requires a deeper knowledge of cartography as a discipline. For the current enquiry, the broad features of the design can be examined using Winner’s method, while Harley’s insights help contextualize maps within the framework of power.

Having established the background for this enquiry, this paper looks at the accommodation designs in the city of Delhi, India, while focusing on the assumption of ideal dwellers in the designs. This paper examines how residential spaces are designed to cater to a certain type of dwellers. Accordingly, it examines residential designs through model maps to understand the considerations behind housing architecture and identify the ideal dweller that the design inherently aspires to target. In this way, the paper looks at design as an artefact, deploying Winner’s understanding that design aims to cater only to a specific type of dweller, which is idealized during the design process. Content analysis is used to study model maps of certain localities in the city of Delhi.

The first section of this paper explores the field from where the model plans for each locality are made and discusses their features. The second section examines the notion of satisfaction associated with the design and the type of dwellers assumed in connection to the design features. The third section explores the affects generated by the design in association with the assumed type of dwellers.

## THE FIELD

This paper and its design critique are based on various encounters in different localities of Delhi, initially conducted in January and February of 2020. The germ for this particular enquiry was born then. Initially, I intended to procure architectural plans for this paper to make them the basis of this enquiry. However, most owners refused to provide access, and those who did grant access refused permission to use them directly in this research. Consequently, I decided to visit as many accommodations in the neighbourhood as possible during my ethnographic fieldwork for my doctoral research. From March 2022 to February 2024, I visited close to five hundred accommodations in these neighbourhoods and developed a model map for dwellings. Interestingly, most of the dwellings in these neighbourhoods were similarly designed.

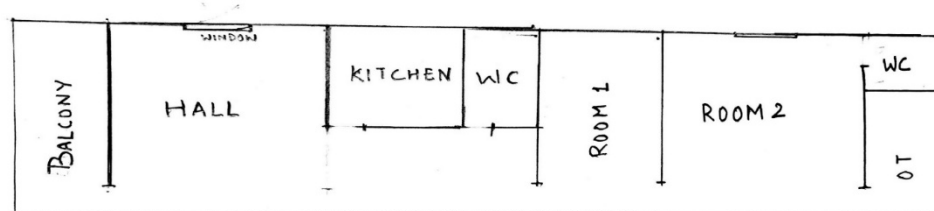
The observation that prompted interest in this enquiry corresponds to the uncritical adoption of homogeneous design features in the contemporary context. After the partition of India in 1947, localities



such as Malviya Nagar, Vijay Nagar, and Outram Lane became refugee hotspots. Refugees faced the challenges of scarce land in bustling metropolises along with their refugee status. Residential quarters were allocated to them, often built by the Delhi Development Authority (DDA). Over time, many refugees made fortunes with their entrepreneurial spirit, contributing to the mass development of these neighbourhoods. Most dwellings were remade and renovated. Starting in the early 1980s, these localities became migrant hotspots due to their centrality in the city.<sup>7</sup> Although the earlier residents benefited economically from this migration, they often expressed disdain for the new migrants now living alongside them.

In contemporary times, the demographics of these localities have changed significantly.<sup>8</sup> New housing infrastructures are being built for unmarried, single, educational, and working migrants. Surprisingly, however, the dwellings' design features remain largely the same as before. This unmediated adoption of the same design in new dwellings inspired this intervention. During various encounters with house owners and property brokers, I asked about their reasoning for continuing with the same design. Their responses generally ranged from describing the design as "ideal" to asserting it as the most "functional." This raises the question: "Ideal for whom?" This uncritical adoption of or unquestionable faith in the design features served as the germ of this inquiry within the framework of Science and Technology Studies (STS).

Accordingly, this enquiry recollects architectural plans based on visits to the localities of Malviya Nagar, East of Kailash, Vijay Nagar, and Outram Lane in the southern and northern parts of Delhi. For each locality, I have recreated model plans representative of the majority of flats I visited during my fieldwork.

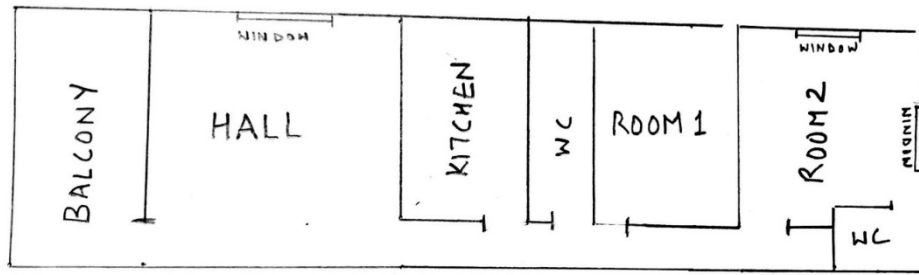


Scale: 1cm = 3 Feet

MODEL MAP VIJAY NAGAR  
DELHI

CS Scanned with  
CamScanner

Figure 1. Model map of Vijay Nagar



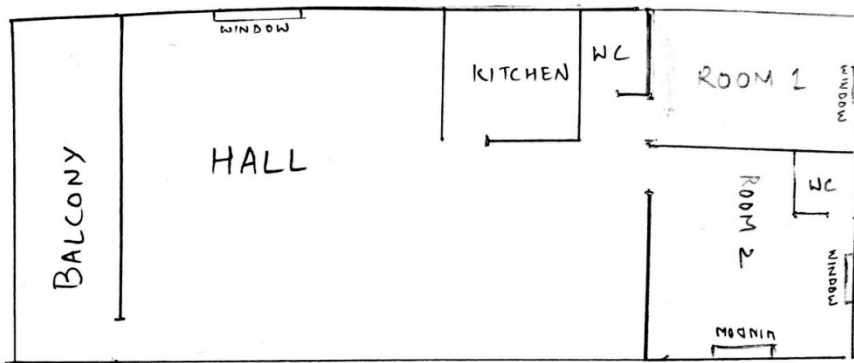
Scale: 1cm = 3feet

## MODEL MAP MALVIYA NAGAR

CS Scanned with  
CamScanner

DELHI

Figure 2. Model map of Malviya Nagar



Scale: 1cm = 3feet

## MODEL MAP OUTRAM

CS Scanned with  
CamScanner

LANE, DELHI

Figure 3. Model Map of Outram lane

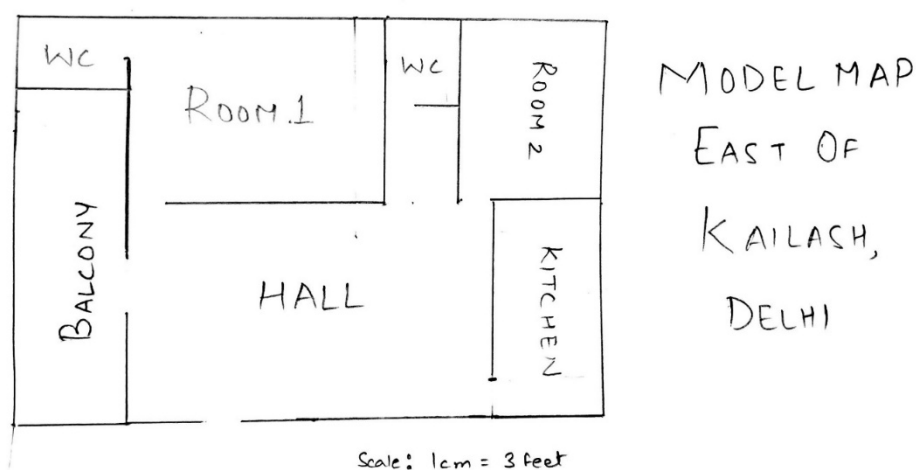


Figure 4. Model Map of East of Kailash

## DWELLER SATISFACTION AND DESIGN FEATURES

Housing design research heavily features how the preferences of prospective dwellers influence the design at critical stages. Designers assume these preferences beforehand to ensure satisfaction, which, in turn, ensures longer retention in a property.<sup>9</sup> To achieve this satisfaction, essential amenities are included in the design based on assumed preferences. For instance, research into British housing identified features like rooms with a minimum official size, private entrances, open spaces, and opportunities for personalisation as essential.<sup>10</sup>

If design is thus influenced, understanding it in terms of dweller satisfaction is one way to decode the ideal dweller envisioned by the design. Accordingly, this section decodes the design of the model maps of the localities and examines the factors of satisfaction in each. In this regard, two design features are particularly revealing of the choices made during the design process.

The houses in Vijay Nagar locality have a peculiar rectangular inward-moving layout, with a prominent two-room structure. To access the larger room, one must pass through the middle room, as there is no separate entrance. This design choice raises privacy concerns for those occupying the middle room.

In Malviya Nagar, East of Kailash, and Outram Lane, two rooms have separate entrances; however, one room is significantly smaller and lacks windows. Furthermore, in all these localities, the smaller rooms do not have attached washrooms, with the second washroom often located in shared lanes.

During my fieldwork, I found it challenging to configure a living arrangement that was equitable and supportive for my flatmates and me while sharing a dwelling. Privacy and clear boundaries are critical to the satisfaction of single occupants sharing accommodations, yet these designs often compromise both.<sup>11</sup> In equal-sharing arrangements, determining which dweller occupies the more desirable “master bedroom” becomes contentious.

The concept of the master bedroom, as described in a study based in the U.S., is a feature designed for the owner or head of the household.<sup>12</sup> It serves as a private domain ensuring physical distance and absolute privacy for the head of the household and their spouse. This design feature inherently assumes a hierarchy between dwellers, with privileges embedded in the spatial arrangement.

Similarly, kitchens are another essential design feature of these accommodations. Kitchens in Malviya Nagar, Vijay Nagar, and Outram Lane are compact, accommodating only two people at a time. Kitchens in East of Kailash are slightly larger, yet all designs feature closed kitchens, unlike the open kitchens popularised in western discourse.<sup>13</sup>

The kitchen has long been central to the conceptualisation of the household. The Census of India 2011 reflects this in its definition of a household: “a group of persons who live with each other and take their meals from a common kitchen.”<sup>14</sup> This centrality highlights the importance of kitchen design in considering dwelling architecture.

Closed kitchens, as Craik observes, metaphorically represent family life and domestic isolation.<sup>15</sup> Wajcman, however, identifies them as gendered spaces where sexual division is structurally embedded. According to her, the closed kitchen design invisibilises the domestic labour of women, reinforcing the primacy of men’s work over women’s contributions. Craik further analyses the evolution of modern homes, suggesting that the kitchen evolved from a space of domestic isolation into a site of domestic power. She likens the modern kitchen to a Panopticon, where the gaze serves as a mechanism of control and authority.

The choice between open and closed kitchens is thus revealing. The adoption of closed kitchen designs signals an embedded hierarchy in housing arrangements, further entrenching inequalities as an assumed aspect of dweller satisfaction. Consequently, hierarchy becomes a focal point in understanding the implicit assumptions embedded within the design.

## CREATION OF ROUTINES

The design emerges from the mystification of scientific objectivity and can be located as an artifact embedded with assumptions and human values. By establishing that design is based on certain assumptions to create satisfaction for specific dwellers, this section continues to explore the effects that design aims to produce.

Amos Rapoport, an architect and anthropologist, critiques the characterization of cartography as a science and situates it within a cultural framework. He emphasizes the importance of considering culture in housing design, stating, “Culture acts as a control mechanism, carrying information that directs how behaviour and artifacts are to be created.”<sup>16</sup> However, Rapoport also argues that culture, being a broad term, must be decoded into its expressions, which manifest in the activities and routines of the dwellers and are incorporated into design. He identifies four environmental design elements—space, time, meaning, and communication—arguing that design is the purposeful modification of these elements and their physical expressions.<sup>17</sup>

Other scholars also link design to the routines and activities of its users, asserting that housing design reflects the interactions among family members.<sup>18</sup> This section decodes specific design features in the model maps, such as halls and parks, to understand the routines they assume and the type of dwellers they envision.

In the model maps, halls are prominently featured, often occupying the largest areas of the houses. In the localities of Malviya Nagar, East of Kailash and Outram Lane, halls are larger than any room in the house, whereas in Vijay Nagar, their size is equivalent to that of the largest room. Televisions, prominently placed at the centre of these halls, underline the importance of these spaces.

Environmental design manipulates space, which correlates with time and affects communication.<sup>19</sup> In these dwellings, the large hall spaces are designed to maximize time spent together and promote communication among dwellers. The placement of televisions further reinforces this effect, as they draw people into shared spaces.<sup>20</sup>

This aligns with literature highlighting interaction as a primary goal in creating family-friendly communities through housing design.<sup>21</sup> Buyers often prefer homes with interactive features like spacious halls and gardens, as these create opportunities for shared experiences.<sup>22</sup> Dean connects these routines with housing design, suggesting that “housing design impacts family life by exposing them to environments that reflect the family’s value systems and influence the interactions of its

members.”<sup>23</sup> Interaction routines are especially associated with parenting needs, as certain design features, such as halls and backyards, facilitate family bonding and time management for parents.<sup>24</sup>

Warner expands on this by analysing how dwellings are designed with features like halls, backyards, and nurseries, assuming a linear, value-oriented life cycle for dwellers. This cycle presumes that single people will marry and have children, with design features accommodating these anticipated needs.<sup>25</sup>

Parks can also be understood within this context. Although not included in the model maps, parks are integral to housing design planning. During fieldwork, it became evident that parks were considered by owners and brokers as key to determining property value. Flats overlooking parks commanded the highest rents, and those near parks were priced higher than others farther away. Parks, in this context, serve a purpose akin to backyards in facilitating interaction rituals valued by families.<sup>26</sup>

Dwellers of all kinds appreciate greenery and the opportunity for recreational walks, and parks often feature children-friendly amenities like swings and slides. Thus, like halls, parks foster interaction rituals, serving as an essential component of housing design for promoting family satisfaction.<sup>27</sup>

## CONCLUSION

This enquiry in its quest to reveal the ideal dweller assumed by the design of houses in the localities of Delhi looks into four design features, namely, rooms, kitchens, halls and parks. Rooms and Kitchens are evaluated in terms of their ability to generate satisfaction for the assumed dweller. Where rooms, and especially the master bedroom reveals the assumption of the existing head of the household, where the allotment of the bigger space reveals the hierarchy assumed in the design. Privacy as a feature is also revealed through the design choice built into the master bedroom for the head of the household and their spouse. Likewise, closed kitchens signify the correlation between hierarchy and the sexual division of work, which is maintained through design choice. In the final section, Halls and Parks are evaluated in this enquiry to understand their role in the creation of routines essential for the assumed dweller. In the design choice of both halls and parks, the necessity of creating interaction routines essential for parents has been revealed.

In this way, the assumed dweller's likely profile emerges from the design. Where hierarchy between the dwellers is assumed through the master bedroom and kitchen. Whereas space for privacy reveals the sexual relationship between dwellers occupying the master bedroom. Furthermore, the kitchen reveals the sexual division of work envisioned in the design, where the presence of a heterosexual couple with men as head of the household is likely. Furthermore, the analysis of halls and parks reveals the likelihood of the resulting children, hence the aid in parenting provided by design.

Although the task of this inquiry is not to critic the design featuring a heterosexual couple and their kids but to critic the uncritical adoption of the design only assuming this set of dwellers as ideal and functional is critiqued. The task of the inquiry is to reveal a design as a political and not neutral entity, which, when perceived as non-objective, can become more inclusive and incorporate the needs of a blooming set of dwellers residing in these localities.

## NOTES

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# THE EROSION OF FORGOTTEN COMMUNITIES: THE CHALLENGES FACED BY WORKING-CLASS COMMUNITIES IN THE NORTHERN SEASIDE TOWN OF BLACKPOOL

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## INTRODUCTION

Blackpool, a seaside town in Lancashire, UK, has a rich working-class heritage and a community that has experienced significant deprivation and transformation over the years. One prominent concern is the combination of unemployment and gentrification, which has had a particularly profound effect on the working-class community of Blackpool. The changing dynamics of the area, often exacerbating existing socioeconomic inequalities creating significant challenges specifically when it comes to housing affordability. This often leads to rising property prices and rents as wealthier residents move into these areas with the demand for housing increases driving up costs. This makes it increasingly difficult for working-class individuals and families to afford housing in their own communities, as the gentrification process forces the established working-class families to abandon their communities with local businesses having to close their doors creating ghetto like areas.



*Figure 1. Abandoned shops in Blackpool. Photography by David Sinfield. July 2023*



This displacement and lack of affordable housing options can force them to relocate to less desirable areas away from their families, communities and employment with limited resources and opportunities disrupting the established social networks and support systems. This can be seen as one of the most significant impacts of gentrification on the working-class is displacement. Displacement disrupts established communities, erodes social cohesion, and undermines residents' sense of belonging and stability. Displaced individuals are often faced with challenges in finding alternative housing options that are affordable and within close proximity to their workplaces, schools, and social networks.



*Figure 2. Abandoned hotels on the front of Blackpool promenade. Photography by David Sinfield.  
July 2023*

Emergency housing initiatives such as temporary housing in local hotels has also been a subject to closure further forcing the working classes away from the area. This not only has a significant impact for housing of families, but it also has a significant impact on the local communities and visitors to the area. Figure 2.

### **A HISTORICAL BACKGROUND OF BLACKPOOL**

Blackpool, a popular seaside town in Lancashire, UK, has a rich Victorian history that played a significant role in shaping its character and establishing its reputation as a prominent holiday destination. During the Victorian era, Blackpool experienced rapid growth and transformation, driven by the rise of the railway, advancements in transportation, and the increasing popularity of seaside tourism especially with the working classes. Figure 3.



*Figure 3. This photograph from 1894 shows holiday makers strolling along Blackpool's promenade with tall electric lights in the background. Historic England Archive. CC7900487.*

Blackpool's development as a tourist destination began in the early 19th century. Prior to this period, it was a small and relatively obscure fishing village. However, the arrival of the railway in 1846, with the opening of the Preston and Wyre Railway, brought a wave of visitors from nearby industrial towns. The improved accessibility and affordable transportation options allowed the working classes to experience the pleasures of the seaside, kickstarting Blackpool's transformation.

In the mid 19th century, Blackpool underwent significant development to cater to the growing number of visitors. The construction of the Promenade, stretching along the coast, provided a scenic walkway and a focal point for leisure activities. Additionally, Blackpool Tower, inspired by the Eiffel Tower in Paris, was built in 1894. The tower quickly became an iconic symbol of Blackpool, offering panoramic views, ballrooms, and various entertainment attractions.



*Figure 4. Blackpool Tower and Tramway electrical cables. Photography by David Sinfield. July 2023*

Another significant development during the Victorian era was the establishment of Blackpool Pleasure Beach. In 1896, entrepreneur William George Bean opened the Pleasure Beach, which started as a simple collection of rides and attractions on a sandy beach. It gradually expanded and evolved into one of the largest and most renowned amusement parks in the world, offering a wide range of thrilling rides and entertainment options.

Blackpool became known for its vibrant entertainment scene during the Victorian era. The town boasted numerous theatres, music halls, and venues that hosted a variety of performances, including plays, concerts, and variety shows. The Winter Gardens complex, opened in 1878, became a hub for entertainment and cultural events, attracting famous acts and artists. Blackpool Illuminations, a dazzling display of lights along the Promenade, have become synonymous with the town. The tradition of illuminating Blackpool's streets started in 1879 when the Promenade was lit with eight arc lamps. Over the years, the illuminations grew in scale and complexity, featuring elaborate light displays, sculptures, and themed sections. The Blackpool Illuminations continue to be a major attraction, drawing visitors from far and wide. The Victorian era saw the emergence of a distinct social class divide in Blackpool. The working-class predominantly visited the town for day trips and short breaks, enjoying the affordable attractions and entertainment options. On the other hand, the wealthier middle and upper classes often stayed in the more luxurious accommodations and enjoyed a more exclusive experience.

The Victorian era played a pivotal role in establishing Blackpool's reputation as a thriving seaside resort. The developments, attractions, and entertainment options created during this period laid the foundation for the town's continued growth as a popular holiday destination. Today, the Victorian heritage is still evident in Blackpool's architecture, entertainment venues, and the enduring traditions such as the Illuminations, making it a unique and historically significant place to visit.

### **SOCIAL AND ECONOMIC - UNEMPLOYMENT IN NORTHERN SEASIDE TOWNS**

Northern Seaside towns such as Blackpool have historically relied on industries such as tourism, manufacturing, and mining. However, with changing economic landscapes, these industries have declined, resulting in a high rate of unemployment. The decline of traditional industries has left many working-class families in these towns struggling to find stable employment opportunities. The loss of

jobs not only affects individuals' financial stability but also undermines their sense of purpose and wellbeing. Unemployment also leads to a range of interconnected social and economic problems. The lack of income and job prospects can contribute to increased poverty levels, limited access to healthcare and education, and a rise in crime rates. The effects of unemployment extend beyond individuals and impact the overall community, creating a cycle of economic decline and social challenges.

Blackpool has undergone significant changes over the years. These changes have shaped the town's economy, infrastructure, and overall character and it continues to reinvent itself with the challenges of the financial crises and the gentrification of the surrounding areas. Its economy has witnessed significant shifts. In the past, the town relied heavily on industries such as manufacturing and tourism, but like many other industrial towns Blackpool has experienced a decline in these sectors, leading to higher unemployment rates and economic challenges for the working-class population. Efforts have been made to diversify the economy focusing on sectors like technology, education, and health services to create new job opportunities. In recent years, Blackpool has embarked on various regeneration initiatives to revitalise the town and attract investment. The aim is to enhance the town's infrastructure, improve public spaces, and create new leisure and entertainment facilities. These efforts include the redevelopment of the Blackpool Central area, plans for a new conference centre, and the ongoing revitalisation of the iconic Blackpool Tower with a heavy bias on the gentrification of the area.

The Gentrification of Blackpool has had an impact in certain areas and especially in working-class area. As property values rise, particularly in desirable areas close to the seafront, some working-class residents have been displaced due to increasing housing costs. This has led to changes in the social fabric of the place, with wealthier residents moving in and altering the demographics and character of these areas.



*Figure 5. Closed and boarded up post office, Central Blackpool. Photography by David Sinfield. July 2023*

Blackpool's cultural landscape has also evolved over the years. The town has diversified its offerings to cater to a broader audience, expanding beyond traditional seaside attractions and now hosts a range of festivals, exhibitions, and cultural events, promoting arts, music, and theatre. The Winter Gardens complex, for instance, continues to be a venue for various cultural and entertainment activities.



Improvements in transportation and connectivity have contributed to Blackpool's transformation. The town is well connected by road and rail networks, making it easily accessible for tourists and residents. Blackpool has also embraced environmental initiatives in recent years. Efforts have been made to promote sustainability, reduce carbon emissions, and enhance the town's green spaces. Initiatives such as the solar farm and the promotion of eco-friendly tourism practices aim to position Blackpool as a responsible and sustainable destination.



*Figure 6. Solar panel farm, Blackpool.*

Overall, Blackpool has undergone substantial changes over the years. While it has faced economic challenges and experienced shifts in its social fabric, the town continues to evolve and adapt to the changing dynamics of its community. Through regeneration efforts, a focus on diversifying the economy, and embracing cultural and environmental initiatives, Blackpool aims to maintain its status as a vibrant and appealing destination for residents and visitors alike.

## **CULTURAL CHALLENGES - GENTRIFICATION AND ITS EFFECTS**

In addition to unemployment, Blackpool and other Northern Seaside towns are facing the challenges of gentrification. Gentrification refers to the process of renovating or revitalising neighbourhoods, often accompanied by an influx of wealthier residents and businesses. While this process may bring some benefits, such as improved infrastructure and increased economic activity, it also has significant drawbacks for working-class communities.<sup>1</sup>

Gentrification can lead to rising property prices and rents, making it increasingly difficult for working-class individuals and families to afford housing. Moreover, the arrival of wealthier residents can disrupt the social fabric of the community, eroding the sense of identity and cohesion that working-class communities have long cherished. Gentrification not only affects housing costs but also leads to an overall increase in the cost of living in these areas. As new businesses, shops, and services cater to higher income residents, prices for goods and services rise, making it more difficult for the working-class to afford basic necessities. This can put a strain on the financial stability of the working classes, leading to increased economic stress and potential hardships.



*Figure 7. Abandoned and eroding trams that were synonymous to Blackpool. Photography by David Sinfield. July 2023*

It also impacts on the job market for the working-class in several ways. As neighbourhoods gentrify, there is often a shift in the types of businesses and services available.<sup>2</sup> Higher end establishments and boutique businesses catering to wealthier residents may replace the locally owned shops and services that previously provided employment opportunities for the working-class. This can result in a decrease in available jobs and a mismatch between the skillsets of the existing workforce and the demands of the changing economy. This can exacerbate social divisions and widen the gap between different socioeconomic groups with the arrival of wealthier residents often leading to the creation of exclusive social spaces and amenities that are inaccessible or unaffordable for the working-class. As the areas character changes, the working-class may feel marginalised and excluded, leading to feelings of powerlessness, social isolation, and a loss of community identity.<sup>3</sup>

Further disruption of the social fabric of working-class communities, often breaking up existing social networks and support systems. As long-time residents are displaced or priced out of their homes, the bonds and relationships they have developed over the years are strained or lost. This loss of social connections can have detrimental effects on mental health and wellbeing, further exacerbating the challenges faced by the working-class.<sup>4</sup> It is important to recognise and address the negative consequences of gentrification on the working-class. Efforts should be made to prioritise affordable housing, protect the rights of existing residents, and foster inclusive development that considers the needs and aspirations of all members of the community.<sup>5</sup> Additionally, measures such as community engagement, affordable housing programs, and equitable economic development can help mitigate the negative impacts of gentrification and promote more inclusive and sustainable neighbourhoods.

## **PALIMPSEST AND AN ARTIST RESPONSE TO COMMUNITY**

The concept of a palimpsest can be applied to an artist's response to a community, highlighting the layers of history, culture, and experiences that shape the creative process. Just as a palimpsest reveals the traces of previous writings and meanings, an artist's engagement with a community can uncover and interpret the diverse narratives and perspectives that exist within it.

An artist's response to a community can be influenced by the historical context of the place.<sup>6</sup> By delving into the community's history, traditions, and cultural heritage, artists can draw inspiration and incorporate elements from the past into their work. This historical layer adds depth and resonance to the artistic response, allowing for a dialogue between the present and the past. These dialogues can also be present in fading billboards, company advertising and shop hoardings etc., and can be seen as evocative representatives of our lived lives<sup>7</sup> and a social construct to the community they are living in.<sup>8</sup>



Figure 8. Abandoned shops showing the previous years of different business occupation.  
Photography by David Sinfield. July 2023

Billings argues that advertising such as these can have a deeper meaning and can transmit further experiences.<sup>9</sup> Olney suggests that these are rich tapestries and historic narratives of communities that surround the community and can also be seen a palimpsestic art in its own right and indeed artistic interpretations into new artworks.<sup>10</sup>

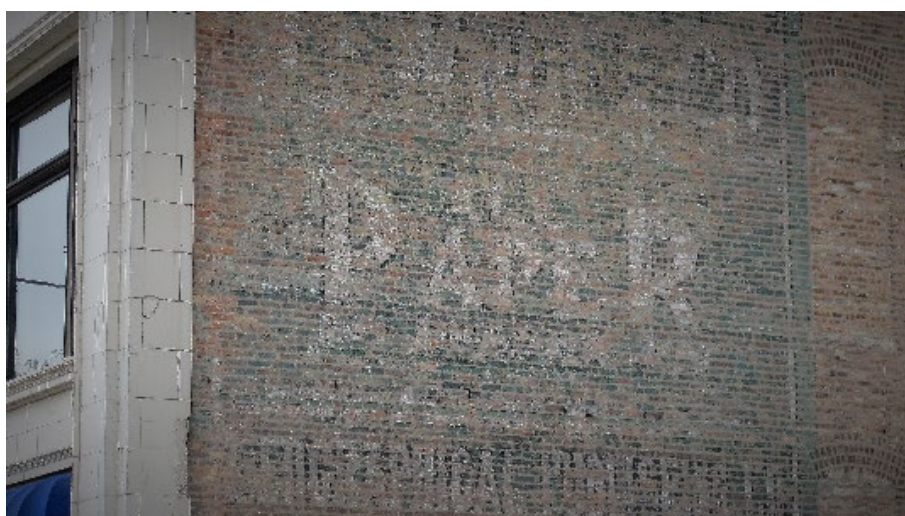


Figure 9. The fading painted advertisement on the side of a building. Photography by David Sinfield.  
October 2023



### **An Artist's Voice**

Engaging with the community allows artists to collaborate with local residents, organisations, and institutions.<sup>11</sup> This collaboration enables the artist to uncover the stories and perspectives of community members, giving voice to their experiences. The community's input becomes an integral layer in the artistic response, enriching the artwork with diverse viewpoints and fostering a sense of ownership and inclusivity. Artists often explore and express the cultural identity of a community through their work by immersing themselves in the community's customs, traditions, and artistic practices. Artists can weave these elements into their artistic response. This layer of cultural identity celebrates the uniqueness of the community and affirms its place within a broader cultural tapestry. Artists have the ability to respond to social issues and challenges within a community. Through their artwork, they can raise awareness, provoke critical thinking, and initiate dialogue. This layer of social commentary within the artistic response addresses the contemporary concerns and struggles faced by the community, reflecting the current socio-political climate. By addressing the community's aspirations, hopes, and dreams, artists contribute to a layer of inspiration and possibility within their response, signifying the potential for change and growth, breathing new life into the community's narrative.



*Figure 10. Artistic work painted on the side of a building. Artist unknown. Photography by David Sinfield. July 2023*

An artistic response to a community is a dynamic and ongoing process. It involves interaction with the community, which shapes the artistic practice and interpretation. Each interaction adds a layer to the palimpsest, contributing to the evolving narrative and allowing for multiple perspectives to be explored



and understood. By embracing the palimpsestic nature of their response, artists can create multi-layered artworks that honour the past, engage with the present, and envision the future of a community. Through their creative exploration and interaction with the community, artists bring to the surface the hidden stories and complexities, fostering connection, understanding, and a sense of shared identity.

Blackpool has a vibrant arts scene with a diverse community of local artists who contribute to the cultural landscape of the town. Liam Spencer is a renowned local artist known for his distinctive style of painting. His work often captures the essence of Blackpool, depicting its iconic landmarks, landscapes, and people. Spencer's paintings reflect his deep connection to the town and have garnered national and international recognition.

David Jacques is a contemporary artist based in Blackpool. He works across various mediums, including installation, photography, and drawing. Jacques' art explores themes of history, memory, and social commentary, often using Blackpool's unique identity as a backdrop for his thought-provoking work.

John Marc Allen is a contemporary Pop artist based in Blackpool, whose work reflects the influence of films, music, television, comic books, street art, pin-ups and more. John explores the way we look at and are inspired by the things created to keep us entertained while tapping into themes of nostalgia and elements of humour. His work covers a range of techniques including painting, screen printing, digital work, photography, and he has been working as The Tangerine Art Company in Blackpool since 2012.

Robin Ross is a photographer who captures the essence of Blackpool through his lens. His photography showcases the town's landmarks, landscapes, and people, with a keen eye for detail and a focus on capturing authentic moments. Ross' work has been exhibited locally and has gained recognition for its ability to capture the spirit of Blackpool.

The Blackpool Art Society is a collective of local artists who come together to share their passion for art. The society hosts regular exhibitions and events, providing a platform for local artists to showcase their work and connect with the community. It is an inclusive and supportive network that fosters creativity and artistic expression. These are just a few examples of the many talented artists who contribute to the arts scene in Blackpool. The town's creative community is diverse and continually evolving, with artists working across various mediums and styles. Their contributions enrich the cultural fabric of Blackpool and provide opportunities for residents and visitors to engage with the arts.

## **PALIMPSEST OF COMMUNITY**

The origins of palimpsest refer to a manuscript or piece of writing where the original text has been partially erased or obscured, allowing subsequent layers of writing to be added on top. Applied to communities, the term palimpsest suggests that the physical, social, and cultural landscape of a place carries multiple layers of history and experiences that can be uncovered and interpreted. It can often be used in understanding forgotten communities, particularly in the context of urban development and the layers of history and memory embedded within a place and helps to reveal and appreciate the complexities and richness of their past. Further studies of the complexities of urban communities observed through the lens of a palimpsest concept by anthropologists such as Lukas<sup>12</sup> and Bender<sup>13</sup> have explained this as a form of cultural erosion within communities. The erosion or forgotten communities often have a deep history that may have been overlooked or overshadowed over time.

By viewing these communities as palimpsests, researchers, and historians such as Harrison & Knight<sup>14</sup> and Coboz<sup>15</sup> can have a better understanding and can delve into the various historical layers and uncover the stories, traditions, and events that have shaped these communities. This approach helps to understand the historical narratives and highlight the significance of forgotten or marginalised communities. It can also be used to understand the collective memory and narratives within the communities. Through oral histories, personal stories, and community engagement, the layers of

memory embedded within the community can be revealed. These memories might highlight significant events, challenges, and triumphs that have shaped the community's identity and offer insights into the social fabric and resilience of its residents. Recognising and valuing the layers of the community's past can empower residents to shape their future, fostering a sense of ownership, pride, and collective action in revitalising and preserving their community.

These communities often have diverse cultural and social identities that may have been obscured or diluted over time. Viewing these communities as palimpsests allows for the exploration of cultural practices, traditions, and heritage that may have been marginalised or erased.<sup>16</sup> By uncovering and valuing these layers of cultural identity, it becomes possible to foster a sense of pride and reclaim forgotten narratives, contributing to community empowerment and revitalisation of a demoralised community. In summary, it offers a valuable framework for understanding forgotten communities by revealing the layers of history, memory, and identity that contribute to their complexity. By recognising and appreciating these layers, it becomes possible to empower communities and work towards inclusive and sustainable approaches to their revitalisation and development.

## CONCLUSION

Working-class communities in Blackpool face a range of challenges and opportunities that shape their identity and dynamics. Socioeconomic issues, community resilience, cultural identity, and the impacts of urban regeneration and gentrification are crucial aspects to consider when understanding and addressing the needs of these communities. By fostering inclusive and sustainable development, preserving cultural heritage, and empowering residents, Blackpool's working-class communities can thrive and contribute to the overall well-being and vibrancy of the town.

The combined challenges of unemployment and gentrification create a multi-faceted crisis in Northern Seaside towns in the UK. The loss of job opportunities exacerbates economic inequality, perpetuates social division, and undermines the wellbeing of working-class individuals. Unemployment not only affects financial stability but also has detrimental effects on mental health, self-esteem, and overall quality of life. Simultaneously, gentrification amplifies these issues by pushing out long-time residents and eroding the sense of community that is vital for social support and cohesion. The displacement of working-class individuals disrupts social networks and exacerbates feelings of marginalisation and powerlessness. This process further widens the gap between different socioeconomic groups and perpetuates a cycle of inequality.

To address these challenges, a comprehensive approach is required. Governments should focus on investing in diversifying local economies, supporting small businesses, and providing training and educational opportunities that align with emerging industries. Efforts should be made to protect affordable housing and ensure that housing policies consider the needs of working-class communities. Community organisations and residents should also play an active role in shaping the future of their communities. By fostering a sense of unity and collaboration, working-class communities can amplify their voices, advocate for their rights, and actively participate in decision making processes that impact their lives. Unemployment and gentrification pose significant challenges to working-class communities, particularly in Northern Seaside towns like Blackpool. These issues have far reaching consequences that extend beyond financial stability, impacting the social fabric and overall well-being of individuals and communities. By adopting a holistic approach that combines government intervention, community engagement, and social support systems, it is possible to address these challenges and promote inclusive, thriving communities for all.

Engaging residents and community organisations in the regeneration process is crucial. Community members should have a voice in decision making processes and be actively involved in shaping the future of their communities. Empowering local residents builds a sense of ownership, strengthens social

cohesion, and ensures that regeneration efforts reflect the needs and aspirations of the community. Regeneration should also prioritise cultural and social revitalisation. Preserving and celebrating a community's heritage, traditions, and diverse cultural expressions fosters a sense of identity and pride. Promoting cultural events, festivals, and creative activities not only enhances community cohesion but also attracts visitors and boosts the local economy.

Despite facing adversity, working-class communities in Blackpool demonstrate remarkable resilience. They foster strong social networks, mutual support systems, and a sense of community cohesion. These aspects contribute to their ability to overcome challenges and maintain a strong community identity, providing a foundation for community driven initiatives and development.

### **The next stage**

As an artist working closely with communities, I intend to continue to document the surrounding area of Blackpool as a means of gathering images and narratives that will provide material to create further artworks that will speak of the area.

Through a combination of photographic images and short poem films, this research project aims to explore and express the feeling of community within Blackpool's working-class community. By documenting and creatively interpreting the narratives and aesthetics of the community, the artworks will celebrate the strength, resilience, and unique identity of its members. Furthermore, this project seeks to engage the community, evoke emotional connections, and contribute to a deeper understanding and appreciation of the working-class community in Blackpool.

## NOTES

- <sup>1</sup> Gary Bridge, ed. *Gentrification in a Global Context: The New Urban Colonialism*. London: Routledge, 2005.
- <sup>2</sup> Loretta Lees, Tom Slater and Elvin Wyly. *Gentrification*. London and New York: Routledge, 2007.
- <sup>3</sup> Peter Dutton, "Outside the Metropole: Gentrification in Provincial Cities or Provincial Gentrification." In *Gentrification in a Global Context: The New Urban Colonialism*, edited by R. Atkinson and G. Bridge, 209–224. London: Routledge, 2005.
- <sup>4</sup> Sharon Zukin. "Gentrification: Culture and Capital in the Urban Core." *Annual Review of Sociology* 13 (1987): 129–147.
- <sup>5</sup> Gary Bridge, "It's Not Just a Question of Taste: Gentrification, the Neighbourhood, and Cultural Capital." *Environment and Planning A* 38 (2006): 1965–1978.
- <sup>6</sup> David Sinfield, "Typography as Personality and Place: A Study of How Typography Can Speak of Community." Paper presented at the Fifth International Conference on Communication & Media Studies, 2020.
- <sup>7</sup> Welby Ings, "Roadside Crosses: A Memorial and a Message." *New Zealand Geographic* 5, no. A (2001): 55–67.
- <sup>8</sup> David Sinfield, "Semiotics of Business Signage: How Typography Is Used in Impoverished and Deprived Areas of New Zealand." *The International Journal of the Image* 4, no. 4 (2014): 25–32.
- <sup>9</sup> Scott Billings, "The Figure on the Side of the Road: Automobility and Cinematic Causality." Accessed January 2009. [http://www.scottbillings.com/pages/selected\\_writings/Figure-on-the-side-of-the-road-Scott\\_Billings\\_2009.pdf](http://www.scottbillings.com/pages/selected_writings/Figure-on-the-side-of-the-road-Scott_Billings_2009.pdf)
- <sup>10</sup> James Olney, *Memory & Narrative: The Weave of Life Writing*. Chicago: University of Chicago Press, 1998.
- <sup>11</sup> David Sinfield, "Connecting Community: Artistic Echoes of a Forgotten Small-Town Community." Paper presented at the Eighteenth International Conference on Interdisciplinary Social Sciences, Agency in an Era of Displacement and Social Change, 2023. Common Ground Publishing.
- <sup>12</sup> Stefan Lukas, "A Test of the Englacial Thrusting Hypothesis of 'Hummocky' Moraine Formation: Case Studies from the Northwest Highlands, Scotland." *Boreas* 34, no. 1 (2005): 287–307.
- <sup>13</sup> Barbara Bender. *Stonehenge: Making Space*. Oxford, UK: Berg Publishers, 1998.
- <sup>14</sup> Jonathan Knight and Stephen Harrison, "A Land History of Men: The Intersection of Geomorphology, Culture and Heritage in Cornwall, Southwest England." *Applied Geography* 42, no. 1 (2013): 186–194.
- <sup>15</sup> André Corboz, "The Land as Palimpsest." *Diogenes* 31, no. 121 (1983): 12–34.
- <sup>16</sup> Pratyusha Basu, *Narratives in a Landscape: Monuments & Memories of the Sutherland Clearances*. London, UK: University College, 1997.

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# RESTORING ECOLOGICAL SENSIBILITY OF NAJD TOWN, AT-TURAIIF, BEYOND FIGURE AND GROUND TO BRING LIVABLE COMMUNITIES BACK IN RIYADH

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## INTRODUCTION

In Riyadh, there is an extreme contrast between the modern grid of 2km x 2km super blocks since 1972 and UNESCO Heritage town, At-Turaif town in Diriyah founded in the 15 century. The physiological difference is mitigated with the Diriyah Gate Project and Salmani architecture style. However, there is a collective sense of loss in the massive urban environment laid for speed and scale of vehicles though the intangible heritage continues. The more its effort focuses on imitating the formal features, the more the sense of loss goes deeper. The intangible at At-Turaif unfolds specific realities of time and space residing in the midst of natural climate forces. The memory of the place offering an unprecedented ecological sensibility in the harshest land on earth sustained the wholeness of living structures. Its intangible heritage is not visual rather the visual elements were the tactical instrument to distract strangers in maze-like paths. There have been a series of design investigations to identify the intangible; the livability of at-Turaif. Serendipitously, the archetypal, the livability of the town is detectable with the series of experimentation with environmental factors.

This paper presents a series of architecture students' radical projects which were responsive to natural forces to identify the livability. Students experimented with various climate factors tangibly to restore the ecological sensibility of Najd architecture and town; the tension field structured and animated by natural forces of environmental flows. This radical design states the communal responsibility that sustained dynamic living structures beyond figure and ground, which didn't pose to command but brought a sense of belonging to a place.

## Najd Houses in At-Turaif Districts

Najd is divided into three major provinces: Riyadh Province where the capital of the Kingdom of Saudi Arabia is, Qassim Province, and Hayil Province. (Figure 1) Due to geological location of trans-peninsular trade routes, people were contact with different cultures. Also, fertile oases and deserts existed side by side with their distinctive life style and culture. The two groups had continued to share mutual benefits; the inhabitants of deserts had found in towns and villages markets to sell their products and buy what they needed.<sup>1</sup> The distinctive feature of Najd architecture is the separation of genders which is accomplished by two individual entrances at opposite sides of the house. The men's entrance leads directly to a visitors' wing on the ground floor, or to a stair with reception room upstairs. The

women's entrance usually gives to the general courtyard with a well or cistern, surrounded by service spaces. Male quarters have north oriented galleries and iwans and a few guest rooms.<sup>2</sup>

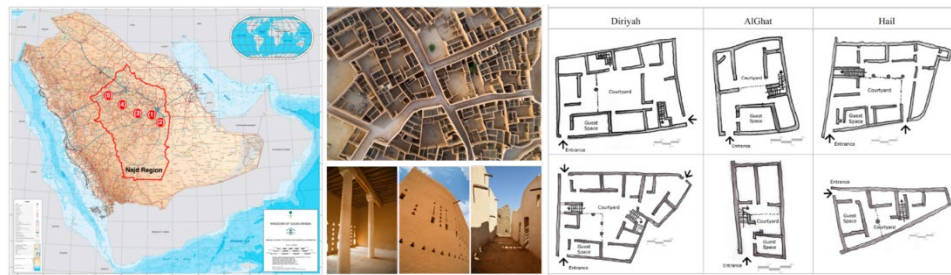


Figure 1. Najd Map (Left), At-Turaif Town (Middle) by ADA, Najdi House Plans by Alnaim

According to Alnaim, the central courtyard is peculiar with corridors increasing depth in order to avoid direct visual contact along with the environmental function generating micro climate.<sup>3</sup> (Figure 1)

The vulnerable building material, sand clay, is reinforced with the compact arrangement of walls punctured with triangle and rectangular openings mainly for air circulation, limestone columns and local wood; tamarisk joists. One of Najd town, At-Turaif district in Diriyah is enlisted as World Heritage in 2010. UNESCO describes, “This property was the first capital of the Saudi Dynasty, in the heart of the Arabian Peninsula, north-west of Riyadh. Founded in the 15th century, it bears witness to the Najdi architectural style, which is specific to the centre of the Arabian peninsula. In the 18th and early 19th century, its political and religious role increased, and the citadel at at-Turaif became the centre of the temporal power of the House of Saud and the spread of the Salafiyya reform inside the Muslim religion. The property includes the remains of many palaces and an urban ensemble built on the edge of the ad-Dir’iyah oasis.”<sup>4</sup> The oasis aligned to Wadi Hanifah<sup>5</sup> made at Turaif acknowledged as the exemplary human settlement in the desert environment by UNESCO.

### ARAMCO House Program in Doxiadis’s Grid

In order to accommodate the tremendous population influx due to the petroleum industry, Riyadh implemented a modern urban planning in 1975 planned by C.A. Doxiadis. (Figure 2) It is comprised with 2km x 2km super block grids laid with 60m to 100m width roads for private cars. The internal layout is symbolic in pinwheel formation with the core area of 200m x 200m for community programs; such as mosques, schools, and parks.<sup>6</sup> The residential plot is varied in sizes, but mostly 30m x 30m plot is laid for a villa. The urban axis is set towards Mecca proposed by Doxiadis.<sup>7</sup>

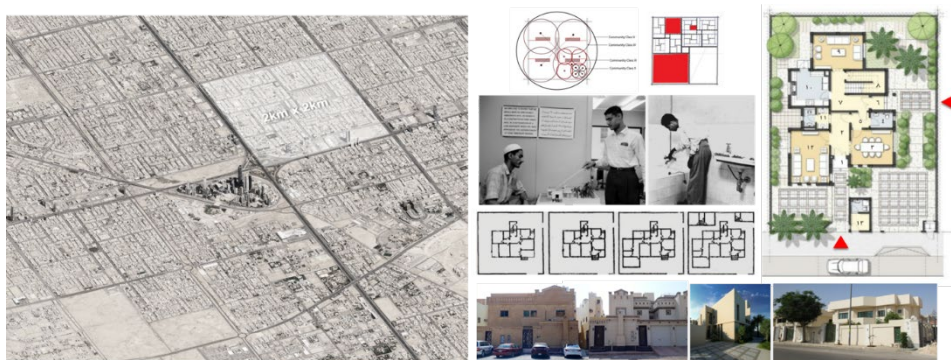


Figure 2. Aerial View near KAFD in Riyadh (Left), Doxiadis Grid Formation (Top Middle), ARAMCO Housing Program by ARAMCO (Center Middle), House Transformation by Alsaïd (Center Middle), Residential area photo by Author (Bottom Middle), House Plan from Arab-Arch.com (Top Right)



The high-speed cars confining low density urban neighborhood in 2km x 2km blocks are continued though the urban sprawl leaving numerous white lands in the blocks. ARAMCO (the Arabian American Oil Company) housing program (Figure 2)<sup>8</sup> introduced the modern house typology in KSA followed by their workers' compound near ARAMCO field sites; high fence walls with a house building at the center. It resulted an inverted spatial order and configuration from Najd style houses with a central courtyard. This inverted figure and ground condition distanced from neighbors and streets undermined the interrelated relationship with neighbors in social communal agreement. The disparity between the regional architecture and the modern architecture comes from the shift; from the ecological and cultural setting to the political grid.

### Ecological Sensibility

According to the Cambridge English definition, ecology is the relationships between the air, land, water, animals, plants, etc. usually of a particular area. Also, sensibility is defined as the quality of being able to appreciate and respond to complex emotional or aesthetic influences. John Rodman introduced ecological sensibility as the fourth typology of environmental thought followed by the first three typologies or stages referred to the "conservation of resources" (prudential stage), the "protection of natural spaces" (reverential stage) and "moral extensionism" (respectful stage).<sup>9</sup>



Figure 3. Aerial Map near Riyadh (Top Left), Riyadh 1960s (Bottom Left) by ARAMCO, a Cookie cutter Land in Doxiadis Block (Bottom Left) by Author, People in the Old Town (Top Middle) by AIRiyadh, a Woman walk near a cookie cutter white land (Bottom Middle) by Author, At-Turaif (Top Right) by ADA, A Saudi watching a golf game in 1950s by Bettmann (Bottom Right)

It links with "the Land Ethics" by Aldo Leopold. He said that all ethics so far evolved rest upon a single premise: that the individual is a member of a community of interdependent parts. In his ethics, the role of the human species is to be a "plain member and citizen" within the community of the earth. Molina-Motos states that it is the sense of obligation for humans by an intellectual, emotional and aesthetic perception of value (of the inherent value of life and its environment) in her research on Environmental Education.<sup>10</sup> The theoretical reviews of ecological sensibility is brought up to architectural design studios in order to understand communal decision makings that sustained the intricate but livable neighborhood regardless of the limited resources in the harshest land with the communal consensus of a tribe. (Figure 3) It differs from the political urban planning dissecting and compartmenting lands for central efficiency (Figure 4). It is At-Turaif District in Ad-Dir'iyah enlisted as World Heritage by UNESCO in 2010. There is a joyful journey unfolding an intricate inter-living entity that one can simply get lost but be pleasant as mentioned in UNESCO descriptions and criteria. (Figure 3) Currently, this peculiar experience becomes an entertainment for tourists and romantic recollection of the past, while

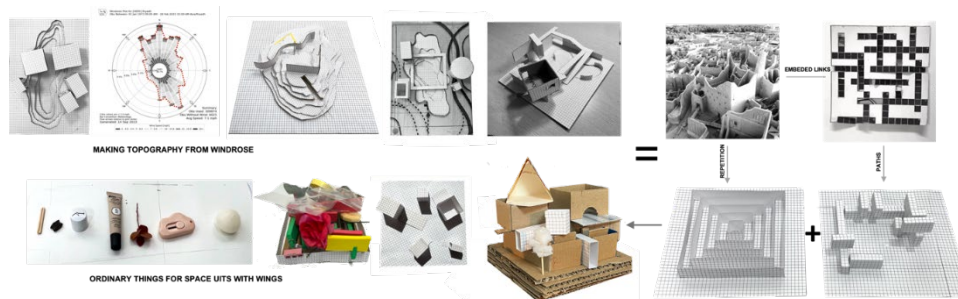


the disparity and disorientation between the past and the present go deeper. The visual representation of the past brings architectural elements and places them in the modern grid burying the ecology of experience. In order to interpret At-Turaif properly out of mysteries, students are asked to translate their experience at At-Turaif in order to identify ecological sensibilities that sustained the town prior to assessing cultural value of the built form. Eventually, it generates specific design parameters simulating coherent decision makings on the land with holding back current norms to produce a style or form to refresh the identity synchronized by the symbolic modern environment.

## ECOLOGICAL SENSIBILITY #1\_TOPOLOGICAL SPACES

As the Doxiadis's grid continues to spread, tributaries of Wadi Hanifah are disappeared and weakened. The topological space is flattened even though the planted green area is thickened along Wadi Hanifah. The natural function of Wadi Hanifah is framed by roads dissecting tributaries in order to accommodate the expansion of urban setting. (Fig.3) The oddity starts from the planted green on the flattened land. The evaporative cooling generated by the valley topography where varies depth of space is interrelated to the living here in Riyadh. But the planted green functions as a visual element standing alone on the flat land aligned to non-stopping cars of high speed.

How can we recover the interdepending sensitivity of At-Turaif to the land from the flattened by the grid? How can we let built forms meander topography? Can we secure the memory of living structure on the challenging land prior to copying the traditional formal elements on the land of the modern grid for cars? Can we have trees naturally grown in the shadow not with the water pipes? Can built forms be an instrument to generate shades and shadows? The reciprocal relationship with the land was tested as an ecological sensibility on the topological space. It took some time to stop habitual efficiency to incubate realistic empathy for a project. It is a start of rule-based design process not form-oriented design process as it had been here at At-Turaif.



*Figure 4. Topography Generation (Top Left), Ordinary things for Space Units (Bottom Left), At-Turaif by ADA, Five Layers of Walls and Cross Word (Top Right) to network them all to simulate MAZE condition of At-Turaif (Center Middle), Demo Models and Photos by Author*

Design rules were given to students; Bring five layers of walls, Select a crossword, Name words with actions such as reading or sleeping, Bring five ordinary things representing home bit house, Select the month of wind-rose of Riyadh to generate a topography, Decide the level according to climate condition of the month, Locate Ordinary things at the colliding area of walls and crossword, Decide the location and path logic according to users' scenario. (Figure 4) The way interpreting ordinary things into architectural language was open to students. The form is determined by students with one condition; apply grid skin to building masses and the ground to simulate homogeneous earth condition of At-Turaif leaving the spatial logic in its own narrative constructed by the interplay of all conditions. (Figure 5) Representing five prayer times in a day, five layers of walls were proposed to secure any structural issues. However, it had been neglected by the will to form.



Figure 5. Students' Works Sample with grid skin by Abeer Salman (Left), Sadeen Almarzoqi(Right)

## ECOLOGICAL SENSIBILITY #2\_TENSION BY RANDOM INTERSECTIONS

The major difference between the modern and Najdi architecture in Riyadh is how built forms are interrelated to each other. The relationship between walls is detected by communal factors, security and shadow. The width and inflection of paths are determined by optimization of communal interests. It reflects the solidarity of communal consensus of tribal towns. While the densely facing walls secures shadows, the inflection excludes strangers. Apparently, it is an exclusive built form, but regardless of mono building material; clay, the town delivers sense of openness and expansion with a series of voids unfolded in numerous ways along the paths. The unpredictable interplay of tension built by layers of walls are interpreted as an ecological sensibility to discover and restore in the modern grid for a residential design studio. Students asked to bring layers of walls with things that bring the sense of home to them. (Figure 6) Students selected basic geometry to generate five layers of walls. (Figure 7)

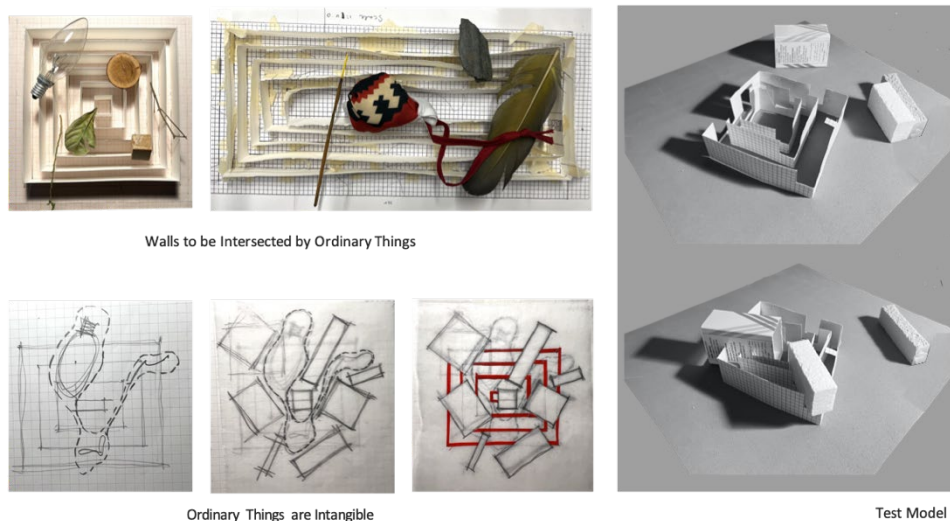


Figure 6. Ordinary Things to make a Path (Left Top), Sketches of the Path with Space Units (Left Bottom), Photos and Demo Model (Right) by Author

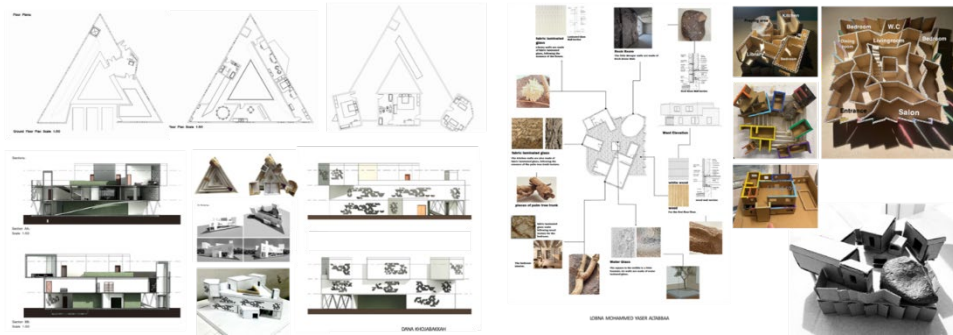


Figure 7. Maze House Final Panels, Dana Khojabakkah(Left). Lobna Altabbaa(Right)

Things recalling the sense of home were placed on the top of the walls to generate a path, a series of voids to move around. (Figure 6) After confirming the punctured walls, students placed space units that cutout from the existing modern houses to bind the distanced and punctured walls. (Figure 7)

### ECOLOGICAL SENSIBILITY #3\_VECTORS IN SEQUENCE

There are wonders about the road network of At-Turaif. The complicated spatial organization but in order exists at At-Turaif town. Individual houses are centered with own courtyards linked to the intricate path network.<sup>11</sup> This ontological pattern has been interpreted in terms of environmental, sociological, cultural, and mixed factors. The studio was started with an assumption that the plasticity of the pattern would be originated by vectors. Oxford dictionary defines it as “a quantity having direction as well as magnitude, especially as determining the position of one point in space relative to another.”<sup>12</sup> The intertwined road network was examined in terms of vectors. The directions of paths are extracted and overlapped with a force; wind rose of Riyadh.

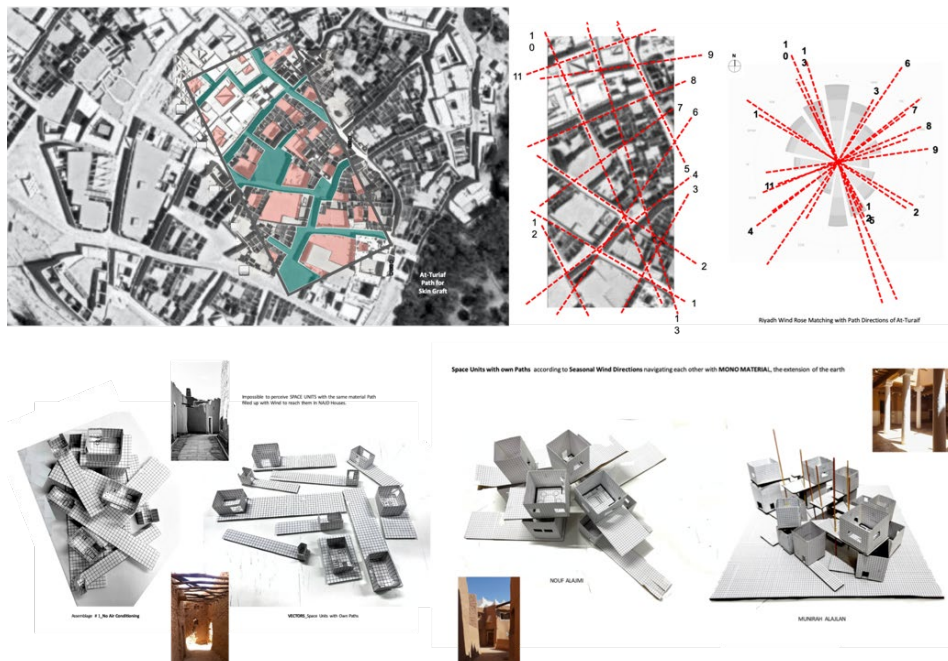


Figure 8. At-Turaif Aerial View (Left Top), Overlapping Riyadh Windrose on the road Network (Right Top), Space Units with own Wings (Bottom), Diagrams and Photos by Author

With the interpretation, students were asked to copy the space units of Najdi Houses and designed the path of space units according to its programs and sizes, wings. Like the way of rain drops, students



placed space units with wings on the site to maximize air flows according to wind rose of Riyadh. The idiosyncratic pattern emerges from the layers of individual positioning and orientation one by one on the ground level. After confirming the relative positions, students cut and fold wings to connect them all together as a body of living.

There was one design rule; no matter what, there will be no air conditioning in their house design. It brought criteria how to position space units with wings to make various shadow areas and water evaporation with ponds maximizing the wind direction. Consequently, columns were followed to support wings and space units. The location of columns was generated. They were not preplanned. (Figure 8) The process of the sequential positioning and orientation correlated with others for environment causes was taken as an instrument to restore natural living process of growth. The unfolded individuality embodied by positioning and orientation turns the pattern into a dynamic field of motion charged with various social and environmental forces; vectors, not forms of the past but the same feeling experienced from At-Turaif.

## BRING BACK THE SENSE OF COMMUNITY

As the definition of ecological sensibility states, the communal sense of belonging and sharing mutual interest are indispensable to recall it back to revive the modern urbanity. The sense of community has been lost as the tribes towns have been merged into the modern grid. Christopher Alexander mentioned that the beat of informality against the discipline of geometric order, can lead to the most splendid qualities.<sup>13</sup> He emphasized the role of ordinary living pattern of a community sharing a vision to build a town with everyday experience over representational scenery. In order to cope with the shift from the field condition to the object fixation in Riyadh, a group of students representing a community worked together to humanize an imperceptible 2km x 2km superblock (Figure 9) in Urban Design studio.

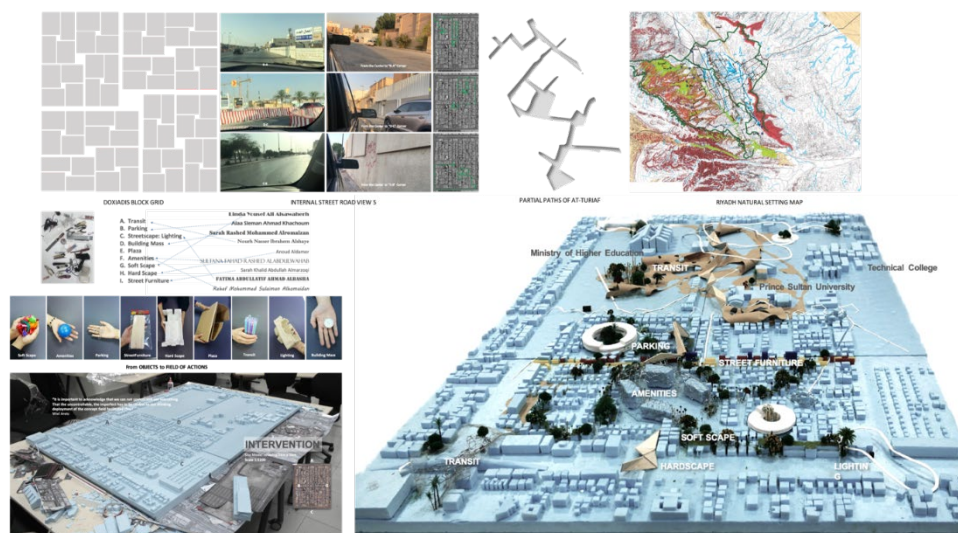


Figure 9. 2km x 2km Block Survey by Car (Left Top), The Partial Path from At-Turaif and Natural Setting Map of Riyadh (Right Top), Mono Material Experimentation (Left Bottom), Final Model (Right Bottom,) Diagrams and Photos by Author

A set of typical urban design elements were studied and implemented to disrupt the inhumane scale and low density with the motto; ‘Emancipating Urban Elements from Doxiadis’s Grid’ in Fall semester in 2017. Student documented one of Doxiadis’s block by car. (Figure 9) Along with the documentation, students selected an object to shift or transform its functional condition to 5 different conditions. It was designed to realize automatic perception on mono materiality. Students deformed the object with fire,

cutter, and hammer. Basically, the typical urban elements were switched by new urban elements varied in form, scale, and function. From 'the mono to the hetero' experimentation, students placed their own urban elements on the site, 2km x 2m block. Each urban layer placed sequentially. The collided areas came up naturally. Students held a meeting how to adjust their layers and programming together for the sake of the community proposal, University Town in Riyadh. (Figure 9)

The hierarchical and geometrical relationship dictated by Doxiadis's grid are disrupted by nine urban elements to unfold and respond to cope with complexity of everyday experiences to the land silenced by the wide roads for high speed cars. Whether it is agreeable or not, the open land activated by menial urban elements is proposed to welcome university students in future.

## CONCLUSION

Basically, ecological sensibilities experimented here are related to reduce the extreme heat stress on streets and daily lives in Riyadh beyond modernism and national identity. The sensibilities are critical but not investigated properly in architecture studios as the rapid modernization to accommodate the population influx due to the petroleum industry. The past when people knew how to relate themselves with their own local land on daily bases lost its ground for high ways with full speed cars and American modern houses. The heat stress on daily lives in Riyadh is the intimidating and dominating factor. With that unforgiving environmental exhaustion, the dull but perfect geometrical modern environment seems cruel to people on the streets. If one in a car sees people walking down the street in Riyadh, there is a sigh, a pity, and a wonder on why one has to walk. The beautiful geometrical modern city seems to have nothings to do with life or daily experience of ordinary people in physiological level. The ontological value of At-Turaif is outstanding in this climate endangerment. The wisdom needs to be analyzed scientifically not aesthetically and mechanically. The generation needs to attribute how their ancestor managed their land of dynamic geology. Then, the question is truly how not what. The misguided but genuine geological values are feeble when the visual elements take all. The restoration should start from reading the empathy to the land as before, not from defiant modern preconception that places the past as a glorified object. (Figure 10)

The livability of At-Turaif town, where a homogeneous material covers all, seems inexplicable to modern cubists' aesthetic. It is embodied in between and intangible; the constant presence of movements in motion.

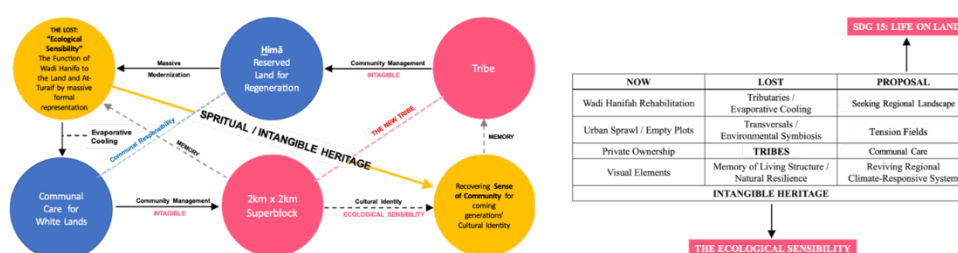


Figure 10. Diagram and Proposal for Bringing Sense of Community by Recalling Ecological Sensibilities to 2km x 2km Block Residents as a New Tribe by Author

It is registered here as ecological sensibilities of a community on the land.<sup>14</sup> (Figure 10) Its inexplicability cannot be fragmented since it takes wholeness in the memory from physiological experiences; faithful and grounded response to the land and humbleness towards environmental constraints. Somehow it is urgent to register interplays between the land and natural forces not to be forgotten again in modern frames such as representational form, surface elements, and syntax, etc. It might be unfolded with other sources such as folk literature<sup>15</sup> to bring the empathetic approaches to read the lost ecological sensibilities.

Projects introduced in this paper explored the livability emerged from ecological sensibilities keeping the incremental growth determined by singularities coherent. The design rules designed to free students gave some time to feel otherness and think of copying the look to claim the tradition value or identity. These works might be a total failure. However, the experiments gave chances to discover a communal logic to be embodied in architectural language, nothing but architecture which stands out beyond representational figure and ground, for continuing livability of a community by interconnecting built forms for ensuring critical environmental factors.

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# NIGHT LIGHTS: THE VALUE OF LIGHT-BASED PUBLIC ART IN CREATING A MORE LIVABLE VANCOUVER

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## INTRODUCTION

You don't see fireflies in the Pacific Northwest. The type that lives in this colder, damper environment glow only faintly, their sparks too dim to perceive. The climate makes for opulent forests, but in the coastal cities, frequent drizzle leads to mossy rooftops, water-stained concrete, and accelerated erosion of the built environment. With an average exceeding 150 days of rain per year, Vancouver, Canada, has won the nickname "Raincouver." The population of 2.6 million in the Metro Vancouver area also endures the least affordable housing of any Canadian city. For many, urban living can feel like a struggle.

It is on this stage of soaked streets that nights could appear especially grim, if not for the creative use of light. Artists and designers are working with light to make *Raincouver* a more livable city. In neon works such as Justin Langlois' 'Should I Be Worried?,' Martin Creed's 'Everything is Going to Be Alright,' Kathleen Ritter's 'Gaslight,' and Toni Latour's 'Let's Heal the Divide,' messages illuminate the sky, reflect across the surface of puddles, to share in the thoughts and feelings of the city's residents. Debra Sparrow's project in 'Blanketing the City: Lighting the Way,' reprograms the coloured lights of iconic buildings to brightly display traditional Coast Salish weaving patterns, indigenizing the landscape. In examining these works, this paper explores how creative uses of light can build a sense of belonging—be it through collective positivity or relatable cynicism—and create those unexpected moments of delight that make urban life gratifying.

## THE PROBLEM OF VANCOUVER

Vancouver is a city by the sea framed by a breathtaking horizon of coastal mountains. The downtown core glitters with tall, slim glass and steel constructions designed to facilitate water views. Located within the shared unceded ancestral territories of the Coast Salish peoples, the Musqueam, Squamish, and Tsleil-Waututh Nations, the landscape was once carpeted in temperate rainforests. Forests still cover portions of North Vancouver, and beaches both rocky and sandy are plentiful. This proximity to nature facilitates promotional images of outdoorsy, active lifestyles: hiking under giant cedars, yoga in the seaside park, kayaking and Dragonboat racing in the bay adjacent to high-rise condos and seafood restaurants. The city is young and photogenic. The social media version of Vancouver sparkles in the sun, however this is not the weather the city is typically known for. With an average exceeding 150 days of rain per year,<sup>1</sup> the city has earned the nickname *Raincouver*. In his book *Vancouverism*, former City planner Larry Beasley writes, "the beauty of the setting beguiles you while the climate claims and

abuses you in turns. The very fickleness of the places makes it your mistress...”<sup>2</sup> A local indie magazine is lovingly titled SAD after ‘seasonal affective disorder,’ a form of depression caused by a lack of sunlight.

Besides the wet weather, the city wrestles with significant social and economic challenges. Real estate is a frequent subject of conversation among Vancouverites. Housing is discussed either as a scarce necessity or an investment opportunity depending on the speaker’s level of generational wealth. For many, the topic is disheartening. A 2024 headline on the city blog Daily Hive reads, “Average income required to buy a home in Vancouver is soul-crushing.”<sup>3</sup>

While the cost of rent exceeds what is sustainable for the average person’s income, the housing crisis is eclipsed by the tragedy of the opioid crisis. In 2016, a public health emergency was declared due to the increasing number of deadly Fentanyl overdoses.<sup>4</sup> The combination of these problems, along with other social issues, contribute to tent cities popping up in the Downtown Eastside, perpetually disassembled by police only to be reconstructed—most recently—adjacent to the harbor to greet the incoming cruise ships.

Despite Vancouver’s natural beauty, the human experience of city life can be punishing. Historically, Vancouverites have responded to living in a landscape partial to a gray monotone palette with some extreme measures.

### More Neon than Vegas

In 1953, Vancouver had 19,000 neon signs. That was one neon sign per every 18 residents.<sup>5</sup> A city awash in signage and advertising, mid-century Vancouver was the ‘Neon City’ boasting more signs than either Las Vegas or Los Angeles. Describing a 1950s postcard titled ‘Night Scene’ published in his book *It Pays to Play*, Peter White writes poetically:

A single front fender heading in on a diagonal to a Granville Street lit up with neon as far as the eye can see. The glare of oncoming headlights, the sensation of motion, the softened outlines that result from illumination all conspire to produce an image of mystery and possibility, perhaps of something vaguely illicit.<sup>6</sup>

Neon began falling out of fashion in the 1960s. Critics deemed it garish, claiming it disrupted the natural appeal of the landscape, leading to bylaws in 1974 that prevented any new neon signage. For more than a decade, the Museum of Vancouver hosted an exhibit focusing on the city’s history of neon. Viviane Gosselin, the museum’s curator of contemporary culture explains:

Vancouver was bright, it was alive. It was associated with excitement, glamour, modernity and at the same time it just happened to be one of the most visually striking in contrast to the surrounding nature, so it’s not surprising that a love/hate relationship with neon also happened here.<sup>7</sup>

Half a century later in the early aughts, the City of Vancouver, in a wave of nostalgia for the city’s past neon notoriety, began actively encouraging a resurgence of light-based signage. In the years to follow, city’s downtown entertainment district used Vancouver’s wet climate to its advantage, the illumination from lit-up signs reflecting on rain-drenched streets and puddles. The infusion of color could once again be a draw for people to venture out in undesirable weather.

### UNEXPECTED ILLUMINATIONS

In her book *On Looking*, Alexandra Horowitz describes the experience of signage in the city in salacious terms, writing, “Words are the ample cleavage of the urban environment: impossible not to look at.”<sup>8</sup>

The commercial signage described by Horowitz, just like that previously on display at the Museum of Vancouver’s ‘Neon Vancouver, Ugly Vancouver’ show, is a product of capitalism; its appearance, however artful, serves to compel participation in the economy, inspiring the viewer to spend money on

goods and services. In contrast, the works to follow use the format of light-based signage creatively to surprise, to build a sense of agency and community, and especially to allow for Vancouverites navigating a challenging urban space to feel *seen*. This paper argues that these light-based public artworks are particularly effective when the messaging is ambiguous, controversial, critical, or irreverent.

### Everything is Going to be Alright

In 2008, neon text reading ‘Everything is going to be alright’ in capital letters was installed on the exterior wall of the Wing Sang building in Vancouver’s Chinatown. The work, officially titled ‘No 851: Everything is going to be alright,’ is by British artist Martin Creed and was commissioned by art collector and real estate marketer Bob Rennie (Figure 1). Rennie, known locally as the ‘Condo King,’ had purchased and restored the historic building to house his extensive private art collection.



Figure 1. Creed, Martin. ‘No 851: Everything is going to be alright.’ 2008, neon art installation, Bob Rennie Collection. Image: Rennie.com

The text can be read as a sincere affirmation—and one wonders if it is indeed read this way by the Condo King—but it also invites a darker, more cynical interpretation. Vancouver writer Michael Turner describes the piece:

This work of neon text, commissioned by real estate magnate Bob Rennie and attached to his Chinatown palais, will be forever wedded to the year it was made. For it was in 2008 that the world experienced what is softly called a “downturn,” ... it was the year the public had to be convinced not to lose confidence in the market as an arbiter of what is good and right, and that sooner than later you will get your condo back, perhaps with a second bedroom.<sup>9</sup>

Situated in a neighborhood visibly struggling with addiction, poverty, and the turmoil of gentrification, it seems particularly problematic to make such a decree. For what does it mean to be alright? Versions of Creed’s work using this same text exists in similar formats in other cities. In discussing one of the original installations from 1999, artist Dave Beech observed, “The neon says everything is going to be alright, but the art is not so sure.”<sup>10</sup>

A hint as to the potential irreverence of Creed’s work might be found in another of his pieces, this one in the collection of architects Christophe Comoy and Luis Laplace. In a photo essay done for *Architectural Digest*, the word ‘Things’ hangs on the wall of a dining room in Creed’s neon text. Of this designer interior, Comoy is quoted as saying, “Having objects around is like being surrounded by friends.”<sup>11</sup>

In 2010, as Vancouver prepared to play host to the Winter Olympics (and went to great lengths to contain and—if possible—conceal its flaws), artist Kathy Slade exhibited her work ‘Is Everything Going to be Alright?’ in the window of the Audain Gallery, three blocks away from the Wing Sang. Slade’s work acts in teasing dialogue, giving voice to what many viewers may have thought upon seeing Creed’s work in context.

### Let’s Heal the Divide

Presented as a summons rather than a decree, Toni Latour’s 30-foot neon sign reading "Let's Heal the Divide" in lower case letters was first exhibited on the exterior wall of Vancouver Community College’s downtown campus in 2015. The site looks across Pender Street down the hill to Victory Square, an urban park frequented by international students at lunchtime, and an active street drug scene in the evenings. Latour’s intention was to address the socio-economic and cultural divides between Vancouver’s Downtown Eastside and the surrounding neighborhoods.<sup>12</sup> In 2020, the work was re-installed several blocks east in Chinatown on the Keefer Hotel (Figure 2). On this narrow building, home to a trendy bar under four luxury suites, Latour hoped to emphasize the ongoing issues of gentrification and cultural displacement within the historically rich area, which faces significant change and pressure from urban development.<sup>13</sup>

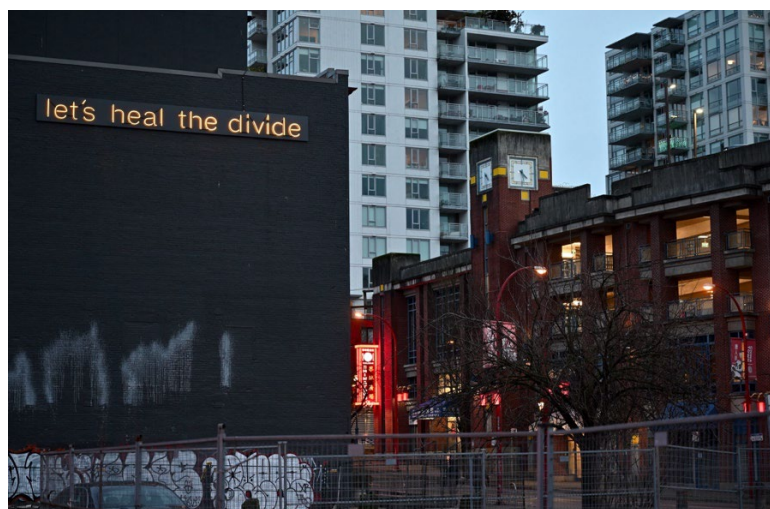


Figure 2. Latour, Toni. ‘Let’s Heal the Divide.’ 2020, neon public art installation, Vancouver Biennale.  
Photo credit: Ric Lam

In its new location, the divide could not be clearer. The Keefer Hotel has been reviewed in *Wallpaper Magazine* and *Conde Nast Traveler* with the latter writing:

This luxury rental is a boon to shabby Chinatown and a good indication that the area is becoming hip again... It’s tempting to want to throw a blowout party here, especially if you can book the penthouse, whose roof deck has a sexy lap pool with a transparent bottom looking into the suite.<sup>14</sup>

On such an establishment located in one of Canada’s top 10 poorest neighborhoods,<sup>15</sup> the messaging might feel more like a blow than an invitation. In either case, it is not easily dismissed.

### Should I Be Worried?

In 2017, artist Justin Langlois completed a year-and-a-half residency with the City of Vancouver’s Sustainability Group which led to the creation of his work ‘Should I Be Worried?’ a neon sign with all-capitalized text installed on a large wooden arch structure in the water of False Creek. The sign can be viewed from the seawall, where pedestrians enjoy the natural beauty of the bay, as well as a horizon of

downtown skyscrapers, symbols of the City's prosperity and aggressive urban construction (Figure 3). Set against this backdrop, the piece encapsulates the tension experienced by Vancouverites. In an interview with *Vancouver is Awesome*, Langlois explains his goal in creating this and other works, stating:

I think it can be particularly effective at introducing a new question or an unexpected consideration. I'm invested in that because I want to live in a community where new questions and unexpected considerations are seen as an asset and a core part of how we live together.<sup>16</sup>

The text can be interpreted as pointing to social issues such as affordability, community, and the opioid crisis; environmental issues such as climate change; or even personal issues, like health and relationships. As one eyes the water levels and the exclusive residential buildings towering in the background, the text becomes a glowing visualization of the viewer's inner anxieties and the conflicting feelings provoked by urban life.

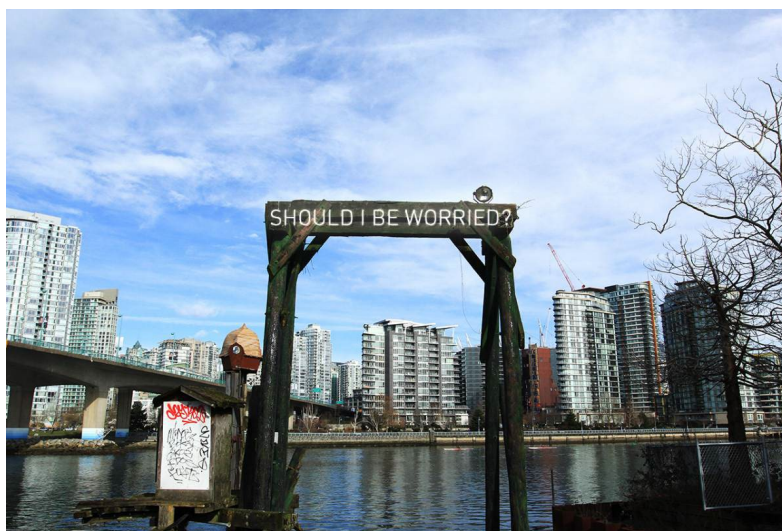


Figure 3. Langlois, Justin. 'Should I be Worried?' 2017, neon public art installation, City of Vancouver. Image: Justin Langlois.

Another of Langlois' neon works is displayed on a new residential rental building in North Vancouver. The words 'Where Else Would You Rather Be?', are stacked in all capital letters beside the building's entrance. The illumination is programmed so that an underline appears under one word at a time, shifting throughout day. Langlois' artist statement explains that the line "creates the effect of different emphases (and arguably, different questions) for passersby."<sup>17</sup> As the building aims to appeal to new renters, featuring an artwork that could be interpreted as alluding to the existence of more desirable locations seems either daring or comically oblivious.

## Gaslight

A single word, 'Gaslight,' appears on the northeast roofline of the downtown Del Mar Inn (Figure 4). This work by Kathleen Ritter was installed in 2020, during the pandemic. Unlike the pervasive sans serif text in earlier works discussed in this paper, Ritter's 'Gaslight' is encircled by the outline of a flickering gas flame, in reference to both the historical use of gas lighting and the psychological term "gaslighting," which was derived from the 1940 film *Gaslight*. The work's design is in fact drawn from the title card for the film. Commissioned by the local arts magazine Fillip with the support of the City of Vancouver's Public Art Program, a press release described the piece as follows:



Within a current context fractured by a global public health crisis, the inequalities of late capitalism, the violence of systemic racism, and a looming catastrophic climate crisis, Ritter's work urges us to investigate our relationship to structures of power and resist the cognitive dissonance of our current post-truth reality.<sup>18</sup>

Disguised as commercial signage, the work plays on the nature of neon light—literally gas illuminated—while addressing the concept of gaslighting, wherein misinformation and manipulation cause people to doubt their own reality. Similarly to Langlois's work, Ritter's piece acts as a cheeky acknowledgement of the anxieties of the human experience, particularly life among others.



*Figure 4. Ritter, Kathleen. 'Gaslight.' 2020, neon public art installation, Fillip Magazine and City of Vancouver. Image: Rachel Topham.*

### Lighting the Way

Unlike the other works highlighted in this paper, this last piece does not communicate with text, but with pattern. Artist Debra Sparrow is a celebrated Musqueam weaver who has been instrumental in reviving traditional Coast Salish weaving techniques. Sparrow's work incorporates traditional designs and contemporary themes, bridging the past and present. Since 2017, Sparrow has collaborated with the Vancouver Mural Festival on the project 'Blanketing the City' to integrate Indigenous art into urban spaces through murals.<sup>19</sup> An extension this project, 'Blanketing the City: Lighting the Way,' uses traditional Coast Salish weaving patterns in programmed light projections. Exhibited as part of the 2024 Winter Arts Festival, the installation features large-scale light displays on prominent Vancouver landmarks, including Canada Place, Science World, and BC Place (Figure 5).



Figure 5. Sparrow, Debra. 'Blanketing the City: Lighting the Way.' 2023, Winter Arts Festival. Image: BC Place.

These displays transform these buildings' facades with vibrant, intricate designs that reflect the cultural practices of the Musqueam people.<sup>20</sup> While the patterns are a meaningful to viewers with background knowledge of their origin, they also use scale and color to ensure the project is visually engaging for those encountering the projections unaware.

## CONCLUSION

In her book *The Death and Life of Great American Cities*, Jane Jacobs writes, "By its nature, the metropolis provides what otherwise could be given only by traveling; namely, the strange."<sup>21</sup> The projects presented in this paper all engage with viewers through light but use different voices. Creed's 'Everything is Going to Be Alright' is written as a statement, a promise—or perhaps a jest? Latour's 'Let's Heal the Divide' is an appeal for collective action in a highly problematic space. Langlois' 'Should I Be Worried?' is a question poised aloud, manifesting the viewers' inner thoughts. Ritter's 'Gaslight,' which most closely resembles traditional store signage in design, serves as an irreverent reminder of our turbulent times. While Sparrow's projections in 'Blanketing the City: Lighting the Way' paint the land on which Vancouverites live, work, and play, serving as a reminder of its heritage. Following in the tradition of public works by artists like Jenny Holzer and Barbara Kruger, the pieces discussed in this paper reflect the conflicted feelings people experience while navigating everyday life in a city like Vancouver, with its social, economic, and environmental challenges. Glowing beacons in the night, these projects use a form associated with commerce, but rather than reaching through the dark for customers, they strive to make connections, start dialogues, spark reflection, and validate uncertainties, cares, and concerns. In this way, these public art projects can help individuals feel seen and included. They can make the urban experience feel less anonymous, and ultimately, more livable.

## NOTES

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- <sup>4</sup> City of Vancouver, "Drugs and Drug Use," accessed August 1, 2024, <https://vancouver.ca/people-programs/drugs.aspx>.
- <sup>5</sup> John Mackie, "Bright Lights, Old City: Remembering Vancouver's Neon Glory," *Vancouver Sun*, accessed August 1, 2024, <https://vancouver.sun.com/news/bright-lights-old-city-remembering-vancouver-neon-glory#:~:text=Article%20content,%E2%80%9D%20by%20anti%20Dblight%20crusaders>.
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# FROM A FESTIVAL TO VIRAL TRENDS: THE SYNERGY OF PARTICIPATORY PLACEMAKING IN BANGKOK'S FLOWER MARKET

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## INTRODUCTION: THEORIES AND PRAXIS

Empowerment is often discussed in theoretical terms, yet its true efficacy lies in praxis, where theory meets action. Praxis is at the heart of community empowerment, a concept deeply rooted in critical theory and social philosophy. Praxis, derived from the Greek word for "action," refers to the transformative process of engaging in critical reflection and practical action to effect social change. Healey highlights collaborative planning as essential for inclusive urban spaces,<sup>1</sup> similar to the praxis approach used in Pak Khlong Talat. This concept underscores that empowerment is not simply bestowed upon communities from external forces but is cultivated through active engagement and agency.

In the context of Pak Khlong Talat, praxis signifies an approach that begins with action. The absence of a formal community organisation and the competitive nature of the vendors posed significant challenges. However, these conditions also offered unique opportunities. Starting in 2016, projects were initiated without waiting for endless community meetings. Interviews with local vendors uncovered the complex social and economic dynamics. Initial findings revealed that street vendors, often perceived as problematic, were integral to the market's ecosystem, contributing significantly to the local economy. Early design interventions (2016-2021) focused on cultural and artistic initiatives, which initially did not yield substantial economic benefits for the vendors. These projects were met with scepticism, perceived as middle-class academic exercises disconnected from the vendors' immediate needs. However, these interventions were crucial for learning and adapting strategies. They highlighted the importance of starting with action, iterating based on feedback, and understanding the community's needs through direct engagement.

The goals have consistently been to experiment with various activities—workshops, photo exhibitions, art installations, social media campaigns, and gamification—to determine what works best and why. Early artistic endeavours gradually shifted perceptions, making the market more receptive to new opportunities and customer groups. As the market's image evolved, more marketing strategies were incorporated, such as encouraging flower purchases as part of event participation to integrate economic benefits with cultural enrichment.

## THEORETICAL BACKGROUND

As conceptualised by Paulo Freire in *Pedagogy of the Oppressed*, Praxis emphasises the inseparable relationship between reflection and action. Freire posits that “true education” is not about transmitting knowledge but about transforming individuals through critical engagement with their reality.<sup>2</sup> Hess also underscores the role of participatory action in creating urban commons.<sup>3</sup> This aligns with Freire's praxis, which states that community engagement leads to transformative change. This notion of praxis involves a continuous cycle of reflection, action, and further reflection, fostering an environment where individuals and communities can challenge and change oppressive structures.

In the context of Pak Khlong Talat, applying praxis began with direct actions—interviews and initial interventions—without waiting for perfect conditions or complete consensus. This approach aligns with Nabeel Hamdi's perspective in *The Placemaker's Guide to Building Community*, which emphasises the importance of participatory action and the power of small, community-driven projects to create significant urban change. Hamdi asserts that impactful urban transformations often start with modest, practical actions that respond to immediate needs and opportunities rather than waiting for comprehensive plans or ideal circumstances.<sup>4</sup>

The competitive nature of the vendors at Pak Khlong Talat, initially perceived as a barrier, was later leveraged as a catalyst for community engagement and improvement. This strategy resonates with Sherry Arnstein's “Ladder of Citizen Participation,” which illustrates varying levels of citizen involvement in decision-making processes. The interventions moved up the ladder from tokenism towards genuine participation by gradually increasing the vendors' involvement and fostering a sense of competition.<sup>5</sup>

Moreover, the evolution of the market's image through early artistic interventions can be viewed through Leonie Sandercock's *Towards Cosmopolis: Planning for Multicultural Cities*, emphasising the importance of cultural narratives and expressions in urban planning. Sandercock advocates for a planning practice that embraces diversity and fosters inclusive narratives, allowing communities to tell their own stories and shape their own spaces.<sup>6</sup> Although initially seen as disconnected from economic benefits, the artistic projects played a crucial role in reshaping perceptions and creating a more inclusive and vibrant market environment.

The iterative process of action and reflection also aligns with the principles outlined by Stephen Kemmis and Robin McTaggart in *The Action Research Planner*. They describe action research as a participatory process that involves researchers and participants working together to diagnose problems, develop solutions, and reflect on the outcomes. This collaborative approach ensures that interventions are grounded in the lived experiences and insights of the community, leading to more sustainable and impactful outcomes.<sup>7</sup>

Integrating economic strategies into later interventions highlights the adaptive nature of praxis. As the market's cultural and social landscape changed, strategies were adjusted to include marketing elements encouraging economic participation. This shift mirrors the insights of William H. Whyte in *The Social Life of Small Urban Spaces*, who underscores the importance of understanding and leveraging social behaviours in urban design to create engaging and economically viable public spaces.<sup>8</sup>

More literature further supports these principles. Cornwall emphasises the role of participatory spaces in empowering marginalised communities by fostering active engagement and agency.<sup>9</sup> Additionally, Kwon highlights the transformative potential of community-based art projects in urban revitalisation,<sup>10</sup> aligning with the findings from Pak Khlong Talat. These contemporary insights underscore praxis's enduring relevance and adaptability in addressing complex urban challenges.

Thus, this study's theoretical framework is built upon the interplay between critical reflection, direct action, and continuous adaptation. The projects at Pak Khlong Talat exemplify the dynamic and

responsive nature of praxis by starting with immediate actions and learning through practice. This approach facilitated local vendors' empowerment and contributed to the broader goal of creating a more inclusive, vibrant, and economically sustainable urban environment.

### **THE TRANSFORMATION OF PAK KHLONG TALAT (BANGKOK FLOWER MARKET)**

Pak Khlong Talat, known as Bangkok Flower Market, represents a dynamic example of urban resilience. Located along the riverside in Bangkok's Phra Nakhon district, this historic marketplace has evolved from a bustling fish market into Thailand's largest floral hub. Despite regulatory interventions and economic fluctuations, the market has maintained its vibrant character, attracting locals and tourists with its colourful displays and fragrant blooms.

The absence of formal community organisation and the inherently competitive nature of the vendors presented initial challenges for any intervention. Cultural interventions can revitalise urban spaces,<sup>11</sup> which is reflected in the artistic efforts at Pak Khlong Talat that aimed to reshape its identity. In 2016, a series of projects were undertaken to reimagine the market's identity and foster community engagement. These initiatives, led by the author's team from the Faculty of Architecture at Silpakorn University, ranged from community workshops to art installations. The process began with direct actions—conducting interviews with local vendors and initiating early interventions—without waiting for perfect conditions or complete consensus.

Initial findings from interviews revealed that street vendors, often viewed as problematic, played a crucial role in the market's ecosystem. They provided complementary goods to those sold in the permanent shops, contributing significantly to the local economy. Contrary to the perception of vendors as a nuisance, it became evident that they were capable and resourceful individuals, managing substantial financial transactions and generating millions of Baht monthly. This economic capability highlighted their potential as active change agents rather than passive aid recipients. Their capacity to handle large-scale transactions underscored their importance in the market's financial network. It became an essential aspect of engagement strategies, leveraging their strengths and fostering greater inclusion.

Early design interventions (2016-2021) centred on cultural and artistic projects, which, while not immediately profitable, were instrumental in shifting perceptions of the market. These interventions included photo exhibitions, art installations, and social media campaigns to highlight the market's cultural and social significance. Despite scepticism and the perception of these projects as middle-class academic exercises, they were essential in fostering a more open and inclusive environment. The iterative process of action and reflection allowed for continuous learning and adaptation.

One notable initiative was the creation of photo essays shared on the Facebook page "Humans of Flower Market," which highlighted personal stories of the vendors. This project helped to humanise the vendors and shift public perception, showing that they were integral to the market's vibrancy and economy. Such efforts began to change the narrative around the market, presenting it as a place of cultural and economic vitality rather than a problematic space. In 2016, during a particularly dramatic period, a photo exhibition was held, which has been the most well-received by vendors to this day. Approximately 80% of the visitors to the exhibition were vendors themselves, attending as a form of farewell before moving their small shops to other formal venues. Although this event did not prevent the eviction of vendors from walkways, it highlighted the deep emotional connection the vendors had with the market.

The transformation of Pak Khlong Talat began to take a more apparent shape during the COVID-19 pandemic. In 2017, the team launched [www.flowerhub.space](http://www.flowerhub.space), which initially struggled to gain traction as vendors were reluctant to share their information online despite the free service. Less than 10% of shops collaborated at first. However, by 2020, the situation had changed dramatically. Dozens of shops began reaching out through the "Humans of Flower Market" page, eager to be included on the website.

Due to COVID-19 restrictions, the team could not collect data in person and had to rely on online forms, which vendors could fill out themselves, including pinning their GPS locations. This shift demonstrated that the vendors had previously pretended to be incapable or uninterested in online trade because they did not see its immediate benefits. The pandemic highlighted the relevance of online platforms, prompting vendors to reveal their true capabilities and adaptability. This experience underscores the practical challenges of fostering participation, which is often idealised in theory. In practice, participation is met with resistance and reluctance to change. As practitioners, the team did not wait for ideal conditions of involvement but engaged in action, encountered setbacks, and learned from these experiences. This iterative process aligns with praxis principles, emphasising the necessity to start with immediate actions, reflect on outcomes, and continuously adapt strategies to achieve meaningful engagement and transformation.

The real transformation became evident during Bangkok Design Week 2023, hosted by the author's team and supported by the Creative Economy Agency (CEA), marking the first year the market was officially part of a creative district. While initially only half of the vendors were prepared to cater to a younger generation of customers who preferred small bouquets and a retail-oriented approach, the event significantly influenced the market's dynamics. Vendors who had not prepared for retail trade began to adapt their shops, using chic and minimal paper to wrap flowers instead of the traditional, less attractive newspaper. This adaptation occurred without any financial subsidy from the government or the team, driven purely by the vendors' desire to attract a younger clientele. Shopfronts were decorated as vendors competed to attract a younger generation. Vendors became more polite, recognising that younger customers would post any negative experiences on social media, which could impact their business. Some shops even had salespeople ready to create customised bouquets, a level of hospitality previously unseen in this wholesale market. An emergent trend during Valentine's Day 2024 saw sunflowers become as popular as roses, reflecting the younger generation's preference for symbolising love with optimistic sunflowers rather than serious red roses. This shift in consumer preference highlighted the market's ability to adapt to changing trends and demographics.

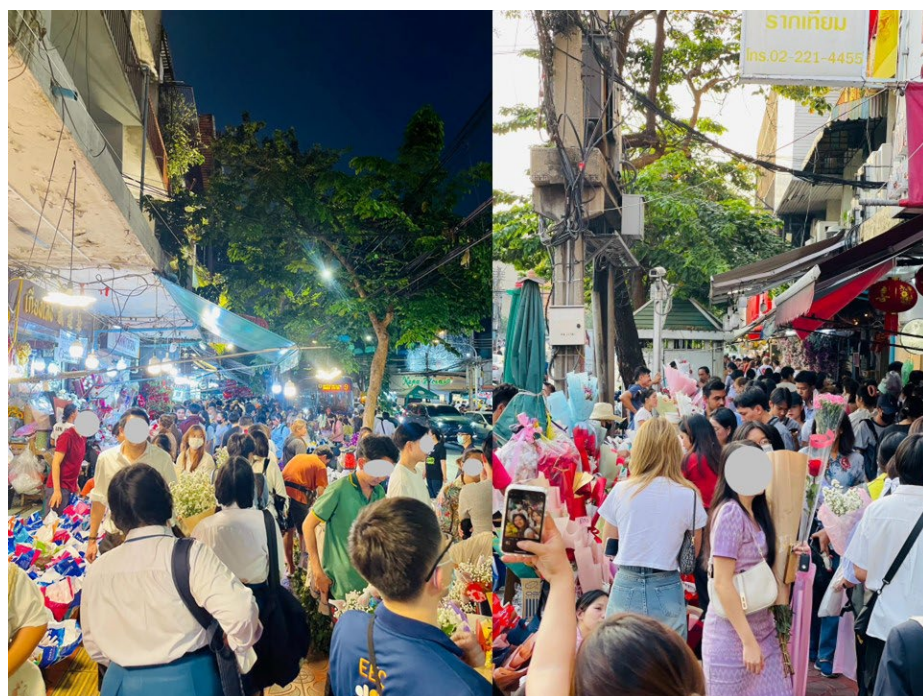


*Figure 1. Transformation: Street Vendor Presence Pre and Post Withdrawal in 2016. Photo Credit: mgronline.com (News Website)*





*Figure 2. Trending Photoshoots with Bouquets at Phra Phuttha Yot Fa Bridge*

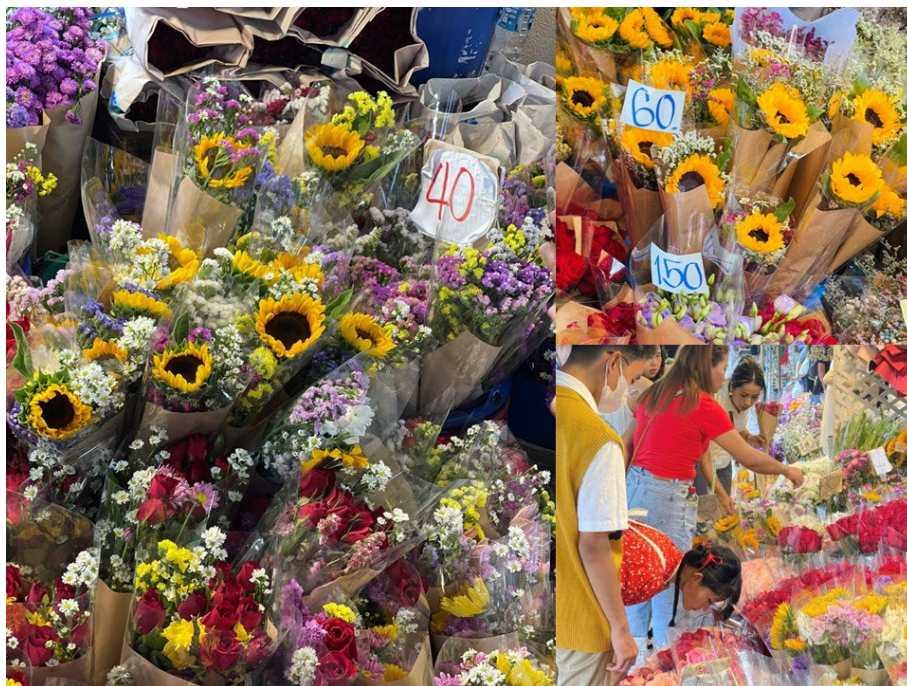


*Figure 3. Post-Festival Scene: The Market Buzzing with a Younger Crowd during the Valentine's Day.*





*Figure 4. Local Shops' Creative Storefront Decorations to Entice the Youthful Audience*



*Figure 5. Shift from Wholesale to Retail: Transformation of the Flower Market*

## **ANALYSIS AND CONCLUSION**

The transformation of Pak Khlong Talat through participatory placemaking initiatives underscores the profound impact of praxis in community empowerment and urban regeneration. This case study demonstrates that meaningful change is achievable through integrating cultural, social, and economic elements, even amidst significant challenges like the absence of formal community organisation and the competitive nature of local vendors.



The methodology employed in this study included a mixed-methods approach, combining qualitative and quantitative data to evaluate the impact of participatory placemaking on Pak Khlong Flower Market. Surveys among visitors and local vendors during festivals like Bangkok Design Week gathered feedback on the economic and social impacts. Stratified random sampling ensured diverse representation. Interviews with local vendors provided in-depth insights into their experiences and perceptions of the interventions, capturing changes over time. Focus group discussions with local vendors, young designers, and local authorities explored perspectives on the market's transformation and the challenges and opportunities associated with festivalization. Direct observations during events documented interactions between vendors and customers, offering a contextual understanding of the interventions' impact.

Findings indicate that while festivals and design interventions have significantly bolstered the local economy and attracted younger, economically active visitors, the benefits have not been evenly distributed among vendors. The strategic placement of artworks and installations fostered a collaborative atmosphere and highlighted the limitations of short-term festivalization in achieving long-term urban regeneration. Surveys and interviews revealed that festivals like Bangkok Design Week attracted a new customer base, particularly younger generations. However, the economic benefits were uneven, with some vendors experiencing increased sales and others seeing little change. This disparity underscores the need for targeted strategies to ensure all vendors benefit from such interventions. Although not immediately profitable, early artistic interventions played a crucial role in shifting perceptions of the market. These projects helped create a more inclusive environment, making the market more receptive to new opportunities and customer groups.

Despite these successes, challenges remain. The absence of a formal community organisation hinders collective action, and the benefits of festivalization are often short-lived. Continuous engagement, adaptation, and targeted strategies are essential to ensure that all vendors benefit from these interventions and that the market's transformation is sustainable. The analysis of Pak Khlong Talat underscores the importance of participatory placemaking in fostering a sense of community and ownership among vendors. The iterative process of action, reflection, and adaptation aligns with the principles of praxis, demonstrating that empowerment is cultivated through active engagement and continuous learning.

Furthermore, this case study highlights the delicate balance between cultural preservation and modernisation. While gentrification is often viewed as an opposing force, it is essential to recognise that fear of gentrification should not paralyse action. Landry also highlights the delicate balance required in fostering creative cities that prioritise cultural expression while ensuring inclusivity.<sup>12</sup> A challenge was also faced in the transformation of Pak Khlong Talat. Change is necessary for growth and learning, even when it brings challenges. The transformations at Pak Khlong Talat show that it is possible to navigate the complexities of urban development to benefit both the community and the broader urban fabric. However, the spectre of gentrification cannot be ignored. As the market becomes more attractive to new demographics, there is a risk that long-time vendors and lower-income groups may be displaced. It is critical to develop strategies that ensure inclusivity and protect the interests of the original community members. This involves continuous dialogue with stakeholders, implementing policies that prevent displacement, and creating mechanisms that allow all vendors to benefit from the economic uplift. In conclusion, the transformation of Pak Khlong Talat demonstrates the power of praxis in fostering sustainable and inclusive urban environments by starting with immediate actions, learning through practice, and continuously adapting strategies. The challenges related to gentrification must be addressed proactively to ensure that the benefits of development are equitably distributed and that the cultural and social fabric of the community is preserved.

## NOTES

- <sup>1</sup> Patsy Healey, *Collaborative Planning: Shaping Places in Fragmented Societies* (Vancouver: UBC Press, 1997).
- <sup>2</sup> Paulo Freire, *Pedagogy of the Oppressed* (New York: Continuum, 1970).
- <sup>3</sup> Charlotte Hess, "Mapping the New Commons," *SSRN Electronic Journal*, 2008, <https://doi.org/10.2139/ssrn.1356835>.
- <sup>4</sup> Nabeel Hamdi, *The Placemakers' Guide to Building Community* (London and Washington, DC: Earthscan, 2010).
- <sup>5</sup> Sherry R. Arnstein, "A Ladder of Citizen Participation," *Journal of the American Institute of Planners* 35, no. 4 (July 1969): 216–224.
- <sup>6</sup> Leonie Sandercock, *Towards Cosmopolis: Planning for Multicultural Cities* (Chichester: Wiley, 1998).
- <sup>7</sup> Stephen Kemmis and Robin McTaggart, *The Action Research Planner* (Waurin Ponds, Vic.: Deakin University, 1988).
- <sup>8</sup> William H. Whyte, *The Social Life of Small Urban Spaces* (New York: Project for Public Spaces, 1980).
- <sup>9</sup> Andrea Cornwall and Vera Schattan, *Spaces for Change?: The Politics of Citizen Participation in New Democratic Arenas* (London and New York: Zed Books, 2007).
- <sup>10</sup> Miwon Kwon, *One Place after Another: Site-Specific Art and Locational Identity* (Cambridge MA and London: The MIT Press, 2018).
- <sup>11</sup> Graeme Evans, *Cultural Planning: An Urban Renaissance?* (London: Routledge, 2001).
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# THE UNMAKING OF A LIVABLE SUBURB: THE CASE OF HELIOPOLIS, CAIRO

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## INTRODUCTION

To de-densify cities, new urban developments in the form of satellite cities rarefy the urban mass while promising a utopian life to inhabitants. Although such strategies have attracted scores of inhabitants to these developments, the need to connect satellite cities with the core city has caused the dismantling of the urban nodal structure of existing suburbs. Nodes vitally play a dual role: a utilitarian role as traffic circles to diffuse traffic flow, and an aesthetic role as open spaces to promote the imageability of urban areas. Dismantling nodal fields (“midans”) of the Heliopolis suburb, designed after the garden city model, in Cairo demonstrates the negative side effect of a planning strategy that constructed a series of bridges to link the core to satellite cities.<sup>1</sup> The role of the “midan”, or green traffic circle, in Heliopolis was circumvented to streamline traffic flow to suburbs in New Cairo. This paper demonstrates how forces of urban expansion, though beneficial at the larger urban scale for extending new developments and maintaining their connection to existing ones, resulted in the unmaking of existing livable suburbs such as Heliopolis, jeopardizing its unique heritage mix of European urban planning and Arabic architectural styles. The unmaking of Heliopolis was triggered by effacing the structural and aesthetic roles of its medium-sized traffic circles. The paper highlights the uneven sparing of Triumph Square in Heliopolis due to the notional symbolism it acquired over time. Nevertheless, it still suffered partial fragmentation and urban residualization.

## HELIOPOLIS – SATELLITE TOWN TO DISTRICT

Several studies have traced the genesis and transformation of Heliopolis from its early planning as a satellite town to its eventual engulfment within the urban mass of Cairo.<sup>2</sup> Heliopolis now comprises two districts, Masr El Gedida and El Nozha (Arabic for New Egypt and The Promenade, respectively) of the nine districts that encompass the Eastern Area of Cairo. Heliopolis borrowed its name from the ancient Egyptian city, On - (Heliopolis, in Greek) and means city of the Sun, or city of the pillar as it was associated with the myth of creation.<sup>3</sup> Present-day Heliopolis is located a little south of the ancient city which left faint traces of the numerous temples dotting its landscape. When all suburban expansion of Cairo was occurring in a north-south direction along the Nile Valley, Heliopolis was the first suburb built in the desert in 1905 as a self-sustained satellite town.<sup>4</sup> Before nationalization in the 1950s, Heliopolis was a successful urban venture of establishing a suburb in the Eastern Desert of Egypt. Distanced 10 km from downtown Cairo. Heliopolis was a model of social and cultural integration with its mix of population consisting of Egyptian elites, government employees and workers, a mix of

European nationalities and Levantines of various origins.<sup>5</sup> Heliopolis catered to many religious denominations including a mosque for Muslims and places of worship for Greek Orthodox, Greek Catholics, Roman Orthodox, Catholics, Armenians, Copts, and various protestant sects as well as a synagogue for Jews.

Heliopolis was planned after the Ebenezer Howard's Garden City model and European planning preferences for wide boulevards radially connecting a series of urban squares.<sup>6</sup> The most prominent square of Heliopolis is the Basilique Square dominated by Notre Dame Cathedral which was designed by Alexandre Marcel in Byzantine style and inspired by the famous Hagia Sophia in Istanbul. Another prominent monument built before the cathedral was Baron Empain's palace, also designed by Alexandre Marcel in Hindu temple style with its characteristic spindle-shaped tower and densely ornamented facades.<sup>7</sup> The urban imageability of Heliopolis consisted of landmarks, monuments, and axial connectivity of urban squares which acted as nodes for organizing traffic and for enhancing the overall aesthetic image of the satellite town, lending the town an imageability and legibility that Kevin Lynch would have surely included as an example within his seminal book, *The Image of the City*. A handful of squares had a church which fronted the square such as St. Fatima church overlooking the square with the same name, St. George church fronting Heliopolis Square, and Theotokos Greek Orthodox church fronting Salah Al-din square.

Importantly, Heliopolis was conceived without urbanists and yet retained visible coherence amidst diverse architectural styles.<sup>8</sup> Not all of Lynch's five elements were deployed within Heliopolis. The boundary definition of Heliopolis lacked a clear demarcation for the limits of the town. This fact also makes Heliopolis deviate from the Garden City model where a green belt bounded the city to ensure its size limit and serve as a buffer area. Land uses that took up large expanses of land in the periphery defined the limits of Heliopolis such as the Hippodrome, Aerodrome, and open sporting courses for Golf, Polo, and Criquet. Well-defined edges and perceptible barriers were also missing between the luxurious section and the workers' section of the town, which made Heliopolis a successful urban experiment for social and cultural integration, differentiating Heliopolis from other suburbs such as Garden City (1906) and Maadi (1907) which had less diversity and inclusion in their planning despite taking Howard's Garden City as their template, as well.<sup>9</sup> Maadi and Garden City are suburbs along the Nile having street patterns that are curvilinear, convoluted and nested, in contradistinction to the radial Baroque-style street pattern of Heliopolis whose mid-rise buildings surrounding roundabout traffic circles had curved facades.

The success of Heliopolis is also ascribable to urban strategies and an urban imaginary, enforced through bylaws and architectural guidelines<sup>10</sup> to attract the population to live in the desert within a high-quality residential environment that offered a multitude of amenities for leisure and entertainment. An advertisement of Heliopolis in 1913 evidences the strategies that were adopted by Cairo Electric Railway and Heliopolis Oasis Company under the direction of Baron Édouard Empain (1852–1929). The advertisement included distractions for the population such as a Hippodrome for horseraces and derbies, a casino, an Aerodrome for airshows, a Luna amusement park, a sporting club for golf, tennis, and polo, one of the largest hotels in the world – the Palace Hotel, a stadium, as well as parks to enjoy the fresh air.<sup>11</sup> Heliopolis was touted in the advertisement as the best climatic situation in the Orient, marketed as “the city of clean air” for a healthy beautiful oasis to reside in all year round, just 13 minutes away from Cairo by an electric metropolitan tramline.

The urban fabric of Heliopolis at the time reflected political desires of aristocratic rulers to redefine Egypt's geo-political role in the region that started with Khedive Ismail's partial Haussmannization of Cairo in 1869, as a gesture of modernization and beautification of the medieval street pattern of downtown Cairo in preparation for the opening of the Suez Canal.<sup>12</sup> Heliopolis followed suite to

Parisian-style planning in conjunction with an urban imaginary created by Baron Empain's tastes for a newly defined Orientalism by Belgian architect Ernest Jasper and French architect Alexandre Marcel who borrowed elements from Islamic, Ottoman, Persian, Moorish, Byzantine, Art Nouveau, Art Deco, and Hindu architectural styles in their use of domes, minarets, sculptures, ornaments, wooden screens, paired arched openings, balconies, terraces, galleries, passive ventilation techniques, courtyards, balustrades, cornices, pointed, horseshoe and false arches with alternate bands of color, arcades for shade, double columns, crenellated parapets, and masonry.<sup>13</sup> An example of styles used in proximity of each other is the Basilique church built in Byzantine style with the Sacré Cœur School which was built in Moorish style not far from the church. With the aim of preserving the architectural heritage of Heliopolis, the National Organization for Urban Harmony (NOUH) recognized the unique architecture of Heliopolis for preservation and identified three categories of areas with unique value having a total of over 730 distinctive buildings for which NOUH prepares guidelines for protection.

### **The Unmaking of a Livable Suburb**

The gradual disfigurement of the urban image of Heliopolis began with change in ownership of Heliopolis Company from private enterprise to local government after nationalization of foreign-owned enterprises in the country under a socialist mode of governance by the late 1950s. Building density increased by demolishing villas and overtaking green areas.<sup>14</sup> The focus of urban development shifted from quality to quantity as new developments reflected a socialist regime in planning approach such as repetitive high-rise buildings placed within a grid street pattern, paying scant attention to human scale, urban texture, architectural style, and social cohesion. Nasr City which was developed in the 1960s as an extension of Heliopolis to the south is evidence of change in political attitudes towards urban development<sup>15</sup> reflected in equal plot sizes for residential blocks laid out in a modular pattern devoid of any spatial hierarchy or monumental landmarks.<sup>16</sup>

The social demography of Heliopolis changed as many foreigners left, taking with them the lifestyle of leisure and entertainment. Luna Park, the first amusement park in Africa and the Middle East, had transformed into Roxy Square becoming famous for its shopping area and cinemas. Older cinemas like Crystal and Palace Cinemas were neglected and dilapidated. The Hippodrome fell into ruins because horserace gambling became prohibited. The open expanse of land then became a public park called Merryland Park. The street was renamed from Racetrack Street to El-Hegaz Street. Other streets were also renamed. Sa'id Pasha Street was renamed Beirut Street, Baron Steet was renamed Nazih Khalifa Street, 'Avenue des Palais' was renamed Al-Orouba in President Nasser's era, and St. Stephen Street was renamed Haroun Al-Rasheed Street. Baron Empain's palace was transformed after nationalization into a high school for girls. Heliopolis Palace Hotel was also nationalized to turn into the El-Etehadeya (the Union) Palace and subsequently a presidential palace. In a newspaper article by Ahmed Helal published December 29, 2019, a long-time resident, Hala Shoukry, retells her story of how the overall atmosphere of Heliopolis changed from spending leisurely time at Amphitryon restaurant, dubbed "the meeting place of cherished ones", which was originally owned by a Greek person and occupied the ground floor of an apartment building (where she and her husband were renters), eating Italian gateaux at Groppi Cafeteria owned by a Swiss person, and attending movies at cinema Triumph, to a "tasteless" area by the influx of the nouveaux riches, becoming a commoner area that does not support a refined lifestyle.

### **A Gangway District**

One of the critical initiatives by the General Authority of Urban Planning to implement its vision for connecting Cairo to new cities to the east in New Cairo and further east to the New Administrative Capital was the development of the road network in existing suburbs such as Heliopolis which at the

time suffered from traffic congestion and longer commutes.<sup>17</sup> Traffic increased with growing population, increased commercial activity, and the proliferation of minibuses, minibuses, and other private corporate buses in addition to private cars that exceeded the capacity of roads to accommodate the influx. Illegal and double parking became the norm, further obstructing traffic flow.

A few strategies were attempted to organize traffic such as the redirection of traffic from one node or square to another node through extended U-turns, so instead of passing directly from Al-Galaa Square, for instance, to Triumph Square, traffic had to maneuver a long U-turn. Other strategies involved installation of traffic signals at the entry of roundabout traffic circles such as those once installed in Triumph Square to prevent drivers from clogging traffic flow in the roundabout due to drivers not yielding to traffic when entering the roundabout or from illegally driving clockwise along the roundabout to avoid turning the entire circle and instead performing a “quick U-turn” to save time.

The attempted strategies did not solve the situation, so the most recent strategy implemented in August 2019 was to install a series of five bridges and widen local roads within the district, transforming Heliopolis from a once walkable and transit-oriented development to an unlivable suburb, a gangway district that continues to suffer from urban residualization. The Heliopolis Heritage Initiative (formed by concerned residents in 2011 due to the gradual deterioration of their district) estimated that 375,065.36 m<sup>2</sup> of green areas (including trees, medians, and open spaces) were lost to hard surfaces with the associated heat island effect and diminishment of quality of their environment. For instance, tramway tracks were removed rather than upgraded to a faster light-rail transit or bus rapid transit system. The street at the edge of Heliopolis, Thawra Street, that connects to Cairo-Suez Road (which links Cairo to the Red Sea and new cities to the east) was transformed into a seven-lane one-way street going to Suez.<sup>18</sup> Heliopolis became a gangway to new low-density cities in the east that follow the Gulf pattern, particularly the Dubai model, of urban development in the desert.

Unfortunately, the new cities present an economic and social barrier to most of the population due to their exclusivity, while also remaining dependent on the core city due to their incomplete and quasi-urban makeup. Ironically, public media channels and newspapers praised the recent transformations for restoring Heliopolis to its past Empain glory. The impending result, however, is that these freeways will cause border vacuums,<sup>19</sup> impacting economic vitality and pedestrian presence surrounding these “borders” that fragmented the area. Importantly, such strategies deviate from guidelines of the Global Designing Cities Initiative for improving large traffic circles, such as maintaining safety by having only two lanes around the traffic circle and maintaining aesthetic quality by having a central landmark or fountain surrounded by open space to allow public gathering with appropriately planted trees to control and allow visibility where necessary.

The removal of raised electric wires, metal posts, and tracks for the tramways gave an overall uncluttered and unobstructed view for squares and streets. The fluidity of traffic flow was appreciated by drivers who now enjoy shorter commute times. From an infrastructure and project management perspective, the installation of bridges in such a short time of an average of four months without major disruptions is a success in and of itself. From the perspective of other segments of the population who do not drive such as children walking to school or senior citizens ageing in Heliopolis, it became extremely difficult and unsafe to cross four-way lanes in both directions for daily walks even with placement of traffic lights here or there that do not give those with reduced mobility enough time to cross all the way to the other side.



*Figure 1. View of Triumph Square, Heliopolis - symbolic elements along the periphery of the square (photo by author, May 2024).*

## TRIUMPH SQUARE SYMBOLISM

One of Heliopolis' squares accrued an imaginary symbolism without clear basis other than its name which means victory. The notional symbolism that Triumph Square has enjoyed saved it from total obliteration which was the fate of other squares such as St. Fatima, Al-Mahkama, El-Hegaz, and Heliopolis squares who lost their original roundabout traffic circles only to be replaced by linear streets for much speedy traffic movement inconducive to walkability or to a tranquil residential atmosphere.<sup>20</sup> The notional symbolism of Triumph Square may have also been the reason behind the renaming of the square twice. In 1980 Triumph square was renamed Shahbanu Square in honor of the empress of Shah of Iran who had exiled to Egypt at the time and welcomed by President Al-Sadat. In 2003 Shahbanu square was renamed Hussein Ibn Talal Square in honor of the former king of Jordan. Despite the renaming, locals kept using the original name Triumph. Symbolic elements in the square such as the original 2<sup>nd</sup> century Roman column and an emblematic metal sphere, both donated by Jordan to Egypt to symbolize their cooperation, as well as a symbolic mural, and a tiered water fountain still adorn the square (Figure 1). However, their peripheral placement and the fragmentation of the roundabout into sections of green areas appear as cosmetic treatments to salvage the square's symbolism that is now crisscrossed by four-lane roads in both directions.

## CONCLUSION

The typical trajectory of many urban areas under a capitalist mode of production is urban residualization and urban degeneration caused by uneven development. New developments offer an urban imaginary, which in the case of Heliopolis comprised a mix of oriental architectural styles that tinted the area with an aura of authenticity beginning with the choice of the name Heliopolis to refer to the original ancient city and the naming of one of its districts as Masr Al-Gadida, new Egypt, which does not differ from a nationwide strategy of building new versions of cities such as New Cairo, New Giza, New Alamein,



New Aswan, New Administrative Capital, etc.,<sup>21</sup> quickly residualizing the older version either due to its outdated infrastructure, retro-style buildings, population diversity and density, disorderliness and the exacerbating problems associated with gradual residualization and degeneration. Although urban expansion in desert areas works toward the goal of spreading the population from occupying 5.7% of Egypt's land, mainly concentrated along the Nile Valley, to 11% by 2050, these areas mainly cater to the upper middle and high class, spreading out at much lower densities, thus defeating the purpose of alleviating existing problems such as housing affordability and overreliance on the private car to reach these areas.

As capital moved on to other areas, Heliopolis gradually lost its original imaginary of a Garden City suburb by the partial fragmentation or complete obliteration of its green roundabouts that once gave imageability and nodal structure to the area. Even when capital heavily reinvests in old areas, gentrification of existing residents inevitably happens as they are priced out of the area financially and socially. The challenge for urban planners is striking the fine balance between underinvestment and overinvestment in urban areas to maintain and conscientiously upgrade the existing quality of their environment. To achieve that balance, urban planners need to stop being subservient to a capitalist logic that quickly renders new areas prematurely obsolete, or insensitively rips the urban fabric of old areas. In short, urban transformation needs to happen incrementally to allow time for resiliency of urban areas and to keep their environments sustainable.

## NOTES

- <sup>1</sup> Amgad, Galal, and Wanas, "Morphological Changes of Urban Nodes and Their Effect on Urban Mobility and Transportation Modes in Heliopolis."
- <sup>2</sup> Stewart, "Cities in the Desert: The Egyptian New-Town Program"; Willem, "Heliopolis: A Colonial Enterprise That Became an Urban Success."
- <sup>3</sup> "Heliopolis 'Sun City' Was One of The Most Ancient Cities Of Egypt - Ancient Pages."
- <sup>4</sup> Moore, "Making Cairo Modern? Innovation, Urban Form and the Development of Suburbia, c. 1880–1922."
- <sup>5</sup> Alhowaily, "Sustainable Urbanization in the Egyptian Desert, the Case Study Heliopolis."
- <sup>6</sup> Ilbert, "Heliopolis: Colonial Enterprise and Town Planning Success"; Adham, "Cairo's Urban Déjà vu: Globalization and Urban Fantasies"; Willem, "Heliopolis: A Colonial Enterprise That Became an Urban Success."
- <sup>7</sup> Volait, "Un Ensemble Urbain Art Déco En Egypte: Héliopolis, Banlieue Du Caire."
- <sup>8</sup> Ilbert, "Heliopolis: Colonial Enterprise and Town Planning Success"; Van Loo, "Retour d'Egypte : Ernest Jaspar (1876-1940). D'Héliopolis à Hyderabad."
- <sup>9</sup> Moore, "Making Cairo Modern? Innovation, Urban Form and the Development of Suburbia, c. 1880–1922."
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- <sup>11</sup> Alhowaily, "Sustainable Urbanization in the Egyptian Desert, the Case Study Heliopolis"; Elazzazy, "The Garden Suburbs of Cairo. A Morphological Urban Analysis of Zamālik, Ma 'ādī, and Heliopolis."
- <sup>12</sup> Serag, "The Haussmannization Approach."
- <sup>13</sup> Van Loo, "Retour d'Egypte : Ernest Jaspar (1876-1940). D'Héliopolis à Hyderabad."
- <sup>14</sup> Hefnawy, "The Radical Changes in Heliopolis Identity: Towards Urban Green Infrastructure Approach."; Mohamed, Kronenberg, and Łaszkiewicz, "Transport Infrastructure Modifications and Accessibility to Public Parks in Greater Cairo"; El Araby, "Urban Growth and Environmental Degradation: The Case of Cairo, Egypt."
- <sup>15</sup> "The Strategic Urban Development Master Plan Study for a Sustainable Development of the Greater Cairo Region in the Arab Republic of Egypt Final Report (Volume 2)."
- <sup>16</sup> Mourad, "Heliopolis, Egypt: Politics of Space in Occupied Cairo."
- <sup>17</sup> Montaser Abo El-Magd, Ibrahim Gabr, and Mohammed Abada, "The Impact of Urban Transformations on Social Activities in the City (Case Study Heliopolis Suburb)."
- <sup>18</sup> Elkhateeb, "The Bridges Are Coming! How Local Planners Continue to Cut through the Fabric of Cairo by Building Mega Highways and Flyovers through Its Neighborhoods. September."
- <sup>19</sup> Bickford, "Constructing Inequality."
- <sup>20</sup> Amgad, Galal, and Wanas, "Morphological Changes of Urban Nodes and Their Effect on Urban Mobility and Transportation Modes in Heliopolis."
- <sup>21</sup> Mohamed, "Cairo: An Arab City Transforming from Islamic Urban Planning to Globalization."

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# DANCE PERFORMANCES-INSTALLATIONS AND EDUCATIONAL ACTIVITIES IN THE OPEN-AIR URBAN SPACE: A “CREATIVE” PROPOSAL FOR LIVABLE CITIES

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## INTRODUCTION

### Inclusion for a sustainable future

Sustainability, in its most holistic definition, cannot be achieved without collective action. This collectivity is impossible without the integration of all members of society. Gender, race, nationality, mental or motor abilities, age, socio-economic status, but also non-human life, cannot be grounds for exclusion from the future.

Livability refers to an urban system that contributes to the physical, mental and social well-being and personal development of all who live there. It is about enjoyable and desirable urban spaces that provide and reflect cultural and sacred richness.<sup>1</sup> A livable city is a city where common spaces are the centers of social life and the foci of the entire community.<sup>2</sup> B. Cools considers that we must treat the city like a living organism, the urban phenomenon then, like life, is founded on a subtle balancing act. If we want a city to function properly as a society, then that balance must not be upset.<sup>3</sup>

The World Economic Forum scores city livability on six factors: affordability, amenities, connectivity, culture, safety and sustainability.<sup>4</sup> Tennakoon and Kulatunga argue that the most evident fact from the various definitions of livability is that livability is quality of life.<sup>5</sup> They, also, argue that the literature provides that livability is a subset of concepts of sustainability but is defined in the point of view of the individuals.<sup>6</sup>

### Approaching the concept of space

Space - like time - cannot be perceived independently of other determining parameters, it is a "social construction".<sup>7</sup> D. Harvey categorizes space into three basic dimensions: absolute, relative and relational. The absolute constitutes the space of its absolute, measurable geometric properties, the relative is mainly inscribed in a perception of the unity of space and time and is strongly influenced by transport technologies and communications, while the relational is the space of personal perception and attribution of meaning and historically consists of specific social processes and relationships.

Consequently, the interpretation of the concept of space is not limited to its geometric characteristics, but also highlights its social, cultural and economic ones.

Henri Lefebvre in his book *The production of space*<sup>8</sup> suggests that the social production of the space is carried out through three different processes which are in interaction:

- a) The "spatial practices" - the material or functional space.
- b) The "representations of space" - space as coded language.
- c) The "spaces of representation" - the directly experienced space.

This tripartite dialectic, as H. Lefebvre calls it, constitutes an approach where each side is in relation to the other two, while all together coexist and co-constitute the space as illustrated in Figure 1.

These three spatial perception processes coexist in "a dialectic tension between them". This coexistence does not make any of them priority, as the eventual priority depends on the study and the scholar.<sup>9</sup>

Therefore, space must be perceived not only in terms of absolute characteristics of it, but also based on the changes of its relative interpretation which is the result of historical, technological and other alterations, as well as under the light of the personal experience and attribution of meaning to each specific space.

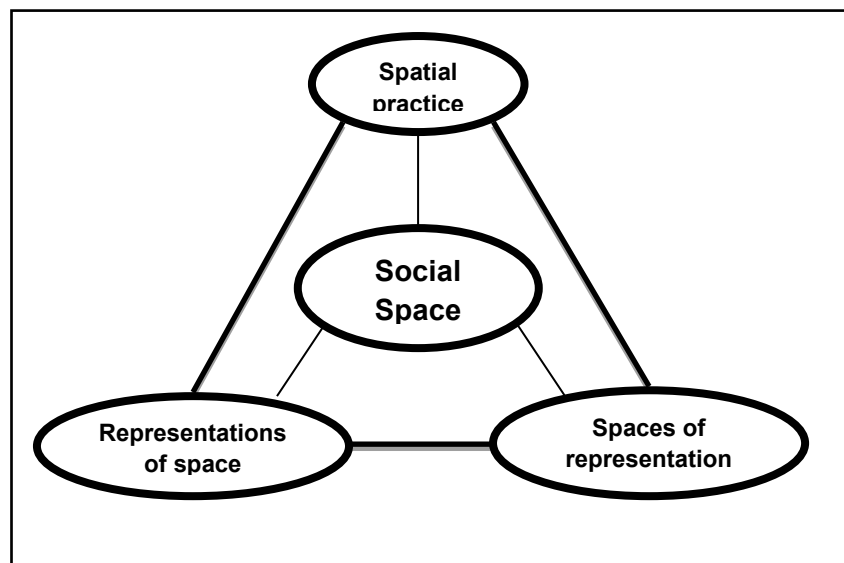


Figure 1. The tripartite dialectic of the production of space according to H. Lefebvre, provided by the author

## Public Space

Any area, which is open and accessible to all citizens, regardless of their gender, age, social, educational and economic level, race, nationality, intellectual or motor abilities, can be defined as a public space. A definition of different types of public space, both indoor and outdoor, has also been described by Walzer who suggests that:

*"Public space is space where we share with strangers, people who aren't our relatives, friends or work associates. It is space for politics, religion, commerce, sport; space for peaceful coexistence and impersonal encounter. Its character expresses and also conditions our public life, civic culture, everyday discourse".<sup>10</sup>*

The open-air urban space is an elemental part of the urban heritage, a strong element of the architectural and aesthetic form of a city. It plays an important educational role. It is ecologically important. It is important for social interaction and for enhancing social development. It supports financial activities and goals. It plays an important role in serving needs for leisure and recreation. In addition, it has an economic value apart from its contribution to the environmental upgrading of the urban landscape.<sup>11</sup>

According to M. Carmona, globally, urban policy gives emphasis on public spaces as agents of the global and local competition between cities, as catalysts for the renewal of cities, as possible poles for

revitalizing communities and participatory local democracy, but also in their more traditional functions as a source of comforts and connection between the private spaces of the city.<sup>12</sup>

In brief, we can say that the public space is a scene where people meet every day, interact with each other, fight for a common goal, rest,<sup>13</sup> exercise, train, daydream, stroll with their pets etc. So, no person (human or non-human) deserves to experience the public space in a less safe, comfortable or accessible way as a result of its identity.

### **Art in Public Space**

Art is a means of communication between the creator and his audience, with the object of communicating the aesthetic, cognitive and moral values of each society.<sup>14</sup> Artworks show real or imaginary worlds, project values and broaden intellectual horizons. At the same time, they have the power and dynamics to shape consciousness, a fact that is observed, to a greater extent, when art is in public spaces, where it is easier to access it to the general public.

The concept of the term "Public Art" includes sculpture, performance art, activism, intervention in space and a range of artistic practices that are difficult to categorize, but have as a common characteristic the existence within the Public Sphere, but and existence for it.<sup>15</sup>

Alongside, the public art has an important capacity to improve society, as it is a special action that takes place in the open-air urban space, creating narratives/traces/records in it and at the same time, it is open to a continuous interpretation by the viewer-"flâneur" of the city. On the other hand, the artists themselves, as they are members of society and use art as a means of expressing their moral values, are influenced by it, with the result that it also reflects in their creations.

### **Education and Art**

However, in order for public art to "speak" to the public, individuals should have the ability to understand both its content and its form. They should have knowledge of art history and have developed aesthetic abilities. Also, they have not to be possessed by prejudices and stereotypes and to be receptive to discovering new knowledge. In this sector, the education, formal or not, can play a key role in making the people capable of understanding art's form and content, but also in becoming more receptive to new knowledge.

## **THE PROPOSAL**

### **Aim and Content**

Emphasizing collective action for sustainability, the essay analyzes the structure; content and potential impact of a proposal for educational activities entitled "*Will you dance with the sculpture? Leave no one behind*" aimed at youth (6-18y) dance groups which aspire to contribute to social awareness about the importance of *inclusion for sustainable future*.

The idea of the proposal is based on the combination and connection of three sectors, which should be pillars of inclusion: public space, art and education. These sectors, by their very nature, must address all individuals and be accessible to all without exception, without discrimination and limitations. They must be the main exponents of inclusion.

Specifically, the activities are aimed at three age categories [children six-ten (6-10) years old, teenagers eleven-fourteen (11-14) years old and young people fifteen-eighteen (15-18) years old]<sup>16</sup> who are related to dance, either because they attend dance schools, or because they are engaged on an individual level. They will be able to register groups of two (2) to ten (10) children/adolescents/young people together with the dance teacher(s) and group manager (if any).

Each dance team, after attending a webinar and then individual preparation with its teacher and with targeted supervision and evaluation by experts, is invited to implement an original few minutes dance performance-installation. Each team's performance should be in dialogue with the public sculpture assigned to it, sculptures which, within a framework of their enduring interpretation, can express various versions of inclusion. The performances will take place in two phases during an open-air event at the selected points with the participation of audience and teams in an online evaluation. Special prizes, as an additional incentive, will be awarded to the teams.

At the same time, the proposed activities aim to bring the participants and the audience, into contact with public art and with the potential messages derived from it. This "creative" proposal, estimated duration is 4-5 months, can be implemented by public or private cultural bodies/institutions or municipalities, repeated periodically and adopted by different cities or/and countries. In this paper, the municipality of Athens is taken as a case study. It aims to illuminate the synergy of youth education and dance with public art for social impact.

## Structure

The proposed educational activities include:

### Selection of sculptures (from the Scientific Committee)

Sculptures from the open-air of central areas of Athens can be used as an occasion to project the value, importance and necessity of inclusion. The sculptures with their distinctive and different subject matter, form, and movement, provide the possibility to be part of an installation - dance performance by the dance teams of children/adolescents/youth, where inclusion will be displayed.



**"Spanish Dancer"**  
[gender]  
Madrid Square, 2004, Stainless Steel  
Sculptor: Frederick Bareaud



**"The Child with Grapes"**  
[age/socio-economic status]  
Syntagma Square, 1874, Bronze  
Sculptor: Dimitrios Philippotis



**"Sappho"**  
[identity/gender]  
Onassis Stegi, 1887/1925\*, Brass  
Sculptor: Antoine Bourdelle

\*It is a faithful brass copy of the original in the museum Bourdelle in Paris, 2.2 meters high, which Bourdelle originally created in 1887 at a height of only 28 cm and in 1925 he completed the bronze at a height of 70 cm (Musée Bourdelle)

*Figure 2. Three of the proposed sculptures in the open-air space of Athens, provided by the author<sup>17</sup>*





**"Memorial to Heroes EOKA 1955-1959"**  
[nationality]  
Santiago Chile Park, 2009  
Sculptor: Aristides Patsoglou



**"Discobole Finlandais (Discus Thrower)"**  
[physical/ motor ability]  
Zappeio (opposite the Panathenaic Stadium), 1927, Bronze  
Sculptor: Kostas Dimitriadis

Figure 3. Two of the proposed sculptures in the open-air space of Athens, provided by the author<sup>18</sup>



**"The dying Centaur"**  
[non-human life]  
Onassis Stegi, 1914, Brass  
Sculptor: Antoine Bourdelle



**"Monument of National Reconciliation"**  
[nationality/race]  
Klafthmonos Square, 1987, Brass  
Sculptor: Vassilis Doropoulos

Figure 4. The last two of the proposed sculptures in the open-air space of Athens, provided by the author<sup>19</sup>

In figures 2, 3 and 4 we see the proposed (by the author) sculptures in the open-air space of Athens. The aim of this selection is the projection of the idea of reinterpreting the sculptures based on inclusion. For each one of the sculptures, the parameter of inclusion with which it can be associated is also proposed, without this being limiting.<sup>20</sup>

The above seven selected sculptures provide us the opportunity to talk - not limited to - about issues of gender ["Spanish Dancer"], age/socio-economic status ["The Child with Grapes"], identity/gender ["Sappho"]<sup>21</sup> (Figure 2), nationality ["Memorial to Heroes EOKA<sup>22</sup> 1955-1959"], physical/ motor ability ["Discobole Finlandais (Discus Thrower)"]<sup>23</sup> (Figure 3), non-human life ["The dying Centaur"]<sup>24</sup> and nationality/race ["Monument of National Reconciliation"]<sup>25</sup>(Figure 4).

### Open call

An Open Call is launched for dance teams as described above, to participate in the educational activities. Each team will be asked to prepare a dance installation-performance, lasting up to ten (10) minutes, in relation to one of the proposed sculptures, in the broader theme "*Inclusion for sustainable future*". Each group will be able to state their preference (without being binding) on three sculptures, in order of priority (1, 2, 3), for which they would like to prepare a dance installation-performance.

### Webinar "Public Art and Inclusion"

After the Open Call to dance teams and the completion of the application period, the groups will initially attend a webinar of duration to be determined by the Scientific Committee on art in public space and the parameters of inclusion for a sustainable future. Participation in the webinar will be mandatory for the older members of the groups, aged eleven (11) to eighteen (18) years old, the dance teachers and the managers of each group. For younger children [six-ten (6-10) years old] participation will be optional. However, the dance teachers, along with the relevant educational material that will be provided to them, will be responsible for informing them about the subject of the educational activities, through creative dance activities, such as musical-kinetic games, role-plays, dramatizations, storytelling, choreography, etc. The choice of the means by which the younger children will be informed will be free.

### Sculpture assignment & Proposal submission

After the webinar, each dance team will be assigned the sculpture for which it will have to prepare a proposal for an installation-dance performance lasting up to ten (10) minutes. Then, each group should submit its proposal in writing, using text with possible references and visual material (such as mood board) on the online platform of the educational activities. The proposal will include the title, context of the installation-dance performance, genre of dance, and how the proposed installation- dance performance relates to the sculpture and inclusion.

### Preparation of installations-dance performances by the teams

Each dance team should, within a (suggested) period of three months from the submission of its proposal, prepare the installation-dance performance.

During the preparation period, it is suggested that each team hold two (or three) online meetings with members of the Committee of Experts. The first meeting is scheduled at the beginning of the preparation to discuss the proposal they submitted. Approximately in the middle of the preparation period, each team should digitally send to the Committee of Experts, a video of a maximum duration of ten (10) minutes of the dance performance they are preparing. This will enable dance teams to receive feedback/observations/suggestions on their work from member(s) of the Expert Committee at each team's second one-on-one online meeting to make possible modifications/ improvements/ changes. Additionally (or alternatively), it is suggested that the dance teams can present their preparation up to that point to a member or more of the Committee of Experts during the (second or third) individual online meeting, in order to get feedback.

### Installations-dance performances in the open-air urban space

The presentation of the installations-dance performances by the teams of all three age categories will take place in two phases, it will be open to the public, and it will be video recorded with open access. In the First Phase, all dance groups will participate and at the end, they will receive certificates of participation, souvenirs and prizes, such as free attendance at performances, participation in special guided tours of the city's public art works, free guided tours of museums, etc.

The spectators will be able to vote on an online platform for up to three groups from all three age categories, for each sculpture. Also, the dance teams, in a special vote, will describe five things they liked and one thing they didn't like about each of the other groups participated in the same sculpture. The duration of spectators and teams voting is proposed to be three weeks for each sculpture, starting from the day of the performance.

The dance teams of all age categories that stood out from the votes by the Committee of Experts, the audience and the groups will be invited to participate in the Second Phase (Festive Celebration), where they will present, again, the installations - dance performances and they will receive their awards. The distinguished groups are expected to receive various prizes and awards, such as participation in festivals, cultural centers, residency programs inside and outside Greece, seminars with distinguished artists, etc.

## **Evaluation and Parallel actions**

### **Evaluation of proposed educational activities**

Audience research is considered an important cultural policy-making tool, not only at the cultural body level, but also at the state level.<sup>26</sup>

Moving along this axis, the dance teams as a whole together with their teachers and group leaders will evaluate the proposed educational activities. Possible questions about the motivations, experiences gained from their participation, accessibility, learning processes, can give important information that will help in the future organization of them.

Also, the audience that has attended the dance performances will be asked to evaluate organizational issues, as well as educational elements of the actions.

### **Parallel actions**

As the educational activities/ workshop *"Will you dance with the sculpture? Leave no one behind"* concern installations - dance performances in combination with public art in central parts of the municipality of Athens, it is suggested that they be shown by the media and social media of the Municipality. Open guided tours of the city's public art works could, also, be organized during the proposed project. In addition, the audio-visual material from the educational activities that will be realized can be a means of promoting and highlighting the city, but also as an accessible educational tool, then it can be used to raise public awareness about public art and public space and, of course, for the main subject of the educational activities *"inclusion for sustainable future"*.

## **EPILOGUE**

The proposed educational activities (Figure 5) are an extroverted action, which goes out into the public space of the city and comes into contact with its citizens and visitors. It is a proposal which, on the one hand, strengthens the production and implementation of performances by very young dance teams and on the other hand, informs and becomes an occasion for thought and reflection by the members of the dance groups and the audience, in matters of inclusion and participation of all members of the community with the aim of our sustainable future.

The presentation of the results of the proposed educational activities in cultural venues/festivals abroad is an occasion and a trigger on the one side, for similar actions in these places, but, at the same time, it gives a step and is a springboard for young dancers, expanding their professional horizons.

The production and implementation of dance performances by young groups in the public urban space can be both a place to showcase the country's contemporary artistic production in the field of performing arts, as well as a means of highlighting diachronic visual works of public art.

Simultaneously, it makes citizens aware of the public space, but also the manifestations of art in it. This is consistent with the vision set out in the Athens Resilience Strategy for 2030, which is as follows:

*"By 2030, Athens wants to become an inspiring city, a responsive city, and open to all: proud, green and inclusive. We cultivate creativity and innovation, and we create exemplary identities and synergies, bridging history with progress. Athens is a city that listens and speaks to the world".<sup>27</sup>*

Additionally, the proposed actions, having as content and expressing a global need and obligation, the inclusion, can be implemented, with the necessary preparation, in any city on the planet.

The educational activities *"Will you dance with the sculpture? Leave no one behind"* are a "creative" proposal which links public space, sculpture and dance, and constitutes an engaging, scalable approach to community development for collective action with aim the "livable cities" and "sustainable future".



Figure 5. Mood Board of the proposal for educational activities entitled *"Will you dance with the sculpture? Leave no one behind"* in the open-air urban space, provided by the author

## NOTES

- <sup>1</sup> "Livable Cities", Muet – CRP, accessed August 7, 2024, <https://muet-crp.yolasite.com/resources/Livable%20City.pdf>.
- <sup>2</sup> Ernesto Salzano, "Seven aims for the livable city", in *Making Cities Livable—Wege zur Menschlichen Stadt*, eds. SHC Lennard et al. (California, USA: Gondolier Press, 1997), 18-20.
- <sup>3</sup> B. Cools, "The Future of the City", in *Making Cities Livable—Wege zur Menschlichen Stadt*, ed. SHC Lennard et al. (California, USA: Gondolier Press, 1997).
- <sup>4</sup> Patrizia, European City Pulse, accessed August 8, 2024, <https://citypulse.patrizia.ag/>.
- <sup>5</sup> Maheshi Tennakoon & Udayangani Kulatunga, "Understanding liveability: related concepts and definitions", in *Proceedings of the 8<sup>th</sup> World Construction Symposium Sandanayake*, ed. Y.G., Gunatilake et al. (Colombo, Sri Lanka: doi.org/10.31705/WCS.2019.57, <https://2019.ciobwcs.com/papers>, 2019), 581.
- <sup>6</sup> Tennakoon & Kulatunga, 585.
- <sup>7</sup> David Harvey, "Space as a Keyword", in *David Harvey: A Critical Reader*, ed. Noel Castre and Derek Gregory (Oxford, United Kingdom: Blackwell Publishing Ltd, 2006), 275.
- <sup>8</sup> Henri Lefebvre, *The production of space*, trans. Donald Nicholson-Smith (Oxford, United Kingdom: Blackwell Publishing, 1991), [https://monoskop.org/images/7/75/Lefebvre\\_Henri\\_The\\_Production\\_of\\_Space.pdf](https://monoskop.org/images/7/75/Lefebvre_Henri_The_Production_of_Space.pdf), 33.
- <sup>9</sup> Henri Lefebvre, 38-39.
- <sup>10</sup> Helen Wooley, *Urban Open Spaces* (London and New York: Spon Press- Taylor and Francis Group, 2003), 4.
- <sup>11</sup> Council of Europe, 1986.
- <sup>12</sup> Matthew Carmona, "Re-theorising contemporary public space: a new narrative and a new normative", *Journal of Urbanism: International Research on Placemaking and Urban Sustainability* 8:4 (2015): 373.
- <sup>13</sup> Adamantia Helioti, "Art forms in the public space I Visual interventions in the city of Athens", Postgraduate Diploma Thesis in MArch Architecture - Spatial Design. Urban Planning - Regional Planning. Athens: National Technical University of Athens, 2017, 25.
- <sup>14</sup> Eleni Gemtou, "The social role of art", *Science and Society: A Review of Politics and Ethics Theory*, no 20 (2015): 199–218. <https://doi.org/10.12681/sas.525>.
- <sup>15</sup> A. Pinakas, "Public Art in Athens – Public Space, Public Sphere and collective artistic practices", accessed July 29, 2024, <https://www.teetkm.gr/δημόσια-τέχνη-στην-αθήνα-δημόσιος-χώρ/>
- <sup>16</sup> It is suggested that teams have the option of being formed by members of different age categories, but in this case, they will participate in the highest age category.
- <sup>17</sup> "Sculptures of Athens. [athenssculptures.com](https://athenssculptures.com)", atenistas, accessed August 6, 2024, <https://atenistas.wordpress.com/2014/06/17/athenssculptures-com/>
- <sup>18</sup> "Sculptures of Athens. [athenssculptures.com](https://athenssculptures.com)".
- <sup>19</sup> "Sculptures of Athens. [athenssculptures.com](https://athenssculptures.com)".
- <sup>20</sup> The final selection of the sculptures may be modified if deemed necessary.
- <sup>21</sup> It is a faithful brass copy of the original in the museum Bourdelle in Paris, 2.2 meters high, which Bourdelle originally created in 1887 at a height of only 28 cm and in 1925 he completed the bronze at a height of 70 cm (Musée Bourdelle).
- <sup>22</sup> The National Organization of Cypriot Fighters (EOKA1955-1959), a Greek Cypriot right-wing nationalist guerrilla organisation, began an armed campaign in support of the end of British colonial rule and the unification of Cyprus and Greece (Enosis) in 1955. Opposition to Enosis from Turkish Cypriots led to the formation of the Turkish Resistance Organisation (TMT) in support of the partition of Cyprus. The Cyprus Emergency (Cypriot War of Independence) ended in 1959 with the signature of the London-Zürich Agreements, establishing the Republic of Cyprus as an independent state (wikipedia, accessed August 8, 2024, [https://en.wikipedia.org/wiki/Cyprus\\_Emergency](https://en.wikipedia.org/wiki/Cyprus_Emergency)).
- <sup>23</sup> A bronze replica of the "Discus Thrower" sculpture by Kostas Dimitriadis (1881-1943) was placed (with a fig leaf) in New York's Central Park, near the Metropolitan Museum, in 1926. The famous sculpture was entered into the art competition of the 1924 Olympic Games in Paris and won the gold medal in the category of sculpture, under its official name, "Discobole Finlandais". Modeled after the Finnish athlete Armas Taipale (1890-1976), it evoked the Classical ideal, the spirit of Olympism and the pursuit of a new plasticity. The "Discus Thrower", which Greeks know from its prominent position opposite the Panathenaic Stadium (it was installed in Athens on December 4, 1927), was admired from the outset, which is why there are so many copies of it – all originals, cast from the same mold, according to art historian Nikoleta Tzani. The work is inextricably linked to the international history of art connected to the Olympic Games of recent times. As such, a smaller replica, located by N. Tzani at the Villa Kerylos

in the south of France, features in the current (April 24 – September 16, 2024) exhibition at the Louvre Museum in Paris titled "Olympism: A Modern Invention, an Ancient Heritage", which highlights the key personalities who contributed to the rise of the modern Olympic Games.

(ekathimerini.com, accessed August 6, 2024, <https://www.ekathimerini.com/multimedia/images/1239643/the-golden-olympian-cast-in-bronze/>).

The bronze artwork measures 2.14 x 0.84 x 1.25 m and depicts the discus thrower a moment before he throws the disc away, in a moment of supreme self-concentration.

Panathenaic Stadium, Athens – The Panathenaic Stadium is the historic Olympic Stadium (1896).

<sup>24</sup> The famous French sculptor Antoine Bourdelle created this statue in 1914. It is an exact replica of the plaster cast in the Bourdelle Museum in Paris. It was purchased in 2004 by the Alexander S. Onassis Foundation as part of an exhibition held at the National Gallery, and since 2010 it has adorned the Onassis Cultural Centre on Siggrou Avenue. The "Dying Centaur" is a brass statue depicting a centaur in his last moments between life and death, just before finally collapsing. Centaurs, who were human from the waist up and horses from the waist down, are creatures of ancient Greek mythology that often appear as symbols of the "lower" instincts and the warlike urges of man.

(War Museum, accessed August 6, 2024, <https://militarytourism.warmuseum.gr/en/attractions/dying-centaur>).

<sup>25</sup> The National Reconciliation monument is an 8-metre brass cluster. It includes three figures, which stand opposite to one another and raise their arms to create the shape of a pyramid, whose apex symbolizes reconciliation. The mildly elevated base is made with reinforced concrete.

The three forms have an internal iron frame. The monument symbolizes the reconciliation that followed the Greek Civil War (1946-1949) between the communist side and the Greek army. Several decades passed in order for this open national wound to heal, as animosity could not be extinguished easily. The Greek Civil War was the first act of the Cold War. Firstly, Britain and later the United States both supported the right-wing side, while the USSR supported the leftists. The right-wingers eventually won as leftist forces surrendered, which brought the bloodshed to an end. During this war, Greece mourned the highest number of casualties in its modern history.

(Bon Flâneur, accessed August 6, 2024, [https://bonflaneur.com/en/athens\\_points/national-reconciliation/](https://bonflaneur.com/en/athens_points/national-reconciliation/)

<sup>26</sup> Kevin Coffee, "Audience Research and the Museum Experience as Social Practice", *Museum Management and Curatorship* 22, no 4 (2007): 377-389.

Lynda Kelly, "Evaluation, Research and Communities of Practice: Program Evaluation in Museums", *Archival Science* 4 (2004): 45-69.

<sup>27</sup> The Athens Resilience Strategy for 2030 was shaped in a parallel process together with cities from around the world, and with the guidance of the Rockefeller Foundation's international network of 100 Resilient Cities and was published in 2017.

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# **LIVEABILITY AND URBAN CHALLENGES – A REVIEW OF URBAN LIFE METHODOLOGIES IN A DANISH CONTEXT**

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## **INTRODUCTION**

Globally, cities face growing social and environmental challenges, while struggling to improve their liveability. An anchored attitude within the field of urban design argues that just as much as being part of the problem, cities are pivotal players in the solution. This paper investigates which recent trends, strategies, and paradigms affect urban life strategies (and thereby, the liveability of the cities) and how they are approached.

Jan Gehl has (together with allies) through half a century been the master of articulating and displaying the interconnection between urban design and public life. Gehl and Svarre's diagrammatic overview of the development of public life<sup>1</sup> points to central urban topics such as 'pedestrian streets', 'public life and urban activities', traffic calming, and the 'resurgence of bicycles'. Since the publication of Gehl and Svarre's more universal urban life analysis and methodology, agendas such as climate adaptation, changes in consumption habits, gender awareness, and a growing focus on community building, all spawning from current social and environmental challenges dominating the universal approach with an aspect of specificity, and discussion on future urban design.

Based on expert interviews and analysis of planning documents and -policies, the paper presents an extrapolation and discussion of matters influencing current urban development agendas in a Danish context and ends with a discussion for expanding the methodologies for contemporary urban life studies.

## **Urban life – approach, method development and implementation**

The interest in urban life arose in the 1960s with activists Jane Jacobs<sup>2</sup> and William Whyte<sup>3</sup> in America and Jan Gehl in Denmark, simultaneously criticizing modernistic urban planning for being inhumane and in favor of the car. A common aspect in the critique was the lack of human perspectives and human scale(s) in the modernistic and automobile-orientated approach to the physical planning and development of cities.

Another highly relevant aspect was the addressing of urban life. Both Gehl and Whyte studied and documented the nature of urban life and human behavior based on observations and counting, and both of them proposed different methods for working and implementing urban life as a parameter in the phases of planning or urban design. Whyte proposes his strategic or action-based concept of 'Triangulation' and Gehl develops guidelines and principles which promote and stimulate urban life and human interaction through the tools of the urban designer (dimensions, configurations/design, programming, etc.).

In a Danish context, Gehl's work gained an influential impact on the planning and design of cities throughout the 1990s and onwards. The research at the Royal Academy in Copenhagen from the 1970s to app. 2000 became the main contributor to the strategy and planning for both professionals and the planning authorities (municipality). The research led by Jan Gehl, was executed in an urban life research center, produced several publications and delivered guidelines for working with and implementing urban life.

The research focused on studying and understanding the nature of urban life and also delivering analysis methods for designing or developing urban life, using urban life as a design parameter from the early phases. The matrix or checklist of the "12 quality criteria for urban space"<sup>4</sup> is an example of a tool which can be used in designing an urban space 'for people' and with urban life as a design parameter. In the book "How to Study Urban Life", Svarre and Gehl introduce several approaches and methods to analyze and comprehend urban life as an element.

Several of the notions and guidelines were embedded into the planning policies, especially in Copenhagen. Initially, the approach and agenda primarily focused on providing a higher quality of urban space for urban life. The basic or universal guidelines regarding microclimate, activities etc., were applied to the work with the public spaces, and later on, further guidelines were embedded in the strategic and legislative planning documents. A main gain was the appearance of urban life on the agenda during the planning processes because it moved upwards in the priority list and hierarchies of the planning.

### **Universal vs the specific**

Jan Gehl often states that his studies are of 'homo sapiens', addressing the universal needs, and relations of the human and accordingly the human scale. The universal aspects of his ideas and principles have been the key to the worldwide acclaim and usage of his work, but it has also been an aspect of critique (both universal aspects and simplification).

The gap between a universality-based research approach and a reality with an increased focus on diversity and inclusivity has become more evident throughout the past decades. This combined with new forms of shopping (online, delivery, take-away, pick-up), new everyday routines (e.g. green transition), and needs for climate adaptation, require additional approaches to the universal base and methodology of urban life, conveyed by Gehl, Svarre and others.

In the context of Copenhagen, the change in focus and approach has evolved gradually, and adjacent to the city's overall paradigms and strategic foci within the planning (the bicycle city, the active city, the climate-resistant city etc.). Thus the studies and principles from Gehl and others had a great and apparent influence on the approach and planning in the late 90'es and early 00'es, where it catered for a fundamental change in bringing people (and people's basic needs) into the center and starting point of planning and policymaking, the approach seems to transfer from a forefront paradigm in the planning to an integrated and embedded part of the approach, on which the more special features can evolve and take place, which is fully apparent in the municipality's latest Policy for Architecture ('Arkitekturpolitik').<sup>5</sup>

Gehl's continuous and structured research ended with the closure of the Research Center. Thus, the tendencies and influences during the past two decades haven't been investigated with the same level of attention, scrutinization, and reflection. This paper presents prevailing matters influencing some of the current urban development agenda and proposes to expand the methodologies for future urban life studies.

## Expert interviews as a method for scrutinising the challenges and potentials of urban life in the present city

The investigation is based on interviews with 6 urban experts,<sup>6</sup> who, in the capacity of their different positions, contain comprehensive knowledge of trends, paradigms and challenges which has influenced and shaped Nordic cities during the last two decades. The diagram of Gehl and Svarre was used as an initiator for the conversations. All conversations focused on new agendas and tendencies how those have influenced the current city and how those have influenced the necessary and optional activities.

Development of public life from 1880 to 2005

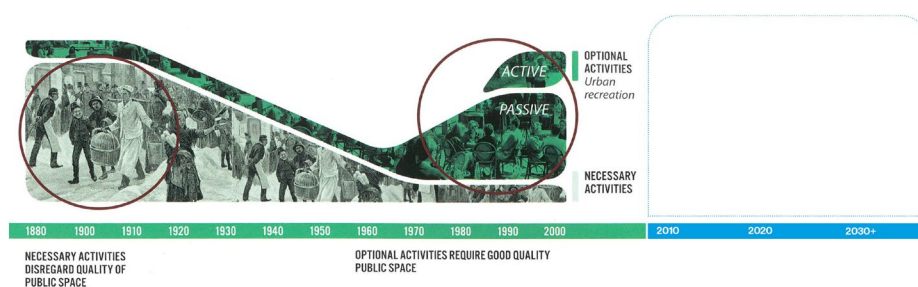


Figure 1. Continuation of Gehl and Svarre's diagram used in the interviews

The study was executed as semi-structured interviews where all respondents were faced with the same overall questions, however, posted in different orders depending on their focusses and the structuring of their talk. Each interview lasted an average of 90 minutes.

## Primary themes and findings from the interviews

The various inputs from the interviews were roughly organised into three overarching themes which span very different in scale and approach and cover the majority of the paradigms, situations and tendencies, revealed during the interviews. As seen in Figure 2. The themes differ from 'everyday practises', to approaches for working with the city development and finally to the more systemic and strategic approach to urban development and urban life.

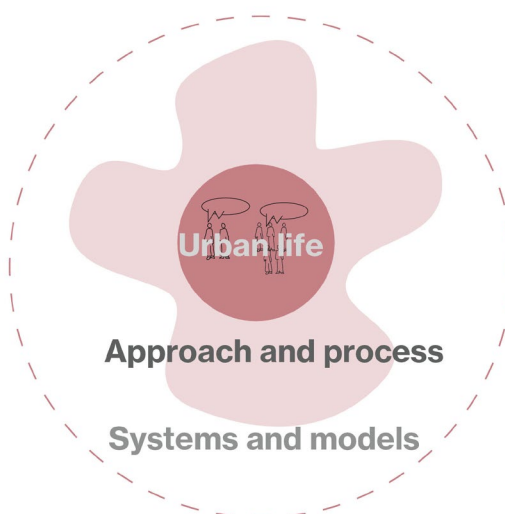


Figure 2. The three overarching themes; 'urban life', 'approach and process' and 'systems and models'

**Urban life: new urban lifeforms**

The first theme covers the new forms of urban life that have appeared during the past two decades, due to societal or behavioral changes.

*Shopping.* With the massive increase in online shopping, urban life in the city centers has changed together with the need for (or lack of) conventional shopping spaces. Quoting Gehl, the city has changed from 'Market town to Meeting town',<sup>7</sup> where it is no longer necessary to go to the city to shop. It is possible to stay home, ordering the food, clothes, and items needed. Thus, online shopping heavily influences the Danish cityscape with package delivery trucks and Wolt (or others) deliveries on both bikes and motorbikes, traversing the city at high speed. In some newly built neighbourhoods, deliveries of food boxes to the individual homes account for 1/3 of the traffic within the neighbourhood. As an addition to familiar shops, new 'package pick-up' shops appear and the city has changed into a 'Service city'<sup>8</sup> with hairdressers, restaurants, manicures, massage studios etc. all providing services demanding physical presence. The necessary activities have thereby changed from exchanges of goods to exchanges of services, and trades are no longer a necessary cause to be in the city.

*Sustainable behaviors.* Another new urban activity which has grown during the last 20 years, is the handling of trash. The sorting of trash has expanded heavily in Denmark over the last 5-10 years and will most likely expand further in the future. Sorting trash has appeared as a new demand and has moved from private space into the common urban space, where facilities for the act are prioritized by the authorities to ensure that citizens follow the rules for 'trash sorting'. Islands of trash sorted into so far 5-6 different fractions now appear within every 75 meters in the city and become hubs for informal meetings among residents in a neighbourhood, with organized possibilities for sharing and re-using.

*Expanded usages.* A third change is the extended use of and demand for urban spaces. The urban spaces have changed into being more performative. They are no longer solely providing experiences such as sitting at a café or hosting different shopping activities. They must, to a higher degree host a broad variety of activities. And activities that before took place inside have moved into urban spaces such as outdoor yoga or fitness. Further are the demands and wishes for functions in the urban spaces growing with very specific wishes, such as 'Grief playgrounds' at cemeteries or places for immersion, which challenge the more 'universally' designed urban spaces for the greater common, which seek a wide spanned and general user group.

*Sustainable responsibility.* The diverse demands point to a fourth change where urban spaces are being integrated as active actors in solving societal social challenges such as loneliness, an ageing population and a general decrease in public health (both mental and physical). Climate adaptation is also a new feature or requirement which results in new forms of programming and new activities of both demanding and voluntary character. The known necessary activities where public spaces were originally activated mainly by shopping and work-related activities, moved during the 1990s towards being more leisure-oriented. The urban life has further changed during the last two decades into being more occupied by environmental and social challenges.

None of the changes above have undergone a continuing and structured study regarding the effect on urban life, and there is a need for further investigations to fully understand how they all affect the liveability of current Nordic cities.

**Approaches and process: diversity and surplus of demands for urban spaces**

Over the last 10 years, a rapid movement towards an increased focus on diversity such as gender, age, and cultural equality has influenced city development within a Nordic context. Urban spaces are no longer just urban spaces but must consider an extended list of wishes and demands for urban life.

*"There must be urban spaces for everybody. Urban spaces for women, the homeless, and universal design. The list of needs has become very long..."*

### *Respondent*

The initial urban life observations and countings have difficulties in captivating the complexity of creating equal spaces for all. The 'universal' approach of designing for one similar kind of homo sapiens is no longer sufficient when the studies stand alone. They need a qualified and specific dimension as an addition to address the specific needs, requirements and processes leading up to the development of a vibrant urban space. Simultaneously with the increased focus on diversity, a change appears in the perception and use of involvement and participatory design processes and a growing interest in methods for diverse engagement in urban development projects.

*"How do you design processes, which ensure that everybody is being heard and that we can use it in our design? It is a new thing, and it is learning by doing - we are making our involvement processes at other times and in new ways"*

### *Respondent*

*"Within planning and urban development, co-creation must appear on all levels; advisor, authority, resident and developer"*

### *Respondent*

Thus, the change towards a more diverse perception of users in public spaces and the inclusion of equality as a pivotal design parameter influences how architects engage in participatory design processes with various actors, and therefore expands on existing methods for urban development.

The extended focus on diversity and equality also affects the approach to urban development on a strategic level, which is presented in the third theme.

## **Systems and models: new external forces**

The third theme is the impact of different development models on urban life. The focus on liveability and sustainability has together with the international focus and indexing of liveability as a competitive and branding parameter pushed the focus on urban life and its role. This tendency most likely happens for two main reasons; 1) The addressing of urban life, pursuing local anchoring and commitment has been a demand or requirement from the municipalities, 2), Liveability is a demand from future residents and users (renters or buyers) which makes it a pivotal selling pitch for the project developers.

When the element of urban life is aligned with other criteria of success such as economy, urban life becomes an integral part of the overall business case. Stimulation and cultivating urban life from the beginning of a given project can strategically become an asset – both in terms of economy (a refinement of the given urban area) or as a competitive feature in the developing (in terms of added qualities in a municipal perspective). In a Danish context, larger developer companies have through recent years established departments within their organizations to deal with and secure urban life in their project areas as a result of this.

When urban life appears as a parameter in business cases, it becomes relevant how the overall developer setup has been designed, how the strategies and initiatives impact, and how the time span for the ambitions is. Locally present developers with a long-term role in a given area tend to establish a higher degree of commitment regarding urban life and social initiatives in comparison to international funds are aiming at a more short-term commitment and immediate economic return after the realization of the project.

## **Research methods for urban life in the present city**

The increased focus on diversity (cultural, gender, race etc.) and specific, individual agendas and needs are challenging the universal approaches to study and develop urban life. On the other hand, is the universal approach the strength of Gehl's urban life study methodologies, because they provide a base

with simplicity and adaptivity, which can be easily applied to any urban context and provide valuable knowledge on the present urban life. Thus, many new necessary activities, such as sorting and reusing trash, charging electric cars, and picking up delivered packages can be studied with the existing conventional and universal methods.

Social interaction, which is a fundamental human need, was earlier latently provided by the necessary activities, such as using the city for everyday shopping and working (at a workplace). Those everyday interactions are challenged by the mentioned changes in the urban premises (e.g. online shopping and working from home). The same basic stimuli are to a higher degree provided for by the optional activities. However, many of the optional activities are often related to individual value-based aspects, where people based on their cultural background, gender or age have different value systems, which again influence their urban space behaviour. In some areas (and with some activities) there is a blurring or gradient between the necessary and optional activities, and in that perspective, it can be difficult to analyze and address with a universal-based optic.

This calls for an additional set of methodologies that can address the specific and intercept the underlying causes for either lacking or sufficiently addressing inclusivity, diversity or sustainable behaviour. The supplementing methodology should provide an empirical foundation for analysing aspects such as place attachment, ownership, and possibilities for engagement, as those are influencing urban life in the present city.

Thus, to sufficiently investigate and analyse urban life in the present city, there is a need to develop a supplementing methodology, which can intercept values and underlying causes and agendas for various behaviours and needs. Such methodology can learn from co-design research theory,<sup>9</sup> in the form of urban living labs (also learning from design research), where the researcher engages with the different users, stakeholders and designers to gain insight into values, wishes and frictions. Using placemaking<sup>10</sup> and co-creation<sup>11</sup> as research methods in an urban setting is not new. However, adding it as a research methodology in urban life studies is yet to be investigated. It could be a strengthening supplement to the valuable urban life methodologies of Gehl in the arena of the present city with an increased focus on diversity and inclusivity.

The exact methods for site-specific mappings and analysis are both manifold and diverse. However, learning from co-design, living lab and placemaking design research theory, it might be possible to establish some methodological guidelines that derive from the simplicity of the universal aspects from Gehl and at the same time can navigate in the inherent frictional urban space and intercept place specific attachments, values and identities.

## CONCLUDING REFLECTION

There are several new aspects and actions within the contemporary city that are valuable to investigate using the original Gehl observations and counting. Examples of such could be a structured investigation of the new necessary urban life-forms, as mentioned above, or how urban spaces designed for specific urban life appeal to a general user group? or which common activities are taking place in the urban spaces?

However, to oblige the increased focus on diversity, and inclusivity, already resulting in extended use of participatory design methods in urban development projects. Urban life research could learn from Co-design research theory, as a method to also gain insights into the underlying causes and agendas for different behaviors, which do not necessarily appear through observations, counts and shorter interviews.

The extended methodologies could additionally support thorough urban research on theme three of *Liveability as a business case*, as this also calls for insights into values and frictions.



This paper only presents the results of an initial pre-study on how to study urban life in the current city. Even though it already points towards several relevant themes for investigation more pilot-studies need to be conducted before in-depth research projects can be formulated.

## NOTES

<sup>1</sup> Gehl and Svarre present a diagram within the book, *How to Study Public Life* (2013) p. 106, roughly visualizing the city development from 1880 until 2005. The diagram (left part of Figure 2). shows in a highly simplified matter the change in necessary and optional activities in the city from 1880 to 2005. It shows how the necessary activities decreased, as the city transformed from being almost only containing necessary activities such as work and trade into being a place for leisure as we have gradually gained more spare time. This increases the demand for good urban spaces since optional activities require good urban public spaces. On the other hand, necessary activities are not dependent on spatial quality in the same way, but more on functional performance. The spatial and liveable quality of the public spaces in the city, was at the same time, threatened by the entry of the car.

<sup>2</sup> Jacobs, *The death and life of great American cities*, Modern Library, 1993

<sup>3</sup> Whyte, *City: Rediscovering the Center*, Doubleday, 1989

<sup>4</sup> "Twelve Quality Criteria" Gehl – Making Cities for People, accessed August 10, 2024

[https://issuu.com/gehlarchitects/docs/twelve-quality-criteria\\_gehl](https://issuu.com/gehlarchitects/docs/twelve-quality-criteria_gehl)

<sup>5</sup> Arkitekturpolitik København 2017-2025 'Arkitektur for Mennesker', Københavns Kommune, 2016,

[https://Arkitekturpolitik København 2017-2025 | Københavns Kommune](https://Arkitekturpolitik.Koebenhavn.2017-2025|Koebenhavns.Kommune)

<sup>6</sup> The participating respondents were, Jan Gehl, adjunct professor at Aarhus School of Architecture, Birgitte Svarre (Manager of Bark Counseling), Anne Mette Boye (City architect in Aarhus), Camilla Richter Van Deurs (former City architect in Copenhagen), Christian Pagh (Manager of Oslo Architecture Triennial) and Morten Kjer Jeppesen (Manager at Gehl Architects)

<sup>7</sup> Interview with Jan Gehl, 6. March 2024.

<sup>8</sup> Interview with Jan Gehl, 6. March 2024.

<sup>9</sup> Binder et. al, *Rehearsing the future*, The Danish

<sup>10</sup> Even though engagement and participatory design methods existed already in the 1960es and appeared within the field of urban design in America in the 1970s initially by Project for Public Places (PPS), where the direct involvement of residents has been the leading approach for placemaking and regeneration projects of different neighborhoods in North America, the participatory actor involvement in urban design projects in Denmark has for the majority of urban developers often been perceived as a price-raising action in a city development process, which in general did not contribute to better projects.

<sup>11</sup> Teder, 'Placemaking as Co-Creation—Professional Roles and Attitudes in Practice', *Co-design*, Taylor&Francis, 2019

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# THE LIVING AND THE LIVABLE CITY: THE TRANSFORMING AESTHETICIZATION IN URBAN SPACE

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## INTRODUCTION

Recent urban studies have prompted a shift in our understanding of the city as a relational concept - a topology of intersecting entities, networks and flows, where multiple connections converge to mold urban development. Relational theories, including Actor-Network-Theory, represent a significant contribution to the post-structuralist perspective in urban studies. In this context, the reading of French philosopher Michel Foucault's conceptualization of power relations has transcended mere discussions of mechanisms for urban space or spatial modes. In other words, the notion of a 'livable city' should no longer be merely viewed as a linear progression governed by an increasingly complex set of indicators - such as pedestrian friendliness, mixed-use development, transit efficiency, sustainability, resilience, creativity, and cultural vibrancy.

As research increasingly transitions towards relational analyses in discussing urban phenomena, this article proposes extending Foucault's concepts of the 'disciplinary society' and the 'dispositif' through an ontological lens. This study posits that Gilles Deleuze's philosophy of assemblage offers an ontological framework for understanding how an urban space emerges from an environment produced by the dynamics of force relations. Building on Deleuze's interpretation of Foucault, this paper explores the transformation of urban space through the interaction between everyday practices and livable forms. The empirical focus centers on one of the defining characteristics of a 'livable form' in China: creativity of a city. In recent decades, creativity has become a trendy attribute that enhances the livability and global appeal of cities. This trend manifests through the aestheticized form of urban spaces, which integrates innovative architectural designs, artistic and cultural events, and a burgeoning creative industry. This urban landscape evokes memories of the gentrification of public spaces in the 1980s and 1990s, when neoliberal market economies drove post-industrial renovation in European cities. However, this study analyzes the distinction between the two spatial forms through the lens of how the transformation of the subject as everyday life increasingly combines with information technology. By examining the transforming subject, it discusses how the earlier wave of gentrification is evolving into a contemporary aestheticization of urban space, creating a superficially open, inclusive, and experience-led place.

## DELEUZE'S ONTOLOGICAL ASSEMBLAGE: TOPOLOGICAL SPACE

The city can be conceptualized as a "complex adaptive assemblage."<sup>1</sup> To exploring urban space through the dynamic network of force relations necessitates an ontological understanding of assemblages. In their work, *Dialogues*, Deleuze and Parnet defined an assemblage as:

...a multiplicity which is made up of many heterogeneous terms and which establishes liaisons, relations between them across ages, sexes and reigns - different natures. Thus, the assemblage's only unity is that of co-functioning: it is a symbiosis, a 'sympathy.'<sup>2</sup>

Following Deleuze, examining urban space within a network does not imply that space consists of predetermined positions of entities (e.g., organization, systems, or actors). Instead, as an assemblage, space is not defined by spatial boundaries or scales. It is better understood as a topological space that emerges from the intensity of connections, characterized by convergence, coherence, and dispersion. In other words, the dynamic nature and temporality of topological space expand the physical perception of space to include the dimension of time.

To elucidate the relationship between time and space, Deleuze introduces the concept of "folding," depicting time as "the folding of the outside," giving rise to a 'topological space' that transcends 'Euclidean space.'<sup>3</sup> With the folding of time, topological space liberates itself from the material boundaries that physically separate the interior from the exterior. Topological space represents the co-presence of 'inside-space' and 'outside-space' along the line of the fold: "Every inside-space is topologically in contact with the outside-space, independent of distance and on the limits of a 'living'."<sup>4</sup> Thus, the inside and outside of space exists within the same topology of network, where the inside encompasses the design principles, mechanisms, systems, proper behaviors, and routines, while the transformative potentials emerge from the spontaneity of living continuously at the intersections of inside and outside. Deleuze terms this topology the "carnal or vital topology," which "brings the two ['inside-space' and 'outside-space'] into confrontation at the limit of the living present."<sup>5</sup>

The relationships between space and time, as well as between inside and outside, highlights the agency potential inherent in living, which is folded in the livable form in the assemblage city. As Deleuze asserts, mechanisms do not act as exterior forces imposed upon life; instead, they "act from within on bodies and souls."<sup>6</sup> In other words, even if the subject is in a dominated position, it has potential to affect the transformation of spatial form. The subject, through living, actively participates in shaping the environment, thereby motivates the spatial form to adapt its mechanisms to dominate the subject. Therefore, the livable city is not a mere an evolving mechanism but emerges as a spatial form that self-modifies to govern the transforming subject - everyday life.

## **TRANSFORMING THE LIVING: FROM FOUCAULT'S DISCIPLINARY SOCIETY TO DELEUZE'S SOCIETY OF CONTROL**

In *Discipline and Punish*, Foucault introduces the concept of the Panopticon - a theoretical architectural form of prison - to illustrate how the 'dispositif' manipulates individuals. The Panopticon features a central opaque watchtower surrounded by cells illuminated in light, allowing the watchman to observe everything without being seen. Meanwhile, the prisoners, uncertain whether they are being watched, internalize a sense of constant surveillance. This design regulates social behavior through psychological control rather than physical coercion. The Panopticon thus serves as a metaphor for the spatial form of power in modern societies, extending beyond prisons to encompass schools, factories, hospitals, and military systems. The term 'dispositif' represents the abstract mechanisms embedded in spatial forms that manipulate subjects.

The operation of this abstract function relies on a topological space that emerges within force relations. Foucault conceptualizes power as a dynamic set of power relations that define "innumerable points of confrontation, focuses of instability, each of which has its own risks of conflict, of struggles, of an at least temporary inversion of the power-relations."<sup>7</sup> However, Foucault never provides a definitive definition of 'dispositif.' As Giorgio Agamben notes, Foucault came close to defining it in an interview:<sup>8</sup>

“...this term is, first and foremost, a thoroughly heterogeneous set consisting of discourses, institutions, architectural forms, regulatory decisions, laws, administrative measures, scientific statements, philosophical, moral, and philanthropic proposition – in short, the said as much as the unsaid...

...by the term ‘apparatus’ I mean a kind of a formation...

...the nature of an apparatus is essentially strategic, which means that we are speaking about a certain manipulation of relations of forces...”<sup>9</sup>

Deleuze suggests that Foucault does not provide a comprehensive exposition of this novel concept of power until his later work, *History of Sexuality*, where he shifts focus from dominance through spatial form to the subject’s resistance within power relations.<sup>10</sup> Here, it becomes possible for the subject to influence power; as Foucault states, “it[power] is exercised rather than possessed; it is not the ‘privilege,’ acquired or preserved, of the dominant class, but the overall effect of its strategic positions.”<sup>11</sup>

From a functionalist and structuralist perspective, Foucault’s notion of power, the discussions is often confined to discussions of how urban mechanisms shape social behavior. Deleuze, however, uncovers the potential for the subject’s resistance within power relations. This resistance does not involve violence but rather a form of self-transformation. The subject is not merely passively shaped by spatial forms but can influence these spatial forms through its transformation within their interaction.

In “Postscript on the Societies of Control,” Deleuze explores the shift from Foucault’s disciplinary society to a society of control, highlighting the changing form of the subject. In Foucault’s work *Discipline and Punish*, the Panopticon exemplifies “a pure disciplinary function,” which imposes “a particular taste or conduct on a multiplicity of particular individuals.”<sup>12</sup> Its operation relies on the premise that “the multiplicity is reduced and confined to a tight space and that the imposition of a form of conduct is done by distributing in space, laying out and serializing in time, composing in space-time, and so on.”<sup>13</sup> This mode of control is no longer limited to institutions such as schools, factories, hospitals, and the military but also manifests in gentrified urban spaces. Gentrification, emerging from the neoliberal market economy, produces exclusive enclosures that predominantly adheres to surveillance mechanisms such as monitor system, guards, and a conventional consumerist ideology that categorizes customers.

Deleuze analyzed Foucault’s later work, *The History of Sexuality*, proposing that the Panopticon mode transforms its function into “administering and controlling life in a particular multiplicity, provided the multiplicity is large (a population) and the space spread out or open.”<sup>14</sup> He argues that in contemporary society, new governance techniques emerges as everyday life is transformed through its integration of information technology, smart devices, and algorithms. Here, human capabilities to perceive and use space are expanded, breaking the traditional functions of space. In other words, the Panopticon mode is no longer effective in its old form and must adjust its governance techniques in response to the new ways of living.

This transformation is evident not only in the disruption of previous relationships between spatial functions and their corresponding ‘normal’ behaviors but also in the changing formation of the subject within the relationships between individuals and masses. Deleuze asserts that this transformation does not concern ‘the human compound’ itself but instead focuses on “the forces that make up man: with what other forces do they combine, and what is the compound that emerges.”<sup>15</sup> He discusses how human compounds emerges in different ages. In control societies, Deleuze argues that the human compound transforms its constitution from mass-individual relationship into an individual-dividual relationship. In an increasingly open space, “we no longer find ourselves dealing with the mass/individual pair. Individuals become ‘dividuals,’ and masses, samples, data, markets, or ‘banks’.”<sup>16</sup> Although Deleuze does not provide a detailed definition of ‘dividuals,’ Bruno and Rodríguez suggest that the dividual-

individual composite helps to comprehend “the modes of subjectivation” within the digital culture.<sup>17</sup> Deleuze uncovers a new control mechanism in the digital age that captures the transforming subject. As Buchanan explains, “discipline concerned the correct training and placement of individuals, whereas control is concerned with the maximum exploitation of individuals (nameless, faceless, data points) regardless of their formation or placement.”<sup>18</sup> Buchanan calls this mode ‘open capture.’<sup>19</sup>

This ontological discussion inspires an analytical approach to the aestheticization of urban space in the livable form of a city. This paper explores how the subject and its ways of living interact with urban space in digital culture in China, uncovering the transformation of the gentrified mode into a new form of aestheticized urban space through the lens of transforming subject.

## **FROM GENTRIFICATION TO CONTEMPORARY AESTHETICIZATION: THE CASE IN CHINA**

In recent years, urban development strategies in China have increasingly integrated artistic and cultural events, innovative architectural designs, and internet promotion. Unlike the gentrification trends that transformed Western cities in the 1980s and 1990s, China’s commercialized urban spaces have evolved into more open, less exclusive, and experiential-led environment. A notable example of this transformation is the evolution of the commercial ‘Complex.’

In the mid-2000s, the “Complex” represented a gentrified blend of shopping malls, office buildings, hotels, residential housing, underground parking, and pedestrian zones. This spatial form adhered to surveillance mechanisms such as monitor system, security guards, and conventional consumerist ideologies that emphasized individualization. In this context, people were molded into categorized consumers, and public spaces were treated as exclusive commodities. The efficiency of this surveillance relies on limiting people’s interaction with their environment to localized spaces.

The original commercial Complex adopted these techniques to manipulate the subject, which was once constituted by what Deleuze called individual-mass relationship. This constitution meant that the subject was formed through individuals’ connections with the community and the progression of individualization within a mass. The previous gentrified public spaces emphasized, as Deleuze described, “the pure function of imposing a particular taste or conduct on a multiplicity of particular individuals.”<sup>20</sup>

Deleuze also analyzed Foucault’s work, *The History of Sexuality*, proposing that the Panopticon mode transforms function into “administering and controlling life in a particular multiplicity, provided the multiplicity is large (a population) and the space spread out or open.”<sup>21</sup> In the digital age, daily life increasingly relies on electronic equipment and algorithmic systems, extending human perception of space on an ever-widening scale. Using diverse review sites, social media, and big data, people can select destinations by browsing others’ reviews and unique experiences. This new way of living correspond to the multiplicity of a population and the openness of the spaces individuals engage with, contributing to the transforming aestheticization of urban space.

Since the mid-2010s, commercial complexes in China have embraced art exhibitions, bookstores, and cultural events, creating an inclusive and ‘cozy’ environments. Rather than focusing solely on sales, aestheticized urban spaces now emphasize providing unique experiences beyond functionalism, aiming to encourage individuals to share their experiences online.

A cutting-edge example of this trend is Mixc Shenzhen Bay retail complex in Shenzhen. It greets visitors with a mesmerizing array of architectural wonders, including elaborate storefronts, lavish installations from luxury brands, and captivating artistic displays integrated with interactive media screens and vibrant outdoor lighting. The rooftop garden offers sweeping panoramic views of the bay, while the interior features a diverse array of gift shops, bookstores, art exhibitions, an inviting atrium



adorned with artwork for cultural events, and upscale restaurants known for their creative cuisine. Art has been absorbed into the depiction of a leisurely, aesthetically pleasing, eco-friendly city that embodies a captivating image of relaxed urban life.

Commercial complexes that emerged in the neoliberal market have transformed into an experiential-led aestheticization mode. This transformation cannot be understood merely through innovative architectural forms, improved policies, and developed strategies. Instead, it must be analyzed through new ways of living in the digital age. Individuals actively participate in building aestheticized urban spaces through daily practices such as taking pictures, making videos, leaving comments, sharing individualized experiences, and selecting destinations based on others' recommendations. As Thrift noted, the influence of information and communication technology on people's orientation extends beyond the body.<sup>22</sup>

Deleuze warned of the 'control machine' 30 years ago when he revealed the transforming constitution of the subject in contemporary society. In disciplinary societies, the subject is constituted by the signature that "designates the individual" and the "administrative numeration that indicates his or her position within a mass."<sup>23</sup> In contrast, in the societies of control, the subject is "made of codes that mark access to information."<sup>24</sup> Individuals willingly share the aestheticized fragmentary images, merging with their identities, continuously producing experiences of 'dividuals' as the materials for the control machine. Consequently, the temporal communities formed around these aestheticized experiences are merely groups of 'dividuals' lacking specific individual identities and emotional connections.

Therefore, the transformation of China's commercial complexes from traditional gentrified spaces to aestheticized, experiential environments reflects a broader shift in urban life driven by digital technology and changing consumer behaviors. Yet, this transformation also underscores the emergence of new mechanisms of control, where personal expressions and interactions are commodified as digital fragments.

## CONCLUSION

This study analyzes the aestheticization of the commercial complex in China as a lens to explore the ontological dimension of assemblage. While the concept of a livable city traditionally emphasizes mechanism such as urban planning, design, and policy strategies, this research highlights that urban space extends far beyond a morphological and strategic scale. In the digital age, space becomes an open, dynamic concept that transcends physical boundaries and predetermined orders. Additionally, the subject shaping this space is no longer confined to traditional roles defined by relationships between individuals and their communities.

The concept of a livable city must integrate the lived experience into its form, accounting for the evolving nature of the subject. This subject does not merely exist within the space but actively participates in its creation, embedding itself into the spatial fabric and promoting the transformation. As Deleuze observes, we have transitioned from one form of existence to another in the system under which we live.

Ultimately, the transformation of urban spaces reflects a broader evolution in urban life driven by digital culture, changing social dynamics, and emergent control mechanisms. These spaces illustrate how contemporary living shapes and is shaped by the interplay of technology, aesthetics, and human agency. A livable city, therefore, is not merely a product of strategic planning but a continuously evolving assemblage co-created by the practices and experiences in everyday life.

## NOTES

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# RIO DE JANEIRO RAILWAY VOIDS: AN OPPORTUNITY FOR URBAN REGENERATION

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## INTRODUCTION

This research addresses the relationship between urban processes and railway infrastructures in Rio de Janeiro Metropolitan Area. Although the railway had a crucial importance in Rio's development until the first half of the 20th century, the railway is currently in a neglected state and underused in several areas, leaving "railway voids." In this context, especially in densely populated periphery and built-up regions, these voids represent a unique opportunity for urban restructuration, and for life quality improvement. The research proposes an analytical method to investigate the urban potential of such railway voids in an area of 19.5 km designated by MRS Logística S/A Railway — A railway company whose initials stand for "Southeast Regional Network"<sup>1</sup> — in Rio de Janeiro. The authors map this area using five categories: (1) thresholds and boundaries, (2) level crossings, (3) vegetation and topography, (4) demographic density, and (5) land use. Further, authors extract and organize data in graphic display, extracting emergent data patterns for future urban design interventions. This methodology supports design strategies to develop future initiatives to restructure these forgotten areas, promoting design thinking with contextual data reasoning.

## THEORETICAL AND CONCEPTUAL FRAMEWORK

Since the first urban centres formation, the relationship between built spaces and surrounding voids has been a topic of ongoing debate, especially in large metropolis and their peripheries. An object insertion in an urban environment creates two spaces: an interior space contained within its own architectural form and another urban or interstitial space that establishes a spatial relationship between the building and its existing urban context.<sup>2</sup> Therefore, the "object" and the "void" have a dual nature, depending on the scale and level of analysis. Although in urbanism, the "object" commonly occupies a prominent place in relation to the void, the urban form of the contemporary city results from a constant and diverse interplay between building mass and void.

Analysing the Parma city map — Figure 1 —, we find a recurrent European city pattern, where the voids are predominantly a background. The voids are the building fabric consequence, creating urban squares or courtyards that are associated with representative buildings as churches, markets or other power structures. On the other hand, in Saint-Dié — Figure 1 —, a city designed using a modernist approach; the void assumes an active role configuring the urban space not merely as a conformed element.<sup>3</sup> In this context, the large blocks, avenues, and isolated buildings in the lots have a different relationship, as the void becomes an active structural element organising the urban tissue.



Figure 1 Rowe and Koetter, 1978, in their work "Collage City" juxtapose the spatial logic of the traditional and modern city models by utilising figure-ground maps that present the void as both a shaped and active shaping element of the urban milieu. The Parma map at the top and Le Corbusier's design for Saint-Dié in the bottom.

Voids are essential elements to define the city structure in urban planning. Voids can enable the creation of parks, recreational areas, commercial activities, or community gatherings. Conversely, there are contexts where emptiness is a by-product of inadequate planning, resulting in neglected areas that lack essential infrastructure and services, and leading to social-economic marginalisation. Voids can be an active component for the configuration and experience of the urban environment. To explore this idea, the authors performed a figure-ground comparative analysis regarding building density and voids percentage in urban metropolis such as Barcelona,<sup>4</sup> New York (Manhattan Island),<sup>5</sup> and Brasília.<sup>6</sup> We then compare this information with our study area, São João de Meriti municipality – in Rio Janeiro's metropolitan periphery that has the third-highest population density in Brazil<sup>7</sup> — Figure 2.

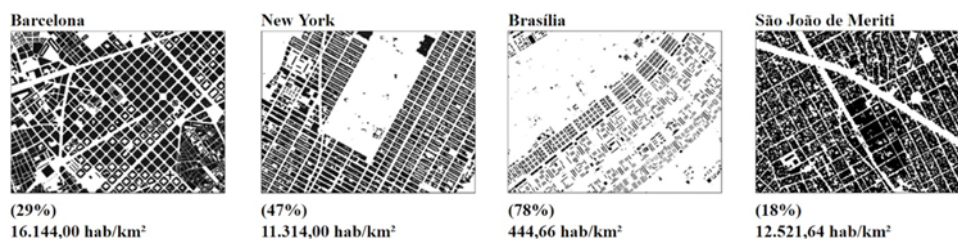
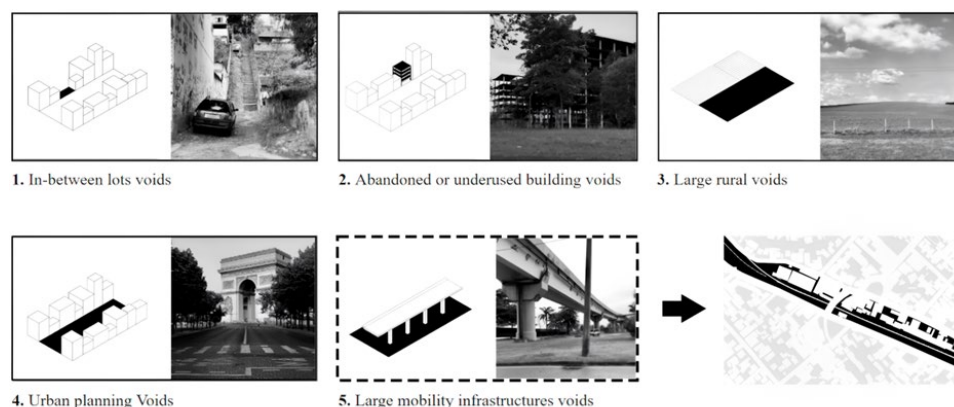


Figure 2. Figure-ground map and building density of the cities of Barcelona, New York - Manhattan Island -, Brasília, and São João de Meriti, respectively. Lucas Monserrat, 2024.

Analysing the Barcelona original grid, the city's density increases as the building blocks' voids gradually occupied. In New York, Central Park functions as a large empty space that balances the lack of other empty spaces, enabling a higher density in Manhattan Island building lots. In the Brazilian examples, Brasília presents a relationship where the void assumes an important role in urban planning, reflecting modernist thought. Conversely, this research intends to act in São João de Meriti, a typical metropolitan periphery in Rio de Janeiro, where the space is a junk-space.<sup>8</sup> The high density reflects not only the number of inhabitants per square kilometre but also the territorial building occupation; there are almost no empty spaces. On the map, we observe the last few vacant spaces, remains associated with urban mobility infrastructures as highways and railways.

### Classifying the void

It is challenging to identify the void, from small spaces between lots to large avenues and monumental axes in cities due to the voids ability to encompass different configuration, use, symbolism, promoters, and other associated variables.<sup>9</sup> To grasp these voids multidimensional character, we propose a graphical synthesis of the voids types in the urban fabric, identifying these study types — Figure 3.



*Figure 3. Void types in the urban form and specific types addressed by Lucas Monserrat, 2024, based on Andrea Borde, 2006.*

As observed in the previous section, certain Rio de Janeiro areas, with large mobility infrastructures' leftover voids are the last remain empty spaces; even if they are now junk spaces, they have potential to become qualified public space for the population. These spaces are a unique opportunity to improve social problems, the built environment, and the urban connectivity, while ensuring the most vulnerable population right to use the city. This work focuses on such voids that result from the railway obsolescence in Rio de Janeiro Metropolitan Area, referred to from this point in the research as "railway voids."

## RESEARCH CONTEXT AND GOALS

During the 19th and early 20th centuries, the railway was vital for the urban development of the Rio de Janeiro city and state. However, political strategy gave priority to road transportation development and this extensive railway network became underutilised or abandoned. Currently, the Rio de Janeiro Metropolitan Region has a reduced railway network of three railways, displayed in Figure 4, the main ones are SuperVia, represented in blue, and MRS Logística S/A, shown in pink.<sup>10</sup>

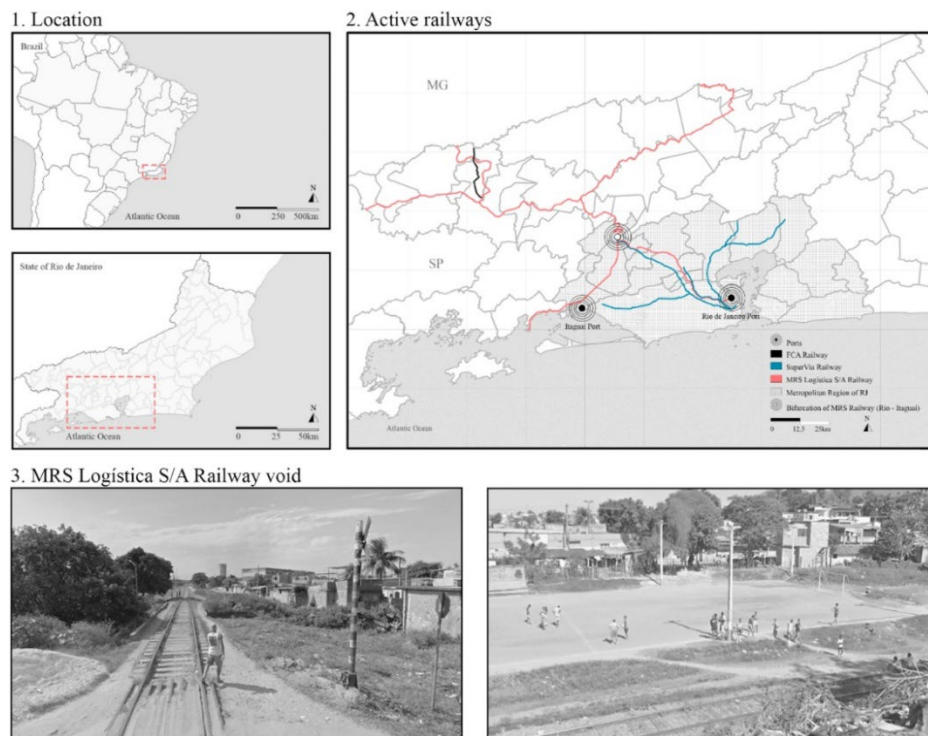


Figure 4. Image 1. Location in Rio de Janeiro Metropolitan Region of; 2. Active railways map; 3. Typical existing voids along the MRS Logística S/A branch line. Lucas Monserrat, 2024, and images from Google Street View, 2024.

While SuperVia is dedicated to passenger transport, MRS Logística S/A focuses on freight transport between Rio de Janeiro and Itaguaí ports. The majority of the cargo transported by this railway consists of iron ore, primarily based at the Itaguaí Port, resulting in low activity and underutilization in the section connecting to the Rio de Janeiro Port.<sup>11</sup> In this section, the railway void of the MRS Logística S/A branch line has a unique relationship with the surrounding city, as the railway lacks fences, experiences low train traffic, and lacks a precise delimitation between public and private space. Consequently, the population often utilises these areas as public space.

This raises the question: how can architecture respond and reformulate these spaces, transforming and integrating them as active city actors.

## METHODS AND PROCESSES

To address this problem, the authors propose a methodology that has as reference Farias, that asserts that the complexity and fragmentation of peri-metropolitan spaces and effective urban policies, creating a barrier between receptiveness and the residents' use.<sup>12</sup> This often stems from misdiagnoses disconnected from the communities' real needs. This leads us to consider how to analyse the railway structural void to extract relevant parameters for project formulation in the metropolitan periphery. This requires a systemic logic concerning these infrastructures. Easterling<sup>13</sup> argues that infrastructural space operates under a different urban logic compared to traditional buildings and other projects. According to Easterling, the systemic and functional nature of infrastructure are as a software, composed of a diverse elements sequence that together configure spatial arrangements with certain properties and programmatic potential useful to guide design.

To recognize such potentialities, the authors developed an analytical method to map the MRS Logística S/A branch morphology, proposing five categories: 1. thresholds and boundaries; 2. level crossings; 3. vegetation and topography; 4. demographic density; 5. land use.



These categories, combined with a statistical and diagrammatic approach for data collection and representation, aims to discern socio-spatial patterns within infrastructural voids. This methodology enables transforming data into knowledge, namely identifying relevant parameters for future urban interventions. It is also important to highlight that although the mapping focuses on a specific area, the analytical methods developed have potential to apply in other railway voids, as opportunities for urban restructuring in other contexts, contributing to urban restructuring and development based on detailed data analyses.

### Mapping cartography and sections analysis

Authors mapped the five proposed categories in a horizontal A3 format with contextual data, diagrammatic data, incorporating both photographic mapping and isometric representation for a more objective and comprehensive survey. To ensure a coherent analysis scale, to observed relevant details in a cartographic approach, we subdivided the 19.5 km segment length in four distinct parts: A, B, C, and D — as shown in Figure 5 — along with a final synthesis map, including simultaneously the four sections. This strategy optimises the assessment accuracy, allowing a more specific in-depth approach for each section.

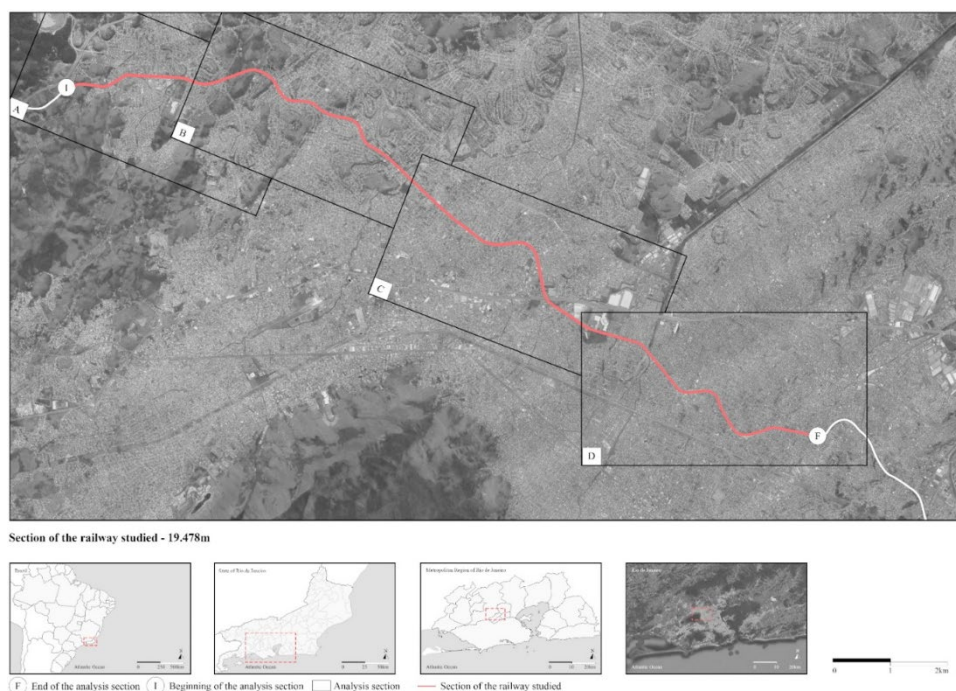


Figure 5. Map displaying the site location and sections used for the analysis of the railway void along the MRS Logística S/A branch line. Lucas Monserrat, 2024.

### Mapping by categories

At this stage, we present the analysed categories and their respective maps. However, due to the article space, words and image limitations authors present only the full information of the first category — thresholds and boundaries — along with one close analysis of Section C, the synthesis map, and the corresponding statistical data. Subsequently, authors summarise the other categories, providing the synthesis map and a brief data interpretation.



## 1. Thresholds and boundaries

The authors conduct in this section, a detailed analysis of the MRS Logística S/A Railway lateral thresholds and boundaries of the void to identify the most suitable and free locations for urban interventions with fewer borders. Certain elements delineating the void may constitute design obstacles. When we use the term "obstacle," we refer to impediments such as restricted access to the void due to the presence of walls, prior occupation by buildings, dense vegetation, and steep terrain, among other factors.

By analysing the urban situation, we identified seven profile types along its length: street, topography, drainage ditch, buildings, wall, vegetation, and railway platform. The combination of these elements allowed us to identify typical limiting situations, the sequence of which fully comprises the segment in question. Thus, we identified 13 typical situations that can be organised in three groups based on the profile types as design obstacles or not: no obstacles, obstacles on one side, and obstacles on both sides — Figure 6.

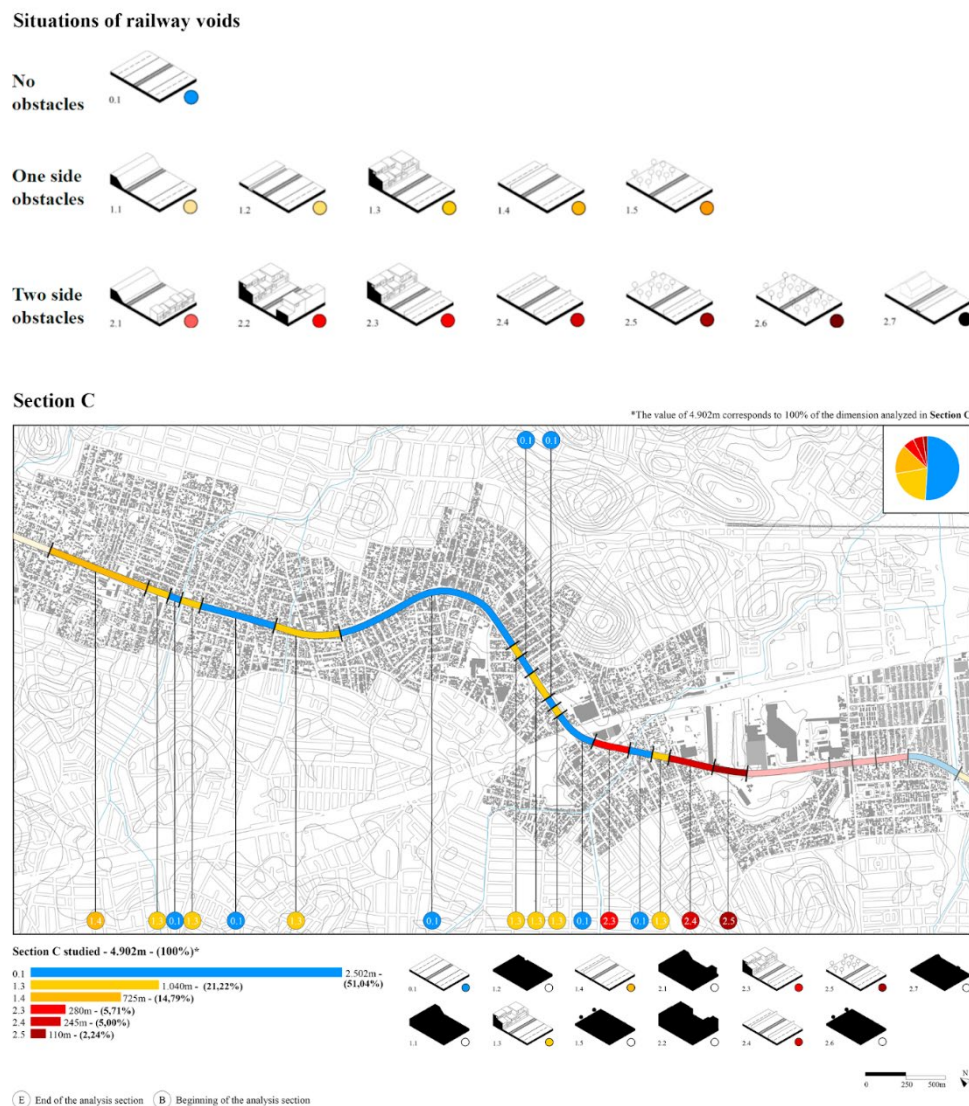


Figure 6. Railway voids and map of the studied Section C identifying 13 typical profile types. Lucas Monserrat, 2024.

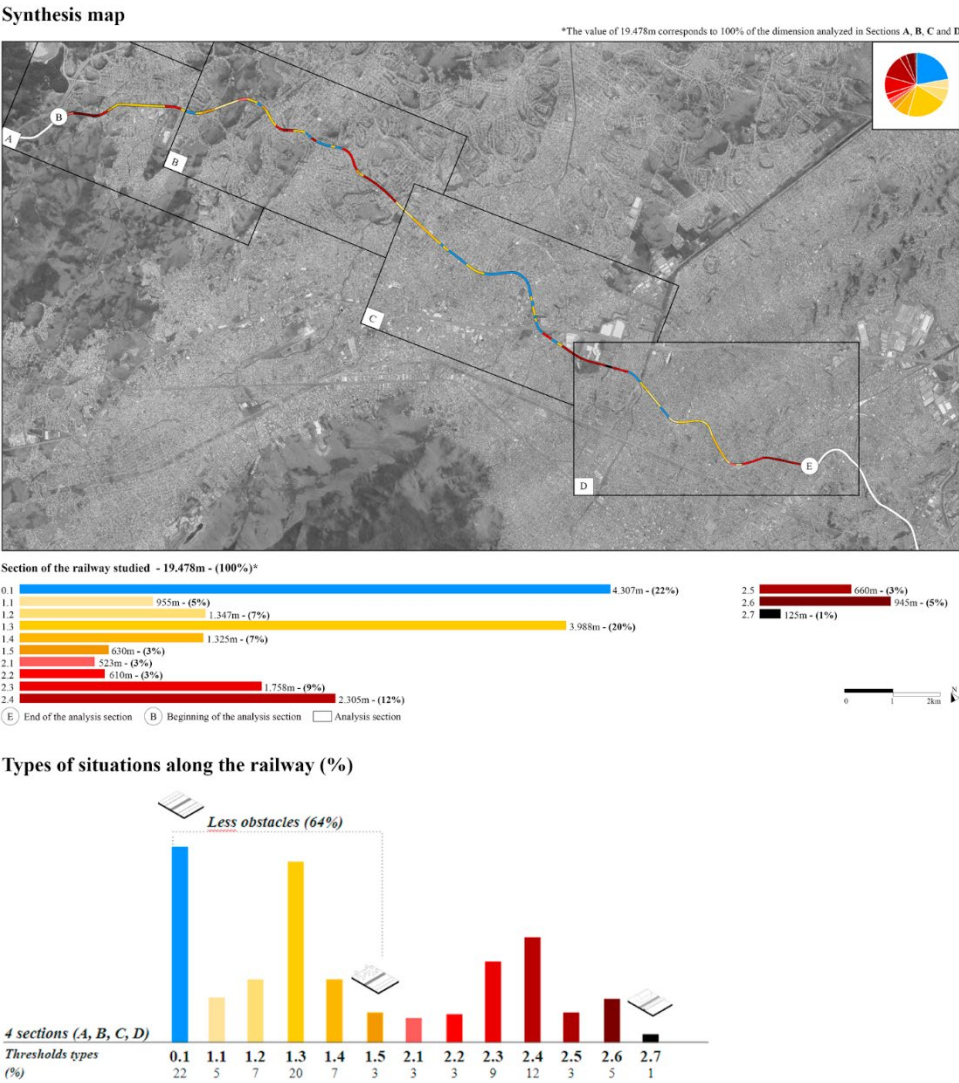


Figure 7. Category 1 Synthesis map: Thresholds, Boundaries, and graphical analysis. Lucas Monserrat, 2024.

By examining the maps, although we identify a significant number of segments marked in blue and yellow — more susceptible to interventions — voids do not behave in a continuous manner, displaying a certain discontinuity. This observation suggests that the railway void is fragmented, what poses additional challenges for coherent unified urban interventions.

However, the graph shows that approximately 64% of the railway areas have fewer design obstacles, highlighting potential urban interventions areas — Figure 7. This substantial proportion of less obstructed areas underscores opportunities for strategic planning and development, making these zones viable targets for future urban projects.

## Other categories



Figure 8. Synthesis of the defined categories: 2. Level Crossings; 3. Vegetation and Topography; 4. Demographic Density; 5. Land Use. Lucas Monserrat, 2024.

## 2. Level crossings

In the Level Crossings category, we identify four crossings types: three planned types and other spontaneous — created by the population and deemed unsafe — which recur along the entire length of the railway. After mapping, both the map and the attached graph reveal a significant difference between planned and spontaneous level crossings number, highlighting the insufficiency crossings anticipated by urban projects along the railway. Furthermore, mapping the crossings provides valuable information in need locations of new crossings and urban connections, identifying critical areas.

## 3. Vegetation and topography

Authors used infrared satellite NDVI<sup>14</sup> imagery to identify vegetation areas and associated this information with the terrain contour map. By analysing the railway's full length from section, A to D, vegetation progressively decreases as construction and population density increase approaching the metropolis centre. This process results in the formation of small "islands" of disconnected vegetation, highlighting the urban natural environment fragmentation.

## 4. Demographic density

The demographic density category relies on IBGE database.<sup>15</sup> The map shows more dense occupation in Sections C and D — with red colour higher concentration. There is a clear relation between the vegetation decrease and population increase. We observe in the map a rise of orange and red hues as we progress from Sections A to D.

## 5. Land use

Finally, concerning land use, we identified 691 buildings constructed along the MRS Logística S/A railway. This analysis enabled us to identify building clusters in specific parts of the railway, predominantly with residential use. Concerning the 691 buildings analysed, 624 have residential use, corresponding to 90% of the total. This underscores a significant housing deficit in the region, as these railway voids should remain empty of buildings according to current legislation.<sup>16</sup>

## PROPOSED GUIDELINES AND CONCLUSION

Based on the mapping procedures and the data extracted, we propose these future urban guidelines:

1. Assure a global network intervention
2. Qualify space in general, voids in particular
3. Invest in public and community space qualification
4. Promote environmental restoration and green mobility
5. Increase level crossings using Tactical urbanism
6. Regenerate existing buildings and services

One of this research's major findings was to identify building clusters, in extensive railway areas, where old train stations used to operate. Due to the housing deficit in the region, these spaces have increasingly been occupied, creating a unique relationship between public and private space and opening precedents for exploring these voids urban potential — Figure 9.

Former trains spaces: the real opportunity

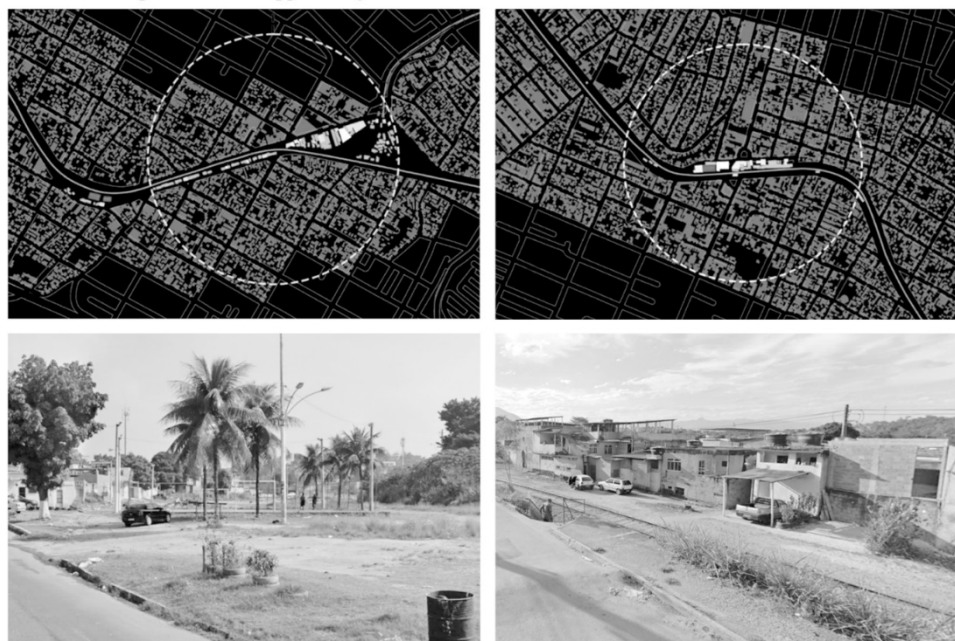


Figure 9. Two building cluster maps identified along the railway void maps and their respective photos. Lucas Monserrat, 2024, compiled from information obtained via Google Maps and Google Street View, 2024.

Therefore, we consider interventions along the global network to leverage existing centralities and relations but also to connect them to the territory through the railway's potential as a connector. Another relevant action involves the use of tactical urbanism techniques to improve road crossings to qualify public areas encouraging public participation. Tactical urbanism has implemented similar interventions, as demonstrated by the Rio +Pedestre project in Rio de Janeiro<sup>17</sup> — Figure 10.





Figure 10. Two crossings in the railway void and the Tactical Urbanism intervention Rio +Pedestre in Rio de Janeiro. Sansão Fontes, A., J. P. Pina, and L. Martins, 2021.

Currently, the population uses the railway void as a public space. Future project should respect this pre-existing use and the relationships established with the community, ensuring the maintenance and implementation of new public spaces in a participatory and inclusive manner. Additionally, two significant contributions of the project would be the use of the railway void for the restoration of native vegetation and the implementation of a bike lane, promoting green mobility and sustainable connectivity in the region. The integration of natural elements and cycling infrastructure not only enhances environmental quality but also encourages healthier and active lifestyles among local residents.

We conclude that the railway void possesses, in this context, a high transformative potential and can play a significant social role. This space, when properly planned and managed, can encompass several urban design levels, from green infrastructure to active mobility, contributing to improve and regenerate peripheral areas. Furthermore, the railway void can be a catalyser for sustainable urban development, fostering social cohesion and territorial integration. By addressing local needs and incorporating sustainable urban design practices, the project not only revitalises the physical space but might also strengthen community relations and fosters a sense of belonging among residents.

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# DESIGNING TOMORROW'S CITIES THE TRANSFORMATIVE ROLE OF VERTIPORTS IN SUSTAINABLE ARCHITECTURAL STRATEGIES

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## INTRODUCTION

The research<sup>1</sup> aims to develop architectural design strategies for integrating vertiports into urban environments, emphasizing ecological integration, adaptive reuse, and hybridization to enhance urban functionality and aesthetics. It also explores aligning these strategies with the United Nations' Sustainable Development Goals (SDGs) to support global sustainability objectives. Utilizing Artificial Intelligence (AI) for detailed visualizations, the study advances the exploration of diverse design possibilities, supporting theoretical and practical applications. This interdisciplinary approach and technological integration highlight the potential of urban air mobility to promote ecological and social resilience.

## INSTITUTIONAL FRAME OF THE RESEARCH

The research is within the institutional framework provided by Italy's National Recovery and Resilience Plan (PNRR),<sup>2</sup> a key element of the broader Next Generation EU initiative. The PNRR aims to drive European recovery through substantial digitalization, ecological transition, and social inclusion investments.

This study aligns with Spoke 1,<sup>3</sup> focusing on air mobility under the umbrella of the “MOST - Centro Nazionale per la Mobilità Sostenibile”<sup>4</sup> (National Center for Sustainable Mobility). MOST is crucial in developing modern, sustainable, inclusive mobility solutions across Italy. This interdisciplinary collaboration ensures a comprehensive approach to addressing mobility challenges and leveraging emerging technologies.

On the operational level, Spoke 1, based at the Politecnico di Torino in Turin, centers on air mobility. It is dedicated to advancing this field by utilizing cutting-edge technologies to enhance the competitiveness of Italy's aerospace industry globally. Spoke 1's activities provide guidelines for deploying advanced and urban air mobility solutions stemming from new technological advancements. Further operationalizing the research, 'Work Package 1,' based at the Politecnico di Milano in Milan, focuses on sustainable design and social acceptance for urban air mobility. This work package emphasizes creating sustainable design solutions while ensuring societal acceptance of urban air mobility innovations.

The multidisciplinary nature of this approach is vital for addressing the complex challenges associated with urban air mobility and sustainability. Integrating various academic disciplines, including aerospace engineering, transport logistics, management, and architectural design, is essential for innovative problem-solving. The collaboration between academic institutions and private companies fosters an environment of shared knowledge and expertise, promoting effective and innovative solutions.

## **OBJECTIVES**

The primary objective is formulating architectural design strategies that effectively integrate vertiports into diverse urban conditions. This includes crafting design principles. By focusing on ecological integration, adaptive reuse, and hybridization, the research aims to show how those strategies are functional, efficient, and adaptable. These design strategies will ensure that vertiports not only meet the technical demands of urban air mobility but also enhance the urban landscape, contributing to the overall functionality and aesthetics of the city.

The second objective is to explore and define the relationship between the proposed design strategies and the United Nations' Sustainable Development Goals (SDGs). This involves a thorough examination of how the design strategies can support various SDGs such as affordable and clean energy (SDG 7), sustainable cities and communities (SDG 11), responsible consumption and production (SDG 12), climate action (SDG 13), and life on land (SDG 15).

The third objective is to leverage Artificial Intelligence (AI) as a tool to explore and enhance the research on UAM integration into urban environments. AI-generated images and simulations will provide detailed and imaginative depictions of future urban landscapes, illustrating potential interactions between vertiports and various urban contexts. This technological approach will facilitate the exploration of diverse design possibilities, supporting theory testing and validation.

## **THE URBAN AIR MOBILITY**

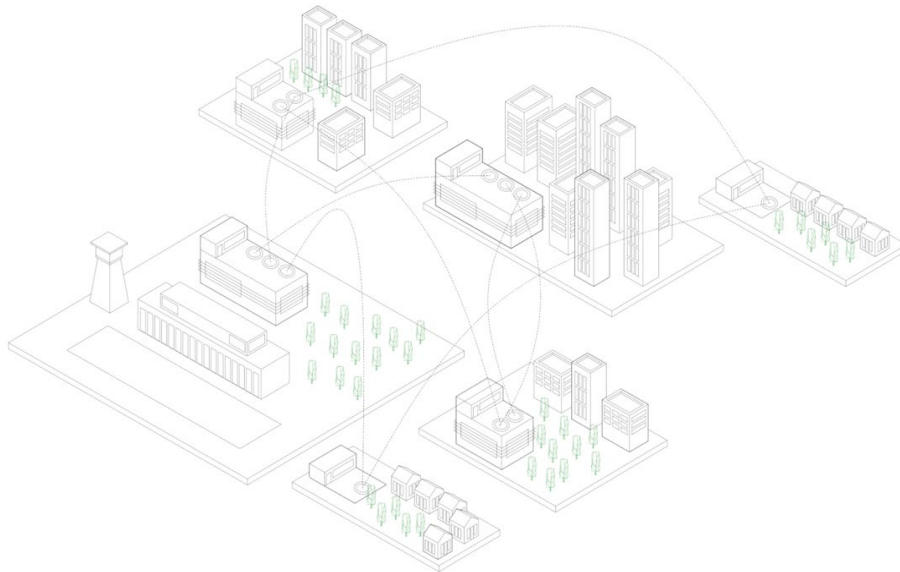
Urban Air Mobility (UAM) emerges as a crucial element in this evolving urban landscape, proposing a shift in transportation paradigms. UAM offers a transformative opportunity for urban transportation networks by integrating into the Mobility as a Service (MaaS) framework, enhancing intermodal journeys.<sup>5</sup> This approach introduces a new dimension of connectivity, particularly in vertical transit, potentially bridging gaps in existing transportation infrastructures and providing a swift and efficient alternative to ground-level congestion (Figure 01).

However, the UAM sector faces unique challenges. Significant risks and complexities mark the current evolution of UAM,<sup>6</sup> necessitating a comprehensive and integrated approach to its development. A thorough examination of the UAM ecosystem is fundamental, focusing on three principal aspects: technological advancements, regulatory frameworks, and infrastructure development.

Technological advancements have been the primary drivers of UAM's evolution. Electricity and battery technology innovations have been pivotal in conceptualizing aircraft as viable urban transportation means. Key issues include battery technology reliability, point-of-failure concerns, and noise pollution. The regulatory framework,<sup>7</sup> developed by the European Union Aviation Safety Agency (EASA) and the Federal Aviation Administration (FAA), is essential for ensuring safety and compliance with aviation standards while facilitating UAM integration into national and international airspace systems. This framework addresses operational, environmental, and public safety concerns, guiding manufacturers and operators through the complex landscape of aviation regulations and promoting innovation and public confidence in UAM.

UAM infrastructure, including vertiports, air traffic management, and ground support, is crucial for urban air vehicles' safe and efficient operation. Ensuring seamless integration with existing

transportation systems and regulatory compliance, this infrastructure directly influences public acceptance, sustainability, and the economic viability of UAM services.



*Figure 1. Example of UAM System in the City, Ottavio Pedretti, 2024.*

## UNVEILING TYPOLOGICAL PATTERNS IN AERIAL MOBILITY ARCHITECTURE

As urban centers densify and technology advances, the three-dimensional city—incorporating flying vehicles—becomes a critical model for the future. The vertiport, an essential component of UAM, presents a novel and evolving typology requiring careful reading. Understanding its varied forms and diverse urban contexts demands a comprehensive approach to its design principles and spatial integration.

Creating an abacus (Figure 2) is fundamental to systematically addressing the complexities of vertiport architecture. By creating an abacus, we can rigorously study vertiports as isolated structures and integral components of a broader urban system. This aligns with the concept of infrastructural urbanism, where the precise delineation of specific architectural elements within specific limits is arranged.<sup>8</sup>

The abacus will categorize vertiports into three size-based categories,<sup>9</sup> supplemented by a category dedicated to modular vertiport projects. The approach involves speculative inquiry supported by thorough image research. This will delve into the design conditions to uncover recurring elements and unique features that distinguish each project. This method resonates with Rafael Moneo's perspective on typology, where creating a new type can result from an exceptional architectural vision that responds to external events or societal changes.<sup>10</sup>

The abacus will elucidate the fundamental components that constitute the vertiport by meticulously cataloging and analyzing these structures. The goal is to discern whether these elements exhibit consistent patterns across different projects or manifest as distinct and non-repetitive features. This comprehensive analysis will provide insights into how vertiports can be effectively integrated into urban landscapes, offering a new dimension of connectivity and addressing the limitations of current transportation infrastructures.

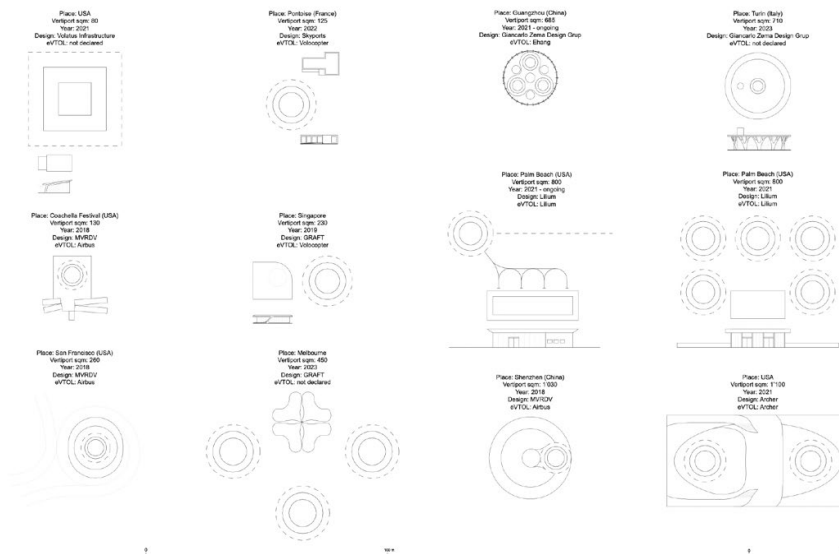


Figure 2. Typological Abacus, Ottavio Pedretti, 2024.

## CRAFTING DESIGN STRATEGIES FOR THE INTEGRATION OF VERTIPORTS IN URBAN ENVIRONMENTS

Integrating vertiports into urban environments is a significant architectural challenge that demands an innovative design process.<sup>11</sup> The design strategies define the role of vertiports in urban environments, clarifying their potential.

The **ecological integration** design strategy (Figure 03) involves integrating vertiports as a potential application of the ecological process, blending the infrastructure and nature within the urban environment. This approach exemplifies the naturalization of previously unused or underutilized urban spaces, transforming them into areas that enhance urban functionality. As illustrated in this strategy, the vertiport revitalizes neglected zones by substituting the old building. This transformation is crucial for enhancing the overall livability of urban areas, as transport infrastructure significantly shapes and enhances urban spaces by affecting urbanization, the physical environment, and the perception of landscapes.<sup>12</sup> The vertiport contributes to the ecological and aesthetic enrichment of the city. The ecological integration strategy enhances the urban environment and promotes the naturalization of previously underutilized areas.

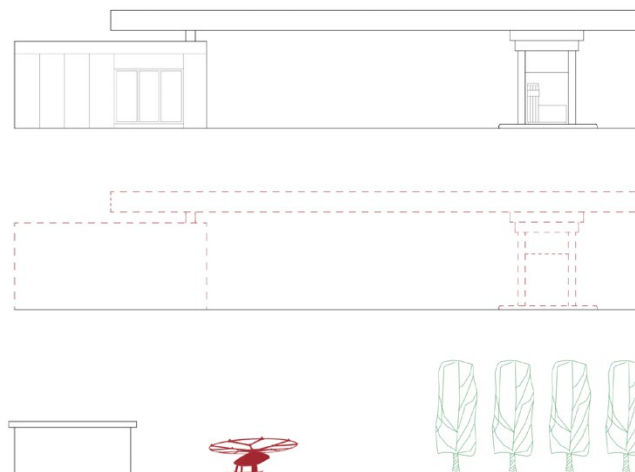


Figure 3. Ecological Integration Design Strategy, Ottavio Pedretti, 2024.

The **adaptive reuse** design strategy (Figure 04) repurposes abandoned buildings by transforming them into functional and modern spaces while preserving their historical and architectural value<sup>13</sup>. Integrating vertiports into these existing structures significantly reduces the need for demolitions, optimizing the utilization of available resources. The vertiport's integration into existing buildings enhances their functionality. It contributes to the sustainability and resilience of urban environments, ensuring that the city's cultural heritage is maintained while meeting new urban needs.



Figure 4. Adaptive Reuse Design Strategy, Ottavio Pedretti, 2024.

The **hybridization strategy** positions vertiports as enhancers of the urban transportation process by integrating aerial mobility with existing buildings. This approach significantly improves transportation flow, making it easier to navigate dense urban areas by incorporating vertiports into high-rise buildings. Hybridization fosters a more connected and accessible urban environment by blending advanced transportation solutions with the dynamic needs of urban populations. This approach improves transportation efficiency and the city's overall connectivity. By integrating flexible designs that host different functions with organized shared spaces, the strategy supports the design of new buildings, enhancing urban functionality and livability.<sup>14</sup>

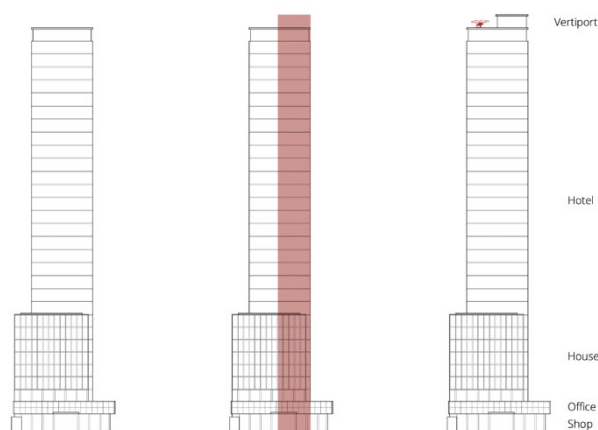


Figure 5. Hybridization Design Strategy, Ottavio Pedretti, 2024.

## **VERTIPORT DESIGN STRATEGIES THROUGH THE LENS OF SDGS**

Applying design strategies, such as ecological integration, adaptive reuse, and hybridization, in the architectural design of vertiport contributes to innovative and sustainable practices. It aligns closely with several Sustainable Development Goals (SDGs)<sup>15</sup> established by the United Nations. This section examines how these strategies collectively support the achievement of specific SDGs in the field of UAM and, in particular, related to vertiport design.

Ecological integration emphasizes designing buildings harmonizing with the natural environment, promoting sustainability and biodiversity. This strategy aligns with SDG 13 (Climate Action) and SDG 15 (Life on Land). Balancing technological advancements with ecological considerations can mitigate urban heat islands and enhance urban biodiversity. This approach fosters sustainable, livable, and resilient urban environments.

Adaptive reuse, which involves repurposing existing buildings for new functions, significantly contributes to SDG 11 (Sustainable Cities and Communities) and SDG 12 (Responsible Consumption and Production). By revitalizing abandoned areas in urban environments, adaptive reuse enhances inclusive and sustainable urbanization and the capacity for participatory, integrated, and sustainable human settlement planning and management. This strategy reduces the need for new construction, minimizing waste and resource consumption.

Hybridization blends different building functions to create multifunctional spaces and aligns with SDG 9 (Industry, Innovation, and Infrastructure) and SDG 15 (Life on Land). This strategy enhances the utility and efficiency of spaces by developing quality, reliable, sustainable, and resilient infrastructure. In addition, hybridization minimizes the footprint of activities on the land by optimizing land use and reducing the need for additional infrastructure. By integrating multiple functions within a single building or site, hybridization reduces urban sprawl.

## **AI-DRIVEN DESIGNS FOR URBAN AIR MOBILITY**

AI-generated images significantly enhance conceptual visualization and create detailed and imaginative depictions of future urban landscapes. These images simulate the integration of vertiports within various urban contexts, illustrating potential interactions. By generating multiple design iterations, AI tools facilitate the exploration of diverse design possibilities.

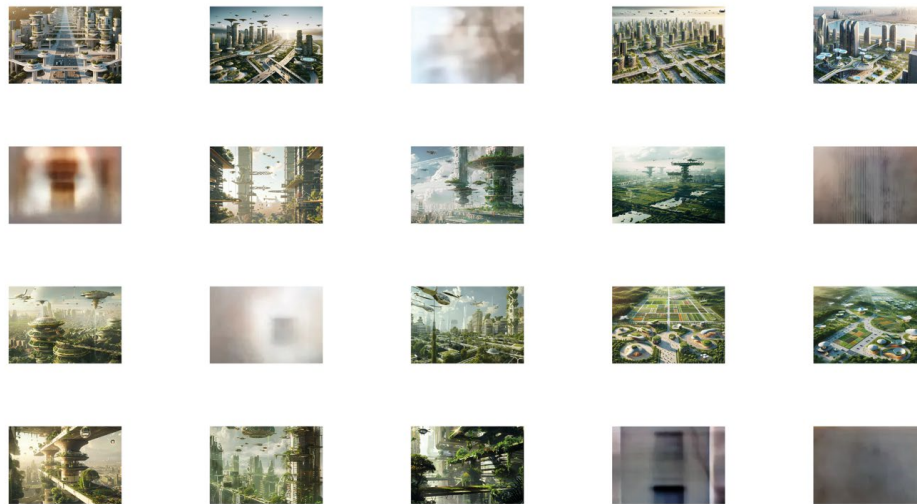
The creation of AI-generated images involves several advanced steps. First, AI systems are trained on extensive datasets of images. This training helps the AI recognize patterns and styles. Once trained, the AI can generate new images based on specific inputs or parameters<sup>16</sup>.

Transitioning from the definition of montage as “the unexpected combination of incongruous elements, forming a fundamental methodology for architectural design”<sup>17</sup> introduces a pivotal aspect of creativity into the architectural process. The AI can seamlessly blend elements to create images resembling real-world scenarios. Moreover, AI tools can produce detailed and lifelike images quickly and in large quantities (Figure 06), efficiently facilitating the exploration of numerous design variations and scenarios. Additionally, AI-generated images provide data-driven insights, making the design process more informed and robust.

A crucial aspect of this process is carefully selecting words and parameters to guide the AI in generating these images using a proper prompt<sup>18</sup>. As the research advances, the vocabulary used to describe design elements, contextual settings, and functional requirements becomes increasingly refined. This precision in language ensures that the AI-generated images are aligned with the latest theoretical developments and practical considerations in the research. By iteratively adjusting the input parameters, it is possible to test various hypotheses and design strategies, making AI-generated images a tool for theory testing and validation.



AI-generated images bridge the gap between theoretical research and practical implementation by transforming abstract concepts into visuals. This visualization supports communicating research findings.



*Figure 6. AI-Generated Images Reiterative Trial, Ottavio Pedretti, 2024.*

## RESULTS

The research has formulated architectural design strategies integrating vertiports into diverse urban conditions. The strategies focus on ecological integration, adaptive reuse, and hybridization, demonstrating that these approaches can be functional and adaptable. Ecological integration, for instance, transforms underutilized urban spaces into vibrant, green areas, enhancing urban aesthetics and promoting biodiversity. Adaptive reuse repurposes existing buildings while preserving their architectural affordances\*, reducing environmental impact. Hybridization blends different functions to create multifunctional spaces, improving urban connectivity and accessibility.

Moreover, the study explores aligning the design strategies with the United Nations' Sustainable Development Goals (SDGs). The findings indicate that these strategies support and actively promote SDGs. This alignment underscores the broader impact of the research on global sustainability objectives.

Artificial Intelligence (AI) has been leveraged as a tool in the research, enhancing the design exploration process. AI-generated images provided detailed and imaginative depictions of potential interactions between vertiports and urban contexts, facilitating the exploration of diverse design possibilities. This approach supported theory testing and validation, offering insights into the practical implementation of the design strategies.

Integrating vertiports into urban environments presents challenges and opportunities, necessitating innovative design strategies, interdisciplinary collaboration, and technological advancements. The findings of this research underscore the critical importance of these elements in developing effective UAM solutions.

## CONCLUSION AND FUTURE STEPS

Ecological Integration transforms underutilized spaces into vibrant green areas, promoting biodiversity and urban livability. Adaptive Reuse repurposes existing buildings, preserving historical significance and reducing environmental impact. Hybridization merges building functions to create multifunctional spaces, improving connectivity and accessibility.

Aligning these strategies with the United Nations' Sustainable Development Goals (SDGs) confirms their broader impact. The research supports SDGs such as affordable and clean energy, sustainable cities and communities, responsible consumption and production, climate action, and life on land. This alignment highlights the potential of UAM solutions to contribute significantly to global sustainability goals.

Artificial Intelligence (AI) has played a crucial role in this study, offering detailed visualizations and exploring diverse design possibilities. AI-generated images have supported theory testing and provided insights into practical implementation.

By addressing the specific areas outlined below, future research can significantly enhance and expand upon the insights gleaned from this study. This will promote the seamless integration of vertiports into urban environments, ensuring that urban air mobility (UAM) solutions are sustainable, resilient, and innovative. Each future step is crucial in advancing the field, addressing current challenges, and anticipating future needs.

### **Decoding Basic Elements and Prototypes**

A critical future step involves decoding the basic elements of vertiports by reading the abacus. This will systematically categorize the different components of vertiports into various types, enabling a deeper understanding. By meticulously cataloging and analyzing these structures, it is possible to identify recurring elements and unique features essential for developing prototypes.

### **Defining prototypes**

Prototype Development is fundamental for applying these insights in real-world contexts. Designing and testing prototypes will allow for practical evaluation and refinement, ensuring they meet technical, aesthetic, and functional requirements.

### **Scenario Development for Implementation**

Developing detailed scenarios for implementing UAM and vertiport infrastructure will outline design-driven research\* for integrating vertiports into urban landscapes, considering technological advancements, regulatory compliance, public acceptance, and environmental impact. Scenario planning will help anticipate challenges and opportunities, guiding the successful deployment of UAM solutions.

### **ACKNOWLEDGMENT**

This study was carried out within the MOST – Sustainable Mobility National Research Center and received funding from the European Union Next-Generation EU (PIANO NAZIONALE DI RIPRESA E RESILIENZA (PNRR) – MISSIONE 4 COMPONENTE 2, INVESTIMENTO 1.4 – D.D. 1033 17/06/2022, CN00000023).

This manuscript reflects only the authors' views and opinions, neither the European Union nor the European Commission can be considered responsible for them.

## NOTES

<sup>1</sup> The research conducted within the AUID (Architectural Urban Interior Design) doctorate program at the Politecnico di Milano is supervised by Prof. Giulia Setti (DASTU), with co-supervisors Prof. Fabrizia Berlingieri (DASTU), and Prof. Giuseppe Quaranta from the Department of Aerospace Science and Technology (DAER) at the Politecnico di Milano.

<sup>2</sup> The National Recovery and Resilience Plan (PNRR), or "Piano Nazionale di Ripresa e Resilienza," is a comprehensive framework under the European Union's investment strategy, known as Next Generation EU, aimed at financing a diverse range of activities. The PNRR includes three transversal priorities shared at the European level: digitalization and innovation, ecological transition, and social inclusion. The PNRR has six missions: digitalization, innovation, competitiveness, culture, green revolution and ecological transition, infrastructures for sustainable mobility, education and research, inclusion and cohesion, and Health.

<sup>3</sup> Spoke 1, Air mobility is one of the 14 spoke around the hub of the MOST. The activities will leverage cutting-edge technologies to improve the competitiveness of the Italian aerospace industry worldwide. Spoke 1, provides guidelines for the deployment of advanced/urban air mobility arising from new technologies.

<sup>4</sup> MOST - Centro Nazionale per la Mobilità Sostenibile is the National Center for Sustainable Mobility. The aim is to implement modern, sustainable, and inclusive solutions for the entire national territory through collaboration with 24 universities, CNR, and 24 large companies.

MOST, accessed August 1, 2024, <https://www.centronazionalemost.it/eg/#>

<sup>5</sup> Kersten Heineke, Lavery Nicholas, and Timo Möller, and Felix Ziegler. The future of mobility, McKinsey Quarterly 2: 76-89. 2023.

<sup>6</sup> Gregor Grandl, Martin Ostgathe, Jan Cachay, Stefan Doppler, John Salib, Han Ross, Jan Detert, and Robert Kallenberg. The Future of Vertical Mobility Sizing the market for passenger, inspection, and goods services until 2035. A Porsche Consulting. 2018.

<sup>7</sup> See technical specifications from EASA, 2022 and, Engineering Brief No. 105 from FAA. 2022.

<sup>8</sup> Stan Allen. Points + lines: diagrams and projects for the city. (New York: Princeton Architectural Press. 1999.

<sup>9</sup> Rem Koolhaas, and Bruce Mau. *S, M, L, XL*. (New York: The Monacelli Press. 1995.

<sup>10</sup> Rafael Moneo. On typology. Oppositions. 1978.

<sup>11</sup> Fabrizia Berlingieri, and Giulia Setti. *Design Processes for Transition*. Siracusa: LetteraVentidue. 2022.

<sup>12</sup> Kelly Shannon, and Marcel Smets. The landscape of contemporary infrastructure. Rotterdam: Nai Publisher. 2010.

<sup>13</sup> Matteo Robiglio. RE-USA. 20 American Stories of Adaptive Reuse. A toolkit for post-industrial cities. Berlin: Jovis. 2017.

<sup>14</sup> Nina Rappaport, "Optimistic Hybrids," in Design Process for transition, ed. By Fabrizia Berlingieri, and Giulia Setti Siracusa: LetteraVentidue.

<sup>15</sup> United Nations. Department of Economic and Social Affairs. The Sustainable Development Goals. Accessed September 12, 2023. <https://sdgs.un.org/goals>.

<sup>16</sup> Neil Leach. Architecture in the Age of Artificial Intelligence. An Introduction to AI for Architects. London: Bloomsbury Visual Arts, 2022.

<sup>17</sup> Alessandro Rocca. Totem and Taboo in Architectural Imagination. Siracusa: LetteraVentidue. 2022

<sup>18</sup> Matias del Campo. Neural Architecture. Design and Artificial Intelligence. Novato (CA): ORO Editions. 2022.

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# DEVELOPING GUIDELINES FOR PUBLIC SPACE EXPERIENCE

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## INTRODUCTION

Public spaces are a crucial part of our immediate living environment. In these public spaces, people meet, play, and travel to other places. Therefore, a safe, green, healthy, and pleasant public space is essential for everyone. Additionally, public spaces significantly contribute to the identity and meaningfulness of a place, city, town, district, or neighbourhood.

Until recently, the design of public spaces was primarily done by urban designers and landscape architects. While they considered the impact of their design on the users, personal views often dominated the process, leaving little room for user's input. However, there is now a growing awareness that the experiential qualities of public spaces should be subject to a more interdisciplinary approach, by including cognitive and environmental psychology and sociology, with its own methods and tools. Not surprisingly, considering these recent developments, no comprehensive interdisciplinary method exists that puts this experiential quality central.

This research aims to develop comprehensive experiential guidelines for policymakers and designers to create public spaces that align with users' desired experiences. The municipality of the Dutch city Deventer and University of Applied Sciences closely collaborate on this goal. The transformation of area 'De Kien' in Deventer into an innovative urban campus that encourages collaboration between students and young professionals to address societal challenges, serves as the first case study. This case study is presented in this paper.

## THEORETICAL FRAMEWORK

Our surroundings significantly influence how we feel. Individuals form an impression of a place based on its appearance, find its functionality suitable for its intended use, and feel connected to it through the sentiments it evokes.<sup>1</sup> How can public spaces be designed to make people feel comfortable, supported, and connected to a place? Human-oriented design, which centres on the needs and experiences of people, is crucial in achieving this.

## Literature

In 1961, Jane Jacobs was among the first to emphasize the importance of focusing on city users with her vision of a lively and vital city.<sup>2</sup> Similarly, in 1960, Kevin Lynch highlighted the importance of understanding how the public experiences the city through his work on mental mapping from an urban planning perspective.<sup>3</sup>

Relph argued in his phenomenological view on place for examining space in terms of how people experience it.<sup>4</sup> In addition, Whyte examined how people interact with spaces and offers guidelines for designing more effective and attractive urban areas. Similarly, Tuan examined the concepts of space and place and their significance for human experience from the perspective of human geography.<sup>5</sup>

After this growing attention on human experience, that progression has somewhat stalled. For a long time afterwards, the literature in this field was mostly dominated by Gehl, who emphasizes creating human-centric cities that prioritize pedestrian movement.<sup>6</sup> More recently, the concepts of placemaking and sense of place have gained popularity in academic discussions, focusing on the meaningful connections people have with places.<sup>7</sup>

From the social science perspective, sociologists examine how social interactions, behavioural patterns, and cultural norms shape and are shaped by these public spaces.<sup>8</sup> Literature in the field of environmental psychology also provides guidance and models for creating spaces that align with their intended use.<sup>9</sup> The concept of customer experience has been extensively explored in services marketing literature, focussing on how customers experience the service delivery in service environment.<sup>10</sup> Furthermore, the link between customer experience and the physical environment has been studied in service marketing and cognitive psychology.<sup>11</sup>

The various perspectives described above provide useful ingredients to shape experiences in public space. However, the human-centric study of public space thus far mainly focused on observable behaviour of the people using that space. The current research shifts focus from the observation of people's behaviour to a more human-oriented perspective by considering people's feelings, aspirations and preferences as a foundation. There is a lack of an integrated interdisciplinary framework that combines insights from various scientific disciplines and is simultaneously practical for creating and evaluating environments based on different aspects of the user experience.

## MEPS Framework

Based on scientific insights of the academic fields described above, an integrated framework is developed, the Mapping the Experiencing Public Space (MEPS), depicted in Figure 1.

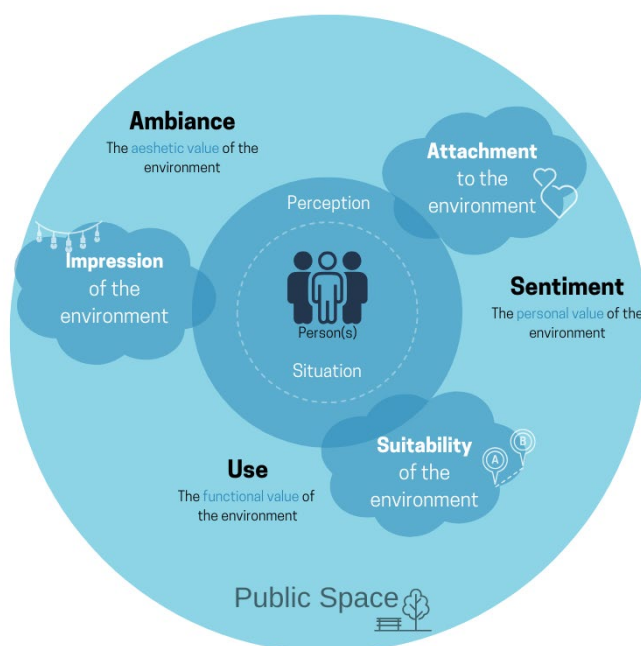


Figure 1. Mapping the Experience of Public Space Framework (MEPS Framework)

In the heart of the model is the person (or persons) within the public space. Each person, with their personality and cultural background, interacts with the environment in a particular mode and with a particular purpose (situation), such as to walking, sitting, moving, buying, or living. That person may be alone or accompanied by others. Through a personal and situational filter, people perceive the environment through their five senses. These perceptions shape how people experience the environment. Unlike most models that treat experience as a single concept, this model distinguishes between three experiential components and incorporate the interplay between internal experiences and external characteristics. First, the environment leads to an impression of the environment, including its occupants, through its appearance and character. This refers to the ambience, the aesthetic value of the place. The impression is shaped by the sensory characteristics of the environment, such as colours, shapes, light, sound, smell, temperature, etc. Second, places serve specific functions. The functional value refers to how well the environment meets people's needs such as traveling, socialising, shopping, working or relaxing. Third, people may develop emotional attachment to places. This aspect defines the sentiment of the environment and the level of familiarity it evokes. Aside from aesthetic appeal, a place can hold significance for someone due to past experiences or specific amenities, such as a favourite bakery or a designated spot for meeting friends.

The framework builds upon Relph's phenomenological view on the experience of place, and on the concept of 'sense of place', which both typically encompasses location, facilities, social activities, symbolic meanings, and place attachment.<sup>12</sup> Combining insights from marketing, psychology, sociology, architecture, and design, the MEPS framework focuses on the individual's internal experience and its interplay with the external environment. When designing public spaces, prioritising user experience is crucial. Spaces should evoke a welcoming atmosphere, foster a sense of belonging and connection, and facilitate desired activities. The MEPS framework served as theoretical basis for developing experience guidelines for case study 'De Kien'.

## **CASE STUDY 'DE KIEN'**

'De Kien' in Deventer, the Netherlands, is a proposed city campus and mixed-use urban area for young professionals aimed at fostering collaboration among students, teachers, researchers, and the private sector. User experience is envisioned as a subtle yet essential unifying element among the various subprojects within 'De Kien', ensuring they interconnect and contribute to a cohesive identity for the entire campus. The methodology and outcomes of developing experience guidelines for 'De Kien' are elaborated in the following sections.

## **Methodology and results**

The process of developing guidelines for public space experience consisted of three qualitative research phases. In the first phase an experience vision for the area supported by stakeholders and future users was developed. The second phase focused on understanding the current and desired use of the specific public space. The third phase translated those insights into sensory aspects of the public space to develop the experience guidelines.

### **Phase 1: Developing a public space experience vision**

The first phase started with desk research. Documents on the purpose of 'De Kien' were scanned on experience-related content. Based on those findings, a draft experience vision was developed. Subsequently, this draft vision was discussed in a group session with key stakeholders of 'De Kien', consisting of eight representatives of organisations located in 'De Kien', the municipality, and the province. This resulted in a revised version of the experience vision.



## Phase 1: Results

The result was a one-page experience vision for 'De Kien', written from the perspective of someone experiencing the future space. The experience vision served as a starting point for the development of the experience guidelines.

## Phase 2: Developing public experience domains

The second phase consisted of four focus group sessions with a total of 26 participants, made out of (future) users of the area. Criteria for the participants were that they had to fit within the profile of the young, urban professional, which is the target audience of this area. During the session, participants were confronted with the map of the area and in small groups they had to identify which kind of activities they would want to carry out in that space. Within the following group discussion, they explained this activity and the experience that should be realised to support this activity.

Recordings of the focus groups were transcribed and thematically analysed.<sup>13</sup> A codebook categorised the themes based on the MEPS framework.

## Phase 2: Results

During the coding, the individual's intended use of public space determined different experience modes, with five modes identified for specific uses and one central mode for the entire area. These experience modes are not place specific but experience specific, following the intended use of the area. This means, when developing a public space, these experience modes need to be supported and facilitated, however, it does not necessarily matter where they are located.

The first experience mode is **transit**. Participants use the area to go from a to b. This could be on their way to or from the train station, into the city centre or on their way to work or school. During this mode, the walking or bicycling should be functional and fast. It should feel open, easy and efficient.

The second mode is **promenading**. Although this is walking, just as in the transit mode, within this experience, the walking is voluntary and comfortable. The experience should be surprising and enjoyable, and at the same time should feel comfortable, de-stressing and protective.

The third mode is **short stay**. In this case, the individual is for instance on their way to work, but the experience within the area is so welcoming and interesting, the individual chooses to make a quick stop, for a wander, coffee or to simply relax. The experience should be approachable, stimulating, tempting and facilitating.

The fourth mode is **residing**, in other words, choosing to spend time in the area. This experience is vibrant, inspiring and provides the individual with energy. This experience should encourage meeting people and relaxing.

The fifth and final mode is **collaborate**, meeting people, colleagues, classmates or clients within the area in order to work together. This experience is hospitable, inspiring and invites for experimenting. It should offer space to focus, interact and stimulates the building of knowledge.

The descriptions of these experience modes should embody and support the individual within the designated public space. These experience modes were identified for this specific public space. Other public spaces could require similar or different experience modes. Key within identifying these modes is the target individual or group, who's experiences can be coded according to the proposed MEPS model.

To conclude phase two, the experience modes for this specific case were identified and described according to the MEPS model, see Table 1.

However, how does this desired experience mode translate into characteristics of the environment? This is a crucial step in creating the experience guidelines which can be used to design a public space. This final step will be described in phase 3.

Experience mode	Desired experience according to the MEPS components		
	Impression	Suitability	Attachment
Transit	Open, easy	Efficient, traversable	servant, professional
Promenading	Enjoyable, surprising	De-stressing, comfortable	Friendly, protective
Short stay	Stimulating, sociable	Approachable, facilitating	Tempting, persuasive
Residing	Vibrant, artistic	Connecting, inspiring	Entertaining, vibrant
Collaborate	Inviting, inspiring	Interactive, engaging	Serious, hospitable

*Table 1. Experience modes and the desired experience according to the MEPS components*

### Phase 3: Translation of experience domains to public space experience guidelines

The third phase consisted of six sessions with 48 participants in total. The target respondents remained consistent with those in the first phase (young, urban professionals and students), however, participants who participated in the second phase, were not allowed to participate in phase three.

During the sessions, the participants were handed a description of one of the experience modes of the public space (phase 2). Furthermore, they were handed a set of 112 AI generated images of different aspects within the public space such as stone, streets, furniture such as lights and benches, open or closed sight lines. Literature was used to ensure a wide range of options.<sup>14</sup> AI generated images were chosen to minimise bias in relation to real public spaces within images and enhance the validity of the sensory reaction of the research participants.

The participants had to select (parts of) images which they found to stimulate the described experience within the experience modes. The task using the images already included sight and, to a lesser extent, tactile aspects. To include other senses, participants were additionally asked to describe how the area should smell, sound and feel. The results of images and sensory descriptions related to the different experience modes were compared and analysed which resulted in a sensory overview of the experience, per experience mode.

These sensory overviews were translated into hands-on and directive public space experience guidelines.

### Phase 3: Results

Based on thematic analysis, the 29 guidelines were categorised into eight groups: identity, spatial, paths, nature, furniture, art, colour and light. Examples of the guidelines are: ‘Shape – obtuse asymmetric angle’ (identity), ‘Old and New – from every viewpoint, there is something old and new to experience’ (identity), ‘Meandering promenading paths have shorter sightlines (bends and corners)’ (spatial), ‘Efficient transit passageways are explicit and have a logical routing’ (paths), and ‘Indirect lighting of paths and roads’ (light).

Not all experience guidelines are applicable for all modes. Each mode has its own set of guidelines. For each experience mode, the set of guidelines is expected to result in places or areas that evoke the appropriate experience, as defined in phase 2.

It is important to note that the experience guidelines are not a checklist which has to be checked off. They are meant as an inspiration to create the desired experience as described in the experience modes. Not all guidelines have to apply at all places. How this ultimately works in practice will be investigated in future research phases.

## Upcoming phases

With the content of the design guidelines established, the upcoming fourth phase will focus on developing an optimal format for these guidelines regarding information density and modality, to present it in a way that it effectively brief urban designers and policy makers to create spaces that meet the intended experience for the area.

This phase will involve collaboration with designers and policymakers. At the same time, efforts will be made to implement the guidelines into the standard operating procedures of the various stakeholders involved in area's redevelopment.

In the fifth phase, a measurement tool will be developed to assess the experience of public spaces. This tool will enable the evaluation of the effectiveness of the experience guidelines by assessing both the design and the area once it has been redeveloped and is in use. An overview of the phases is shown in Figure 2.



Figure 2. Research phases visualised

## DISCUSSION

This paper first presents a case study that explores the development of experience guidelines designed to guide designers and policymakers in creating the intended experiences for specific target populations. Developing these guidelines with future target group involvement is essential for creating user-centric environments. Design guidelines, as demonstrated in the case study outlined in this article, facilitate the transformation of spaces into places with distinctive and authentic character, all designed with users in mind. According to Relph's phenomenological descriptions of places and scholars building on his ideas, aims to develop a sense of 'place' rather than 'placelessness'.<sup>15</sup>

Second, the paper introduces the MEPS framework, which outlines the various aspects of people experiencing public spaces, while simultaneously recognising the holistic processing of the environment. The field was missing an integrated framework that acknowledges the different aspects of human experience, and that effectively distinguishes between the experience that takes place inside the individual and the elements in the environment that affect that experience. This distinction is essential for applying this knowledge in practical contexts in creating experience-oriented places. The MEPS framework is an integrated interdisciplinary framework that is based on insights from the various

scientific disciplines, enabling application in designing, creating and evaluating environments based on different aspects of the user experience. The aim of the framework is to provide accessible and knowledge-based input for designing and realising environments that meet the desired human. This approach allows designers to move beyond relying solely on their own instinctively developed working methods for addressing this complex issue.

Developing the guidelines is one aspect, but their impact can only be achieved through effective implementation. It is crucial that all stakeholders integrate these guidelines into their standard procedures to realise the intended experience. Therefore, stakeholders were extensively involved in the development of the guidelines, and this involvement will continue to be essential throughout the project. Both the methodology for the developing the experience guidelines and MEPS framework proved effective in this case study. However, further validation in diverse contexts is required.

## **CONCLUSION**

The case study 'De Kien' illustrates the potential to develop a methodology for managing the experience of people using public outdoor spaces. The research demonstrated that, through several steps, it is possible to translate the intended experience for public area into research-based, concrete experience guidelines for designers and policymakers. Furthermore, this case study served as a first step in validating the proposed MEPS framework on the experience of public space.

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# PERSPECTIVES FROM ABOVE. RESHAPING EUROPEAN TOURIST CITIES' FIFTH FACADE

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## INTRODUCTION

European cities are layered artifacts of history. “The last layer – the one we see from above – is a complex and yet unplanned landscape.”<sup>1</sup> This unresolved layer<sup>2</sup> is a valuable resource that needs to be rediscovered to explore innovative solutions for contemporary urban challenges, including climate adaptation, energy transition, and social inclusion. Within the field of roofscape architecture research, hospitality architecture, and in particularly hotels, has long served as a fertile ground for design experimentation, offering opportunities to redefine novel approaches for revitalizing underutilized roofscapes.

### Hospitality architecture roofscape

Historically, hotel rooftops were exclusive domains reserved for a privileged elite, often contributing to the spatial segregation characteristic of tourism enclaves.<sup>3</sup> As a result, the rooftops of tourist cities<sup>4</sup> often became inward-looking and exclusive spaces, exacerbating the negative impacts of overtourism. However, evolving societal, environmental, and climatic conditions necessitate a re-evaluation of these elevated spaces. While there is growing interest in rooftop design, there is a lack of research on how to transform these spaces from exclusive enclaves to inclusive public realms.

To this end, the research initially provides a comprehensive overview of recent studies in rooftop design, constructing a framework of recurrent design themes. Through a comparative analysis of four modern projects – including the sculptural rooftop of the Unité d'Habitation and the expressionist rooftop pool of the Hotel Royal in Naples by Gio Ponti – and four contemporary projects – such as Zoku's collaborative workspace and The Social Hub's exclusive pool in Florence – the study highlights approach to revitalizing these spaces. By reimagining the fifth façade of urban environments, the research proposes strategies for creating more habitable, inclusive, and socially sustainable roofscape, which can contrast the adverse impacts of tourism on urban areas.

## ROOFTOP SPACE CONSUMPTION IN TOURIST CITIES

The regeneration and transformation of rooftop spaces has become a significant topic in contemporary design discourse, as it offers new possibilities for shaping urban roofscape.<sup>5</sup> The revitalization of urban rooftops addresses various issues related to the sustainable development of cities. One central concern is the reduction of land consumption.<sup>6</sup> This sustainable approach to urban growth offers a major advantage by minimizing the need for new land and instead promoting vertical densification within

existing city fabrics.<sup>7</sup> However, this revitalization primarily focuses on environmental sustainability, often neglecting the crucial aspect of social sustainability within these spaces. Regarding their social role, two “opposite imageries”<sup>8</sup> can be identified. On one hand, there are “top-down luxury” rooftops, characterized as exclusive domains where elites indulge in privileged experiences. On the other hand, there are “bottom-up informal” rooftops, which are described as unplanned rooftop occupations operated by the poorer social classes in contexts of deep degradation. Historically, the former have represented the social emancipation of urban elites who, thanks to advancements like elevators, have been able to distance themselves from the ground floor and elevate closer to the sky. This approach persists today, evident in various projects that isolate rooftop spaces and make them exclusive, detached from the rest of the city. An extreme example of such an approach is the iconic rooftop of the Marina Bay Sands hotel in Singapore, designed by Safdie Architects. The curved structure, detached from the hotel's three towers, stands as an autonomous and floating architecture.

### **Rooftop as tourism enclave**

What becomes apparent in these spaces is a complete lack of communication between the guests of the establishment, the city, and the local community. This phenomenon is commonly referred to in tourism studies as a tourism enclave, which is considered an “extreme forms of spatial segregation.”<sup>9</sup> Tourism enclaves typically encompass all the necessary services and facilities that tourists require, creating a distinct boundary that isolates the guests from their immediate surroundings.<sup>10</sup> The study aims to examine the social role of urban rooftops in tourist cities, specifically focusing on identifying innovative design strategies that can mitigate the adverse impacts of excessive tourism in popular destinations. By conducting a comparative analysis of both historical and contemporary projects, this study seeks to present an initial exploration of design strategies that have the potential to create inclusive and livable rooftop public spaces. Consequently, this research aims to make a valuable contribution towards establishing guidelines that can effectively mitigate the detrimental impacts of overtourism and foster a more sustainable form of urban development.

### **ROOFSCAPE DESIGN CONTEMPORARY PERSPECTIVES**

The survey of the state of the art in roofscape design reveals a growing interest among design disciplines in the topic of fifth façade redevelopment. However, there exists a diverse range of perspectives on this subject. In *Roofscape Design. Regenerating the City upon the City*, Gustavo Ambrosini and Guido Callegari present twenty-four case studies to provide a comprehensive overview of potential strategies for reusing roof spaces. Their investigation primarily focuses on examining the compositional-technological relationships between the existing buildings and new roof extension. A similar line of research is pursued by Oscar Eugenio Bellini and Martino Mocchi in *Rooftop architecture and urban roofscape: designing the new vertical city*, where they offer a morpho-technological taxonomy of the relationship between rooftop interventions and the urban landscape. The authors identify four different approaches to rooftop design: replacement, which involves completely replacing existing roofs with new structures; interference, which introduces visually striking elements in contrast to the surroundings; integration, which seamlessly integrates new roofing elements with the existing context; and dissimulation, which conceals new roofing elements to minimize their visual impact. Both studies primarily focus on private residential buildings, employing aesthetic, formal, and technological analyses to explore the relationships between pre-existing structures and their rooftop extension.

The research from the Dutch territory presents a stark contrast. The topic of reusing urban roofs is significant and has been extensively studied, particularly in the city of Rotterdam over the past decade. In 2015, the De Urbanisten were commissioned to conduct research and evaluate new urban uses for

these elevated spaces. With *Rotterdam Roofscape* (Figure 1) they developed a color-coded system to categorize the different potential new rooftop uses. For instance, green roofs utilize vegetation to provide environmental and ecological benefits to the city, while blue roofs capture rainwater to mitigate urban flooding and promote water reuse. Yellow roofs integrate solar panels to generate renewable energy, and red roofs are designed to foster human interaction and serve as inclusive social spaces. The international studio MVRDV further explores this system in the *Rooftop Catalogue*, edited by Winy Maas and Sanne van Manen. In this publication, they integrate the system of potential new uses with innovative design concepts, considering the structural and formal characteristics of the buildings and roofs that can be intervened upon.

While significant strides have been made in understanding the architectural and technological dimensions of rooftop interventions, the social role of these spaces remains an understudied area. Existing research focuses on the formal and aesthetic qualities of rooftop design, often overlooking their potential as public spaces and their capacity to contribute to urban life. To fully realize the potential of rooftops, a paradigm shift is necessary, placing equal emphasis on the social, environmental, and architectural dimensions of these spaces. By integrating social considerations into rooftop design, it is possible to create more inclusive urban environments that enhance the quality of life for residents and visitors alike. This approach can also contribute to more sustainable tourism development by providing alternative and engaging experiences for both tourists and residents, thereby helping to alleviate the pressures of overtourism.



Figure 1. Rotterdam Roofscape (source De Urbanisten)

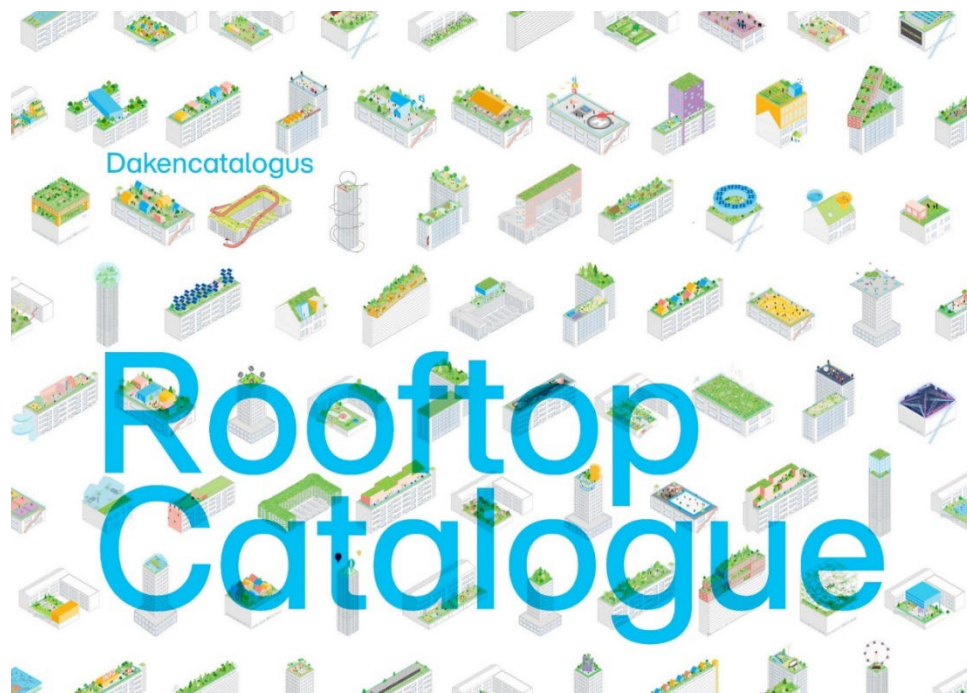


Figure 2. Rooftop Catalogue cover (source MVRDV)

## METHODOLOGY

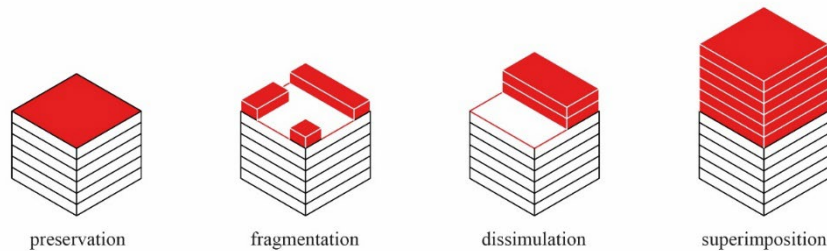
The research employs a comparative case study approach to investigate the socio-spatial role of rooftop spaces within hospitality architecture. A diverse selection of case studies, encompassing both modern and contemporary projects, will be analyzed to compare design approaches and their impact on the urban context. Each case study will be examined considering architectural characteristics, functional analysis, social impact, and its relationship to the urban environment. The comparative analysis will focus on identifying commonalities and differences in design philosophies, social outcomes, and urban integration. This analysis aims to develop rooftop spaces based on their social role, contributing to a deeper understanding of their potential for fostering social interaction and community building. The findings will contribute to the development of design guidelines for creating rooftop spaces that are socially impactful, enhancing the quality of life for residents and visitors.

## MODERN AND CONTEMPORARY HOSPITALITY ARCHITECTURE ROOFTOPS

The analysis of rooftop design reveals recurring themes that guide subsequent case study analysis. In terms of usage, rooftops can be categorized as public or private. Public rooftops are accessible to the public, often serving as extensions of the urban realm. Private rooftops are primarily intended for building occupants, offering exclusive outdoor and indoor spaces. Rooftop design frequently addresses pressing societal and environmental challenges. They can contribute to climate adaptation by incorporating green infrastructure, mitigating urban heat islands, and managing stormwater. Additionally, rooftops can support energy transition through renewable energy generation and energy efficiency measures. By providing recreational spaces and fostering community engagement, rooftops can also enhance urban sustainability and livability.

The selected projects demonstrate varying design approaches (Figure 3) to rooftop design, showcasing distinct relationships with the surrounding context: “preservation” involves transforming existing rooftops into public spaces while maintaining the cityscape; “fragmentation” introduces standalone elements to define public areas; “dissimulation” integrates new volumes into the building's form, often

incorporating open spaces; “superimposition” adds independent structures above the existing building. The selected case studies will undergo comparative analysis focusing on the relationship between their architectural elements and the urban and social context.



*Figure 3. Rooftop strategies (source elaborated by the author)*

### Preservation

Gio Ponti's Hotel Royal swimming pool (Figure 4) exemplifies a design approach centered on exclusivity and seclusion. The rooftop is conceived as “an ‘artificial landscape’, reserved exclusively for the well-being of guests,”<sup>11</sup> a self-contained world removed from the city. The pool is surrounded by a continuous, well-defined perimeter that helps to limit the rooftop's accessibility and social impact. But not only that, but the dense border also restricts the view of the sea, reinforcing its role as an exclusive and abstract retreat only for hotel guests.

Park Associati's Vertigo Terrace (Figure 5) places a greater emphasis on the physical and visual connection to the surrounding urban and industrial environment. The formal relationship with the neighborhood is established through the utilization of macro elements, such as the external structure that provides support for the new intervention, as well as the oversized pergolas that evoke the monumental scale of the site's industrial history. The view is unobstructed, allowing for an uninterrupted panorama of the surrounding urban landscape. The rooftop is accessible from both inside the hotel and the street via an external staircase. This allows this space to be reimagined, no longer as an exclusive place for hotel guests, but also as a meeting place for events open to the neighbourhood.





Figure 4. Royal Continental rooftop swimming pool in Domus n. 291 cover (source Domus Archive)

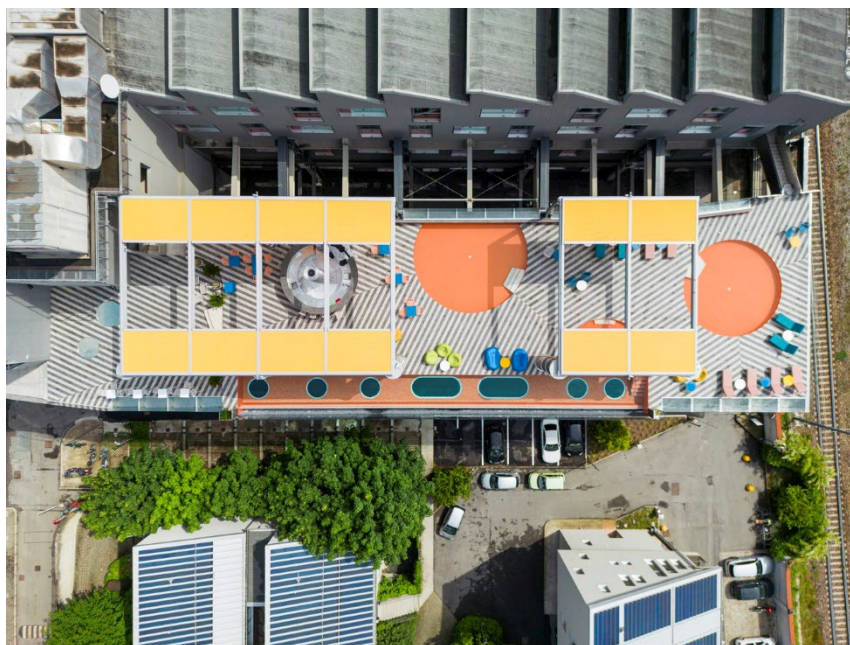


Figure 5. Aerial view of Vertigo Terrace in Milan (photo by Nicola Colella)

## Fragmentation

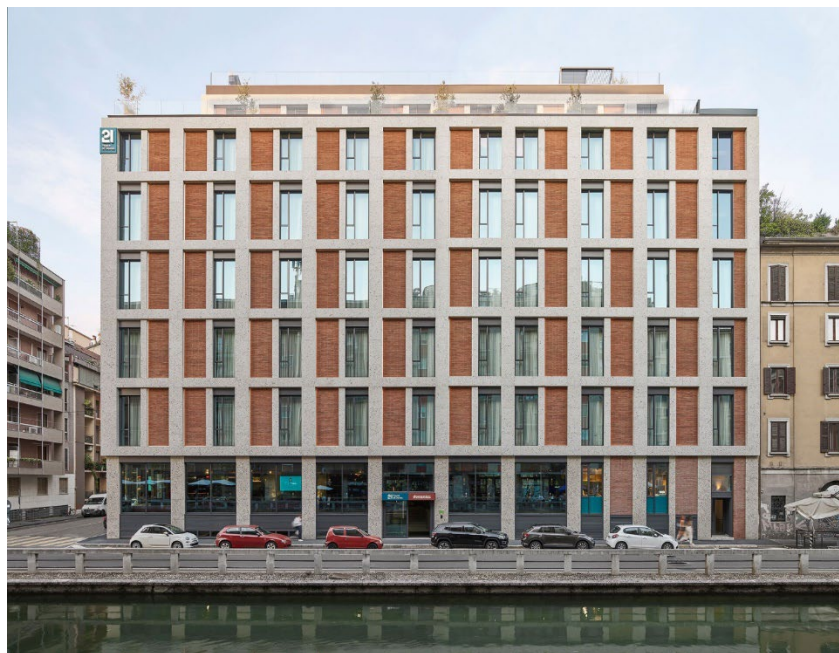
The rooftop designs of Le Corbusier's Unité d'Habitation and Zoku offer contrasting yet complementary approaches to creating social hubs on elevated platforms, exploring the theme of architectural fragmentation. The Unité d'Habitation rooftop represents a pioneering vision of the rooftop as a communal space within a residential complex. The rooftop is conceived as a diverse and inclusive environment, offering a range of amenities and activities to foster social interaction among residents. This approach emphasizes the rooftop's role as a democratic space, accessible to all members of the community.

Zoku presents a contemporary interpretation of the rooftop as a social hub within a hospitality context. While the focus is on creating a communal atmosphere for guests, the rooftop's design also incorporates elements of privacy, recognizing the diverse needs of individuals. The roof is prominently observable from the street, protruding slightly from the building's perimeter. This architectural choice establishes a significant visual connection with the surrounding environment. However, this connection is not reciprocated in terms of urban access, as the main entrance at the ground floor appears to blend in with the context.

## Dissimulation

Hotel Colonna and the 21 House of Stories offer contrasting approaches to rooftop design in relation to their accessibility and social function. The Hotel Colonna represents a traditional model of rooftop design elevation, prioritizing exclusivity for hotel guests. The proposal involved adding two levels of rooms to an existing hotel on Via dei Due Macelli in Rome, set back slightly from the street line. This setback allowed for the creation of a private terrace overlooking the main street, presumably an exclusive meeting place for hotel guests.

Although the rooftop of 21 House of Stories (Figure 6) was designed for public use, with its multiple terraces, swimming pool, and sky bar, it seems to conceal itself from the urban level gaze. In fact, the building housing the communal facilities is strategically positioned away from the building's perimeter, creating a visually undisturbed oasis. Nevertheless, the view from the roof is completely open, immersing guests in the urban landscape of the Milanese Navigli.



*Figure 6. 21 WOL Navigli facade (photo by Giovanni Hanninen)*



## Superimposition

The Terrace Plaza Hotel (Figure 7) represents a pioneering approach to skyscraper design. A seven-story podium housed two department stores, both opening at street level through continuously glazed windows. At the eighth floor, the hotel – a slender, setback slab – rose an additional eleven stories from a landscaped terrace, accessible from a lobby at the ground floor. The elevated terrace, which housed the hotel hall and public restaurant, becomes the focal point of the building, offering a respite from the urban environment.

In contrast, the Radio Hotel and Tower by MVRDV (Figure 8) offers a contemporary interpretation of rooftop design within the context of high-density urban living. The project's emphasis on verticality and modularity allows for multiple rooftop spaces, each with its own character and function. This approach challenges traditional notions of the rooftop as a singular, monolithic element, instead envisioning it as a series of interconnected outdoor spaces.



*Figure 7. Terrace Plaza Hotel (source SOM)*



Figure 8. Radio Hotel and Tower (photo by Ossip van Duivenbode)

## ROOFTOP ELEMENTS STRATEGIES

The analysis of the case studies highlights the potential role of architectural elements in shaping the use, perception, and accessibility of these elevated spaces. Architecture can facilitate physical, visual, and social connections between the roofscape and the urban environment.

The theme of the fence brought to rooftop space, plays a significant role in enhancing the visual perception between the rooftop, roofscape, and street level. In the Royal Continental pool, the complete enclosure of the perimeter creates a more exclusive and introspective rooftop experience. This design choice restricts physical and social interactions with the surroundings, reinforcing the private and exclusive nature of the roof space. In contrast, the Vertigo Terrace lacks a continuous perimeter and incorporates permeable elements that hint at the rooftop intervention from the urban level. These elements, such as the exterior structure and prominent pergolas visible from the street, strengthen the connections between the rooftop and the neighborhood, bringing this elevated space closer to its surroundings.

Enhancing street-level accessibility is a fundamental concern when aiming to create elevated spaces that are open and inclusive to the local community. The examination of the case studies reveals two contrasting approaches that revolve around the concepts of perception and permeability at street level. In the Zoku hotel, the access on the ground floor is inward-focused and seamlessly integrates with other commercial establishments situated at the same level. This design approach conceals the street access to the public-collective space situated on the roof. Conversely, a completely different approach is evident in the Terrace Plaza Hotel, where the uninterrupted glass facade establishes a dialogue with the sidewalk and the street, thereby enticing the neighborhood to access the rooftop area.

The incorporation of new volumes on the rooftop can serve to promote physical and social interaction between the rooftop and the surrounding urban environment. In projects categorized as being in the dissimulation category, the decision to position the new volume at a distance from the building's edge reflects a desire to create a secluded oasis, detached from the bustling city. Conversely, the prominent

projection of the Zoku volume signifies a deliberate intention to be acknowledged and noticed, even though access to street level is partially concealed.

### **Form, space, and social interaction**

In conclusion, the relationship between form, space, and social interaction is crucial in roofscape design. While architectural form provides the framework for rooftop experiences, it is the careful consideration of user needs, accessibility, and integration with the urban context that shapes the rooftop's social role. By understanding these relationships, designers can create rooftop spaces that enhance the quality of life for building occupants and the wider community. This comparison highlights the evolving role of rooftop spaces in contemporary hospitality. While the traditional model emphasizes exclusivity, there is a growing trend towards creating rooftop environments that are more open, inclusive, and accessible to the public.

## NOTES

- <sup>1</sup> Gustavo Ambrosini, "The Roof as a Livable Space: Architecture and Imagery," in *Roofscape Design: Regenerating the City upon the City* (Berlin: Jovis, 2021), 20–49.
- <sup>2</sup> Simone Medio, "The Unresolved Rooftop," *Archnet-IJAR International Journal of Architectural Research* 6, no. 2 (2012): 115–31, <https://doi.org/10.26687/archnet-ijar.v6i2.87>.
- <sup>3</sup> Elena Dell'Agnese, "'One Island, One Resort'. Il Turismo Enclave Alle Maldive Come Eterotopia Pianificata," *Bollettino Della Società Geografica Italiana* 1, no. 1 (2018): 27–39. <https://doi.org/10.13128/bsgi.v1i1.87>. The author, with reference to the case study of the islands of the Maldives, identifies in the article some distinctive features of tourism enclaves. What characterizes this type of tourism space is its clear separation and isolation from the economic activities and social behavior of the surrounding area, a condition that, according to some studies, represents a synthesis of the excesses of modern tourism.
- <sup>4</sup> Marco D'Eramo, in his book *The World in a Selfie: An Inquiry into the Tourist Age*, characterizes tourist cities as urban centers that have surpassed a specific transition threshold (soglia di transizione), beyond which urban services and spaces are predominantly tailored for tourists. A significant and quantifiable parameter identified by the author is the annual number of foreign visitors; when this figure exceeds the local residential population, it signifies the onset of this phase transition (transizione di fase). This process entails unpredictable and irreversible consequences, exerting substantial impacts on both the local economy and the quality of life experienced by residents.
- <sup>5</sup> Oscar Eugenio Bellini and Martino Mocchi, "Rooftop Architecture and Urban Roofscape: Designing the New Vertical City," *TECHNE Journal of Technology for Architecture and Environment*, no. 17 (2019): 264–77, <https://doi.org/10.13128/Techne-24021>.
- <sup>6</sup> James Corner, "Horizontality: Spreads and Densities in the Emergent Landscape," *Lotus International*, no. 117 (2003): 116–20.
- <sup>7</sup> Michael Sorkin, "Density Noodle," *Lotus International*, no. 117 (2003): 4–10.
- <sup>8</sup> Ambrosini, *Roofscape Design*, 20–49
- <sup>9</sup> Claudio Minca, "'The Bali Syndrome': The Explosion and Implosion of 'Exotic' Tourist Spaces," *Tourism Geographies* 2, no. 4 (2000): 389–403, <https://doi.org/10.1080/146166800750035503>.
- <sup>10</sup> Dennis R. Judd, "Constructing the Tourist Bubble," in *The Tourist City* (New Haven: Yale University Press, 1999), 35–53. Dennis R. Judd introduces the concept of tourist bubble by defining it as a portion of a city that "envelop the traveler so that he/she only moves inside secured, protected and normalized environment".
- <sup>11</sup> Fabio Mangone, "Gio Ponti et l'Architecture Des Hôtels Italiens (1938-1964)," in *Pension Complète! Tourisme et Hôtellerie (XVIIIe – XXe Siècle)*, ed. Patrick Harismendy and Jean-Yves Andrieux (Rennes: Presse Universitaires de Rennes, 2016), 211–23.

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# **PRESERVATION PROJECT FOR SULEYMANIYE WORLD HERITAGE SITE: 'LIVING SULEYMANIYE'**

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## **INTRODUCTION**

This study, led by an interdisciplinary team from IMM Heritage (*IBB Miras*), reflects a conservation-focused methodology that encompasses inventory, comprehensive documentation, and project evaluation processes. Although renewal legislation was intended to address the restoration and maintenance needs of deteriorated heritage sites, it has, in practice, sometimes led to gentrification or the loss of identity. In response, the area was evaluated using the Historical Urban Landscape (HUL) approach, guided by conservation principles.

This paper begins with a concise overview of the Suleymaniye District, tracing the evolution of the site and its historical significance. The subsequent section delves into the preservation history of the district, with a particular emphasis on the macro-level planning initiatives and conservation decisions that have shaped the area over time. The current state of the Suleymaniye District is then examined, highlighting the pressing need for the development of new management strategies and safeguarding approaches. A detailed account of the methodology employed for the study, including evaluation and strategy formulation, is also provided. The paper concludes with an exposition of the 'Living Suleymaniye' objectives, which were formulated as a result of the comprehensive study and evaluation conducted, aimed at ensuring the sustainable preservation of this historic site.

## **SITE & HISTORY**

Suleymaniye World Heritage Site has multi-layered cultural value from Eastern Roman, Ottoman and Republican periods (Figure 1). In the 16<sup>th</sup> century, Suleymaniye became an education-based ulema settlement, also sustained a trade oriented character due to its proximity to the port and trade complexes.

## Roman and Byzantine Period



## Ottoman Period



Figure 1. Cultural assets of Suleymaniye from different periods (IMM Heritage archive)

According to recent studies, 33% of the cultural assests of İstanbul is located in Historical Peninsula.<sup>1</sup> The distinctive character of the Suleymaniye District is not solely defined by the monumental buildings but is largely attributed to its traditional timber housing, which contribute significantly to the city's silhouette and forms a critical component of the area's historical fabric as also underlined as Outstanding Universal Value (OUV) of the World Heritage Site (WHS).

During the Ottoman period, Suleymaniye was primarily a residential area characterized by wooden houses, typically comprising two or three floors, with masonry foundations and a ground-level floor. An additional noteworthy aspect of these houses is their construction, which was carefully adapted to the natural topography (Figure 2). This house tradition spans from 19<sup>th</sup> century to the early Republican years and evolves in the site into new slants and techniques: in the beginning of the 20<sup>th</sup> century masonry structures becomes the majority of new buildings represented to site bear significant traditional slants e.g. parcel use, silhouette effect, street building relationship, roofing style as a continuity of the historic urban habits (Figure 2).



### Traditional timber houses



### 20th Century Civil Architecture



Figure 2. Examples of traditional timber houses and 20<sup>th</sup> century civil architecture of Suleymaniye

## PRESERVATION CHRONOLOGY

Suleymaniye safeguarding attempts officially started half a century ago: in the 1970s the first registrations of ‘historic assets’ in the district was recorded (Figure 3). In a year, 712 assets were registered and put under custodial protection in Suleymaniye District. These registrations were followed by a series of macro and micro plannings leading to its preservation as a WHS.



The Suleymaniye study area was defined as “renovation area” in 2006. Construction in these renovation areas must adhere to preliminary projects approved by Preservation Boards.<sup>3</sup> The Renewal Law surpasses the powers of the zoning plan and grants the right to carry out construction based on block based preliminary projects. For Suleymaniye, inefficient projects were regarded as threat.

Suleymaniye has been a monitored site through the ‘Inventory Project’ of Istanbul’s Cultural Assets since 2015. This spatial database paves the way for monitoring and further investigations. Comparative analytical studies (2003 and 2022) were conducted to determine the alterations of urban texture and understand the current conditions.<sup>4</sup> During these analytical studies, spatial data, satellite images and air photos were compared chronologically and lost values were determined (Figure 4). The observed increase in vacant spaces over time is primarily attributed to the demolition of buildings and unregistered parking lots. This shift away from the district's historic character has raised serious

concerns, particularly as these vacant areas have contributed to security issues and posed threats to quality of life. The physical and social ramifications of these losses have underscored the need for both long-term and short-term strategies. This initiative emphasizes the use of innovative methodologies to address these challenges and achieve the project's objectives.

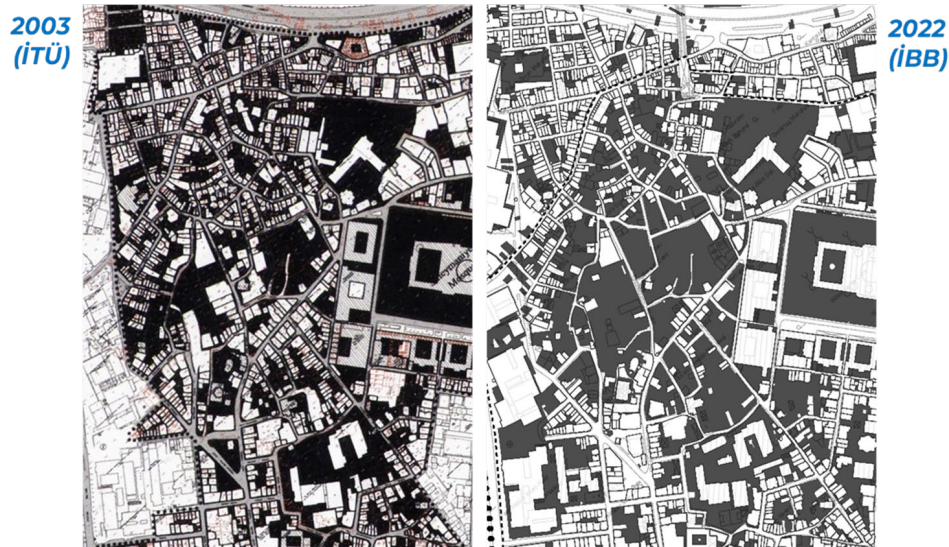


Figure 4. Comparison of built land in 2003&2022

Studies certify the sustaining multi-typed, multi-functional character of the historic Suleymaniye District with the dominant group of housings. There are 1,264 listed assets legally protected, most of which were registered before 1985. These assets include 86 types of monuments, classified into 13 categories based on their features: civil/residential, religious, commercial, industrial, educational, socio-cultural, military, water-related, health-related, administrative, service-oriented, transportation, and urban elements.<sup>5</sup> Notably, two primary areas stand out: residential and commercial. Comparative studies certified the sustaining multi-functional character of the site: 66 different functions were determined on site. However, the most frequently observed category became commerce indicating a noticeable trend of transformation from residential to commercial use -with many former building areas converted into parking lots-. This trend causes a decrease in the functional authenticity, with only 37% of buildings retaining their original functions while threatening the residential character of the district, therefore it has been taken into consideration in strategy planning of the 'Living Suleymaniye' project.

The construction types were also analyzed for the site during the studies, with special focus on timber housings but also with the scope of establishing data for sustainable architecture and disaster preparedness strategies.<sup>6</sup> The WHS declaration noted 395 timber buildings, but only 82 remain today. The structural authenticity of the buildings is assessed under five categories: authentic, partially preserved, heavily renewed, reconstructed, and new. Heavily renewed buildings represent approximately half of the current structures, with authentic buildings being the next most common. The structural condition of buildings is evaluated to guide the intervention process, classifying them as good, moderate, or in ruin. Analysis of physical condition indicates that nearly all monuments maintain their functional and structural authenticity. The core area, once primarily residential with timber buildings, now features very few of these original structures<sup>7</sup> (Figure 5).



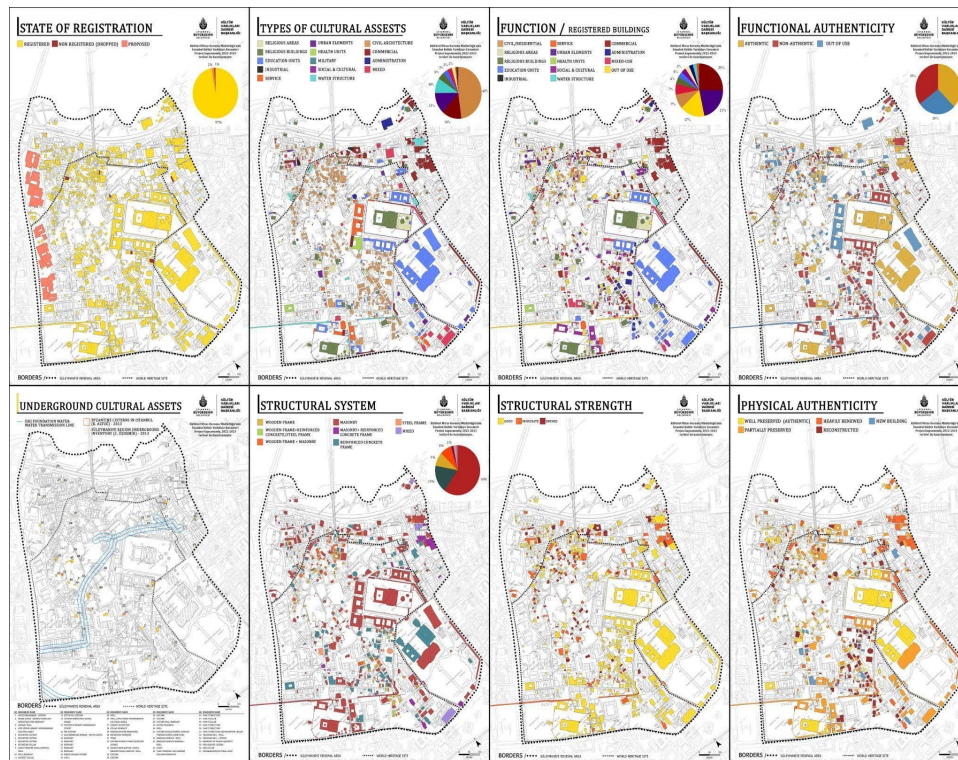


Figure 5. Analytical maps

Suleymaniye District is rich in archaeological values, the site inherits cisterns, wells, maksems, water channels, pipe lines (concrete pipes), cellars, chapels, monasteries, tombs. Therefore establishing a comprehensive understanding of these archeological values was within the scope of field studies. With this scope, firstly, the previous archaeological documentation studies conducted on the area were examined. Later, historical maps, visuals and academic references were gathered and compared for determination, categorisation of the archeological findings and their proposal for possible registration by the Preservation Boards if needed. As a result of these studies, 10 underground cultural assets were determined and newly registered by the Preservation Boards. Further, the borders of archeological elements -buildings, structures, remnants, insitu fragments- were evaluated in GIS.<sup>8</sup> The areas with archaeological potential were also determined. Strategies were established for the wholistic protection of these values and their contribution to the daily life of the neighborhood and education of locals.

## PROJECT METHODOLOGY

The preservation efforts for Suleymaniye District have been conducted with the goal of maintaining the integrity of the area, ensuring its continuity for future generations. Current inventory studies have been fundamental in identifying the primary issues within the area. Following these investigations, it was determined that the values of ‘**authenticity**’ and ‘**historical continuity**’, which are essential to the area, are under threat due to various losses. This realization necessitated the development of a methodology that would facilitate the preservation of these values. Consequently, the methodology was designed to reintegrate recent losses in a manner that respects authentic values.

Initially, comprehensive documentation of heritage values was conducted. The methodology considered HUL approach regarding topography, urban morphology, green areas and street-human interactions, ensuring that further plan decisions would support the historical continuity of the area's urban identity. Block based preliminary projects, planned for the ‘Renewal Area’, were evaluated individually<sup>9</sup> (Figure 6). This study taking into account the historical evolution of each urban block allowed the assessment

of block based preliminary projects for compliance with preservation principles and feasibility. The results of this study was reported categorizing these mostly legally eligible plans under titles of (1) those to be canceled and replanned, (2) those to be revised with major changes, (3) those to be revised with minor changes and implemented.

Individual examination sheets were prepared for each structure/parcel, detailing the historical development of the structure (building, wall, ruins, etc.) through a comparative study based on archival documents. This allowed the documentation of losses in detail, as well as the traditional settlement patterns, and safeguarding authentic values for each structure/parcel. Spatial data e.g. structure/building borders, structure type, floor number, usage, ownership, and planning decisions were also included in these sheets, providing a comprehensive overview of the current state (Figure 7).



Figure 6. Block based examination sheets

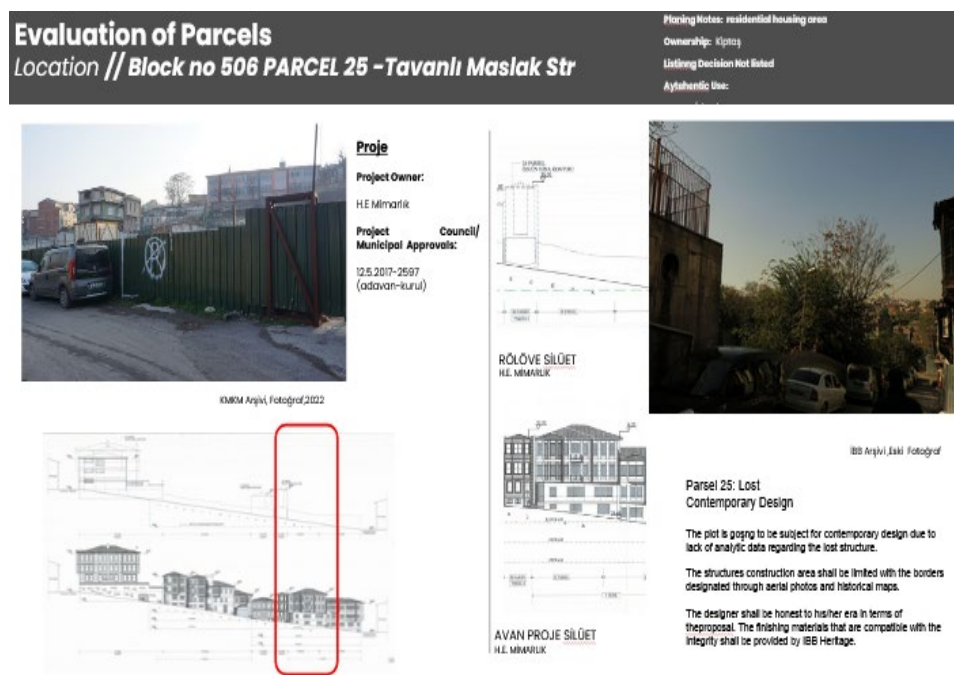


Figure 7. Individual examination sheets



The conservation strategies for Suleymaniye District were based on the cumulative and comparative evaluation. Depending on the current analytical studies on urban and structural scale, SWOT analysis was conducted (Figure 8). Traditional urban values, such as commercial and residential zones were designated, later, buffer zones necessary for preservation and revitalization of these traditional textures were established. New urban amenities were proposed to be introduced to the site, prioritizing re-usable structures in the area.

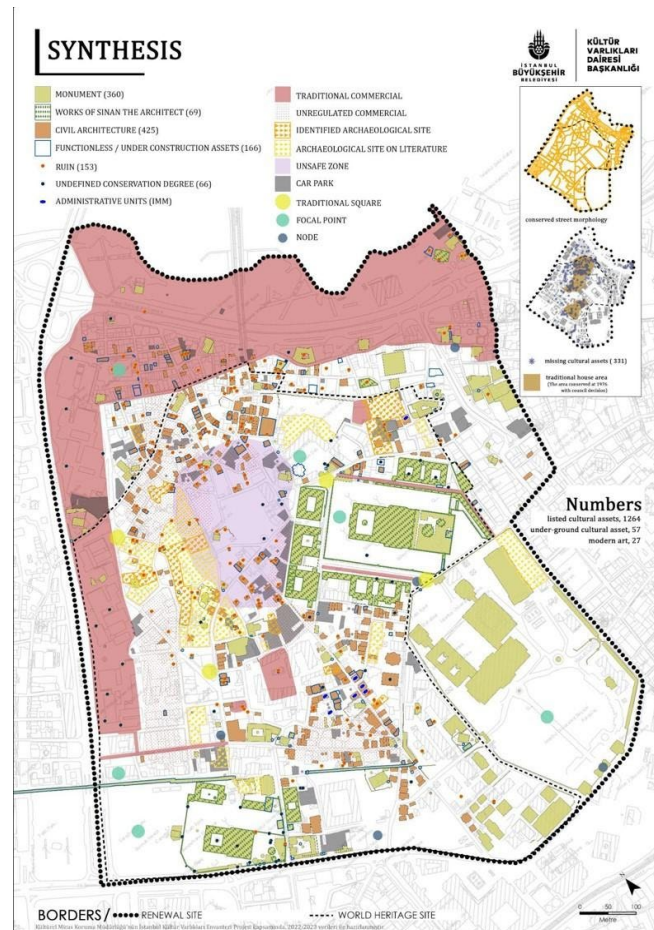


Figure 8. Synthesis map

Archaeological researches were integrated into this comprehensive evaluation and preservation process, with recommendations for their contribution and re-use.<sup>10</sup> In addition to urban-scale studies, individual structure/parcel-based examinations resulted in specific decisions for each parcel. Proposals for registration were identified, and maintenance plans were recorded for each asset. These recommendations were grouped according to type of intervention. These suggestions were integrated into the city-scale plan, and preliminary block based preliminary projects were revised to establish a legal framework.

## LIVING SULEYMANIYE: OBJECTIVES OF THE PRESERVATION PROJECT FOR SULEYMANIYE WORLD HERITAGE & RENEWAL SITE

The determination of the current conditions, potentials and threats, values and losses, enabled the identification of prioritized action areas for the safeguarding of Suleymaniye District. The major aim was to establish objectives that will allow the neighbourhood to preserve its WHS character and the livelihood that sustained against all odds. This holistic conservation perspective respecting the unique

identity and OUV under the light of HUL approach putting life itself in the center of all attempts was determined as ‘Living Suleymaniye. Living Suleymaniye objectives describes a manner of ‘being aligned with’ rather than a ‘projecting’; respecting the values, discussing the problems and developing effective solutions in terms of human-centered scenarios to create a ‘livable, safe, adaptive, interactive and preserved’ area.

The conservation approach of ‘Living Suleymaniye’ objectives, includes short, medium and long-term strategies to reveal aesthetic and cultural values without compromising the qualities that constitute OUV, originality and identity. According to the HUL approach, the preservation of the site depends upon not only extending the lifespans of the surviving cultural assets representing different cultural layers, but also respecting the authentic topography, preserved urban texture with green areas and undefined archaeological values synchronously with human-centered recommendations for rehabilitation.<sup>11</sup> Strategies are described in four categories, starting from the ‘immediate and preventive conservation precautions’, ‘short-term rehabilitation measures’, ‘protective implementations in medium-term’ and ‘sustainability measures in long-term’.

Urban impact as well as its social and cultural reflections is recommended to be followed not only in the planning period, but also during the implementation and monitoring in a long while. Rehabilitation measures were meticulously studied and bordered, including several degrees of architectural conservation, adaptive reuse and refunctioning, parking, pedestrianization, new designs compatible with the fabric, collaboration with other stakeholders, housing based planning, controlled trade and tourism penetration, ecologic solutions and also undefined potential actions. Creating forward-looking action plans and stakeholders simultaneously with the planning process will prevent further losses and destruction.

‘Housing based planning’ which is equipped with supporting functions briefly defines the core idea of the comprehensive approach of ‘Living Suleymaniye’. This residential area in the center of the site represents the protected heritage assets to be saved together with supporting facilities such as education, health and administration. This core of the renewal site is planned to be supported by other zones, functioned respectfully to their own characteristic values, such as cultural area of great monuments in the east, education and administration buildings of the Istanbul University in the east and south, mixed function (art-culture-trade) of the IMC Bazaar axis in the west and traditional commercial and creative industries’ area in the north. These zones of functions are described to be softly penetrating into each other. Designation of areas with archaeological potential zones and continuous green areas are underlined in each document, because of the chronology and the topographic authenticity of the area.<sup>12</sup> Archaeological value is aimed to be a part of this livable area. Commercial activities are proposed to be zoned as a flow of social and cultural zones, integrated with the core housing area and its auxiliary facilities (Figure 9).





The livability of a city is determined and assessed through a combination of objective factors such as climate, environmental quality, infrastructure, safety, and stability, alongside access to health and education. These factors provide a framework for evaluating the livability of urban environments. In the case of Suleymaniye, the traditional timber housing, which has evolved over centuries in harmony with the topography and climatic conditions of the city, has laid a robust foundation for fostering a contemporary, livable neighborhood.

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## NOTES

- <sup>1</sup> “Inventory Project” was started in 2015 by Directorate of Cultural Heritage Preservation of IMM. ‘Inventory Project’ held by the Directorate of Cultural Heritage Conservation of IMM oversees more than 35000 listed cultural assets.
- <sup>2</sup> All planning processes since 1964 were evaluated within the scope of the study and included in SWOT.
- <sup>3</sup> Preservation Boards are directly related to the Ministry of Culture and Tourism.
- <sup>4</sup> The first comprehensive analytic study for the region is the ITU and UNESCO protocol led by Prof. Dr. Nuran Zeren Gülersoy and is received the European Union Cultural Heritage Award (Europa Nostra) in 2004. The evaluation of the socio-demographic structure as well as physical assessments of the urban fabric explained in: Nuran Zeren Gülersoy, Azime Tezer, Reyhan Yiğiter, Turgay Kerem Koramaz and Zeynep Günay, *İstanbul Project: İstanbul Historic Peninsula Conservation Study Volume 3 – Süleymaniye* (ITU Faculty of Architecture, İstanbul, 2008).
- <sup>5</sup> There are 189 types of assests in İstanbul.
- <sup>6</sup> According to the field survey, 43% of the assets are masonry, with timber, concrete, steel, and mixed frame structures also present.
- <sup>7</sup> Analytical studies and mapping have been conducted using Geographic Information Systems (GIS) and reference inventory data.
- <sup>8</sup> Sites that have gone through no construction in the last century and sites that are referred to by historic resources.
- <sup>9</sup> For this study, an examination file was created for each building block, documenting its historical development and current legal and physical status.
- <sup>10</sup> Potential archaeological sites identified during research were earmarked for further investigation and protected as non-constructible areas until such studies could be completed.
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- <sup>11</sup> It is important that these buildings are preserved by principles of scientific restoration and regular maintenance, without excessive renovation interventions that would harm their authenticity. According to each case's conditions, different intervention methods in several degrees are defined in detail and also mapped on GIS, to be used as a guide for further implementation phases.
- <sup>12</sup> Preservation of these lands as open space areas is important for the promotion of further research studies on these sites.

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# AN INQUIRY INTO WAYS OF THINKING ABOUT CITIES FROM 'ELSEWHERE'

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## INTRODUCTION

Two cities, two perspectives. Recently, friends of mine, a team of urban designers based in Kampala, Uganda, were invited to present one of their projects in Portland, Oregon. Returning from the conference one thing left them stumbled: they perceived the host city as no city at all. According to them, there were no people in the streets, no busy markets, no 'social fabric;' hence, their conclusion: 'Portland is not a city.'

The second story begins similarly. Another friend of mine, a doctoral student in China, of Sudanese origin, went on a vacation trip to the Alps. Something also puzzled him. From his perspective a city is defined by the provision of basic infrastructures: paved roads, electricity, internet coverage. Confronted with the fact that even the remotest corners of the Alps are equipped with such facilities, he concluded that the Alps are basically like a city to him.

Now, it was me who was left confused. After all I hold two master's degrees in transportation & urban planning and urban studies. Additionally, I have studied and explored the vast majority of the world's one hundred largest cities. I thought I knew what a city is and how it looks; in short: Portland, yes; the Alps, no.

This study follows three seemingly simple guiding questions: what defines a city, what shapes cities, and how do future cities look, to gain perspectives on cities from 'elsewhere.' I focus on a group of emerging decision-makers in cities in low-and-middle income countries (LMIC) across the continents of Africa and Asia. Their insights is important for two reasons.

First, all participants in this study are representatives of a group of highly skilled and trained, well-connected and influential, mid-career academics, professionals, and policymakers. They hold positions as executives in financial institutions, multinational corporations, are advisors to ministries, founders of start-ups, journalists, and environmental and social activists. All received a postgraduate degree from Golden Lotus University (fictitious name), one of the most prestigious research universities of all LMIC. Their credentials make these people destined to obtain influential positions within their home societies and hence significantly influence their development.

Second, it is crucial that dominant narratives in urban studies need to allow for the adequate conceptualization of such perspectives if they want to provide productive frameworks to understand processes of urbanization. For this, I build on and extend Ren's review of major paradigms in urban studies.<sup>1</sup> I examine whether these dominant paradigms in urban studies offer productive theoretical frameworks for the study of processes of urbanization 'elsewhere.' Whereas much research either

gravitates to the global (e.g., flows of capital/people), or the local (e.g., lived experiences), the unique social position of the study participants connect these two levels.

## LITERATURE

Building on and extending Ren, I condense the theoretical insights from three dominant scholarly paradigms in urban studies into three narratives. The first paradigm goes back to Friedmann & Wolff's 'world city formation' thesis, followed by Sassen's seminal publication *The Global City*.<sup>2</sup> Ren summarizes contemporary debates within this camp along "three general topics: global urban networks, the restructuring of urban space, and the transformation of the urban fabric."<sup>3</sup> For my analysis I broaden Ren's conceptualization and include scholars such as the economist Glaeser's *Triumph of the City*, economic geographers, and the widely influential 'urban age' conferences.<sup>4</sup>

Scholars within a second paradigm, most foremost Harvey, argue that "the traditionalist city has been killed by rampant capitalist development."<sup>5</sup> They claim that "[t]he neo-liberal state is profoundly anti-democratic" in which "[g]overnance by elites is favored ... at the expense of the former centrality of democratic and parliamentary decision-making."<sup>6</sup> Again moving beyond Ren, I add Brenner & Schmid's concept of 'planetary urbanization' who argue for the need of "a new epistemology of the urban."<sup>7</sup> Brenner views critical theory as "explicitly intended to inform the strategic perspective of progressive, radical or revolutionary social, and political actors."<sup>8</sup> Combining insights from Critical Theory and Henry Lefebvre, Brenner & Schmid regard "the urban [...] as a *transformative potential* that is constantly generated through processes of urbanization."<sup>9</sup> Deviating from Ren, I use Lefebvre's term 'right-to-the-city' to refer to this second narrative.

The concept of 'planetary urbanization' has received criticism from scholars such as Oswin who perceive this paradigm as too 'economistic,' ignoring the prevalence of "other unjust and violent forces like patriarchy, colonialism, racism, nationalism, and heteronormativity."<sup>10</sup> Prioritizing experience of everyday life within the urban, scholars building on postcolonial theories, form a third paradigm. Robinson, from whom I borrow the term 'elsewhere,' rightfully laments that urban studies is preoccupied with "global and world cities" leaving "once called 'third-world cities' to the field of development studies."<sup>11</sup> Roy and Ong's framework of 'worlding' reveals that people from 'elsewhere' are not confined to 'elsewhere,' but transcend space in many ways.<sup>12</sup> Consequently, scholars in this camps describe cities as "incessantly flexible, mobile, and provisional intersections of residents."<sup>13</sup> Their perspective in return receives criticism for running "the risk of underestimating pan-urban pressures, tendencies, patterns and the reworked matrices of global power."<sup>14</sup>

## FRAMEWORK

**Narrative 1—Urban Age:** The global economic system shapes contemporary cities. Following the 'urban age' narrative, economic development, efficiency, and functionality are the dominant goals for cities. Although liberal democracy seems the preferred political system, it is trumped by the economies' requirement for order & control. Within such a city, market forces are the dominant drivers for development. Scholars in the 'urban age' narrative have continuously argued that the city has surpassed the national-level as decision-making arena. Whereas previously they mainly referred to corporate headquarters as the new centers of power, recently cities themselves seem to have gained a significant role in international policy discourses.<sup>15</sup>

**Narrative 2—Right-to-the-City:** Cities are places of encounter, emancipated from the detrimental forces of global capitalism. The 'right-to-the-city' narrative views the global economic system opposed to a life of solidarity in which citizens actively shape their own political futures through collective action and community control. It envisions a right to housing instead of a right to property as a dominant

driver of the form of future cities. Given the study participants' background coming from and residing in postcolonial societies, I expect extensive accounts about the oppressive character of the Western-created and -dominated 'global capitalist system.' Especially, as all interviewees had studied at Lotus University, which is in a state where critique of colonial legacy plays a prevalent role in everyday discourse.

Narrative 3—Everyday Urbanism: Post-colonial perspectives allow for novel ways of thinking about cities, locally and across geographies. The 'everyday urbanism' narrative seems most open to allow for the multitude of insights expected from the study participants. Emancipated from the injustices of past and present colonization, its upmost goal is a city in which people act as empowered agents shaping their own and collectives' lives. Not just participating but actively shaping their futures, people utilize an array of bottom-up approaches, in which informality and flexibility are key.

## METHODS

How do I define cosmopolitan, highly skilled and trained, emerging leaders from 'elsewhere'?

- 'Elsewhere' refers to people from cities located in low-and-middle income countries (LMIC) across the continents of Africa and Asia.
- 'Cosmopolitan' refers to people who were born and reside in one of these LMIC but have lived and/or travelled to a wide range of cities across the world, including in 'the West,' allowing them to collect manifold and diverse experiences about cities.
- 'Highly skilled and trained' refers to people who hold at least a master's or PhD degree from a renowned research university located 'elsewhere.' In this study all participants graduated from Golden Lotus University, one of the most prestigious and highest-ranked research universities of all LMIC.
- 'Emerging leaders' refers to people who are based on their training and networks destined to obtain influential professional roles within their societies.

A total of twelve people either filled out a survey and/or participated in a thirty to sixty-minute interview (six participants survey and interview, five interview only, one survey only). Gender was equally divided, and their age range was between 29 and 40 years. All study participants had obtained professional experience before pursuing another academic degree. All of them were familiar to navigate fast-paced interactions, including interview situations.<sup>16</sup> All interviews were structured in a way that I repeated the questions from the survey complemented by follow-up questions. Such a structured approach allowed me to mitigate the risk that my own normative underpinnings skew the questions I ask, for instance connotating development as teleological aspiration.<sup>17</sup> Study participants were located at and/or native to cities across Africa and Asia: Bandar Seri Begawan (Brunei), Faisalabad (Pakistan), Jakarta (Indonesia), Juba (South Sudan), Karachi (Pakistan) (2), Khartoum (Sudan), Lubumbashi (DR Congo), Nairobi (Kenya), Parakou (Benin), Windhoek (Namibia), Yaoundé (Cameroon). I conducted all interviews online using Zoom video conferencing.<sup>18</sup> Following Titscher, I treated the text collected "[a]s representation of features of the groups investigated."<sup>19</sup>

## FINDINGS

The finding sections is divided into two parts. The first discusses the answers to the three guiding questions, the second centers on the main themes brought up by the interviewees.

Q1: What defines a city? Definitions of cities were less contested than expected. All interviewees described cities in terms of infrastructures, mostly transportation, but also housing, schools, hospitals, cultural & business facilities featured prominently. Mirroring above's vignette, three interviewees saw infrastructures as the defining element of cities, hence contemplating whether a village with such infrastructures rather resembles a "mini-city" (M1:211). Defining a city in terms of infrastructures, was

followed by population density, and to a lesser degree by culture, lifestyle (“soft life”), and opportunities (F1:3). Positive aspects of life in the city today were more related to the comfort of urban life and professional opportunities. Negative aspects, however, were mentioned twice as often, primarily focusing on infrastructure and questions of governance.

Q2: What shapes cities? Insights into the second question proved most insightful. Intentionally, I did not want to nudge interviewees to talk about specific ‘actors’ (e.g., the government) and/or ‘things’ (e.g., the system). Except inquiring about experiences from other cities, I left it to the interviewees to talk freely about what they think is needed to define a city or create a future city. Surprisingly, more than half of all statements address this second question. In addition to imaginations, two themes reoccurred across all interviewees: development and governance. In the second part of the findings section, I describe insights into each of them in more detail.

Q3: How do future cities look? Despite the survey’s title ‘Perspectives on cities of the future,’ only two interviewees elaborated on somehow innovative “dreamscape”-like visions for their cities (F3:86). For most interviewees, the future city looked surprisingly alike to existing cities, an extrapolation of more development, mainly infrastructure, and more people. Five interviewees, four of them female, explicitly referred to their cities positionality in comparison to other cities. One interviewee, for instance, stated that “you really want, you know, you’d want Nairobi to be New York ... but here I think, I relate more to China because ... it’s a more realistic dream” (F1:33,34). Themes of social and environmental justice occurred sporadically but were always perceived as local issues and not linked to broader global structures. Only one interviewee, a self-described environmental activist, directly criticized westernized ideals of planning.

Table 1 contrasts answers to the three guiding questions found within three dominant narratives and the interviewees’ responses.

	N1: Urban Age	N2: Right-to-the-City	N3: Everyday Urbanism	Interviewees
Q1: What is a city?	<ul style="list-style-type: none"> <li>▪ agglomeration benefit</li> <li>▪ modernism</li> <li>▪ development</li> </ul>	<ul style="list-style-type: none"> <li>▪ transformative</li> <li>▪ emancipatory</li> <li>▪ variegated</li> </ul>	<ul style="list-style-type: none"> <li>▪ uniqueness</li> <li>▪ ordinary</li> <li>▪ people</li> </ul>	<ul style="list-style-type: none"> <li>▪ infrastructures</li> <li>▪ population density</li> <li>▪ culture &amp; lifestyle</li> </ul>
Q2: What shapes cities?	<ul style="list-style-type: none"> <li>▪ economics of scale</li> <li>▪ competition/rankings</li> <li>▪ neoliberal policies/governments</li> </ul>	<ul style="list-style-type: none"> <li>▪ global capitalist system</li> <li>▪ oppressive social structures</li> </ul>	<ul style="list-style-type: none"> <li>▪ agency</li> <li>▪ post-colonialism</li> <li>▪ feminism</li> </ul>	<ul style="list-style-type: none"> <li>▪ development</li> <li>▪ governance (most)</li> <li>▪ imaginations</li> </ul>
Q3: How will future cities look?	<ul style="list-style-type: none"> <li>▪ comparable</li> <li>▪ buzzwords, such as: resilient, smart</li> </ul>	<ul style="list-style-type: none"> <li>▪ emancipation</li> <li>▪ ‘right to the city’</li> <li>▪ place of encounter</li> </ul>	<ul style="list-style-type: none"> <li>▪ emancipation</li> <li>▪ ordinary</li> <li>▪ independent</li> </ul>	<ul style="list-style-type: none"> <li>▪ more development</li> <li>▪ more people</li> <li>▪ green, just</li> </ul>

*Table 1. Answers to guiding questions by the three dominant narratives in urban studies and the interviewees’ responses*



## FINDINGS

The two themes of development and governance featured most prominently. The majority of interviewees moved beyond just talking about the city but discussed the theme of development more broadly. Insights from two sub-themes are of particular interest for the comparison with the dominant narratives in urban studies.

The biggest difference was between interviewees who considered development as a goal in itself or something that needs to be qualified and specified. The first group saw “development [as] the international standard” (M4:137). Among them, development was perceived as a mindset that needs to be pursued. A second group was more balanced and took into consideration condition specific to their environment, stressing that “as a developing country we have a lot of issues to deal [with]” (F2:66). These interviewees clearly differentiated between a developmentalist perspective and one which focuses rather on “basic infrastructure” and “the minimum services and goods that they need for to live” (M2:255; M6:352). Their goals were to achieve “just [a] normal standard” (M2:260).

Whereas all interviewees were concerned with ‘development,’ interviewees disagreed about its meaning and extent. Such a distinction is not made by the ‘urban age’ narrative. Astonishingly, interviewees referred to colonialism only twice, and in both instances, it was in the context of architectural legacy. Indeed, the word ‘capitalism’ was not even mentioned once. Instead, economic development was mainly portrayed as a system in which everyone pursues its own interests, contrasting the ‘right-to-the-city’ narrative. The insights from the interviews do not support a strong understanding of apparent injustices inherent to the global (economic) system. Rather they are portrayed as the universally accepted norms within one has to prevail. Further surprising, other oppressive forces, as highlighted by Oswin above, received virtually no attention. It was indeed only one, male, interviewee who slightly touched upon a feminist agenda, demanding to “create an environment that [...] might look better for women” (M6:343).

There was overall agreement among all interviewees that when it comes to development, “it’s all about government” (F5:161). Especially, for effective planning, all interviewees shared that “[y]ou definitely need a lot of strong government policies and support for this urban planning” (F3:90). There was, however, considerable disunity over the general form of such a government. Noticeably, democracy as a political system was exclusively discussed by male interviewees. Female interviewees were more specific and focused their statements closer on the role, or rather the absence, of urban planning.

Surprisingly, none of the three dominant narratives in urban studies helpful conceptualizations about effective governance. The ‘urban-age’ narrative simply assumes that cities are embedded in well-functioning governance systems. Although, some argue that these governance systems may be increasingly hollowed by neoliberal policies, the implementation of the policies require effective institutions, nevertheless. Presupposing effective governance systems, the ‘urban-age’ narrative provides no theoretical framework for the conceptualization of governance systems in cities ‘elsewhere’ which face political instability and oftentimes institutional failure.

The ‘right-to-the-city’ narrative also presupposes the existence of ‘a system,’ global capitalism. Aiming for emancipation from it, this narrative sees social movements turning into political actors who alter the seeming nature of this system. It seems unclear how such social movements transform into political actors in an environment of political instability and institutional failure. Allowing maximum freedom for any form of social movement, this narrative does not provide any theoretical insights into how such an emancipated polity could materialize, theoretically and practically. Lastly, the ‘everyday urbanism’ narrative seems to simply romanticize the political nature of local activities without any conceptual insights into how these could develop into effective governance systems.

Table 2 contrasts the themes of goals, governance, and drivers within the three dominant narratives and the interviewees’ responses.

	N1: Urban Age	N2: Right-to-the-City	N3: Everyday Urbanism	Interviewees
Goals	<ul style="list-style-type: none"> <li>▪ economic development</li> <li>▪ efficiency &amp; functionality</li> </ul>	<ul style="list-style-type: none"> <li>▪ citizenship &amp; participation</li> <li>▪ solidarity</li> </ul>	<ul style="list-style-type: none"> <li>▪ agency &amp; empowerment</li> <li>▪ decolonization</li> </ul>	<ul style="list-style-type: none"> <li>▪ basic needs &amp; services</li> <li>▪ ‘soft life’</li> </ul>
Governance	<ul style="list-style-type: none"> <li>▪ order &amp; control</li> <li>▪ liberal democracy</li> </ul>	<ul style="list-style-type: none"> <li>▪ collective action</li> <li>▪ community control</li> </ul>	<ul style="list-style-type: none"> <li>▪ bottom-up approaches</li> </ul>	<ul style="list-style-type: none"> <li>▪ widely contested</li> <li>▪ institutional instability</li> </ul>
Drivers	<ul style="list-style-type: none"> <li>▪ market forces</li> </ul>	<ul style="list-style-type: none"> <li>▪ housing rights</li> </ul>	<ul style="list-style-type: none"> <li>▪ informality &amp; flexibility</li> </ul>	<ul style="list-style-type: none"> <li>▪ imaginations</li> <li>▪ migration</li> <li>▪ demography</li> </ul>

*Table 2. Key themes associated with three dominant narratives in urban studies and the interviewees' responses*

## CONCLUSION

In this study I examined whether dominant narratives in urban studies adequately capture the ways of thinking about cities of emerging leaders from ‘elsewhere.’ My analysis suggests that questions of governance are of primary concern to the studied group of emerging leaders and none of the analyzed dominant paradigms in urban studies provides an adequate theoretical framework for their conceptualization. The studied group of emerging leaders from ‘elsewhere’ seem neither particularly interested in a purely economic perception of the city following the ‘urban age’ narrative, nor pronouncing a clear perspective on political empowerment following the ‘right-to-the-city’ narrative. Instead, they seem primarily concerned with ‘practical issues,’ which at first seems to resonate closely with the ‘everyday urbanism’ narrative. These ‘practical issues’ of effectively providing basic services are, however, closely intertwined with the existence of effective institutions. Although the characteristics of a political system providing political stability and institutional functionality are extensively contested among most interviewees, they all aspire governance structures that go beyond bare experiences of everyday life.

Acemoglu & Robinson argue that “for liberty to emerge and flourish, both state and society must be strong.”<sup>20</sup> Social movements are oftentimes portrayed as opposing the state, but in absence of a functioning state, such movements would eventually need to institutionalize into ‘something.’ This ‘something’ seems of great concern to all study participants. A ‘something’ undertheorized in the studied dominant narratives in urban studies. In the ‘urban age’ narrative international corporations transcends the state, but this very state is still very much presupposed in its theoretical assumptions. The ‘right-to-the city’ narrative aspires an ideal polity without a theoretical conceptualization on how to achieve it. And lastly, in the ‘everyday urbanism’ narrative peoples’ activities may turn into political agency, but there is no conceptualization on how they then turn into effective governance structures. The ‘urban age’ narrative seems to presuppose efficient governance structures, the ‘right-to-the-city’ narratives idealizes them, and the ‘everyday urbanism’ narrative turns a blind eye on them by privileging local activities and experiences.

## NOTES

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# TAOBAO ARCHITECTURE: THE E-COMMERCE PARADIGM OF CHINESE URBANISATION

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## INTRODUCTION

The global economy has been fundamentally transformed in recent decades by shifting geographies of consumption and production. One way in which these changes can be observed is through the rapid growth of platform-based business models. Inserted in what has been conceptualized as “platform capitalism”,<sup>1</sup> it involves the flourishing of dominant digital platforms that mediate several economic and social activities. In the e-commerce front there are many examples worldwide such as Amazon, JD and Alibaba, which have come to dominate online retail and logistics networks. The increasing availability of e-commerce has been one of the major drivers of platform capitalism made possible through prevalent usage of internet technologies alongside mobile devices.<sup>2</sup> E-commerce sales have grown exponentially in a global level, accounting for an increasing share of total retail sales.<sup>3</sup> China is the largest world e-commerce market with many players interacting in the field in a market with online sales reaching nearly 25% of total retail sales.<sup>4</sup> Taobao, a part of Alibaba group accounts for the biggest share of the market and became the main player in shaping the field.

The shift has affected both urban and rural spaces in profound ways. Traditional retail and distribution channels have been thrown off balance by the use of e-commerce platforms resulting in a decline of brick-and-mortar stores and an upsurge of logistics hubs along with fulfillment centers.<sup>5</sup> Moreover, integration of rural areas into e-commerce networks has led to the development of “Taobao villages” in China which has blurred the distinction between urban and rural spaces.<sup>6</sup> E-commerce’s spatial dynamics exemplify modern processes of urbanization as well as regional developments. The purpose of this paper, therefore, is to explore the correlation between e-commerce and urbanization from the perspective of the existing literature on the field, as well as exemplifying the spatial dynamics of three categories of spaces that we identified during the research, namely: rural, hybrid and urban. Therefore, the research takes Taobao as its case study, seeking to uncover how peculiar features within such an online shopping platform have generated new forms of spatial organization that expose new forms of spatial conditions in processes of urbanization in China.

## Taobao Villages

The rise of Taobao as a prominent player in e-commerce

Within the field of e-commerce, Taobao is a quite prominent player, the shopping platform owned by Alibaba Group.<sup>7</sup> Founded in 2003, Taobao has rapidly become the largest platform of China’s growing retail market, catering for both individual consumers and up to medium sized businesses.<sup>8</sup> Taobao

draws from the larger logistics and digital infrastructure of Alibaba Group to achieve an efficient interface among production, distribution as well as consumption across the country.

The sheer scale of the platform, as well as the consumer market in China, allowed the platform to operate uniquely in influencing processes of production and spatial organization at different scales. Unlike Amazon, which provides a model where consumers are connected to established retailers, Taobao has promoted a huge network of small and micro-businesses scattered across China, including many of the rural areas.<sup>9</sup> This has been made possible by the easy setup, customer-friendly interface, and a wide variety of extra support services, logistics, payment processing, and marketing tools that are provided by the company.

The distinct way in which the Chinese economy operates, with its particular sets of state directed investments, allows a coordinated interaction between the state, large corporations and regional development.<sup>10</sup> Villages in China have long had an integral role in the country's urbanization trajectory, serving as both sources of labor and sites of industrial development.<sup>11</sup> Therefore, the integration of rural areas into Taobao's e-commerce ecosystem presents an endemic form of corporate, state and regional actors interaction injecting resources to areas that defy mainstream market allocations especially rural areas.

For example, the emergence of "Taobao villages" – official rural settlements that have become hubs of e-commerce-driven production and trade - illustrates how villages are being reshaped by the digital economy.<sup>12</sup> These villages have experienced rapid population growth, infrastructure development, and the diversification of economic activities, as they have become integrated into Taobao's logistics networks and production chains through directly targeted central government policy.

### The potential opportunities presented by Taobao for villages

Through a central government policy implementation in 2009, China has redirected some of its investment and strategies into the rural area.<sup>13</sup> Taobao presented itself as an active actor in contributing to connecting rural communities and providing opportunities in terms of production, labor, and spatial organization. Through the platform, and the operational advantages it provides, villages have been able to develop new economic activities, such as online retail, manufacturing and logistics.<sup>14</sup> This process has led to the emergence of diverse village typologies, enabled by preexisting aspects that define the specific village resulting in a gradient of spatial scenarios from rural to urban.<sup>15</sup> The ability of villages to develop in relation to active central government investment and Taobao's platform has challenged the traditional urban-rural divide, as they have become active participants in the digital economy and urbanization processes.

One example is the "Junpu Village", in Guangdong province, which has transformed from a traditional agricultural settlement into a thriving Taobao enabled manufacturing and trade hub, attracting migrant workers and fostering new forms of spatial organization.<sup>16</sup> Similarly the studies by Yang et al. on Zhejiang province demonstrated how villages can benefit from Taobao's platform to drive rural development, integrating e-commerce, production, and community-based governance.<sup>17</sup>

These examples illustrate the diverse ways in which Taobao has enabled villages to redefine their roles within the broader process of urbanization, blurring the lines between urban and rural spaces and presenting new opportunities for economic and spatial transformation. The framework and level of transformation undertaken by villages are varied and complex, subject to the actors involved in the development process, the skillset available for production and the interplay between inhabitants and leaders that take place differently across villages.<sup>18</sup>



## TAOBAO VILLAGES: CONTEXTS

This section delves into the diverse contexts in which Taobao villages are inserted. In order to unfold a spatial understanding of the transformations that these villages undertake we looked into 3 case studies inserted namely in a rural, hybrid, and urban contexts. These categories are an initial attempt to establish a distinction between contexts in which to understand the spatial and organizational implications of the introduction of Taobao as a digital framework to develop businesses and manufacturing in the villages.

### Rural Taobao Villages

Rural villages have been defined as villages placed outside the city center and developed as a continuation of existing agricultural activities. These villages maintain that character, in their morphological condition, while integrating e-commerce as a new economic driver. The “Junpu Village”, for example, was already an agricultural settlement that transformed into a hub of online retail and production, using Taobao’s platform to connect to national and global markets.<sup>19</sup> This allowed the village to complement their production with small scale manufacturing and the clustering of businesses and therefore the diversification of their economic activities.<sup>20</sup>

Studies on rural villages have also observed how e-commerce incentivized villages could tap onto a wider customer base and increase their product complexity and therefore production output. Leading to an expansion of their production and community networks whilst attracting migrant workers to the area.<sup>21</sup> The influx of workers had led to the expansion of new residential areas and the emergence of commercial districts, further increasing the programmatic mix of those spaces.<sup>22</sup>

Challenging the assumption of morphological continuance as observed in the literature. The case study observed in Taishun province, exposed the interplay between the digital platform and the institutionalization of production. The regional production of small-to-medium enterprises have been redirected through the use of a single corporation with market access, namely Shanyou corporation.

As seen in figure 1, the building of Shanyou corporation doesn’t add to the transformation of production spaces of the village even though it is the representation of market accessibility enabled by its interface with Taobao. As seen in figure 2, the transformations incurred in the area are of land alteration, increased technology of production while retaining aspects of rural life that were previously existing in this context.



*Figure 1. Rural Village: Shanyou Corporation*



*Figure 2. Rural Village: landscape interventions*

### Hybrid Taobao Villages

Hybrid villages have been defined as a generic framework to understand spaces that take place in the liminal space between the city and rural areas. Diverse economic activities, ranging from online retail and manufacturing to logistics and producer services take place in these villages. Spatially, they retain the existing spaces of the village while programmatically included e-commerce activities within the mix of activities already present in the village resulting in a spatial mix of agricultural land, industrial facilities, and residential areas.<sup>23</sup>

The most prominent model of these villages is seen in Zhejiang province and has been studied and conceptualized by Yang et. al., in their study of Zhijiang village where they established the replicability of the “Zhijiang mode” in which villages establish a productive relationship between e-commerce, cooperativism, community-based governance, production and logistics.<sup>24</sup> Despite certain challenges such as labor access, knowledge training and entrepreneurship incentives, this model enables villages to diversify their economic activities through the creation of new kinds of work associated with the e-commerce industry.<sup>25</sup> The resulting spatial configuration blends agricultural, industrial, and residential elements, creating a hybrid landscape that defies simplistic rural-urban categorizations but nevertheless rely on infrastructure provision and knowledge dissemination.

The village of Beishan has been developing in direct correlation of government policies to incentivize e-commerce and production in the village. As observed in Figure 3, the display of Taobao’s logo further reinforce local engagement with the platform as underpinning aspect of village development. A rapid transformation has been also observed, with both an expansion of the village and the insertion of new infrastructure, such as a train station, to further connect logistically the village to the surrounding areas. Whilst maintaining its original morphological composition, new building types have been inserted allowing the diversification and expansion of its production capabilities. As expected from this kind of village, they retain certain aspects of their activities whilst introducing new typologies to accommodate the new activities enabled by the transformation undertaken by Taobao (Figure 4).



*Figure 3. Hybrid Village: Beishan – Entrance with Taobao logo.*





*Figure 4. Hybrid Village: Beishan – View from agricultural fields*

### Urban Taobao Villages

Urban Taobao villages, are developed in tandem with existing urban areas, e-commerce becomes therefore a catalyst for their transformation into dense, mixed-use settlements. This has been exemplified in the case of “Dafen Village” in Shenzhen, where the integration of online retail and production has led to a fast growth of the population, the construction of multi-story buildings, and the emergence of a vibrant commercial district.<sup>26</sup> Furthermore, this area has evolved from a traditional artist enclave into a thriving area of e-commerce driven manufacturing and trade, attracting a diverse population of entrepreneurs, migrant workers, and service providers. This process has led to the village becoming increasingly dense and mixed-use, with the provision of residential, commercial and industrial activities in the spatial pool. Urban Taobao villages, therefore, display spatial and organizational predispositions that are more similar to those of conventional urban areas, with their own centrality, programmatic mix and spatial resilience, and e-commerce acting as a catalyst to their development.<sup>27</sup>

The case study of Qunyan Liu corresponds directly to other examples found in the literature where the village’s proximity to consolidated production areas, such as Yiwu, enables a direct expansion of the village production in relation to existing regional logistics networks. The platform provides the digital infrastructure for market access and expansion resulting in deep transformations of the village both in terms of urban morphology and building type.

The morphological transformation of the village itself can be seen in the coherent reconstruction of its buildings in relation to planned streetscapes as can be seen in Figure 5. The homogenous age of the buildings corresponds also to the period of transformation undertaken since access to the platform. The insertion of public spaces, mixed-use buildings, greenery in the street profile, and considerate densification all showcase the process of spatial upgrades undertaken by the village.

Lastly, within the new building types, a consideration of spaces of production has been inserted as part of the building and urban mix (Figure 6). This has further expanded the possibility for residents to interact with the new village economy whilst retaining a clear distinction between different programs

contained in the new building types. As observed in the maps and analysis in Figure 7, the level of transformation seen in the village totally altered its initial morphological setup, literally expressing, formally, the new relationships of production enabled by the platform.



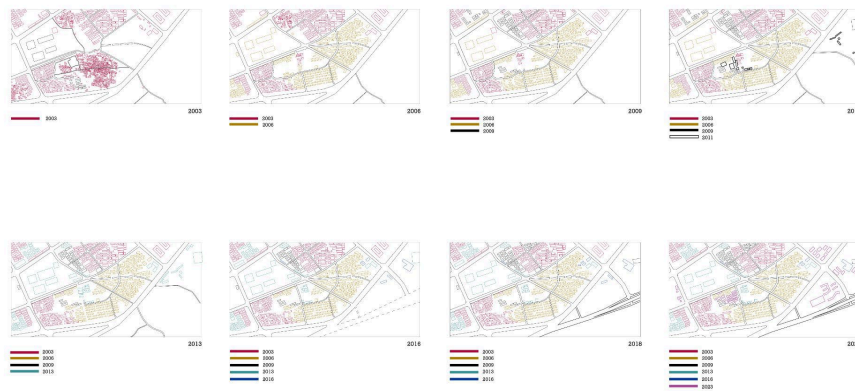
*Figure 5. Urban Village: Qinyan Liu – Aerial View*



*Figure 6. Urban Village: Qinyan Liu – Typological transformation of the village*



Urban development in Qingyan Liu Village  
From 2003 - 2023



*Figure 7. Urban Village: Qingyan Liu – Total morphological transformation*

These categories provided a tentative framework to analyze the contexts in which villages are inserted in order to understand the spatial implications of their transformation. The case studies aid to a comparative analysis that reveal several common themes. Across these examples, the integration of Taobao's e-commerce ecosystem has enabled villages to leverage their existing production capacities and community networks, which has led to a diversification of their economic activities and the emergence of new spatial configurations.<sup>28</sup> Furthermore, the degree of urbanization to which the villages are subjected to corresponds to the proximity to their respective contexts with their development responding to factors such as the village's proximity to urban centers, the scale and sophistication of their e-commerce operations, and the presence of supporting infrastructure and policies.<sup>29</sup>

Through this section we aimed to expose how village transformation in China is inserted in a complex set of relations, with multi-scalar processes at play at the intersection of e-commerce, production and urbanization. The rural-urban interface of these spaces is diverse but they all display certain organizational logics and spatial predispositions enabled by the platform, highlighting the need for a nuanced understanding to how platform capitalism is reshaping the spatial organization of their economic activities.<sup>30</sup>

## CONCLUSION

This paper aimed at illustrating three case studies in the larger context surrounding the spatial consequences of e-commerce platform interaction through Taobao and their associated strategies for village development. Through the paper, we unpacked some of the unique features of Taobao and how they enable novel spatial dynamics that challenge conventional notions of the rural-urban divide.

A few findings from both the literature and on-site observations can be summarized as follows:

The village typologies observed expose a gradient of urban development that responds to the existing contexts to where the villages were initially found. The insertion of Taobao's platform has enabled the development of villages in relation to these contexts, therefore using the platform to their benefit in relation to their existing production capacities and community networks. The platform, therefore,

contributed to the diversification and expansion of their economic activities leading to the emergence of new spatial configurations.

When interacting with the platform, villages, are inserted in a series of multi-scalar processes since they become part of the interplay between e-commerce, production and urbanization. The degree of urbanization and transformation they are subjected to corresponds to their contextual integration and the spatial proximity to consolidated urban areas enabling a spatial upgrade through government policies, platform investment and the relation to regional infrastructure.

Platform capitalism is a key player in reshaping the spatial organization and the underpinning economic activities of villages, physically, and sometimes virtually, blurring the boundaries between urban and rural spaces. This has also been seen in the purely rural context, where the platform reinforced an expansion of the virtual relationship between these spaces of production and a country-wide market.

These results add to an ongoing conversation around platform capitalism, economic digitalization and the changing urban-rural nexus. This review, in a theoretical level at least suggests there is a need to refine the tools to understand the changing face of spatial constitution of production, distribution and consumption processes by growing digital platforms. The phenomenon of Taobao villages further exemplifies how the reality is much more complex and multi-scalar when it comes to processes of urbanization, breaking simplistic rural-urban binaries.

The study also contributes to informing policy and planning actions for exploiting e-commerce potentials in promoting rural development and advancing regional integration. The variety of architecture and village typologies found in this research indicates that any interventions will need to be attuned carefully with the particular qualities, future scenarios or distinctive ways of life in the different aforementioned contexts.

Such analysis could be further enriched by extending the spatial extent and looking into other villages and spatial scenarios in order to grasp a broader picture of these phenomena. Second, focusing much more on the socio-economic and political forces behind how Taobao villages have come to be, and might continue change in coming years should shed light into broader questions of governance power. An area for deeper research should include discussing the implications of these transformations in environmental and social sustainability, those that will be under policymakers' and planners' pressure since they respond to risks and opportunities proposed by many digital economy processes.

However, the paper proposed an initial framework and lens to unpack certain relations and observe how Taobao villages are inserted in complex processes of urbanization enabled by the platform. Even though these are specific examples they could potentially be extrapolated to shed light in how rural areas enabled by Taobao are examples of how platform capitalism is reshaping the rural-urban interface, giving a glimpse into the evolving geographies of urbanization in the digital age.



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# MANAGING THE URBAN ABJECT: MEDIATIONS OF GOTHIC LONDON IN 21<sup>ST</sup> CENTURY FILM

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## INTRODUCTION

The camera slowly tracks in on a television flickering static in an empty London apartment. The composition of the frame is immaculate – white curtains backlit with blue light frame the TV set as an object while offsetting its televisual frame, echoing the interplay between blue and white static; a potted plant to the left of the frame balances the depth to the right as the room drops back to an out of focus table and chairs; the symmetry amplifies the uncanny affect, as though some kind of alien interior designer from the future has laid out this tableau for no-one to see.

But our serenity is forcefully de-composed when a film appears on the screen. In contrast with the design of the film proper, Prano Bailey-Bond's *Censor* of 2021, the film within the film appears poorly lit and chaotically composed. We watch a woman violently struggle as she's attacked, reminding us of the kind of low-grade exploitation trash that populated the horror section of the local video store in the 1980s. The medium bears this out – it appears low quality, the blurred white lines flickering across it recalling the marks of a damaged VHS tape that had been paused too often in “the good bits,” notably contrasting with the pristine 35mm film on which *Censor* is shot. As the choral sounds of the score crescendo, the film on the TV cuts to a low-angle shot looking up through trees, lit in a non-realist style: the moonlight filters up from below the trees as though it's coming from a set lamp, tinted pink; recalling post-Argento exploitation horror, the wood is transformed into a location that virtually demands some kind of horror unfold within it. Still tracking in, *Censor*'s camera reaches the edge of the image on the television, and the grain indicating that this is a VHS tape being filmed fuses with the grain of the film itself, so that, in a frame-inversion that would satisfy even the most stringent Ligottian, the movie playing on the TV screen becomes the movie that we are – and have been for the past hour – watching. Completing this merging of the frame of the film within the film and the film itself, we cut to film censor Enid (Niamh Algar) driving through the forest, as though she's somehow entered the image that was playing on the TV in her apartment, similarly lit with neon-Gothic rose tint. As the strong moral arm of Thatcher's Britain – the darling of the censor's office, all-too willing to humourlessly stamp “rejected” on the submissions that come across her desk as part of her crusade against films with titles like *Cannibal Carnage*, *Rat Brothel* and *Extreme Coda* – Enid seems to have finally entered her own Video Nasty. She is convinced that her sister Nina, missing since she was seven following a gambol in the woods, is in fact alive, an actor in one of the juicy masterpieces that has come across her desk. Enid now ventures to save her little sister from evil exploitation film directors and axe-wielding giants. Enid's dream – that she is the morally righteous alien in a debauched contemporary world – has finally come

true. She has entered the comforting moral universe of a low-budget horror film in the role of the aggrieved victim-come-heroine; she has undergone a full-blown apotheosis into Gothic protagonist. Never mind that she's just murdered sleazy producer Doug Smart (Michael Smiley) in his London suburban house, staged by Bailey-Bond in a way that would raise Enid's professional ire – she tackles him to the ground so he is brained by the statuette of an American horror film award, the figure atop the pedestal protruding from his mouth as he chokes to death, gargling blood – or that the rest of the world seems to have moved on from blaming her for passing the film *Deranged* that supposedly led to the “Amnesiac Killer” murdering his wife and eating her face before killing their two children – Enid is the sane, good one in the (her) story.

The film thus epitomises the guilt-fantasy complex of the moral crusader; in Enid's case, this is related to her murder of her sister (which we suspect she committed from an early stage in the film, based on her increasingly erratic behaviour), but in the case of the era of the film, it's explicitly connected to Thatcherist policies. At an early point we see news footage of Thatcher lambasting “revolutionaries” during the miner strike; at another point, Enid witnesses a heated domestic argument on the tube about a person losing their job. The worse social and economic conditions become in London – and Britain more broadly – the more vicious the attacks on horror films by politicians and the press, the film suggests.

*Censor* thereby stages horror – both at a personal psycho-emotional level, for Enid, but also at a social level – as a kind of post-traumatic response attempting to manage the relationship between public and private, a fantasy facilitating continued social existence, a narrative-affective complex making liveable the (eroding) public city. The tension between the film as a product of 2021 and its delight in a retro Video Nasty aesthetic (incorporating everything we remember fondly from the era, including a scene in a grimy suburban video shop) bolsters its critique of the dissolution of the boundaries between public and private, projecting anxieties regarding the increasingly private function of popular media – the fear of home video has always involved a paranoia regarding private space, with the VHS craze moving cinema from public spectacle to private dreamscape – to suggest something both fascinating and horrific about the contemporary privatisation of public space.

In a movement not dissimilar from Todd Phillips' *Joker*, *Censor* embeds the horror-fantasy of Enid – in both objective and subjective senses (in her horror fantasy, she is a heroine, in the objective horror fantasy, she is a murderous lunatic) – in a historical moment involving the systematic destruction of the social fabric of the city through policies that filter resources to the wealthy.<sup>1</sup> The film thereby opens lines of inquiry into the constitution of the Gothic under late capitalism.

What happens to the mode in the late 20<sup>th</sup> and early 21<sup>st</sup> centuries? What continuities situate a film like *Censor* within the Gothic tradition, but, more significantly, what features seem to stick out as unique to Gothic produced under the sign of neoliberalism? Does the Gothic still maintain its originary function as both product and salve of the ravages of modernity, allowing the management of the unliveable urban through its sublimation into a kind of abject – and thereby controllable – affect? Or does the proliferation of contemporary networks transform this Gothic *ethos* into something other than – or a different kind of – psychic management technology?

London seems the perfect city in relation to which this essay can begin to address these questions.

## GOTHIC LONDON AND “NEOLIBERAL GOTHIC”

The Gothic is one of the fundamental aesthetic systems through which London in modernity is imagined and psychically inhabited. From its emergence as an industrial metropolis in the Victorian period, London is etched into the popular imagination as a frenzied spectacle of danger and vice: the thick industrial smog blanketed social deviants in a gleeful anonymity, hence the emergence of figures like Jack the Ripper (the “prototype of the serial killer,”<sup>2</sup> according to Mark Seltzer), psychopathic flâneurs

who expertly navigate the labyrinthine passageways and alleys of London, violently disrupting the insulated safety of pre-urban modes of living.

More than social deviance, however, the logistical, social and cultural issues that face the city facilitate these representations of London as Gothic. For example, as Roger Luckhurst points out, one of the major logistical concerns of urban London in modernity, the disposal of corpses, shaped public policy in the Victorian period.<sup>3</sup> In response to the public outrage at the nonchalant disrespect for the urban dead emerging in response to the graverobbing across Britain, from Edinburgh to London,<sup>4</sup> the British Parliament introduced the Burial Act of 1857, which prevented the disturbance of graves for reuse without governmental permission, shifting the disposal of corpses away from the overflowing graveyards of the city to their suburban brethren. Indeed, Luckhurst attributes the emergence of the “Penny Dreadful” literary system to this logistical manifestation of the urban as abject, where the violent exploits of canonical figures like *Sweeney Todd* and *Varney the Vampire* function as “an ideal vehicle to confront a specific concern of urban modernity: the overwhelming number of the urban dead.”<sup>5</sup>

Several other scholarly studies – including notable works by Robert Mighall<sup>6</sup> and Jamieson Ridenhour<sup>7</sup> – have critically mapped the relationship between urban space in Victorian London and its Gothic renderings, suggesting that the Gothic reflects Victorian anxieties about the urban in modernity; Marx himself utilised Gothic tropes in his description of the toil and suffering produced by industrial capitalism.<sup>8</sup> But what about the urban Gothic in postmodernity?

The difficulties of managing urban space have certainly not been resolved (or even ameliorated) in postmodernity. The economic upheavals of neoliberalism, realised through Thatcher’s dismantling of the British welfare state, introduced a new spate of urban crises that the Gothic continues to aestheticise, embody and reflect though, arguably, in a nostalgic way – indeed, as part of a tourist economy – that is a far cry from the reality of robbing graves. Notably, Goth rock emerged as a globally popular sub-genre from the grimy urban corridors of Thatcher’s Britain. In London, the “Batcave” nightclub – a central site of goth rock, an antiestablishment, cultural reaction to neoliberalism in the 1980s – featured entrance by open coffin. The tourism economy of London increasingly leans into its Gothic history: on any given day, one can enter the Baker Street residence of Sherlock Holmes, visit the Catacombs, and embark on one of the many Jack the Ripper tours around Whitechapel.

Our discussion of “neoliberal Gothic” diverges from the work of Linnie Blake, who coined the term and is its most prolific analyst. Blake (and her occasional co-author, Monnet) argues that works of neoliberal Gothic use Gothic tropes to actively engage in an exploration and critique of the social, economic and cultural impacts of neoliberal ideology;<sup>9</sup> these texts thereby force us to confront “the ways in which we have been made monstrous by the workings of capital.”<sup>10</sup> This limits the understanding of contemporary Gothic to the allegorical and the representative – Blake limits the discussion to works that thematically and self-consciously critique the cultural, economic and political forces of neoliberalism – rather than considering the way contemporary Gothic texts unconsciously channel and reflect the neoliberal forces of the contexts in which they have been made. Blake’s corpus, then, seems imprecise; in contrast, we use the term to refer to any Gothic text produced under the star of neoliberalism, following the axiom that popular works most effectively open a critical interrogation of the forces that produce them when this analysis does not operate at an explicit thematic level within the text itself.

In the opening chapter of his book *The Dead City: Urban Ruins and the Spectacle of Decay*, Paul Dobraszczyk argues that representations of London’s ruin in Victorian art “opened the door to a redemptive way of thinking about and working through the very possibility of that ruin.”<sup>11</sup> And Japhy Wilson, remarking on the scholarly tendency to characterise neoliberalism itself as a Gothic monster, notes the function of neoliberalisation as “an anxious form of crisis management, which evolves through



its failed attempts to conceal its repressed knowledge of the Real of Capital.”<sup>12</sup> In a similar vein, we argue that contemporary horror films set in London facilitate the management of the urban abject, embroccating the social ills of neoliberal urbanism within the parameters of the pleasures of popular media. This is consonant with the function of the Gothic from its inception as a kind of affective technology, rendering the emotionally unassailable parts of urban experience in such a way that they become psychically manageable and bearable; the affective contours of the Gothic make the unliveable liveable through its sublimation into monstrous and abject form. As a balm for the depressing banality of a Thatcherist and post-Thatcherist world, the urban Gothic becomes a site for the re-enactment and performance of horror, a nostalgic imaginary. Yet the Gothic was *always already* characterised through its waves of nostalgia, going back to its origins in works like *The Castle of Otranto*. Is it, then, that the nostalgia in postmodern Gothic becomes transmuted from a private affect – a Blochian desire for *heimat*<sup>13</sup> – into a kind of matter of public policy?

Indeed, as opposed to the private media that were essential to the narrative function of classic Gothic – the novel and the boudoir mirror – mass media seem to both define and critically function in contemporary Gothic, staging what we suggest is its definitive characteristic – the saturation of the tension between public and private with lashings of horror. Neoliberal anxieties regarding the privatisation of public media – anxieties that all these texts explicitly stage – seems antithetical to the frenzied “privatization of hitherto public assets [which] has been a signal feature of the neoliberal project”.<sup>14</sup> In both depicting and embodying this contradiction, these films appear to critique the paradoxical coexistence of neoliberalism – the theory – and the actual practice of neoliberalisation.<sup>15</sup> Contemporary Gothic London texts like *Censor*, *Creep*, and *Dream Demon* thereby reflect critically on the disconnection between public message and private ownership in media, where individuals become more aware but, dialectically, as Luhmann shows, become more ignorant *en masse*.<sup>16</sup> Furthermore, the specific spaces of London in contemporary urban Gothic shift to locations involving transit – the underground, cars, etc. – simultaneously fetishizing and critiquing the constant flow of people as services and goods in late capitalism. The individual thus becomes constituted as an alienated, relentless worker, navigating an increasingly eroding public space reflective of neoliberal degradation.

## DREAM DEMON AND CREEP

Mass media define postmodern urban space; as Manuel Castells suggests in *The Informational City*,<sup>17</sup> the information age has reshaped the organisation of urban space, eroding public places in favour of spaces that facilitate the flow of capital – this is reflected in the erosion of public housing in London corresponding with the rise of increasingly precarious work.<sup>18</sup> It seems apt that Gothic depictions of the city in contemporary horror film and television respond to this shift by making mass media – and its role in staging the tension between public and private, the tension of urban space itself – the thematic and narrative centre of their Gothic imagining.

One of the earliest examples, Harley Cokeliss’ 1988 film *Dream Demon*, filters its narrative of fantasy intruding upon reality (in the vein of earlier films like *A Nightmare on Elm Street*) through a discourse surrounding the erosion of the boundaries between public media and private domesticity, realised when the journalists stalking heroine-socialite Diana Markham (Jemma Redgrave), the naive fiancé of Falklands War hero Oliver (Mark Greenstreet), transgress the private bounds of her Belsize Park residence and descend into the dream world, haunting her nightmares in a way that has fatal consequences in waking reality. This dual transgression – between public and private spaces, fantasy and reality – maps, of course, one of the critical tensions performed by mass media. At a crucial point in the film the location of terror shifts from Diana’s home to the hotel room of her American friend Jenny (Kathleen Wilhoite), a transient space in which the public and private are once again oddly fused.

In so doing, *Dream Demon* embeds its critique of neoliberal London within the increasing erosion of the demarcations of space in urban postmodernity,<sup>19</sup> to spatially render and reflect all that threatens to erode the sanctity of the bourgeois individual: Diana's constant worries that she is going insane seem to reinforce this idea, suggesting a rotten core at the heart of neoliberalism's relentless reification of the self.

Conversely, *Creep* stages the horror of the erosion of public space less through an interrogation of mass media – although mass media does catalyse the narrative, with protagonist Kate (Franka Potente) going into the underground late at night to travel to a club where George Clooney is supposedly waiting, so she can seduce him – than through the terror implicit in the “non-places”<sup>20</sup> that have become ubiquitous in urban postmodernity.

Jimmy (Paul Rattray), Kate's companion and a homeless subterranean dweller, describes the underground as “a rabbit warren [...] There's 400 miles of track down here, plus loads more that ain't in use.” The London Underground becomes characterised by an eerie stasis; evil lurks around every corner and in every corridor of the vast network, with the abject rising to the surface. As Mark Seltzer argues, serial killing exists at the node where ‘private desire and public space cross’<sup>21</sup> – what is this, if not the threat of the eponymous *Creep* imbuing the public space of the London underground with his own private fantasy by enacting violence on his victims? Perversely, however, the film's depiction of the underground as the site of abjection and violence fetishizes it as a public space where class categories are simultaneously reified and blurred – Jimmy attempts to help middle-class Kate escape the labyrinthine nightmare, who survives the dreadful night only to be reconstituted as one of the homeless: in the final scene of the film, a bloodied and filthy Kate sits on the platform floor in total exhaustion, and the faceless suits arriving for their morning commute place change at her feet.

## CONCLUSION: THE WARD BENEATH THE STREET?

In the closing sequence of *Censor*, Enid – having rescued her sister and redeemed herself by lopping off the head of Video Nasty director Fredrick North after sticking an axe in actor Beast Man's heart – drives with Nina towards their family home. They look at each other and smile, blissfully reunited at last, as we hear over the car radio: “And what's fascinating is that now that these issues have been dealt with properly the video nasties have been eradicated completely. The crime rate in Britain has actually dropped to zero. It's just like we said – the streets of Britain are safe at last.”

Suddenly, in a kind of inverse of a picnoleptic moment – an increased presence, an aesthetic of surfacing rather than a Virilian disappearance – the “tape” of *Censor* glitches and the pastel coloured, blooming image of Nina leaning out of the window and smiling transforms into a blue-tinged, monochromatic image of Alice screaming in terror, the aberration in the image indicating the cut between Enid's VHS-inspired fantasy and her reality as an axe-wielding lunatic. The radio broadcast continues: “The employment rate is at a record high. The criminals are all locked up. There's nothing to be afraid of.” As the image resolves once more into the censor-murderer's fantasy-image, a rainbow appears arching over the country road, and then again on the suburban street where Enid pulls up, haloing the family home. But there are more glitches, and each one reveals the increasingly horrific world being “taped over” by Enid's fantasy.

Perhaps this is analogous to how the Gothic continues to function in the 21<sup>st</sup> century. It helps us manage living in the banal nightmare of neoliberalism by channeling the dismal reality of precarious employment and impossible property-prices into atmospheric chills and lurid, brilliant screams; but *Censor* also shows us its awareness of the violence this fantasy secretes. And this awareness of mode seems to be one of the key characteristics defining all contemporary mediations of Gothic London: the beach beneath the London street isn't a beach at all – it's a sick ward full of howling orphans.

## NOTES

<sup>1</sup> “Trickle-up” economics, as Mattes has written elsewhere. See Ari Mattes, “Imagining Excess: Ideology in Contemporary Hollywood’s Florida,” *Journal of Popular Culture* 50, no. 3 (2017): 626.

<sup>2</sup> Mark Seltzer, *Serial Killers: Death and Life in America’s Wound Culture* (New York, NY: Routledge, 1998), 8.

<sup>3</sup> Roger Luckhurst, “The Necropolitan Gothic,” in *The Palgrave Handbook of Gothic Origins*, ed. Clive Bloom (Cham, Switzerland: Palgrave Macmillan, 2021), 263.

<sup>4</sup> There was an outbreak of grave robbers stealing from the public graves that littered the city, selling corpses for profit to anatomical researchers. This culminated in the infamous case of Burke and Hare, who began as body snatchers in Scotland but ended as serial killers, murdering sixteen people in 1828 and selling their bodies to a local doctor; their work influenced the “London Burkers,” who similarly murdered for profit in the Shoreditch area in 1831.

<sup>5</sup> Luckhurst, “The Necropolitan Gothic,” 264.

<sup>6</sup> Robert Mighall, *A Geography of Victorian Gothic Fiction: Mapping History’s Nightmares* (New York, NY: Oxford University Press, 1999).

<sup>7</sup> Jamieson Ridenhour, *In Darkest London: The Gothic Cityscape in Victorian Literature* (Plymouth, UK: the Scarecrow Press, 2013).

<sup>8</sup> Karl Marx, *Capital: A Critique of Political Economy, Volume 1*, trans. Ben Fowkes (London: Penguin Classics, 1990). Marx famously writes that “Capital is dead labour which, vampire-like, lives only by sucking living labour, and lives the more, the more labour it sucks.” (342) He later decries “the werewolf-like hunger for surplus labour.” (353)

<sup>9</sup> Linnie Blake and Agnieszka Soltysik Monnet, “Introduction: Neoliberal Gothic,” in *Neoliberal Gothic: International Gothic in the Neoliberal Age*, eds. Linnie Blake and Agnieszka Soltysik Monnet (Manchester: Manchester University Press, 2017), 3. Here they claim that neoliberal Gothic texts “deploy gothic conventions specifically to expose and critique the material actualities of the present.”

<sup>10</sup> Linnie Blake, “Neoliberal Gothic,” in *Twenty-First-Century Gothic: An Edinburgh Companion*, eds. Maisha Wester and Xavier Aldana Reyes (Edinburgh: Edinburgh University Press, 2019), 61. This statement is once again made by Blake in “The Gothic in the Age of Neoliberalism, 1990-Present,” in *The Cambridge History of the Gothic Volume 3: Gothic in the Twentieth and Twenty-First Centuries*, eds. Catherine Spooner and Dale Townshend (Cambridge: Cambridge University Press, 2021). See page 284: “Neoliberal Gothic [...] returns us repeatedly to the ways in which capital has made us monstrous.”

<sup>11</sup> Paul Dobraszczyk, *The Dead City: Urban Ruins and the Spectacle of Decay* (London: I.B. Tauris & Co, 2017), 25.

<sup>12</sup> Japhy Wilson, “Neoliberal Gothic,” in *The Handbook of Neoliberalism*, ed. by Simon Springer, Kean Birch and Julie MacLeavy (New York: Routledge, 2016), 593.

<sup>13</sup> See Ernst Bloch, *The Principle of Hope: Volume Three*, trans. Neville Plaice, Stephen Place and Paul Knight (Cambridge, MA: MIT Press, 1995), 1376.

<sup>14</sup> David Harvey, *A Brief History of Neoliberalism* (Oxford: Oxford University Press, 2005), 160.

<sup>15</sup> In their recent book, Monbiot and Hutchison note the way neoliberalism “valorizes and fetishizes competitive enterprise, while in reality rewarding and empowering the established wealth that controls crucial assets.” See George Monbiot and Peter Hutchison, *The Invisible Doctrine: The Secret History of Neoliberalism (& How It Came to Control Your Life)* (London: Allen Lane, 2024), 40.

<sup>16</sup> See Niklas Luhmann, *The Reality of the Mass Media*, trans. Kathleen Cross (Stanford: Stanford University Press, 2000), 25.

<sup>17</sup> Manuel Castells, *The Informational City: Information Technology, Economic Restructuring, and the Urban-Regional Process* (Oxford: Blackwell, 1989), 6.

<sup>18</sup> Similarly, in *The Guardian*, 25 June 2024, we read: “wage stagnation was part of a ‘toxic combination’ of insecure work and cuts to social security that had had a devastating impact on household budgets [...] increasing the number of children in poverty with at least one parent in work by 900,000 between 2010 and 2023.” (1) And: “The number of people in precarious employment – such as zero-hour contracts, low-paid self-employment and casual or seasonal work – increased by nearly 1 million between 2011 and 2023. [...] To improve the employment rate, parties would need to increase the participation of certain groups in the workplace, including older workers, women with children and those affected by ill-health and disability. The Tories have said they would do this by toughening up sanctions for people on unemployment benefit and cutting national insurance contributions, which would have small positive impacts on employment by increasing the benefit of working.” (2)

<sup>19</sup> The resultant anxiety regarding the imbrication of urban space has been noted by Rem Koolhaas. See “Junkspace,” *October* 100 (Spring 2002): “Junkspace is additive, layered and lightweight, not articulated in different parts but subdivided, quartered the way a carcass is torn apart – individual chunks severed form a universal condition. There are no walls, only partitions, shimmering membranes frequently covered in mirror.” (176)

<sup>20</sup> Marc Augé, *Non-Places: An Introduction to Supermodernity*, 2nd ed (London: Verso, 2008), 64.

<sup>21</sup> Mark Seltzer, “Wound Culture: Trauma in the Pathological Public Sphere,” *October* 80 (Spring 1997): 3.

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# RITHMANALYSIS: WATERFRONT CITY RE-ORIENTATION KAYOON FLOWER MARKET SURABAYA

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## INTRODUCTION

Architecture addresses the issues encountered in daily living. The result of architecture is a product of collaboration that encompasses diverse requirements, referred to as architectural symbiosis. This symbiosis amalgamates several components to provide reciprocal advantages, aspiring to actualise the notion of "Living Together." A manifestation of this symbiosis is public space, which arises from the necessity for individuals to engage in activities within an area. The presence of these public areas, in turn, influences the nature of the surrounding environment, economy, and context.

In the contemporary context, public spaces undergo character transformation in line with the times and adaptation of community needs. The Kayoon region exemplifies this transition process distinctly. Situated along the Kalimas River, Kayoon was historically regarded as the commercial nucleus and epicentre of Surabaya, where communal activities were concentrated along the river, rendering it a strategic and prominent locale. Historically, the Kayoon area was an exclusive residential enclave situated along the river. Nonetheless, evolving economic demands have converted it into one of Surabaya's most significant flower marketplaces (Figure 1). This previously damaged region is currently being rejuvenated with the incorporation of parks along the riverfront.



*Figure 1. The Previous and Current Kayoon Situations.*

This research aims to redesign Kayoon Flower Market by harmoniously combining old and new elements. This approach carries the concept of “Honoring History and Culture,” integrating traditional customs with modern advances. This integration approach employs rhythm analysis as a crucial technique to comprehend and interpret the historical significance of the riverbank region and the dynamics of a contemporary flower market. An well organised and analysed rhythm can yield a more cohesive and significant design.

The development of the Kayoon area necessitates the amalgamation of the rhythmic characteristics of the riverfront with the novel rhythms established in the flower market. The symbiosis of these two aspects might enhance the area's role as a strategic flower market while augmenting the visual and functional value of the riverfront public space. This integration not only fosters the rejuvenation of the local economy but also substantially aids in the cultivation of a harmonious and sustainable environment. Consequently, the Kayoon region exemplifies spatial management that harmoniously integrates historical values, culture, and contemporary needs.

### Macro

The Kali Mas River has profoundly impacted the development of Surabaya, with the city's attention increasingly centring on the river as a principal element. The Surabaya City Government has undertaken initiatives to revitalise public areas along the riverfront, intending to convert it into a vibrant hub for tourist, economic activity, and cultural involvement.<sup>1</sup> This river possesses significant potential for further development, especially in the tourist industry, where attractions like boat trips and the scenic vistas of the Kali Mas River are the primary appeals.<sup>2</sup> Moreover, the Kayoon Riverside Area has developed into an economic hub, propelled by a swiftly expanding flower market centre, so augmenting the region's attractiveness and reinforcing its significance in the comprehensive urban development strategy (Figure 2).<sup>3</sup>

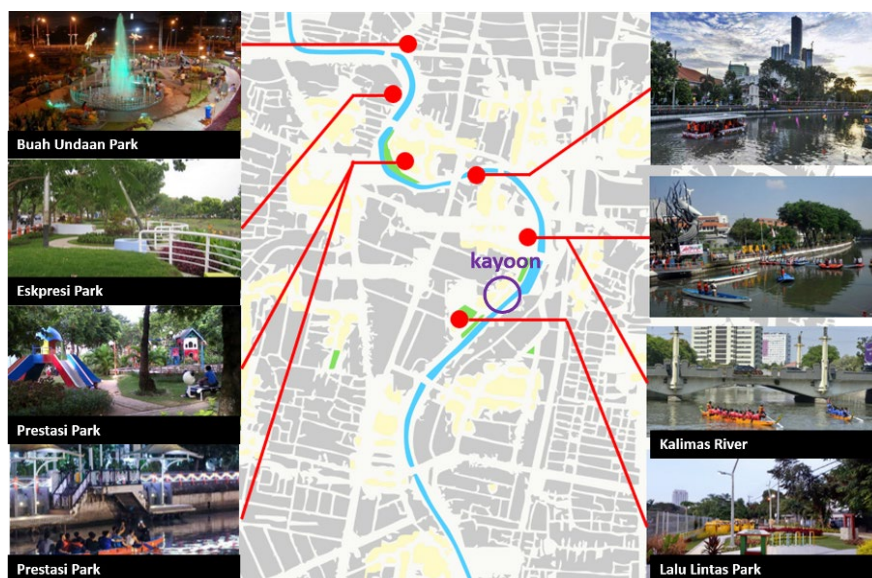


Figure 2. Mapping Urban Public Space Along the Kalimas Riverbanks.

### Micro

Kayoon Flower Market encounters difficulties with accessibility and suboptimal circulation.<sup>4</sup> The alteration in the area's direction has transformed the riverside, once a public space, into a private one owing to the construction of residences owned by flower sellers.<sup>5</sup> The situation is aggravated by the



congested configuration of the market, where the movement of patrons, traders' operations, and the loading and unloading of items occur in the same vicinity, resulting in discomfort.<sup>6</sup> Moreover, constricted pathways and insufficient ventilation further aggravate the circumstances (Figure 3). A redesign initiative is necessary to enhance the quality of Kayoon Flower Market by optimising the layout and implementing a more efficient architectural design.

### **Approach: Symbiosis Architecture**

Symbiosis is a harmonic amalgamation of diverse cultural aspects that confer reciprocal benefits.<sup>7</sup> This notion involves the synthesis of humanity and technology, the harmony of historical and futuristic elements, and the equilibrium between rationality and intuition.<sup>8</sup> The symbiotic approach is crucial in architecture, as it is not naturally perfect.<sup>9</sup> This approach aims to design with consideration for the integration of multiple cultures across different contexts.<sup>10</sup>

The core tenet of symbiotic architecture is the amalgamation of ancient and contemporary components, encapsulated in the notion of Respect for History and Culture.<sup>11</sup> This methodology emphasises the evolutionary trajectory from the past to the present, examined through a diachronic lens to elucidate the transformations that transpired in a specific area across time.<sup>12</sup> By using this approach, it is anticipated that architecture would possess an organic and dynamic quality, enabling structures to evolve and adapt with changing times.<sup>13</sup> The final outcome is an architectural work that addresses contemporary requirements while embodying fundamental ideals and principles of sustainability in design.<sup>14</sup>

Four primary ideas of symbiotic architecture may be implemented across several disciplines.<sup>15</sup> The symbiosis between humans and nature delineates the integrative link between humans and both natural and artificial factors.<sup>16</sup> Humans engage with the natural environment, including trees, birds, and water, while also constructing manmade components like lakes, docks, and technologies that, over time, integrate into the greater concept of nature.<sup>17</sup> This concept asserts that nature is an everlasting creation of God, but human-made components are artificial and ephemeral, establishing a balance between two distinct yet complementary entities.

Additionally, the symbiosis between science (technology) and art (humanity) underscores the incorporation of technology as an extension of human needs in daily life. Technology, although appearing autonomous, is engineered to effectively enhance human endeavours, shown by its application in architecture to augment comfort and efficiency.<sup>18</sup> This link exemplifies the symbiosis between rationality (technology) and intuition (art), forming the foundation of compassionate and practical architecture.<sup>19</sup>

Furthermore, the symbiosis between public and private sectors physically and visually blends public, semi-public, and private places to foster dynamic social interactions.<sup>20</sup> In residential design, the living room serves as a public area accessible to visitors, the bedroom acts as a private space reserved for inhabitants, and the family room operates as a semi-public zone that links the two. This approach establishes a balance that facilitates spatial flexibility based on the user's needs.<sup>21</sup>

The symbiosis between past and present emphasises the incorporation of historical values and traditions into modern creations.<sup>22</sup> The diversity of contemporary architecture frequently stems from the adaptation of historical traditions and symbols, whether in structure, concept, or materials. This idea promotes sustainability by using resources previously deemed garbage, therefore producing works that are both contemporary and sustainable.<sup>23</sup>

Through the integration of these ideas, symbiotic architecture produces structures that are both functional and organic, exhibiting dynamic qualities that allow for growth and evolution throughout time.<sup>24</sup> This approach fosters synergy among individuals, technology, culture, and environment, culminating in architecture that embodies the principles of sustainability and diversity across diverse contexts.<sup>25</sup>

## Method: Rhythmanalysis

The framework employed is a force-based framework that utilizes a bottom-up system. It starts with raw data, which is then transformed into assets and constraints that directly influence the design process. To effectively acquire this data, we apply the method of rhythmmanalysis, as articulated in Henri Lefebvre's 'Elements of Rhythmmanalysis'.<sup>26</sup> The rhythmmanalysis approach employed herein aims to encapsulate environmental, economic, and social rhythms, which are then symbiotically amalgamated to provide designs that honour and leverage local values.<sup>27</sup> Lefebvre critiques uniform design methodologies that frequently overlook local rhythms and settings, resulting in environments devoid of identity and connection with their users.<sup>28</sup> Conversely, design that takes into account local rhythms may provide places that embody the distinct personality of their communities, such as developing interactive public areas or re-establishing links with environmental features like rivers.<sup>29</sup> This method guarantees that the created area is both visually functional and a sustained, significant aspect of the community's everyday existence.<sup>30</sup> This approach to rhythmmanalysis is critical, as it captures the essential characteristics and elements that will be symbiotically integrated. As previously noted, this symbiosis merges old and new elements or characteristics.<sup>31</sup> Thus, rhythmmanalysis plays a decisive role in identifying and harnessing these elements efficiently and effectively.

## Tracing

Tracing is employed as a complementary method to rhythmmanalysis, aimed at identifying rhythms that should be reused or adapted in the design process.<sup>32</sup> As outlined by Collier in Understanding Process Tracing, this method is instrumental in analyzing qualitative data by establishing cause-and-effect relationships.<sup>33</sup> Tracing captures significant elements, phenomena, or rhythms from both the past and the present, which are then analyzed and translated into actionable architectural responses.<sup>34</sup> In this study, tracing is applied to observe the rhythms along the Kalimas Riverbank, particularly in the Kayoon section, and to analyze the ongoing transformations in the area. Rhythm, in this context, is understood as an initial condition that evolves over time, leading to either the emergence of new rhythms or the persistence of existing ones.<sup>35</sup> These rhythms, composed of smaller, particular rhythms that adapt or remain unchanged, collectively generate new meanings without negating the original significance. The tracing process thus provides valuable insights into how these rhythms can be reinterpreted and integrated into the architectural design, ensuring a balance between preservation and innovation.<sup>36</sup>

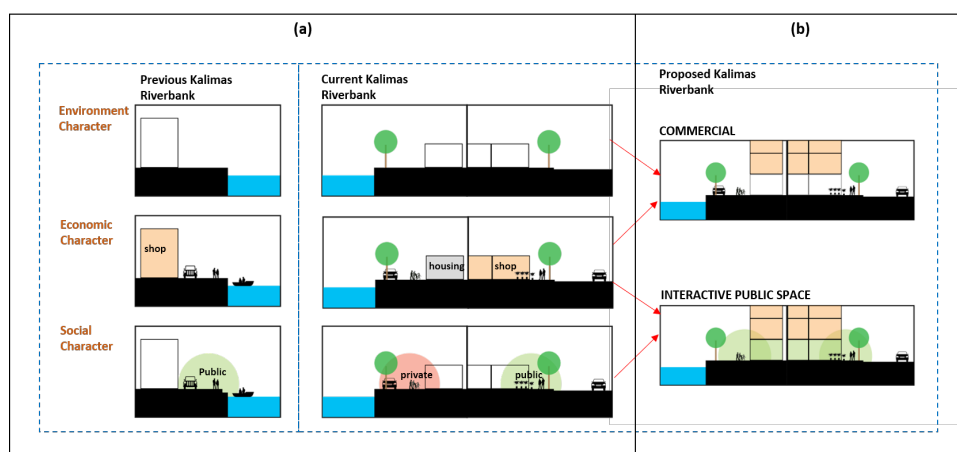


Figure 3. Translating the Rhythm into Design Process.

This figure illustrates the process of converting rhythm into the design of the Kalimas Riverbank region, encompassing three primary dimensions: environmental, economic, and social characteristics. The

region, in its initial state, had a simplistic nature characterised by a riverbank devoid of supplementary features, economic activity confined to modest kiosks, and minimal social space for communal engagement. The evolving situation indicates the incorporation of new components, including the introduction of vegetation to enhance environmental quality, the amalgamation of residential and commercial functions to bolster economic activity, and the segmentation of social space into more structured private and public areas.<sup>37</sup>

## Design Criteria

The symbiosis of two rhythms has led to the development of a new object with both commercial and public space functions.<sup>38</sup> The redesign of the Kayoon Flower Market entails the alteration of the market's layout while preserving and adapting the old riverbank rhythm. The preserved market layout incorporates the shape and arrangement of the kiosks, while the riverbank rhythm involves orientation and openness. This redesigned market will seamlessly integrate the characteristics of both the riverbank and the current market. Furthermore, to enrich the symbiosis, the following additional criteria will be considered in Figure 4.

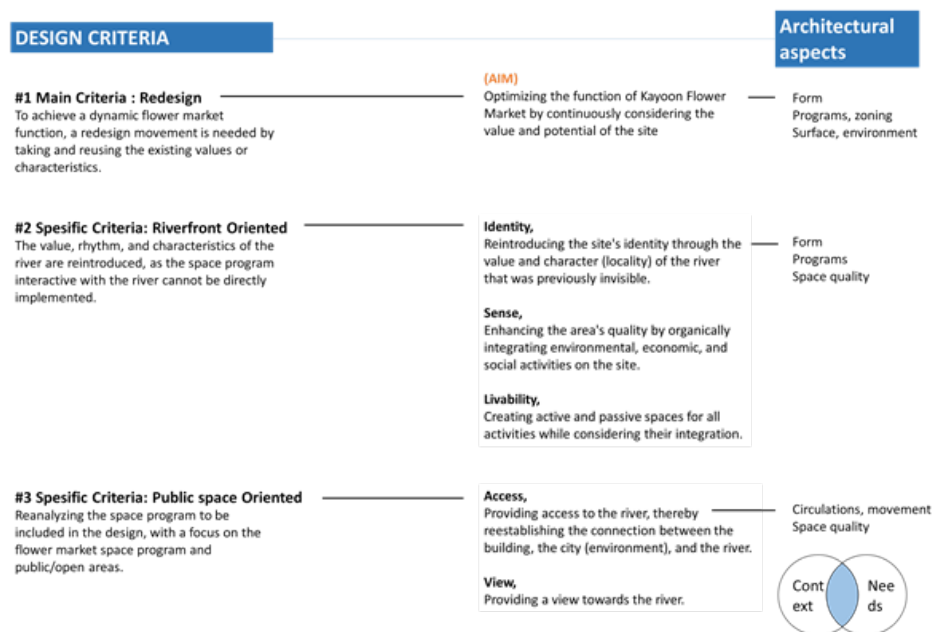


Figure 4. Design Criteria Diagram.

Three primary criteria are designed to enhance market functionality while reinforcing the connection with the attributes of the surrounding environment, particularly the banks of the Kalimas River. The primary criteria is redesign, which seeks to establish a more dynamic market by retrieving and reusing existing values and characteristics. This process highlights the market's structure, programming, zoning, and physical surroundings, resulting in a more cohesive design that aligns with the site setting.

The second criterion is orientated towards the riverfront. This criteria underscores the reintegration of the values, rhythms, and attributes of the Kalimas River as a fundamental component in the design. This strategy aims to rejuvenate local identity by reinforcing the connection between the marketplace and the river.<sup>39</sup> The quality of space in the region is improved by the organic integration of environmental, economic, and social activities. The outcome is a place that facilitates public activities while embodying sustainability and aligning with the local character.<sup>40</sup>

The third criterion is orientated towards public space. The emphasis is on reevaluating the space program to enhance the connection among the market, public open space, and the river.<sup>41</sup> The design

prioritises accessibility by establishing walkways to the river, fostering links among the building, the city, and the natural environment. Moreover, the focus on river vistas seeks to enhance the visual experience for guests, making it more engaging and enjoyable. The integration of these three objectives aims to fulfil the functional and aesthetic demands of the market while enhancing the connection between commercial and public spaces.<sup>42</sup> This method harmonises local context with contemporary requirements, resulting in a design that is both sustainable and enduring.<sup>43</sup>

### Riverfront Oriented

The Kayoon neighbourhood is identified as the hub of the flower market in Surabaya City.<sup>44</sup> The forthcoming rhythm will be characterised by the ongoing expansion of flower market operations. The river is the predominant feature of the former Kayoon region.<sup>45</sup> To restore and emphasise the river's character, the attributes from the prior river character are utilised. The activities that may be conducted with the river are severely restricted due to the lack of direct interacting possibilities.<sup>46</sup> The general character of the river is assessed by examining the topographical features that arise indirectly from prior fluvial activity.<sup>47</sup> This initiative seeks to enhance public accessibility to the riverside through the establishment of pathways and access points.<sup>48</sup> Due to the inability to regulate the river directly, the principle of elevation (Figure 5) is utilised in the configuration and design of kiosks to enhance the significance of the river. The primary characteristics examined in this context are identity, feeling of place, and liveability.

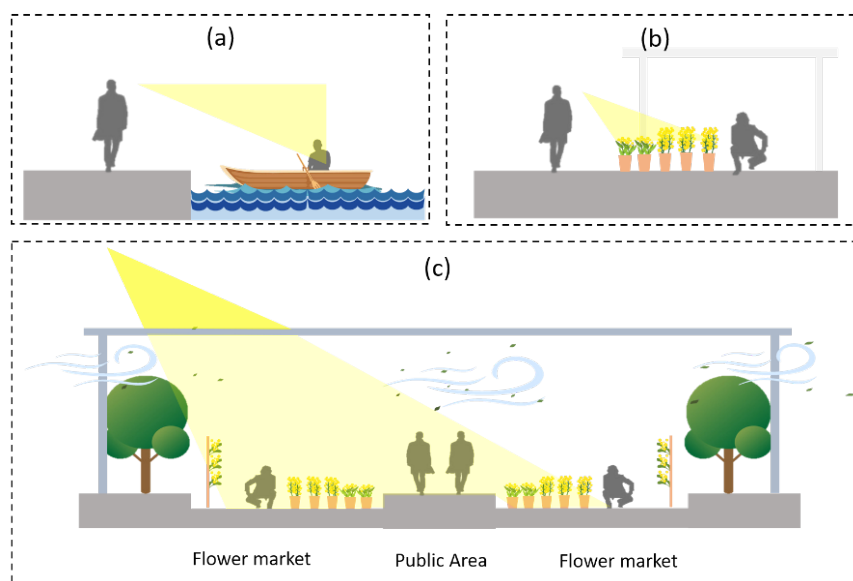


Figure 5. (a) Riverbanks Character. (b) Flower Market Character. (c) Proposed Concept.

This figure illustrates the characteristics of the riverbank, the flower market, and the proposed architectural idea for their integration. Part (a) illustrates the nature of the riverbank, emphasising the interaction between individuals and the river as the central theme. Riverside strolling and boating exemplify the visual and practical engagement with the aquatic environment that defines the area. Part (b) describes the character of the flower market. The main focus is on the interaction between visitors and flower stalls. The market layout features eye-catching flower displays, with spatial elements that allow for visual and physical interaction between visitors and products.

Part (c) presents the recommended design concept that amalgamates the preceding two qualities. This proposal establishes a public space between the two sides of the flower market that functions as a location for interaction. The emphasised design features are natural illumination, open airflow, and

verdant foliage, which enhance the relationship between the market and the river setting.<sup>50</sup> This public area functions as a visual and social connection, fostering a cohesive experience between commercial endeavours and the natural environment.<sup>51</sup> The idea integrates commercial aspects and public spaces by examining the interplay of individuals, the environment, and economic activities, therefore fostering a more inclusive and cohesive area.<sup>52</sup>

### Public Space Oriented

The development of riverbank areas necessitates a design strategy that incorporates not just economic purposes but also the enhancement of community value and the surrounding environment.<sup>53</sup> Regions situated adjacent to rivers frequently has significant potential to evolve into practical, aesthetically pleasing, and inclusive public spaces.<sup>54</sup> Nevertheless, several regions fail to leverage the river's potential as a significant component in their architecture.<sup>55</sup> Consequently, the incorporation of public areas with river features is a primary emphasis in planning to enhance the area's quality and the tourist experience.<sup>56</sup> A public space scheme has been established due to the river's flowing path. The design aims to enhance accessibility and offer vistas of the river. This involves improving aspects such as vehicle parking, loading and unloading zones, and constricted entrances on the building front to provide a more appealing entry for visitors (Figure 6).

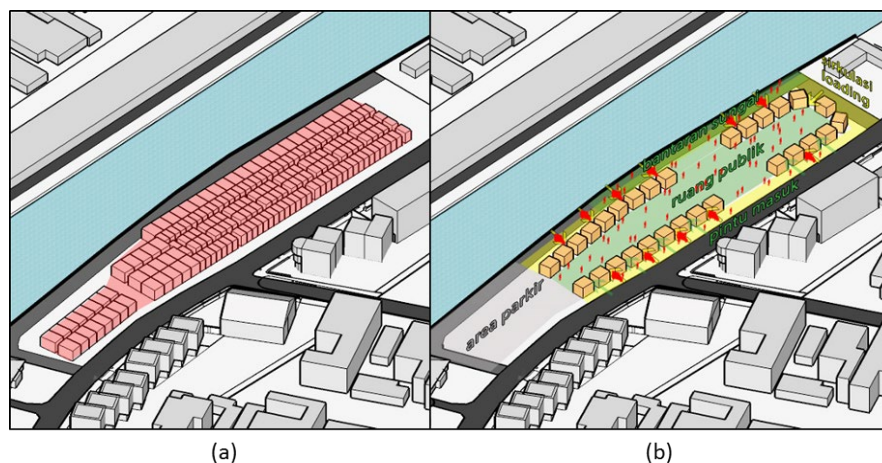


Figure 6. (a) Existing. (b) Proposed Site.

This figure illustrates a comparison between the current state of a riverside area and the planned design. Figure (a) depicts a condition characterised by a concentration of densely constructed structures aligned linearly along the riverside. This configuration of structures fails to offer sufficient green open space, resulting in an environment that is poorly linked with natural components, particularly the river. The spatial emphasis seems only on land utilisation for construction or commercial purposes, neglecting the connectedness of the area with the adjacent community or the river.

Conversely, in figure (b), the suggested design facilitates a substantial shift by generating ample green open spaces and including public space activities along the riverfront. The current structures are reconfigured to achieve a more systematic layout, so ensuring a harmonious balance between built environments and green areas. The design includes pedestrian pathways and areas for social interaction, facilitating more community engagement with the river. The design emphasises the integration of commercial and recreational services, while endorsing sustainable development that considers ecological factors.

## EXPLORATION RESULT

The impact of this symbiotic rhythm is clearly evident in the site development, which deliberately emphasizes the interconnectedness between commercial and public spaces. The once congested and disorganized flower market, plagued by traffic and visitor flow issues, has been dramatically improved. Wider access points and an open area in the center have transformed the market so that it is no longer obstructed by visitor vehicles and has better access to the river. The symbiotic rhythm expertly balances the openness of the riverbank with the arrangement of market kiosks, resulting in a highly successful transformation of the flower market into a leading market tourism destination, seamlessly integrated with the riverbank area.

The rhythm of the site is reflected in the design of the kiosks, as shown in Figure 8. Figure (a) depicts the original form of the flower market kiosks. By preserving the dimensions, shapes, and materials of the old kiosks, the new flower market kiosks, as seen in Figure (b), have been developed. The new kiosks are larger and more open to improve ventilation. In order to further enhance the analysis of rhythm (Figure 7), the concept of elevation has been incorporated into the arrangement of the flower kiosks. This elevation concept is inspired by the rhythmic character of the nearby river, which has a lower elevation. Therefore, this elevation concept has been used to enrich the rhythmic design of the kiosks.

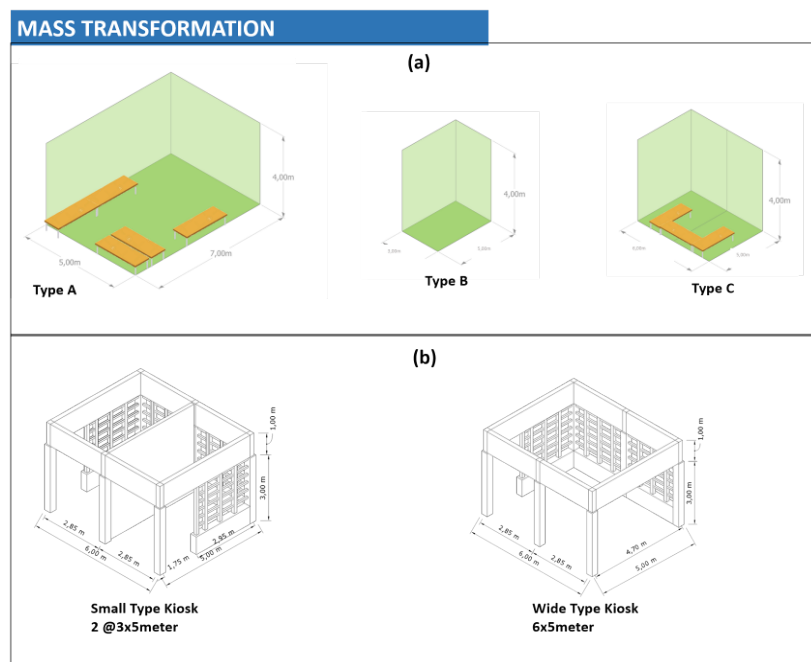


Figure 7. Kiosk Module.

This figure illustrates the mass transformation design methodology for the kiosk module, encompassing three fundamental spatial kinds and two modular kiosk models differentiated by size. The initial section, (a), has three distinct space kinds, each possessing distinctive attributes tailored to fulfil various functional requirements. Type A, at 7x4 meters, offers a capacious and adaptable area for several activities. The design enables users to tailor the area according to their requirements, rendering it suitable for extensive events or versatile applications. However, Type B measures 3x3 meters, emphasising optimal space use. This form is appropriate for uncomplicated operations that do not need extensive regions, offering a pragmatic option for managing constrained space. Type C, characterised by its L-shaped configuration and dimensions of 4x4 meters, provides a more structured arrangement for activities necessitating an organised setting.



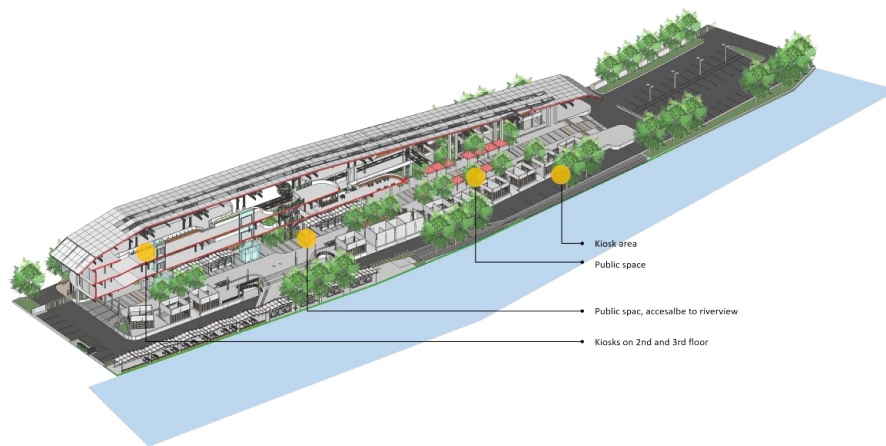
Section (b) elaborates on the kiosk module design via two primary concepts. The Small Type Kiosk is 3x5 meters, with a modular design that emphasises efficiency and is appropriate for small-scale business requirements. The design provides sufficient room for kiosk operations while maintaining compact area constraints. Conversely, the Wide Type Kiosk, measuring 6x5 meters, provides an expansive area, ideal for commercial endeavours necessitating greater space for merchandise or supplementary storage. The design exemplifies a modular and flexible methodology, offering significant flexibility to accommodate various user requirements. This idea optimises space use and facilitates the integration of diverse commercial tasks into a single, efficient system that responds to the site context.

### Intregated Kiosk

The design of the Kayoon Flower Market integrates rhythmic elements to create a more efficient and aesthetically pleasing layout. This integration is achieved through several strategies (Figure 8). First, the kiosks are positioned at a lower elevation than the main floor, creating an open, grid-like structure that enhances ventilation and visibility. Second, a 3-meter spacing between kiosks, achieved by reducing the number of units, improves circulation for visitors and goods while fostering a more open and public character. Third, the alternating arrangement of access and loading zones accommodates dual functions, ensuring operational efficiency. Lastly, the elevated open space, conceptualized to resemble a dock, serves as a versatile venue for festivals and communal activities, enriching the market's role as both a commercial and public space.



Figure 8. New Integrated Kiosk.



*Figure 9. Design Result.*

These figure illustrate the new integrated kiosk design concept and the finalised area layout intended to provide a commercial space that is practical, ecologically sustainable, and conducive to public activities. The initial image (Figure 8) depicts an integrated kiosk design characterised by a modular framework intended to support various commercial activities. Each kiosk is engineered for great flexibility, enabling diverse enterprises to maximise area use. Moreover, the public area surrounding the kiosk offers a pleasant pedestrian pathway, fostering an open and engaging environment for visitors.

The design prioritises natural aspects, incorporating foliage and greenery surrounding the kiosk. These features not only offer visual appeal but also contribute to a cool and refreshing ambiance. The public areas adjacent to the kiosks facilitate diverse social and economic activities, fostering community engagement. The second image (Figure 9) illustrates the final design solution including a spatial arrangement that incorporates modular kiosks over many floors. The neighbourhood is engineered to facilitate convenient access for guests, with expansive public spaces easily reachable from the riverfront. The incorporation of pedestrian pathways and green areas in the vicinity fosters a harmonious interaction between artificial structures and the natural environment. The design provides a versatile area suitable for many business and social activities.

## CONCLUSION

The Kayoon area is a riverbank zone along the Kalimas River that has undergone a significant transformation. Once an upscale residential area, Kayoon is now one of the largest flower markets in Surabaya. This change reflects shifts in environmental, economic, and social aspects driven by evolving community needs and the river's role in the city.

A potential solution to enhance the flower market is to redesign its architectural form. This can be achieved through a symbiotic approach that integrates both old/historical and new characteristics. Through rhythm analysis, the two aspects are examined and then combined by reusing the old character and adapting it to the new context. The goal is to optimize the redesign of the flower market to suit the site's context and function effectively.

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# DESIGNING PROXIMITY: A MULTISCALAR STUDY OF MUNICIPAL ARCHITECTURE IN QUEBEC

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## INTRODUCTION

The tangible presence of the municipality in urban space plays a crucial role in the making of a livable city. Whether through planning, architecture, artefacts or human representatives, this presence contributes to the quality of living environments by giving meaning to the municipal assemblage and a plane of representation for community life. The built environment provides sites for interaction and communication made up of objects at different scales. These various objects, that can range from thresholds and reception desks to urban grids and infrastructures, qualify these encounters and the relationships of proximity that they generate. In this paper, we explore the materiality of proximity through two specific municipal objects: the town halls and municipal courts of small to medium-size cities in the province of Quebec, Canada. Understood as municipal interfaces between residents and administrative, political, or judicial entities, these places of vital social importance reveal the workings of the municipal apparatus within which they operate and the ways in which this one participates in the creation of socially and politically sustainable living environments.

Proximity is one of the key concepts of sustainable, human-centred urban design. As a concept with various definitions and implications, it broadly addresses the accessibility of “spatially distributed opportunities in the built environment” while reaching beyond a simple metric to its role in achieving “social sustainability” in neighbourhoods.<sup>1</sup> In the “15-minute city”,<sup>2</sup> proximity plays a central role and has continued to do so in subsequent iterations of the concept.<sup>3</sup> It is understood as a spatiotemporal dimension of urban life, measuring the distance in time and space between an individual and an urban function. Sometimes placed alongside *density*, *diversity* and *digitalization*,<sup>4</sup> sometimes alongside *ecology*, *solidarity* and *participation*,<sup>5</sup> or amongst *density*, *diversity*, *mixed-use*, *modularity*, *adaptability*, *flexibility*, *human-scale design*, *connectivity*, and *digitalization*,<sup>6</sup> *proximity* plays the role of keystone in any temporal conception of the city. Propelled to the fore with the COVID-19 pandemic, proximity gets entangled with the required social distancing. Social proximity is argued to be necessary to the ethics of urban living, and that urban design works directly to guide our interaction with others.<sup>7</sup> Proximity in the built environment is an essential concept in the making of the livable city,<sup>8</sup> by its implication in the dynamics of interaction in public space, and as a basis for social sustainability and community belonging. Furthermore, proximity qualifies moments of connection framed by the built environment, or spaces that act as an “intermediate threshold between public and private realm where citizens’ needs, desires and sense of appropriation better take shape and manifest themselves.”<sup>9</sup>

What our research suggests is that municipal public equipment, like town halls and municipal courts, are objects at multiple scales that reach well beyond the building's site limits. They define multiple moments of connection and thresholds who, in turn, participate actively in the construction of proximity.

## QUEBEC CONTEXT

The current shift of services to online platforms<sup>10</sup> and the negative perception of a majority of the public toward municipal and public architecture call into question the importance of tangible points of contact and their role in a sustainable political culture. There is little to no incentive for residents to interact physically with a municipality that has been diminished to an administrative entity. Investment toward administrative or political installations is seen, in Québec, at best superfluous and self-indulgent, at worst downright unnecessary, a breach of trust and a reason to castigate the entire political system.

The provincial government voted in 2022 a National Policy on Architecture and Land Use Planning (*Politique nationale sur l'architecture et l'aménagement du territoire* - PNAAT). This policy makes the quality of living environments, architecture and land use planning one of Quebec's development objectives. In addition to the changes planned to modernise the architecture and land-use planning frameworks, the policy includes the objectives of developing “complete living environments” (*milieux de vie complets*) and encouraging exemplary action by the State in terms of architectural quality. “In towns and villages, this is achieved by the design and planning of environments that give the population easy access to multiple local services, public equipment and spaces, and natural environments, all of which are factors of social cohesion.”<sup>11</sup> Whether by recognising the heritage character of existing buildings or by ensuring the quality of future developments, the new policy aims to recognise the importance of design in shaping municipal, social and political life, and at reversing the depreciation of municipal design.



Figure 1. Sept-Îles town hall in 2021. The building was designed in 1959 by Guy Desbarats.

Yet, as the recent decision to demolish Sept-Île's 1960 modernist Town Hall shows, the policy is far from having changed the dynamics on the ground. Citing the modern building's elevated restoration and repair costs the municipality took the decision to tear it down, regardless of its heritage status. An added paradox, here, is that provincial cultural heritage is being sacrificed meanwhile municipalities are recognised to be key players in establishing proximity spaces. Indeed, in Canada's dual governance system between federal and provincial governments and each province's own additional tiers, Quebec's municipalities have historically been subject to the vagaries and policies of country and province. The Canadian constitution of 1867 gave the provincial government authority over municipalities, many of which are direct descendants of local parishes, which as of today, operate on delegated powers. In 2016, Quebec's provincial government passed bill 122 recognizing municipalities as “governments of proximity”. This was a long overdue recognition of the proximity between residents, elected

representatives and the municipal administration at both political and geographical levels, which gives municipalities certain operational advantages over other levels of government, a greater responsive capacity and agility based on better knowledge of the local environment.

However, a recent wave of resignations of municipal politicians in the province has put the reality of proximity into question. Overworked, harassed, trolled, caught in the middle of multiple crises (environmental, social, economic...) elected officials have opted out of local politics, further tarnishing its significance and undermining the public's trust in institutions.<sup>12</sup> Still, the recent debate on municipal proximity has nearly only touched upon the discursive space of speech and action, only one of the many facets of proximity. While the nature of speech and action has been put into question, the physical place in which they take place has not, especially from the point of view of design.

## PROJECT BACKGROUND

Our project starts from the premise that the physical presence of the municipality must be defended and celebrated; that there is a fundamental link between this tangible aspect, the quality of living environments and our relationship with the world; and that the meaning of a speech, a debate, an exchange, an action — in short, of a public space — depends to a large extent on the built environment in which it is held and manifested.

The research-by-design project we carried out between 2021 and 2024 focuses on the design of two types of facilities in Quebec's regional cities: town halls and municipal courts, whose in-person access, in this context, is characterized by geographical exclusion against a backdrop of municipal service centralization. Our project focuses on small to medium-scale cities in the province with populations of between 3,000 and 100,000; cities close to local and regional contexts, where proximity is tested by low densities and large territories, and where the pressure of distant metropolitan centres is still felt. We identified 45 cities across the southern part of the province, between the 45<sup>th</sup> and the 50<sup>th</sup> parallels. (Figure 2) The buildings' construction period ranges from the end of the 19<sup>th</sup> century to the start of the 21<sup>st</sup>. (Figure 3)



Figure 2. Case studies map



Figure 3. Case studies timeline

## SCALES OF PROXIMITY

We photographed each building and drew it in context at scales of 1:200 and 1:2000, as well as producing location maps of the municipality at 1:20,000 and 1:200,000. We then analysed this new documentation on three scales: the scale of the building, the scale of the neighbourhood and the scale of the municipal territory, evaluating criteria ranging from the quality of natural light, average travel speeds in the area, to architectural thresholds and the programmatic elements of existing municipal cores.

The analysis reveals, among other things, the wide variety of architectural forms of interaction and how these can constitute, as a whole, typical forms that go beyond the physical entity. These are constituted through the immediate disposition of objects, thresholds between external public space and interior public space, reception areas or the layout of council chambers or courtrooms. The study also reveals the importance of the position of municipal buildings in relation to the existence of an urban core, the city grid and the transitional spaces between periphery(ies) and centre(s). The use of scale as a vector of analysis highlights the need to think about architectural devices in a transversal way, in order to understand the role they play in urban assemblages that are centrifugal or centripetal, cohesive or fragmented, homogeneous or heterogeneous.

These criteria were used to analyse each of the three scales. We then ordered our case studies according to each criterion, highlighting similarities and distinctions. (Table 1) At the scale of the building, it is *articulation* that emerges as a principal aspect of proximity. The spatial articulation between outdoor and indoor spaces, of each threshold along a path leading from the sidewalk to the assembly room, as well as the social articulation carried by the architecture (its meanings, codes and sociocultural significance). At the scale of the neighbourhood, our research focused on the question of the municipal core, and hence the *concentration* of public facilities, services, and institutions within a short distance from town hall. At the scale of the city, it is the *relative position* of the studied building within the municipal territory that emerged as the defining aspect of proximity. Here, proximity is qualified primarily by average travel times to and from the centre(s).

Scale	Principal aspect of proximity	Criteria
Building	Articulation	Polyvalence, or the number of public services within the building Accessibility, or the inclusiveness of thresholds and accesses Architectural quality of each threshold condition Relative position of main spaces, or the importance given to them in the overall organisation Exterior layout, or the relationship of the building to the street, its landscaping and walkability Integration and coherence of the building with the immediate built environment
Neighbourhood	Concentration	Presence of other public and institutional buildings, or an urban/municipal core Commercial areas, main street Built density Open public spaces Coherence and legibility of the built environment Opportunities for short journeys and soft mobility, or the transition from the small scale (building) to the larger scale (city)
City	Relative position	Position of the building and the urban core in the urbanised area, or the centrality of services Distribution of public services across the city Opportunities for long-distance travel and mobility to the building, or its accessibility within the whole territory Average distances and speeds to and from the building Legibility of the urban grid and topography Online public services

*Table 1. Evaluation criteria at three scales*

The *articulation* of proximity, at the scale of the building, is best represented by the Dolbeau-Mistassini town hall. This town hall, which also houses a municipal court, provides multiple services under one roof. The exterior design and landscaping ensure the building stands out while retaining a connection to its surroundings. A clear pathway inside and out ensures universal accessibility up to the assembly room, emphasizing the importance of its public areas within the overall layout. (Figure 1)



*Figure 4. Dolbeau-Mistassini town hall exterior and interior*

The *concentration* of proximity, at the scale of the neighbourhood, is best represented by the town of Mont-Tremblant. The town hall is within walking distance of most of the town's public institutions and other municipal buildings. The main façade is on the town's main road, well connected to a national



thoroughfare, and the parking lot is positioned behind the building, connected to a waterside park. The landscaping around the building creates a smooth transition between the commercial road and the municipal building. (Figure 2)



Figure 5. Mont-Tremblant town hall

The *relative positioning* of proximity, at the scale of the city, is best represented by the city of Windsor, where the town hall and municipal court are located on either side of the river that flows in the center of town. Around the building is the city core, where most institutions and shops are located. The buildings find themselves at the “centre of mass” of the town, ensuring easy access from the periphery, using motorized transportation, as well as from the residential area around the core. (Figure 3)



Figure 6. Windsor

The 45 cities were organised and sorted according to the established criteria and then re-organised considering the three scales of study. The final distribution showed no case being representative of more than one scale of proximity. That is, the result showed divergence between scales with no municipality expressing an integrated multiscale approach. (Figure 4)



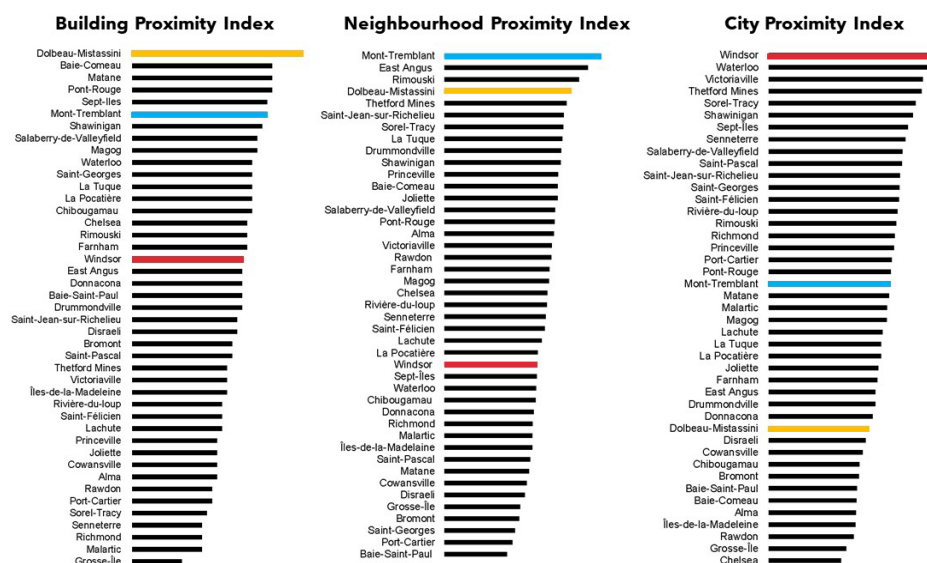


Figure 7. Proximity index and city ranks across the three scales of study.

## GENERIC PROXIMITY

The project's synthesis took the form of two design exercises. The objective was to express generic forms of proximity as this one appeared across our cases, and thus put into practice the process of constructing proximity from objects, articulations, concentrations and relationships.

Five examples were chosen as best representatives of each scale and another five as median representatives giving us 15 representative cases for a "generic best" and another 15 for a "generic average". Two fictitious situations were then imagined, a generic best and a generic average, assembled using elements from representative cases at the scale of the city, the neighbourhood and the building. None of the elements of the fictitious assemblages were generated ex nihilo. They are either copies of existing elements or variations on them.

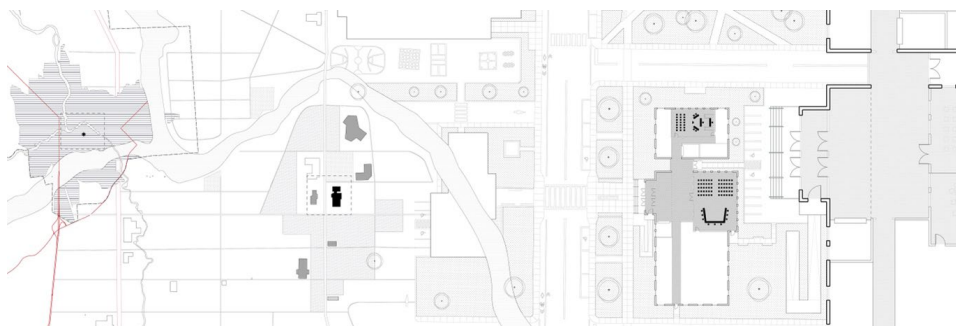


Figure 8. Generic best town hall

The generic best assemblage places the town hall in the "centre of mass" of the urbanised area, slightly removed from a national thoroughfare along a main street lined with commercial spaces and public services and institutions (in white and grey). (Figure 5) The town hall faces another public building and is adjacent to a school. There is inclusive access to the building from the main street across a landscaped area leading to a double-height space where the reception desk is located. The assembly hall is given a prominent location within the building, spatially and in its volumetry. The hall serves only one purpose as the municipal court is in a distinct wing of the building.

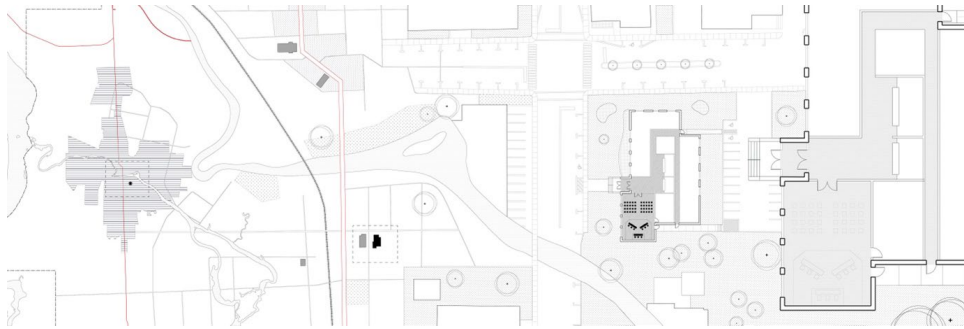


Figure 9. Generic average town hall

The generic median assemblage places the town hall off-centre from the centre of mass of the city, near a main thoroughfare but isolated from its commercial zone. (Figure 6) There is no integrated landscaping outside the building and inclusive access is split from the main entrance. There is a minimal, single-height entrance hall giving onto a multipurpose room located to the side of the building that serves for both council meetings and municipal court hearings.

## CONCLUSION

Proximity is a material construct. It is designed and fabricated through objects and events at multiple scales, or, to put it in other words, it is spatially and temporally produced. As we continue to recognise proximity's significance for environmentally and socially sustainable livable cities, we must also recognise its importance in the political and democratic life of cities. The real, tangible connections and encounters that residents have with municipalities must be framed by an appropriately designed built environment; one that achieves the difficult but necessary equilibrium between proper decorum for municipal politics, the material reality of what Hannah Arendt called the "space of appearance",<sup>13</sup> and a socially open, diverse and flexible space.

On May 21<sup>st</sup> 2024, the results of our project were presented in an exhibition and a one-day colloquium.<sup>14</sup> The colloquium gathered 23 participants including academics from the fields of design, architecture, urbanism, social studies and political science, design professionals, city officials, mayors and members of non-governmental organisations. For the moment, our project has concentrated on architectural and urban form. Many aspects of proximity have therefore been left out, such as residents' lived experiences and the cultural significance of the local built environment, issues which were both raised during the day. However, the discussion revealed that these aspects, while important, are already well-known to elected officials and professionals, who stressed the importance of reconsidering the influence that architecture and the built environment have on proximity in the making of a livable city. That is, while the social and cultural issues of proximity may be well-understood, its material assemblage is yet to be fully appreciated. This appreciation requires a spatial literacy beyond the simple measured dimensions of length and duration; one that recognises the significance of, say, local topography, polycentricism, fluid accessibility, grid geometry or, as one elected official realised at the end of the day, of a single step between audience and speaker.

Another aspect that requires more attention is the relation between online services and in-person services. In the cities we have studied, the geographic digital divide has real consequences. Municipal platforms can reach remote areas of cities that are, in the North American context, always *way-more-than-15-minute* cities. The problem appears with the one-to-one duplication of services or the unilateral removal of in-person access in favour of online platforms regardless of *where*, and at what scale, one experiences proximity. The material assemblage of proximity, in the low-density, expansive regional

town, should take into consideration the divergences and conflicts inherent to a multiscalar approach. The concept requires flexibility across scales: one's person proximity is another person's distance. Rather than put into question the tangible presence of the municipality, this further reinforces the necessity for it to be given its proper due. The presence of the municipality must be appropriately conceptualised based on the recognition that there is a fundamental relationship between the quality of living environments, accessibility, and community and municipal engagement. Ultimately, this relationship of proximity is designed, material and more than a matter of distance.

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# THE LANDSCAPE OF STUDENTS' EVERYDAY LIVES AND STUDENT HOUSING: A MULTI-SITED ANALYTICAL FRAMEWORK FOR LIVABILITY RESEARCH

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## INTRODUCTION

Louis Wirth defined a city as "a distinctive mode of human group life" from a sociological perspective.<sup>1</sup> A city is a physical place where people live. By definition, all cities are livable. The population of a city demonstrates that it is livable for that number of people. One could argue that the livability of cities is measurable. Indeed, several institutions have operationalized livability as a universal index and publish their results annually. Unlike these city livability indices, individuals in a city might score the livability of their city different from each other. Upon closer inspection of the city, we can observe various dynamics of livability. This is because individuals' needs, adaptability and openness to the built environment vary depending on their social, political, economic, and psychological backgrounds, preferences, and lifestyles.

While cities are places where diverse people gather, forming various household types and lifestyles, certain patterns do exist. This paper follows a life course approach common in sociology. Despite the diverse lifestyles in a city, patterns of daily life can be organized according to life stages such as childhood, adulthood, retirement, and old age. In particular, the constructivist life course theory shows that people generally follow certain patterns according to their life stages. Jaber F. Gubrium and James A. Holstein argued that the life course is constructed through social interactions and cultural norms, and that institutions such as family, school, and work can play an important role in shaping the life course and guiding individuals.<sup>2</sup> Universities are one of the important institutions that shape individuals during the transition between dependent youth and independent adulthood. Universities influence the everyday life of university students.

The neighborhood surrounding a university evolves over time. Affordable restaurants, small shops, and vendors occupy the areas around the campus, meeting the everyday needs of students. Students' lifestyles shape the landscape of the neighborhood and drive urban change. This development has been discussed by scholars worldwide under the term 'studentification' since Darren Smith coined and theorized the term in 2004.<sup>3</sup> The discourse on studentification confirms the idea that a stage of life can be reflected in a spatial dimension.

This paper develops a methodology for studying the spatialization process of individuals' daily life practices during the life course period of university. The traditional approach to research on everyday practices in urban studies is based on ethnographic research method through close interaction within a single site, but as society becomes complex and advanced technology influences people's daily lives,



there are limitations in the conventional ethnographic approach to capturing the real world. Therefore, this research introduces an analytical framework to better understand everyday practices in urban environments by choosing university students as a life course and Makerere University in Kampala as a case study area in order to dream of a livable city for all. This research methodology advocates feminist epistemology as a way of comprehending and including a reality that is often marginalized from major discussions.

### **People: Student Characteristics and Research Process**

Students form “students habitus” and live both on and off campus. As Bourdieu and Passeron point out, “Students certainly live and want to live in a special time and place. Student life liberates them for a time from their home and work life.”<sup>4</sup> Students leave a remarkable footprint on the city different from other groups. For students, there are no rigid boundaries between weekdays and weekends or between day and night. Unlike others who live within a limited temporal framework, they can go to a restaurant, a café, or a movie theater at any time. African cities are also experiencing this phenomenon, as student populations grow. In the context of this unique transformation, students become the driving force of urban development. However, the voices of students are often isolated and marginalized in urban discourse, mainly due to the temporality of their residential status.

To examine the livability aspect of a city, it is important to consider not only the built environment of the city but also the needs and characteristics of each individual living in that environment. With this in mind, students were randomly recruited from the campus, and a snowball technique was conducted on various characteristics of the participants, such as gender, major, year, and type of student housing.

### **Place: Makerere University**

Makerere University in Kampala, Uganda, was chosen as the case study site. Africa has the fastest urban growth rate in the world, with a high proportion of youth population. African cities are experiencing the phenomenon of urban transformation driven by student populations, which is expected to increase in the future. In particular, Uganda ranks third in urban population growth.<sup>5</sup> Additionally, 78% of the population is considered to be under 30 years of age.<sup>6</sup> The demand for higher education is also steadily increasing.

Makerere University was founded in 1922, and many East African national heroes, including the presidents of Uganda, Kenya, Rwanda, and the Democratic Republic of the Congo, studied there. As the leading university in East Africa, the school used to offer full scholarships with accommodation to about 2,000 elite students, but in 1992, it introduced a new system due to financial difficulties. By accepting students who paid tuition, the school grew rapidly in terms of student number. However, the school did not build new facilities to accommodate the students, and the students had to find shelter off campus. Barnabas Nawangwe, the current Vice-Chancellor of Makerere University, studied the transformation of the area around Makerere University as the student population grew between 1990 and 2010, calling this urban transformation “re-informalization: moving from informal to some kind of formalization and yet returning to an informality situation”.<sup>7</sup> From around 2,000 students per year in the early 1990s, Makerere University has grown to over 20,000 students per year since 2010. The growth of student populations has transformed neighborhoods around the campus, accordingly. Nawangwe argued that further research is needed,<sup>8</sup> but it has not yet received attention. Understanding the relationship between students’ daily lives and spatial practices is important for envisioning a better future not only for Kampala but for other African cities. The spatial experiences of students and how places experience students can have implications for other African cities showing rapid urban population growth rates and high youth populations.

### Online Site Observations

Field research was conducted in both online and offline. While offline site observation focuses on the here-and-now, online site observation becomes archive-based research accumulated over a period of time.

Online media has become a public archive of personal lives. Ethnography in social media has the advantage of overcoming the limitations of direct observation, which can influence people's typical behavioral patterns and distort results, but it also has clear limitations. As Paay et. al pointed out, unlike traditional ethnographers who analyze real-world settings with situational details, ethnographers using social media end up detaching themselves from the actual situation.<sup>9</sup> In addition, the characteristics of social media as research data, which capture an advertising nature rather than a pure nature, should also be considered.

Social media is particularly a space where young people express themselves and a window to see students' daily lives. Many university students are heavy users of social media these days. They document their lives to communicate with others online. The advent of smartphones in daily life allows people to easily upload their daily lives publicly. People post their lives with visual images online, and various social media platforms have emerged. Image and video-based platforms such as Instagram and YouTube allow people to share vivid moments with others, enabling us to glimpse others' daily lives. Considering the above, dual field research in both online and offline forms gives a richer understanding of the daily lives of university students, and there are two ways to understand online ethnography: digital as an archive and digital as a process.<sup>10</sup> While the latter explores the ecology of the virtual field, the former analyzes online data as research material. In this study, both research approaches were conducted: investigating online materials related to student housing posted on major Ugandan daily newspapers such as Monitor and New Vision, and online media like Campus Bee, as well as exploring Google Maps reviews, YouTube, and geocoded social media posts.

### Offline Site Observations

Traditional ethnographic research derived from cultural anthropology requires 'thick descriptions' of individual nodes. As architectural and urban ethnography, the depth of this research is not in the thick descriptions of a group, but in covering multiple geographic scales using a place-based interview technique and in systematically tracing daily lives using a flash card technique. This allows for a better collective understanding of individual students' everyday practices. The research was initially shaped by informal conversations within student contexts such as student parties, campus talks, student cafeterias, and student events that the author experienced over two years in student/staff housing near/on a university in Uganda in 2011 and 2012. The author engaged in participant ethnography before designing research. Thus, the fieldwork developed as a cumulative process with a thick underlying foundation over a decade.

### Place-Based Interviews

Place-based interviews were carried out in and around participants' dwelling sites from August 2023 to November 2023. This includes walking interviews, campus interviews, and home interviews. The walking interview technique was carried out inside and outside of Makerere University campus, including Kikoni, Kikoni-Kikoni, Wandegaya, and Kagugube neighborhoods. Interviewees were recruited randomly on campus, and interviews were conducted while the researcher walked along with participants to the students' original destinations. This research method reduces disturbance to participants' use of time. Also, walking interviews allow students to reflect on their surroundings in the present moment and to give a deeper understanding of everyday lives.<sup>11</sup>

Unlike conventional interviews, this approach provides access to insights into vivid ordinary stories from the place of everyday life. Holton and Riley argued that walking interviews vitalize the studentification debate by taking and identifying students' perspectives in their neighborhood.<sup>12</sup> As they demonstrated, the nature of young people's spatial experiences is non-linear but multi-layered, and walking interviews at the place of daily lives lead to a re-layering of their everyday life. This approach encompasses social and cultural discussions of how places promote students' narratives in a deeper and more reflexive way.<sup>13</sup>

Walking interviews in open spaces allow both participants and researchers to be in a safe environment and can ask for help from the public in unpredictable situations. Participants were informed about the nature and purpose of the study, their right to refuse to answer questions, and to terminate their participation at any time during the study period. Informed consent was then obtained.

### Introducing Flash Card Technique for Interviews

A flash card method was developed to help participants easily trace their use of time on an ordinary day. This helps participants recall memories easily with ready-made cards of daily activities. Several scholars have attempted to synthesize everyday practices of urban environments for various purposes. Meesters identified Dutch dwelling activities through a survey and tried to interpret the value and meaning of dwelling activities and places.<sup>14</sup> Szalai attempted to analyze the impact of social status on time-budgeting and developed 96 codes of daily activities.<sup>15</sup> Chatterton borrowed Szalai's code to develop a daily activities coding framework for British university students, and finalized 46 codes used to translate participants' diaries into time budget analysis data.<sup>16</sup> Their research confirms that daily life can be patterned.

The codes of daily activities were adapted for Ugandan students from Chatterton's original framework designed for British students. The validity of these activities was cross-checked in focus group interviews, and space codes were developed in focus group interviews. Although human error cannot be perfectly controlled, cross-validation through multiple groups minimizes human error to some extent. The flash card technique was applied in two dimensions: people-focused time-budget survey and place-focused dwelling taxonomy.

### People-Focused Time-Budget Survey

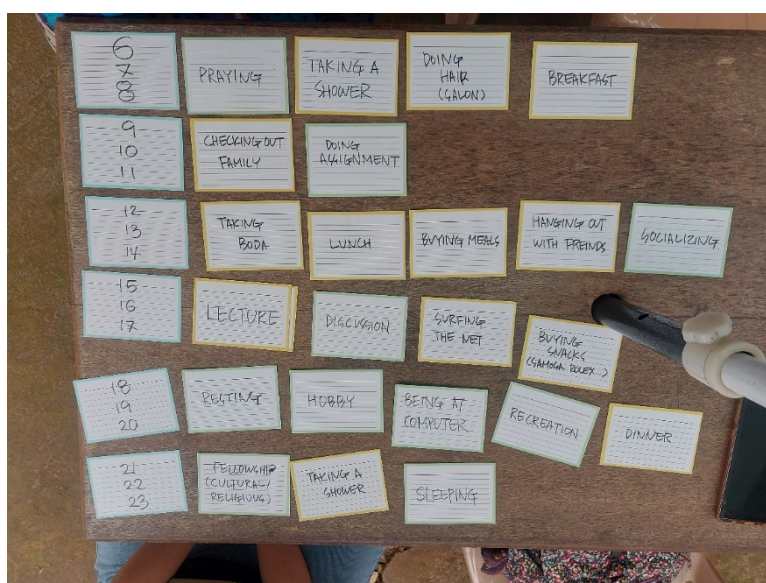


Figure 1. A Result of Flashcards Method for People-Focused Time-Budget Survey

People's use of time has been studied under the name of time-budget survey. Time-budget survey is a good instrumental tool for urban planning by understanding the patterns of everyday practices.<sup>17</sup> The use of time provides a framework for analyzing patterns of inhabitation in a city because daily activities are always located somewhere.

Participants were given flash cards with daily activities written on them and were asked to distinguish whether they did or did not do the daily activities written on the card the previous day. Then, participants were asked to arrange the daily activity cards they had classified for the previous day in chronological order. After that, an interview about the previous day was conducted. The flash card method complements the limitations of interview, questionnaire, and diary-writing methods that have been widely used in existing time-budget surveys. Conventional time-budget surveys ask participants to record 24 hours of their activities and examine their use of time. Interviews and questionnaires are typical research methods for time-budget research, but as Niemi identified, there are measurement errors in these research methods.<sup>18</sup> People tend to forget daily activities because it is difficult for them to recall accurate memories during the interview.<sup>19</sup> However, the diary method requires considerable time, cost, and willingness from participants to provide accurate daily logs.

The biggest advantage of the flash card technique is that it saves time in recalling daily activities and prevents forgetfulness of routine work. The flash card method provides a framework for participants to remind and classify daily activities that they tend to overlook because they perform them too routinely.

### Place-Focused Dwelling Taxonomy



Figure 2. A Result of Flashcards Method for Place-Focused Dwelling Taxonomy

The flash card technique was also used to synthesize place-focused dwelling taxonomy. This has a social constructivist approach to everyday meanings in places. First, participants were asked to sort their daily places among place cards, then they were asked to put daily activity cards on top of the place card where they carry out the activities most frequently. After this, an in-depth interview about the places and activities distinguished using flash cards followed, allowing exploration of individuals' diverse spatial experiences and uses in urban areas and their connections to social activities.

## RESEARCHER'S POSITIONALITY

Considering the positionality of the outsider researcher as a non-Ugandan, but a Korean from a Dutch university, and the marginalized status of university students in the decision-making process of student housing-related issues, this research takes an advocacy view. The advocacy worldview emerged from the awareness of misfit between post-positivist assumptions for society and marginalized groups in society in the 1980s. The advocacy view allows researchers to negotiate their positionality and understand their limitations.

When it comes to cross-cultural research, positionality always matters for a foreign researcher. However, the critique toward foreign researchers often overlooks the nature of cross-cultural perspectives. The benefit of being a foreign researcher is to have a naive and rich view of subjects by being in multiple worlds at the same time. Being in a foreign country offers a keen sense of here-and-now. Cultural differences are challenging, but they are translatable. The site survey and micro-ethnographic study can work as tools to decode and translate foreign cultural landscapes.<sup>20</sup> With the help of a rigorous research methodology, iterative and systematic attempts lead researchers from 'having an experience' to 'becoming experienced', then producing general knowledge.

## LEARNING FROM THE SITES

The research method was designed to evolve by participants. After participants placed cards, they were always asked if there were any missing activities and places. Several blank cards were prepared besides pre-made flash cards for this reason, but no additional findings were observed. Also, no special places or activities were observed in the previous day's daily life described in walking interviews where the flash card technique was not used. As Chatterton also pointed out,<sup>21</sup> participants may be reluctant to share some areas of their lives which are private or not generally accepted.

Participants who used the flash card technique provided much more detailed information about their daily lives compared to those who only participated in walking interviews and were asked the same questions. In many cases, walking interview participants gave very simple answers like 'nothing special' when asked about their yesterday. This is likely how most people remember ordinariness. However, participants who had gone through classification using flash cards described the previous day more specifically and vividly.

Multi-sited research of online and offline complemented each other. In online site observations, preferences were observed like what students want to advertise from their lives or challenges and complaints. Offline site observations give a better understanding of what ordinary day means.

## CONCLUSION

This study introduced a multi-sited ethnographic research method to understand everyday practices of urban environments for a university student group from people and place perspectives in virtual and physical dimensions. The lived experiences of residents are particularly crucial when it comes to livability studies. Even though livability in a city is personal, a life course approach allows to patternize daily lives to some extent.

Daily lives are inevitably always located somewhere, so they are spatial. As Sumartojo and Stead argued,<sup>22</sup> architecture and ethnography are entangled through the understanding of embodied experiences, visual representations as communication tools, and interventions in everyday practices. How a place is used and experienced is not separated from how people live in a place. A holistic understanding of everyday environments using a multi-dimensional approach helps us imagine a livable city together.

This method can also be used for other marginalized groups from individuals' experiential perspectives. The study argues that the role of urban and architecture researchers is to seek and understand an unheard reality in everyday environments to dream of a livable city for all.



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# **CITY INFORMATION MANAGEMENT (CIM): PRACTISE-BASED IMPLEMENTATION OF AN EMERGING FRAMEWORK**

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## **INTRODUCTION**

We are living in the Information Age where accessibility to vast amount of data and controlling information is defining our daily routines.<sup>1</sup> In this era of digitalization and technology we are moving rapidly towards the Fourth Industrial Revolution/Industry 4.0.<sup>2</sup> or we are going deeper and deeper into it. Everything is getting “smart”,<sup>3</sup> including our cities, and this is where the Smart City concept comes into focus. There is no commonly accepted definition of a smart city; however, we can say that a smart city uses intelligent tools, networks and solutions to support the welfare of its citizens. It encompasses physical infrastructure, human infrastructure, digital infrastructure, while keeping an eye on sustainability, green solutions, emission reduction, and so on. A city is, in itself, a complex, interconnected network of its living and built environment, an integrated system of its components. Thoughtfully, the question arises: How should a Smart City look like? How “smart” are our cities? As we experience in practice there are very good smart solutions to specific problems; however, there is a lack of truly integrated, multidisciplinary solutions to support an entire city.

## **Frameworks and definitions**

As the need for an integrated implementation of smart city support systems emerges, various ideas and frameworks are also developing to facilitate the analysis of a city in its full complexity. Some of these approaches aim to digitize real-world structures, such as Digital Twin or Urban Digital Twin, while others originate from the construction industry (e.g., Building Information Modeling or BIM) or from geography, landscape management and city planning (e.g., Geographic Information Systems or GIS technologies). These diverse frameworks seek to integrate knowledge into a cohesive whole, leading to the concepts of City Information Modeling and City Information Management, along with their variations.

This paper focuses particularly on City Information Management, which is closely linked to City Information Modeling. Modeling serves as the foundation for management, and City Information Modeling was likely the initial concept or description of an integrated system in this context. The concept first appeared in an article<sup>4</sup> published in 2005 (subsequently reviewed in 2016<sup>5</sup> and 2023<sup>6</sup>) as a framework to accurately predict the impact of hazards and enhance efficiency in disaster management.

## THE CONCEPT OF CIM

Before delving into the concept of City Information Management (CIM), it is essential to contextualize the emerging frameworks. According to literature reviews about the state of the art, examining these frameworks based on their components appears to be a suitable approach. While various perspectives exist, which will be discussed later, there is a consensus regarding the core elements that CIM or an integrated smart city framework should encompass: large scale geographic context (GIS), buildings and structures (BIM) and live or up-to-date data (IoT).<sup>7</sup> Among the numerous definitions, this paper focuses on those that are most frequently cited and mentioned, or those that clearly delineate different approaches and methods. It is important to note that there are no universally approved definitions to any of these concepts; they are sometimes described as an evolution of a single idea,<sup>8</sup> or as building upon one another, with some defined by the technologies they employ.

To comprehend the situation, differentiate between frameworks, and contextualize them, we have categorized them based on their fundamental components as defined above and in the literature (Figure 1.). While differences in scales and objectives are evident, overlaps between frameworks and technologies can be observed. We highlight three definitions: City Information Modeling, City Information Management and Urban Digital Twin. The first two are closely related with City Information Modeling covering the modeling of a multiscale environment, and City Information Management taking a step further by incorporating the management of up-to-date information, policies and processes. When comparing City Information Management and Urban Digital Twin we observe that while the relationship between “modeling” and “management” is vertical, the relationship between CIM and UDT is horizontal. UDT originates from the dynamic data integration and Digital Twin technology, whereas CIM emerges from planning and management perspective.

For a proper interpretation of all these aspects, it is advisable to compare the three frameworks collectively on a diagram that focuses on these distinct components: technological integration, the level of process management, and the handling of dynamic data (Figure 1.).

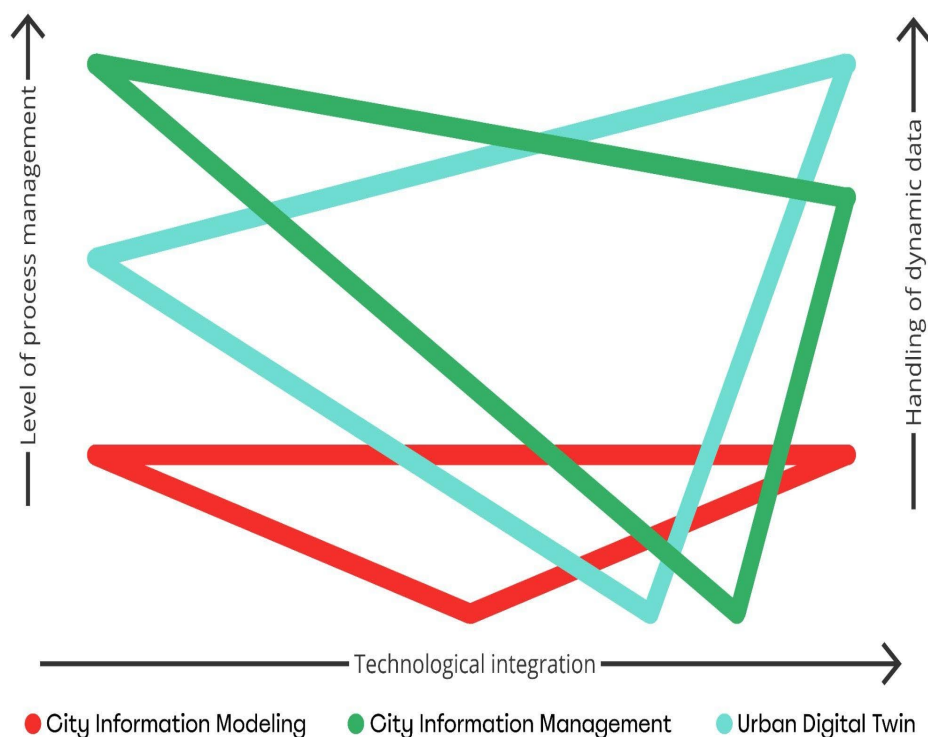


Figure 1. Frameworks sorted by their main components

## Approaches of CIM

When considering the implementation of a City Information Management (CIM) framework, it is crucial to determine the approach and perspective from which to proceed. Two primary types of approaches, each with two distinct sides can be identified:<sup>9</sup>

### 1. Conceptual approach

This approach based on the technological aspect that one wishes to emphasize:

- **GIS-centric perspective:** This approach originates from an urban planner's viewpoint, utilizing Geographic Information Systems (GIS) as the foundation and incorporating Building Information Modeling (BIM) components.
- **BIM-centric perspective:** This approach considers CIM as an extension of BIM, expanding its scope to encompass urban-scale modeling and analysis.

### 2. Research and Development Approach

This approach focuses on the method of framework development and application:

- **Technical Implementation perspective:** This side emphasizes the integration of various technologies and data sources from a developer's standpoint, focusing on the technical challenges and solutions in creating a cohesive CIM framework.
- **Concept and Applications perspective:** This side prioritizes practical applications, tasks, and problems that the framework should address. It concentrates on developing a CIM framework that provides solutions to real-world urban challenges and supports decision making processes.

The choice of approach depends on various factors, including the specific needs of the project, the expertise of the team, and the available resources. Each perspective offers unique advantages and challenges, and the most effective implementation may involve a balanced consideration of multiple approaches to create a comprehensive and functional CIM framework.

## Components of CIM

City Information Management (CIM) is an integrated framework that incorporates Building Information Modeling (BIM), Geographic Information Systems (GIS) and Live data (e.g. IoT).<sup>10</sup> We can define its components in terms of these three key elements:

Geographic Information Systems (GIS) encompasses the large-scale geographic environment, primarily 2D, 3D formats. It functions as a data storage, management and analysis system, providing insights into the relationship between buildings and their surrounding environment.

Building Information Management (BIM) contains micro-level information, representing the built environment in 3D and analyze it in 4D (or beyond 4D, based on BIM capabilities). It incorporates detailed building survey data, offering comprehensive digital representation of structures and their attributes.

The Live Data component brings dynamic perception to the CIM framework. It encompasses up-to-date information, real-time sensor data, and other inputs that reflect the current state of the urban environment.

The integration of these three components enables a holistic approach to city and construction project management, combining spatial context, detailed structural information, and real-time data to support informed decision making.

## Challenges of CIM implementation

The implementation of City Information Management (CIM) presents a complex array of challenges. Based on practical experience and literature review, these challenges can be narrowed down into a few key areas.<sup>11</sup>

One of the primary challenges in CIM implementation is the diversity of data formats and the lack of standardization. CIM integrates various technologies, each with its own processes, tools, and data formats designed for specific purposes. While individual technologies have established operability and data management methods, the real challenge lies in developing and operating a framework that effectively integrates all these components to create a synergistic whole that is greater than the sum of its parts. This leads to significant interoperability issues between different technologies and approaches. Furthermore, as the scale and complexity of CIM increase, data privacy and security concerns become increasingly prominent and must be carefully addressed.

The implementation of CIM inevitably incurs substantial costs, which vary depending on the chosen approach. These expenses may include hardware, software, training and human resources. The multidisciplinary nature of CIM requires professional expertise across various fields, further contributing to the overall cost.

One of the most unpredictable challenges in CIM implementation is stakeholders' attitude. While researchers, developers, and academics are often enthusiastic about implementing innovative solutions that could revolutionize a field, this enthusiasm is not always shared by all stakeholders. In practice, there is often resistance from individuals who prefer to adhere to established methods and processes. Overcoming these attitudinal barriers can be an exhausting task.

Another significant challenge, based in practical experience, is the acknowledgement that perfect or entirely reliable is rarely, if ever, available. Consequently, any CIM implementation will inherently have limitations in terms of accuracy and completeness. This reality necessitates a pragmatic approach to framework design and data interpretation, recognizing that while CIM can greatly enhance city management, it cannot provide infallible solutions.

## IMPLEMENTATION

As urban- and regional planners, BIM professionals and architects we consider ourselves as down-to-earth practitioners, so we approach City Information Management (CIM) from a practitioner-oriented perspective. This paper focuses on the concept and applicational side of CIM, considering it as a service-oriented, task-driven solution capable of addressing a wide range of challenges.

In this context, CIM is not envisioned as an all-encompassing software or a platform, but rather a toolbox offering solution to diverse problems in urban environments. Its primary objectives include:

1. Facilitating communication among stakeholders

Providing up-to-date information for decision-makers

Supporting data-driven decision-making

Minimizing disturbances in urban environments and during construction projects

While these goals are common to many projects in an urban environment, City Information Management operates on a broader scale, encompassing a wide range of stakeholders from local citizens and tourists to construction project managers and city administrators.

The CIM framework we propose is designed to centralize data and operate based on a single source of truth (SSOT). Enhance collaboration and cooperation among various stakeholders, support design processes and scenario building for developments and hazard management. Thus reduce public inconvenience and promote citizen participation in city management, improve productivity and efficiency in information flow, potentially reducing construction project delays.

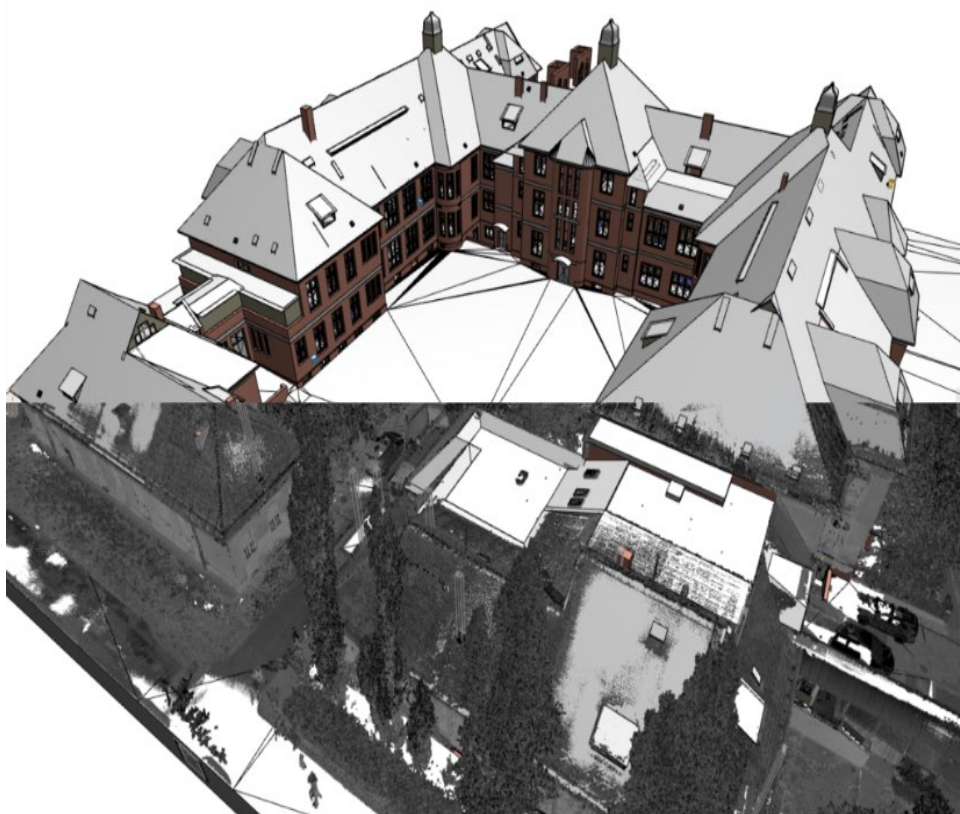


This CIM framework is specifically designed for implementation at the campus or a neighborhood level with a primary focus on facilitating urban life during large-scale construction projects. The services offered, which will be detailed in subsequent sections, aim to address challenges at this particular scale. By adopting this approach, we aim to create a practical, adaptable CIM framework that can effectively respond to the complex challenges of urban management and development, particularly in the context of significant construction activities.

### Services

To maintain the CIM framework we have established teams based on the required skills and the core components of CIM. The BIM team is primarily responsible for 3D modeling, 3D clash detection, 4D analysis, 3D organizational and logistics support facility management, and various other BIM analyses. The GIS team is tasked with 2-2,5D mapping, large-scale environmental modeling, spatial and temporal analysis, organizational and logistics planning and support, and land use management. The Field team represents the Digital Twin (DT) aspect of CIM, focusing on live and up-to-date data collection. Their responsibilities include on-site work and stakeholder cooperation, daily issue management, situation monitoring and reporting, and collection of real-time data, complementing or replacing automated sensors and data providers.

This three-in-one structure enables us to provide comprehensive service to wide range of stakeholders. The framework's capabilities include forecasting logistics problems, evaluating plans using a Single Source of Truth (SSOT), building datasets for city and construction management, supporting schedule planning, and managing owner-operator relations. Additionally, the system offers various services such as modeling existing conditions (Figure 2) and spatial and temporal collision detection (Figure 3), among others.



*Figure 2. Modeling existing conditions*

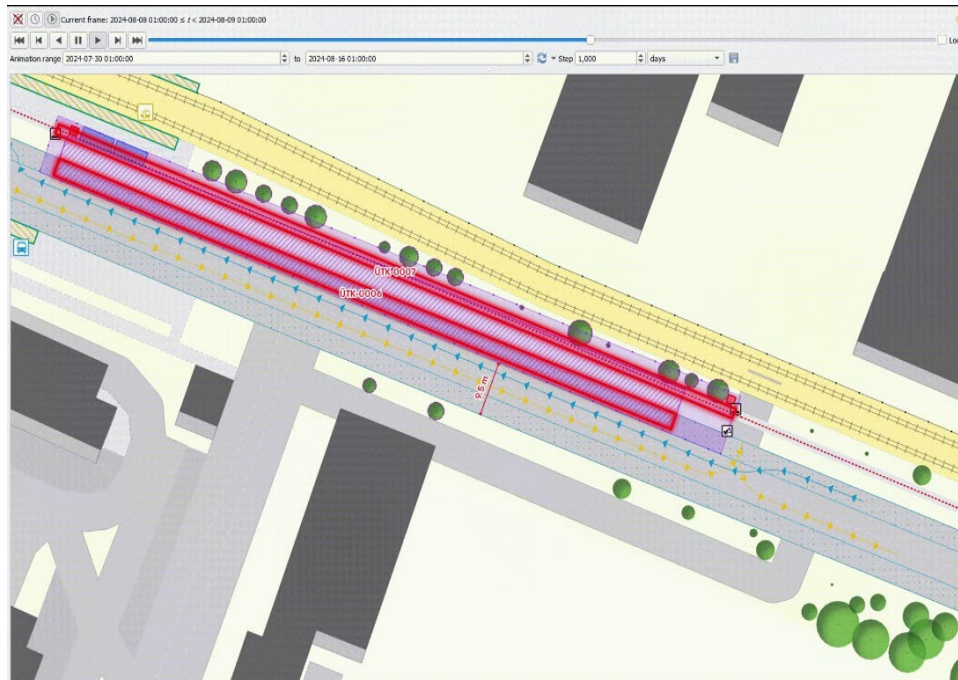


Figure 3. Spatial and temporal collision detection

## Method and Process

To provide these services, our City Information Management (CIM) framework relies on a comprehensive software environment. This software environment encompasses a range of necessary software to deliver the required services spanning from GIS, CAD, and BIM software for 2-3-4D modeling, mapping, and analysis through point cloud processing, reporting and data visualization software, as well as on-site applications and numerous other specialized tools. Rather than offering a single, monolithic solution to every problem, our approach presents a scalable, modifiable environment that provides task-driven solutions. We employ CIM as an overarching framework to manage and maintain a system capable of addressing questions at the appropriate scale, location, and with the most suitable tools. It is a reconsideration of our existing, previously separated tools. In essence, we have organized our scattered tools into a cohesive toolbox and defined which tool can answer specific questions and what is required to do so.

The process flow of the framework is illustrated in Figure 4. Initially, input data is registered, following its acquisition by the field team and stakeholders. Subsequently, the data undergoes separation based on type. The next phase involves parallel processes of modeling and digitizing for GIS and BIM environments, alongside the processing of textual materials and plan evaluations, thus completing the data preparation stage. The digitized and modeled data can then be analyzed based on specific tasks or purposes, primarily through spatial and temporal analysis in 2D and 3D clash detection. All processed information is then consolidated in a Common Data Environment (CDE), where stakeholders can respond and collaborate. This stage marks the point at which information reaches the stakeholders and can effectively support decision-making processes.

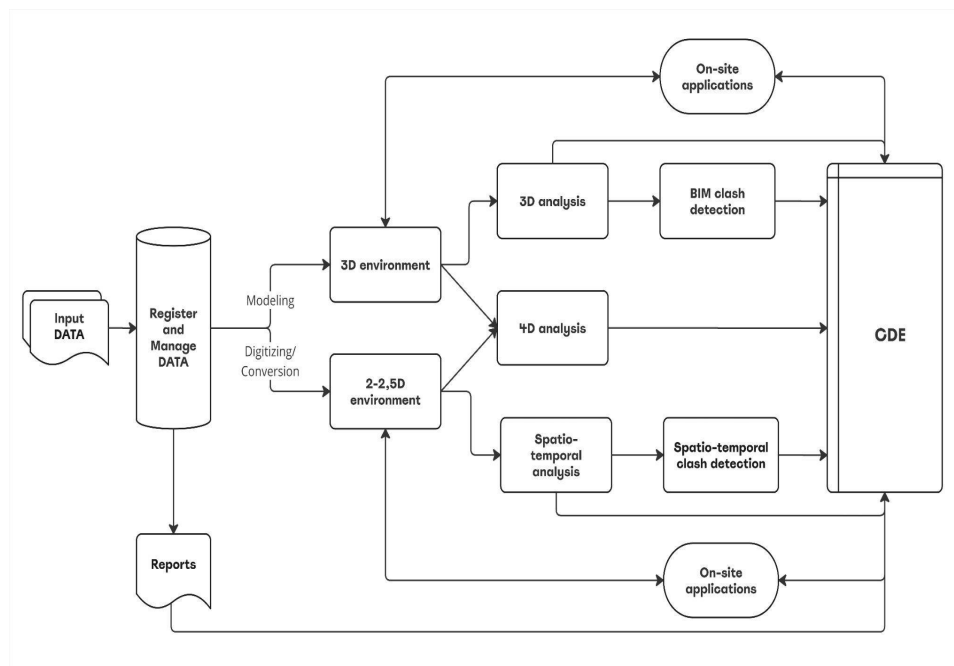


Figure 4. The main process of CIM

## RESULTS

As a result of our efforts, we have successfully developed a comprehensive 2D, 3D, and 4D environment and data management system that facilitates collaboration among stakeholders at the campus and neighborhood level within the urban context. This integrated system enables us to broaden our perspective and extend our services beyond individual buildings and their immediate surroundings, effectively mediating between the social and built environments.

The implemented City Information Management framework significantly enhances communication between diverse stakeholders, ranging from urban planners and architects to local residents and city officials. By providing a centralized platform for data sharing and analysis, the system supports evidence-based decision-making processes, allowing for more informed and efficient urban planning and management strategies.

Moreover, this integrated approach helps minimize disturbances associated with urban development and construction projects. By offering a holistic view of the urban environment and enabling predictive modeling, the system allows for better anticipation and mitigation of potential disruptions to city life and infrastructure.

## CONCLUSION

As the development of City Information Modeling (CIM) and similar integrated solutions progresses, we are witnessing the emergence and evolution of comprehensive platforms. Both Building Information Modeling (BIM) and Geographic Information Systems (GIS) professionals and developers are expanding their perspectives, seeking collaborative solutions that bridge their respective domains.

BIM-based Common Data Environment (CDE) platforms are increasingly incorporating GIS elements, such as CityGML or 3D Tiles, to enhance their spatial context capabilities. Conversely, GIS software and platforms are developing functionalities to integrate BIM elements, thereby expanding their ability to represent detailed structural information within a broader geographic context.

In conclusion, there is a discernible trend towards the integration of BIM and GIS technologies, driving the development of CIM solutions. Major geospatial and Architecture, Engineering, and Construction

(AEC) companies are prioritizing data integration, accelerating the global shift towards comprehensive CIM solutions. We find ourselves in a fortuitous era, witnessing this significant technological advancement, and anticipate with great interest the future developments in CIM.

This ongoing convergence of technologies promises to revolutionize urban planning, management, and development processes, offering more holistic, data-driven approaches to addressing complex urban challenges. As these integrated systems continue to evolve, they are likely to play an increasingly crucial role in shaping the smart cities of the future, enhancing sustainability, efficiency, and quality of life in urban environments.

## NOTES

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# **A STORY OF THE NARRATIVE FEATURES OF A LIVEABLE TOWN: DISCOVERING HUDDERSFIELD THROUGH WALKING**

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## **INTRODUCTION**

This paper investigates and reflects upon the narrative qualities of a series of places and buildings that it is possible to discover and experience during a walk. The aim is to identify and reflect on aspects that can enrich people's lives.

The COVID-19 pandemic highlighted the poor design of many private and public buildings and spaces in our urban environments.<sup>1</sup> During the pandemic, many people living in small houses or flats without access to greenery noticed and experienced the poor design of the areas they inhabited. However, COVID-19 also allowed us to discover (or rediscover) buildings and places that we had often taken for granted or even not noticed because of our usually fast-paced contemporary lifestyles. These places often characterise our daily lives, and for this reason, it is worth looking at them with different eyes and being able to appreciate the positive elements that are often already available in many of our urban environments.

## **Transformations and contemporary challenges of towns and cities**

Technological, social, environmental and economic factors are constantly changing and with them, various tangible and intangible aspects of towns and cities, and the ways people live within them, also change. This process of transformation brings several challenges, including the closing down of shops along many UK high Streets<sup>2</sup> and the decline of the urban environment and social life.<sup>3</sup> This is something that many people can experience by walking along the main streets of their towns and cities, where there are many empty shop windows and an atmosphere of abandonment. This situation is happening in many post-industrial towns and cities in the UK and other countries worldwide.

However, many of these towns and cities have also had a remarkable past that allowed the design and construction of many significant buildings and places. Although some buildings have unfortunately been demolished, many are still standing. Part of this cultural heritage has been adapted and reused, while part has been neglected, abandoned and even become ruinous. It is essential to be able to recognise the multiple values of this heritage, even the ruins, and to consider how, together with more contemporary interventions, it can contribute positively to people's lives.

But how can we recognise and appreciate specific buildings and places and their qualities, and the ways in which they can enrich people's daily lives?



## EXPLORING AND DISCOVERING THE URBAN ENVIRONMENT AND ITS NARRATIVE QUALITIES THROUGH WALKING

The best way to identify and appreciate buildings and places, both historical and contemporary, is by exploring the urban environment on foot. Walking has been widely used in the past by many writers, artists and architects to explore and understand a variety of aspects of such an environment for various purposes. Psychogeography, the French concept of the *dérive*, which means drifting, and the figure of the *flâneur* are all connected to walking and exploring the urban environment.<sup>4</sup> Walking encourages a slower and more reflective approach. While walking, one can stop at any time to admire buildings and places, including nature, in the smallest detail, and observe how they all appear different at various times and in various weather conditions.

### METHODOLOGY

The methodology of this investigation is characterised by a mixed approach, particularly focusing on qualitative methods that combine aspects of reflective writing, narrative, walking and a case study. The walk will be presented in narrative form to highlight personal experiences and reflections that cannot easily be captured and communicated by using more conventional research approaches. The relevance of reflective writing and subjective experience is being highlighted by an increasing number of scholars worldwide,<sup>5</sup> because quantitative approaches cannot capture many essential experiential, social and cultural aspects of our daily lives. The selected route and its elements have been experienced, documented and appreciated at different times in different seasons and years, including during the COVID-19 pandemic.

The walk selected provides a variety of buildings, places, natural surroundings and situations. The whole route is approximately 2.3 km. In many respects, a walk is like an open narrative. It is possible to reach the same location by using completely different routes, or to change only certain streets within the route. There are several interesting walking routes across the town, but after considerable exploration, one particular path was selected because it includes a variety of architectural and urban situations that are worth investigating.

I will describe the sequence of buildings and places I experienced and share some personal impressions and reflections. Because of space limitations, this paper only covers some of those experiences and narratives.

The word narrative is interpreted here in a few different ways which have also been explored in other publications.<sup>6</sup> The first interpretation sees architecture, places and related elements as narrative items which can communicate stories and meanings through their tangible and intangible aspects. A further interpretation is related to the ability of buildings to evoke emotions and to support (through their meanings) people's daily life narratives.

### CASE STUDY: REDISCOVERING HUDDERSFIELD THROUGH WALKING

The selected itinerary that represents the case study for this project is in Huddersfield, a market town located in West Yorkshire, between Leeds and Manchester. Like these two big cities, Huddersfield experienced remarkable development during the Industrial Revolution and this is still visible today, especially in its architectural heritage, which has also been described in various other publications.<sup>7</sup> Due to the space available, the description will focus on a few key elements.

The narration starts at the railway station, which can be considered the town's main public gateway, as many people come to Huddersfield daily by train to work or study. The following map highlights the main location of the journey (Figure 1).

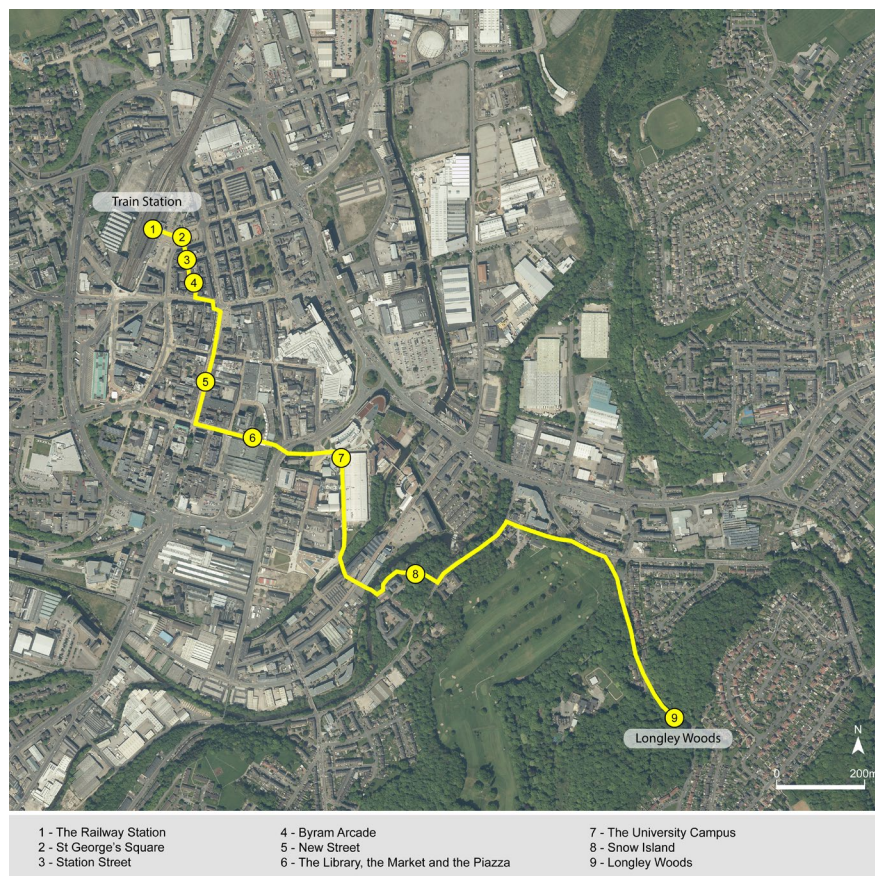


Figure 1. Map of Huddersfield showing the key locations of the journey from the railway station to Longley Wood (image source: author's personal archive).

## The Railway Station and St George's Square

In front of the wonderful neo-classical façade of the train station (Figure 2 - Left) is St George's Square. One of the things that always caught my attention when I came out of the train station was that I could see a partial view of a luxuriant green hill while looking towards Northumberland Street on the left-hand side of the square. Since March 2023, the construction of the new Daphne Steele building, part of the new National Health Innovation Campus, has partially concealed this view, though there is still a glimpse of the green hill (Figure 2 - Right). The new building's geometry, scale and materiality contrast with those of the historical buildings along Northumberland Street, and for this reason, it represents an interesting contemporary addition to the town's architecture.



Figure 2. (Left) The wonderful neo-classical façade of the train station; (Right) The new Daphne Steele building seen from St George's Square (images source: author's personal archive).



## Station Street

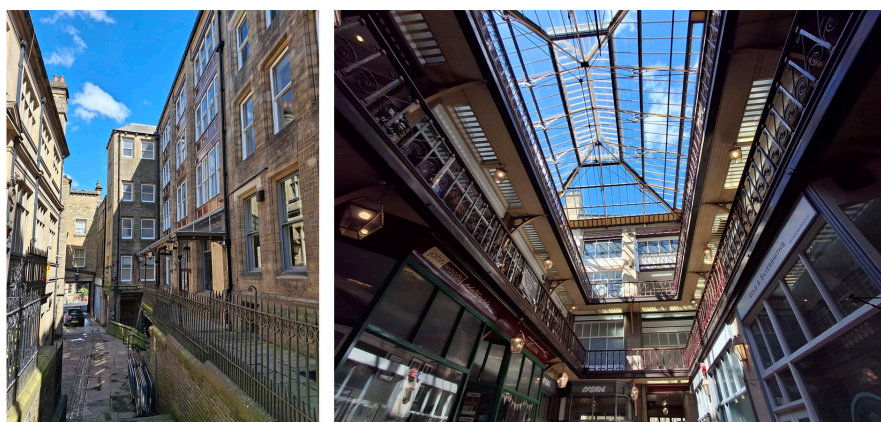
From St George's Square, instead of heading towards John William Street, which is the main street opposite the train station's entrance, I usually turn to the right and follow Station Street, a secondary thoroughfare lined with beautiful historical buildings. The street's name is carved on the horizontal cornice of the historic Britannia building (Figure 3 - Left). By looking at the upper part of the buildings along Station Street, it is possible to admire decorated cornices, chimneys and small turrets that stand out against a beautiful blue sky, evoking the feel of an almost magical place (Figure 3 - Right). The intersection between Station Street and St Peter's Street opens up another nice view towards part of the new Daphne Steele building, framed by the beautiful green hill in the background.



*Figure 3. (Left) The street's name is carved on the horizontal cornice of the historic Britannia building; (Right) Decorated cornices, chimneys and small turrets create an almost magical atmosphere along Station Street (images source: author's personal archive).*

## Byram Arcade

Continuing along Station Street, the next intersection is with Byram Court. On the left is a staircase to a small court which leads to John William Street, while on the right, there is a narrow path that gives access to Byram Arcade (this is a secondary access) (Figure 4 - Left). When the access is open, I usually prefer to walk through Byram Arcade and enjoy the historical atmosphere of this hidden arcade flooded by natural light coming from the big skylight on the roof. The arcade features balconies, attractive shop windows and decorations (Figure 4 - Right). Once outside, the main entrance also presents beautifully decorated elements. All these elements speak of their historical period, and the materials, lighting and decorations inside the arcade make it seem suspended in the past.



*Figure 4. (Left) The narrow path that gives access to Byram Arcade; (Right) Interior view of Byram Arcade with its big skylight, balconies, shop windows and decorations (images source: author's personal archive).*

## **New Street**

From the main entrance of Byram Arcade, a relatively short distance brings me to the pedestrian side of New Street, one of the main streets in the town centre. There are some attractive historical buildings along New Street and, because of the limited height of the façades/buildings, the street preserves a human, comfortable scale. The quality of the space has recently (June 2024) been improved by the addition of new urban furniture and greenery.

Turning to the left at the intersection between New Street and Ramsden Street, the building at the corner is that of the historic Prudential Assurance, a red-brick building with some attractive decoration.

## **The Library, the Market and the Piazza**

Ramsden Street goes down towards the pedestrianised Princess Alexandra Walk in the middle of the Piazza Shopping Centre. This area will be redeveloped as part of the ambitious Huddersfield Blueprint,<sup>8</sup> which aims to improve the town's quality of life by redeveloping key areas and providing new spaces, buildings and activities. One of the key areas identified is the Piazza Shopping Centre, which will become the development's new 'Cultural Earth'.<sup>9</sup> The existing Library and Art Gallery opened in the 1940s, and the building presents an imposing mass with only a few decorations and statues. It reminds me of a few of ancient Egypt's buildings. Queensgate Market, located in front of the Library and Art Gallery, has a very interesting interior space, especially its main structure which is constituted by hyperbolic paraboloid shapes that characterise the experience of walking within the market. I have often looked at the unusual ceiling and admired the quality of light in the interior spaces of the market.

## **The University Campus**

At the end of Princess Alexandra Walk there is a staircase close to the edge of Queensgate, the ring road surrounding Huddersfield's central area. On the other side of the road is the campus of the University of Huddersfield. From the top of the staircase, some beautiful university buildings can be admired. Further right, above a group of low-rise houses lying on a steep hill, a beautiful green hill emerges with trees scattered on the top (Figure 5 – Top Left). From the central university campus, it is possible to access a pedestrian path that leads towards the narrow canal. While walking along this route, Castle Hill, with its Victoria Tower, overlooks the background and gives a very evocative view (Figure 5 – Bottom Left). Towards the end of this straight pedestrian route, and before the pedestrian path starts curving to the right, there is a pleasant outdoor public area on the left-hand side with a few tables, benches and flowerbeds. The addition of flowerbeds along the pedestrian path from the main campus towards the narrow canal always enriches the walking experience, because different seasons present different shapes and colours.

Straight ahead, there is a pedestrian bridge that crosses the narrow canal (Figure 5 – Top Right), while the street that continues on the right-hand side passes in front of the imposing Barbara Hepworth building (Figure 5 - Bottom Right), where the School of Arts and Humanities is located. From the bridge, it is possible to appreciate views of the narrow canal, with luxuriant natural greenery on one of the canal banks. Along the canal, there are buildings pertaining to industrial heritage, which have now been readapted into university buildings, facing contemporary architecture.



*Figure 5. (Top Left) The beautiful green hill that can be admired from the edge of Queensgate, before crossing the road and entering the university campus; (Top Right) The pedestrian bridge that crosses the narrow canal and the historical mill readapted into university buildings; (Bottom Left) While walking through the middle of the university campus, Castle Hill, with its Victoria Tower, overlooks the background and provides an evocative view; (Bottom Right) The imposing Barbara Hepworth building, home of the School of Arts and Humanities (images source: author's personal archive).*

## Snow Island

After the pedestrian bridge, there is a staircase. By walking for just a few minutes from there, it is possible to access another bridge that crosses the river Colne and leads to Snow Island, a small island comprised of student accommodation and green areas. While crossing the pedestrian bridge, the atmosphere of the location gives the impression of going through a gateway to a hidden place, very different from the town centre. From Snow Island, there are some attractive views towards the campus and a mix of contemporary and historical buildings (Figure 6 - Left). The tall chimney of a former mill is a landmark evoking a memory of the historical past. Glimpses of the river also enrich the walk.

## Longley Woods Nature Reserve

After leaving Snow Island, walking for a few hundred metres and passing a golf course on the right-hand side, the path starts going uphill and the slope becomes increasingly accentuated. The path is initially lined with nice residential houses, which slowly disappear to give way to very dense vegetation. Each time I arrive close to the beginning of the wood, I notice that the atmosphere suddenly changes because of the strong presence of the dense vegetation. Also, the sounds and air quality suddenly change, together with the quality of light. This area is called Longley Woods and it is a nature reserve (Figure 6 - Right).



Longley Woods can be accessed from several different points and there are a few unpaved paths through the wood. Each time I have visited it, I have felt like I was in a forest in the countryside or on a mountain. There are specific points within the wood that are far enough from streets and other properties to really give the impression of being in another location.

It is possible to cross Longley Woods and emerge from the other side. From here, the journey could continue and reach Castle Hill, a heritage site rich in history and offering breathtaking views of Huddersfield and its surroundings.



*Figure 6. (Left) From Snow Island, there are some attractive views towards the campus and a mix of contemporary and historical buildings; (Right) A view inside Longley Wood (images source: author's personal archive).*

## DISCUSSION AND REFLECTIONS

In this section, I share some general reflections developed during and after walking along the selected path. All the buildings and places described were selected because of their particular features and the variety of their contextual elements.

The walk from the railway station to Longley Woods Nature Reserve presents a remarkable range of architectures, both historical and contemporary, and a wide variety of places which can all be experienced within a short time. This variety always has a positive effect on my walks by evoking emotions from wonder to a sense of calm and tranquillity. Moreover, it also triggers specific motivational states, such as curiosity to know more about the hidden narratives behind buildings, places and their countless details.

The route through the central area of the town has a remarkable quantity and variety of architectural heritage, with materials and decorations that always catch my attention and trigger my imagination. When I see buildings pertaining to Huddersfield's industrial heritage, I often try to imagine the urban environment and the atmosphere of the town during that historical period. The presence and multiple values of historical buildings should not be overlooked. They are an inheritance from historical periods characterised by specific architectural styles, crafts, ideas and lifestyles that are unique.

As well as the architecture, the walk is defined by the spaces it is possible to traverse. There are areas where the space expands itself, such as in St. George's Square in front of the train station or on the pedestrian side of New Street. At the same time, there are spaces that are narrow, resulting from a denser and more compact urban environment such as the one that surrounds Station Street and other areas of the town centre. The atmosphere experienced by walking through these spaces is obviously very different, and there is a constant sense of wonder that accompanies the exploration because of the variety of elements (buildings, spaces, views, etc.).

It is surprising and very positive to have a nature reserve so close to the town centre. The wood is so dense that it gives the impression of being far from an urban environment. Furthermore, nature is also present in various ways which enrich the experience of walking through those places.

Access to green spaces and greenery, both visually and physically, is not something to be taken for granted and the COVID situation has clearly shown this. The presence of high green hills very close to the town centre, and easily accessible from it, could be considered one of the main characteristics of Huddersfield. Few towns and cities have such characteristics or provide such opportunities to the inhabitants. Huddersfield's topography is unique, and it gives the town a strong identity very different from those of towns and cities with a predominantly horizontal development.

As mentioned before, various artists, architects and writers have highlighted the value of exploring the urban environment. An interesting work worth mentioning here, which presents a few similarities to the approach used in this research, was published in 1908 and entitled 'The Beauty of the Metropolis'.<sup>10</sup> This small book was written by Augustus Endell (1871-1925), a designer and writer who was self-taught in architecture. In his publication, he describes observations from his walks around Berlin. He acknowledges the many issues that affect city life and the poor quality of many buildings and places. However, he also encourages people to look at and recognise the positive elements available to anyone ready to appreciate them. As highlighted by Alexander Eisenschmidt, Endell seems to search for '[...] potentials within the given situations [...]'.<sup>11</sup> Hence, how we decide to engage with the existing urban environment plays a pivotal role. Before planning any new interventions, there should be a deep understanding of the values of existing architecture and places, yet aspects of today's contemporary lifestyle seem to make it increasingly difficult to be able to slow down and recognise them.

## CONCLUSIONS AND FUTURE DEVELOPMENTS

This paper has investigated and reflected on some narrative features of a series of buildings and places that can be experienced during a walk along a selected route in the town of Huddersfield. They trigger a remarkable variety of positive emotional responses that make Huddersfield a liveable town with a great deal of potential. This quality might not be immediately visible, but it requires active engagement through walking in order to be recognised and appreciated.

The research used a mixed approach and mainly focused on qualitative aspects experienced in the first person. Subjective experiences and reflection upon them are considered essential in improving aspects of our buildings and places, towns and cities. Subjective experiences give insights that cannot be captured or analysed using only quantitative data.

This work, still in progress and part of a larger research strand, aims to raise awareness about the qualities of many often-overlooked buildings and places. It is also hoped that it will encourage narrative and experiential exploration of our built environment. This would represent a first step in caring about our towns and cities and thinking about how to improve some of their aspects through imagination and design.



## NOTES

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- <sup>2</sup> Matt Murray and Oscar Edwards, "High Streets: One in six Welsh shops are now empty, data shows," accessed June 25, 2024, <https://www.bbc.co.uk/news/uk-wales-66676911>
- <sup>3</sup> Sarah Butler, "Almost 2,000 more independent stores in Great Britain left empty this year," accessed June 25, 2024, <https://www.theguardian.com/business/2023/sep/21/almost-2000-more-independent-stores-in-great-britain-left-empty-this-year>
- <sup>4</sup> Merlin Coverley, *Psychogeography*, revised ebook edition. (Harpندن: Oldcastle Books, 2018).
- <sup>5</sup> Melanie A. Jasper, "Using reflective writing within research," *Journal of Research in Nursing* 10, no. 3 (2005): 247-260.
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- <sup>7</sup> Christopher Marsden and Andrew Caveney, *Huddersfield in 50 Buildings* (Stroud: Amberley Publishing, 2019).
- <sup>8</sup> "The Huddersfield Blueprint," Kirklees Council, accessed August 5, 2024, <https://www.kirklees.gov.uk/beta/huddersfield-blueprint/index.aspx>
- <sup>9</sup> "Our Cultural Heart," Kirklees Council, accessed August 5, 2024, <https://ourculturalheart.co.uk/>
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# SMART CITIZEN ACTIVISM: THE CASE OF SIDEWALK TORONTO

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## INTRODUCTION

At the outset of the COVID-19 pandemic in May 2020, the former Alphabet company Sidewalk Labs announced the cancellation of its smart city project in Toronto, known as Sidewalk Toronto. Although the company cited uncertainties in the real estate market as the cause for this withdrawal, no one following the project fully accepted this rationale. Almost certainly, it was a response to the company's inability to expand the project across the hundreds of acres of land potentially available for development on the Toronto waterfront. This study analyzes the citizen campaign against Sidewalk Toronto, offering a unique window into the politics surrounding interactions with platform companies that may be useful to other citizen campaigns. We reviewed thousands of pages of public documents, Sidewalk Labs proposals, and media reports, and interviewed six key civil society participants directly involved in opposing the project at the highest level (all participants requested anonymity). Our contention is that this failed attempt was in large part due to counter-actions by a heterogeneous group of civil society actors who politicized the project in strategic ways, eventually frustrating the deep-pocketed public relations campaign initiated by the multinational company. A broad-based digital-centric coalition of civil society activists, known as Block Sidewalk, was critical to expanding the opposition to include activist groups that might not typically be interested in technological issues such as data privacy. However, high profile opponents such as former Blackberry co-CEO Jim Balsillie and local journalists were particularly successful in politicizing the issue, as was a civil liberties lawsuit by the Canadian Civil Liberties Association (CCLA).

Once politicized, the project prompted a populist reaction to an attempt by a foreign firm to take over prime real estate on the Toronto waterfront, leading to an unexpected confluence of political interests. The project was exemplary of a third stage of platform capitalism where smart city tech firms move beyond the sale of urban systems and the collection of data to a form of rentier capitalism involving financial underwriting and investment in real estate.<sup>1</sup> This move can be understood as an attempt by platform companies to diversify away from data collection into new streams of income generation. But there are downsides to this strategy, especially for a firm as politically heavy handed as Sidewalk Labs was in Toronto. Moves into real estate are particularly likely to prompt political reactions to big tech companies since they create a more concrete target than the more obscure notion of data privacy: gentrification, or in this case, the perceived usurping of public lands by foreign, private sources. Anti-gentrification campaigns around the world have been central to efforts to oppose platform companies.<sup>2</sup> In the case of Sidewalk Toronto, it was not just anti-gentrification but also populist nationalism that triggered a political reaction against a foreign multinational corporation.

## THE SIDEWALK TORONTO PROJECT

Sidewalk Labs was an urban innovation firm based in New York City that was part of the Alphabet conglomerate that also houses Google.<sup>3</sup> In 2017, the public institution Waterfront Toronto<sup>4</sup> issued a request for proposals (RFP) to “create and fund a globally significant community” in Quayside, a 12-acre waterfront parcel of land where it had majority ownership.<sup>5</sup> When Sidewalk Labs released its Master Innovation and Development Plan (MIDP) in 2019, however, it proposed the development of a 190-acre IDEA District composed of seven mixed-use neighborhoods. The development would include over 36,000 residential units, forty percent of which would be below-market.<sup>6</sup> The district would contain 6.85 million square feet of commercial space, 1.5 million square feet of retail space, and over half a million square feet of “social infrastructure” including health centres, libraries, and a 60,000 square foot elementary school.<sup>7</sup> The IDEA District would also be home to Google’s new Canadian headquarters located on the west end of Villiers Island. The proposal showcased buildings constructed with cutting-edge mass timber technologies, using lumber drawn from Canada’s abundant forests.

Sidewalk Labs’ proposal drew criticism on several issues. The MIDP not only proposed a development much larger than what most Toronto residents were expecting, it also stated that Sidewalk Labs would take over from Waterfront Toronto’s role as lead developer. It further called for the creation of five public administration entities that would govern the IDEA district; Sidewalk Labs would play a role in all of them.<sup>8</sup> Later, critics revealed that it also sought to receive a share of future taxes and development fees in exchange for its investment.

Sidewalk Labs claimed it needed a larger area to ‘scale’ the urban technologies it planned for the area, arguing that they would not be viable in the smaller 12-acre Quayside parcel of land. But for activists who had been demanding a reset of the Quayside project since its inception, the expansion of the project from 12 to 190 acres and the administrative overhaul proposed in the MIDP served as a perfect example of Sidewalk’s true intentions. Critics also noted the considerable risks to data privacy the project presented.<sup>9</sup> Following years of extensive citizen opposition to this proposal, Waterfront Toronto, which had taken a laissez-faire approach toward much of the project, formally restricted Sidewalk Labs to the 12-acre site on October 3, 2019. This “realignment on MIDP threshold issues” barred Sidewalk Labs from any further consideration of building a large-scale smart district on Toronto’s shores.<sup>10</sup> Six months after the realignment, Doctoroff announced that his company would be terminating its involvement.

## SIDEWALK LABS’ CONSULTATION CAMPAIGN

Sidewalk Labs initiated an extensive consultation process intended to legitimize their plans. To ensure citizen engagement, smart city initiatives often involve extensive public relations efforts to include citizens via consultation, ostensibly providing them a platform to air their preferences or concerns. Kitchin argues that the appearance of encouraging citizen empowerment is a discursive tool for smart city vendors pushing back against criticism that the smart city is technocratic and hierarchical.<sup>11</sup> Smart city companies operate under the banner of inclusivity in order to “silence [...] detractors and bring them into the fold while keeping their central mission of capital accumulation and technocratic governance intact.”<sup>12</sup> Sidewalk Labs undertook significant public consultation to legitimize its proposals. It engaged in extensive lobbying of local decision makers while at the same time making Waterfront Toronto board members sign non-disclosure agreements that prohibited them from discussing the deal. In the MIDP, Sidewalk Labs claimed to have consulted with over 21,000 Torontonians between November 2017 and June 2019.<sup>13</sup> In total, they held eight public events: one town hall, four public roundtables, and three “design-jams”.<sup>14</sup>

Despite these events, critics claimed that Sidewalk Toronto’s public consultation process was not grounded in a genuine desire to collaborate with citizens. Bianca Wylie – an advocate for civic tech

reform who became one of Sidewalk Labs' most vocal critics -- claimed that the public roundtables served a completely different purpose: to gather input "that [could then] be used to reverse engineer an outcome"<sup>15</sup> Wylie argued that Sidewalk Labs was sidelining citizens, steamrolling their concerns, and then "gaslighting" anyone who called them out for it. These events, in which individuals were invited to participate as experts rather than residents, constitute a practice that Shelton & Lodato argue makes citizens "both discursively centred and absent."<sup>16</sup> Wylie further accused Waterfront Toronto of allowing Sidewalk Labs to take the lead in creating regulatory agencies to oversee the IDEA district, instead of setting the terms and conditions for waterfront development itself. As Haggarty and Spicer argue, Waterfront Toronto gave over the structural power of setting the terms of data collection and other governance issues to Sidewalk Labs.<sup>17</sup>

But efforts by citizen critics and investigative journalists attracted the attention of powerful allies such as former BlackBerry co-CEO Jim Balsillie, who created legitimacy and drew considerable attention to the cause. Multiple, diverse local opposition groups used cybernetic forms of organizing to create a decentralized, yet coherently branded digital organization called Block Sidewalk. Activists were highly attuned to local political sentiment, taking advantage of local concerns over issues such as housing and foreign influence in the economy that garnered support even from neo-liberal municipal and provincial governments. Finally, a Canadian Civil Liberties Association (CCLA) lawsuit threatened to expose corporate documents to the public. We will examine each of these points, highlighting insights gained from participants interviewed for this study.

### CITIZEN RESPONSE: "POPULIZING" THE MESSAGE

One participant we interviewed said that the opposition probably suffered from being a bit too "erudite" at times in its critiques, mostly at the beginning when data privacy concerns were the focus. For the opposition to achieve widespread support, it needed to mobilize around bread-and-butter issues. Mainstream media coverage was instrumental in this regard, particularly news publications like the *Globe and Mail* and the *Toronto Star*. This was most clearly illustrated when Marco Chown Oved of the *Toronto Star* acquired confidential documents from a presentation Sidewalk gave to Alphabet in November 2018. In addition to envisioning a development roughly thirty times the size of Quayside, Sidewalk's presentation stated it was entitled to a share of increased tax revenue and municipal development charges.<sup>18</sup> This article was mentioned by several of the participants interviewed as a dramatic inflection point for the opposition and, in some case, a critical juncture for their own activism. Following the *Toronto Star* revelations, some opponents, including previously supportive elected officials, began calling the deal a land grab.

The opposition was able to capitalize on the momentum from the *Toronto Star* story to create a citizen coalition and digital campaign called Block Sidewalk. Block Sidewalk was digital-first; it is a clear example of alternative forms of cybernetic sociality that have emerged around the world, from Hong Kong to the Arab Spring.<sup>19</sup> It was never a registered non-profit, it did not have a board, votes, or a formal membership structure. Block Sidewalk was simultaneously a hashtag campaign and a citizen coalition. It was founded to unite a collective of individuals who had previously been organizing in discrete networks across a variety of digital and physical spaces. Many of Block Sidewalk's founding members had never met one another, but the digital nature of the campaign created the sense of a solid and fortified opposition.

One participant reported that within two days of the *Star* story publication, Block Sidewalk had launched their website, their digital campaign (#BlockSidewalk), and prepared their first press release. This participant also stated that Block Sidewalk was able to garner support from "die-hard social service groups" including housing advocacy group ACORN and labour organizations like Toronto Community

Benefits Network and Good Jobs for All. ACORN challenged Sidewalk Labs' definition of "affordable housing", arguing that "under market" rent does not equal affordable housing.<sup>20</sup>

This point was further solidified when Tom Cardoso & Josh O'Kane of the *Globe and Mail* acquired a copy of Sidewalk's infamous Yellow Book, an internal 437-page memorandum that lays out the company's founding mission and objectives.<sup>21</sup> The Yellow Book stated that Sidewalk Labs would strive for power to levy its own taxes and collect granular data on all entities in its developments. The document, which predates the Quayside project by a year, further confirmed for opponents that Sidewalk's public consultation process was a pretense designed to manufacture citizen consent for a project that was entirely premeditated. The Yellow Book story was just one of many influential pieces by O'Kane, who was mentioned by three participants as central to exposing Sidewalk Labs' motivations.

## LOCAL POLITICAL FACTORS

As O'Kane argues, Sidewalk Labs seemed blithely unaware of local political context.<sup>22</sup> Ultimately, however, Sidewalk Labs' attempts to develop more land on the waterfront, take over the project as lead developer, receive a cut of future tax revenues, and play a significant regulatory role ignited Canadian concerns about a US company taking over the Toronto waterfront. They also reinforced the critiques of a broader "techlash" movement occurring globally; large firms such as Google and Amazon have been challenged by citizen movements around the world who have criticized their tendency to get tax abatements, receive public subsidies, and encourage gentrification. The logic of profit accumulation for platform companies like Google, and by extension Sidewalk Labs, is to expand the potential sources of data collection as extensively and rapidly as possible to perfect the algorithms they use to sell advertising and urban technologies.<sup>23</sup> Whoever enters new markets first has a huge advantage, creating barriers to entry for future competitors and a quasi-monopolistic marketplace. They can also enclose users into their networks by using proprietary technologies, ensuring a captive audience for potential advertisers. These factors result in inexorable monopolistic and expansionist tendencies that constitute a central contradiction for large tech firms: their need to continually expand so they can collect more data for advertisers or test urban technologies is viewed as predatory and frequently results in political backlash.<sup>24</sup> The potential for a political backlash is even more attenuated when it involves the acquisition of large swaths of real estate at reduced prices.

Those opposed to the project realized that highlighting attempts by a foreign company to control the local economy would have far greater political traction than arcane debates over intellectual property and privacy issues. They played into local political sentiments with nationalist undertones that remained strong despite the neo-liberal bent of both the provincial and municipal governments. Opponents such as former Blackberry co-CEO Jim Balsillie also campaigned for the protection of Canadian IP and the need to integrate Canadian firms and their technologies into the project. He was, after all, the former CEO of a Canadian company whose demise could be laid at the feet of large U.S. multinationals such as Apple and Google. Balsillie used explicit anti-colonial, techlash rhetoric, referring to Sidewalk Toronto as "a colonizing experiment in surveillance capitalism" in an op-ed.<sup>25</sup> In the *Toronto Star*, Balsillie argued that Quayside was reflective of "Canadian policy-makers' colonial supplicant attitude towards business" and our urgent need for a national strategy that prioritizes data sovereignty.<sup>26</sup> Compelled by reporting on Sidewalk's IP strategy, Balsillie leveraged his significant credibility in Canadian policy circles and harnessed his connections with mainstream media to fundamentally tilt the balance of power in the Quayside negotiations.

## LEGAL CHALLENGES

A CCLA case was another distinct pressure point, and it was fundamentally different from the opposition Sidewalk Toronto had already faced because it questioned the existential legitimacy of the Quayside project. In 2019 the CCLA sued Waterfront Toronto, requesting a judicial review of their procurement of Sidewalk Labs. The suit alleged that Waterfront Toronto's plan for Quayside would violate Canadian privacy rights. One participant interviewed reported that Sidewalk Labs approached the CCLA early in the Quayside process to ask them to participate on one of their expert advisory committees. They ultimately declined, believing the CCLA's duty as watchdog would be performed best if they remained outside the negotiations.

The CCLA claimed that Waterfront Toronto never had the necessary authority or proper jurisdiction to issue an RFP for a project that involved "historically unprecedented, non-consensual, inappropriate mass-capture surveillance and commoditization of personal data."<sup>27</sup> One participant claimed that the CCLA suit was decisive in Sidewalk's abandonment of the Quayside project. Even though Waterfront Toronto was the formal party, Sidewalk Labs – and, by extension, their parent company – would have been aware of the suit as a potential liability. Perhaps most crucially, the proceedings required that Waterfront disclose all documentation related to their early interactions with Sidewalk Labs. A participant with knowledge of corporate decision-making explained:

It was a pressure point for sure. And it was bound to be on the minds of Sidewalk that those disclosures were going to have to happen as [the case] moved forward and it's very likely that there would have been some documents that would have engendered attention and public concern that would have ended up having to become part of the public record.

## CONCLUSION

The Sidewalk Toronto smart city project was ultimately cancelled because it could not achieve its goal of expanding its data collection networks, infrastructural projects, real estate acquisitions and financial underwriting instruments. This was largely due to a multi-pronged civil society campaign that pressured Waterfront Toronto to stop the company from expanding over a large swath of prime real estate on Toronto's waterfront. This campaign was not centrally coordinated, although all opposition groups were aware of each other. It took many different approaches to block this project, including investigative journalism, digital organizing amongst diverse civil society actors, prominent public figures who opposed the deal, and a CCLA lawsuit. Participants interviewed for this project agreed that it took all of these opposition forces to ultimately stop Sidewalk Labs' deep-pocketed campaign. Ironically, Sidewalk Labs itself may have been its own worst enemy. Its explicit plan to expand its real estate and financial presence in Toronto, combined with its desire to share in future taxes and development fees, all fit within the logic of platform companies to continually expand and enclose their influence. This logic, however, clashed with local political sensibilities, which Sidewalk Labs seemed completely unaware of.

This case study may be relevant to other urban areas where similar projects are underway, but it also reveals a central contradiction of platform urbanism. In their inexorable campaigns to expand, platform companies may trigger a protectionist political reaction that could scupper their deals. In the case of Sidewalk Toronto, this reaction was largely populist anti-cosmopolitanism, while elsewhere it has been anti-gentrification. Regardless, it provides an interesting insight into interactions between large platform companies and the civil societies they engage with.

## NOTES

- <sup>1</sup> Jathan Sadowski, "Who owns the future city? Phases of technological urbanism and shifts in sovereignty," *Urban Studies* 58, no. 8 (2021): 1732-1744.
- <sup>2</sup> See James DeFillipis and Samuel Stein, "Working-class institutions, Amazon and the politics of economic development in western Queens," *Urban Affairs Review*, 59, no. 4 (2022): 1080-1101; and Maren Hartmann, "'Google is not a good neighbour': The Google campus protests in Berlin," *Space and Culture*, 27, no. 1 (2024): 110-126.
- <sup>3</sup> Sidewalk Labs was created as a subsidiary of Alphabet Inc. following the restructuring of Google in 2015, but in 2021 it was dissolved back into Google.
- <sup>4</sup> Waterfront Toronto is a publicly owned and governed corporation created in 2001 to revitalize Toronto's former industrial waterfront.
- <sup>5</sup> Waterfront Toronto, *Request for proposals innovation and funding partner for the quayside development opportunity* [RFP No. 2017-13], Toronto, 2017: 6. <https://quaysidetoronto.ca/wp-content/uploads/2019/04/Waterfront-Toronto-Request-for-Proposals-March-17-2017.pdf>
- <sup>6</sup> Sidewalk Labs, *Master innovation and development plan*, 1, Toronto, 2019: 296.
- <sup>7</sup> Sidewalk Labs, *Master innovation and development plan*, 1: 302.
- <sup>8</sup> Sidewalk Labs, *Master innovation and development plan*, 1: 205.
- <sup>9</sup> Anna Artyushina, "Is civic data governance the key to democratic smart cities? The role of the urban data trust in Sidewalk Toronto," *Telematics and Informatics*, 55 (2020): 1–13.
- <sup>10</sup> Waterfront Toronto, *Overview of realignment of MIDP threshold issues*, Toronto, 2019. <https://quaysidetoronto.ca/wp-content/uploads/2019/10/Overview-of-Threshold-Issue-Resolution-Oct-29.pdf>
- <sup>11</sup> Rob Kitchin, "Making sense of smart cities: addressing present shortcomings," *Cambridge Journal of Regions, Economy and Society*, 8, no.1 (2015): 133.
- <sup>12</sup> Paolo Cardullo and Rob Kitchin, "Being a 'citizen' in the smart city: Up and down the scaffold of smart city participation in Dublin, Ireland," *GeoJournal*, 84 (2019): 2.
- <sup>13</sup> Sidewalk Labs, *Master innovation and development plan*, 0, Toronto, 2019: 67.
- <sup>14</sup> Sidewalk Labs, *Master innovation and development plan*, 0, 71-71.
- <sup>15</sup> Bianca Wylie, "Debrief on Sidewalk Toronto public meeting," *Medium*, August 19, 2018. Retrieved August 21, 2021. <https://biancawylie.medium.com/debrief-on-sidewalk-toronto-public-meeting-3-a-master-class-in-gaslighting-and-arrogance-c1c5dd918c16>
- <sup>16</sup> Taylor Shelton and Thomas Lodato, "Actually Existing Smart Citizens," *City*, 23, no. 1 (2019):46.
- <sup>17</sup> Blane Haggarty and Zachery Spicer, "Infrastructure, smart cities and the knowledge economy: Lessons for policymakers from the Toronto Quayside project. *Canadian Public Administration* 65, no. 2 (2022).
- <sup>18</sup> Marco Chown Oved, "Google's Sidewalk Labs plans massive expansion to waterfront vision," *Toronto Star*, February 14, <https://www.thestar.com/news/gta/2019/02/14/googles-sidewalk-labs-plans-massive-expansion-to-waterfront-vision.html>
- <sup>19</sup> See Andres Luque-Ayala and Chris Martin, *Urban Operating Systems: Producing the Computational City* (Cambridge: Cambridge University Press, 2020) and Philip Howard and Muzammil Hussein, *Democracy's Fourth Wave? Digital Media and the Arab Spring* (Oxford: Oxford University Press, 2013).
- <sup>20</sup> ACORN, "Google wants to build the 'City of the Future in Toronto and locals are worried," November 3, 2017. <https://acorncanada.org/news/motherboard-google-wants-build-city-future-toronto-and-locals-are-worried/>
- <sup>21</sup> Thomas Cardoso and Josh O'Kane, "Sidewalk Labs document reveals company's early vision for data collection, tax powers, criminal Justice," *Globe and Mail*, October 30, 2019. <https://www.theglobeandmail.com/business/article-sidewalk-labs-document-reveals-companys-early-plans-for-data/>
- <sup>22</sup> Josh O'Kane, *Sideways: The City Google Couldn't Buy* (Toronto: Random House, 2022).
- <sup>23</sup> Shoshana Zuboff, *The Age of Surveillance Capitalism* (New York: Public Affairs, 2019) and Nick Srnicek, *Platform Capitalism* (Cambridge: Polity Press, 2017).
- <sup>24</sup> Barbara Jenkins, "Smart City Toronto: Extraction, Enclosure, Rentier Capitalism," *Canadian Journal of Communication* 47, no. 2, 2022: 254.
- <sup>25</sup> Jim Balsillie, "Sidewalk Toronto has only one beneficiary, and it is not Toronto," *Globe and Mail*, October 5, 2019. <https://www.theglobeandmail.com/opinion/article-sidewalk-toronto-is-not-a-smart-city>
- <sup>26</sup> Jim Balsillie, "Canada needs a national data strategy," *Toronto Star*, January 30, 2018.



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<sup>27</sup> Josh O’Kane, “Waterfront Toronto tries to block legal attempt to shut down Sidewalk Labs smart-city project,” *Globe and Mail*, January 3, 2020.

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# TEST THE BEST

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## INTRODUCTION

This research covers the second part of a study on livability, focusing on public transport networks in South African cities. In the first part, livability concepts were selected from international literature (figure 1a), defined and reviewed against national policy, and municipal documents were examined to establish whether livability measures were considered in urban planning.<sup>1</sup> Africa is often overlooked in international studies on livability, despite being home to a fifth of the World’s population. Nationally, Nelson Mandela’s writings contextualize livability (figure 1b). In his writing, he described a vision of a society where people experience dignity, prosperity, and freedom in their daily lives.<sup>2</sup> National transport policy sets the stage for livability research, referencing “livability” and “accessibility.”<sup>3</sup> In understanding that apartheid in South Africa was a socially divisive, damaging urban planning phenomenon, livability provides a focused spatial dimension through which to test current urban morphology against Constitutional goals. This paper evaluates selected livability measures, examining them in the City of Tshwane, Gauteng (figure 2a).

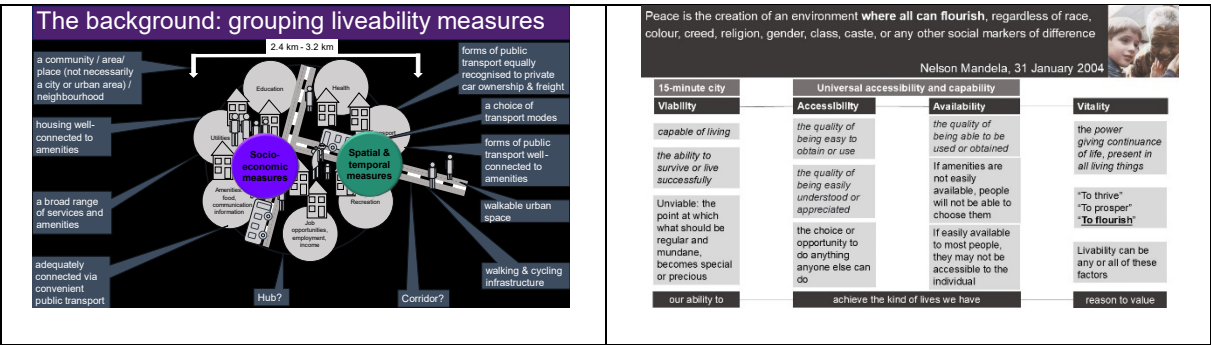


Figure 1a. summarized selected livability measures

Figure 1b. Mandela, <sup>4</sup> fostering the livability paradigm in Sen<sup>5</sup>

## METHODOLOGY

The authors selected walkable journeys on a public transport route created by the introduction of a Bus Rapid Transit (BRT) system. The three walkable journeys are each within the time-period of 15-minutes, circumnavigating stations on the BRT T1 route (figure 2b); a route from Nana Sita in the Pretoria CBD, running eastwards through the suburbs of Hilcrest and Menlyn (figures 3a and 3b).

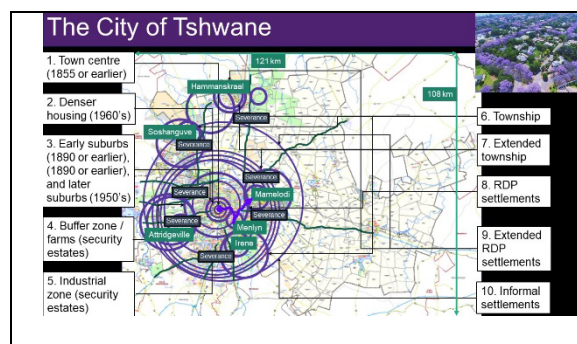


Figure 2a. Apartheid planning in the City of Tshwane

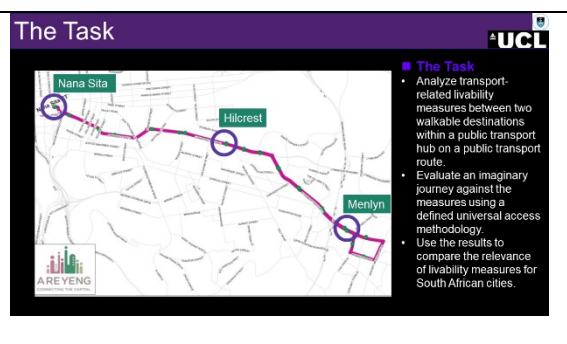


Figure 2b. the location of the assessment, Bus Rapid Transport route T1

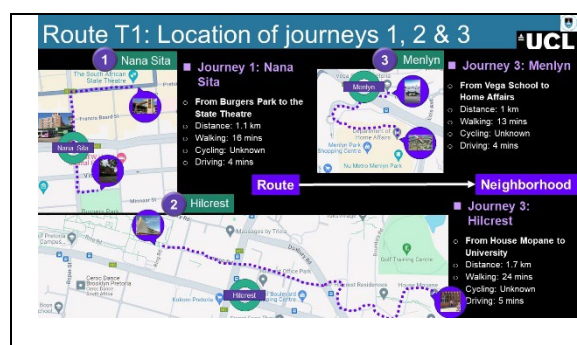


Figure 3a. the location of the walkable journeys

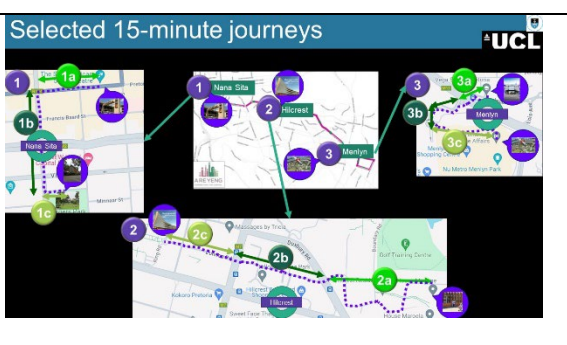


Figure 3b. an outline of the walkable journeys

Data collection is supported through resources obtainable online. For analysis, data can be grouped into four thematic areas, ‘people, place, time, and space’, a methodological approach developed at the University College London PEARL laboratory.<sup>6</sup> International literature reference similar themes.<sup>7</sup>

## Problem statement

The authors intentionally focused on urban morphology to answer the question “given South Africa’s history, what measures to assess livability assist in policy implementation?” Ease of data collection is important in developing a robust process. However, some of the international measures promoted require detail not locally available. With employment, for example,<sup>8</sup> data is not as available as elsewhere, and the serviceable measure is the most localized data regularly available.

## RESEARCH METHODS

The approach, ‘people, place, time, and space’ assisted to thematically group data collected through the following data resources.

### People

Data is available on demographics, employment, health, education and income levels (table 1). At the neighbourhood level, a 2011 study provided the only available data. To augment this out-of-date study, two online surveys contributed evidence. The first, with public transport passengers<sup>9</sup>; the second, with professionals.<sup>10</sup>

### Place

Data on amenity availability within a 15-minute walkable journey is obtainable through web-based applications (table 1). As the spatial measures covered neighbourhood layout, Google Earth provided the data capability.

## Time and Space

Data on seasonal, weekly, and diurnal variations can be extrapolated in the records of passenger numbers using the T1 route. Weather, pollution, and solar angles affect public transport use. The following web-based applications were used in this study:

Aspect	Organisation	Web address
Amenities	CityAccessMap	<a href="https://www.cityaccessmap.com/">https://www.cityaccessmap.com/</a>
Spatial measures	Google Earth	<a href="https://earth.google.com/web/">https://earth.google.com/web/</a>
Neighbourhoods	Wazimap	<a href="https://next.wazimap.co.za/">https://next.wazimap.co.za/</a> *
Travel times	City of Tshwane	<a href="https://www.areyeng.co.za/routes-stops/route-timetable-downloads/">https://www.areyeng.co.za/routes-stops/route-timetable-downloads/</a>
Weather	TimeandDate	<a href="https://www.timeanddate.com/weather/southafrica/pretoria/climate">https://www.timeanddate.com/weather/southafrica/pretoria/climate</a>
Pollution	World Air Quality Index project	<a href="https://waqi.info/#/c/-24.154/32.009/5.3z">https://waqi.info/#/c/-24.154/32.009/5.3z</a>
Solar angles	SunEarthTools	<a href="https://www.sunearthtools.com/dp/tools/pos_sun.php">https://www.sunearthtools.com/dp/tools/pos_sun.php</a>
	SunCalc	<a href="https://www.suncalc.org/">https://www.suncalc.org/</a>
<i>*At the time of writing, a new version of wazimap has been made available with 2022 census data</i>		

*Table 1. Tools for gathering data to illustrate selected livability measures*

## Field verification

Site inspections are a commonly used tool for access audits.<sup>11</sup> They provide a clearer picture of the status of urban management and, the authors argue, are essential for an assessment of urban safety.

## Comparing the three walkable journeys

A simple numeric rating scale provided a broad livability comparison between the walkable journeys in the three neighbourhoods.

## FINDINGS

There is sufficient alignment in socio-economic data to create a broad understanding of livability in Tshwane supplemented by additional data-gathering approaches. The field verification enabled an evaluation of the usefulness of selected livability measures, highlighting gaps for future research. The findings are categorized using the same thematic approach outlined in the methodology.

## People

Tshwane has a young population, only 12% of the population are over 60.<sup>12</sup> Women-headed households account for half the residential population.<sup>13</sup> Women and children, more likely to use public transport,<sup>14</sup> have defined access needs, and public safety is a registered concern.<sup>15</sup> The proportion of the city population spending over 10% of their monthly income on transport is extremely high (80%); an original trigger for the research. Around 70% feel unsafe after dark,<sup>16</sup> and road traffic injuries are the second highest cause of death of children aged 4-14.<sup>17</sup>

Male life expectancy is only 63.7 years, and youth unemployment is over 60%. Over 10% of the adult population has no schooling, indicating a low-income-semi-skilled, largely unemployed, young workforce. Over 16% of residents living in informal housing and the city has expanded by 25% in the past 10 years;<sup>18</sup> suggesting a city population in flux, with older people leaving or passing away and younger people moving in, searching for jobs which are not available.

Neighbourhood data partly supports the city-wide data. Most informal housing is in the CBD, dropping as income levels rise through Hilcrest towards Menlyn. As income levels rise, density decreases using

the ratio of the number of residents per km<sup>2</sup>, and along with it, unemployment. The author's survey data confirms the young population, over 50% women, with concerns about public safety. The small survey of planning professionals indicates that livability is not really understood, and that public safety is an area that professionals do not know how to address.<sup>19</sup>

The T1 route demonstrates the type B morphology described in Mattioli and Colleoni (2016), explored in the authors' first paper. If city densities had improved along the route, reduced cost-of-living would have been achieved. However, social housing placed on the outskirts of the township of Mamelodi over the last 30 years, means that providing financially viable public transport in a socially viable manner has become less financially sustainable.

## Place

Municipal development plans now support the 15-minute city 'ideal' but insufficiently measure whether the intention meets the outcome.<sup>20</sup> Online data demonstrate a reasonable correlation between residence, opportunities and amenities within walking distance; Nana Sita and Hilcrest perform better than Menlyn. In Tshwane, half as many residents use private cars (35%) as the number that walk, cycle or use public transport (60%).<sup>21</sup> Less than 30% of the national population have a driving license,<sup>22</sup> suggesting that 5% of the population are unable to travel and transport provision is biased in favour of private cars over public transport users. Menlyn had most intersections per km<sup>2</sup>, which literature suggests should illustrate a connected, accessible, walkable neighbourhood;<sup>23</sup> however, field verification confirmed the opposite.

Transport and historic geography are not covered in selected studies yet can provide critical context<sup>24</sup> Tshwane's development is traced to the 1600's when Chief Ndebele Khosi Musi established a city region, his son Tshwane, gives the city its name. In 1855, the Afrikaner community established Pretoria, now the CBD. During the Boer Wars between 1880-1902; the British controlled population groups in concentration camps, black & white alike. From 1950, townships for 'black', 'Indian' and 'coloured' South Africans were legally separated, orbiting the city centre for up to 40 km with a spatial buffer from 'white' South Africans and economic opportunities in the centre. In the Pretoria CBD, the Union Buildings (1913) has been a backdrop to social protests, including the landmark mixed-race Women's March in 1956 (figures 4a and b), responding to racial segregation laws.<sup>25</sup>



Figures 4a and 4b. Women's March<sup>26</sup>





Figures 5a and 5b. Rivonia Trial <sup>27</sup>

The 1964 trial of Nelson Mandela and others, the Rivonia Trial, took place in Pretoria. (figures 5a and b). In 2000 the City of Tshwane was created from seven regions: 15 rural municipalities and one city metro, Pretoria. From 1996 the suburban buffer zone along T1 has been characterized by low-density, car-centric security estates and closed neighbourhoods. The inaccessible ‘Metrorail’ service, transport originally for black South Africans takes commuters to the edges of the CBD; generally not within the recommended 800m from amenities.<sup>28</sup> In 2008 a new rail system, Gautrain, introduced accessible trains, but largely used the same rail network.<sup>29</sup> The historic correlation between societal division and urban morphology demonstrates that livability measures are likely to underperform and require an institutionalised process to measure change.

## Time and Space

Measured through annual passenger numbers, seasonal variation is evident in the summer during the December break. Peak public transport use takes place in the morning and the evening. (figure 6a). Insufficient seat turnover indicates a lack of available, proximally close amenities. However, thermal comfort may be another factor. The intense, bright, summer midday heat means the coolest, most comfortable part of the day is in the morning (figure 6b). Rain occurs in summer, and the annual rainfall is below 650mm. Public space in winter is mostly dusty; an issue affecting passenger dignity highlighted in the travel surveys.<sup>30</sup> The low angle of the sun on the horizon reduces driver visibility; exacerbating unsafe driving habits affecting recipient pedestrians.<sup>31</sup>

Temperature inversion aggravates Tshwane’s pollution problem, Pollution is an unhealthy factor for public transport users. Coal-fired power stations in the neighbouring province, Mpumalanga, are a causal factor. In the Johannesburg-Pretoria region, 37% of pollution can be attributed to industrial waste and power plants, and 7% to public transport use.<sup>32</sup>

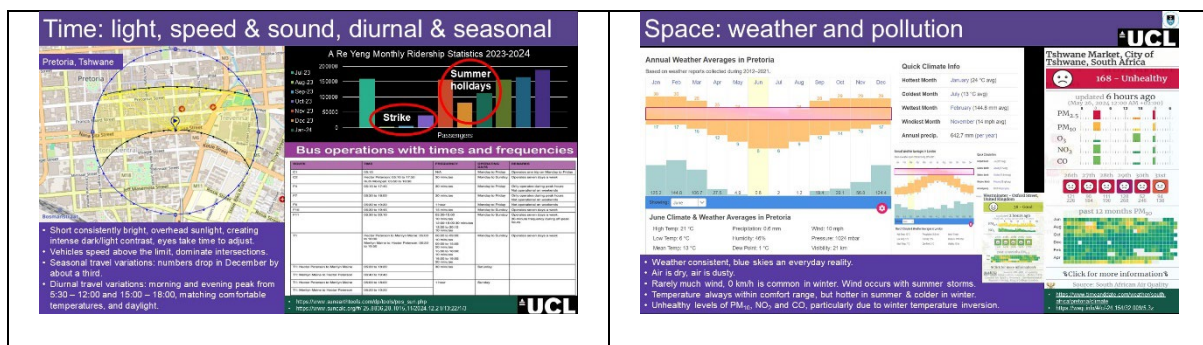


Figure 6a. Time

Figure 6b. Space

## FIELD VERIFICATION

Field verification provides a comparison between the livability measures selected, data available and experienced reality.

### Pedestrian safety

The selected walkable journeys are at-grade, assessed through pedestrian safety, intersection design and sidewalks (figures 7a, b, and c). Online data confirmed that the gradients complied with national universal access standards, but first-mile / last-mile walked experience exposed inaccessibility. The intersection designs provided minimal pedestrian protection and driving behaviour disregards pedestrians. Menlyn is exceptionally dangerous. Menlyn measured the highest number of intersections per km<sup>2</sup>, but the measure omits the width of the road and the intersection size, (figure 7c). The discrepancy between theory and reality highlights the danger of relying on online data and international studies. Misinterpretation highlights the need for carefully crafted measures on universal accessibility.

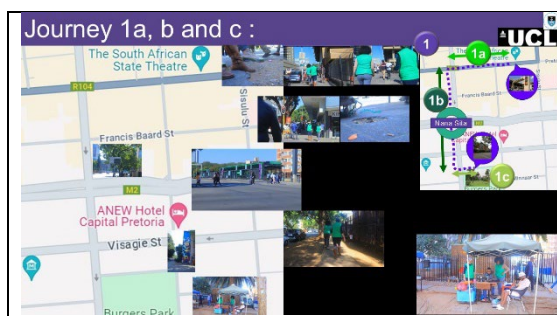


Figure 7a. Nana Sita

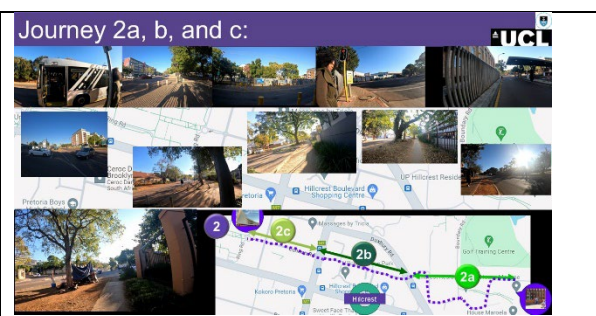


Figure 7b. Hillcrest



Figure 7c. Menlyn

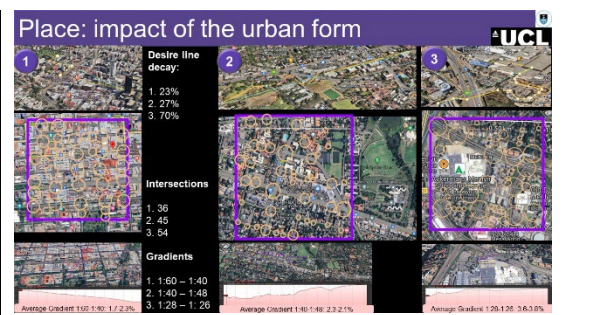


Figure 8. desire line, intersections & gradients

### Street Crime

Fear of street crime appears to be diametrically opposed to positive livability measures in Tshwane. Nana Sita has a grid street network and higher population per Km<sup>2</sup> yet felt the least safe. Literature is ambiguous on whether ‘eyes on the street’ assists.<sup>33</sup> Income levels and demographics related to street crime events,<sup>34</sup> should form a central part of public safety analysis, to verify the accommodation measures necessary for vulnerable groups.<sup>35</sup>

### Urban Management

Lack of urban management exacerbates vulnerability for reasons varying from exposed electric wires in the sidewalk, neglected street furniture and uneven walking surfaces (figures 8a, b and c). The uncleanness of public space in Nana Sita compared poorly with Hilcrest, with observably higher levels of maintenance. Survey participants noted that they felt safer.<sup>36</sup>

Universal Accessibility

The authors’ first paper explored universal accessibility and age-related livability.<sup>37</sup> Field verification demonstrated the lack of pedestrian planning, creating ‘desire line decay’: the comparative difference between the direct distance from origin to destination and the available route (figure 8). Although a 15-minute city describes a proximal 1.5 km route walking at a pace of 4.8 km/h;<sup>38</sup> the average walking speed of non-disabled adults, children or elderly people are slower. The 15-minute city is in fact a 37.5-minute city for 60% of the population.<sup>39</sup>

Comparing findings

The three neighbourhood journeys were rated (figure 9). Inter-rater reliability is not robust, however, the theoretical livability measures in international studies if refined, highlight detail not currently measured and assist to focus public transport interventions.

Findings			
Scoring using the 35 selected livability measures		Scoring using universal access standards	
Findings	Route: T1	Findings	Route: T1
Spatial-temporal	1 2 3	People	Journey 1 2 3
Housing well- connected to amenities	3 2 0	Volume and capability	3 2 1
A broad range of services and amenities	3 2 1	Range of activities available	3 2 1
Adequately connected by convenient public transport	3 1 3	Institutions	Supportive presence 1 2 0
Forms of public transport equally recognised to freight and private car	3 2 0	Compliance with policy	0 1 0
A choice of transport modes	2 2 1	Operation	Urban management 0 2 0
Walkable urban space	3 2 3	Maintenance	0 2 1
Socio-economic		Environment	Relevant standards in planning 1 1 0
Demographics	1 1 1	Relevant construction standards	0 0 0
Longevity and health	1 1 1	Totals	8 11 3
Population and housing	1 2 2		
Income, education and mobility	1 1 1		
Transport to work and education	3 2 1		
Totals	24 18 14		

Figure 9. Numerical scores

IPTNs significantly improve cities that implement them well...

IMPROVED QUALITY OF LIFE

AFFORDABLE PUBLIC TRANSPORT

REDUCED TRAFFIC CONGESTION

INCREASED LIVABILITY

BETTER SPATIAL STRUCTURE

ECONOMIC GROWTH

BETTER ENVIRONMENT

...but this promise has not yet been fully realised in SA

Figure 10. IPTN review, Department of Transport, South Africa

CONCLUSION

The livability paradigm is part of the original lexicon of the Public Transport Strategy, conceptualized to transform South African cities through integrated public transport networks (figure 10). The relationship between people, environment, and society reflected in Mandela’s early writings, is important for national context and is similarly reflected elsewhere.<sup>40</sup> Mandela equated disability and race discrimination experienced through the spatial form,<sup>41</sup> which influenced world views on racial and disability equality. Nationally, livability is interconnected with universal accessibility.

The second part of this research tests selected livability measures using walkable journeys in three neighbourhoods along a public transport route, with moderate success. Some measures do not provide sufficiently accurate detail. Concerns for South African cities, public safety, urban management, and universal accessibility, seem less important elsewhere. Nevertheless, the authors’ papers attempt to outline a new evaluation approach for government.

The United Nations model for healthy cities is applicable, locating the ‘process’ as important as the ‘outcome’.<sup>42</sup> Urban planning, sustainability and public transport guidance have relevance.<sup>43</sup> Increasing world uncertainty includes health pandemics, environmental degradation, and the unpredictable nature of economic and social upheaval. Public transport projects enable the promotion of livability and universal accessibility.<sup>44</sup> To support city transformation and to mitigate future uncertainty; mechanisms in public transport legislation allow for on-going engagement with city residents. The authors’ papers demonstrate an increased role for government; and conclude that “livability” is a relevant assessment paradigm in the future journey to a more spatially equitable, livable city.

## NOTES

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# THE ACTUAL COST OF CONTRACTOR-INVENTED ARCHITECTURAL STYLE: NOTES ON AFTERMATH OF THE 2023 KAHRAMANMARAS EARTHQUAKES

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## INTRODUCTION

Cantilever projections are fundamental elements that add aesthetic and functional value to architectural design. Whether to respond to additional indoor space use or to accommodate climatic conditions, these architectural features manifest in various forms of layers on a building -as given in Figure 1. Depending on their open and enclosed forms, they are widely used in the design of apartment buildings for different purposes. Particularly in densely populated urban areas where land costs are high, the enclosed form of projections is commonly applied in apartment building designs for its cost-effectiveness in expanding usable indoor space without requiring additional land.



*Figure 1. Examples of cantilever projections in reinforced concrete buildings, Kahramanmaraş 2024.*

However, when it comes to earthquake safety and structural resilience of buildings with cantilever projections, a nuanced understanding of the process of design and construction is a must. The improper construction and design of these architectural applications can weaken the structural integrity of the building while increasing the damage risk during natural disasters like earthquakes. Especially for buildings with reinforced concrete load-bearing systems, the severity of the damage can be further influenced by whether the projections are open or enclosed. For instance, buildings with heavy overhangs are known to be more susceptible to seismic damage compared to buildings in regular forms.<sup>1</sup> Or the unit weight of materials used in overhangs with cantilevered beams can impact the building's structural eccentricity.<sup>2</sup> The asymmetry introduced by cantilever projections increases torsion and bending moments, thereby influencing the building's torsional response and causing irregularities.<sup>3</sup> And the most recent example of these issues was witnessed during the 2023 Kahramanmaraş earthquakes.

Even though the design and construction of cantilever projections have been subject to the Planned Areas Zoning Regulation (PAZR) and the Earthquake Building Codes in Turkey (TEBC) for the past few years, the design faults of cantilever projections have continued to be one of the most encountered causes of seismic damages in the last destructive earthquakes in Turkey.<sup>4</sup> In this study, the situation of projections frequently used in apartment buildings due to their cost-effectiveness, which have almost become an architectural style in Kahramanmaraş, is examined in the aftermath of recent earthquakes. The study discusses how these architectural applications have altered the damage status of buildings, and the costs incurred for their users.

### **The Rise and Fall of Cantilever Projection Trends in Turkey**

The application of projections in apartment buildings emerged with the conversion of open balconies into closed ones in the Mediterranean and Aegean Regions of Turkey. In the late 60s, glass balcony systems and folding shutters were in high demand to increase the functionality of apartments against hot climatic conditions. However, within a decade, the practice of enclosing balconies shifted towards a specific purpose: enhancing living spaces for less cost. Back then, the population in Turkey's smaller provinces was increasing due to the rising number of people migrating from villages to cities. With the growth of the urban population in smaller provinces of Turkey, buildings with enclosed balconies were found quite cost-effective in providing additional living space for large families who live in the apartment buildings. Eventually, the preference of apartment buildings with convertible balconies led to a new trend in apartment building design which also impacted the silhouette of cities. As buildings with balconies became highly demanded in the real estate market, the idea of designing balconies as projections was found to be quite appealing by building contractors. Without the implementation of any architectural standards in the design of balconies, apartment buildings began to emerge with varied and sometimes inconsistent designs. Despite the seismic vulnerability of projections in the reinforced concrete buildings, the size of balconies became larger than ever, prioritizing additional space over structural safety. The reflection of this rapid transformation on the apartment silhouettes caught the attention of municipalities at first.<sup>5</sup> During the period, municipalities had the authority to review architectural plans to ensure they complied with local codes and aesthetic guidelines. For a long time, they had played a crucial role in maintaining the order and aesthetic harmony of street silhouettes through various mechanisms, including the enforcement of building codes in projection designs. However, this guidance mostly covered the structural specifications of projections according to the “Specification for Buildings to be Built in Seismic Zones (established in 1975)”. There were neither architectural standards nor design guidelines to be followed for the earthquake safety of buildings until the late 2010s.

Although architects and engineers were obliged to follow structural specifications that were given in the Turkey Building Earthquake Codes (established in 2007, and renewed in 2018), their designs were not required to adhere to any architectural standards determined by higher authorities. As municipalities in different regions intervened architectural design of buildings with different aspects, the Ministry of Environment and Urbanization (MoEU) had to step in to establish fundamental rules for both architectural design and construction of buildings in all regions of Turkey. By establishing the Planned Areas Zoning Regulation in 2017, MoEU set forth fundamental rules for the construction and application of building elements, which also included a guideline for the design of cantilever projections under Rule 41 – Projections.<sup>6</sup> Since then, both architects and engineers have been required to adhere to this regulation, as well as the Turkish Earthquake Building Codes (2018), in their designs. However, despite efforts to improve regulations and prevent poor design decisions, the presence of cantilever projections in apartment buildings continues to pose a significant risk of seismic damage during large

earthquakes, particularly in regions prone to seismic activity. The damage risk of projection applications on reinforced concrete buildings has been repeatedly reported in examples from previous earthquakes in Turkey. As mentioned in previous earthquake reports, projections in apartment buildings often compromise the structural integrity of buildings, amplifying the impact of seismic forces and leading to greater damage. Despite increased awareness and attempts to address these issues, the persistent use of poorly designed projections highlights ongoing challenges in ensuring earthquake resilience in building practices. The most recent example of this risk was demonstrated during the earthquakes in Kahramanmaraş on February 6, 2023. As seen in previous major earthquakes in Turkey, these quakes proved once more that this "contractor-invented architectural style" costs much more than expected.

### On Kahramanmaraş Earthquakes and its impact on the city

A series of powerful and devastating earthquakes that struck the Kahramanmaraş province in Turkey on February 6, 2023. It was one of the most severe seismic events in the region's history, registering a magnitude of 7.7 on the Richter scale.<sup>7</sup> The earthquake, followed by numerous aftershocks, including one with a magnitude of 7.6, caused extensive damage across 11 provinces of Turkey, including Kahramanmaraş, Hatay, Osmaniye, and several cities in Syria on the southeastern seismic zone. These earthquakes were known to be the most powerful ever recorded in the region. Even the buildings that have been built to the latest standards have suffered damage. Unfortunately, besides the severity of the earthquakes, numerous factors have contributed to the major losses, including negligence in construction and design, as well as shortcomings in inspection processes. A total of 243,153 buildings were affected in Kahramanmaraş province, of which 219,351 were residential.<sup>8</sup> The city's infrastructure and buildings were heavily impacted, leading to a significant loss of life and displacement of thousands of residents. For thousands of inhabitants, living conditions changed dramatically, with many people left homeless and forced to move into temporary shelters. According to the 2023 Kahramanmaraş-Hatay Earthquakes Report, which is documented by the Presidency of Strategy and Budget (PoSB), 2,273,551 people were directly faced with accommodation problems after the earthquake.<sup>9</sup> This number increased significantly in the following months due to the ongoing adverse effects of the earthquakes, as well as the conditions and uncertainties in the affected regions. Plus, among the 11 provinces in Turkey affected by the earthquake, Kahramanmaraş was one of the five most impacted.<sup>10</sup>

### The post-earthquake damage management process of buildings

Within a month after the earthquakes, the Ministry of Environment, Urbanization, and Climate Change (MoEUCC) conducted a comprehensive field study to assess the damage status of buildings. According to MoEUCC's damage assessment reports, buildings that survived the quakes were categorized based on their condition into the following groups: requiring urgent demolition, collapsed, severely damaged, moderately damaged, lightly damaged, and not damaged.<sup>11</sup> However, despite implementing measures such as ensuring quality in building construction, evaluating and reinforcing the building stock for earthquake resistance, and establishing principles and standards for disaster-sensitive development plans, settlement problems—particularly those related to unlicensed constructions—have not been resolved to the desired extent in Turkey's construction sector. As a result, these issues have impacted the determination of building usability based on their damage status. And the given criteria for assessing the damage status of buildings are as follows<sup>12</sup>:

- **Lightly damaged buildings** generally have small cracks and cosmetic damage, which can be repaired with minor, short-term fixes.

- **Moderately damaged buildings** exhibit significant damage to structural elements and require substantial repairs. Comprehensive renovation and reinforcement are necessary for these buildings to be safely reused.

- **Severely damaged buildings, collapsed buildings, and buildings requiring urgent demolition** have lost their structural integrity, are dangerous to use, and must be demolished and rebuilt.

Based on these criteria, unless they were lightly or moderately damaged, all damaged buildings were ordered to be demolished by the authorities. The residents in moderately damaged buildings were asked to leave their homes, and residents in lightly damaged buildings were allowed to stay in after the earthquakes. In the case of Kahramanmaras, more than 99,000 houses were reported as requiring urgent demolition, being severely damaged, or having collapsed. While 17,887 houses were reported as moderately damaged, lightly damaged houses were 161,137.<sup>13</sup> And when it comes to the calculation of the government's financial aid to the households whose houses were destroyed, severely or moderately damaged, or require urgent demolition, the financial assistance was estimated to reach 33 billion TRY in total.<sup>13</sup> Considering all this, it is clear that any design practices that would negatively affect the damage status of a building need to be reevaluated. These practices can affect the resilience of buildings in various ways, sometimes shifting the damage status of buildings from minor to moderate, or moderate to severe. Therefore, it is of great importance to examine the seismic damage caused to buildings during earthquakes by cantilever projection designs, which are commonly used by contractors as a cost-effective solution. Cantilever projections challenge the earthquake safety and seismic performance of reinforced concrete buildings. In this context, the next section will examine the damage caused by cantilever projections in reinforced concrete apartment buildings affected by the 2023 Kahramanmaras Earthquakes.

## THE ACTUAL COST OF CONTRACTOR-INVENTED ARCHITECTURAL STYLE: NOTES ON THE EARTHQUAKE DAMAGE CAUSED BY CANTILEVER PROJECTIONS IN REINFORCED CONCRETE BUILDINGS

In major earthquakes like the 2023 Kahramanmaras Earthquakes, the damage level sustained by the buildings depends on many factors, including the class of the buildings, the year of construction, the regulations they are subject to, and the negligence during the construction and implementation phases. In order to accurately identify and assess damages specifically caused by projection applications (such as cantilever balconies or other overhangs), the buildings chosen for the study were carefully selected based on several criteria. These criteria ensure that:

- The buildings belong to the same soil class, meaning they are built on similar types of ground.
- They were designed and constructed according to the same set of building regulations.
- They possess a valid building permit, indicating that their construction was officially approved.
- There were no violations of these regulations in their design and static (structural) projects.

By determining these factors, it was aimed to isolate and identify the impact of projection applications on building damage during earthquakes, distinguishing it from other potential causes of damage.

### Example 1 – Long Projections on multiple facades

The first building in Figure 2 exemplifies the damage sustained by an apartment building with open and closed projections. The building is surrounded with projections on all facades, which is to increase the indoor area. However, the presence of projections on multiple facades may have a negative impact on the earthquake performance of a building.<sup>14</sup> Plus, a cantilever slab designed as narrow and long on a single facade can cause deflection even in the absence of lateral loads.<sup>15</sup> When examining the design plan of the building in question on a large scale, it is observed that the open and closed projections

designed as long and narrow cantilevers continuously on all facades adversely affected the seismic performance of the building. A closer look at the spaced cracks on the first-floor slab shows that the building sustained severe damage after the earthquake (Figure 2). Nevertheless, the building is expected to be demolished soon.



*Figure 2. An apartment building with cantilever projections on multiple facades, Kahramanmaraş 2024.*

### **Example 2 – Structural irregularities in the projection**

The second building exemplifies a building that sustained severe damage due to irregularities in the structural system at the junction of the ground and first floors, which is caused by projection application for additional indoor area on the first floor. Such applications are often encountered in buildings with closed projections made to gain interior space, especially due to plot boundaries and building approach limits. In the building, one of the columns on the ground floor was shaped according to the plot boundary and connected with a cantilever beam that forms the projection of the building. This resulted in discontinuities in the frame system as shown in Figure 3. Additionally, research has demonstrated through analytical studies of frame system reinforced concrete building models that cantilever beam projections causing discontinuities in the frame have a negative impact on the building's seismic performance.<sup>16</sup>



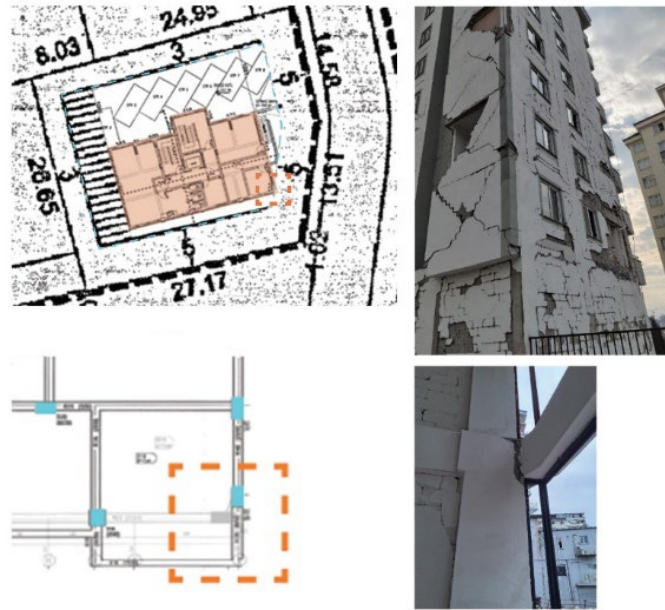


Figure 3. An example of structural irregularities on cantilever projections, Kahramanmaras 2024.

### Example 3 – Mismatch of projection architectural plan layouts

Figure 4 exemplifies the severe damage sustained by a building with projections on projections designed with different floor plans after an earthquake. In reinforced concrete buildings with a frame system, slabs behave like shear walls (diaphragms) and columns behave like beams during an earthquake.<sup>17</sup> Since the impact of earthquake forces on a building is directly related to the building's mass, vertical forces acting on the building during large-scale earthquakes can be critical. Therefore, the greater the weight of the building, the greater the moment created by the earthquake forces.<sup>18</sup> Consequently, the forces acting on high-rise buildings and those with a reduced base area will inevitably negatively affect the building's seismic performance.



Figure 4. An example of mismatch of projection plan layouts, Kahramanmaras 2024.

## **CONCLUSION**

The examples in the article demonstrated that no matter how comprehensive or directive the regulations for earthquake-resistant building design are, they will be insufficient unless they bring design and engineering knowledge on common ground. And the damage that the buildings suffer was attributed to the independent interpretation of design regulations by engineers and architects, each using their own initiative. However, this does not imply that engineers and architects should carry out architectural design and structural system design as independent actions, subject only to their respective regulations. Hence, especially in earthquake-prone regions, it is vital that architects and engineers must be not only well-versed in the building design regulations and codes but also well-equipped in terms of planning, design, and structural knowledge. Ensuring that architects and engineers achieve mastery over these standards from the early stages of their education will significantly contribute to establishing a construction sector built on robust foundations.

## NOTES

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# DIGITAL RECONSTRUCTION OF HERITAGE: REVIVING THE CULTURAL LEGACY OF THE ANAIA/KADIKALESI CHURCH

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## INTRODUCTION

As Patrick Hutton explains, the certainty of identificatory association forms cultural and social memory and necessitates revision during periods of historiographical development. When memory takes on a monumental structure, some of the obligation to remember is abandoned. Through preservation and conservation efforts, heritage—which embodies a society's history, customs, and practices—maintains its relevance across time. Initially intended to preserve historical artifacts, these attempts develop into reconstruction procedures that combine various components to form coherent wholes. The goal of conservation at historical sites is to prevent destruction and devastation. New perspectives can now be obtained virtually without the need for physical intervention owing to digital methods.

Conserving cultural heritage is pivotal for maintaining a city's continuity and identity amidst rapid urban development. Heritage represents the collective history that gives residents a sense of rootedness and authenticity in their urban environment. As cities evolve, effective heritage conservation preserves historical buildings and enriches the cultural landscape, enhancing overall livability.

## Heritage, Memory, Identity Relation and Conservation

After initial trials, as the term "heritage" became widely recognized, the idea of documenting history gained momentum. The need to use the "place" to address remembrance is a feature of contemporary culture and is predominant after each contention. Places create significant centers that make a substantial contribution, frequently addressing the "heritage" of a particular individual or community. These are the spaces that people identify with, either literally or intellectually, and are connected by concepts of identity, ownership, and belonging. Generating individuals to feel as though they have become an element of a place is one approach to linking identity with it.<sup>1</sup>

Even if heritage is a notion connected to one's identity, it might shift hands for certain political motives and occur in a location, distant from its source and roots. This circumstance can harm the idea of legacy and cause diplomatic issues since it conflicts with the comprehension of national identity.<sup>2</sup> Conservation techniques protect physical remnants while promoting a feeling of permanence and belonging.<sup>3</sup>

In urban areas, preserving heritage entails more than just physical preservation; it also entails reinterpreting historical components and incorporating them into contemporary frameworks. Cities may create places where individuals feel connected to their cultural backgrounds while adjusting to the demands of modern life by overcoming the obstacles of remembrance and heritage.

Therefore, preservation and utilization of heritage become essential in forming cities and fostering relationships with citizens to boost livability with a strong sense of historical recall. Conservation procedures like consolidation and preservation were widespread before the advent of digitization. Digital methods of conservation, on the other hand, make it possible to carry out these operations without physically entering the excavation site, and the results provide new insights into conservation.

## **DIGITALIZATION IN THE CONSERVATION OF HERITAGE**

Article 10 of the ICOMOS Venice Charter states that new restoration approaches ought to be utilized when the results of traditional conservation procedures are inadequate. For the objective of recording heritage assets, digital technology and virtual techniques offer accurate 3D outputs that are useful for virtual preservation, reconstruction, VR packages, representation, and other applications. Since 3D virtual representations of cultural heritage provide such convenience, they bring up an endless number of new application options and facilitate conservation approaches and contemporary studies, such as digital conservation and reconstruction.<sup>4</sup> Due to the idea that the archaeological field highlights the structures' condition as ruins and outlines the necessity for an expanded interpretation, the term "reconstruction" entirely coincides with the topic. In archaeology, the percentage of destroyed volumes is typically more significant than the percentage of volumes that have been preserved, and the information gleaned from the excavation site is insufficient to describe a comprehensive hypothesis or ensure clarity. It is crucial to go further than the fundamental theory and entrust additional relevant documentation from different contrasting situations in order to overcome the lack of evidence. In recent years, virtual reconstruction has filled the data gap using various techniques, producing satisfying, realistic, and aesthetically pleasing results as illustrated in Figure 1.<sup>5</sup>



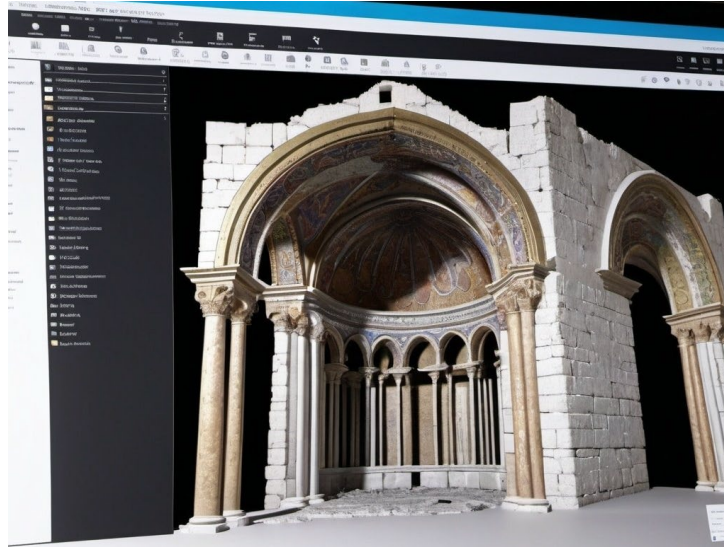
*Figure 1. Virtual Reconstruction Applications generated by imagine.art.*

Extensive and complicated historical sites are transformed into reality-based three-dimensional reconstructions through the use of surveys, range data, and image-based techniques. The choice of data collection and documentation methods depends on several factors, including economic planning, expertise, surface attributes, measures, precision, metrics, primary objective, and project outcome.<sup>6</sup>

Using a computer-generated model, IBM's technologies, such as photogrammetry (Figure 2), compute 2D photos to retrieve three-dimensional object information.<sup>7</sup> Using photography, IBM in archaeology primarily attempts to obtain information about architectural structures, such as visual data, a geometric outline, planar and geographical position, dimensions and form, and spatial particulars and the

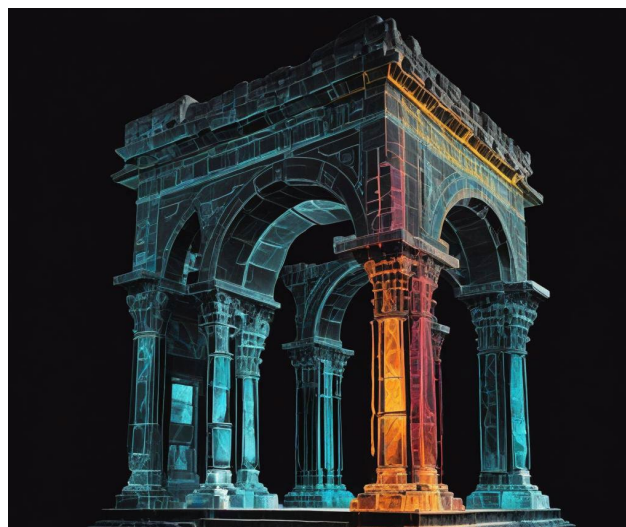


characteristics of those objects and then conveys the resulting data. In recent years, there has been a direct correlation between the quantity of software utilized and output reliability. Autodesk ReCap, Multi-View Environment, COLMAP, VisualSFM, Regard3D, Meshroom 3DF Zephyr, and Agisoft Metashape are among the top data processing programs.<sup>8</sup>



*Figure 2. IBM representation of an ancient city generated by imagine.art.*

Meanwhile, the range-based scanning method converts a scanned point cloud to a network of polygons or a cluster of covered textured surfaces (Figure 3). Using laser scanners, there are two ways to gather 3D modeling of the point cloud: The primary method uses an automatic rectification feature to model fundamental forms on the point cloud. The second technique involves manipulating the point clouds to create a mesh of intricate patterns.<sup>9</sup> Applied Imagery, Merrick & Company, Compass Data Inc., Bentley Pointools, Cardinal Systems LLC, RiSCAN PRO, GeoCue Corporation, and QCoherent Software LLC are listed among the most successful LiDaR data processing and operational software providers. The modeling techniques of image-based and range-based approaches are widely adapted for geometric surfaces of structures.



*Figure 3. Range-based scanning representation of a structure generated by imagine.art.*

Conventional survey studies may acquire the model data that the designer developed using the provided inputs. Rhinoceros, SketchUp, 3D Studio Max, Autodesk Revit, and other CAD / CAM modeling software can also be used to finalize the modeling process by only employing the scanning parameters for the measurement process. The selection of applications is a critical phase in this virtual procedure. Several visual approaches and methodologies can yield distinct and precise outcomes.

The objective of this project is to virtually reconstruct The Church of Anaia in order that future generations can benefit from this historically and culturally varied structure. The process and results of this reconstruction are going to be showcased.

### **CASE STUDY: ANAIA/KADIKALESİ**

To begin with Anaia/Kadikalesi's historical significance, the Kadikalesi tumulus was determined to comprise the following six archaeological layers according to the discoveries made during excavations: The primary stratum is related to the Islam-Byzantine period (Anaia); the following one is related to the Ancient Greece-Roman Empire era; the third layer is related to three Late Bronze Age phases; the fourth phase is related to the Middle Bronze Age; the fifth is related to the Early Bronze Age; and lastly, the sixth is related to the Late Chalcolithic Age, which dates back to the Late Chalcolithic Age, approximately 4 thousand B.C.<sup>10</sup>

Anaia formed a key location for Hellenistic colonization from about 1050 B.C. Anaia became the official capital of the episcopacy when Christianity was adopted in the fourth century A.D. and remained so during the Byzantine era. This city served as a seaport on the trade route that connected the Meandros Plain to Ephesos, extending beyond Thorax. It became one of the most significant coastal communities in Western Anatolia during antiquity and the Middle Ages. With its exceptional military, religious, and commercial aspects, Anaia was a crucial center. The Fortress of Anaia is a defensive structure with high walls and impressive bastions. The settlement, which had been a bishopric centrum for the entirety of its Byzantine history, was transformed into an archbishopric and an intersection for commerce and customs during the Laskaris era. The Turks took control of Anaia in 1298. Nevertheless, from the latter part of the thirteenth century onward, the Venetian accusations against the Greek, Genoese, and Turkish pirates operating out of Anaia demonstrate that this region was not totally ruled by the Turks. A masjid was constructed in the late period in front of the entry during Turkish occupation. Anaia became a valuable and diverse historical city due to its cultural variety.<sup>11</sup>

Inhabitants of the settlement relocated to the inner coast as a consequence of the city shifting hands and pirate activity. Though they may seem deserted, cities are dynamic structures that diverse cultures have influenced. For instance, cavities from the period of World War I were discovered west of the fortress. During times of war, these castle battlefronts kept their military defensive role and operated as intended. This information demonstrated the mound's importance to archaeology and the need for mound studies.<sup>12</sup>

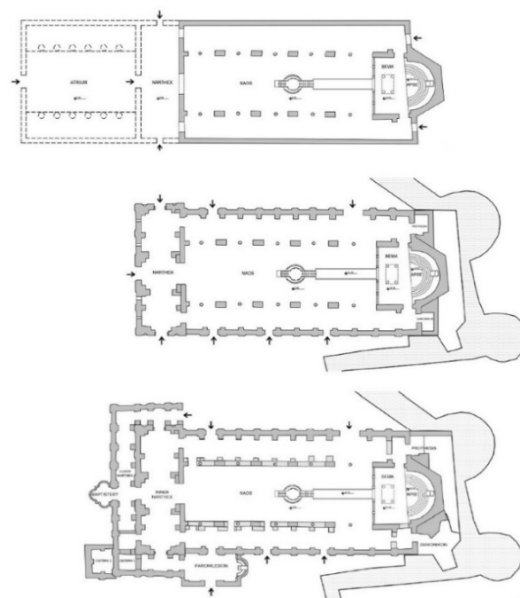
As Kuşadası developed into a popular tourist destination in the middle to late 20th century, Anaia found itself trapped between the surrounding residential areas and other communities as seen in Figure 4. Numerous items were discovered at these sites, which were constructed along the former port's coast. The majority of the relics were either destroyed or hidden beneath the buildings. Residents in the area had been unable to forge a past connection with the building. However, when the excavations began, this view was altered. The excavations have impacted the destiny of the environment, and yearly awareness-raising activities, such as whirling dervish performances, are staged in the vicinity.<sup>13</sup>



*Figure 4. Anaia Excavation Area by Aydınlık.*

### Digital Reconstruction of The Church of Anaia

Based on the construction methods, wall connections and ties, and variations in materials in the church structure, it is possible to deduce that the Anaia church was built in three main periods as drawn in Figure 5: the fifth and eighth centuries, the ninth and twelfth centuries, and the thirteenth and fourteenth centuries. A three-aisled basilica was constructed during the first phase, which spans the fifth through eighth centuries. It is thought that the exterior walls may have collapsed later as a result of an earthquake that occurred in the area. This is the reason why the second phase, the rebuilding of the outside walls, took place between the 9th and 12th centuries. Concurrently, it is believed that this refers to the time period when the castle had been constructed. The baptistery and outer part of the narthex were constructed during the third building phase, which spanned the 13th and 14th centuries. In the interim, walls were constructed between the pillars.<sup>14</sup>



*Figure 5. Three main constructional periods of Anaia Church by Kanmaz.*

The three primary phases of the reconstruction process are gathering data, interpretation, design, representation, and visualization. There are numerous alternate approaches to accomplish the headline in each phase. A multitude of techniques, including photogrammetry, unmanned aerial vehicles (UAV), video and photography, structured light scanning (SLS), and laser scanning, may be employed to gather info. Techniques like animation, graphical representation, and interpretative reconstruction might be applied for the interpretation stage. In order to ensure that heritage interpretation is captivating, approachable, and considerate of both the surrounding environment and the intended audience, the following appropriate techniques can be considered during the design and presentation phase: Illustration, Display and exhibition, Design and typesetting, Graphic Novel, Video Production, Virtual Reality, Augmented Reality, and 3D printing.<sup>15</sup>

With every excavation season that proceeds in Anaia, more knowledge and details about the structures come to light. With the use of these data, computer programs can be used to provide virtual activities in the castle/excavation region, thereby increasing the current touristic and historical-cultural significance of Anaia and capturing the attention of tourists and residents.

Using digital techniques, the excavation area may be reconstructed stratum by stratum through subterranean scans (Figure 6), and by overlaying presenting methods in chronological order, it can be presented in 3D in the digital environment as before excavation. This approach can yield precise outcomes in a layered system like Anaia.



*Figure 6. Subterranean scans of Anaia Church by Kanmaz.*

Complementary three-dimensional modeling of the relics can be interpreted more effectively by understanding the architectural features of the Byzantine churches during that period. Though Romanesque arches and columns reveal an impact of Western design, the dome is a characteristically Eastern element. The fusion of these various elements produced a singular, distinctly Byzantine architectural language. Structure-wise, The Church of Anaia is remarkably comparable to Bell Church, St. Nicholas Church Demre, Chora Mosque, and Molla Zeyrek. In addition to having various characteristics and a common architectural style, the Anaia Byzantine Church is still unique among Byzantine churches.

Along with the comparative, structural information regarding Byzantine churches that have been collected from art historians and architects, there currently are data from photogrammetric methods, scanning, and measurements. These allow for the analysis and application of various reconstruction techniques to produce the "true" digital imprint of Anaia Church, which emphasizes the overall volume and gives the viewer a sense of three-dimensional impact.

## Methodology and Tools



Although the structure's overall lines were created by comparing the architectural characteristics of churches built around the same era, it incorporates a subjective interpretation of academicians, historians and excavation professionals. In the virtual reconstruction process, the AutoCAD software was used to design the church model. After that, the model was imported into Rhinoceros 3D (Figure 7) and exported in a three-dimensional object format. In order to operate on the surface detail, the surfaces—which were meshes in STL format—were converted into NURBS (Non-uniform rational basis spline) forms.

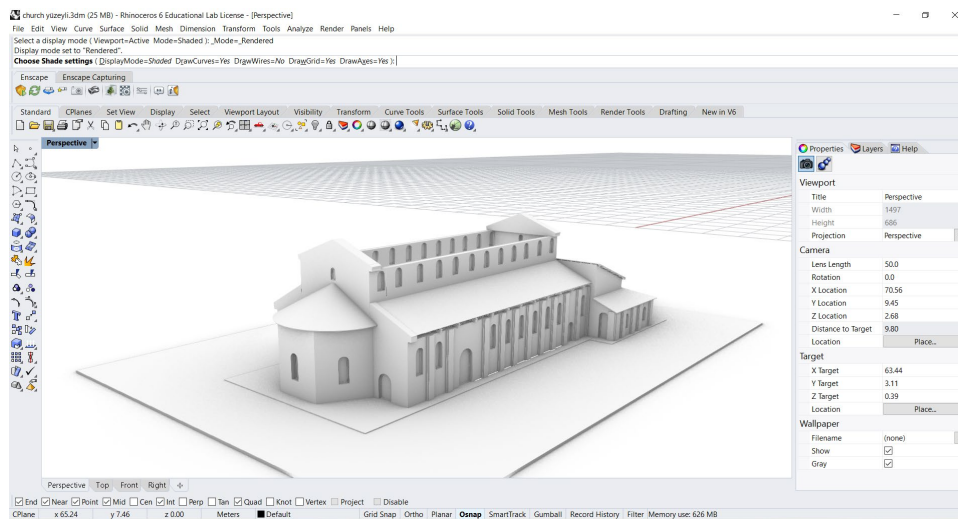


Figure 7. 3D Virtual Model of Anaia Church on Rhinoceros 3D Software by author.

The interpretation of the church model was superimposed over the preexisting ruins (as seen in Figure 8) to produce an extra 3D presentation technique that allowed viewers to see the completed structure by understanding the layers, complementing the model, and interactions between them.

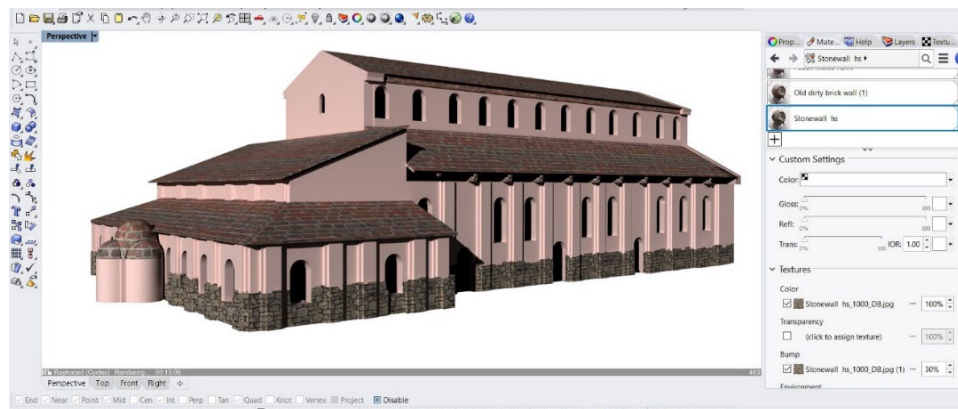
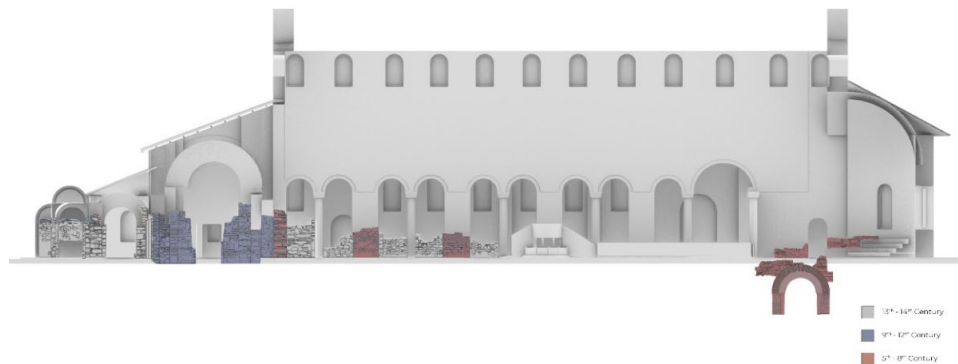


Figure 8. Anaia Church interpretation on existing ruins by author.

Initially, the scanning info was transformed into a modeling of the topographic point cloud, which was then exported as an obj file for Rhinoceros to use as a three-dimensional mesh. The massive file that was loaded into Rhinoceros, which had thousands of surfaces and meshes, was reduced in size by focusing on the areas nearer the church to prevent unintentionally altering or transforming the original file. Every mesh surface in Rhinoceros is transformed to NURBS and then booleaned to create a poly-surface out of the existing layer. Surfaces are given specific colors and textures to create the most

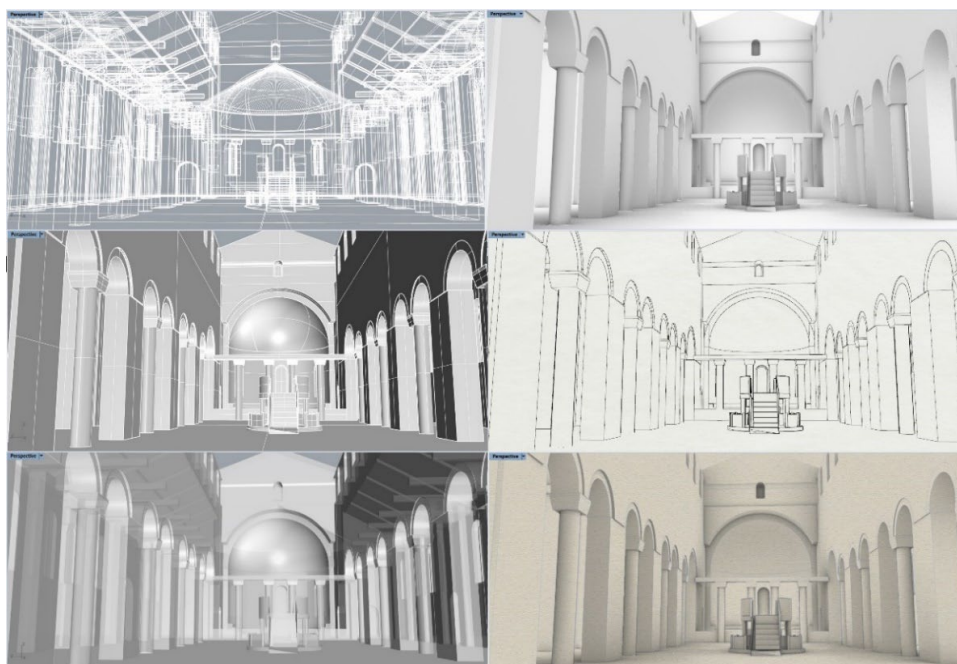
realistic image possible. Rhinoceros was used to visualize the masonry, roofing material, and pinkish plaster of the time period.

Upon the basis of the restitution and plan drawings, time periods were also integrated into 3D models. A section view (Figure 9) that split the naos in half was determined, constructed within, and rendered. The red-painted substructure and piers date to the fifth and eighth centuries, as can be seen in the section view. Most of the inner narthex, which are shown in blue, were reconstructed and belong to the ninth and twelfth centuries. The fills between piers and pillars in the naos and the grey-painted masonry in the outside narthex date to the 13th and 14th centuries.



*Figure 9. Section view of Anaia Church with time periods integrated by author.*

Various visual representations such as the white model, shaded, wireframe, and ghosted views (Figure 10) serve different purposes, including representation of architectural elements, realistic views, environmental feeling, and construction details and have been evaluated to verify that all renditions are identical, accurate, and representing the true digital imprint of the church. A realistic design language was used to generate the layer representation from several perspectives (top, side, inner, and outer perspective).



*Figure 10. Various viewports for 3D model of Anaia Church by author.*



Utilizing Rhinoceros 3D and Adobe Photoshop, missing architectural components of the church are digitally reconstructed to visualize its original form. This approach not only preserves the church's historical and cultural significance but also acknowledges its evolution over time.

The main aim is to catch the accurate representation of the church in Anaia in order to leave a trace to future generations about the importance of the period, residents' life, and architectural characteristics by experimenting and applying multiple digital CAD programs and methodologies and trying different outputs resulting from software languages, as well as creating visual depictions and rebuilding the church by actually implementing and practicing different expressions.

This case study highlights broader applications of digital reconstruction in heritage conservation worldwide. By showcasing successful projects and best practices, we can glean insights into how technology can sustainably preserve urban cultural heritage while fostering economic growth and community engagement.

## **CONCLUSION**

As cities grow and change, heritage preservation enhances livability by providing a sense of rootedness and authenticity, connecting residents to the city's unique history while enriching the cultural landscape. The history of the church reflects cultural diversity, with changes made as the land changed hands between different nations. This layering of cultural influences enriches the site's narrative, showing how cities are living entities shaped by diverse cultures.

The virtual reconstruction of the Anaia/Kadikalesi Church demonstrates how technology can effectively conserve heritage amidst urban development. By balancing development with cultural continuity, cities can enhance identity. This approach underscores the importance of embracing diverse cultural stories within a city's ongoing narrative, contributing to a more inclusive and resilient urban environment.

As a result, digital reconstruction technologies play a crucial role in the sustainable development of livable cities. By integrating these advances with cultural preservation efforts, cities can honor their historic roots while coping with the complexities of modern urbanization. This interdisciplinary approach helps preserving our cultural legacy and enriches the urban experience for current and future generations.

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# TOURISM AS AN URBAN-RURAL LINK: A CASE STUDY IN THE NORTHERN OUTSKIRTS OF NAPLES (ITALY)

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## INTRODUCTION

The current socio-environmental crisis has widened the gap between the urban centre and the peri-urban areas, leading to a deterioration in the quality of life of the communities living there. At the same time, there is a growing divide between urban and rural areas, and between farmers and consumers, with significant social, economic and environmental consequences.

Using a sociological analytical approach, the present research aims to investigate the relationship between peri-urban agricultural communities and the city through tourism activity, exploring how the peri-urban can be implemented as a hinge between urban and rural. To achieve this, a socio-territorial analysis was conducted on a case study situated in the northern outskirts of Naples. The analysis includes the examination of secondary data and its geographic representation using GIS. The main findings show the potential and multiple opportunities of this area in terms of production and landscape, highlighting the significant presence of peri-urban farms and the important cultural and natural heritage of this area. However, numerous criticalities, characterized by administrative neglect, heterogeneity and fragility at both socio-economic and environmental levels, reveal the complexity of the ecosystem.

Going beyond the usual interpretative models of urban planning and the city-country dichotomy, this research defines the peri-urban area as a landscape requiring consideration and introduces the study of the tourism dimension in peri-urban agricultural contexts as a lever for sustainable development and the rapprochement of the rural world with the urban reality.

## BACKGROUND

### Urban periphery(ies)

The development and growth of urban centers, along with the relationship between the city and the countryside, have been and are still being studied by multiple academics who, using the tools and theoretical perspectives proper to each discipline, analyze the different spheres of urban development and the consequences of this process on the surrounding rural ecosystem.

From a sociological point of view, one of the founders of this discipline, Max Weber, was among the first to analyze the relationship between the city and the countryside in his work *Die Stadt*, in which rural areas are not described as distant and in opposition to the city, but as a resource subject to the domination of the urbs and with an organization of its own challenged by the expansion of the city. Weber's work, therefore, highlights the historical connections and frictions between urban and rural environments, demonstrating the vigor of studying the relationship between city and countryside from

a sociological perspective. While maintaining a sociological approach, Marxist analysis focused on the city as the site of production and capitalist development, without seeing a necessary link between the city and the countryside. On the other hand, positivist authors such as Comte and Spencer interpreted the industrialization and urbanization of nineteenth-century Europe as a linear process of social development from a simple and backward agrarian society to a modern and complex urban society.

Sociology has continued to study urban suburbs over the years, and with the consolidation of urban sociology as a discipline, there have been several authors who have addressed this topic. One example is that of Herbert Gans, who in the 1960s studied the creation of a new residential area in the New York City suburbs, discovering an interesting community similar to those located in urban centers, and thus dispelling the myths of American suburbs at the time, which were often portrayed as sterile dormitory areas. Gans's work has served as an inspiration to many researchers who, using a similar approach, have analyzed and continue to analyze the many transformations that urban suburbs have undergone over the years.

Today, the urban periphery is no longer just a boundary that marks the beginning and end of the urban plot, characterized by conflict, inequality, and lack of services. Depending on the urban context, very different dynamics can be found, often including impoverished urban centers and affluent suburbs, thus departing from the association of suburbs with lower urban value and deviant conditions. For this reason, for many scholars, the term periphery has become vague and unrepresentative of the diversity of these areas. While many of the socio-economic differences between the city center and the suburbs remain, with the development of the polycentric city, the suburbs have also often become poles of attraction with new connotations and social identities within them, making it much more complex to identify urban boundaries. Hence, given the new internal and global dynamics in which cities are immersed, it is important to emphasize how urban peripheries are shaped by very different spatial, landscape and socio-economic contexts.

### **Peri-urban agriculture and AFN**

One of the activities developed by peri-urban communities that has attracted the attention of many academics and institutions is agriculture. However, the Food and Agriculture Organization of the United Nations (FAO) points out that the scientific community has not yet agreed on a common definition of peri-urban agriculture, as it is conditioned by the diversity of agricultural practices and spatial contexts in which it is developed. Taking this into account, peri-urban agriculture is characterized by several elements, such as the size of the production units or its legal status, but it is mainly distinguished by two attributes: its geographical location, within the city limits, a condition that implies competition for the use of land resources, but also offers greater opportunities for access and interaction with the urban population. And also for its approach to the market, always conditioned by the peri-urban context, which does not focus on the production of large-scale commodities, but on non-commodity outputs, services offered to the community not strictly related to the production of agricultural goods. This last aspect has led peri-urban farms to often focus on multifunctionality and diversification of their activities, taking advantage of their proximity to the city and to markets, creating links with urban centers through products and services such as those related to tourism.

These links between peri-urban farms and the city through tourism are part of Alternative Food Networks (AFNs), a diverse set of agri-food system organizations that provide an alternative to the conventional market through different types of producer-consumer linkages based on trust and equity. AFNs originated in Europe, but today they are present all over the world in different forms. As mentioned above, tourism is part of this set of short supply chain experiences and takes the form mainly of food and wine tourism, with its important value chain that manages to connect a series of actors from producer to final consumer, generating a greater and more equitable territorial development.

## METHODS

As it turns out, the peri-urban space and the agricultural activity developed in this context are studied by the scientific community from different academic perspectives. In this case, through the lens of sociology, it was decided to carry out a study of peri-urban agricultural communities and their links with the city. Specifically, a study area located in the northern suburbs of the city of Naples (Italy) was chosen, where the presence of peri-urban agriculture is relevant, taking into account the tourist activity as a possible element of union between the city and these peripheral communities. In this sense, it was decided to carry out a socio-territorial analysis of the area under study and to map the different tourist activities present in the area.

The methodology used in this research is based on two pillars: on the one hand, the analysis of secondary data obtained from various open-source databases, such as the website of the Municipality of Naples,<sup>1</sup> that of the Italian Ministry of Finance<sup>2</sup> or the data offered by Inside Airbnb.<sup>3</sup> And secondly, Geographic Information System (GIS), which was used to geographically represent the data obtained and to emphasize the bidirectionality between the territory and the variables studied.

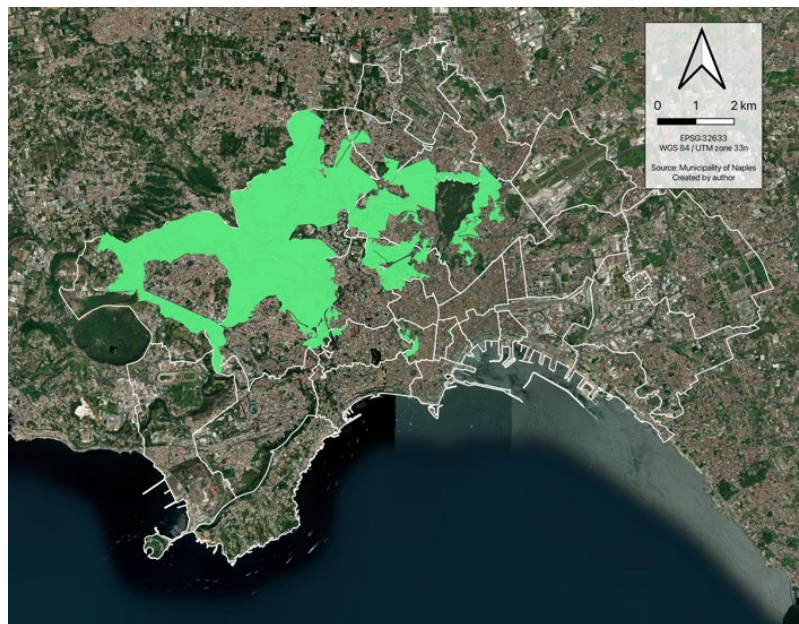
## STUDY CONTEXT

The northern suburbs of Naples are characterized by a "mosaic sequence" in which agricultural land is interspersed with urbanized areas and brownfields. This fragmented landscape is the result of a sudden and uncontrolled urbanization due to several factors. First of all, the strong demographic pressure since the Second World War, due to strong migratory flows from the surrounding rural areas, and the significant loss of housing units after the Irpinia earthquake,<sup>4</sup> which in 1980 rendered a large part of the buildings in the city center uninhabitable. Faced with this situation, a large part of the current Neapolitan suburbs has its origins in public housing, promoted by public administrations with the aim of reducing the great demand for housing, but it is also the product of a trail of unauthorized construction, most of it controlled by the local mafia, the Camorra.

The project of building a suburb capable of satisfying the housing needs of the population, providing it with a new, decent space with basic services and facilities such as schools, social centers or parks, has not been able to reverse the situation of degradation that characterized and still characterizes the Neapolitan suburbs, with the persistence of numerous inefficiencies and the location clearly isolated from the urban center, giving rise to the so-called "gated communities". In recent years, however, several public-private initiatives have been launched to regenerate some of the city's suburbs, often with funding from national and European institutions, as in the case of the Recovery Plan.

At present, Naples has in force a comprehensive plan of 2004, which does not provide for further land consumption and which dictated the creation of the Parco Metropolitano delle Colline di Napoli - PMCN<sup>5</sup> (in English: Metropolitan Park of the Hills of Naples) with the intention of preserving those green areas that have resisted the wild urbanization of the second half of the twentieth century. This area extends for more than 2,000 hectares and covers a large part of the northern suburbs of the city, where agricultural activity is still very present. Within it, it is possible to find different areas of landscape, from those more suited to agriculture, where there are various typical Mediterranean crops such as vines, orchards and olive groves, to important wooded areas that represent the true green lungs of the city. In addition, some of the park areas act as real hinges between the city center and the suburbs, going so far as to cover spaces located in the historical center of Naples.





*Figure 1. Area of the Park*

Although nowadays the PMCN is administratively inactive, the main objective with which it was created is to preserve and restore the physical integrity and cultural identity of the area through the protection and enhancement of its several resources. These include peri-urban agriculture and the various masserie (the traditional agricultural unit of southern Italy) scattered throughout the territory. In addition, the Park Authority, according to its regulations, aims to preserve and protect the natural features of the area, with special attention not only to the purely naturalistic, biological or geomorphological elements, but also to social aspects such as the promotion of economic activities and local employment, the promotion of educational, training and interdisciplinary scientific research activities, and the development of activities related to culture, recreation and tourism, based on compatible environmental functions.

As far as tourism is concerned, Naples has experienced exponential growth in this sector in the last decade, an aspect that has brought about relevant changes. On the one hand, tourism has contributed to, and is also the result of, a rebranding of the city that took place after the 2008 garbage crisis promoted by the Camorra,<sup>6</sup> which has succeeded in transforming the image of a dirty and unsafe city into that of a cultural and welcoming city, thanks to the introduction in the collective imagination of a new world brand based on a series of images and discourses, often promoted by the film and publishing sectors, which has made Naples the setting for numerous successful national and international films and series in recent years. In addition, the arrival of tourism has triggered tentative processes of urban renewal in the areas of the historic center, often spontaneous, thanks to the action of neighborhood associations or small entrepreneurs, as in the case of the Rione Sanità. On the other hand, there are more and more voices warning against the excessive growth of tourism in the city, causing problems related to phenomena such as overtourism and the touristification of the historic center, which often reproduce the dynamics of capital accumulation and privatization of public space already present in other cities such as Venice or Barcelona.<sup>7</sup>

## DISCUSSION

As much as the city of Naples is one of the most populated cities in Italy and the capital of one of the most densely populated metropolitan areas in Europe, it is still possible to find an important presence of agricultural activity in its perimeter.

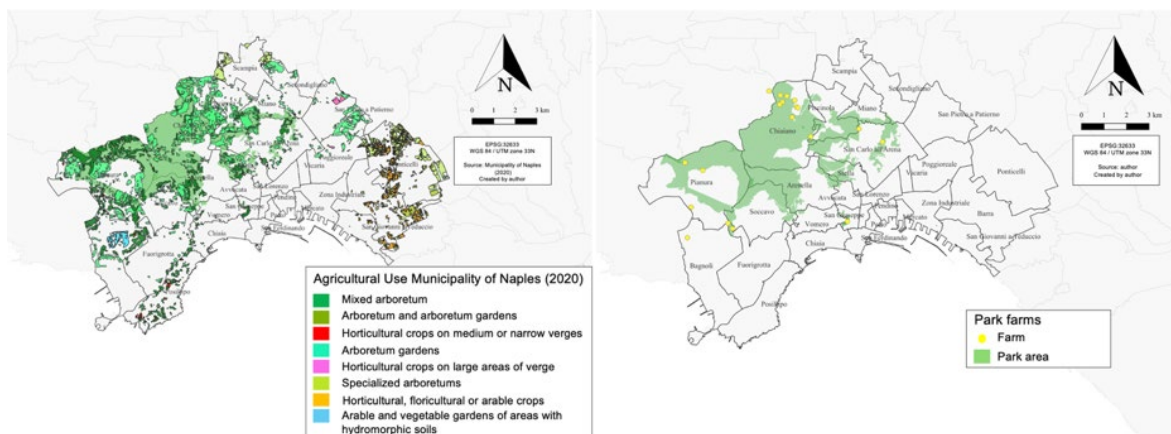


Figure 2. Agricultural Land Use in Naples (2020) / Figure 3: Park Farms

It is important to emphasize the great diversity of the Neapolitan agriculture, where up to eight different types of crops coexist in a few square kilometers. Among these, mixed arboreturns and vineyards are predominant, along with arboreal gardens. As for the perimeter of the PMCN, the crops present are those typical of the northwestern slope of the city of Naples, thus mixed arboreturns and vineyards, along with arboretum gardens of high structural complexity.

Although the PMCN is characterized by a small-scale type of agriculture, mostly oriented to self-consumption, it was possible to map 19 farms within the park area, demonstrating the strong presence of this activity.

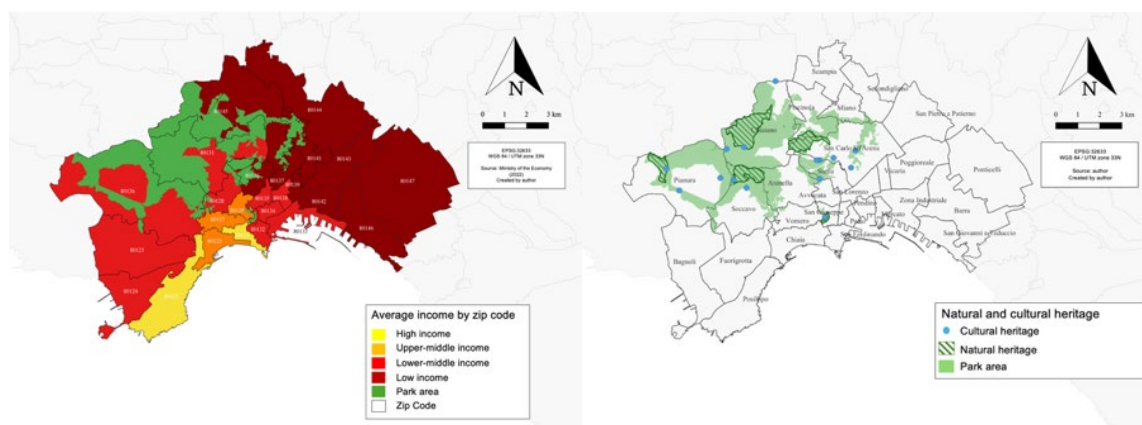


Figure 4. Average Income by zip code Naples (2022) / Figure 5. Heritage of the Park

As for the socio-territorial analysis of the area, the average income was calculated, disaggregated by postal code. Here, it is important to highlight again the structural heterogeneity that characterizes the park, which is also reproduced in the socio-economic aspect, being able to find very different scenarios within it, due to its vast extension. Although most of the PMCN is located in lower-middle class areas (29,000€ - 19,000€), a good part of it is positioned along some of the poorest areas of the city (<19,000€). Finally, although residually, the park touches some of the wealthiest neighborhoods of the city, belonging to the Vomero Hill, with a medium-high income (36,947€).

From a patrimonial point of view, the park area contains numerous points of cultural interest, mainly architectural, such as the already mentioned *masserie*, which testify to the agricultural heritage of the area, and such as several noble villas, fragments of the area's past as a country retreat of several Neapolitan noble families. In addition to the cultural heritage, there are also important natural areas in

the PMCN, which are home to precious ecosystems of great fragility, such as chestnut groves and streams.

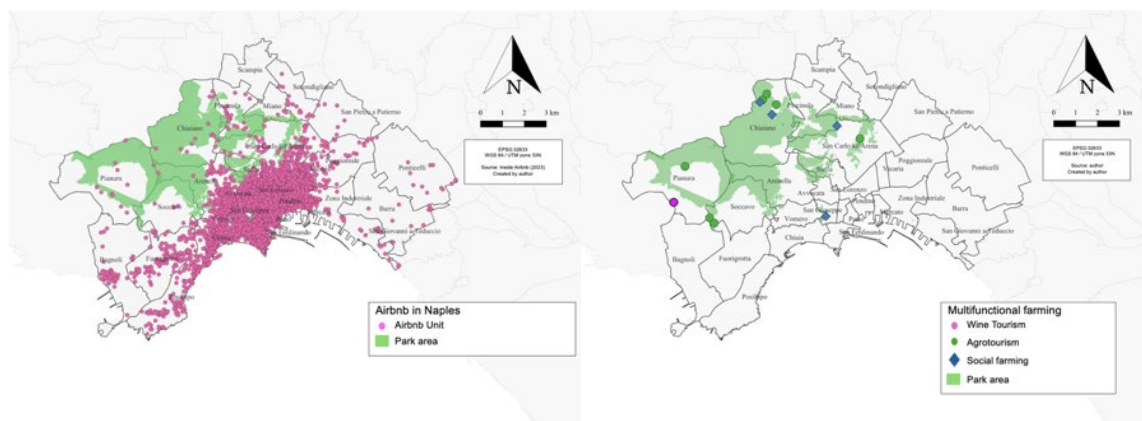


Figure 6. Airbnb Units in Naples (2022) / Figure 7. Multifunctionality of park farms

With the intention of mapping the tourist flows, and thus substantiating whether the park area is involved in the growth process of the tourism industry in the city, the Airbnb units in the municipal area were considered. As can be seen in Figure 6, the historic center of the city has an enormous density of tourist apartments, with most of the more than 10,000 Airbnb units in Naples concentrated in its perimeter. Other areas of the city are much less affected, with an almost marginal presence. In this sense, the presence of these apartments in the PMCN area is very low, highlighting the low influence of tourist flows in the area.

On the other hand, in order to better understand the relationship of the park with the tourist flows in the city, the activity of each individual farm in the area was analyzed. Of the 19 farms that were mapped, only seven decided not to focus on multifunctionality and thus carry out traditional agricultural activities. Of the remaining 12, seven have joined the agritourism formula, three of them carry out social agriculture projects, one farm offers wine tourism products and finally another is an educational farm. This shows how farms are open to the public and are interested in generating new income through multifunctional activities.

## CONCLUDING REMARKS

The present research required a sociological analytical approach, capable of abandoning the usual interpretive models of urbanism and the city-countryside dichotomy, by carrying out a socio-territorial analysis that takes into account the different dimensions that shape the peri-urban space. By recognizing these categories, it is possible to perceive the landscape in its entirety and complexity, without falling into a sectoral logic and thus favoring or discriminating some of its elements in its interpretation. For example, the tourism dimension, which until recently was ignored by those who studied peri-urban areas or rural development policies, has been included and studied here.

Excessive land consumption and illegal construction have fragmented the peri-urban landscape of the city of Naples, leaving only a few hectares where peri-urban agriculture and natural areas coexist. Together, these spaces are authentic "indispensable patterns" that, because of their ecosystem value, the institutions must put at the center of their land policies, starting a process of recovery of areas currently characterized by neglect, with the aim of guaranteeing the local community its right to the city.

The regeneration of this area, together with the creation of an integrated offer with the park's farms, could make it one of the destinations that more and more tourists choose to visit during their vacation in Naples. It would be important, however, not to implement trivial policies of decentralization of tourist

flows, and instead to promote forms of responsible community-based tourism, in order to avoid reproducing in this area the same logics of reproduction of capital that are common in the historical tourist centers, and thus to promote equitable development in a historically marginalized area, put on the margins of the city and citizenship.

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# RETAIL ON THE MOVE. DYNAMICS IN THE CONFIGURATION OF GROUND FLOOR ACTIVITY ON THREE REGULAR STREETS IN BARCELONA

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## INTRODUCTION

This research examines the evolution of ground-floor activities in three straight streets in Barcelona that have undergone transformations in their public space layout, based on the analysis of open databases available for 2016, 2019 and 2022. The research is based on a detailed mapping of the street commercial activity, coupled with an analysis of the evolving trends of concentration patterns of ground floor uses. This approach facilitates the formulation of arguments concerning the interrelationship between urban form, public space configuration and activity.

### Retail and the city

The urban public component is fundamentally developed on the ground level, defined by pavements, facades, activities and pedestrians, where the interaction of residents and visitors with the built environment contributes to the magnification of the urban conditions of the city. It is at ground level that the boundaries between public and private spaces are blurred and both become collective spaces: "the civil and architectural, urban and morphological wealth of the city is that of these places; the urban character resides in those artificial and public spaces that are particularly suitable for urban social practices".<sup>1</sup>

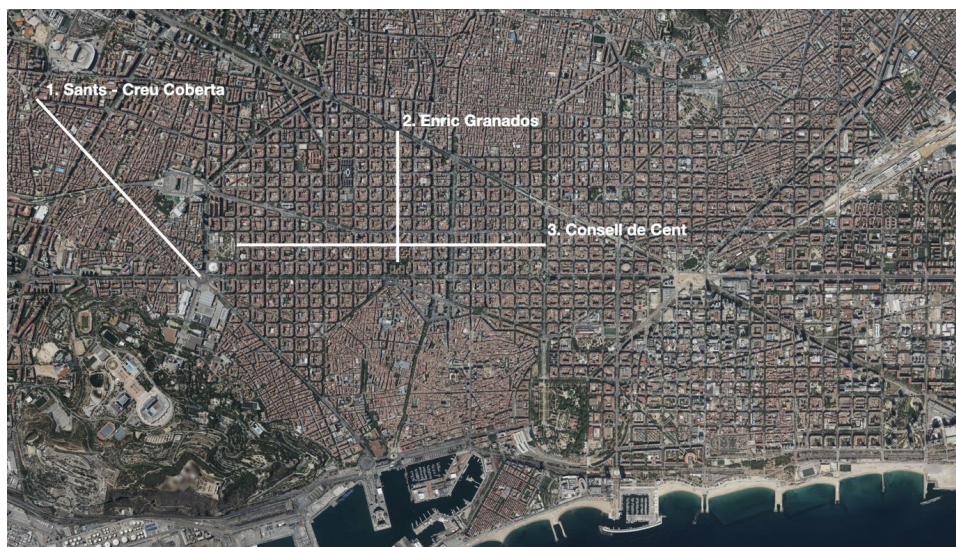
In a consolidated and compact city, the spaces dedicated to commerce characterize a collective realm at ground level, which narrows and widens the street section, enriching the pavements and overlapping its own language, a characteristic but variable urban landscape, a streetscape that identifies each fragment of the city.<sup>2</sup> The morphology of urban ground floors is tattooed with that of commercial activities, which have a different texture, a different rhythm, different times. But although they are apparently weaker and more ephemeral, more changeable and more volatile, they largely determine the character of the city.

### Motivation for research

In this framework, the research has a starting point a commission by Barcelona City Council undertaken by researchers from the Barcelona Laboratory of Urbanism. Its principal objective is to provide a qualitative assessment of the City Council's periodic Census of Ground Floor Premises of Economic Activity in the City of Barcelona. The census "registers all ground floor premises in the city that are

used for economic activity and that are active or in the process of being active."<sup>3</sup> It constitutes an indispensable instrument for diagnosis, the organisation of indicators, decision-making and the assessment of public policies in the sector.

The aim of the work is to examine the relationship between the recovery or regression trends of ground floor activities and the urban form of the context in which they are located. To this end, it is proposed to focus attention on variables that condition the urban form and public space, such as the relationship with the street (street width; size of sidewalks; presence of pavement terraces; solar orientation); the relationship with the buildings and the inhabitants (size of the plots; permanence of the buildings); the relationship with other nearby essential services (railway stations and public transport stops; market halls and other facilities); or the relationship with temporary effects in the design of public space (which imply changes in sidewalk section, or pedestrianisation).



*Figure 1. Location of the three axes analysed. Source: Author's elaboration after Google Satellite.*

More specifically, the base case study is the old route N340, which runs from Sants street between Riera Blanca and Joanot Martorell street, and continues along Creu Coberta street to Plaça d'Espanya square. Following the delineation of the analytical methodology and representation techniques in the initial case study, the research proceeds to examine two additional streets that were permanently pacified through the implementation of redevelopment projects, which resulted in the reallocation of pavement space from asphalt: Consell de Cent and Enric Grandos streets.

## **A METHODIC ANALYSIS**

### **The shape of the street**

The exhaustive analysis of the street morphology identifies the key factors that shape the distribution and form of activities on the ground floor. It is therefore essential to commence the study with an examination of the configuration of the plots and the manner in which they are subdivided to accommodate the various activities. The initial data set is derived from land registry databases, while the second necessitates on-site measurement of each premises and its plot area. This dual approach is predicated on the observation that the compact and dense urban form of Barcelona often accommodates multiple activities per plot on the ground floor, exhibiting a small-scale development pattern that is pervasive in most neighbourhoods.

### The public layout

The axis formed by the streets of Hostafrancs, Creu Coberta, Badal and Sants has a length of 2,200 metres, with a width of approximately 20 metres throughout. It is flat, with two elevations at the crossroads of Riera Blanca and Passeig de Sant Antoni-Plaça de Sants. The axis presents 37 pedestrian crossings; and 38 intersections, of which 31 (81%) are not T-intersections and 7 are T-intersections.

It is surrounded by a dense residential neighbourhood and close to the tourist centre of Plaça d'Espanya and is temporarily closed to traffic at weekends, so that it is the scene of two overlapping dynamics of intensity of use. The pavements, with an average width of 4.5 metres, cover an area of 41,554 square metres. During the Obrim Carrers [Open streets] campaign (from March 2020),<sup>4</sup> the pedestrian area increases by 47%, from 41,554 to 61,225 square metres. This promotes presence on the street, as the quality and efficiency of walking is intimately linked to the widening of the pavements.<sup>5</sup>

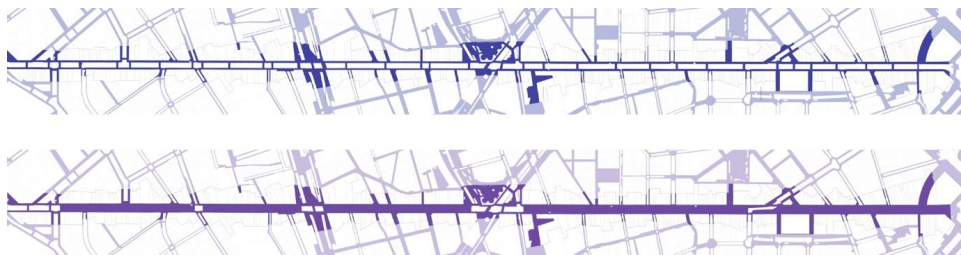


Figure 2. Public layout configuration. Weekly days vs. weekends. Source: author's elaboration.

### The plot structure

The axis is asymmetrical and presents 349 plots, of which 144 (45%) are on the north side and 176 (55%) on the south side. There are 3,742 households concentrated in 258 entrances. Between Alcolea street and Plaça d'Espanya, the majority of the plots are grouped together with less than a dozen households. Piece by piece, construction and replacement have preserved the parcel structure of the street over time. The permanence of this structure determines the form of the activities that are housed there. The most recent buildings (after 1953) are concentrated between Riera Blanca and Carrer de Salou, except for an oasis to the west of Plaça de Sants with buildings from the second half of the twentieth century.

The size of the plot is to a large extent translated in the literalness of the retail with the structure of the property. Most of the plots, 60%, host only one commercial activity. Almost a third have two and 6% have three. These 349 plots are divided into 509 commercial premises, of which more than half (328) are less than 100m<sup>2</sup> and 80% (432) are less than 150m<sup>2</sup>. The largest commercial unit is located in the hotel on the corner of Plaça d'Espanya and measures 1,141 m<sup>2</sup>. The smallest is a mobile phone shop, measuring 13.7 m<sup>2</sup>. Only 25% of the commercial area is located in premises larger than 300 m<sup>2</sup>. The largest shops are concentrated at the ends of the axis and at the intersections with Carrer de Consell de Cent, Passeig de Sant Antoni and Rambla del Brasil.

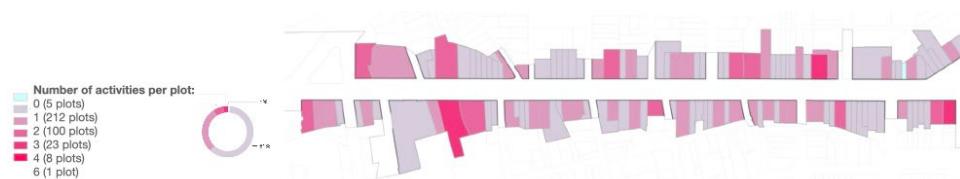


Figure 3. Number of premises per plot (fragment). Source: author's elaboration.

### The relationship between retail and the street

Two thirds of the shops and almost 50% of the commercial area of the street have less than 5.5 metres of frontage. Ground floor shops between partitions have between 1.7 and 85.3 linear metres of frontage, whereas corner ground floor shops have more contact with the street and have between 5.6 and 85.3 linear metres of frontage.

Ninety-nine of the 509 premises that make up the street have a corner. They represent 19% of the shops, but 23% of the surface area. Corner shops are larger, averaging 140.6m<sup>2</sup>, while those between the centres average 114m<sup>2</sup>. Corner shops have an average street frontage of 21.25m, while those between medians are almost 4 times smaller at 5.41m. Corner and midway shops share their dimension in street frontage: the former has 2,103 m<sup>2</sup> of shop frontage, while the latter has 2,216 m<sup>2</sup>.

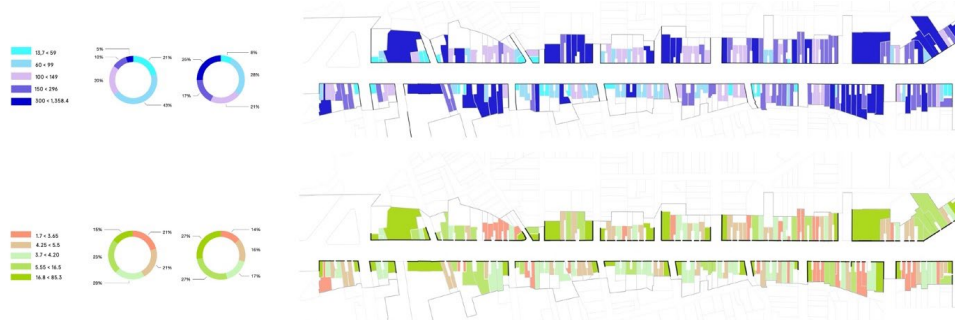


Figure 4. Ground floor premises' area and façade length (fragment). Source: author's elaboration.

### Retail in the street, 2023

Regarding the distribution along the axis, restaurants tend to be located in the corners, with the greatest presence between the Plaça d'Espanya and the Hostafrancs market, and to a lesser extent between the market and the Plaça de Sants. This distribution pattern is also evident in the distribution of pavement terraces. The personal equipment shops are located more densely between Llobet and Alcolea streets, and to a second degree, to the west of the intersections with the Rambla de Badal and Plaça de Sants. Food retail is mainly located between the streets Portbou-Sugranyes and Passeig de Sant Antoni, in the part of the axis closest to the Sants markethall. On the other hand, the polarising effect of the market is less visible around the Hostafrancs market, due to the density of restaurants that dominate this area. Daily non-food retail is more concentrated on the southern sidewalk and between the Rambla de Brasil and the Sants market; Leisure and cultural facilities are located in two clusters: between the intersections of Rambla de Brasil and Passeig de Sant Antoni, and to the east of the Sants Market. Cultural facilities are distributed in a balanced way along the axis.

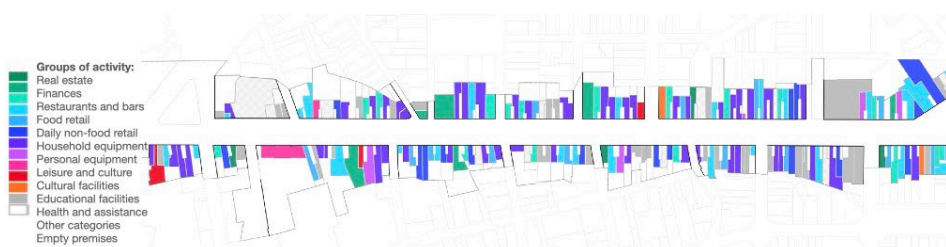


Figure 5. Retail configuration in Sants street. Source: author's elaboration.



## Dynamics of changes 2016-2023

Among the 509 establishments on the street, 239 (47%) have changed their activity group at least once, and 270 (53%) have maintained their activity group since 2016. The changes have taken place in a very balanced way on each pavement (109 in the north; 130 in the south). On average, the premises that have changed are smaller (114 vs. 122.8m<sup>2</sup>) but have the same perimeter from the façade to the street (8.2 vs. 8.6m). The 509 premises have undergone 461 changes, adding up the changes over the 6 periods studied. The largest number of changes, 130 (30%), occurred between the 2016 and 2019 censuses. Half of the changes, 230, took place between January 2022 and December 2022.

Among the 239 ground-floor premises that changed activity group between the six moments studied, three quarters (178) did so once or twice. On average, those that have changed have done so 1.9 times over the period studied. Among the 3 activity groups with the most commercial premises (restaurants, daily food and personal equipment), the presence of the first two is increasing and that of the last is decreasing. The relative balance between the activity groups is maintained despite the changes. Restoration and daily food are increasing, while household clothing is decreasing. Despite the significant increase in the number of premises (+25%), the daily food market occupies small premises and only grows by 20% in area. Restoration balanced the growth in surface area with the number of new premises.

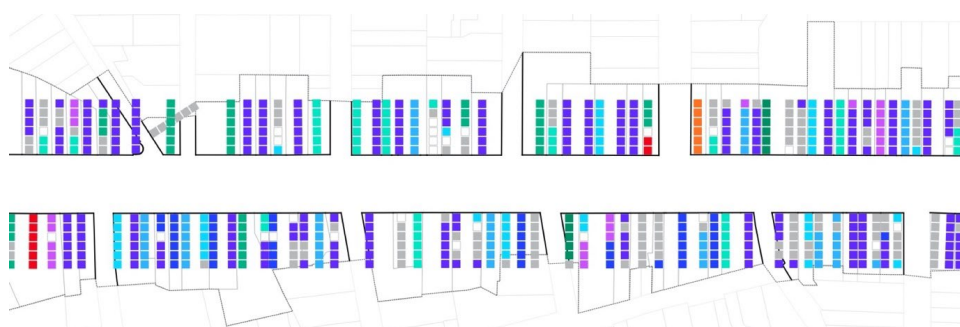


Figure 6. Dynamics of changes of retail in Sants street. Source: author's elaboration.

### Dynamics by groups of activity

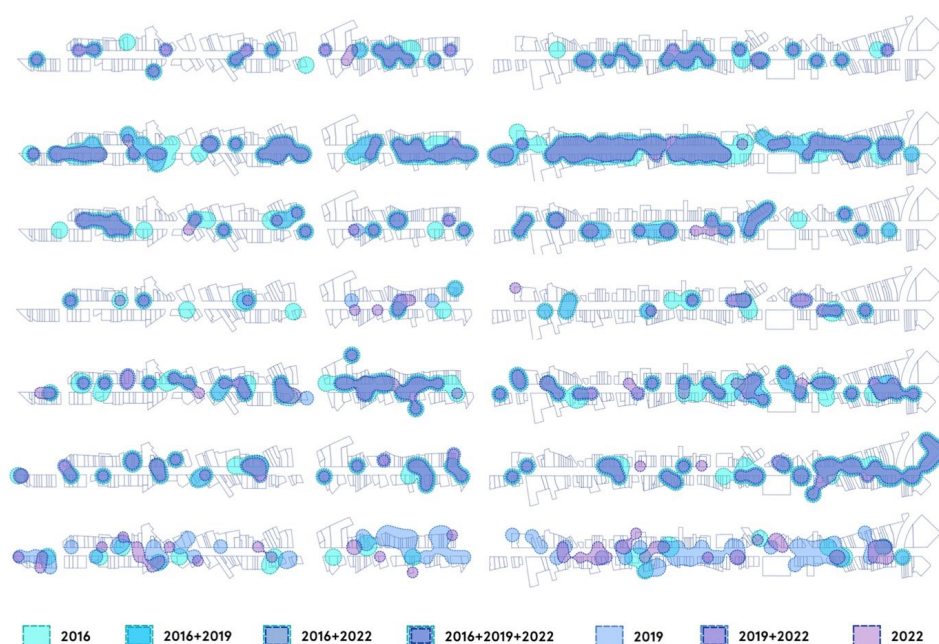
Beyond the specifics of the movement dynamics, it is intriguing to examine the elements that the analysis prioritises: the configuration of the pavements; proximity to public transport hubs; proximity to tourist attractions; proximity to market halls – which have been regarded as neighbourhood centralities within Barcelona's urban fabric since 1986.<sup>6</sup>

Non-food daily premises have increased from 30 to 33 units. The concentration between the Hostafrancs market and Plaça de Sants has decreased, while it has increased in the area near Rambla de Badal. There is also a new concentration at the junction of Carreras Candi and Jaume Roig. Household goods shops have lost presence, going from 40 to 36 units. They are concentrated at the Avinguda de Madrid intersection and at the Badal, Plaça de Sants and Hostafrancs metro stations. The number of personal equipment premises fell from 121 to 102. However, due to the constant presence of this type of establishment along the entire street (the most numerous of which doubled the number of daily food establishments in 2016), the concentration pattern remains practically unchanged between the two censuses.

Leisure and cultural establishments have decreased from 22 to 21 units. In addition, the premises have been redistributed to reproduce similar concentration patterns to those of the food trade: near the Hostafrancs market and behind the Sants market. Additionally, the number of spaces dedicated to public

cultural facilities has remained at 5. The distribution, equidistant along the street, has changed slightly due to the movement of one of the activities, which has lost presence in Plaça d'Espanya and gained visibility near the Badal metro stop.

Bars and restaurants have decreased their presence from 53 to 68 units. The concentration has been reinforced at the ends of the street, especially in the eastern part, between Passeig de Sant Antoni and Plaça d'Espanya, where tourist attractions concentrate and where they have a practically uninterrupted presence. Daily food retail has shifted their concentration from one market hall to the other. The number of grocery stores has grown from 57 to 74 and the concentration around the Hostafrancs market has decreased, while it has increased in the section near the Sants market.



*Figure 7. Dynamics of changes of retail in Sants street, by group of activity. From top to bottom: everyday non-food retail; personal equipment; household equipment; leisure and culture; food retail; restaurants and bars; empty premises. Source: author's elaboration.*

## TWO CASE STUDIES IN BARCELONA'S EIXAMPLE DISTRICT: THE IMPACT OF URBAN TRANSFORMATIONS IN THE CONFIGURATION OF RETAIL

The next steps of this comprehensive study are based on extrapolating and testing this analysis methodology in other locations within the city. Two straight streets were selected as samples for a second round of analysis, both located in Barcelona's Eixample. The grid designed by Ildefons Cerdà in the mid-19th century, represents a paradigmatic urban fabric that extends contiguously with the old town and the surrounding neighbourhoods. In recent times, this area has been the setting for significant urban transformations regarding public space. The grid features streets with a consistent width of 20 metres, with exceptions of 30, 40 and 50 metres in avenues. Blocks are 113-by-113 metres, with chamfered corners cut at 45°. In terms of the street project, Cerdà anticipated urban modernity by incorporating three key elements: (1) the subsoil sewage system, which connected the plots, guaranteed health in the city; (2) the width was distributed evenly between walkers and vehicles, materialised in 5 metres of sidewalk and 10 metres of road; and (3) alignment trees planted on each side of the road at the hinge between the sidewalk and the road, with a spacing of 8 metres which would guarantee air purity. The grid represents a significant degree of mixed-use development.



**Enric Granados street**

In the late 1990s, Enric Granados street (Figure 8) was the subject of a pioneering project to widen pavements in order to create more space for pedestrians. Over the years, this has led to a concentration of restaurants and terraces occupying the public space. In recent years, the street has been the scene of neighbourhood protests, as the already high concentration of restaurant activities has been joined by the invasive presence of pavement terraces. Despite time restrictions to ensure coexistence, these terraces have become a defining feature of the street's character.

Figure 8 illustrates the concentration evolution of certain activities, represented by heat maps employing the same graphical criteria as in Figure 7. It demonstrates the consistent presence of catering services over time, a shift in the distribution of empty premises towards the ends, and the almost constant presence of other daily activities in the few remaining free gaps.

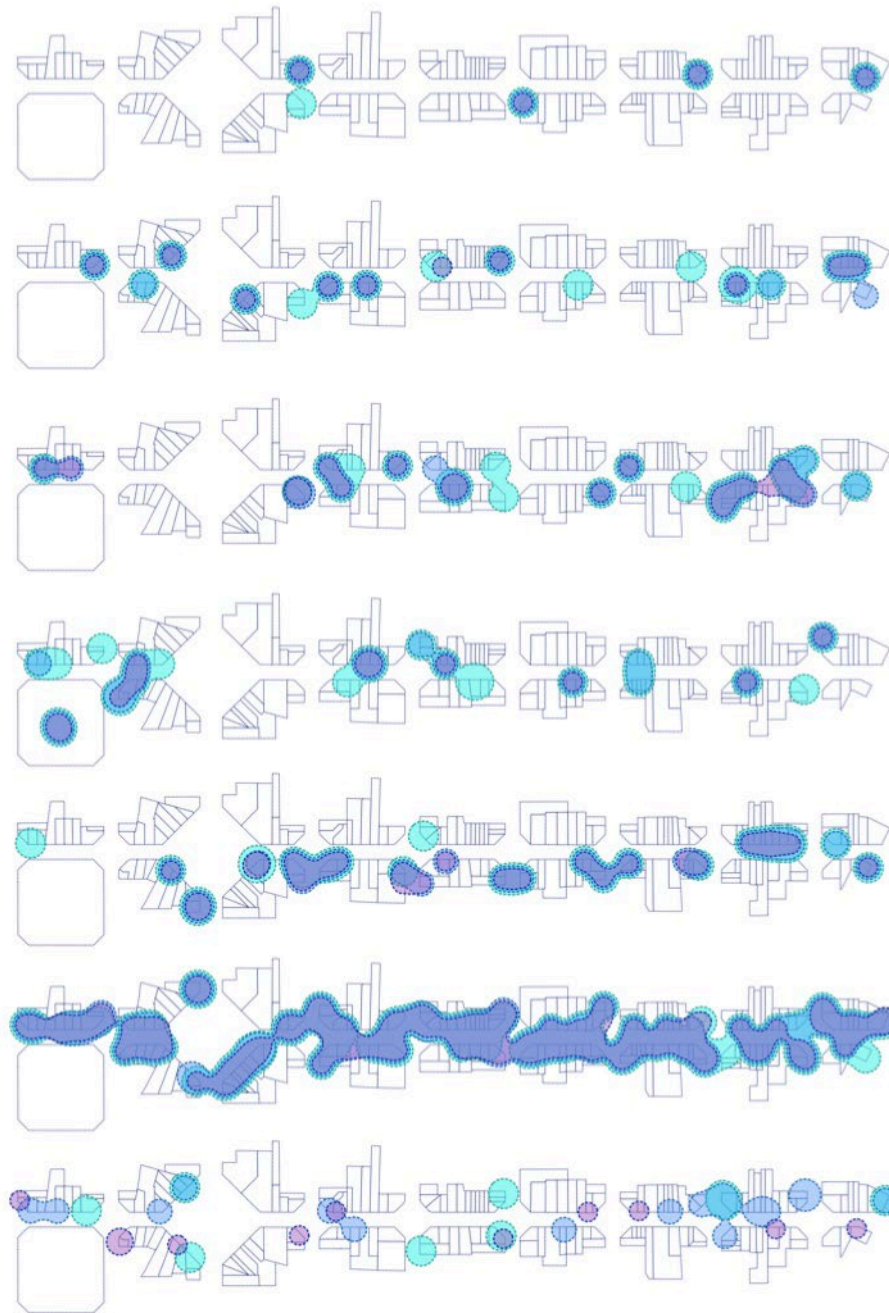
**Consell de Cent street**

The recent debate concerning the transformation of public space in Barcelona is related to the concept of tactical urbanism, which has assumed a significant role as a testing strategy in uncertain circumstances that require rapid responses of a temporary nature and low cost.<sup>7</sup> The most notable tactical strategy implemented by the Barcelona City Council is the Superilles programme, which commenced a decade ago and was initiated through two pilot projects in the districts of Poblenou (2016) and Sant Antoni (2018). This experience is in accordance with the general guidelines prepared by the Barcelona Ecology Agency,<sup>8</sup> which initially proposed that two out of every three streets in the Eixample area could be pacified, increasing the presence of vegetation and making them more permeable.

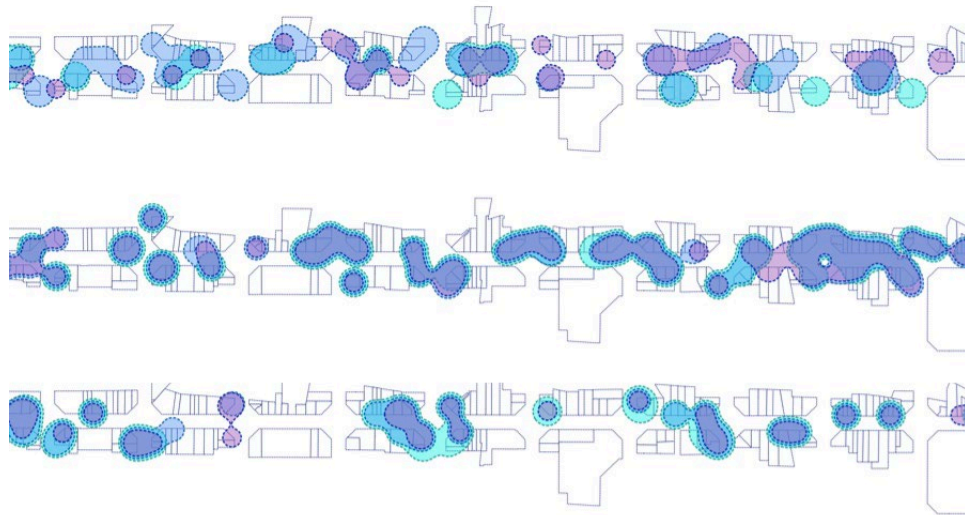
In a further development of the Superilles project, a public competition was held in 2020 to create a network of pedestrian-priority axes and squares within the existing network. The projects were carried out in streets that had been the subject of tactical pacification tests carried out after the period of lockdown. Consell de Cent, Rocafort, Comte Borrell and Girona streets have been transformed and produced a series of new squares in their intersections, each measuring approximately 2,000 m<sup>2</sup>. The new projects, which vary in their layout, are resolved with a single platform that extends the pavement of the sidewalks to the entire area between facades, eliminating the presence of asphalt and restricting the speed of vehicles to 10 km/h. Both axes and squares are intended for local use, where the presence of greenery, street furniture and children's play areas have increased.

Additionally, from February 2023, the Eixample Uses Plan aims to limit the presence of bars, restaurants, nightclubs and food shops in the district in order to avoid saturation and guarantee a balance of uses and the coexistence of users. During the drafting of the plan, and in order to ensure that the new regulations were in line with the reality to be regulated, in 2021 the suspension of licences was approved in the streets subject to transformation, a fact which, added to the consequences of the pandemic and the subsequent confinement, explains the little variation in the data in the censuses analysed.

Figure 9, which was created using the same graphic criteria as the previous two figures, illustrates that while food shops and restaurants have maintained a fixed presence due to the suspension of licences that accompanied the drafting of the Plan of Uses, there has been an increase in empty premises. This is likely to be because the new development will result in a change in the character of the street.



**Figure 8. Dynamics of changes of retail in Enric Granados street, by group of activity. From top to bottom: everyday non-food retail; personal equipment; household equipment; leisure and culture; food retail; restaurants and bars; empty premises. Source: author's elaboration.**



*Figure 9. Dynamics of changes of retail in Consell de Cent street, by group of activity (fragment). From top to bottom: empty premises; restaurants and bars; food retail. Source: author's elaboration.*

## CONCLUSION

The research presented reflects the complex interrelationship between urban design, public space configuration, and the dynamics of commercial activity. It offers valuable insights for urban planners and policymakers.

In terms of activities the analysis of ground-floor activities reveals a significant correlation between urban morphology, including factors such as plot size, street width, and building permanence, and the types of retail activities that flourish in different areas. The study demonstrates that plots of a smaller size and narrower street frontages tend to accommodate a greater number of smaller commercial units; and identifies distinct concentration patterns for different types of commercial activities along the streets examined. These patterns indicate that proximity to key urban features, such as market halls and public transport hubs, is a significant factor influencing the distribution of retail activities.

In terms of public space configurations, the research demonstrates that alterations in urban design, particularly the configuration of public spaces and streetscapes, markedly impact the type and distribution of commercial activities. The implementation of temporary pedestrianisation and traffic reduction measures in streets such as Consell de Cent has resulted in long-lasting effects, thereby substantiating the notion that short-term interventions can give rise to long-term changes in urban environments.

In terms of public policy, the text emphasises the impact of public policy, such as the Plan of Uses for the Eixample, which restricts the issuance of licenses for food-related establishments. This policy intervention is regarded as a contributing factor in the evolution and distribution of commercial activities in specific areas, reflecting the considerable influence of regulatory frameworks on urban development.

And finally, the methodology developed in this research, which entails a comprehensive analysis of urban form and retail dynamics, has the potential to be extended to other areas of the city or comparable urban contexts. This indicates that the findings from this study could inform urban planning and policy decisions for the design of ground-floor activities.

## **ACKNOWLEDGEMENTS**

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## NOTES

- <sup>1</sup> Manuel de Solà-Morales, "Espacios Públicos y Espacios Colectivos. Un Nuevo Reto: Urbanizar Lo Privado." *La Vanguardia*, 12 May 1992; 4–5.
- <sup>2</sup> Eulàlia Gómez-Escoda, *Commerce, city, groundscapes*. (Barcelona: UPC, 2012).
- <sup>3</sup> Ajuntament de Barcelona, *Cens de locals de planta baixa destinats a activitat econòmica de la ciutat de Barcelona* (Barcelona: Ajuntament de Barcelona, 2024).
- <sup>4</sup> Some streets of Barcelona are opened up to the public for the enjoyment of a smoke-free, motorbike-free, car-free and noise-free environment. The aim of Open Streets is to combat the climate crisis by reducing traffic on the city's main roads, thereby transforming the streets into open and healthy spaces. Open Streets takes place every weekend, and the public is encouraged to enjoy the streets.
- <sup>5</sup> Alvaro Clua, Francesc Valls and Eulalia Gomez-Escoda, "Barcelona a pie: estudio de la eficacia de la red de espacios peatonales", *International Seminar on Urban Form Hispanic* (Madrid: UPM, 2022).
- <sup>6</sup> Pere Fuertes and Eulalia Gomez-Escoda. "The role of public market halls in the construction of the urban food system", *Journal of Urban History*, 2022.
- <sup>7</sup> Giancarlo de Carlo, "An Architecture of Participation", *Perspecta*, 1980 and Cara Courage, "The Global Phenomenon of Tactical Urbanism as an Indicator of New Forms of Citizenship", *Engage Vis. Arts*, 2013
- <sup>8</sup> Salvador Rueda, "Les Superilles per al Disseny de Noves Ciutats i La Renovació de Les Existents: El Cas de Barcelona", *Papers Regió Metropolitana Barcelona*, 2017, 59, 78–93.

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# THE MODERNIST DREAM OF LIVABILITY (CALIFORNIA + TITIRANGI)

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## INTRODUCTION

Modernism significantly altered women's traditional roles as homemakers, transforming domestic spaces. Modernist architecture elevated women's profiles from isolated kitchens to open-plan environments, reflecting changing societal attitudes. Julius Schulman's iconic 1960 photograph "Case Study House #22 (Two Girls)" by Pierre Koenig shows two women in a modernist interior with floor-to-ceiling windows overlooking Los Angeles. Despite the glamorous setting, the women appear isolated, indicating disconnection. The composition of Schulman's photograph, driven by the male gaze, frames the women as passive subjects within an architectural showcase, highlighting their ornamental presence rather than agency.

Conversely, the portrayal of the Rigby. Mullan's Greer/Frith House in Titirangi, Aotearoa, emphasizes openness and connection with the landscape. The empty seats suggest potential for social interaction, contrasting Schulman's isolation. Rigby. Mullan's Greer/Frith Housework, less influenced by the male gaze, presents the domestic space as an active participant in social engagement. This paper examines these images' eclecticism, comparing Schulman's and Rigby. Mullan's works through Walter Benjamin's notion of aura highlight the interplay between architecture, gender, and societal values in the Modernist era.

## THE STAHL HOUSE – CASE STUDY HOUSE #22 (CSH 22), PIERRE KOENIG CALIFORNIA

**Construction 20 November 1957 – 6 May 1960. 1635 Woods Drive, West Hollywood, California**

The advent of Modernism brought about noteworthy shifts in the roles of women, who were traditionally confined to domestic spaces as homemakers. With the emergence of Modernist architectural aesthetics, women's profiles within the domestic sphere were elevated, transitioning from the isolated confines of the kitchen to more open-plan environments.<sup>1</sup> This architectural transformation not only reshaped gender dynamics but also mirrored evolving societal attitudes to livability.

A notable depiction of this shift can be seen in Julius Schulman's iconic photograph, "Case Study House #22 (Two Girls)," captured in 1960 of Pierre Koenig architecture. The image features two women seated amidst a modernist interior framed by floor-to-ceiling windows that offer views of the Los Angeles cityscape. Despite the glamorous setting, the women appear somewhat isolated, reflecting a sense of disconnection within the domestic scene. Schulman's photograph, with its distinct aesthetic and cinematic quality, has since become emblematic of the Modernist movement in California, inspiring



various cinematic and advertising endeavors. As illustrated in Figure 1. *Two Girls*: (Figure 2.) was created on 9 May 1960 with a Sinar camera (5x4), a double exposure 7.5 minutes of night skyscape with no internal lights, then a flash exposure of the women. Although the first shoot took five days, Shulman is colloquially known as *one-shot Shulman*.

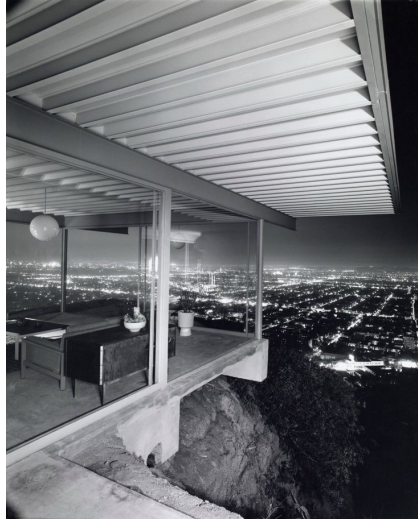


Figure 1. Julius Shulman, Job 2980: Case Study House #22 The Stahl House, 9 May 1960, © J. Paul Getty Trust. Getty Research Institute, Los Angeles (2004.R. 10)



Figure 2. Julius Shulman, Case Study House #22 (Two Girls). The Stahl House, Pierre König Case Study No 22. Colour image published 17 July 1960 'Milestone on a Hilltop' Los Angeles Examiner Pictorial Living. © J. Paul Getty Trust. Getty Research Institute, Los Angeles (2004.R.10)



Figure 3. Julius Shulman, Job 2980: Case Study House #22 The Stahl House, 9 May 1960, © J. Paul Getty Trust. Getty Research Institute, Los Angeles (2004.R. 10)



Figure 4. Julius Shulman, Job 2980: Case Study House #22 The Stahl House, 9 May 1960, © J. Paul Getty Trust. Getty Research Institute, Los Angeles (2004.R. 10)

Cognizant of the styling *Two Girls*, which was taken six weeks after the first to prevent viewing the unfinished underneath of the deck area, which can be partially seen in the Figure 1., once the Stahl family had moved in. One would not expect to 'see' this viewpoint Figure 2., hence, the *ossification* of

the viewpoint of the house. Pierluigi Serraino highlights the use of the Van Keppel-Green chaise<sup>2</sup>, which Shulman had previously utilized in Richard Neutra's Kaufmann House (1947).<sup>3</sup> The extreme wide-angle lens used with counter parallax perspective control should also be considered to prevent converging verticals,<sup>4</sup> what Jon Yoder describes as the “panoramic parameters of these vistas [...]”<sup>5</sup> Returning to Serraino who sets forth the proposition that in the representation of the artefact within the same structure, two contrasting forms of depiction exist side by side: one is factual, precise, and reverential, while the other implies habitation, usage, and “the latter suggests occupancy, consumption and lifestyle.”<sup>6</sup>

## **GREER FRITH HOUSE ALLAN RIGBY, TONY MULLAN (RIGBY.MULLAN) AOTEAROA NEW ZEALAND**

**Construction 1959- 1960. Scenic Drive Titirangi, Aotearoa, Waitākere Ranges, Tāmaki Makaurau (Auckland)**

In contrast, the portrayal of the Rigby. Mullan’s Greer/Frith House in Titirangi, Aotearoa, completed in the same year, offers a different perspective. While Bill McKay’s image also features expansive windows connecting the interior to the surrounding landscape, there is a greater emphasis on openness and connection with the outside environment. Two empty seats suggest the potential for conviviality and conversation, contrasting with the perceived isolation depicted in Schulman’s photograph. Carol Bucknall writing in 1993 suggests that the house “paved the way for an emergent indigenous style”<sup>7</sup> within Aotearoa.



*Figure 5. Photography of Rigby Mullan Greer Frith House by Glenn Watt, as contracted by Bill McKay (McKay Archive)*



*Figure 6. Photography of Rigby Mullan Greer Frith House (Interiors) by Bill McKay (McKay Archive)*

### **Structural Approach in the Rigby-Mullan House**

In contrast, the Cheated Cantilevers within the Rigby-Mullan House, which can be considered an Aotearoa (New Zealand) adaptation of the modernist glass pavilion, employs what can be termed as cheated cantilevers. The design incorporates cantilevered elements that are visually striking but rely on hidden or subtly integrated supports.<sup>8</sup> Unlike the fully cantilevered design of CSH 22, the Rigby-Mullan House uses seemingly wooden piers or columns to support the roof. This structural choice provides the necessary support while maintaining the aesthetic of a modernist pavilion, but it lacks the technological boldness seen in Koenig's design.<sup>9</sup> These differences highlight the distinct approaches taken by Koenig

and the designers of the Rigby-Mullan House. Koenig's work emphasizes cutting-edge engineering and a purist interpretation of modernist principles, pushing the boundaries of structural design.

On the other hand, the Rigby-Mullan House adopts a more pragmatic approach, blending modernist aesthetics with practical structural solutions appropriate for its context in Aotearoa. In summary, while both houses share modernist features such as large, glazed windows and integration with the landscape, their structural differences reflect varying degrees of technological innovation and adaptation to local contexts. These distinctions underscore modernist architecture's diverse interpretations and implementations across different regions and designers.

## **ARGUMENT FOR DIFFERENCES: KOENIG'S CASE STUDY HOUSE #22 (CSH 22) AND THE RIGBY-MULLAN HOUSE**

Despite sharing many modernist features, there are significant differences between Pierre Koenig's CSH 22 (Hereafter CSH 22) and the Rigby-Mullan House, particularly in their structural approaches and interpretations of modernist principles. Pierre Koenig's design for CSH 22 exemplifies technological innovation in modernist architecture. The roof and floor of the house are fully cantilevered, achieving a striking sense of floating architecture. Notably, there are no pilotis (supporting columns) between the ground and the floor or between the floor and the roof structure. This audacious design creates a seamless visual flow and a dramatic architectural statement, showcasing Koenig's mastery of structural engineering and modernist aesthetics. The full-height glazing has more than a passing resemblance to the Philip Johnson Glass House as well as the mechanical aspects.<sup>10</sup>

## **BENJAMIN – AURA'S AND A LIFE LIVED OF ITS OWN**

This paper explores the eclecticism within these two images, considering their positions across the Pacific rim and examining Walter Benjamin's notion of the aura.<sup>11</sup> Through a comparative analysis of Schulman's and Mullan's works, it seeks to shed light on the complex interplay between architecture, gender dynamics, and societal values during the Modernist era. First, it is crucial to understand Benjamin's concept of the *aura* in the context of mechanical reproduction. In his seminal book *The Work of Art in the Age of Mechanical Reproduction*, Benjamin argues that the aura, defined as an artwork's unique presence and authenticity, diminishes with mass reproduction. With the advent of digital media, this notion of the aura has further evolved, prompting scholars to reassess its significance and manifestations in contemporary visual culture.

Digital media, characterized by its reproducibility, accessibility, and fluidity, has revolutionized the dissemination and consumption of images.<sup>12</sup> Unlike traditional media, digital platforms provide a vast array of easily replicable and distributable images across various platforms. This proliferation challenges Benjamin's conception of aura as the originality and authenticity of an image become increasingly elusive in the digital realm. Additionally, the allure of digital imagery lies in its ability to seduce the spectator<sup>13</sup> into its believability. Technological advancements such as high-definition imaging and virtual reality have endowed digital images with a level of realism that blurs the boundaries between the virtual and the real. This seductive quality not only captivates the viewer but also raises questions about the veracity and manipulation of visual representation in the digital age.

Moreover, digital media facilitates the intertextual referencing of images and meanings, creating layered and complex narratives. Images in digital spaces often contain embedded references to other images, cultural symbols, and historical contexts, enriching the viewer's experience through intertextuality. This interplay of references enhances the depth and complexity of digital imagery and underscores the interconnectedness of visual culture across time and space. Therefore, examining digital media through the lens of Benjamin's concept of aura offers valuable insights into the evolving nature of visual culture

in the digital age. By exploring how the allure of digital imagery captivates the spectator and the embedded references within these images, one can gain a deeper understanding of the complexities and implications of visual representation in contemporary society.

### FROM THE AURA TO THE GAZE

Siegfried Giedion wrote that both the creative and the architect were responsible for creating contemporary life and a social community that cares for emotional needs.<sup>14</sup> Giedion believed that Modernism, the popular architectural style critiqued in 1958 with the seminal work *Architecture, You and Me*, required an approach of togetherness and would become visual outward symbols of expression.<sup>15</sup> However, Giedion argued that the conformity and formalization of Modernism's International Style led to a global form of building homogeneity, reducing spontaneous social interaction or intercourse.<sup>16</sup> Schulman's image depicts two women who can be viewed under the male gaze, lacking the essence of spontaneous social interaction that was crucial to Giedion.<sup>17</sup>

Understanding the notion of the male gaze within the Schulman image is essential before unpacking the overarching idea of the gaze/aura within the photographic image. The concept of the male gaze involves portraying women and the world through the lens of masculinity and heterosexuality in visual arts and literature. In a 1975 essay, Laura Mulvey expanded on the term 'male gaze,'<sup>18</sup> suggesting that women were coerced into identifying as passive objects meant to be observed, while men's visibility is justified by their active roles.<sup>19</sup> Schulman can be seen as having an active role in staging and placing the women as passive objects in the image, adopting the male gaze both behind the camera and in capturing the photograph.

Along with the male gaze, the gaze and aura of the photograph can be identified using Nadir Lahiji's critique of Benjamin's speculations that photographic images of architecture are "the locus of modern experience."<sup>20</sup> Benjamin used the term '*referent*' to support media theory, stating that photography reduces the use of provocative images as '*referent*'<sup>21</sup> within an oversaturated image-based society.<sup>22</sup> The notion of 'aura' becomes essential when interpreting the idea of the gaze, where information is processed through the viewer's sensory signals.<sup>23</sup> Experience, memory, and imagination contribute to the personal consumption and interpretation of a photographic image.

Nevertheless, the modern experience viewed in this image is one of female passivity, and the aura is reduced and de-centred through the observer's subjectivity due to the viewer's relationship with the building being presented through Schulman's male-centric stance. When viewed through the lens of the gaze, the Schulman photograph has been reduced to an illusion of an ideal form of modernity.

### COMMONALITIES OF MODERNITY IN THE CASE STUDY HOUSE #22, PIERRE KOENIG AND THE GREER FRITH HOUSE, RIGBY.MULLAN

The architectural designs of the Case Study House #22 and the Greer Frith House exhibit several features that underscore a shared modernist ethos. These features align with the principles of the International Style and highlight the architects' commitment to modernity.

**International Style:** Both houses embody the International Style, characterized by clean lines, open spaces, and a lack of ornamentation. This style emphasizes functionalism and modern materials such as steel and glass.

**Large Glazed Floor-to-Roof "Picture" Windows:** A prominent feature in both houses is the extensive use of large, glazed windows that span from the floor to the roof. These "picture" windows create an immersive visual connection with the outside environment,<sup>24</sup> allowing for abundant natural light and unobstructed views.<sup>25</sup> Reynor Banham's analysis extends to the social implications of glass architecture, which he terms "glass paradises."<sup>26</sup> These environments, characterized by extensive use of

glass, were envisioned as utopian spaces where the interaction between individuals and their surroundings was liberated from traditional constraints.<sup>27</sup>

**Views to the Main City Center:** Both residences are strategically oriented to provide expansive views of the main city center. This design choice integrates the urban landscape into the living space and highlights the houses' prominence within their respective settings.<sup>28</sup>

**Cantilever Decking Protrusions:** The inclusion of cantilevered decks in both designs demonstrates a modernist approach to extending living spaces into the outdoors. These protruding elements create dramatic architectural statements while providing functional outdoor areas that blend seamlessly with the interiors.<sup>29</sup>

**Height Over the City and Panoramic Views:** Both houses are situated at elevations that afford panoramic views over the city. This elevated positioning offers visual dominance over the urban landscape and reinforces a sense of detachment and exclusivity.

**Separation from the City – Otherness:** Despite their visual connection to the city, both houses maintain a sense of separation and otherness. This is achieved through their elevated positions, unique architectural forms, and the strategic use of space and materials that set them apart from the surrounding urban fabric.

**Services within the Ceiling:** Both houses incorporate modern solutions for integrating essential services, such as heating, ventilation, and electrical systems, within the ceiling structures. This design choice enhances the clean, uncluttered aesthetic of the interiors. Todd Cronan extensively discusses the galvanized steel T-decking of the roof plane, which can be easily identified in Figures 3., and 4. Unsurprisingly both have clerestory elements within the bedrooms and contain aspects of large otherness spaces<sup>30</sup>

**Remarkably Similar Kitchen Fit-Outs:** The kitchen designs in both houses share a striking resemblance, emphasizing functionality and modern aesthetics. Notably, the CSH 22 originally featured “Barbie Pink” appliances, reflecting the era’s design trends and the architects' playful approach to color and style (as seen in the background of Figure 3).

In summary, the CSH 22 and the Greer Frith House exemplify critical elements of modernist architecture, demonstrating a shared commitment to the principles of the International Style. Their designs highlight a balance between integration with and separation from the urban environment, innovative use of materials and space, and a focus on functionality and modern aesthetics.

## ICONIC IMAGES IN THE MEDIA: A LOSS OF AURA OR AN ENHANCEMENT OF AURA

The Stahl house has been used in numerous fashion shoots, films, and advertising campaigns. The concept of iconic images in the media is a fascinating topic that touches upon the broader discussion of the aura of cultural artefacts, as originally discussed by Benjamin. Benjamin posited that the aura of an artwork is tied to its uniqueness and authenticity, which can be diminished through mass reproduction. However, the repeated appearance of iconic images in various media can also enhance their cultural significance and perpetuate their legacy. One exemplary case of this phenomenon is the CSH 22. This house has transcended its status as a mere residential building and has become a cultural icon, widely referenced and featured across different media platforms.

The CSH 22 has appeared in numerous films, cementing its status as a cinematic icon. In **Smog (1962)**, the film utilized the modernist aesthetic of the house to emphasize the themes of contemporary life and environmental issues. This early appearance set the tone for the house's role in cinema, highlighting its architectural significance and thematic resonance. In **The First Power (1990)**, the house's sleek, modern design starkly contrasted the film's dark, supernatural themes, creating a juxtaposition that amplified the eerie atmosphere of the movie. In **The Marrying Man (1991)**, the house served as an



elegant backdrop that enhanced the romantic and comedic elements of the story, showcasing its versatility in different genres. **Corrina, Corrina (1994)**<sup>31</sup> used the house to underscore the mid-century setting of the film, grounding the narrative in its historical context. **Playing by Heart (1998)** featured Jon Stewart's character residing in this iconic house, highlighting his role within the interconnected narrative and adding sophistication to his character.

The house's appearance in **Why Do Fools Fall In Love (1998)** helped to convey the opulent lifestyle of one of the film's characters, while **Galaxy Quest (1999)** utilized the home of Tim Allen's character to showcase the blend of sci-fi and modernist design. In **Nurse Betty (2000)**, the house is part of the narrative that revolves around dreams and reality, emphasizing its surreal and aspirational qualities. Finally, **Where the Truth Lies (2005)** saw the house's architecture complement the film's themes of glamour and hidden truths, reinforcing its role as a symbol of both transparency and mystery.

The house has also made significant appearances on television, reinforcing its cultural impact. In **Adam-12**, it was featured in episodes of this police drama, illustrating the modernist lifestyle of Los Angeles and providing a backdrop that reflected the progressive architecture of the city. **Emergency!** used the house to depict the affluent neighborhoods served by the emergency responders, showcasing the socio-economic diversity within the city's residential areas. Perhaps most notably, the house was used in **Columbo**, particularly in **"Prescription: Murder"**, the pilot episode. Here, the house's distinctive style matched the sophisticated and cunning character of the murderer, creating a visually striking and thematically appropriate setting. This use of the house in television further cemented its status as an architectural icon and a symbol of modernity.<sup>32</sup>

In addition to film and television, CSH22 has been featured in music videos, linking it to various musical styles and artists. In **"I Don't Wanna Stop" by ATB (2003)**, the house provided a visually striking setting for this electronic music video, enhancing the futuristic and dynamic feel of the song. **"Missing Cleveland" by Scott Weiland** utilized the house to reflect themes of loss and yearning, with its modernist design evoking a sense of nostalgia and melancholy. **"Release Me" by Wilson Phillips** featured the house's airy, open design, which mirrored the song's themes of freedom and letting go, creating a harmonious visual and auditory experience. The influence of CSH 22 extends even into the realm of video games, illustrating its broad cultural reach. In **Grand Theft Auto: San Andreas (2004)**, a look-alike of the house was included as one of the safehouses players can purchase. This inclusion bridged the gap between digital and physical architectural appreciation, allowing players to engage with the iconic design in a virtual environment. This representation in a popular video game underscores the house's lasting impact and status as a symbol of modernist architectural excellence.

## CONCLUSION

In conclusion, the consumption of mass media images, particularly in the case of Shulman's *Case Study House #22 (Two Girls)*, underscores a significant disparity in the representation of female relationships in visual culture. While the portrayal of the Rigby/Mullan Greer/Frith House highlights a distinct absence of corresponding imagery, Shulman's *Case Study House #22 (Two Girls)* remains a poignant example that continues to resonate within cultural narratives. This enduring relevance is evident in various cultural memes and adaptations, such as inspiration for Hockney's *Bigger Splash*<sup>33</sup> and even in the satirical lens of *The Simpsons*.

These contemporary references not only attest to the lasting impact of Shulman's imagery but also emphasize the pervasive influence of mass media in shaping and perpetuating specific visual narratives. In this context, Benjamin's concept of the aura of mechanical image-making can be insightful. Benjamin posited that the aura of an artwork is linked to its unique presence in time and space, which is diminished in the age of mass reproduction. Nevertheless, Shulman's work retains a distinct aura



through its continuous reinterpretation and presence in popular culture. This persistence suggests that specific images can maintain their cultural and emotional significance despite, or perhaps because of, their widespread replication.

Through these examples, we observe the persistent cultural dialogue around female relationships, their representation, and the broader implications of such imagery in our understanding of gender and identity within the media landscape. The aura of Shulman's work, continually reconstituted through its cultural reiterations, highlights the decisive role of iconic images in shaping collective memory and social discourse.

## NOTES

- <sup>1</sup> Gina Hochstein and Annabel Pretty, "The Argument for Modernity: Titirangi, Aotearoa, and West Hollywood, California." (AAANZ - Art Association of Australia & New Zealand, 2023 Conference, Queensland College of Art, Griffith University, Brisbane., 2023).
- <sup>2</sup> The Van Keppel-Green chaise can be seen in the foreground of Figure 2.
- <sup>3</sup> Pierluigi Serraino, "History's Rejects: The Abandoned Files of Julius Shulman," ed. Jennifer Sigler, *Hunch: The Berlage Institute Report*, Hunch is a publication of the Berlage Institute, International Postgraduate Laboratory of Architecture, Rotterdam, the Netherlands, No. 3, no. Spring (2001): 61; Mary Melton, "A Shot In The Dark: The Unknown Story Behind L.A.'s Most Celebrated Photograph," *Los Angeles Magazine* (blog), December 6, 2016, <https://www.lamag.com/longform/a-shot-in-the-dark/>.
- <sup>4</sup> Jeffrey Head, "Creating The Iconic Stahl House - Two Dreamers, an Architect, a Photographer, and the Making of America's Most Famous House," *Curbed*, August 24, 2017, <https://archive.curbed.com/2017/8/24/16156818/stahl-house-julius-shulman-case-study-22-pierre-koenig>.
- <sup>5</sup> Jon Yoder, "Architecture After Affect," in *Architecture, Film, and the In-between: Spatio-Cinematic Betwixt*, ed. Vahid Vahdat and James F. Kerestes (Bristol, UK: Intellect, 2023), 29.
- <sup>6</sup> Pierluigi Serraino, "Framing Icons: Two Girls, Two Audiences. The Photographing of Case Study House #22," in *This Is Not Architecture: Media Constructions*, ed. Kester Rattenbury (Routledge Taylor & Francis Group, 2002), 127.
- <sup>7</sup> Carol Bucknell, "Modernist 50s Pavilion," *New Zealand Home and Building*, Feb/Mar 1993 (1993): 58–62.
- <sup>8</sup> Douglas Lloyd Jenkins, "Rigby Mullan & the Depths of Fashion," *Douglas Lloyd Jenkins*: (blog), November 5, 2014, <https://douglaslloydjenkins.wordpress.com/2014/11/05/rigby-mullan-the-depths-of-fashion/>.
- <sup>9</sup> Debra Daley, ed., *New Zealand Home & Building. Souvenir Edition. The 12B 1950s Show. Auckland City Art Gallery [20 November 1992- 28 March 1993]* (Auckland, N.Z: Auckland City Art Gallery, 1992); Douglas Lloyd Jenkins, *At Home: A Century of New Zealand Design* (Auckland, New Zealand: Godwit, 2004); Douglas Lloyd Jenkins, "Prying Eyes: The Greer-Frith House," *Landfall*, May 2001, no. 201 (2001): 146–49.
- <sup>10</sup> Reyner Banham, *The Architecture of the Well-Tempered Environment* (The Architectural Press, 1969), 228–33.
- <sup>11</sup> Walter Benjamin, *The Work of Art In the Age of its Technological Reproducibility, and Other Writings on Media [1935]*, ed. Michael William Jennings, Brigid Doherty, and Thomas Y. Levin, trans. E. F. N. Jephcott, Rodney Livingstone, and Howard Eiland (Belknap Press, Harvard University Press, 2008); Walter Benjamin, "The Work of Art in the Age of Mechanical Reproduction [1935]," ed. Hannah Arendt, trans. Harry Zohn, *Illuminations*, 1969, 226–43, <https://doi.org/10.4324/9781351226387-29>.
- <sup>12</sup> Nathalie Herschdorfer, "When the Virtual Becomes Real," in *Bildbauten: Philipp Schaerer*, ed. Reto Geiser (Basle: Standpunkte, 2016), 80–89.
- <sup>13</sup> Benjamin, "The Work of Art in the Age of Mechanical Reproduction [1935]," 17.
- <sup>14</sup> Siegfried Giedion, *Architecture You and Me: The Diary of a Development* (Cambridge, Mass.: Harvard University Press, 1958), 139.
- <sup>15</sup> Giedion, *Architecture You and Me: The Diary of a Development*, 158.
- <sup>16</sup> Giedion, *Architecture You and Me: The Diary of a Development*, 107.
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- <sup>18</sup> Laura Mulvey and Rachel Rose, *Laura Mulvey, "Visual Pleasure and Narrative Cinema" [1975]*, ed. Mark Lewis, First published, Afterall Books: Two Works (London: Afterall Books, 2016).
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- <sup>20</sup> Nadir Lahiji, "Architecture Under the Gaze of Photography: Benjamin's Actuality and Consequences," *Architectural Theory Review* 10, no. 1 (April 2005): 64, <https://doi.org/10.1080/13264820509478529>.
- <sup>21</sup> The referent is the artist's intent, the point of reference that the artist alludes to through depicting specific elements, or the essence.
- <sup>22</sup> Lahiji, "Architecture Under the Gaze of Photography," 65.
- <sup>23</sup> Lahiji, "Architecture Under the Gaze of Photography," 66.
- <sup>24</sup> Beatriz Colomina, "Liminal Mies: Betwixt the Lens and the Building," in *Architecture, Film, and the In-between: Spatio-Cinematic Betwixt*, ed. Vahid Vahdat and James F. Kerestes (Bristol, UK: Intellect, 2023), 85.
- <sup>25</sup> Elizabeth A. T. Smith et al., *Case Study Houses: The Complete CSH Program 1945-1966*, Case Study Houses : The Complete CSH Program 1945-1966 (Köln, Germany: Taschen, 2009).
- <sup>26</sup> Reyner Banham, "The Glass Paradise," in *A Critic Writes: Essays by Reyner Banham*, ed. Reyner Banham, Mary Banham, and Peter Hall (University of California Press, 2007), 32038.

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- <sup>30</sup> Cronan, *Nothing Permanent*, 39.
- <sup>31</sup>. Shari Stahl Gronwald, Bruce Stahl, and Kim Cross, *The Stahl House: Case Study House #22: The Making of a Modernist Icon* (Chronicle Chroma, 2021).
- <sup>32</sup>. Julia Jamrozik, “Growing Up Modern: Lessons From Childhoods in Iconic Homes,” in *The Hybrid Practitioner: Building, Teaching, Researching Architecture*, ed. Caroline Voet, Eireen Schreurs, and Helen Thomas, 1e édition (Leuven: Leuven University Press, 2022), 235–46.
- <sup>33</sup> Cronan, *Nothing Permanent*, 322.

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# A CITY AT A CROSSROADS: CHALLENGES AND OPPORTUNITIES OF NAIROBI'S RAPID URBAN TRANSFORMATION

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## INTRODUCTION

In the wake of the threefold global challenges of rapid urbanisation with its concomitant rise in urban population, climate change and the need for both adaptation and mitigation and rising urban informality – particularly in cities in the global South, this paper explores these interwoven challenges through a case study of a rapidly expanding city in the global South. Nairobi, the city in question, which is not only the capital of Kenya but also the economic hub of Eastern Africa as well as the regional base of several international organisations, in addition to being home to a growing African middle class, particularly manifests the highlighted challenges. Drawing on both qualitative and quantitative research in tandem with published sources, the study interrogates the challenges that the city faces in the context of the city's developer-driven housing redevelopment schemes that have led to the unregulated radical transformation of low-rise single-dwelling units to high-rise apartment blocks. With the emergent modified urban space vigorously contested, pitting various stakeholders against each other, such as developers, residents, investors and regulatory authorities, the livability of the city is at stake. While the predominantly unsustainable way in which the urban transformation is occurring is underlined in the paper, the emerging opportunities for sustainable outcomes for the city are also underscored. The paper concludes by foregrounding the need for establishing a common ground on which to build a consensus amongst the various stakeholders on the city's future, whilst aligning with a deliberately designed approach to effectively navigate the pressing challenges.

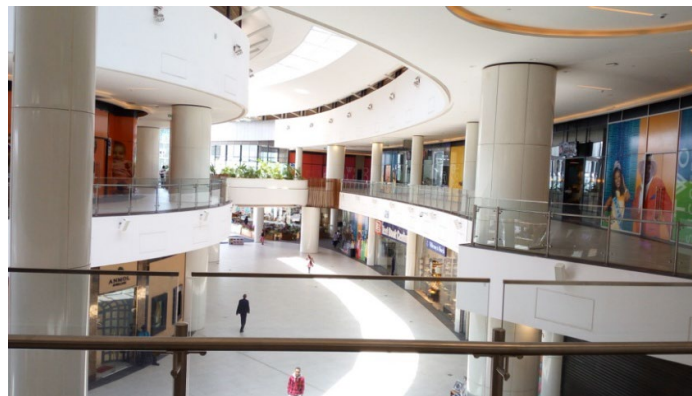
## Nairobi's rapid urban transformation

Like many cities in the global South, Nairobi has witnessed rapid urban transformation in the new millennium. In a now majority urban world,<sup>1</sup> a milestone that occurred in 2007,<sup>2</sup> Nairobi's urban growth has been fuelled primarily by a rapidly expanding population in the city through both natural growth and migration from rural areas.<sup>3</sup> This is discernible in Kenya's decennial national census. In the 1999 national census, Nairobi's population was recorded as 2.1 million (2,143,254) persons.<sup>4</sup> By the 2009 census, this had increased by 46.4 percent to 3.1 million (3,138,369) persons.<sup>5</sup> And, by the most recent national census, in 2019, the city's population had increased by a further 40.1 percent to 4.4 million (4,397,073) persons.<sup>6</sup> The most recent estimates (2023) place Nairobi's current population at 4.7 million (4,750,056) persons,<sup>7</sup> representing a remarkable rapid growth of 120 percent (more than a doubling of the population) within the first quarter century of the new millennium.

Situated at the horn of Africa, Nairobi, the capital city of Kenya, is a thriving African metropolis. The economic hub of a lower middle-income country<sup>8</sup> with one of the largest economies in East Africa,<sup>9</sup> the city is also a regional transportation hub,<sup>10</sup> and the international gateway to the East African region. It plays host to the regional headquarters of several international and multi-national corporations and organisations,<sup>11</sup> including the United Nations (UN)'s Headquarters in Africa (United Nations Office at Nairobi – UNON), as well as the global headquarters of two other UN agencies: United Nations Environment Programme (UNEP) and United Nations Human Settlements Programme (UN-Habitat).<sup>12</sup> In recent years, Nairobi has gained the moniker of the Silicon Savannah<sup>13</sup> due to its thriving technological sector driven by the development of innovative software development by young entrepreneurs. This has attracted major technological companies such as Google, Microsoft, and others,<sup>14</sup> which have set up shop in the city to tap into this local talent pool.

Against this backdrop and in the context of its expanding urban population, Nairobi is also home to a growing African middle class<sup>15</sup> that has experienced phenomenal expansion on the African continent in recent decades.<sup>16</sup>

With the growth of the city's middle class,<sup>17</sup> has come a concomitant increase in disposable income. This has led to an increase in conspicuous consumption and demand for associated urban goods such as cars, malls, fast food eateries, and housing in prestigious locations.<sup>18</sup> Consequently, more cars have been purchased leading to increased traffic in the city, several large malls have sprung up in recent years (see Figure 1);<sup>19</sup> global fast food chains such as Burger King, KFC, and others, have set up shop in the city; and high-rise apartment blocks have emerged in historically desirable low-density residential suburbs with easy access to the CBD and other major employment centres.



*Figure 1. Image of Two Rivers Mall in Nairobi.*

It is the nature of the emergence of high-rise apartment blocks in previously low-density residential suburbs that this paper centres on, with a particular focus on the challenges and opportunities that this phenomenon presents for the city. Explored through the lens of developer-led redevelopment of the city's urban habitats, the investigation is undertaken using a case study neighbourhood in the city – *Kileleshwa*, which exemplifies the radical transformation of housing; and framed through the intertwined threefold global challenges of rapid urbanisation, climate change, and rising urban informality.

## THE KEY ISSUES OF RAPID URBAN TRANSFORMATION

In the global South, the issues of rapid urbanisation in tandem with rise in urban population, climate change and the need for both adaptation and mitigation, and rising urban informality are intertwined and arguably need to be considered concurrently in the contemplation of the development of approaches for achieving a more sustainable and livable future for the region's urban contexts.



### **Rapid urbanisation in Nairobi's urban habitats**

The Rapid global urbanization, particularly in the global South, is a phenomenon that has been accompanied by an equally rapid rise in urban population.<sup>20</sup> Kenya is now thirty percent urban<sup>21</sup> with a high proportion of this urban population domiciled in the country's largest and primate city of Nairobi, which is at least twice as large as the country's second largest city – Mombasa.<sup>22</sup>

In Nairobi, the impact of this increase in population is evident in both informal settlements, which have continued to expand exponentially,<sup>23</sup> but also, quite notably, in the city's formal residential areas as well. These areas, particularly the western suburbs of the city, in residential neighbourhoods such as Kileleshwa, have witnessed a concurrent radical transformation in the character of their housing stock. In Kileleshwa, the extensive demolition of single-dwelling housing units and their replacement with multiple-dwelling high-rise apartment blocks is now a characteristic feature of property redevelopment in the residential neighbourhood (see Figure 2). This is a phenomenon that has been occurring for more than a decade, with apartment blocks being built even higher than they were as recently as five years previously. Initially, the apartment blocks were built typically up to 12 floors high, but currently, apartment blocks approaching twice this height are not uncommon.



*Figure 2. High-rise apartment blocks in Kileleshwa*

Property developers, who are spearheading the ongoing transformation, argue that they are doing so to meet the demand for housing driven by the growing African middle class.<sup>24</sup> Framed in these purely economic terms, the situation appears straightforward as a case of the market rising to meet a pressing local demand – that of formal housing, in a context in which the country has a housing deficit that has never been met by the government or the private and non-profit sectors. However, what is left unsaid is that the housing being provided by the developers, in these historically low-density formal residential neighbourhoods, is being produced outside the existing regulatory and legal framework,<sup>25</sup> which has led to an increase in urban informality in the city's urban habitats.

### **Rising urban informality in Nairobi's urban habitats**

Global informality and prevalence particularly in the global South in the form of informal settlements is well-documented.<sup>26</sup> Regionally, Africa has some of the largest informal settlements outside of Asia<sup>27</sup> with Nairobi playing host to some large ones.<sup>28</sup>

While informal settlements account for most of the habitation for Nairobi's residents, who are primarily low-income,<sup>29</sup> an emergent phenomenon in recent years has been the rise in informality in historically formal residential areas of the city.<sup>30</sup> This has largely been attributed to property developers rushing to meet the growing demand for formal housing driven by the growing African middle class domiciled in the city in an urban context in which the supply of formal housing has been historically insufficient.<sup>31</sup>

As formal housing supply is increased by property developers to meet increasing demand, the rapid shift from low-rise to high-rise housing, is characterised by rising informality. In Kileleshwa, this is evident in the way in which the development of high-rise apartment blocks is occurring. The process and outcome of the housing redevelopment is transpiring outside the regulatory and legal framework.<sup>32</sup> For example, despite approvals granted by the county government for the construction of buildings up to four floors, these are ignored and apartment blocks more than twice this height are constructed instead.

Besides the regulations by the Nairobi County Government on height limits being ignored, prescribed plot ratio and building setback requirements are also disregarded as the apartment blocks are constructed to cover most of the existing plot. Regulatory requirements by other governmental agencies such as the National Environmental Management Authority (NEMA) – on environmental impact assessments, the National Construction Authority (NCA) – on construction quality, the Nairobi Water and Sewerage Company, and the Water Resources Management Authority (WRMA) are also violated. For example, in 2016, the Nairobi County government issued a report indicating that more than 4000 boreholes had been illegally drilled,<sup>33</sup> which has significant negative ramifications for the sustainability of the city's aquifers.

Citizen participation is enshrined in Kenya's new constitution that was promulgated in 2010.<sup>34</sup> However, it is evident that the ongoing redevelopment of the city's residential neighbourhoods is occurring without meaningful stakeholder engagement. Property developers and investors appear to be the largest beneficiaries while the city's residents gain the least from an emerging poor quality urban environment.

In Kileleshwa, the informality has meant a lack of predictability of outcomes in terms of the quality of the high-rise apartment buildings constructed. For instance, due to lack of adherence to building setbacks, apartment blocks on adjacent properties are constructed too close to each other hindering access to light and air and reducing privacy.

Furthermore, the uncoordinated way in which the property redevelopment is occurring on separate plots in the neighbourhood, unguided by an overall neighbourhood or citywide masterplan,<sup>35</sup> is leading to disparate forms of apartment block designs that fail to acknowledge their urban context, neighbouring apartment block designs and even the appropriateness of form.

The rapid rate of densification of housing in Kileleshwa, facilitated by the informality of the process, is occurring at a pace that is not in keeping with the capacity of extant infrastructure – particularly sewerage and water supply.<sup>36</sup> It is exerting pressure on extant urban goods and amenities, which are ill-equipped to deal with rapid change,<sup>37</sup> and not expanding commensurate with the increased demand. This has implications for Climate Change and issues related to both climate adaptation and mitigation.

### **Climate Change and need for both adaptation and mitigation in Nairobi's urban habitats**

Global agreements on climate change that address the need for both adaptation and mitigation are already in place, including the 2016 Paris Agreement on Climate Change,<sup>38</sup> which was especially crucial considering the catastrophic consequences for the planet were inadequate action taken to reduce greenhouse gas emissions and address rising global temperature this century, particularly the challenge of keeping it from rising beyond 1.5 degrees centigrade above pre-industrial levels.<sup>39</sup>

In Kileleshwa, the piecemeal, uncoordinated developer-led property redevelopment that is occurring has dire implications for climate change mitigation and adaptation, some of which are highlighted below.

Newly developed apartment buildings in Kileleshwa are not adhering to any floor area ratio in relation to the plot as planned for the area unlike low-density single-dwelling units – bungalows. The focus is

on maximum utilisation of the land with more than seventy percent coverage of the plot by the building's footprint,<sup>40</sup> increasing paved surfaces – a situation that leads to a number of problems including, for example, increased runoff during the annual rainy season leading to widespread flooding particularly in the lower area of the neighbourhood where the water drains into the bordering tributary of Nairobi river.<sup>41</sup> Furthermore, the construction of apartment blocks, as an energy intensive undertaking, additionally exacerbates the challenge of climate change given that housing in general accounts for one-third of global energy and emissions.<sup>42</sup>

The case study area has historically been part of the city's residential areas referred to as leafy green suburbs due to the preponderance of trees and houses set in ample lawns.<sup>43</sup> The large footprints of the emergent high-rise apartment blocks are not only replacing the existing bungalows but also the trees and green spaces that formed part of the setting of the plot on which they were situated.<sup>44</sup> Thus, Kileleshwa is rapidly becoming a concrete jungle, contributing to the heat island effect while reducing Nairobi's capacity for carbon capture through trees besides the loss of greenspaces that minimize rainfall runoff.

## **CHALLENGES AND OPPORTUNITIES OF NAIROBI'S URBAN TRANSFORMATION**

Considering the foregoing issues in Kileleshwa, some challenges and opportunities of Nairobi's urban transformation are discussed.

### **Challenges**

The lack of adherence to development control guidelines creates lack of predictability of property development outcomes, further exacerbated by the uncoordinated development of apartment blocks on adjacent properties. Consequently, neighbouring apartment blocks are constructed too close to each other resulting in poor air circulation and inadequate access to daylight resulting in dark apartment unit interiors, requiring energy consuming electric lighting during the day.

The rapid increase in apartment block buildings without a complementary expansion of urban infrastructure, such as sewer lines and water supply as well as urban amenities such as open spaces and playgrounds for children, is decreasing the livability of the residential neighbourhood, while the increase in traffic due to an overreliance on private cars in Kileleshwa is diminishing the area's air quality.

### **Opportunities**

It has been argued that higher densities are an opportunity for the ideal of making neighbourhoods more compact, mixed-use, and walkable.<sup>45</sup> For example, introducing an interlinked network of bike paths and footpaths throughout the neighbourhood and connecting them to other parts of the city, would provide the healthier option of walking and cycling within and through the neighbourhood.

Apartment block designs that are responsive to climate change could be encouraged. Aligning this with the United Nations Sustainable Development Goals (UNSDGs) such as SDG 11 on sustainable cities and communities,<sup>46</sup> could be a deliberate consideration by, for example, mandating environmentally friendly buildings.<sup>47</sup> Since many of the apartment blocks have flat roofs, designing for green roofs,<sup>48</sup> recreation areas and play areas on the roof could be a design consideration from the very beginning.<sup>49</sup> This would have the desirable effect of reducing the heat island effect of concrete surfaces in the neighbourhood and compensating for the loss of green and open space on the ground.

## CONCLUSION AND WAY FORWARD

Given the global context of climate change and the immediate context of challenges and opportunities associated with rapid urbanisation and informality, it is necessary that all concerned stakeholders in residential neighbourhoods such as those undergoing rapid urban transformation like Kileleshwa, engage in developing a desirable more equitable future for the city.

Various stakeholders – property developers, investors, residents, local government, and governmental agencies – have different goals and priorities. Developers and investors are after profits while residents in local communities desire a better urban environment to live in. They require urban amenities such as parks, green and open spaces, as well as bike lanes and walking paths that improve the livability of an urban habitat. So, a winner-take-all approach to property redevelopment in favour of property developers will not work for the city in the long run.

It is arguable that existing urban development regulations for Nairobi are not fit for purpose, considering the pressure for more housing on finite urban land, historically developed at low-density, close to the CBD. However, this should not mean simply discarding existing regulations in favour of a free for all scenario. Rather, it is an opportunity for input from different stakeholders in creating urban development regulations that are more amenable to current realities and which would deliver better outcomes for all. For example, encouraging mixed-income neighbourhoods, ensuring cultural preservation and harmoniously controlled house types through appropriate building codes,<sup>50</sup> which would also make it more feasible to create a more walkable neighbourhood.

The city benefits in the long run when its urban environment becomes more livable and more accessible to as many citizens as possible, and, therefore, arguably, more just.<sup>51</sup> Hence, the importance of a consultative process involving all key stakeholders, including those on opposite ends of the spectrum, in reaching a point of mutual agreement and benefit, through compromise and consensus, in developing a deliberate strategy and shared vision for designing desirable urban habitats for the city that are climate resilient, sustainable and livable.

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- <sup>35</sup> This is occurring despite the existence of a Masterplan for the city – Nairobi's Integrated Urban Development Masterplan. NCC and JICA, *Integrated Urban Development Masterplan for the City of Nairobi (NIUPLAN)*, 2014, accessed June 30, 2024, <http://citymasterplan.nairobi.go.ke>
- <sup>36</sup> Hence, the excessive drilling of boreholes in the city – both regulated and unregulated.
- <sup>37</sup> The residential area, originally planned as a low-density neighbourhood, is predominated by septic tanks designed for single-dwelling units rather than a trunk sewer line better suited for high-density units due to its larger capacity, but which covers a limited area of the neighbourhood.
- <sup>38</sup> The Paris Agreement is a legally binding international treaty on climate change. "The Paris Agreement: What is the Paris Agreement," *United Nations Climate Change*, accessed July 5, 2024, <https://unfccc.int/process-and-meetings/the-paris-agreement>
- <sup>39</sup> "Special Report: Global Warming of 1.5 Degrees Centigrade," *Intergovernmental Pannel on Climate Change (IPCC)*, accessed August 5, 2024, <https://www.ipcc.ch/sr15/>
- <sup>40</sup> This is in contrast to the required maximum building plot coverage of 25-35% for the area.
- <sup>41</sup> Collins Sasakah Makunda and Hakan Edeholt, "How African Design Perspectives Challenge Sustainable Development," in *Proceedings of the 22<sup>nd</sup> International Sustainable Development Research Society Conference*, eds. J.J. DeMelo, A. Disterheft, S. Caeiro, R.F. Santos and T.B. Ramos (Lisbon: International Sustainable Development Research Society, 2016), 136-150.
- <sup>42</sup> Andre Cabrera Serrenho, Michal Drewniak, Cyrille Dunant, and Julian M Allwood, "Testing the Greenhouse Gas Emissions Reduction Potential of Alternative Strategies for the English Hosing Stock," *Resources, Conservation and Recycling* 144 (2019), 267-275, accessed August 1, 2024, doi: 10.1016/resconrec.2019.02.001
- <sup>43</sup> Bill Freund, *The African City: A History* (Cambridge: Cambridge University Press, 2007)
- <sup>44</sup> Collins Sasakah Makunda and Hakan Edeholt, "The Unsustainability of Urban Habitat Transformation," *Africa Habitat Review Journal* 13:1(2019), 1555.
- <sup>45</sup> Jonathan Barnett and Larry Beasley, *Ecodesign for Cities and Suburbs* (Washington, DC: Island Press, 2015), 230.



<sup>46</sup> “The 17 Goals,” *United Nations Department of Economic and Social Affairs: Sustainable Development*, accessed July 15, 2020, <https://sdgs.un.org/goals>

<sup>47</sup> Exemplar certifications of the environmentally-friendliness of buildings that could be emulated exist around the world. For example, Leadership in Energy Efficiency Design (LEED) certification (US), US Green Building Council Certification – Bronze, Silver and Platinum, and British Research Establishment Environmental Assessment Method (BREAM).

<sup>48</sup> Green roofs would require designing flat roofs with the capacity to take the combined weight of soil, water and plants. Jonathan Barnett and Larry Beasley, *Ecodesign for Cities and Suburbs* (Washington, DC: Island Press, 2015)

<sup>49</sup> Jonathan Barnett, *City Design: Modernist, Traditional, Green and Systems Perspectives*, (New York: Routledge, 2016)

<sup>50</sup> Jonathan Barnett, *City Design: Modernist, Traditional, Green and Systems Perspectives*, (New York: Routledge, 2016)

<sup>51</sup> Susan S. Fainstein, *The Just City* (Ithaca, NY: Cornell University Press, 2010), 5, 10

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# THE CITY AS A LIFEFORCE, AND ITS WILL TO LIVE

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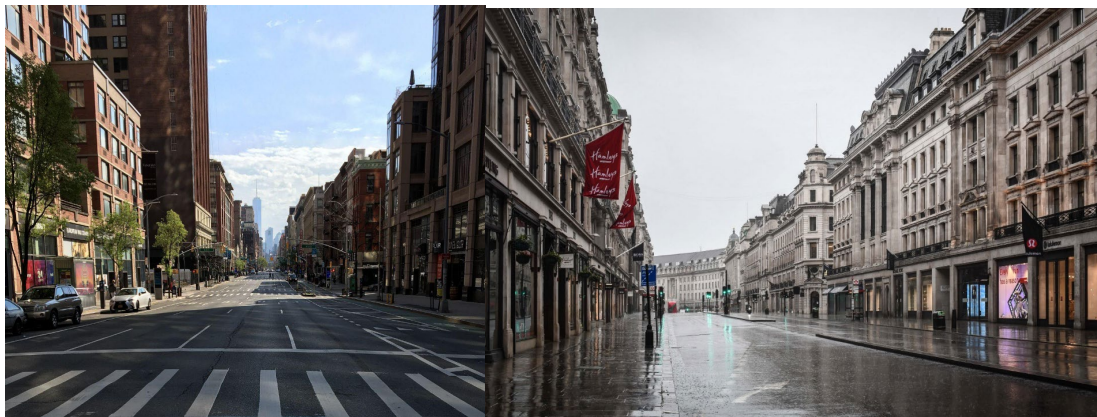
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## INTRODUCTION

In April 2020, a few weeks after the COVID-19 pandemic lockdown, many residents fled the cities of frenzied New York and old town London. Would they return? Was the city dying? Or in a necessary moment of pause and recalibration? Those were real questions at the time.



*Figure 1. Rush-hour on 6th Avenue, midtown Manhattan, 2020, K Conzelmann; Midday in Central London, 2020, Damien Hewetson*

Four years later, today in 2024, New York’s Hotel Chelsea has reopened, years of scaffolding and sheds dismantled and removed from site, its famed El Quijote Restaurant ready for springtime diners at the sidewalk café.

London’s Chelsea neighborhood has reawakened. The Underground Tube and commuter trains are near full, sidewalk cafes are humming, and as in New York cultural and educational institutions have reopened, and the construction boom continues. Who would have thought?

Life wills to live. Our bodies and spirits will to live. Nature wills to live. Some, but not all cities will to live. According to Arthur Schopenhauer, “will” is a mindless, aimless, non-rational impulse at the foundation of our instinctual drives, and at the foundational being of everything.<sup>1</sup> Those cities with the will to live are what we call the “essential cities” of today. But what specifically makes for an Essential City? The answer may lie in a city’s driving and relentless self-sense of purpose.

There needs to be the challenge for the ambitious, the opportunity, the resources and support, the density and critical mass, the happenstance, the history, and the urban space and form. There needs to be a stage for the struggle, the experience, the joy to play out, and the victory to be had, or not. The pins need to be set and ready for a full strike, or at least a spare.

Cities like New York and London have endured many episodes of crisis, doubt, abandonment. In recent memory: 1960's civil rights and anti-war protests and their counterculture forces of "back to the land", "flower power" and Carnaby Street; bankruptcy in 1970's NYC and economic stagnation in London and much of the western world; violence, urban decay and neglect; The World Trade Center attacks and London Underground bombings; and COVID. These challenges resulted in population exodus, mostly for those who could. With countless life-threatening pathologies (mental, emotional, psychological, physiological, societal), and issues of stress, houselessness, addiction, disease, poverty, economic inequity, crime, violence, guns, class inequality, bias, hate, pollution, density, sea level rise...New York, London, and others, struggle daily with these existential conditions, crashing at times, thriving and joyful at others, and ultimately demonstrating that vital, and absolute, will to live. This paper will have a look at these phenomena and attempt to outline some of the best paths forward for cities of all kinds and origins.



*Figure 2. Civil rights and war protests, AP; Back to the land. Poet and Guru Alan Ginsberg, Cyril H. Baker/Pix Inc./The LIFE Images Collection/Getty Image*



*Figure 3. WTC attacks 2001, K Conzelmann; London Tube bombings 2005, Daily Mail*



## CITIES AS LIVING ORGANISMS TAKE TIME



Figure 4. *Sprouting through pavement, K Conzelmann; Catal Huyuk (present-day Turkey) 7400 BCE, Ching*

As a seed gets sown, watered and sunned, it germinates, takes root and given the right soil and environmental conditions care and purpose should grow and thrive. Such is the case with any city where a form of human life habitat is born, grows, thrives, endures - or not, as it can also rot on the vine as it is in fact a sort of living organism.

It is known that early homo sapiens, or modern humans, emerged in Africa about 200,000 years ago. In a slow but relentless process, humans by 12,000 BCE had spread throughout much of the earth from Africa, Spain, West Asia to South America. Nomadic, these creatures roamed the lands, seeking food and safety from wild predators. Around 7,000 BCE farming of livestock and plants occurred in Greece, the Aegean areas and later in Liberia, Britain and Scandinavia. What we call civilization began once these tribes began to settle down, to grow crops, to create permanent homes.

Cities take centuries or millennia to grow and fully mature. It is the ancient peoples and civilizations which gave birth to the great settlement cities beginning with Mesopotamia, along the fertile Tigris and Euphrates rivers. The ancient Mesopotamian peoples that gave rise to the world's earliest writing (Sumerians), agriculture, and cities between 10,000 and 3,000 BCE lived in present day Iraq, which is sometimes referred to as the "Cradle of Civilization." Other Ancient civilizations including Egypt, Maya, India, China, Rome, Greece, and Persia have improved grasp of science, math, architecture, government, and culture. Their timeless legacies continue to have an impact on contemporary culture.<sup>2</sup> These prehistoric societies serve as a reminder that the human spirit has always been driven to survive, discover, invent, and create a better future while also leaving a lasting legacy for future generations. But these ancient civilizations were born from very different seeds than cities of recent centuries. Ancient cities of the world e.g. Paris, Rome, Baghdad, Changdong, Beijing and London were imperial cities built by emperors radiating power. American cities like New York and Chicago grew out of the mercantile industries mainly based on economic functionality.

### London

On the world stage London is considered an ancient city with origins dating back two thousand years. The area on the Tamesis (now the Thames River) was originally settled by early hunter gatherers around 6,000 BCE. The Romans founded a port and trading settlement called Londinium in 43 CE, today's London, and a few years later a bridge was constructed across the Thames to facilitate commerce and troop movements. But in 60 CE the city was burned to the ground in the first of many fires to destroy

London. The city's fortunes began to change in 1065, when Westminster Abbey was established and the city continued to flourish over the next millennium.<sup>3</sup>

## New York

New York, in comparison to London, is an infant. The Lenape native peoples of the 17th century lived where their predecessors had for at least 6,000 years, and the region known today as Lenapehoking was a complex landscape of trade, politics, and resource management. In 1609, English explorer Henry Hudson, working for a Dutch company, sailed into New York Bay and found the homeland of the Lenape. Recognizing the natural resources of the area, a land rich with furs, fish, and plants, he immediately laid claim to the Lenape territory for his employers. In 1624 a new company, the Dutch West India, sent European traders and settlers to cash in on the colony's potential by trading with the Lenape and other Indigenous nations. By 1628, 270 European colonists and enslaved Africans brought over by the West India Company had built the town of New Amsterdam at the southern tip of Manhattan as the capital of the colony of New Netherland. By 1664, the village of New Amsterdam was a settlement of 1,500 people who reportedly spoke 18 languages, making it one of the world's most diverse places, perhaps like today's Queens, NY.<sup>4</sup>

## 1500 – Present day: city planning developments & visionary urban utopias

Humankind has not only strived for a better society in political and philosophical terms but also dreamed, drew, and endeavoured to design the best one for it to inhabit – an idealized world for harmonious living. Architects have conceived imaginative designs that sometimes even reached actual construction, but more often remained at the planning stage. Utopian thinking has emerged in great periods of cultural ferment e.g. the early Renaissance (Palmanova, Italy) the period around the French Revolution (The Ideal City of Chaux by Claude-Nicolas Ledoux), and the Twentieth Century (Frank Lloyd Wright's Broadacre City).

## The garden city

In the late 19th century, with cities becoming crowded, filthy, and violent, new ideas began percolating. In his 1898 "Garden Cities of Tomorrow" Ebenezer Howard proposed alleviating problems of urban growth in London and others by creating satellite cities each with 30,000 inhabitants separated by bands of green parks or agricultural lands. The first such built city was at Letchworth in Hertfordshire designed by architect Sir Raymond Unwin in 1904.<sup>5</sup>

The Garden City concept spread throughout Europe including the Hellerau in Dresden Germany by architect Riemerschmid. In New York, landscape and urban designer Clarence Stein applied Garden City concepts to Sunnyside Gardens in Queens, 1924 and Radburn in New Jersey, 1929.<sup>6</sup>



Figure 5. Sunnyside Garden, Queens NY, US, Front doors open to a shared garden, [worldgardencities.com](http://worldgardencities.com); Garden City Letchworth, UK, [Letchworth.com](http://Letchworth.com), Aerial, RIBA Competitions



### The new town

London suffered great bomb damage during WW2 and something needed to be done to ease the housing pressure as bombsites and slums were cleared. In 1946, Stevenage was chosen as the site of the first ‘new town’, one of eight in the Greater London area. Each new town would provide housing for 60,000 people.<sup>7</sup>



*Figure 6. New Town of Stevenage, 1946, one of 8 in the Greater London area, Verve Pictures*

### The American city

Unlike New York and other older American cities which were built around waterfront shipping, horse drawn wagons and foot traffic, urban form for most US cities have been designed and grown around the automobile. This resulted in the separation of workplace and home with commercial businesses in the downtown and residential districts, a 30-minute car ride to the leafy suburbs, leaving the inner city at night and weekends a desolate core.

As Amy Beloume wrote for the Staff Reporter on January 26, 2024 “The United States is an anomaly among its peers; the majority of the country is highly unwalkable. According to Planetizen, walkability is a planning concept that encourages mixed-use, high-density neighborhoods where people can access essential services and amenities on foot. In many U.S. cities or towns, walkability doesn’t exist. A car is essential to American living.”<sup>8</sup>

Robert Moses and his love of car culture brought the Cross-Bronx Expressway and numerous urban renewal projects, mostly destructive to the physical and social fabric of the city. Jane Jacobs, an American Canadian journalist, author, theorist, and activist who influenced urban studies, sociology, and economics, heavily criticized Moses’ actions. She noted that “Automobiles are often conveniently tagged as the villains responsible for the ills of cities and the disappointments and futilities of city planning.”<sup>9</sup>

## CITIES ARE BORN, THRIVE. OTHERS WHITHER, FADE. SOME REVIVE

### The World’s “Top Cities” vs “The Most Liveable Cities”

How to assess a city? According to Oxford Economics, the top cities in the Global Cities Index possess strong scores in all five categories. Leading the rankings in 2024 is New York, followed by London. Both cities perform best in the Economics and Human Capital categories, unsurprising given their roles as global hubs for finance, business, and education. New York has the largest metro economy in the world, and London has the fourth largest. Similarly, both cities have among the most universities and corporate headquarters offices, again emphasizing their global relevance in the worlds of business and education. As highlighted by their scores, the two powerhouses on either side of the Atlantic are very much neck and neck.<sup>10</sup>

And what about the “livability” criteria? According to the Economist Intelligence Unit's annual Global Livability Index, quality of life is again on the rise in many of the world's cities, with factors including stability, healthcare, culture & environment, education, and infrastructure. Vienna, Austria ranked again

as the most livable city in the world in 2023, followed by Copenhagen, Melbourne, Sydney, Vancouver, Zurich, Calgary, Geneva, Toronto, Osaka, and Auckland, New Zealand.<sup>11</sup>

### The slums

In great physical contrast to cities like Vienna are residential settlements like Dharavi in Mumbai and the Favelas in Brazil. The Dharavi slum was founded in the 1880s during the British colonial era.<sup>12</sup> It is spread over 557 acres and houses nearly one million Mumbai, India's Dharavi is one of the world's biggest slums - and its most notorious. Look beyond the stereotype, however, and you'll find a successful settlement with a vibrant community and economy.<sup>13</sup>



*Figure 7. One-point perspectives: Vienna, Austria, Getty Image; Dharavi in Mumbai, India, Deborah Grey/Al Jazeera*

And across the globe in Brazil Favelas (translation: slum) have long been known as the impoverished neighborhoods surrounding the cities of Brazil. Rio de Janeiro, the second largest city, is home to one of the oldest favelas, Providência, founded in 1897.<sup>14</sup> The original favelas normally consisted of informal housing like shacks, usually made from scrap metal, wood, or other materials. The favelas are not only for those who make meager earnings, but also for those who simply do not have anywhere else to go.

Favelas<sup>15</sup> are places increasingly recognized by planners and architects for their:

- Low-rise, high-density development
- Pedestrian orientation
- High use of bicycles & public transportation
- Mixed-use (homes above shops)
- Residence close to workplace
- Organic architecture (architecture evolves according to need)
- New urbanism
- Collective action
- Intricate solidarity networks
- Vibrant cultural production



*Figure 8. Desolate downtown Jackson, Mississippi, Denis Tangney Jr/Getty Images; Favela, Rio De Janeiro, Brazil; Bodie, California. Established 1870s gold rush, 1910s declined, mines fully abandoned 1942, Nadia Jamnik*

### Others whither, fade

A simple example of what brings a town and how it can go under. Established as a mining camp in 1859, Bodie, CA boomed after gold discoveries during the 1870s. The town was in decline by the 1910s. The last mine closed in 1942 as dynamite and other resources were redirected towards the war effort. Today, the town is open to visitors with around 110 structures still standing and part of the Bodie State Historic Park representing a genuine California gold-mining ghost town.

The journal “Nature Cities”<sup>16</sup> predicts thousands of U.S. and U.K. cities in decline could become virtual ghost towns by 2100. Cities often decline or die. Cleveland, Pittsburgh, and Liverpool are all far smaller today than they were in the 1930s. For the past half-century, urban decline has mostly come from deindustrialization, the exodus of factory jobs from municipal powerhouses like Detroit and Glasgow. That crisis occurred because urban density no longer offered much of an advantage to massive, self-contained, highly automated manufacturing plants. New York had an amazing Renaissance since the 1970s when deindustrialization and the move to suburbs from urban fright flight. But Detroit has not had an amazing Renaissance, nor has Cleveland, nor has St. Louis.<sup>17</sup>

### Some revive

An excellent case study of urban revival is in the city of Hudson, New York. “In the latter part of the 20th century, industry left Hudson as it left so many other northeastern cities. The last cement plant shut down in 1975, and Hudson languished once again. Storefronts on Warren Street were boarded up. Commercial and residential buildings throughout the city were converted to low-income housing. The city’s remarkable historic buildings surrendered to despair and neglect. But once again, Hudson redefined itself—this time with help from a whole new set of people, drawn by the city’s historic character and the authenticity of its historic architecture. First came the antique dealers, who made Hudson a destination for collectors and decorators. Next came the artists and writers and others not dependent for a living on showing up at an office. (A demographic fact: Hudson has the highest percentage of self-employed people—entrepreneurs—of any city in all of New York State.) Finally, the word was out. Hudson was cool. Hudson was hot. Hudson was happening.”<sup>18</sup>

In the UK, New Towns, planned all-in-one communities like self-sufficient ships never needing to leave came with a sense of bland sterility. They are still looked down upon, derided for their lack of place, their soullessness. Traditional British towns and cities grew organically around certain functions: a church or cathedral, a port, a university, a market, an industry. Their identities and culture accumulated over centuries. Building Rome in a day meant losing all that. You could drive anywhere in Milton Keynes within 15 minutes, planners claimed, but there was nowhere to go. And if you didn’t fancy driving, the car-centric grid plan condemned pedestrians to roaming miles of underpasses in search of civilization. New towns might have swept away the grime and overcrowding of London, but they often threw out the good stuff too, the chaos, the proximity, the unpredictability, the eccentricity, the history.

Their modernist petri dishes were often too sterile for culture to flourish in. Not all new towns are the same, but the criticisms levelled at them generally are. Of late, several decades later, many have gained a new appeal and sense of liveability - this took time! They had their own renaissance.<sup>19</sup>

## CONCLUSION: CITIES AS ESSENTIAL, THEIR FUTURE, AND OUR RELATIONSHIP WITH THEM

It's very clear that in the end, cities are people. And with the people's will to live, the city will live.

In 1962 Yona Friedman wrote "The future of towns: they will be centres of leisure, of entertainment, centres of public life..."<sup>20</sup>

With "the remote-life option" in place, cities are now more than ever for gathering and fun and for being part of something communal and bigger than themselves. And for being in-person with other persons, plants and animals, humanity plus, on a daily basis, from all walks of life, from those living on the streets, to those in limos heading to the Hamptons. A walk from Penn Station to your office studio, an immersive 10-minute overload of humanity, the good the bad the ugly. And to engage or not, to observe something magnificent, inspiring, awesome, awful, watching, experiencing firsthand the human-made work of masterful ingenuity and creativity grow. People are the cities. The streets and buildings, the stage. And in fact, the city is a lifeforce, with the will to live.



Figure 9. The Reach!, Chris Shing Wai Leung

## NOTES

- <sup>1</sup> "Arthur Schopenhauer: Stunningly and Famously Pessimistic," *The Independent*, October 19, 2021, <https://www.independent.co.uk/independentpremium/arthur-schopenhauer-philosopher-pessimism-works-b1940408.html>.
- <sup>2</sup> Francis D. K. Ching, Mark Jarzombek, and Vikramaditya Prakash, *A Global History of Architecture*, Third;3rd;3;Third;, Book, Whole (Hoboken, New Jersey: Wiley, 2017).
- <sup>3</sup> "London: A History," *HISTORY*, March 7, 2019, <https://www.history.com/topics/european-history/london-england>.
- <sup>4</sup> "People of New Amsterdam," n.d., <https://www.mcny.org/people-new-amsterdam>.
- <sup>5</sup> Kathleen James-Chakraborty, *Architecture since 1400*, Book, Whole (Minneapolis, Minnesota: University of Minnesota Press, 2014).
- <sup>6</sup> D. Watkin, *A History of Western Architecture* (Laurence King Publishing, 2005), <https://books.google.ca/books?id=39T1zEIEBrQC>.
- <sup>7</sup> Stevenage Borough Council, "Stevenage New Town" (Stevenage Borough Council, Daneshill house, Danestrete, Stevenage SG1 1HN, n.d.), Stevenage, <https://www.stevenage.gov.uk/stevenage-museum/history-of-stevenage/stevenage-through-the-ages/stevenage-new-town>.
- <sup>8</sup> Amy Beloume, "How Has Urban Planning Changed in America?," *The Science Survey* (blog), n.d., <https://thesciencesurvey.com/editorial/2024/01/26/how-has-urban-planning-changed-in-america/>.
- <sup>9</sup> Jane Jacobs, *The Death and Life of Great American Cities*, Book, Whole (New York: Random House, 1961).
- <sup>10</sup> "The Top 10 Cities in the World, as Ranked by Oxford Economics' New Global Cities Index," n.d., <https://www.oxfordeconomics.com/resource/the-top-10-cities-in-the-world-as-ranked-by-oxford-economics-new-global-cities-index/>.
- <sup>11</sup> "The Top 10 Cities in the World, as Ranked by Oxford Economics' New Global Cities Index."
- <sup>12</sup> "Dharavi Slum," n.d., [http://news.bbc.co.uk/2/shared/spl/hi/world/06/dharavi\\_slum/html/dharavi\\_slum\\_intro.stm](http://news.bbc.co.uk/2/shared/spl/hi/world/06/dharavi_slum/html/dharavi_slum_intro.stm).
- <sup>13</sup> "Dharavi: India's Model Slum," n.d., <https://www.planetizen.com/node/35269>.
- <sup>14</sup> "Rio Favela Facts | Catalytic Communities | CatComm," n.d., <https://catcomm.org/favela-facts/>.
- <sup>15</sup> "Rio Favela Facts | Catalytic Communities | CatComm."
- <sup>16</sup> "Nature," *Nature*, n.d., <https://www.nature.com/nature>.
- <sup>17</sup> Morgan Levey, "Edward Glaeser Explains Why Some Cities Thrive While Others Fade Away," *Freakonomics* (blog), n.d., <https://freakonomics.com/podcast/edward-glaeser-explains-why-some-cities-thrive-while-others-fade-away/>.
- <sup>18</sup> "Welcome to City of Hudson, New York," n.d., <https://www.hudsonny.gov/visitors/history/index.php>.
- <sup>19</sup> "I Love Living in Milton Keynes - It's More than Just Roads and Roundabouts" - *Mirror Online*, n.d., <https://www.mirror.co.uk/news/uk-news/i-love-living-milton-keynes-27021822>; Steve Rose, "Sterile or Stirring? Britain's Love-Hate Relationship with New Towns," *The Guardian*, May 15, 2019, sec. Cities, <https://www.theguardian.com/cities/2019/may/15/sterile-or-stirring-britains-love-hate-relationship-with-new-towns>.
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# TRANSFORMING URBAN VOIDS AS POTENTIAL PUBLIC SPACES IN DEVELOPING CITIES

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## INTRODUCTION

Many cities in developing countries are unplanned and haphazardly developed, resulting in vacant and underutilized spaces. These underutilized spaces, known as Urban Voids, are areas with ample opportunities and potential. The urban voids are the poles of creative possibilities, which help regenerate the city's body and answer society's concerns. Consequently, the right to exist of these unused spaces is parallel to the right to built-up space and must be protected. Researchers have defined urban voids differently, varying with their context-specific studies. This research attempts to chronicle the state of knowledge available to the extent of urban voids. The study will present an overview of international and national literature, theories, and examples from different cities to illustrate the role of unused urban voids as a potential resource for development. The research explores the transformative potential of urban voids and will discuss the successful strategies from the past for reviving these unused spaces. Urban voids break the city's urban fabric as no activity takes place in that void. Therefore, these spaces hold an immense possibility of being converted into functionalized areas. The study highlights the importance of urban voids in transforming urban environments into more harmonious and friendly places. The research findings offer significant perspectives for scholars, policymakers, and urban planners looking to develop effective strategies for creating more resilient and livable cities.

According to the United Nations, more than 50% of the world's population currently resides in cities, which is expected to rise to 66% by 2050, resulting in stress on already overburdened land, resources, and other critical infrastructure systems, e.g., transport, communications, and energy. The early 1990s saw a surge in urbanization due to liberalization and globalization.<sup>1</sup> This rapid urban development led to a sudden increase in rural-urban migration, severely affecting the quality of life and exposing us to social, economic, and physical hazards. The major issues faced due to rapid urbanization include high migration, increased population & population density, and increased per capita owned space. Miranda explains urbanization as an intricate process since numerous underlying causes interact and influence one another.<sup>2</sup> When a rural area becomes urbanized, it may begin to thrive from various beneficial features, most of which draw more people. However, the above-specified issues, such as migration, have a significant impact on metropolitan cities, like urban sprawl, increase in traffic volume, environmental hazards, increase in defunct & underutilized areas, high land prices in core areas, and increase in public expenditure for back and forth movement between core and outskirts.<sup>3</sup>

Many cities from developing nations are unplanned and haphazardly developed, resulting in vacant and underutilized spaces, accounting for 10-15% of the total city area. These underutilized spaces are

identified as Urban Voids.<sup>4</sup> There has been an increase in the number of underutilized spaces in the city in recent years. However, eliminating such underutilized spaces is problematic because it requires dealing with their pre-defined set of problems. Urban voids are discarded urban areas that don't improve the surrounding region and require renewal. They need to be defined with measurable boundaries and connect elements coherently.<sup>5</sup> Urban voids are obsolete, unused spaces lacking specific activity but with numerous opportunities and potential. These are the creative possibility poles that can help regenerate the city's body and address society's concerns.<sup>6</sup> These voids are in the form of empty land parcels, spaces between buildings, street corners, dilapidated buildings, or dead ends, presently used as garbage dumping sites or have become the hub for some anti-social activities. The study's goal is to investigate these unused spaces. These vacant, unused, or underutilized spaces rip the urban fabric. These places have no meaning, not because they are empty, but because no meaning has been assigned to them. As a result, the right to exist of these unused spaces is parallel to the right to built-up space and must be protected.

## LITERATURE REVIEW

Many Cities have lost their vitality, emotions, and character; hence, urban voids appear as places of nostalgia and expiration. These obsolete, unused spaces lacking specific activity are a resource with enormous potential for planners, architects, and collectives. These voids result from a lack of public participation and poor design of public spaces. These underutilized spaces harm the public realm as they reduce the qualitative attributes of the urban space and make it a less lively space, making it more vulnerable to environmental deterioration and social discomfort. This eventually leads to a decreased quality of life, affecting society and the environment. Therefore, it becomes crucial to address these spaces to maintain a healthy societal environment. These neglected areas are the poles of creative possibility, which may help regenerate the city's body and answer society's concerns. Many urban renewal programs have been initiated to help regenerate dead spaces in the city, such as JNNURM and AMRUT in India, and they can be used as urban public spaces.

The Urban voids have been defined differently by researchers and authors. Some described it as unutilized, underutilized, or abandoned land or areas and premises in city areas. The term "Urban Voids" developed as a particular term through its multiple characteristics like open space, vague space, etc., or its varying physical character.<sup>7</sup> Urban voids have different spatial characteristics and formation processes. Context-specific, these voids play different roles accordingly. These voids are neither scale-specific nor discipline-specific and oscillate between a large city scale and a smaller scale of urban neighborhoods. Francesco Careri, in his book "Walkscapes: Walking as an Aesthetic Practice," says that "Empty spaces are a fundamental part of the urban system, and they live in cities in a nomadic way: they can move every time the power tries to impose a new order. They are existences that have grown outside, and against a modern project which is still unable to recognize their values and therefore accept them."<sup>8</sup> Also, Marc Auge claims that "If a place can be defined as a place of identity, relational and historical, an area that cannot be defined as a space of identity or as relational nor as a historical one, will define a non-place. The hypothesis put forward here is that over-modernity produces non-places, that is, spaces that are not themselves anthropological areas, and contrary to Baudelairean modernity, they do not integrate ancient places."<sup>9</sup> In her book "The Death and Life of Great American Cities," Jane Jacobs highlighted, "When and only if everyone creates cities, they have the potential to serve everyone." This marks how public participation plays a significant role in placemaking. Rem Koolhaas also stated in his book "S, M, L, XL" the importance of urban voids as these voids represent chances for new types of collective spaces in this disjunctive, shattered, and multiplicative society we live in.

## Defining Urban Voids

As no book provides an overview of different terms used to refer to these spaces, which can be coined under the term "urban voids," the authors defined the term using their terminology. Such differently coined terms are tabulated below:

Author/Source	Term	Definition
Northam (1971) <sup>10</sup>	Vacant Urban Land	Unused lands with physical limitations are usually found in transitional areas.
Trancik (1986) <sup>11</sup>	Lot Spaces	Undesirable urban areas in need of a redesign. Lacks measurable boundaries.
Lynch, K. (1990) <sup>12</sup>	Waste Spaces	Valueless material left after a particular activity.
Abraham & Ariela (2010) <sup>13</sup>	Urban Voids	Spaces found at the periphery.
Narayanan (2012) <sup>14</sup>	Urban Voids	Space without permeability and public realm.
Doron (2006) <sup>15</sup>	Derelict land, Vacant land	Unattractive land parcels. Vacant land – holds the capacity to be redeveloped without treatment.
Greenberg, M. R., Popper, F. J., & West, B. M. (1900) <sup>16</sup>	Temporarily Obsolete Abandoned Derelict Spaces	Scattered unused land. Maybe abandoned land or empty lots.
Muller and Busmann (2002) <sup>17</sup>	Spaces of uncertainty	Change in informal spaces.

*Table 3. Different terms and definitions used by Authors for Urban Voids*

These areas, known as "urban voids," have enormous development potential, which can spur urban growth. Urban voids in a city can be defined differently depending on the context. Urban voids can be the "product of the demolition," "Vacant land parcel," "obsolete industries," "abandoned residential areas," "unmaintained/undeveloped parks," "empty streets," "dead ends," "terrain vague," "empty, abandoned space in which a series of occurrences have taken place," "derelict land," "zero panoramas," "empty or abstract settings," "dead spots," "vacant land," "wasteland," "the void," "urban wilds" and "urban sinks," "new, nameless places," "dross," "no man's land," "dead zones," "transgressive zones," "superfluous landscapes," "spaces of uncertainty," "the Third Landscape," "leftover lands," "brownfields," "in-between spaces," "white areas," "blank areas," and "SLOAPs."<sup>18</sup>

These definitions have evolved with their way of formation, their history, and their development process. Therefore, this research defines urban voids as "a place with no sense, which lacks specific functions & aesthetic values and often affects the quality of life of the surroundings." These urban voids have become defunct today, but once were an essential part of the city, and therefore, we can see their imprint in the city's fabric. Over time, these unused spaces are reclaimed, indirectly or directly, for various activities, and an invisible barrier is formed. Poor land management, inefficient decision-making, lack of coordination between designers & decision-makers, etc., are the main reasons for urban voids. When people start settling on the city's outskirts and leave the core areas unusable, the leftover half-constructed buildings, empty lands, & ruins, etc., altogether comprise such defunct spaces.<sup>19</sup>

## Formation of Urban Voids

In the late 1960s, the decline of the Industrial Revolution led to many urban voids in the developed world's city fabric. Today, these voids manifest in various ways, and they dominate discussions about urban regeneration, becoming an upcoming topic for architects, designers, decision-makers, etc. It was the late 19th century when the conversation about urban voids began, and architecture began to be appreciated as the ability to shape space rather than just the structure of buildings. The technological revolution, scientific and artistic breakthroughs, and contemporary architectural avant-garde efforts all contributed to the development of spatial perception in architecture. However, the emptiness problem was not directly raised because of negative associations in Western culture. Finally, by the end of the 20<sup>th</sup> century, the term "void" had achieved true ennoblement, becoming a fundamental and timeless concept.<sup>20</sup> There was a shift in the urban growth pattern of the cities after the world wars. The urban decline in industrial cities reflected the general economic and social restructuring process from industrial to post-industrial societies. These changes resulted in job losses, industrial decline, social polarization, high unemployment, city emigration, and property abandonment. This led to profound changes in the characteristics of cities.<sup>21</sup> From this new perspective, the people started settling on the outskirts of the cities in search of less expensive housing, leading to cities' decongestion. As a result, the city core faced deterioration of historical, cultural, and social heritage, making these urban voids a place without permeability and a public realm. Today, buildings are viewed as isolated artifacts embedded in the landscape rather than part of a larger structure of streets, squares, and open spaces. Any thought is given to how the location of a building affects the outside space and what kinds of volumes are generated because of this act. Ultimately, all the major causes of urban voids could be grouped as changes in locational context and formation of peri-urban development, changes in function and significance of the area, privatization of land, changes in land use, conflicts in policy and planning system, economic shifts, infrastructural changes, natural and environmental factors, and lifestyle changes.<sup>22</sup>

## Types of Urban Voids

Based on their formation, Urban Voids can be categorized as Planning, Functional, and Geographical Voids.<sup>23</sup> Planning voids are created due to planning separation from the understanding of urban tissue. It occurs due to inefficient and improper planning processes and can be perceived using the figure-ground theory. Functional voids are created due to inappropriate use of space and are often the dead vacant spaces in the city. When a space is not utilized as designed, it makes it defunct. Geographical voids are created around geographical features like rivers, valleys, etc.; they become unusable when the designers don't respond to these spaces.

These voids are present in our surroundings in the form of vacant land, derelict land, brownfield land, and lost & dead space.<sup>24</sup> Vacant land parcels include public/private owned properties and abandoned land parcels that were once constructed but had been destroyed partially or fully. The derelict land includes land parcels that have been damaged by industrial development or have been left unusable without proper treatment. Brownfield land consists of the land that was once occupied by permanent infrastructure. Lastly, the lost and dead space consists of the land left unstructured and usually found below the high-rise towers. These are undesirable and anti-spaces without contribution to the surroundings.

These lost and dead spaces can be found in a plot, block, or community.<sup>25</sup> The plots are basic units and can be quickly dealt with if landholders wish to develop or modify their property. A block is a larger unit formed by the collection of plots that can be considered the basic unit of development and, therefore, will be important in the future to avoid creating urban voids. Finally, the community's largest

unit includes a plot, a block, a street, and the open spaces between apartment complexes and low-rise housing on the outskirts.

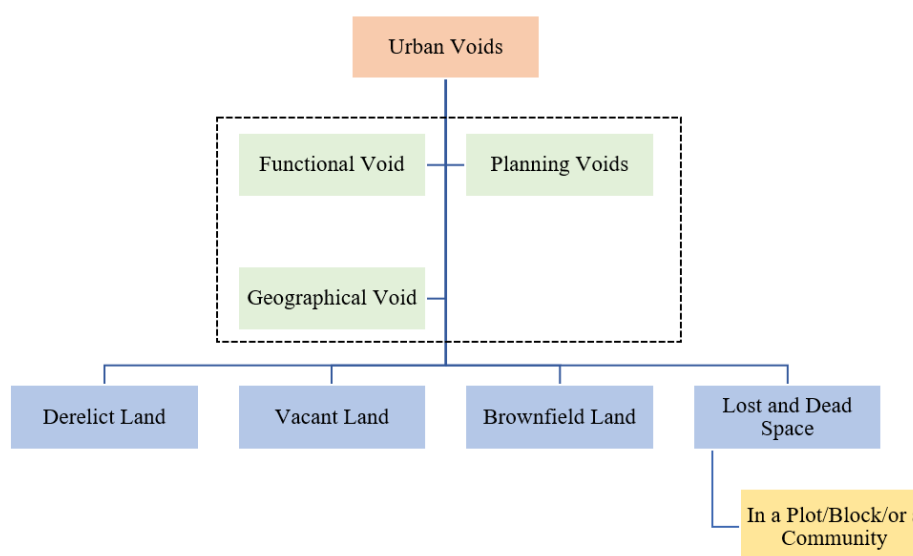


Figure 10. Classification of types of voids

## Successful cases of Urban Voids

The cases studied vary from a small-scale building plot to a large-scale neighborhood project. Since not all significant projects impact communities, specific small projects have been shortlisted that have successfully created vibrant cities. The cases have been selected varyingly according to different types of voids.





Case (National / International)	Void typology	Inferences
Emerald Necklace Greenway, Boston <sup>26</sup>	Functional Void	Improving the degrading environment by converting those dead spaces into green areas and adding a social character to the city. This helped provide a neighborhood park for all the smaller pockets.
Town Hall, New Delhi (India) <sup>27</sup>	Functional Void	It has been recommended to the North Delhi Municipal Corporation that the building be restored as a cultural center or a heritage hotel.
Freedom Park, Bangalore (India) <sup>28</sup>	Functional Void	Converting the building from a jail to a freedom park helped prevent the degradation of the building and enrich the knowledge about freedom fighters.
Under flyover Spaces <sup>29</sup>	Planning Void	Utilizing the unused space for temporary and permanent activities/uses and the landscape helps transform the public space, creating a positive social, cultural, and environmental impact.
Sabarmati Riverfront Development, Ahmedabad (India) <sup>30</sup>	Geographical Void	Enhancing dead space quality allowed for creating a public area, which made room for parks and marketplaces. Other interventions include slum rehabilitation, informal communication spaces, and public gardens.

Table 4. Inferences from the National and International Cases



India is one of the fastest-growing economies in the world, and the Indian cities are the primary contributors to the economy and innovation.<sup>31</sup> Therefore, these cities should be managed properly, enhancing the nation's growth. Other than the many famous cases mentioned above, a few other examples from developing cities in India could inspire others.

Case of developing city	Void	Inferences
Matunga Flyover, Mumbai, Maharashtra <sup>32</sup>		The transformation of Matunga Flyover is a leading example of converting urban voids into vibrant and friendly spaces. The under-flyover space is transformed into a recreation space with a park, jogging tracks, open gallery space, and a children's play area.
Kathipura Junction Urban Square, Chennai, Tamil Nadu <sup>33</sup>		The Kathipura Junction is one of the city's famous landmarks. The urban square was developed in 2021, providing a multipurpose area for the residents, a park, a parking space, a retail area, and restrooms. This project is a commendable example for other cities to utilize spaces around the flyover.
Gopi Talab, Surat, Gujarat <sup>34</sup>		The Gopi Talab was resurrected by the Surat Municipal Corporation in 2012 to develop a recreational space. The project was initiated in 3 phases. Today, it is an excellent example of a blue-green space with a large restored water body surrounded by the park.

Revitalizing Textile Mill lands, Mumbai, Maharashtra <sup>35</sup>		<p>In 1958, Development Control Regulations 58 allowed the mill owners for the first time to sell 15% of their land, which enabled the change in land use, allowing them to convert from industrial to commercial/residential, in addition to using modernized resources for their mills.</p>
Under Flyover spaces on Valankulam Lake, Coimbatore, Tamil Nadu <sup>36</sup>		<p>The project aimed to reclaim and turn the under-flyover area into a communal leisure area. It includes the multipurpose performance areas and exhibition areas.</p>
Kunnara Park, Kochi, Kerala <sup>37</sup>		<p>The project aimed to strengthen the communities by developing a universally accessible urban park, which includes a children's play area, open gym, designated walking/jogging pathways, open-air theatre, seating areas, and restrooms. It perfectly exemplifies how urban spaces exist and their transformative potential.</p>
PAGO - Public Art, Gopalpur, Odisha <sup>38</sup>		<p>The PAGO is an art festival organized by the Berhampur Development Authority, which aims to focus on the heritage and rich cultural traditions. Public art is one tactical tool to revitalize the urban voids. The communities, adults, and children actively participated in the arts festival.</p>







<p>Lakshmi Mills Urban Centre, Coimbatore, Tamil Nadu<sup>39</sup></p>		<p>The adaptive reuse of the defunct textile mills has led to an urban landmark in the city. The mill was transformed into an urban retail while retaining the industrial architecture forms and details.</p>
<p>Badshahpur Forest Corridor, Gurugram, Haryana<sup>40</sup></p>		<p>The Badshahpur Forest Corridor aimed to provide Gurugram's citizens with an equitable and easily accessible public open space that would serve as an urban greenway corridor. Reusing waste materials in landscape design allowed for the development of capacity and the acceptance of waste reuse as a regular procedure. Additionally, it has encouraged citywide nature-based flood control initiatives.</p>
<p>Senapati Bapat Marg flyover, Mumbai, Maharashtra<sup>41</sup></p>		<p>The project, developed in 2022, aims to provide shelter for commuters. This also includes the gardens, intended to provide areas for exercise and leisure, a children's play area, a green aisle, and a library. It is also a famous place amongst the neighborhood's children.</p>
<p>Dravyawati River Revitalization, Jaipur, Rajasthan<sup>42</sup></p>		<p>The restoration project aimed at enhancing the well-being of society and improving the environmental benefits. Some of the significant interventions include the provision of STP, gardens, walkways, and river restoration. This has helped reduce pollution and provide social, physical, and environmental benefits.</p>

Table 5. Inferences from Urban Voids in Developing Cities

## RECOMMENDATIONS AND DISCUSSION

This review paper emphasizes the significance of rethinking underutilized areas within urban areas. By acknowledging the potential of these spaces and employing methods to adapt them for new purposes, cities can tackle diverse urban issues and improve residents' quality of life. The unutilized spaces in the city can be transformed into permanent or temporary activities. The temporary use allows city dwellers to improve the quality of space and stimulate its use significantly. Working with people, environments, and processes that were formerly thought to be pointless is what makes temporary usage distinctive. Planners and decision-makers should be tasked with determining and evaluating the requirements of urban voids. In urban planning and design, temporary projects must become an essential instrument. Working on micro-scale interventions in these projects' renewal, restoration, and revitalization strategies is necessary to function these urban voids better.

Urban voids are the product of intricate interactions between environmental, planning, social, and economic variables. To fill these gaps, a complex strategy involves community involvement, adaptive reuse techniques, and efficient urban planning. Through an awareness of the root causes of urban voids, cities can design focused interventions to convert these areas into lively, useful places that support the general well-being of the urban environment.

Based on the study, it was observed that:

- Most urban void transformations were seen as being developed as green spaces, which can also help improve the adverse climate effects. These spaces hold immense scope for the development of blue and green spaces, creating a resilient space for the surroundings due to their undeveloped character and helping reduce the UHI for the neighborhood.
- Other major interventions include making placemaking plans to enhance the social character of the surroundings.
- With the digital era, it becomes necessary to move hand in hand, and therefore, connecting urban information management through digital resources will help increase the resources to map the existing scenario of urban voids and further provide proposals accordingly.
- Reconnecting urban voids through transformation is another significant step that is needed. However, this transformation process requires a detailed morphological, visual, and operational analysis.
- Many sites are lying unaddressed due to the casual behavior of government and private stakeholders. Therefore, strict recommendations or policies are needed to strengthen the loose ends.

This study revealed that all cases included the transformation as green spaces and less than 50% as infrastructural transformation. However, all the cases have improved the social character of the surroundings. The study also revealed that these voids also hold immense scope for transforming into residential and commercial areas depending on the need for the services.

The cases studied have indicated that it becomes necessary to adopt an integrated planning approach involving all the stakeholders across multiple sectors to identify the purpose of these urban voids. This will help improve the flexibility and innovation of the interventions and enhance community participation. Also, it is essential to develop supportive policies and funding mechanisms that can help revitalize these urban voids. Such small practices can help unlock the potential of urban voids as vibrant and inclusive public spaces.

## CONCLUSION

A city always transforms, and integrating public spaces helps rejuvenate these spaces. The urban void should be understood because of historical and transient events that shape the modern city. These obsolete spaces, devoid of a specific activity at the time, could have resulted from planning errors, unused spaces, white areas on maps, and formal waste that obstructs the structuring of spaces that genuinely matter.

Urban voids can serve as areas for open space, reducing density, or they can be utilized to generate activities that increase density. However, not every urban void needs to be revitalized permanently; instead, innovative, adaptable, and temporary solutions can provide temporary relief and help create suitable environments. As a result, they can serve as a springboard for significant changes in our cities because if they recognize their critical importance, they can thrive indefinitely. Urban voids have always existed due to inefficient planning and will continue due to a lack of public participation in formulating the master plan process.

Future research could detail each recommendation, such as providing green spaces and blue areas, the significance of placemaking, and the transformative potential of digital infrastructure. These elements can play crucial roles in reducing urban voids and enhancing the sustainability of metropolitan areas.

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# EXPLORE THE ELEMENTS OF WAYFINDING IMAGES TO DESIGN WAYFINDING SYSTEMS IN THE URBAN ENVIRONMENT

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## INTRODUCTION

Wayfinding refers to travelling through space from a starting point to a destination.<sup>1</sup> This term was coined by Lynch and explained as "the consistent use and organisation of definite sensory cues from the external environment".<sup>2</sup> This process involves cognitive and behavioural processes,<sup>3</sup> where people use spatial and geographic knowledge,<sup>4</sup> identify their location,<sup>5</sup> and find routes to reach destination.<sup>6</sup> In this process, people develop internal representations of the environment and space, which is the cognitive map. Wayfinding system is a tool that supports this process, which may take the form of signage and maps. The two key core elements of wayfinding are external features and internal representations, which are the information in the environment and the cognitive maps a person develops about the environment. These are also two key elements that support the design of a wayfinding system. Past research has mainly focused on wayfinding and exploring its efficiency, speed, and methodology. However, less research has focused on wayfinding system design, and past outputs in this area have focused on design practice, including design projects, examples and works. The impact and importance of the wayfinding system on the city's image have been neglected in the past. This paper suggests that the design of the wayfinding system can enhance the perception and understanding of the urban environment, which in turn enhances the image of the city, especially its uniqueness. Therefore, the focus of this paper is on the design methodology for designing a wayfinding system that enhances the image of a city.

## FRAMING WAYFINDING SYSTEM

Wayfinding systems are the resources and tools that support the wayfinding process, initially called wayfinding devices by Lynch.<sup>7</sup> Arthur and Passini defined signage as another important term within this field.<sup>8</sup> Later, Passini states that wayfinding as a design problem involves spatial environmental organisation, circulation systems, architecture, and graphic communication.<sup>9</sup> The wayfinding system transmits orientation, direction, and other information in the environment through signage, other means of communication, or architectural features that help people reach their destinations. Passini proposes that the wayfinding system covers, among other things, maps, signage, information display design, graphic design, and routes and spatial knowledge organised according to the characteristics of the environment.

Passini's views have been developed and supported. Wayfinding needs visual support, and the chosen forms of presentation (e.g. icons, maps) and information structure (e.g. typography) are essential.<sup>10</sup> Graphics, text, and signage can optimise wayfinding aspects that complement the architecture.<sup>11</sup>

Gibson focuses on wayfinding system design in environmental graphic design, graphic design, information design, map design, and symbol design.<sup>12</sup> Mollerup proposes another related term, wayshowing, which is the process by which designers take steps to aid wayfinding by creating and laying out information media such as environmental signage and maps.<sup>13</sup> The design of a wayfinding system relies on the knowledge used for wayfinding, which requires assessing the context of the surroundings and understanding spatial features, covering elements such as information design (also known as information systems), directional design, graphics, text, typography, colour application, physical materials, landmarks, and mobile media (e.g. e-navigation).<sup>14</sup>

In Summary, wayfinding system is a concept that covers a wider scope and involves several disciplines. Here, I think we can define a wayfinding system as an aid to help people find their way in the environment, both physical and non-physical, which is supported by environmental information and cognitive maps, and involves the integration of multiple disciplines, including information design, signage system, and cartography (both map design and cartography), etc. Signage system is an integrated field. The importance of signage, graphic design, maps, and information system as important components of a wayfinding system has been emphasised in past research.

## **CITY IMAGE**

There is no doubt that places have a significant impact on humans. People create cities and work and live in them, and human activities shape cities' physical structures and give meaning to these structures.<sup>15</sup> The unique features in the city form a representation of people's psychology, which is the city's image.<sup>16</sup> City image reflects people's subjective feelings, perceptions, and concepts of the city.

When exploring city image, Kevin Lynch and his book *The Image of City* obviously cannot be ignored. Lynch maintains that when people observe and gain spatial knowledge of their surroundings when moving in the city, it transforms into a mental picture. Lynch proposed five components of a city image, namely landmarks, paths, edges, nodes, and districts, and two key concepts: legibility and imageability. People are more likely to understand the city layout and find their way around when the city has high legibility; when the city has imageability, it is easier for people to gain impressions about the city and assign meaning to those impressions.<sup>17</sup> Although Lynch focuses on the formal characteristics of the city and the structure it forms in memory,<sup>18</sup> his theory is crucial. It supports that the cognitive maps of the city held by individuals in the city share commonalities and that when these are integrated, the city image is formed.

The interactions between people and the city form the city image, a two-way process involving the physical representations of the city (e.g., streets, buildings, and landmarks) and people's perceptions and processing of these representations.<sup>19</sup> Sharp and powerful images help people establish a clear and coherent representation of the city in their minds, which is crucial to guiding people's movements and promoting a more complete and profound experience.<sup>20</sup>

## **METHODOLOGY**

### **Lynch's Approach**

Kevin Lynch's contribution to wayfinding goes beyond his definition of the term, legibility and imageability, and articulation of the five elements of urban form. Most importantly, Lynch contributes a framework for linking wayfinding to people's perceptions and understandings of cities. Lynch's approach provides a way to link this mental representation to the city's imageability, which is a way to

externalise this mental representation in the form of maps to represent the relationship between space, objects, and people, as well as explore how spatial and environmental information affects people's wayfinding behaviour and how this wayfinding behaviour affects people's understanding and experience of the city, and thus the shaping of the city's image. Therefore, it is feasible to use Lynch's theory as an analytical framework, apply the mapping tools developed from Lynch's study, and collect feedback from individuals on spatial and environmental information about the city to identify the common cognitive patterns of individuals to create an image of the city, which builds a methodological framework for wayfinding system design.

### **Case Study**

Another focus of the research strategy is the case study. Case studies have been heavily used in the social sciences, especially in some practice-oriented research fields.<sup>21</sup> Choosing an actual city and conducting my research in it is necessary.

The research location is Manchester City Centre. Manchester is one of the most famous cities in the UK because of its own culture. Contemporary Manchester is a city that has emerged from industrial decline and has been newly transformed with places based on cultural investment and creative assets.<sup>22</sup> Cultural structures and districts are of great significance in contemporary Manchester, both in terms of the city's image and identity; not only are there recognisable cultural districts in the city centre, but more importantly, they are within a short distance of each other, within a fifteen-minute walk of each other. The sites I have chosen for my research include Piccadilly Garden, Chinatown, the Art Gallery, St. Ann's Church, the Central Library, Town Hall, Manchester Cathedral, and the National Football Museum. National Football Museum.

### **Data Collection**

Walking interviews and workshops were used to obtain valuable data. Walking interviews can produce more site-specific data and allow researchers to understand people's attitudes and knowledge of the environment.<sup>23</sup> Wayfinding is a dynamic act of moving through the city, and walking interviews, emphasising understanding the city as a dynamic environment, are a research methodology that can capture this dynamic.<sup>24</sup> Walking interviews are not only able to provide data on the environmental cues needed for wayfinding but also provide a preliminary understanding of how people approach their environment.

This paper focuses on wayfinding system design, so another research methodology is to co-design wayfinding system workshops. Design is a practical discipline,<sup>25</sup> and workshop is a suitable research methodology, as it enables the collection and generation of reliable data in a particular area.<sup>26</sup>

Thirteen walking interviews involving seventeen participants were organised, including one three-person, two two-person, and ten one-on-one. Three workshops involving thirty-two participants were held, with eight, thirteen, and eleven participants. The primary process of the walking interviews was to ask participants to find five or six pre-determined destinations in Manchester City centre, answer questions, evaluate the city halfway through the journey, and draw a map at the end. Workshops required participants to mark information on a large-sized map and construct a wayfinding system based on the street view and panoramic images provided.

### **IMAGES OF AREAS IN MANCHESTER**

Based on the results obtained from the study, images of the five areas of Manchester have been mapped to focus on the cultural areas. These images are people's impressions of Manchester's city centre based on wayfinding and wayfinding system design purposes.

The most distinctive impression of Piccadilly Gardens is that it is a huge transport hub with bus and tram stops, several intertwined tram tracks going in different directions, a long wall, a rest area with many trees and benches, and a green space behind the wall (Figure 1). The long-curved wall itself acts as a boundary, and while the south side of the wall is often perceived as chaotic and crowded, the north side receives relatively more positive comments. The tram tracks act as an important environmental cue for the area. Prominent environmental messages include local benches and woods, Primark, Queen Victoria's Statue amongst the gardens, and the bus station. The area is highly mobile and is an important transport hub. There are three key junctions: Mosley Street at the junction with Parker Street, Parker Street at the junction with Portland Street, and Mosley Street at the junction with Market Street.

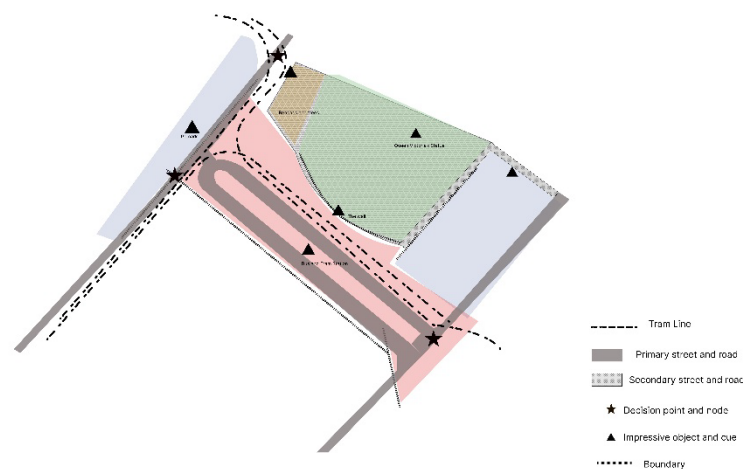
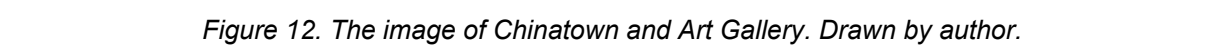


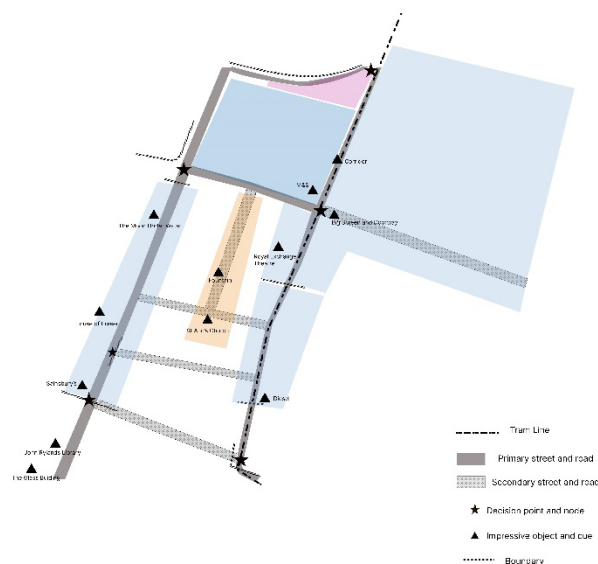
Figure 11. The image of Piccadilly Garden. Drawn by author.

Chinatown is confusing and challenging to wayfind (figure 2). Participants preferred to think of Chinatown as an area rather than a location, while they viewed the arch as a location. Chinatown has different boundaries defined on different maps and is represented on the map by the red, blue, green, and yellow dotted lines. However, the results of the study presented different boundaries. To the participants, Chinatown looks like an onion head, with its core at the intersection of Faulkner and George Streets and the Chinatown Arch as a prominent landmark and symbol of the area. Another critical point is the intersection of Nicholas and George Streets, where landmarks include a shop called Bifa, the supermarket Hang Won Hong, and the Pavilion. Together, these three landmarks define another critical area of Chinatown. The scope of the Chinatown area starts from these two centres and extends outwards following the various Asian elements (e.g., buildings, shops, artefacts) strolling around. Beyond this area, another, more ambiguous "outer circle" is delineated through the entrances that connect Chinatown. This area is shown on the graph as a light blue irregular shape. The five star patterns represent the five entrances to Chinatown derived from the study. The Art Gallery is a building separate from Chinatown, usually identified by its architectural style and surrounding artefacts.





Deansgate, Arndale Shopping Mall, and the commercial centres made up of shops along the surrounding main roads form a vast Manchester city centre area (figure 4). Although some tourist maps categorise this area as a central retail area, its internal boundaries distinguish it from a unified commercial or retail area. People's perceptions within the area create many small overlapping areas, with certain parts perceived as more like office or financial streets or areas with a concentration of salons or restaurants. Some of the unique shops in the area attract people's attention and become references for wayfinding because of various things. For example, Diesel is notable for its distinctive red windows, and M&S is known for its popularity as a chain shop. St. Ann's Church and St. Ann's Square to the north of the church are like small gardens tucked away in the middle of the city and harder to find because they are not close to the main roads. The business district is rated neutral and slightly negative, with the architectural appeal being seen but not valued. There is more talk of demand, with the perceived attractiveness of the area linked to the desire to shop. Some streets, such as John Dalton Street, are considered to be featureless and difficult to remember.



*Figure 14. The image of the Deansgate, Arndale Shopping Mall and surrounding commercial area, drawn by author.*

The area where Manchester Cathedral and the National Football Museum are located is also very recognisable (figure 5). This area is often considered historic, and people have categorised it as such. Different groups classify the area as a tourist, cultural, historical, and historic area. Like the Central Library and Town Hall, this area is also made up of smaller areas. People usually find this area attractive.



From the images above, it can be noticed that when the purpose of the study is design, four elements emerge: points, lines, planes, and timing, which differ from Lynch's findings and show an extension and variance.

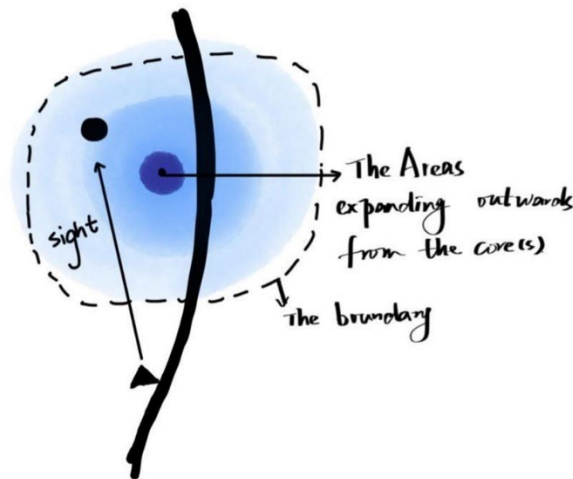
Points refer to an individual piece of information, a cue or a reference to a specific location or place such as the location of a landmark. In other words, points refer to the location of information units. Examples of points include the Chinatown Arch and the monument near Town Hall.

Planes refer to an area of a city that can be large or small. My research hypothesis is that planes usually comprise a core point and a surrounding associated area and are perceived. Within the surrounding area multiple related points may or may not exist. Some examples of planes include the benches and trees next to Piccadilly Garden, the Central Library and the square in front of it.

Lines are the routes people take through the city, and the references are presented as routes; they include both visible and invisible lines. Visible lines include physical structures in the city, such as streets and tram tracks. Some of these visible lines are references and useful for wayfinding. Invisible lines usually do not have a clear physical structure, such as non-street paths through squares, parks, or open spaces. These invisible lines usually consist of people's choice behaviour and the geometry of the planes that limit that choice.

Timing is where people can see information, a combination of time and place. It does not simply refer to time or location but rather to a moment when a person can see a piece of information or a place from a specific location. In other words, timing refers to the timing and sequence in which an individual receives, processes and applies information about the urban environment, including the interaction

between time and space. For example, on Deansgate, two buildings on the other side of the river can be seen, and the prominent text on them becomes an essential reference, so these two buildings serve as points, and their timing is located on the street.



*Figure 16. A brief diagram of the relationship between the four elements of points, planes, lines and timing, drawn by the author. Lines pass through or through planes, timing exists on lines, points are scattered on both sides of lines and may be distributed across lines and merge with timing. Planes have core points, centred on core points and extending outwards to their boundaries. points, centred on core points and extending outwards to their boundaries. core points of planes may coincide with points. Drawn by author.*

The relationship between these four elements can be explained as above (figure 6), as shown in the diagram: Lines connect timings across or through planes, and points exist on either side of lines, sometimes overlapping with timings and sometimes overlapping with the centre point of planes.

## CONCLUSION

This paper proposes a new framework to improve wayfinding system design, aiming to enhance the city's unique image. Through interviews and co-design methods, maps of people's perceptions of the Manchester area, incorporating external features, were developed. From these cognitive maps, four elements were identified: points, lines, planes, and timing. These four elements provide a framework for coding, filtering, and incorporating information from the urban environment into wayfinding system design. The information from the city shapes its perception during wayfinding, which in turn influences the city's image. Since Lynch's theory was developed in the 1960s, it may be limited by the changes and expansion of cities over time. Additionally, Lynch's focus was on American cities, and therefore his research was somewhat limited to the planning of American cities. This research builds upon and extends Lynch's theory, incorporating some variance, with a particular emphasis on the culture of the city and people's experiences. It highlights the construction of people's perceptions of the city, as well as their emotional and cultural connections. I suggest that future research should include additional cities from diverse cultural backgrounds, with varying urban forms and planning models.

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## **B (G) PRINT FOR LIVEABLE CITIES: TEMPORARY INTERVENTIONS FOR UNUSED BROWNFIELDS IN MUNICH**

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### **INTRODUCTION**

In the vibrant urban landscape of Munich, plagued by a high demand for premium living spaces, there exists a noteworthy and often overlooked aspect: unused building gaps, otherwise known as brownfields.<sup>1</sup> These vacant lots, often remnants of demolished structures, exist due to strict building regulations, escalating economic interests, and diverse considerations.<sup>2</sup>

These brownfields are located throughout Munich, often in prime housing districts, posing valuable opportunities for city real estate yet currently contributing little to the urban environment.<sup>3</sup> This paper examines the potential transformation of brownfields, particularly in response to the needs of Munich's residents, especially those living in close proximity to these vacant lots. It explores the feasibility of temporarily repurposing these spaces to foster cultural and communal activities, enhancing the liveability of the city.

Taking inspiration from case studies on small-scale urban design and temporary urban interventions, the research aims to gain insights from the successes and failures of various projects. By examining the outcomes of these projects, this paper supports or questions the thesis using a combination of valuable literature findings, Munich's urban fabric data analysis, and previous project outcomes.

Furthermore, the paper aims to provide a conceptual idea with the opportunity for realisation through a versatile Blueprint Design applicable to various urban contexts. This modular "Plug and Play" or "Pick and Choose" framework can be tailored to the specific needs of diverse areas within Munich. Whether a family-centric neighbourhood needs a playground or a community enriched by refugees can benefit from language assistance, the framework aims to address specific societal needs.

The Blueprint Design seeks to provide a flexible paradigm capable of smooth integration into Munich's urban tapestry while offering a response to the unique challenges faced by different communities located near these brownfields. By enhancing these spaces with temporary interventions, the goal is to create more liveable, inclusive, and culturally vibrant urban environments that foster a strong sense of community and improve the quality of life for residents.

### **Methodology**

The research employs a mixed-method approach, combining qualitative interviews and quantitative surveys to gather data on community needs and preferences. Interviews with local residents, urban planners, and cultural experts provided qualitative insights, while surveys offered quantitative data on public preferences for the use of brownfields. The qualitative data were collected through semi-

structured interviews that allowed for in-depth exploration of community members' views on the potential uses for brownfields. These interviews were supplemented by focus group discussions to further understand the collective aspirations and concerns of the community.

Quantitative data were gathered through online and paper-based surveys distributed across several neighbourhoods in Munich. The survey included questions on current usage of public spaces, desired activities and facilities, and perceived benefits and challenges of temporary interventions. The survey results were analysed using statistical methods to identify key trends and preferences.

Additionally, successful temporary urban interventions in other cities, such as Copenhagen's Superkilen Park and ParknPlay, were analysed to draw relevant lessons for Munich.<sup>4</sup> These case studies were selected based on their relevance to the Munich context and their success in engaging the community and revitalising urban spaces. The analysis focused on the design elements, implementation strategies, and community impact of these projects.<sup>5</sup>

While this research was applied in Munich, Copenhagen can often be seen as an exemplary model for most cities to adapt when aiming to become more liveable. The principles and strategies identified in Copenhagen's successful interventions provide valuable insights that can be adapted to various urban contexts worldwide. This paper uses Munich as a case study, but the findings and methodologies discussed can be applied to any city seeking to enhance its urban liveability through temporary interventions in underutilised spaces.

## Findings and Discussion

The research indicates a strong community desire for spaces that foster cultural and social activities. Residents expressed interest in pop-up markets, cafés, community workshops, and green spaces. Over 70% of survey respondents indicated that they would frequently visit a pop-up market or community garden if it were established in a nearby brownfield site. This highlights the potential of temporary interventions to revitalise underutilised areas and meet the community's needs for engaging public spaces.

Interviews conducted across various Munich neighbourhoods revealed distinct community characteristics and preferences. For instance, in more family-centric areas, there was a strong demand for playgrounds and recreational spaces, while in neighbourhoods with a higher population of young professionals, there was significant interest in co-working spaces and cultural events. This diversity underscores the need for a flexible design framework that can be tailored to different urban contexts.

The persistence of unused building gaps in Munich is attributed to stringent building regulations, escalating interest rates, and prolonged decision-making processes.<sup>6</sup> High construction costs and the complexities of private ownership further hinder the development of these spaces. As noted by local authorities and housing corporations like Gewofag, the redevelopment process is often delayed by bureaucratic hurdles and the necessity of extensive coordination with city officials.<sup>7</sup>

From the case studies analysed, such as Copenhagen's Superkilen Park, the effectiveness of modular designs in creating vibrant community hubs is evident.<sup>8</sup> Superkilen Park transformed an underused urban area into a multicultural public space reflecting the neighbourhood's diversity. This project demonstrates how inclusive design can foster social interaction and community pride. Similarly, ParknPlay repurposed a multi-storey car park into a dynamic recreational space, illustrating how temporary interventions can maximise existing structures' utility while providing new community amenities.<sup>9</sup>

Further insights were drawn from Jan Gehl's principles outlined in "Cities for People" and "Life Between Buildings." Gehl emphasises creating lively, inviting city spaces that accommodate various activities while ensuring safety, sustainability, and health.<sup>10</sup> His advocacy for human-centric design

aligns with the aim of transforming brownfields into dynamic cultural hubs. Gehl's toolbox for designing cities that encourage community engagement and prioritise pedestrian and cyclist safety provides practical guidelines for the proposed interventions in Munich.<sup>11</sup>

The concept of "appropriation" from Laura Bruns' book "Stadt Selber Machen" is also pertinent. Appropriation involves citizens' self-organised occupation and transformation of urban spaces, driven by their needs and desires. This grassroots approach results in alternative, vibrant spaces that contrast with the planned aspects of the city. Projects like the Bouldrome in Berlin and Die Keimzelle in Hamburg showcase how self-organised initiatives can create lively social hubs and promote community interaction.<sup>12</sup>

The study also identified significant challenges related to the existence of building gaps in Munich. The extensive legal and financial barriers, coupled with bureaucratic inefficiencies, have prolonged the vacancy of these valuable urban spaces.<sup>13</sup> Despite these challenges, the potential for transforming these areas through temporary interventions remains high. The thesis underscores the necessity of collaborative efforts and innovative solutions to overcome these barriers and revitalise Munich's urban landscape.

In summary, the findings highlight a strong community demand for spaces that promote cultural and social activities. Temporary interventions, guided by principles of modularity, adaptability, and sustainability, can effectively repurpose unused brownfields. By incorporating community input and leveraging successful precedents, these interventions can transform neglected areas into vibrant community hubs, enhancing Munich's liveability and cultural vibrancy.

## Goals

The concept goals focus on

- repurposing abandoned spaces
- reconnecting nature with cities
- rebalancing sustainability
- reusing temporary designs
- recycling existing structures
- restoring a sense of community
- researching various scales
- regaining vacant lots

Additionally, the project aligns with the Sustainable Development Goals (SDGs), particularly Goal 11: Sustainable Cities and Communities, and Goal 3: Good Health and Well-being.<sup>14</sup> By addressing these goals, the Toolbox project promotes inclusive urbanisation, cultural heritage preservation, sustainable practices, physical and mental well-being, and community engagement, thereby contributing to the overall liveability and health of urban environments.

## The Toolbox: A Blueprint for Temporary Urban Interventions

The core of this paper is the Toolbox, a versatile framework for designing temporary interventions in unused urban spaces. Activities in urban spaces were categorised into four groups: Move, Stay, Feel, and Use, allowing for tailored architectural interventions that can be combined to meet the specific needs of each neighbourhood.

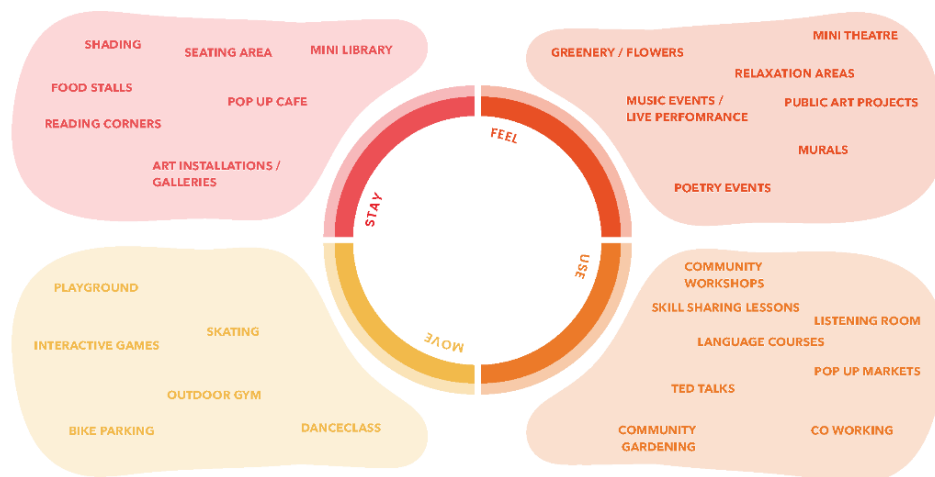


Figure 1. Sectioned Functions for Public Communal Space

## Functions

**Move:** Includes dynamic activities such as playgrounds, interactive games, and dance classes. These activities require open, accessible spaces that facilitate active movement while ensuring safety and visibility.

**Stay:** Encompasses relaxation areas and mini theatres, designed for prolonged engagement. These spaces prioritise comfort, safety, and a sense of community, inviting people to linger and interact.

**Feel:** Includes activities like art galleries, reading nooks, and pop-up cafés, focusing on sensory experiences and emotional engagement. Key design elements include lighting, ambiance, and spatial layout to evoke calmness and creativity.

**Use:** Covers activities such as TED talks, community workshops, and pop-up markets, emphasising functionality and community engagement. Designs should prioritise user-friendliness, learning opportunities, and support for local initiatives.

These Functions are categorised and can be combined flexibly to suit the specific requirements of different building gaps, ensuring each intervention harmonises with the unique needs of its neighborhood.

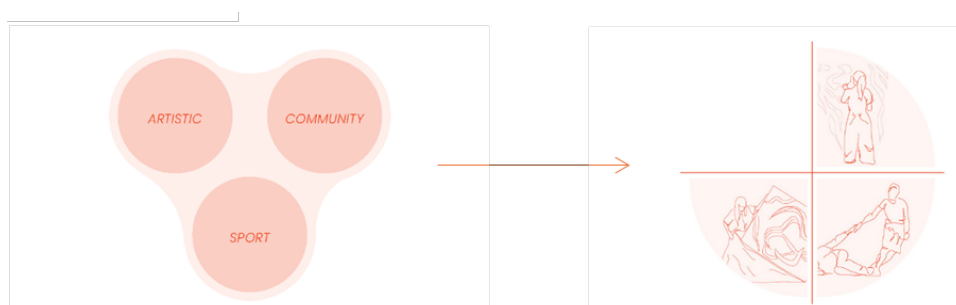


Figure 2. Functions Combinations

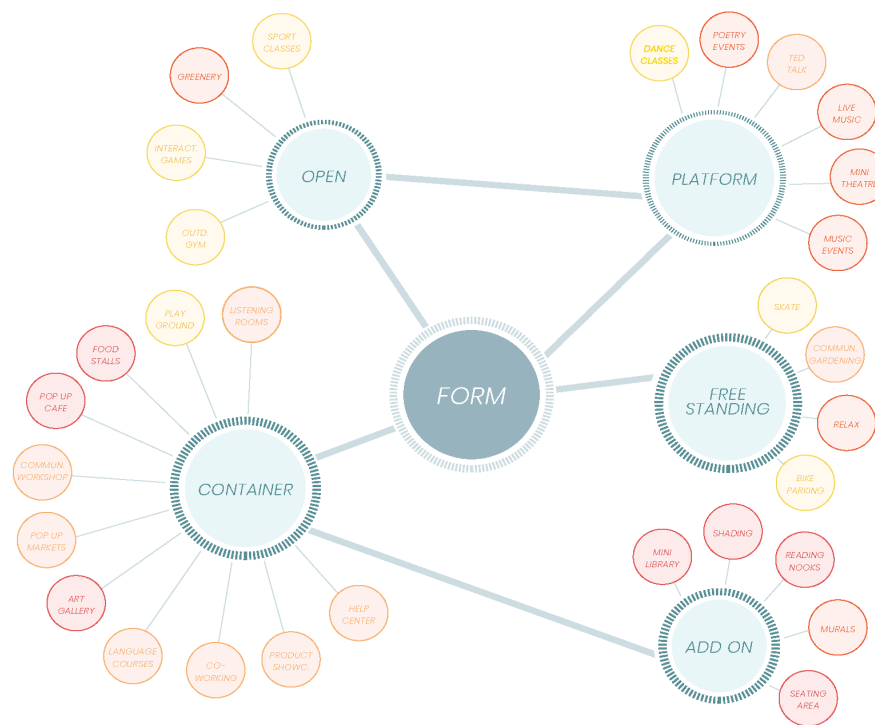


Figure 3. Creating Form Through Function

### Key components of the Toolbox

**Container Design Principles:** Utilising the rigid structure of shipping containers, softened with additional layers for a more inviting appearance. Flexible interior arrangements accommodate various functions such as pop-up markets, cafes, and community workshops. Strategic cutouts and added pockets create multifunctional spaces. The containers can be stacked and arranged in various configurations to create different types of spaces, from intimate cafes to open market areas.

**Core Container:** A consistent container frame with customisable panels and windows to suit different needs. This approach allows for prefabricated design, making setup efficient and adaptable. The core container can be outfitted with basic amenities such as electricity, water supply, and insulation to ensure comfort and functionality. Customisable panels can include transparent sections to allow natural light, as well as opaque sections for privacy and security.

**Panels:** Panels enhance the functionality and aesthetics of the containers. They can be substituted with bookshelves or other storage solutions as needed, ensuring durability and visual appeal. The panels can also be designed with integrated seating, display areas, and greenery to create a welcoming environment. For example, panels with built-in planters can be used to introduce greenery into the space, improving air quality and providing a pleasant atmosphere.



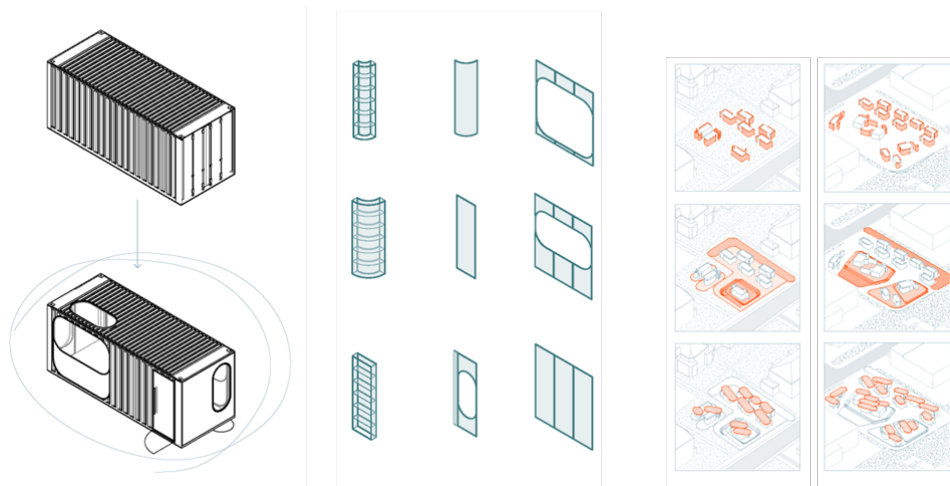


Figure 4. Key Components - Core Container, Panels & Space Diagram

**Set-Up Possibilities:** Various configurations for panel arrangements around different container types maximise space utilisation and aesthetic value. The modular nature of the panels allows for quick and easy reconfiguration, enabling the space to be adapted for different events and activities. For instance, a market setup with open stalls can be transformed into a performance space with seating arrangements for an evening concert.

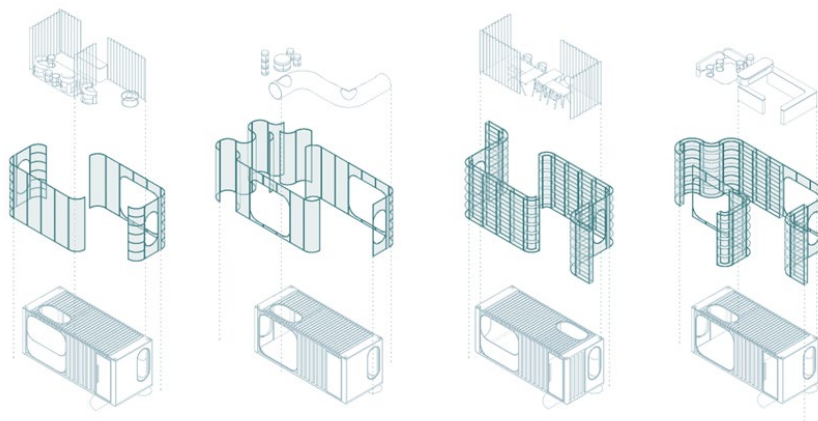


Figure 5. Set up Possibilities

The Toolbox also includes guidelines for integrating community input into the design process. This participatory approach ensures that the interventions reflect the needs and aspirations of the local residents, fostering a sense of ownership and pride in the transformed spaces.

### Project Implementation

The goal is to develop a comprehensive, adaptable design framework – *the Toolbox* – that can be implemented in various urban contexts to repurpose brownfields in Munich. The concept revolves around modular container designs that can be easily assembled, disassembled, and reconfigured to meet different community needs. The implementation process involves several key steps:

**Site Selection:** Identifying suitable brownfield sites based on accessibility, size, and potential for community engagement. Priority is given to sites that are centrally located and easily accessible by public transportation.

**Community Engagement:** Involving local residents, businesses, and stakeholders in the design process through workshops, focus groups, and surveys. This engagement ensures that the interventions address the specific needs and preferences of the community.

**Design Development:** Creating detailed design proposals based on the input gathered from the community. The designs are refined through iterative feedback loops to ensure that they are practical, feasible, and aligned with the community's vision.

**Pilot Projects:** Implementing pilot projects in selected sites to test the design concepts and gather feedback. These pilot projects serve as prototypes that can be evaluated and improved before wider implementation.

**Evaluation and Scaling:** Assessing the impact of the pilot projects on community engagement, cultural activities, and overall livability. Successful projects are then scaled up and replicated in other brownfield sites across the city.

While the thesis analysed three specific sites in Munich, the Toolbox is designed to be adaptable and can be applied to various locations in cities globally. The modular design approach ensures that each intervention is functional, aesthetically pleasing, and capable of evolving over time to suit different uses. Inspiration is drawn from successful temporary interventions in other cities, which demonstrate the potential for such projects to foster community engagement and enhance urban spaces.



*Figure 6,7,8,9. Project Visuals*

## CONCLUSION

Temporary interventions guided by the Toolbox framework offer a viable solution to enhancing urban liveability in Munich by transforming neglected spaces into vibrant community hubs. This approach addresses immediate urban issues and contributes to the long-term cultural and social richness of the city. The Toolbox framework aligns with the principles discussed at the Livable Cities – London conference, demonstrating how adaptable, community-focused design can create liveable urban environments. Drawing inspiration from small-scale urban design and temporary interventions,

literature like Laura Bruns' "Stadt Selber Machen," "Temporary Spaces" by Haydn & Temmel, and Jan Gehl's "Cities for People" highlight the effectiveness of such approaches in cities like Berlin, London, and Copenhagen. These examples illustrate the promise of temporary interventions for revitalising urban landscapes. By examining successes and failures from various projects, this study supports its thesis using valuable literature findings, Munich's urban fabric data analysis, and previous project outcomes. The proposed Modular "Plug and Play" or "Pick and Choose" Framework offers a versatile approach tailored to diverse societal needs, accommodating family-centric neighbourhoods and communities enriched by refugees alike. Qualitative interviews and quantitative surveys substantiate the challenges of repurposing brownfields, including potential resistance from neighbourhood councils and strict building regulations. Despite these challenges, Munich residents demonstrate a strong desire for cultural activities and interest in revitalising urban spaces. Navigating these hurdles requires community engagement and collaboration with municipal bodies, emphasising localised studies and tailored strategies. The findings affirm the thesis that people want to see unused spaces filled with activity. As Jan Gehl stated, "Improving the living conditions of citizens requires thorough consideration of the city's context and residents' needs." This quote highlights the need for detailed neighbourhood assessments to tailor interventions effectively. Incorporating comprehensive research and case studies, this paper provides a robust framework for enhancing urban liveability through temporary interventions, underscoring the importance of adaptable design in creating vibrant, sustainable communities. By adapting successful precedents to the unique contexts of cities with vacant building gaps or brownfields, this study charts a path toward more liveable, inclusive, and culturally vibrant urban environments.

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# CONTRIBUTION OF INDUSTRIAL HERITAGE IN SHAPING URBAN IMAGE: VISIBILITY ANALYSIS OF JUTE MILL IN WEST BENGAL, INDIA

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## INTRODUCTION

The industrial heritage of a place is a crucial element of its historical and cultural identity. This heritage includes structures, equipment, workshops, mills, factories, mines, warehouses, energy generation facilities, and transportation infrastructure.<sup>1</sup> These aspects are inherent to the site itself and its placement in the industrial landscape, adding to the area's historical narrative and urban appearance. The presence of industrial heritage can greatly improve the quality of urban life by enhancing visual aesthetics and cultivating a strong sense of place. Along with the site and its components, the urban setting also adds to the significance of industrial heritage assets.<sup>2</sup> The aim of this study is to conduct a visibility analysis of the objects of heritage significance within a jute mill that creates industrial heritage landmarks and contributes to the urban image of an industrial neighbourhood. This research delves into the role of industrial heritage, specifically focusing on jute mills, in influencing the liveability of urban environments through contribution to visual aesthetics.

### Industrial heritage contributing to urban image

Industrial history contributes to the urban image by increasing historical and cultural identity. Industrial heritage imparts distinct qualities and identities to urban settings, showcasing the significant role of the industrial era in the growth and cultural narrative of the city.<sup>3</sup> It establishes a connection between historical industrial activity and the current urban lifestyle, providing a sense of continuity. Another way in which industrial heritage contributes is by its tangible form and function.<sup>4</sup> The unique architectural designs and durable materials used in industrial buildings enhance the visual appeal of urban areas, frequently becoming iconic monuments. The adaptive reuse of these structures combines historical spaces with modern requirements, boosting the visual attractiveness of the urban landscape. This research is based on the argument that by identifying and preserving visual elements of industrial heritage sites, decision-makers can significantly contribute to the aesthetic richness of urban landscapes, thereby enabling a more liveable environment. In West Bengal, India, the jute industry has historically played a pivotal role in shaping the region's industrial landscape.<sup>5</sup> The deltaic plains of the Hooghly River created a favourable setting for the creation and expansion of jute mills, which have now become notable landmarks. This study focuses on the Hastings Jute Mill in West Bengal, India exploring its visual significance within the urban context and its contribution to the urban image.



## Visibility studies of cultural heritage

Researchers have employed a range of geometric analysis techniques, operating at both local and global scales, to characterize the visual properties of cultural heritage.<sup>6</sup> Visibility analysis is often used to understand the perceptual experiences of visitors within heritage environments. A survey of recent literature reveals several key approaches to visibility analysis in cultural heritage applications. Some studies have focused on using visibility analysis to enhance the visual perception of cultural heritage shapes and structures, with the goal of improving restoration and preservation efforts.<sup>7</sup> Other research has explored the use of visibility analysis to monitor changes in cultural heritage sites over time, facilitating ongoing preservation and management. Visibility analysis tools (refer Table 1) such as GIS-based view lines and view buffer analysis, photographic surveys, Isovist and viewshed analysis, and co-visibility analysis tools are commonly used to evaluate the visual significance of heritage sites. These tools help to identify visually sensitive areas, establish building height codes, and assess urban cultural-heritage protection zones, thereby assisting in heritage-sensitive urban planning and development.

Visibility analysis tool	Application
GIS-based view lines and view buffer analysis <sup>8</sup>	Zoning scenic areas of heritage sites
Photographic survey, Isovist and Viewshed Analysis <sup>9</sup>	Visibility evaluation of historical landmark building
Viewshed and Skyline analysis <sup>10</sup>	Identification of visual sensitive areas for nature-culture conservation
Isovist analysis and Space syntax analysis	Visualisation of urban heritage environment
3-dimensional visibility analysis <sup>11</sup>	Building height codes
Co-visibility analysis tool <sup>12</sup>	Assessment of urban cultural-heritage protection zones

*Table 6. Literature review on visibility analysis tool in heritage studies*

Based on the review of the applications of visibility studies (refer Table 1), the research gaps identified include the lack of focus on visual impact, inadequate integration of visibility analysis with industrial heritage and limited case studies of implementing visibility analysis in developing regions.

## Jute mills of West Bengal: the urban context

The world jute industry is primarily concentrated in the eastern and far eastern regions, amongst which, India is the third greatest producer in the eastern region. The jute mills have played a dominant role in the economy of West Bengal, within which, districts of Howrah, Hooghly, and North 24 Parganas have the highest number of jute mills.<sup>13</sup> The presence of jute mills has significantly shaped the urban landscape of the region, leaving an indelible mark on the character and identity of these industrial settlements. Following phases of industrialisation and deindustrialisation, the urban character of the jute mills in West Bengal has evolved over time.<sup>14</sup> The complex interplay of global trade patterns, colonial legacies, and local labour relations have all contributed to shaping the urban landscape of these industrial centre. These mills not only served as economic engines, but also shaped the social and cultural fabric of the surrounding communities. The architectural and infrastructural elements of the jute mills, such as the iconic chimneys and sprawling factory complexes, have become iconic symbols of the state's industrial past.<sup>15</sup> The aim of this research is to assess the visual significance of elements of industrial heritage and provide guidelines for preservation of aesthetic value of urban landscape.

## METHODOLOGY

Taking case study of a significant heritage jute mill (Hastings Jute Mill) in West Bengal, India, the objects of visibility, including heritage buildings, mill gates, boundary walls, jetty, waterfront area, chimney, etc., were identified. Additionally, all viewpoints inside the mill and in the industrial neighborhood were marked. Data collection involved visual surveys and historical documentation from. Based on the principles of visual sensitivity and viewshed analysis and using Geographic Information System (GIS), as a tool, the buffers and view lines were generated connecting each viewpoint with the objects of view. The four stages of the research design have been provided in Figure 1.

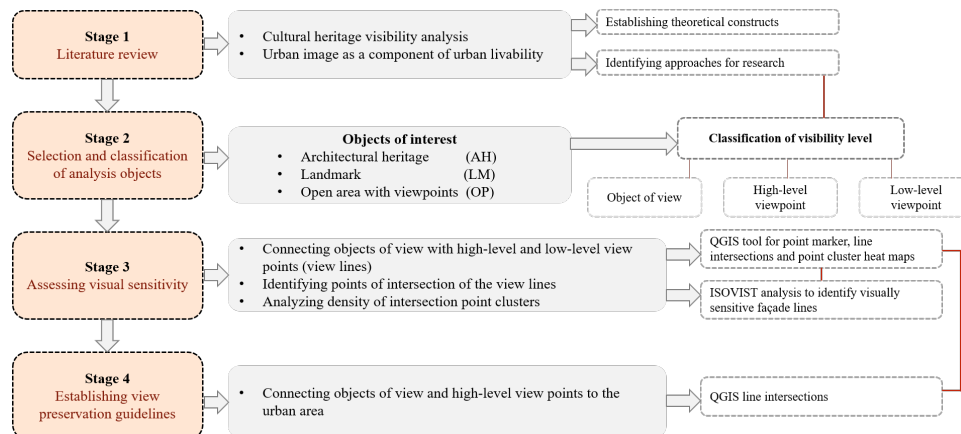


Figure 17. Methodological flowchart for proposed research

## Data Collection

The research is conducted in a case study approach. The Hastings Jute Mill, located in Rishra, Hooghly, West Bengal, serves as the case study for this research. Built in 1874, the mill has significant historical value and continues to function today. The study identifies various heritage elements within the mill complex, including heritage buildings, mill gates, boundary walls, jetty, waterfront area, chimney, and boiler area. Followed by archival research from secondary literature, the data collection involved photographic surveys and physical documentation to identify heritage objects. Viewpoints within the mill and in the surrounding industrial neighbourhood were marked to capture various perspectives.

## GIS Analysis

This analysis identified points of intersection of the view lines, allowing for the representation of the high visual sensitivity. QGIS software was used to draw view lines connecting each viewpoint with the objects of view and generating the intersection points.

## RESULTS AND DISCUSSION

The findings provide guidelines for industrial heritage-sensitive development, including view corridors and building heights in the industrial neighbourhood.

### Objects of interest

The study identified 17 objects of interest within the Hastings Jute Mill complex, including heritage buildings, mill gates, boundary walls, jetty, waterfront area, chimney, and boiler area. Each of the objects have been categorised according to their object type, and level of visibility (refer Table 2). For object type, the categories were architectural heritage (AH), landmark elements (LM) or an open space (OP). For visibility level the objects have been classified based on whether is it just an object of view

(O), a high-level view point (H), a low-level view point (L), an object of view which is a high-level view point (OH) and an object of view which is a low-level view point (OL).

	Object type				Visibility level			
Name of element	AH	LM	OP	Height (in m)	Object of view	High-level Viewpoint	Low-level Viewpoint	Code
Viewpoint 1				0.5		✓		H1
Ghat		✓	✓	0.5			✓	L1
Mill-factory building	✓			7.0			✓	L2
Viewpoint 2				0.2			✓	L3
Viewpoint 3				0.2				L4
Boiler area		✓		3.0	✓			O1
Chimney		✓		60.0	✓			O2
Mill gate		✓		2.5	✓			O3
Original mill wall			✓	5.0	✓			O4
Guest house ( <i>Babu Kothi</i> )	✓	✓		11.0	✓	✓		OH1
CE Bungalow	✓	✓		11.0	✓	✓		OH2
SDC Office	✓			8.0	✓	✓		OH3
Staff quarters	✓			11.0	✓	✓		OH4
Thakur Bari	✓	✓		11.0	✓	✓		OH5
Jetty		✓	✓	0.5	✓		✓	OL1
World war bunkers		✓	✓	1.5	✓		✓	OL2
World war bunker and banyan tree		✓	✓	1.5	✓		✓	OL3

Table 7. Classification of objects of interest in Hastings Jute Mill, West Bengal

The objects were identified based on the inclusion criteria of heritage significance, present condition, and physical accessibility status. These elements collectively contribute to the historical and visual identity of the industrial landscape.



Figure 18. Images (left) and map (right) showing objects of interest in Hastings Jute Mill, West Bengal

Viewpoints both within the jute mill and in the surrounding industrial neighbourhood were marked, capturing perspectives from which these heritage objects are observed (refer Figure 2). The analysis revealed scattered intersections with no concentrated areas of high visibility, concentrated intersections along the riverside landscape area, and highly dispersed intersections.

### Intersection clusters

The first cluster (Cluster 1) included the view lines connecting the objects with visibility L to the objects with visibility O (refer Figure 3A), OL (refer Figure 3B), and OH (refer Figure 3C).



Figure 19. Intersection of view lines (A) between O and L; (B) between OL and L; and (C) between OH and L in Hastings Jute Mill, West Bengal

This cluster is designed to comprehend the significant intersections on the premises that necessitate a clear line of sight at ground level. The primary obstacles in this scenario would be the high density of developed structures at the intersections of the view lines. The points where the lines linking O and L and the lines between OH and L intersect are more widely spread towards the centre of the site, where there is a greater concentration of constructed structures. This poses a barrier for lower-level perspectives to accurately perceive and understand the items of interest. The points where OL and L intersect are concentrated in the middle open area that connects the site to the river. Therefore, items that are observed from a lower viewpoint have the most potential visibility.

The second cluster (Cluster 2) included the view lines connecting the objects with visibility which are high level viewpoints (OH) to the objects with visibility O (refer Figure 4A), OL (refer Figure 4B).

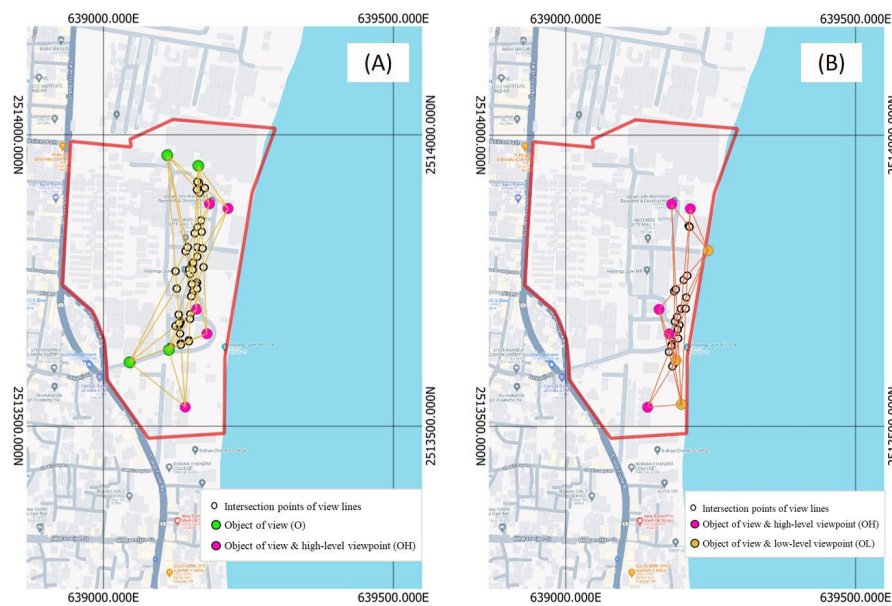


Figure 20. Intersection of view lines (A) between O and OH; and (B) between OL and OH; in Hastings Jute Mill, West Bengal

This cluster is designed to comprehend the significant intersections on the site that are visually linked to the objects of interest which are high-level viewpoints. The primary obstacles in this scenario would be the density of the erected structures at the intersections of the view lines. The points where the lines connecting O and OH intersect are densely concentrated towards the centre, particularly around the mill-factory sector. It should be emphasized that many of the structures in this region, such as the Guest house (*Babu Kothi*), CE Bungalow, SDC Office, and staff quarters, are designed with access to upper levels, which allows for the possibility of impressive views. The intersections of the view lines connecting OL and OH are clustered around the central open area that connects the site to the river, similar to the intersection clusters of L and OL. To summarize, the clusters of high-level viewpoints could create an elevated view corridor.

### Visual sensitivity

Using the intersection clusters from all the view lines, a density heat map (refer Figure 5A) was generated using GIS, which identified visually sensitive areas, highlighting the highest concentration visibility points. From the heat density map, four high visual sensitivity points have been identified which was taken forward for a 2-dimensional façade co-visibility analysis. The analysis identified the co-visible façade lines (refer Figure 5B). These indicate areas where multiple heritage objects are visible from various viewpoints, suggesting high visual sensitivity. This analysis informs guidelines for heritage-sensitive development in the jute mill complex, emphasizing the importance of preserving view corridors.

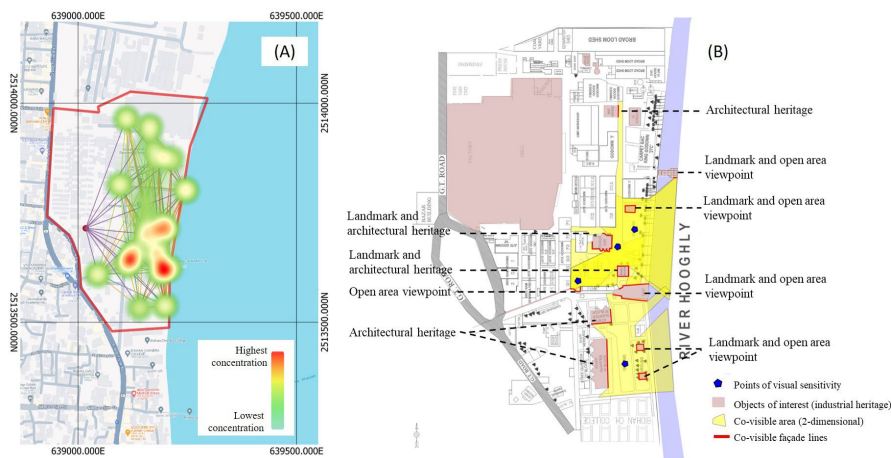


Figure 21. (A) Heat map showing visual sensitivity areas and (B) 2-D analysis identifying visually sensitive façade lines in Hastings Jute Mill, West Bengal

The marked viewpoints both within the mill and the surrounding neighborhood provide a comprehensive understanding of how these heritage objects are perceived from various angles. This mapping helps in determining the visibility of heritage objects from different locations and identifying the most visually impactful heritage elements. Table 3 marks the key observations that emerged.

Cluster	View lines	Observations
Cluster 1 The areas required to create open area view points may be identified (areas of co-visibility)	L to O	Scattered intersections with no concentrated areas of high visibility
	L to OL	Concentrated intersections along the riverside landscape area
	L to OH	Highly dispersed
Custer 2 High-level viewpoints and buffers for building height control may be identified	OH to O	Highest number of intersections creating a wide view zone
	OH to OL	Multiple intersection clusters

Table 8. Observations for each intersection clusters

Based on the observations, several key guidelines can be proposed to enhance the preservation and visibility of heritage structures. First, it is crucial to preserve key view corridors by ensuring that new developments do not obstruct important view lines connecting OH with O and OL, thereby maintaining the visibility of objects of interest from multiple viewpoints. Additionally, height restrictions should be implemented for new buildings along these view lines connecting OL, OH and L, particularly in visually sensitive areas, to protect the visual prominence of heritage structures. Establishing view preservation zones around heritage objects and landmark elements is also recommended to safeguard them from encroachment and maintain their historical and cultural significance.

The findings of the visibility analysis conducted on the Hastings Jute Mill and its surrounding industrial neighborhood in West Bengal, India, shed light on the significant contribution of industrial heritage to the urban image of the area.



## **CONCLUSION**

The visibility analysis of the Hastings Jute Mill and its environs illuminates the intrinsic connection between industrial heritage and urban image. By recognizing and leveraging the visual significance of heritage assets, policymakers, planners, and stakeholders can forge a path towards more liveable, culturally rich, and aesthetically pleasing urban environments. This research contributes to the broader discourse on heritage conservation and urban development, advocating for an integrated approach that prioritizes visual aesthetics and liveability. Such visibility analysis may contribute to guidelines for sensitive management or alterations in industrial heritage sites. For living heritage sites, the identification of view preservation zones may contribute to the visual aesthetic requirements of stakeholders. This research contributes to the broader discourse on heritage conservation and urban development, advocating for an integrated approach that visual aesthetics contributing to liveability. This research provides a framework for enhancing the synergy between industrial heritage preservation and the aesthetics of urban landscapes within the discourse of liveable cities.



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# SHAPING THE POLYCENTRIC CITY REGION: REGIONAL PLANS AS MULTISCALAR URBAN DESIGN INSTRUMENTS

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## INTRODUCTION

Urban design is often, even usually, focused at the immediate scale of street, square and urban quarter – in other words, the places where people experience the urban design qualities of the cities in which they live, work and play. Specialist urban designers, architects, landscape architects, planners, other professionals, and communities collaborate to produce these local urban design outcomes. Meanwhile, the polycentric city region has become the dominant urban form internationally, with contiguous and non-contiguous cities, towns and suburbs merging into larger functionally interrelated urban entities.<sup>1</sup> In parallel, metropolitan and regional plans are evolving to address the new polycentric city region. These new planning instruments can work as multiscalar urban design instruments to simultaneously shape urban form and quality at scales ranging from the very local, up through town centres of various scales and intensities, to the broader regional ecological setting. This paper draws on literature and practice to demonstrate an urban design continuum spanning the local, sub-regional and regional scales in regional planning, using selected examples of regional planning documents for major western city regions. The selected plans are examined to investigate ways in which these plans act as urban design instruments at various urban scales.

## Research methods

This research is part of an ongoing project based on comparative document review and policy analysis. Comparative case studies are the focus of an examination of how a selection of regional plans, for city regions undergoing rapid change and expansion, demonstrate the capacity of regional planning to shape positive urban design outcomes at a variety of scales. The urban design scales that we examine range across the following:

- the natural environmental setting;
- the city region's network of centers, precincts and neighbourhoods;
- streets and public space networks; and
- urban density, land use mix, urban form and spatial relationships.

Due to space constraints, this paper presents, just briefly, an overview of insights from reviewing a small number of the regional plans under consideration by the authors.

## **POLYCENTRIC CITY REGIONS: NEW SCALES FOR URBAN DESIGN**

By the turn of the 21<sup>st</sup> century, observers were noting a new kind of urban structure, the polycentric city region.<sup>2</sup> Factors behind the shift to polycentric urban structures included rapid population growth, rapid urbanisation, suburban sprawl and the need for centres closer to dispersed populations. As city regions adapted to dispersed populations and decentralized employment locations, human activity patterns and travel (often by car) increasingly occurred across the region rather than focusing radially on the original single city centres.<sup>3</sup> This sometimes occurred due to spontaneous new private development around accessible suburban nodes, for example Tyson's Corner outside Washington DC.<sup>4</sup> In other city regions, government led the way in planning for these new urban centres as their city regions expanded, for example Sydney's 'centres policy', embodied in its metropolitan and regional plans since 1948,<sup>5</sup> laid the ground for progressively intensifying nominated existing centres throughout the metropolis, and establishing new major centres in its expanding western suburbs in the past twenty years.

## **THE MULTISCALAR DIMENSIONS OF URBAN DESIGN**

### **Urban design at human scale**

No matter how extensive the city region, it is at the local scale that people experience urban design qualities. Specialist urban designers, planners, architects, landscape architects, other professionals, and communities collaborate to produce these local urban design outcomes. Practitioner and community knowledge of this immediate level of urban design concern has been assisted by activist-writers such as Jane Jacobs,<sup>6</sup> whose writings publicized key urban design principles to a much wider world than her own 'living laboratories' in Greenwich Village (1950s-70s) and Toronto (1970s-90s).

Jacobs outlined the key qualities of good urban places in plain language able to be understood by community members, elected representatives and a wide range of urban professionals. Concepts coined by Jacobs, for example "eyes on the street", were taken up by urban designers and decision-makers. Around the same time, the urban design research and practice of Kevin Lynch<sup>7</sup> from the 1950s-80s helped urban designers to understand city "imageability" from the perspective of the people who use cities. His extensive work on "sensing" the city has contributed to professional principles such as how the "legibility" of urban form and layout affects imageability and wayfinding.<sup>8</sup>

Since the 1960s, initially in Copenhagen and then consulting over the next half-century in global cities including New York and Sydney, Jan Gehl articulated a theory and practice of urban design at a human scale.<sup>9</sup> Gehl and associates have continued to develop these ideas well into the 21<sup>st</sup> century, demonstrating positive outcomes of a people-centered and place-centered approach to the livability, vitality and economy of cities and suburbs.

The respective works of Jacobs, Lynch and Gehl, emphasizing the human scale of urban design, have provided the foundation for contemporary urban design practice and their influence is seen in numerous Urban Design 'Charters',<sup>10</sup> 'Protocols',<sup>11</sup> and 'Compendia',<sup>12</sup> adopted by national and local governments across the English-speaking world.

### **Urban design of the city region**

Significant early examples of metropolitan planning with an urban design approach

Among many expanding urban regions adopting metropolitan plans in the early-mid 20<sup>th</sup> century, two stand out for the priority given to achieving quality urban design outcomes through a metro-regional plan: the 1909 Chicago Plan and Copenhagen's 1947 'Finger Plan' of 1947. The Chicago Plan, developed and promoted by Daniel Burnham set out a regional vision for a 200 square mile area extending beyond the city boundaries.<sup>13</sup> This plan was heavily influenced by the City Beautiful Movement (of which Burnham was a chief proponent) and by European networks of urban parks and

grand boulevards. The Plan's legacy includes significant boulevards, major lakefront parklands and an extensive open space system that shapes the city. Within the regional framework, strong emphasis was also directed to the local level of neighborhoods, streets and parks. Over a century later, metropolitan Chicago displays a comparatively high level of success in implementation of this plan, due to the governance and funding arrangements including Special District taxation powers and, later, the formation of a Chicago Plan Commission to undertake infrastructure planning and building regulation. Copenhagen is notable for the consistent application of a transit oriented development (TOD) urban expansion pattern for three-quarters of a century. Copenhagen's "Finger Plan" was adopted in 1947 and has continued to shape a large proportion of Copenhagen's metropolitan development since that time. The urban 'fingers', extending along the city's radial rail network, are themselves determined by an earlier 1936 landscape conservation plan that preserved the green wedges of nature and farmland separating the urban development corridors.<sup>14</sup> Copenhagen's Finger Plan is regarded as one of the world's best examples of TOD at a metropolitan scale.<sup>15</sup> In urban design terms, the Finger Plan gathers walkable and 'bikeable' suburbs around rail station-based town centres along the rail corridors, while also providing ready visual and physical access to the adjacent green wedges.

The "simple planning metaphor"<sup>16</sup> of the Finger Plan has arguably assisted the community and successive city governments to continue to 'believe in' and implement the plan for over 75 years. Copenhagen's growth from metropolis to major anchor in an international transborder city region has been shaped in the 2000s by the opening of the Oresund bridge linking Malmo (Sweden) with Copenhagen. The addition of a sixth 'finger' southwards to the new urban area of Ørestad since the 1990s has not disrupted the power of the 'five finger' narrative.

### Designing the city region

While contemporary urban design knowledge and practice are often focused at the immediate and local scale, the field has also maintained a long interest in urban design at multiple scales up to that of the whole city and region. The long-term urban design interest of metropolitan and regional planning is illustrated by the twentieth century examples above (Chicago and Copenhagen) as well as in writings by key urban design authors.

Christopher Alexander and colleagues captured the attention of lay readers as well as built environment professionals and academics in the 1977 book, *A Pattern Language*,<sup>17</sup> which articulated simple yet powerful principles for designing the full range of human habitats, spanning regions, cities, suburbs, towns, streets and urban spaces (continuing down to the scale of buildings, rooms and their details). Alexander's concept of "city country fingers", bringing the countryside into the city and integrating the city into its region, may well have been inspired by Copenhagen's Finger Plan.

As the turn of the current century, prominent academic and professional members of the Congress for New Urbanism articulated the critical urban design role of regional planning in expanding North American city regions.<sup>18</sup> They argue that "designing the region is designing the neighborhood", whereby "communities of place"<sup>19</sup> are created by designing four key elements: corridors (principally nature and transportation), preserves (open space, ecology, food production), districts and centers (providing mixed-use local and regional urban foci).

Jonathan Barnett<sup>20</sup> has continued to advocate that design of the whole city region is critical to achieving local scale urban design qualities. In *Designing the Megaregion: meeting urban challenges at a new scale*, the concerns of urban design are widened to include the ecological region, social and spatial equity, catalytic local interventions and governance for effective urban design.<sup>21</sup>

Neuman and Zonneveld's term "regional design" describes the process of shaping city regions by establishing a strategic "physical framework to determine or guide the most beneficial location,

function, scale and inter-relationships of communities within a region ... to connect these communities by transport ... and other links into regional networks.”<sup>22</sup> In addition to designing the physical and spatial relationships of the city region, Neuman and Zonneveld posit that ‘regional design’ includes the design of effective governance at this scale.

## **CASE STUDIES ADDRESSING MULTISCALAR URBAN DESIGN THROUGH CITY REGION PLANS**

This section briefly illustrates how the plans for three city regions address urban design at multiple scales through the regional planning documents they have adopted. The selected city region plans are those for London UK, Vancouver in Canada, and South East Queensland (SEQ) in Australia. These three plans all explicitly seek to manage urban growth for extensive metropolitan regions with large and growing populations.

### **The London Plan**

*The London Plan: the spatial development strategy for Greater London*, of March 2021, adopts a “design-led” approach to planning Greater London. Although “urban design” is only mentioned seven times in around 500 pages, the Plan addresses many urban design matters at a range of scales. Further, the language of the Plan employs frequent use of the “public realm”, reflecting a key concern of urban design. On the other hand, the frequent reference to a “design-led” approach is mainly restricted to a concern with individual sites rather than broader precincts and the greater city region.

The plan provides for “good growth by design”<sup>23</sup> to guide the city’s rapid growths (by an average of 70,000 people per year) to a projected population of 10.8 million by 2041.<sup>24</sup> “Good growth” is defined as “growth that is socially and economically inclusive and environmentally sustainable.”<sup>25</sup>

The London Plan’s Strategies, Policies and Guidance embody a design approach at many scales including improving the transit-oriented relationships between transport, lively town centres (at five scales in a hierarchy of centres), residential densities, and local to metro-regional opportunities for urban design intervention. The Plan contains ambitious targets for 80 per cent of trips to be taken by walking, cycling or public transport by 2041.

At the local scale of centres, precincts and neighbourhoods, the Plan demonstrates an appropriate concern with urban form and structure, expressed in urban design terms including townscape quality, block pattern, urban grain, building frontages, heights and development density. But, somewhat timidly, the Plan places more emphasis on requiring local governments to “assess” urban form rather than to *deliver* good urban form outcomes.<sup>26</sup>

### **Vancouver Metro 2050**

Vancouver’s *Metro 2050: Regional Growth Strategy*,<sup>27</sup> adopted in 2023, continues a 50-year history of metro and regional planning aimed at containing urban sprawl by developing a compact city region around a hierarchy of transit-oriented urban centres. The population of Metro Vancouver is projected to grow from around 2.8 million to 3.8 million people over the 27-year outlook of this plan.<sup>28</sup> The five goals<sup>29</sup> of the plan are aimed at delivering:

1. a compact urban area;
2. a sustainable economy;
3. protecting the environment and addressing climate change and natural hazards;
4. diverse and affordable housing choices; and
5. sustainable transportation choices.

At the top of the urban centres hierarchy is the original downtown “Metro Core”. A solitary second-tier “Metro Centre” is designated at Surrey, 25 kilometres inland of the Metro Core. Seven “Regional City Centres” comprise the third tier. A fourth tier identifies 14 “Municipal City Centres”. Additional “Frequent Transit Development Areas” will be negotiated with local governments along “Major Transit Growth Corridors.”<sup>30</sup> Suburban sprawl is restrained by an “Urban Containment Boundary” to conserve agriculture, recreation and nature conservation lands, while maximizing return on the city region’s investment in urban infrastructure. Together, these provisions support the plan’s urban design aims for developing Greater Vancouver as a compact city with interconnected, dense, mixed-use urban centres. There is a strong emphasis on urban design outcomes, such as walkable streets, in the “strategies and actions” established by *Metro 2050*.<sup>31</sup> More broadly, the plan sets out clear “expectations and attributes”, for urban centres and Frequent Transit Development Areas to become:

- primary focal points for concentrated urban growth;
- “complete communities” balancing a mix of housing, jobs, services and amenities;
- high quality, connected and accessible walking, cycling and rolling environments;
- transit-supportive through transit-priority policies, infrastructure and operations;
- quality parks and open spaces;
- affordable rental housing supply protected and expanded.<sup>32</sup>

Implementation of regionally-significant aspects of the plan is by majority vote of the Metro Vancouver Regional District Board (MRVD Board), a regional federation through which the partner local jurisdictions of the city region are represented. Each local government prepares a Regional Context Statement (RCS) to fine-tune *Metro 2050*, supported by consistent Official Community Plans (OCPs) for smaller-scale implementation at the local level. Development of RCSs and OCPs involve local community participation and a collaborative decision-making process between the local governments and the regional government body (MRDV). *Metro 2050* sets out provisions under which performance and outcomes of successive regional strategies continue to be closely monitored. Detailed performance indicators are specified under each goal and strategy of the plan.

### Shaping SEQ 2023

*ShapingSEQ 2023: South East Queensland Regional Plan (SEQRP)*<sup>33</sup> is the fourth version of the statutory planning strategy for the rapidly emerging SEQ city region based around Brisbane. SEQ contains three of Australia’s most populous local government areas (LGAs), as well as nine additional LGAs. The statutory regional plans adopted since 2005 built on a decade of development of collaborative Regional Frameworks for Growth Management, collaboratively negotiated between the then 15 local governments and the relevant State Government agencies. The first two statutory SEQRPs targeted the periods 2005-2026<sup>34</sup> and 2009-2031<sup>35</sup> respectively. These plans were heavily influenced by the growth management approaches taken in Vancouver and in Seattle and Portland in the US north-west. From 2005-2017, the first two SEQRPs established a cohesive narrative for a polycentric city region consisting of a network of dense, mixed use, walkable transit-oriented centres connected by complementary transport and infrastructure plans and programs. By 2011, SEQRP was supported by detailed urban design guidance for centres, neighbourhoods and streets of various scales and densities.<sup>36</sup> A change in government in the period 2012-2014 resulted in a ‘small government’ approach to the subsequent 2017 regional plan update,<sup>37</sup> even though that plan was introduced by the subsequent more interventionist government. The change in scope and format of the 2017 plan reduced the TOD narrative of the first two plans, however the latest plan, *ShapingSEQ 2023* more closely aligns with the approach of the earlier 2005 and 2009 SEQRPs. This realignment is reinforced by a renewed strategic relationship between the SEQ Council of Mayors and Metro Vancouver Regional District since 2017.<sup>38</sup>



An example of how the latest plan seeks to address urban design at multiple scales within the region is provided by its provisions for the region's 15 designated Principal Regional Activity Centres (PRACs). These high-level centres, for employment and services, are required to be developed as “high amenity” transit-oriented mixed-use nodes with “attached high-rise” apartments at minimum residential densities of 300-400 dwellings/hectare.<sup>39</sup> All centres are to “achieve a high-quality urban form that promotes a walkable and accessible urban environment”.<sup>40</sup>

This plan omits the succinct urban design statements of the earlier *SEQRP 2009-2031* for PRACs, and the supporting urban design guidance book is no longer promoted, apparently because the plan is now restricted to matters “of State interest”. Although State interest is not clearly defined in relation to regional urban structure, built form and the implications for infrastructure requirements and efficiency, these important scales of urban design continue to be addressed in *ShapingSEQ 2023*.

## CONCLUSION

Following fifty years of urban design addressing concerns at an immediate local level, the selected historical and contemporary metro-regional plans reviewed in this paper provide evidence of how urban design needs to – and can – be thought of as a multiscalar design activity. As city regions have become the predominant form of human settlement in recent decades, this broader understanding and practice of urban design is essential if our city regions and the urban places they contain are to be livable and sustainable across a range of scales from the immediate and local to the scale of the bioregion. This paper has shown the varying ways in which the regional plans for three major city regions are rising to this challenge, with the Greater Vancouver example standing out for its long-term consistency and effectiveness in creating a city region of quality urban places. The authors' ongoing research will compare and contrast these and other examples in greater depth.

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# PERCEPTIONS OF LIVABILITY IN THE OLD CORE OF AN INDIAN CITY

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## INTRODUCTION

Conceptions of livability in urban areas employ a wide spectrum of elements, with attaining livability usually outlined as relying on sustained correspondence between two broad categories of these elements – the characteristics of population groups that demand various goods and services, and environmental (physical, social and biological) characteristics that meet these demands.<sup>1</sup> These elements have been established to vary across space and time in livability literature<sup>2</sup> as well as by virtue of these elements being part of larger but relevant theories of internal urban structure that point to such variability across different parts of the world.<sup>3</sup> Constructions of livability in Indian cities are particular to the context and have been observed to place higher importance to factors such as amenities, services, and socio-economic aspects.<sup>4</sup> Specifically, Indian cities of pre-industrial origin,<sup>5</sup> with their old core areas having intricate socio-spatial structures<sup>6</sup> hosting large populations despite seemingly (to the outsider) lower levels of livability, present an interesting research setting for exploring nuances of livability. Thus, we select one such city – Madurai city, Tamil Nadu, India, for the current exploration.

The research comprises of two parts – (1) preliminary research to gain a broad understanding of the city to outline further investigation, and (2) the livability study.

## THE CASE – MADURAI, TAMIL NADU

Madurai city is the capital city of the district of Madurai in Tamil Nadu, located in the south-central part of the state in the Vaigai river valley. It is located at around 140 km from Tiruchirappalli and around 460 km from Chennai (both major cities in the state) in the south-west direction from these cities.<sup>7</sup>

Madurai city is the second largest city in the state in terms of size and third largest in terms of population. The Corporation of Madurai extends over an area of approximately 148 sq. km. However, the urban settlement extends up to only about 70 percent of this area, although the city is fast expanding. The city hosts a population of about 1.47 million according to the 2011 Census.<sup>8</sup>

With origins attributed to as early as 2nd century CE,<sup>9</sup> Madurai is an ancient city which served the role of a political capital and military base on one hand, and as an inland land market centre widely known for its silk, handicrafts, metal ware, etc., on the other. Currently, the economy of the city primarily depends on tourism alongside a few other industries and services.<sup>10</sup>

The Vaigai River runs across Madurai city in the North-west-west to South-east-east direction, with water flowing during the North-eastern and South-western monsoon periods. Madurai has an old planned city area towards the south of River Vaigai, with the Meenakshi Amman Temple in the centre

considered the sacred centre of the city. The new administrative node (comprised of the Collector's Office, Corporation Office and Police Commissioner's Office) lies towards the north of River Vaigai. The city has a radial pattern of roads emerging from the old core.

## PRELIMINARY RESEARCH

At the preliminary stage, we broadly explore the city in terms of two attributes which are prominently part of different conceptions of livability mentioned previously – income group on the population characteristics side, and the environmental characteristic of built environment.<sup>11</sup> Relatedly, housing affordability (consequently, livability) has been observed to be a determinant of residential sorting across cities.<sup>12</sup>

Fieldwork exploring the city was done as part of a larger research work.<sup>13</sup> Various attributes of the residential built environment of Madurai city were mapped through direct observation as part of a rapid reconnaissance survey.<sup>14</sup> These attributes were then classified to outline a typology of built environments. These types were ordered based on decreasing quality of built environment, with quality being defined along parameters of spaciousness of layout, building type and associated characteristics including building condition, and regularity of organization and appearance.<sup>15</sup> Income group associated with different urban areas were determined based on short semi-structured interviews.<sup>16</sup> Both aspects were outlined for areal units delineated based on variability among the attributes.

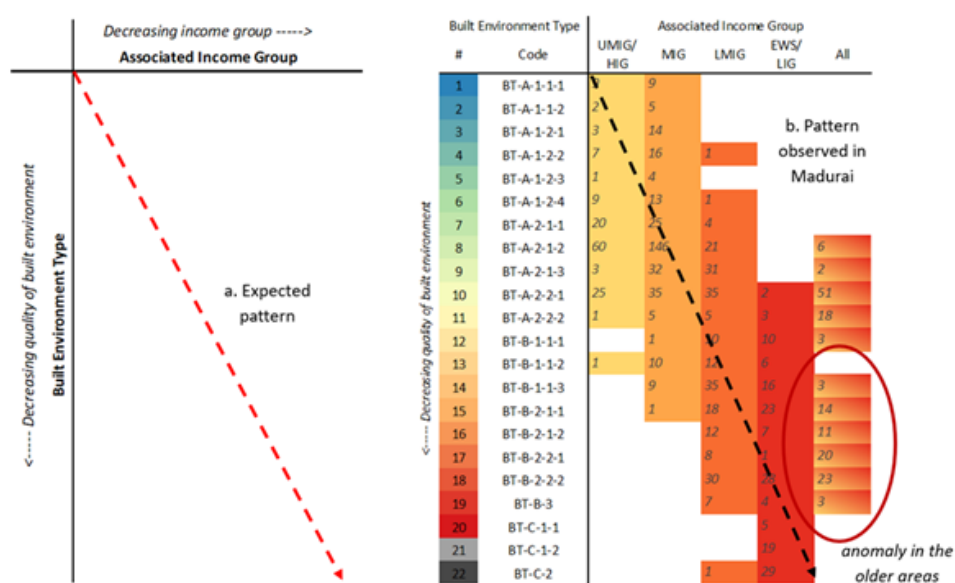


Figure 1. Cross-tabulation between residential built environments and associated income groups

In a cross-tabulation between residential built environments and associated income groups, the expected pattern is that higher income group households would be associated with built environments of better quality (Figure 1a) due to better financial capability. For Madurai, such a cross tabulation revealed certain anomalous patterns – the presence of higher income group households in average-and-below quality built environments (Figure 1b). One major area where this pattern presented is the old planned city area, referred to as the ‘old core’ interchangeably here, south of River Vaigai. The old core area featured highly congested environments that do not lend themselves easily to major change or drastic renovation due to the sacrality of such cores in Indian culture as well as the typical durability of built and social environments. However, despite the seemingly lower levels of livability (considering poorer built environment as the immediate proxy), households belonging to higher income groups and capable of better residential environments chose to stay in the old core.

This led to a few research questions which are the focus of this paper – (1) how do households belonging to the average-and-above income group living in an Indian urban core with apparently less-than-desirable built environments perceive the livability in such areas? and (2) what kind of strategies do they employ to improve livability in such areas? We explored these questions by outlining a study area that includes the old core of the city and by considering select households through semi-structured interviews after a screening survey.

## STUDY AREA

The study area comprised of the old core (i.e., the old planned city), along with extensions around the core that developed before colonial presence in Madurai (the pre-industrial period)<sup>17</sup> (Figure 2).



Figure 2. a. Madurai Municipal Corporation (MC) boundary (demarcated in red); b. the study area (demarcated in yellow)

## THE LIVABILITY STUDY

A total of 42 screening surveys (Figure 3) were conducted within the study area in order to identify households that fit the requirement for the current exploration – higher income group households choosing to stay in the old core and its extensions with relatively poorer built environments despite being capable of better residential environments elsewhere. Notably, while these households might be living in built environments classified in the study as average-and-below, the built environment type refers to the general character of the urban area and not to the quality of the individual housing unit. Suitable cases (12 out of 42 screening surveys) (Figure 3) were selected for further semi-structured interviews and observational survey of their unit of residence.





Figure 3. Screening surveys and semi-structured interviews

Observational survey involved the surveyor noting down details regarding the respondent's housing unit such as – (1) type of housing unit (detached/ row/ clustered), (2) number of floors, (3) construction type (pucca/ semi-pucca/ kutcha), and (4) housing condition (good/ average/ poor). Details of the general character of built environment of the residential area where the unit was located were retrieved from the typology constructed during preliminary research.

The semi-structured interviews addressed the following aspects – (1) details of the household: family type (nuclear/ extended/ joint), details of members including location of workplace/place of education, religion, caste, (2) details regarding housing unit: number of households residing in the unit (single-household unit/ multi-household unit), whether rental or owned, (3) residential mobility: length of stay in current location, previous residential location, reason for shift, reason for stay in current location, plans of residential mobility in the future, (4) perception regarding livability (rating on a continuous scale of 1 to 5, 1 being the lowest level and 5 being the highest level), (5) difficulties faced in living in the area, and (6) measures to overcome said difficulties and/or to make the location more livable.

Tables 1, 2 and 3 summarize the profile of the selected households, the livability rating of their area of residence as well as the following details – (a) whether they have any plans to shift, (b) reasons for staying in the current location, and (c) issues faced in their current location of residence. The selected households belonged to the Middle-Income Group (MIG) and above. The households showed variety across parameters such as religion, location (core/ extended core as indicated in Figure 2), family type, and duration of stay.

## PERCEPTIONS OF LIVABILITY – FINDINGS AND DISCUSSIONS

All the selected households rated the livability in their residence in the core/ extended core as above average, with about two-thirds giving a rating of 4 (high livability) or higher. Only one respondent even mentioned relatively lower levels of livability while still giving a rating of 2.5 (average livability). Overall, respondents gave an average livability rating of 3.83.

Most households did not have any plans to move and even when they did, they mentioned how they would like to retain the current unit by ensuring at least one household from the family stayed back.

#	Religion	Location	Household Type	Family Size	Duration of stay	Own/ Rental	Household income group	Livability rating (continuous scale of 1 to 5)	Whether plans to shift
1	Hindu	Extended core	Nuclear	5	50-60 years	Own	Middle	3	(1) No plans
2	Hindu	Extended core	Extended	5	30-40 years	Own	Middle	4.5	(2) Expansion of family - move as a whole
3	Hindu	Extended core	Extended	5	70-80 years	Own	Middle	3.5	(3) Dilemma whether to shift or not
4	Hindu	Core	Joint	8	20-30 years	Own	Middle	4	(1) No plans
5	Hindu	Core	Joint	16	more than 80 years	Own	Upper-middle	2.5	(4) Lack of livability - some HHs might move out
6	Hindu	Extended core	Extended	4	less than 20 years	Rental	Middle	4	(1) No plans
7	Hindu	Extended core	Nuclear	4	60-70 years	Own	Middle	4	(2) Expansion of family - move as a whole
8	Hindu	Extended core	Extended	5	50-60 years	Own	Middle	5	(1) No plans
9	Hindu	Core	Extended	6	60-70 years	Own	Upper-middle	4	(5) Expansion of family - retain original unit
10	Muslim	Core	Joint	14	more than 80 years	Own	High	4	(1) No plans
11	Hindu	Core	Nuclear	5	60-70 years	Own	Upper-middle	4	(5) Expansion of family - retain original unit
12	Muslim	Extended core	Joint	18	more than 80 years	Own	Upper-middle	3.5	(1) No plans

*Table 1. Profile of households surveyed and whether they have any plans to shift*

### Reasons for stay

Reasons stated by respondents for staying in their current location within the core/ extended core included – (1) the fact that it was their ‘ancestral home’, (2) sense of ownership, (3) sense of responsibility towards the ancestral/ family property, (4) by virtue of the previous generation’s decision to own and/or build the current unit, (5) abundance of amenities, (6) better infrastructure in the area than previous place of residence, (7) asset value, particularly since the core and its extensions usually had high land value, (8) sense of safety due to the level of occupation and activity on the roads even during late hours of the day, (9) high status associated with living proximate to the sacred city centre, (10) location in a ‘main area’, that is, the heart of the city, (11) sentiment and place attachment, (12) feeling of community especially in households that have stayed in the location for at least a few decades, (13) proximity to religious structure giving a sense of sanctity and attachment, and (14) resistance from previous generations to residential mobility. While certain reasons such as (3) and (14) had a tone of eventuality where the reasons were beyond oneself, most households had positive reasons to stay. Most sentiments were expressed strongly and emphatically.

Broad patterns arise in these stated reasons for residential location choice. Reasons such as (5), (6), and (10) align with existing literature suggesting that conceptions of livability in the Indian context are crucially associated with connectivity to city-level amenities and locational attributes.<sup>18</sup> Firey’s<sup>19</sup> suggestion that sentimentality plays a key role in residential location can also be observed through reasons (1), (2), (3), (4), (9), (11), and (13). Community and neighbourhood composition, long highlighted as a determinant of residential sorting and social organisation,<sup>20</sup> were reflected in reasons (9) and (12).

#	Religion	Location	Household Type	Duration of stay	Own/ Rental	Livability rating (continuous scale of 1 to 5)	Reasons for stay													
							Resistance from previous generations to shift	Proximity to religious structure - sense of sanctity and attachment	Feeling of community	Sentiment - place attachment	"Main area" - Location	Associated high status	Sense of safety - even to arrive back home late	Asset value	Better infrastructure	Amenities	Decision of previous generation to own/build this house	Sense of responsibility	Sense of ownership	Ancestral home
1	Hindu	Extended core	Nuclear	50-60 years	Own	3														
2	Hindu	Extended core	Extended	30-40 years	Own	4.5														
3	Hindu	Extended core	Extended	70-80 years	Own	3.5														
4	Hindu	Core	Joint	20-30 years	Own	4														
5	Hindu	Core	Joint	more than 80 years	Own	2.5														
6	Hindu	Extended core	Extended	less than 20 years	Rental	4														
7	Hindu	Extended core	Nuclear	60-70 years	Own	4														
8	Hindu	Extended core	Extended	50-60 years	Own	5														
9	Hindu	Core	Extended	60-70 years	Own	4														
10	Muslim	Core	Joint	more than 80 years	Own	4														
11	Hindu	Core	Nuclear	60-70 years	Own	4														
12	Muslim	Extended core	Joint	more than 80 years	Own	3.5														

Table 2. Reasons for staying in the current location of residence

#	Religion	Location	Household Type	Duration of stay	Own/ Rental	Livability rating (continuous scale of 1 to 5)	Issues faced													
							Infrastructure issues (water)	Issues due to shared wall with adjacent unit	Encroachments on house front	Restrictions in construction and renovation	Insufficient living space	Insufficient ventilation	Insufficient lighting	Air pollution	Noise pollution	Narrow street width	Inconvenience due to loading/unloading activities	Vehicular traffic and congestion	Inconvenience due to parked vehicles	Lack of space for parking
1	Hindu	Extended core	Nuclear	50-60 years	Own	3														
2	Hindu	Extended core	Extended	30-40 years	Own	4.5														
3	Hindu	Extended core	Extended	70-80 years	Own	3.5														
4	Hindu	Core	Joint	20-30 years	Own	4														
5	Hindu	Core	Joint	more than 80 years	Own	2.5														
6	Hindu	Extended core	Extended	less than 20 years	Rental	4														
7	Hindu	Extended core	Nuclear	60-70 years	Own	4														
8	Hindu	Extended core	Extended	50-60 years	Own	5														
9	Hindu	Core	Extended	60-70 years	Own	4														
10	Muslim	Core	Joint	more than 80 years	Own	4														
11	Hindu	Core	Nuclear	60-70 years	Own	4														
12	Muslim	Extended core	Joint	more than 80 years	Own	3.5														

Table 3. Issued faced in their current location of residence

## Issues faced

Despite higher ratings towards livability, when prompted whether they faced any issues with their current location of residence, respondents came up with several issues – (1) lack of space for parking private two-wheeler and four-wheeler vehicles, the latter more than the former, (2) inconvenience due to vehicles parked on the road immediate to their residential unit by visitors to the core, (3) vehicular traffic and congestion, (4) inconvenience due to loading/ unloading activities tied to nearby commercial properties, (5) narrow street width, (6) noise pollution, (7) air pollution, (8) insufficient lighting, (9) insufficient ventilation, (10) insufficient living space, (11) restrictions in construction and renovation, (12) encroachment on the house front, (13) issues due to shared wall with adjacent unit, and (14) infrastructure issues in certain parts.

Notably, despite these issues, respondents gave an average rating of 3.83 to the livability in these areas. There were a few explanations behind this – (1) the reasons to stay were much stronger than the issues faced and they didn't want to factor these issues into the rating, particularly when they were going to continue to reside in the same place, (2) relatively lower levels of livability elsewhere in the city, and (3) respondents factored in the 'coping mechanisms' or strategies that they employed to address these issues while considering livability.

## Typical households

In order to understand the situation further, we classified the respondent households and their building unit into five types. Each household-unit type had a set of reasons to stay, issues they faced, and strategies they employed to improve livability.

**Type 1: Hindu Upper-Middle-Income Group (U-MIG) nuclear/ extended family household in the core – residents since 60 to 70 years (Figure 4a)**

Typical locations for this type of household are the relatively newer developments within the core such as the Mahal area and North Mandapam area. These houses are medium-sized units of vernacular style. They are located adjacent to one of the wider inner concentric streets or wider internal streets on account of their relatively recent development. With family expansion, these families usually retain the original housing unit while newer extensions of the family move out to other units. Although these households belong to the Upper-Middle-Income Group, they place higher weightage on the high status of residing close to the main temple and within the 'sacred' old city. A sense of ownership or responsibility towards the property also takes priority over better built environments in the newer parts of the city.

Typical issues include lack of space for parking four-wheelers, inconvenience due to parked vehicles by visitors, and issues due to shared wall with the adjacent unit. They ensure good lighting and ventilation through modifications to the original unit such as shafts/ open-to-sky cut-outs within the house, and additional air-conditioning units. Parking requirements are met through the inconvenient alternative of paid parking slots slightly farther away from home. Negotiations are made to address other inconveniences.

**Type 2: Hindu UMIG joint family household in the core – residents for more than 80 years (Figure 4b)**

This type is typically located close to the outermost set of concentric streets which are main roads for vehicular circulation that developed after demolition of the city wall during the British period. These large houses are on long plots that extend from one street to the next. They are considered 'ancestral homes' by the families and are treated with respect and a sense of responsibility. These units usually have plenty of space, lighting and ventilation, have a courtyard and several terraces within the house,



and activities are zoned internally to ensure good living conditions despite sharing walls with other units on both sides.

Major issues faced are that of vehicular traffic and congestion, noise pollution, air pollution, and inconvenience due to vehicle parking in front of the unit by visitors – all by virtue of location on the main road. Most of these issues are merely tolerated by the households.

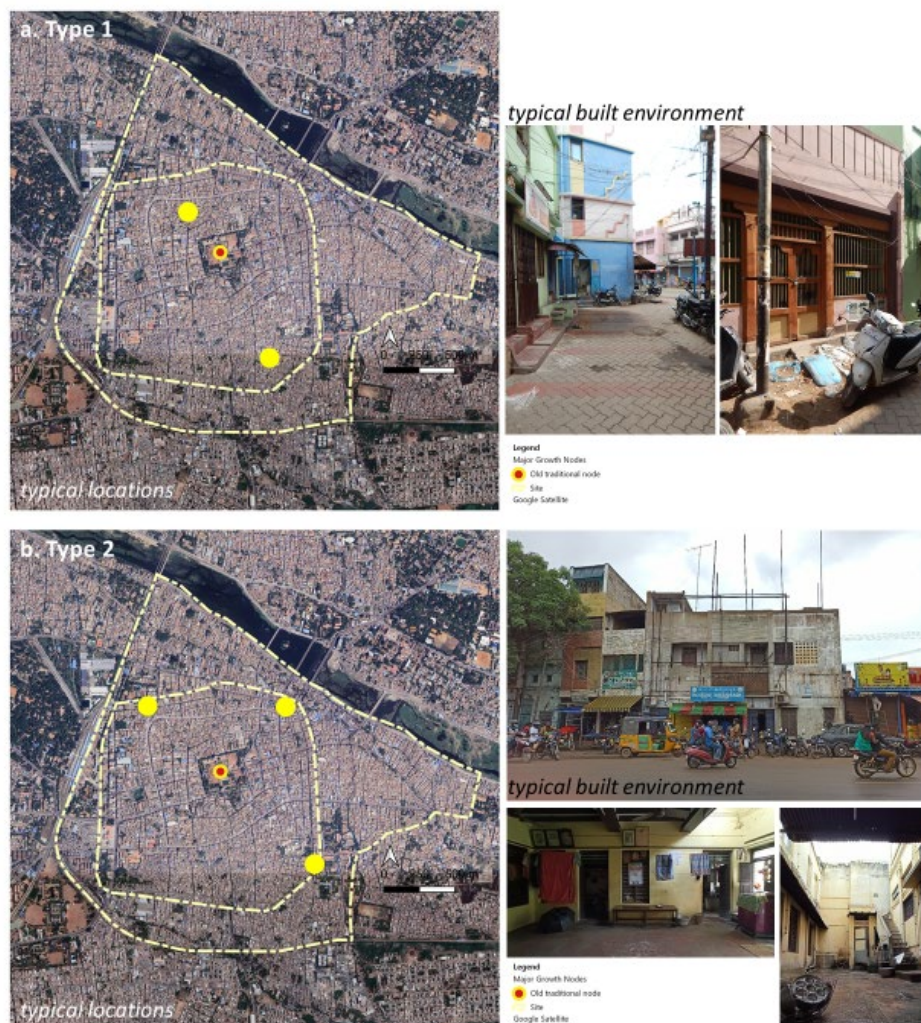


Figure 4. Typical households in the study – (a) Type 1 and (b) Type 2

Type 3: Muslim UMIG join family household in the core or extended core – residents for more than 80 years (Figure 5a)

These households are usually 3- to 4- floors high and house several generations belonging to the same family in the unit. They are often the sites of chain migration with relatives from outside the city moving in. These households have no plans of residential mobility in the foreseeable future. With the households belonging to a minority religious group (Muslim), they have a strong sense of community and establish an enclave/ citadel<sup>21</sup> close to the city centre in a manner of holding on to important territory to gain power.

Typical issues include lack of space for parking, narrow street width, and insufficient living space. Paid parking spaces are availed for the former, while rest tolerate the situation.

Type 4: Hindu MIG nuclear/ extended family household in the immediate extended core – moved in within the past few decades (Figure 5b)

These households have shifted closer to the old core area within the past few years from elsewhere in the city due to reasons of wanting to stay closer to the ‘main area’ and the abundance of amenities that comes with it. These are relatively smaller families living in small housing units of average condition. Typical problems faced include lack of parking space, narrow street width, noise and air pollution, and issues due to shared wall with adjacent unit. The prevalent coping mechanism is to adjust and tolerate.



Figure 5. Typical households in the study – (a) Type 3 and (b) Type 4

Type 5: Hindu MIG nuclear/ extended family household in the extended core – residents since 50 to 70 years (Figure 6)

These are households that purchased/ constructed units on the then-outskirts of the city (now well within the city limits) to stay close to the main city but in better built environments. These units are usually medium-sized and of average to good quality.

Typical problems include insufficient living space, vehicular traffic and congestion, and moderate levels of air and noise pollution. The families are often in a dilemma whether to continue staying in the same unit or rent this unit out and move to better built environments towards the outskirts of the city.



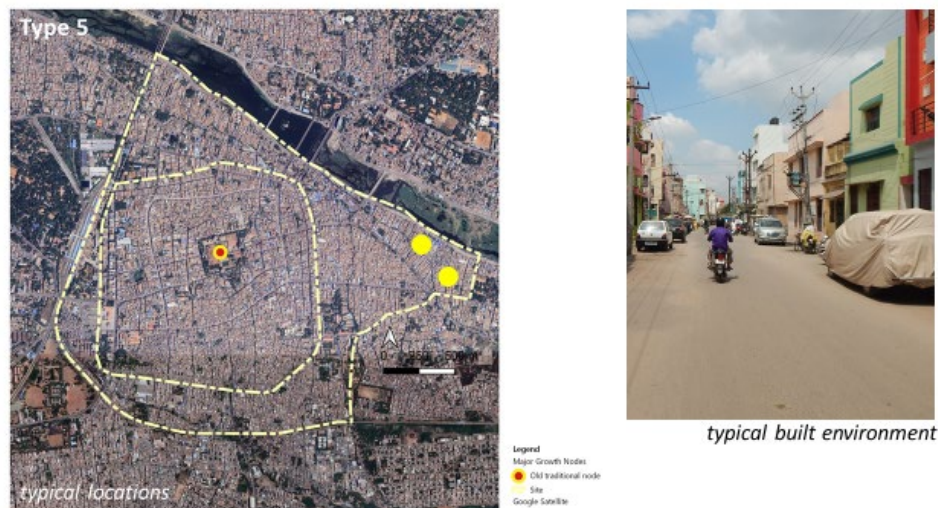


Figure 6. Typical households in the study – Type 5

### Strategies to improve quality of life

The strategies or ‘coping mechanisms’ that these households employ to essentially improve quality of life can be seen as belonging to one of four broad actions – (1) resort to inconvenient alternatives, (2) adjust and negotiate, (3) essential modifications to dwelling units, and (4) tolerate/ no way out. Figure 7 outlines which issues elicit which type of strategy.

### CONCLUSION

Households belonging to middle-and-above income groups, despite being capable of better residential environments elsewhere, choose to stay within the old core and its extensions. Certain households even seek to move into the core and its extensions from other parts of the city.

Households place substantial weightage on aspects such as access to an abundance of amenities, associated high status, asset value, sense of ownership, sentimentality and place attachment, sense of responsibility towards ancestral/ family property, and, above all, location in the main part of the city. Several of these align with existing literature.

Despite facing several issues, respondents gave an average rating of 3.83 to the livability in these areas. There were a few explanations behind this – (1) the reasons to stay were much stronger than the issues faced and they didn’t want to factor these issues into the rating, particularly when they were going to continue to reside in the same place, (2) relatively lower levels of livability elsewhere in the city, and (3) respondents factored in the ‘coping mechanisms’ or strategies that they employed to address these issues while considering livability.

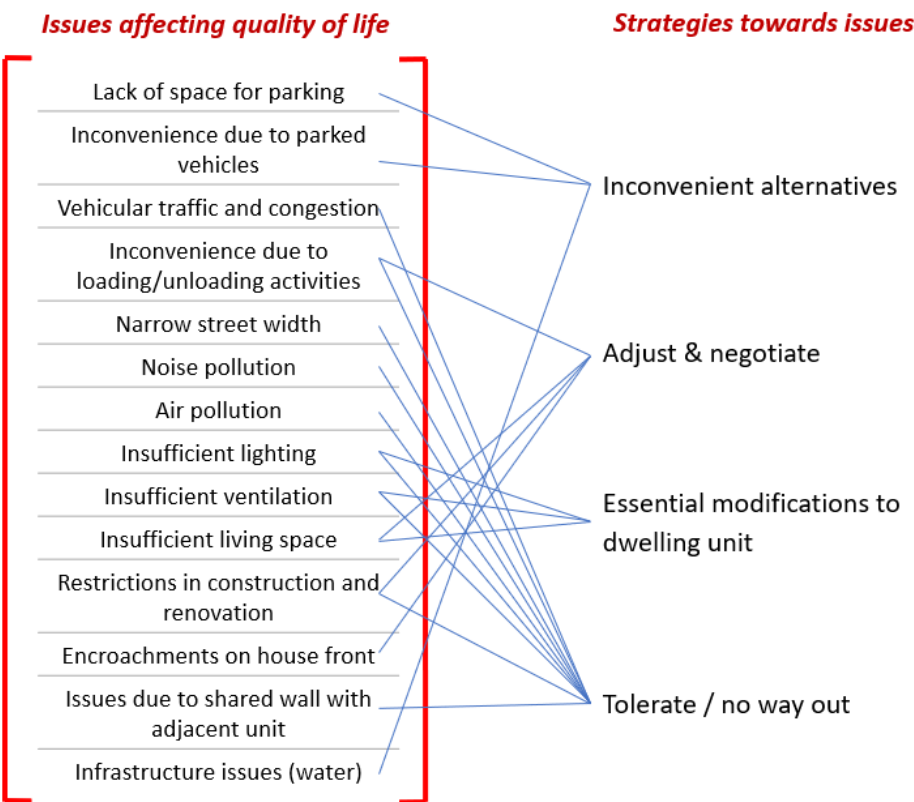


Figure 7. Strategies to address issues and improve quality of life

These households choosing to stay in the old core area and its extensions try ensuring a good micro-environment in and around their own units even when located within an otherwise average residential environment. Higher income group households manage to secure relatively advantageous plots, such as those close to one of the main concentric roads or in the relatively newer developments. Standards of livability seem to be context-specific. While certain built environments may apparently have poor livability, they might be perceived otherwise by residents due to various other prevailing factors. It thus becomes pertinent to consider such nuances in research and practice.

## NOTES

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# **EXAMINING THE SPATIAL CONFIGURATION OF WATERFRONT AREAS USING SPACE SYNTAX: ASSESSING THE CONNECTIVITY AND INTEGRATION OF MIXED-USE WATERFRONTS WITH THE URBAN FABRIC**

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## **INTRODUCTION**

Urban waterfront redevelopment has been a significant focus of city planning since the 1970s. Effective waterfront revitalization can catalyze broader urban development and reposition cities internationally.<sup>1</sup> There is an emphasis on prioritizing mixed-use development, public access, sustainable design, and climate change adaptations in the so-called sustainable waterfront developments.<sup>2</sup> However, these projects often fail to provide equal access to housing and services and lack integration into the rest of the city.

Urban integration encompasses both physical and social dimensions. Physical integration entails ensuring spatial proximity among housing areas, services, and facilities, emphasizing the significance of accessibility to various locations and activities. It focuses on creating a seamless network with well-connected urban components, promoting ease of movement and access. Research shows that permeability and connectivity play a crucial role in integrating urban areas, through promoting more inclusive and active use of public spaces and encouraging interaction.<sup>3</sup> Socio-spatial integration is multidimensional and includes various aspects of social inclusion. Social integration aims to achieve cohesive communities through addressing economic inequality and sustainable development.<sup>4</sup> Creating a well-connected and accessible city is essential for achieving sustainable integrated neighborhoods, although spatial integration does not always lead to social integration. The physical linkages between formal and informal areas can promote interaction and reduce spatial segregation.<sup>5</sup> The physical structure of settlements reflects and reinforces social patterns and relationships.<sup>6</sup> Structural connectedness, measured by residents' mobility patterns across neighborhoods at a city scale, reveals important insights about urban integration and segregation.<sup>7</sup> Cities with higher population densities, cosmopolitanism, and less racial segregation tend to have greater structural connectedness. However, physical barriers, controlled areas, and limited access can create "hidden" or segregated spaces within cities, impacting social sustainability by reducing interaction and creating unfamiliar places.<sup>8</sup>

This paper supposes that well-integrated waterfront areas can offer more opportunities and motivation for a broader public to access housing and utilize public spaces and services within these areas. Although there are various methods used to examine accessibility, connectivity, and integration of urban districts and neighborhoods, there are a few that address the use of space syntax to assess the

spatial integration of newly developed areas for non-vehicle users. This paper aims to explore whether space syntax analysis is a suitable tool for evaluating the spatial integration of waterfront areas with the core city and what other considerations should be included when analyzing this integration.

### **Urban Integration and Spatial Configuration**

Urban form significantly influences how people travel and are mobile in cities. A city's spatial configuration could influence how neighbors, communities, and different groups of people interact within common public spaces, experience similar activities, get to know each other, and make social bonds. The capacity and opportunity for individuals to move across different places, spaces, and activities within a city significantly impact their access to opportunities, quality of life, and overall well-being. Mobility influences their ability to engage with different economic, educational, and social resources, ultimately shaping their experiences and opportunities within the urban environment.

This mobility can be viewed as a form of capital that influences social integration.

Urban morphologists argue that variables like density, land use, and transportation play crucial roles in modeling movement patterns within urban areas.<sup>9</sup> Compact, dense urban areas promote more sustainable transportation modes, while urban sprawl increases reliance on private motorized transport. Research suggests that optimal physical integration in urban environments is characterized by a well-considered mix of activities, diverse housing options, and robust public spaces interconnected by efficient transport infrastructure, enhancing both physical connectivity and social integration.<sup>10</sup> Integrated design of transport infrastructure and public spaces is crucial for holistic urban planning.

### **Measuring Spatial Integration and Connectivity**

Recent research has explored various qualitative and quantitative methods for analyzing spatial integration and connectivity. While qualitative methods consider the quality of corridors and public spaces connecting the areas, and the perceptual aspect of accessibility and connectivity, and the intersection of physical and social integration, the quantitative methods focus on measurable factors such as permeability, catchment area, the concept of graph theory, GIS network analysis, and space syntax segment or axial analysis.

Srikanth et al. present a methodology for early-phase analysis of large urban spatial networks. The study uses Social Network Analysis (SNA) based on Graph Theory to understand pedestrian connectivity in urban districts. "Graph theory uses certain metrics such as Betweenness Centrality and Closeness Centrality to guide the comparison and study of relationships between the nodes".<sup>11</sup>

Another study by Sahitya and Prasad applies a GIS-based methodology for analyzing urban road network connectivity using the link to node ratio.

Originating from the graph theory concept, Space Syntax is renowned for examining spatial integration, connectivity, and travel behavior. It is a descriptive technique that visually maps spatial relations between places, focusing on the presence of physical links like streets.<sup>12</sup> The space syntax approach has evolved from traditional methods like axial and angular segment analysis to more advanced techniques such as normalized angular analysis. While primarily focused on street networks, recent research has sought to incorporate new morphological variables, though few studies have explored the interaction between functional attractors and built environment structures.<sup>13</sup>

Space syntax integration is used to analyze pedestrian movement and urban spatial configurations. The integration measure has been found to be statistically significant in residential zones, while control values are significant in commercial areas.<sup>14</sup> Research has demonstrated a clear link between space syntax integration and pedestrian detections in public squares and transport hubs.<sup>15</sup> Studies show the complex interplay between spatial configuration and accessibility to urban facilities in urban environments.<sup>16</sup>



Combining space syntax measures with GIS-based built environment variables shows great potential for analyzing pedestrian walking activities.<sup>17</sup> Also some GIS-based methodologies combine space syntax, space matrix, and mixed-use index to analyze urban form and socio-economic performance.<sup>18</sup> Despite the extensive literature on space syntax since 1976, the approach has rarely addressed the vertical and temporal dimensions, as well as individual perceptions. This gap suggests the need for a more inclusive approach to analyzing urban spaces, integration, and connectivity.<sup>19</sup>

## Research Method

This research focuses on the application of Space Syntax for measuring urban integration of urban sub-areas, in particular recent waterfront developments. A case study approach has been applied to better assess the method's application in urban integration analysis. Two waterfront areas—Västrahamnen in Malmö, and Slusholmen in Copenhagen—are scrutinized in this study.

As it is essential that the studied sub-areas be seen as part of the city, the cities' street network, including all the paths, streets, and roads that are accessible by pedestrians, are extracted from the Open Street Map. I removed the highways and motorways that provide no access to pedestrians as the study aims to examine the connectivity for non-private vehicle users. After reviewing the street network and making minor modifications to the networks, including adding new streets, paths, or bridges, I used Depth Map X software and QGIS, and the concepts of integration using segment analysis to analyze the spatial integration of the city's waterfront areas. Additionally, to be able to discuss the applicability of space syntax analysis in examining the connectivity of newly developed waterfront areas in cities, I examined the accessibility of such areas using network analysis in QGIS. I analyzed the accessibility of such areas for non-private vehicle users, including pedestrians, bikers, and public transport users. Furthermore, the neighborhoods' socioeconomic status (the median income level) was illustrated through the cities' latest available statistics and GIS data.

## Case Studies

### Western Harbour (Västerhamnen), Malmö

The redevelopment of Malmö's Western Harbour, has been a focal point for sustainable urban planning. Initiated in the 1990s, the area was transformed into an eco-friendly neighborhood, contributing to Malmö's reputation as one of the world's greenest cities. The project emphasized architecture and technological solutions for greening everyday life and sustainability. The Western Harbour development has also been seen as normalizing neoliberal planning practices in Malmö, characterized by closed architectural competitions, media compliance, and a focus on the construction itself rather than social matters.<sup>20</sup>

Despite the strategies, such as providing diverse housing, ensuring accessibility, density, and mixed-use development, the area turned out to be one of the most affluent neighborhoods. Figure 1 shows the median income level in different neighborhoods in the city of Malmö (classified using the equal count/quantile method). Moreover, Western Harbour is among the highest-income neighborhoods in the city of Malmö.

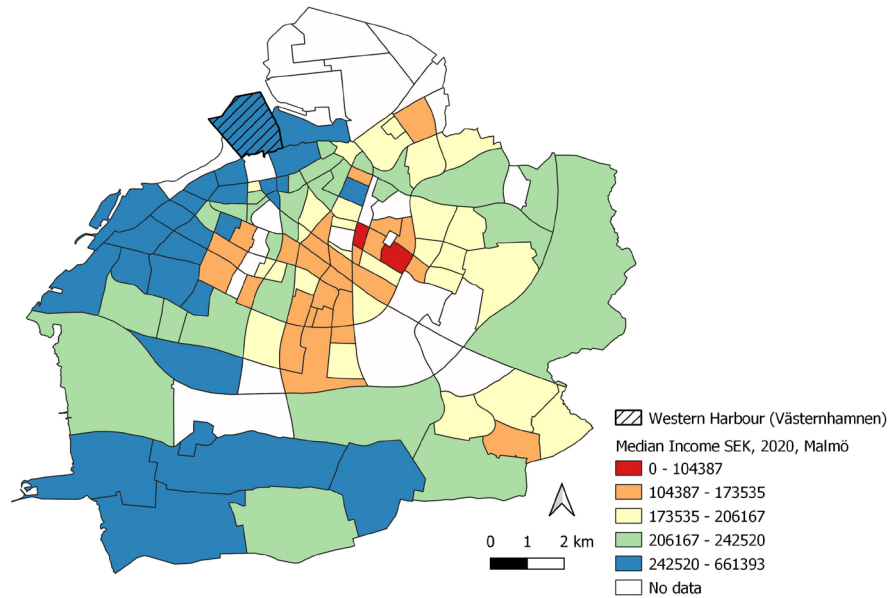


Figure 22. Median Income Level in Malmö in 2020. Data source: Malmö Stad <https://malmo.se/Fakta-och-statistik/>

Western Harbour features a blend of modern, high-density housing, including contemporary multi-story apartments and waterfront properties, all designed with a focus on sustainability and innovative architecture. The mixed-use area boasts a grid-like layout that enhances connectivity while seamlessly integrating residential, commercial, and recreational spaces. The neighborhood's design includes hierarchical streets and spaces that maintain tranquility away from tourist hotspots. Particularly, the turning local streets in the western part reflect the historical organic layouts of European cities, offering residents privacy and protection from wind (Figure 2).



Figure 23. Western Harbour and Malmö's Morphology

### Sluseholmen, Copenhagen

Copenhagen's waterfront redevelopment since the 1990s has transformed the city's post-industrial areas into vibrant urban spaces. The process involved large-scale projects aimed at enhancing competitiveness through infrastructure development and urban quality improvement.<sup>21</sup> Copenhagen's regeneration efforts, in general, have resulted in a relatively socially mixed city with appealing public

spaces, partly due to strong public authorities upholding welfare state values. However, some renewal projects, such as those in Inner Vesterbro and Sluseholmen, have led to gentrification, highlighting the market forces in urban transformation.

Sluseholmen is a peninsula in the South Harbour of Copenhagen. It is home to beautiful architecture and Copenhagen's third harbor bath, designed by a renowned architect. Despite the flexible urban governance approach used in the area's planning process, it turned out to become one of the most expensive housing areas (Figure 2).

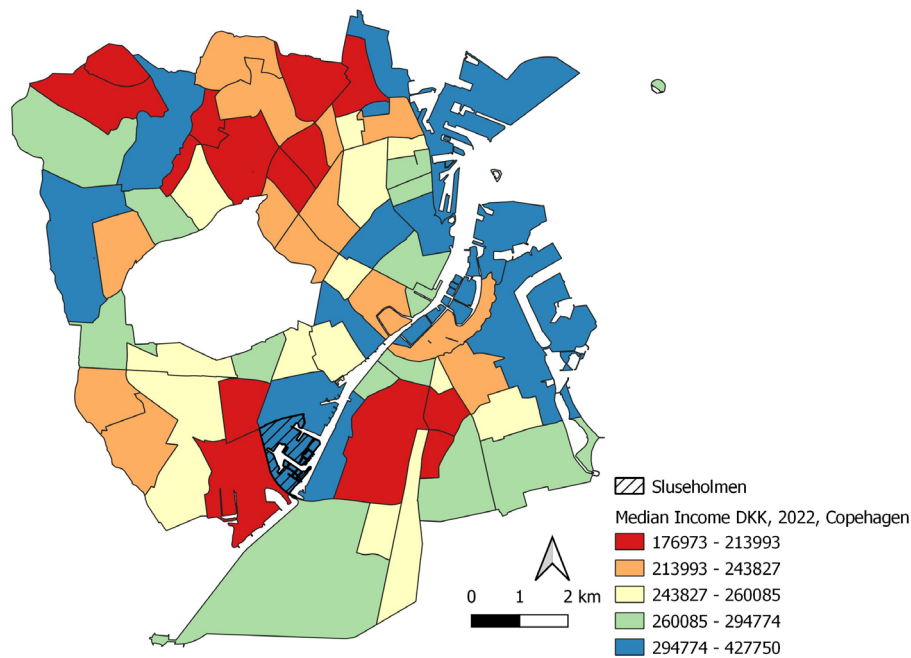


Figure 24. Median Income Level in Copenhagen in 2022. Data source: <https://kk.statistikbank.dk/>; <https://www.opendata.dk/>

Sluseholmen offers a variety of modern housing options, including sleek apartments, townhouses, and waterfront residences. The area is distinguished by its complex network of canals, which form small islands and waterways similar to traditional European canal systems. The urban design features a grid-like street arrangement mixed with winding canals, balancing connectivity with privacy. The neighborhood integrates residential, commercial, and recreational spaces with thoughtfully designed public areas such as parks and promenades that encourage community engagement and provide ample green space (Figure 4).



Figure 25. Sluseholmen and Copenhagen's Morphology

### Findings from Spatial Integration Analysis

After reviewing and updating the street network in the two cities, including adding new or under-construction bridges and streets connecting the new waterfront areas to the rest of the city, I utilized segment analysis in Depth Map X. I used an 8000m distance parameter as the average longest walking distance for daily activities or exercise. The integration in Space Syntax estimates the degree of accessibility a street has to all other streets in the urban system, considering the total number of direction changes of the urban entity. Accordingly, the longer and the higher the connectivity, the higher the levels of integration.

By classifying the integration level into five categories in QGIS, the results revealed how integrated or segregated the different urban areas are. Figure 5 shows that colder colors (black and dark purple) indicate lower levels of integration, while warmer colors (including yellow and orange) show higher levels of integration. According to the result, Western Harbour in Malmö appears as a segregated area from the city center and the rest of the city, whereas Sluseholmen offers a relatively higher level of integration. This could be explained by the two waterfront areas' particular form and geographic location. The links of Western Harbour to the city are limited to streets and bridges that are not directly connected to the other major city corridors and streets, such as Stora Varsgatan and the biking and pedestrian bridges connecting the middle part of the area to the city center. On the other hand, Sluseholmen's form provides access to the area through parallel streets that are connected to highly integrated streets, including Vasbygade, Scandiagade, and Sydhavnsgade (based on the Space Syntax analysis), connecting the old town and central district (Indre BY) to Vesterbro and Amager Vest district in the Southwest and Southeast. Additionally, the geographical location of the two waterfront areas influences their overall integration with the other parts of the city, as Sluseholmen is a closer distance from several districts in Copenhagen. Western Harbour, in contrast, despite its closer walking distance to the old town and city center, is not as connected to other city districts and neighborhoods in the city of Malmö.

Furthermore, the inner street layouts of the two areas comprise a grid network in Sluseholmen, while a blend of grid, diagonal, linear, and organic pedestrian networks is present in Western Harbour. The street layout and the number of links and intersections influence the results of calculations conducted by Depth Map X. The layout and the number of connections and intersections have an impact on the



outcomes of the calculations performed by Depth Map X, while they do not necessarily represent the connectivity perceived by users.

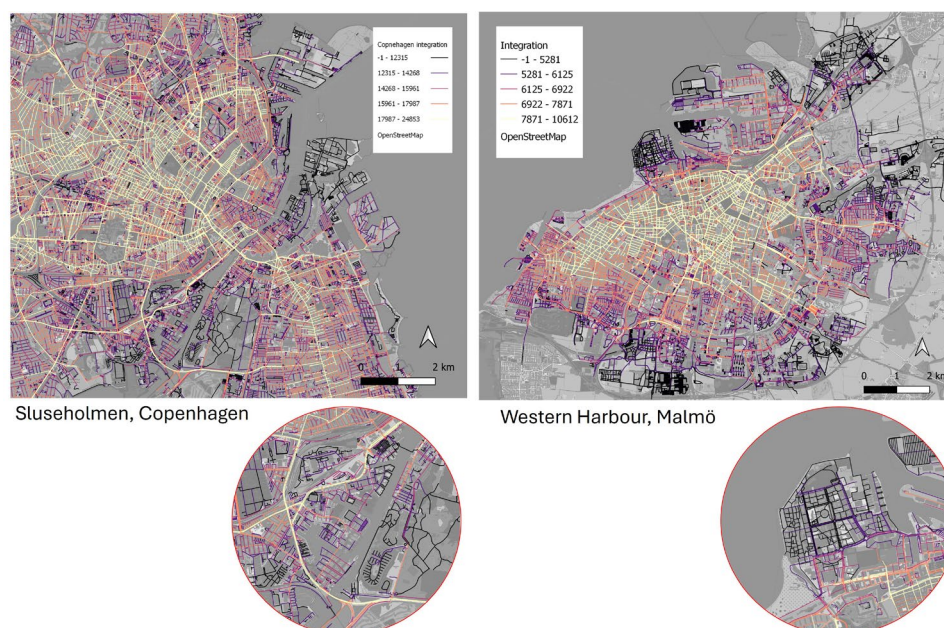


Figure 26. Integration level of Streets and Neighbourhoods in Copenhagen and Malmo

Additionally, I used network analysis in QGIS to assess the accessibility of the two waterfront areas for non-private vehicle users. I calculated the walking and biking distance from several social nodes in each area and then merged the results to create a polygon representing the largest accessible area within a 15-minute walking or biking distance. Figure 6 illustrates the results, showing that the two areas have low walking accessibility from other parts of the city. Slusehomen is segregated, surrounded by wide streets, a rail line, and a water channel, while Western Harbour is surrounded by water and a water channel, accessible only through bridges and streets in the southern part of the area. However, bike accessibility is promising, indicating good access to a larger part of the cities.

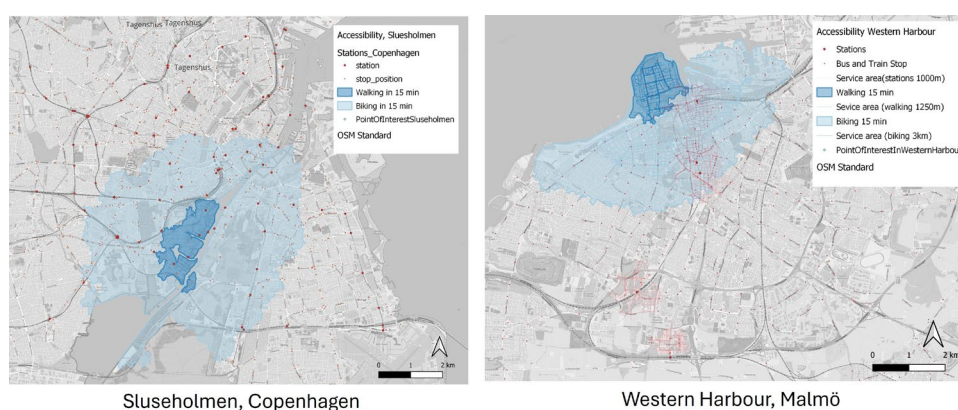


Figure 27. Accessibility (Network Analysis) of Slusehomen and Western Harbour to the rest of the cities

Considering the results of the segment analysis (spatial integration) and accessibility (network analysis), each technique could provide insights into the form and layouts of the waterfront areas, while the latter

is still unable to indicate how different qualities of the connectors contribute to improved spatial integration.

## **DISCUSSION AND CONCLUSION**

Despite an extensive literature on spatial integration and connectivity and the possible methods and methodologies for examining spatial integration, connectivity, and accessibility of urban areas, the research gap identified and addressed in this research included the ambiguity of the practicality of using space syntax for evaluating the urban layouts and urban form suggested for newly developed areas such as new waterfront areas. Waterfronts are often positioned on the city's edges, and water bodies often act as edges and could become isolated and segregated by their geographical nature but could also add potential waterside values, attracting visitors, developers, and competitive and high-quality services, infrastructure, housing, and commercial options.

This paper aimed to investigate the application of space syntax analysis in assessing the connectivity and integration of waterfront areas with the broader city. The research found that segment analysis alone cannot fully represent the strengths and weaknesses of the urban form suggested for a new neighbourhood. However, it can offer insights into the lack of connection between the area and other districts and neighbourhoods.

The two waterfront areas examined were developed through a top-down approach, contributing to social segregation in the city by primarily accommodating residents with the highest income levels. Although the study did not specifically aim to examine whether and how this social segregation resulted from spatial segregation, one can argue that the limited accessibility of these areas and the lack of opportunities for people to interact with the area's-built environment could affect their perception of the affordability of living in such areas. Similarly, it could potentially influence the developers' development ideas and residents' desire to purchase real estate in such areas with lower levels of spatial integration.

The study highlights that space syntax overlooks the value of street and public space hierarchies and diversities. They do not consider the value of turns and narrowness for limiting vehicular traffic or ensuring privacy and tranquillity for residents and daily commuters. Such results emphasize the importance of considering other assessment techniques and factors along with, or in combination with, Space syntax analysis. Space syntax analysis does not include the qualitative characteristics of the connectors, such as the social environment, safety, and aesthetic values the streets could offer. Moreover, it ignores vertical and temporal dimensions that influence travel behaviour and perceptions of connectivity.<sup>22</sup>

The paper suggests the importance of considering other qualities of the built environment when assessing connectivity and integration. So, while Sluseholmen's spatial integration analysis indicates a relatively good level of connectivity, the major connectors connecting it to the rest of the city are wide streets with industries and big blocks that do not offer a quality walking experience for accessing Sluseholmen from other city districts on foot. Therefore, qualities such as the street's function and physical and aesthetic attributes could be considered when analysing the quality of spatial integration and connectivity. As the literature also suggests, integration is multidimensional and extends beyond physical attributes.

Additionally, the paper suggests including cognitive and perceptual aspects of streets and places that could influence how people perceive the streets and the connectivity of spaces. Considering the factors influencing the perception of connectivity, such as length, activities, social environment, aesthetic, and user experience, along with temporal and seasonal factors, could provide a better tool to examine and boost urban integration and the potential the built environment could provide for residents in different neighbourhoods to be mobile and have equal access to opportunities.

## NOTES

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# PEDESTRIANIZING PARIS: A SPACE TRIAD PERSPECTIVE ON SHIFTING PARADIGMS IN URBAN PLANNING

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## INTRODUCTION

The *Seine* River has been central to Paris's development for centuries, functioning as a vital axis for commerce and transportation while anchoring the city's cultural identity. The evolution of its riverbanks reflects broader social, political, and environmental transformations shaping Paris over time.<sup>1</sup> Once dominated by industrial spaces tailored to a car-centric era, the riverbanks have gradually transitioned into recreational and symbolic landscapes, emphasizing sustainability and pedestrian-friendly urban planning. This paper investigates the paradigm shifts in Parisian urban planning from the mid-20th century to the present, focusing on the transition from car-oriented designs to human-centric models. Through an in-depth analysis of public discourse, it explores the socio-political debates surrounding the pedestrianization of the *Seine*'s banks, highlighting the roles of key stakeholders—including government officials, residents, and environmental groups—in shaping urban policy.

## METHODOLOGY

This research analyzes the evolution of Paris's riverbanks through Henri Lefebvre's Spatial Triad, as outlined in his seminal 1974 work *La Production de l'Espace*.<sup>2</sup> This framework provides a multifaceted lens for analyzing space, particularly in urban car environments.<sup>3</sup> It distinguishes between *perceived* space (daily use, *perçu*), *conceived* space (policy-driven design, *conçu*), and *lived* space (symbolic and social meanings, *vécu*).<sup>4</sup> The Spatial Triad unpacks the interplay between planning ideologies, cultural meanings, and everyday practices, offering insights into the political, social, and cultural implications of car infrastructure.

By bridging the gap between planned (*conceived*) space and experienced (*perceived* and *lived*) space, the triad reveals disjunctions between policy intentions and real-world outcomes. This is particularly relevant for public spaces, where planning decisions can unintentionally reinforce social inequalities or promote unsustainable mobility patterns. In car-centric contexts, the triad highlights how urban regulations often privilege certain groups while marginalizing others, exposing spatial inequalities and power dynamics in urban governance.

Henri Lefebvre's Spatial Triad is thus a critical tool for assessing the alignment—or misalignment—between urban policies and the lived realities of communities. Applied across cultural, ecological, economic, mobile, political, and spatial vectors, it is particularly valuable for examining cities like Paris as they transition from car-centric to human-centric paradigms (See Figure 1).

*Figure 1. Paradigm Triad, based on Henri Lefebvre's Space Triad (1974).*

## Case Background

The *Seine* River has been central to Paris, shaping its economic and cultural identity. In the 19th and early 20th centuries, industrial activity dominated the riverbanks, which were largely inaccessible to the public.<sup>5</sup> By the early 20th century, these zones were repurposed as transportation corridors. Under President Georges Pompidou in the mid-20th century, urban planning prioritized car-centric development, epitomized by expressways like the right-bank expressway opened in 1967.<sup>6</sup> While these projects symbolized post-war modernization and democratized mobility, they also restricted public access, creating a physical and symbolic barrier between Parisians and the *Seine*.<sup>7</sup> Critics argued these developments degraded the river's historic and aesthetic value, disconnecting the city from its cultural and environmental heritage.<sup>8</sup>

By the late 20th and early 21st centuries, urban planning in Paris shifted focus from car-centric designs to projects emphasizing sustainability and social well-being. Concerns over air pollution, noise, and declining urban quality spurred this change. Notable initiatives included the transformation of the *Seine* riverbanks, particularly the pedestrianization of the right-bank expressways under Mayor Anne Hidalgo. Temporary programs like *Paris Plages* reimaged expressways as recreational spaces,<sup>9</sup> and in 2016, the right bank was permanently closed to vehicles.<sup>10</sup> This marked a departure from past trends and revitalized the riverbanks as cultural and recreational hubs, aligning with the goals of the Greater Paris project for sustainable urban environments.<sup>11</sup>

The evolution of the *Seine* riverbanks involved physical transformations and public discourse. While proponents like Pompidou championed modernization at the expense of heritage, opponents highlighted the value of preservation.<sup>12</sup> The shift toward pedestrianization, led by environmentalists, urban planners, and local communities, reflects growing support for human-centered urban spaces.<sup>13</sup> Under Hidalgo, pedestrianization symbolized Paris's commitment to sustainability and reshaped perceptions of the riverbanks as vital public assets rather than functional infrastructure.<sup>14</sup>

## Discourse Analysis

This research employs a longitudinal analysis of public discourses to examine how political rhetoric conveys and reinforces paradigms in urban planning. Stakeholder perspectives highlight the contested nature of these paradigms. For example, debates on riverbank pedestrianization contrast pro-car stances emphasizing vehicular access and economic growth with anti-car views favoring public space, sustainability, and pedestrianization. Tracking these positions over time reveals the decline of car-centric models and the rise of people-centered urban planning philosophies.

## Data Collection

To understand the discourses on the pedestrianization of Paris's riverbank lanes, we analyzed two newspapers with distinct editorial orientations to capture diverse perspectives. *Le Parisien*, focused on local and regional news, provides insights into everyday urban life, practical concerns, and local identity. In contrast, *Le Monde*, known for its investigative journalism, offers a broader view of socio-political narratives and ideological debates on urban policy and environmental shifts. Using the keyword “*voies sur berges*,” we retrieved 72 articles from *Le Parisien* (2000–2024) and 153 from *Le Monde* (1960–2024). This longitudinal analysis highlights shifts in discourse across varying political, cultural, and social contexts.

## Data Analysis

The analysis utilized qualitative coding to systematically categorize and interpret textual data, identifying key themes, patterns, and evolving structures in the discourse (see Figure 2). The goal was to uncover paradigms shaping narratives on riverbank pedestrianization within broader socio-political contexts.

An open coding strategy was initially employed to identify emerging themes organically, capturing nuances and accommodating unexpected insights. Arguments were categorized based on temporal context, which tracked shifts in perspectives from 1960 to 2024, revealing evolving arguments over time. Stances were analyzed by classifying positions as pro-car, anti-car, or divided, mapping the spectrum of opinions and assessing polarization or consensus. Lefebvre's Spatial Triad provided a lens for examining *conceived*, *perceived*, and *lived* space, emphasizing spatial dimensions in urban planning debates. Paradigm vectors, encompassing cultural, ecological, economic, mobility, political, and spatial dimensions, framed the dominant narratives and ideological trends.

The findings are organized around these six paradigm vectors, offering insights into prevailing narratives and their evolution.

Figure 2. Coding Table.

**FINDINGS**  
**The Cultural Vector**

The legacy of Georges Pompidou strongly supports car-centric policies in Paris. Pompidou famously declared, "*The city must adapt to the car*,"<sup>15</sup> emphasizing cars as "*an element of individual freedom, social promotion, and economic growth*" (#1).<sup>16</sup> His pro-car stance underpinned mid-20th-century modernization efforts, including the construction of the Left Bank expressway near Notre-Dame. This project, however, sparked lasting controversy, with critics prioritizing cultural preservation (#2). During

council debates, Pierre-Emile Menuet urged, “*Allow me to tell you not to touch anything around Notre-Dame; it is a place...that I ask you to leave in peace,*” highlighting concerns about the site's historical integrity.<sup>17</sup>

In contrast, Mayor Anne Hidalgo’s pedestrianization of the *Seine*’s Right Bank reflects a shift toward reclaiming Paris’s walkable urban core (#3). The initiative aimed to restore pedestrian-friendly spaces while enhancing aesthetic and touristic appeal (#4). Hidalgo argued that removing cars from the riverbanks creates a more enjoyable experience for residents and tourists alike, offering unobstructed views of landmarks like the Louvre and Pont Neuf.<sup>18</sup>

Preserving the *Seine*’s UNESCO World Heritage status has also been a central justification for pedestrianization (#5). While expressways of the Pompidou era symbolized modernization, they were later criticized for undermining cultural heritage. Subsequent administrations invoked UNESCO guidelines to advocate for pedestrian zones as vital to safeguarding Paris’s historic character.<sup>19</sup>

In summary, the debate between car-centric infrastructure and pedestrianization in Paris centers on freedom, historical preservation, aesthetics, tourism, and cultural heritage, reflecting tensions between modernization and preserving the city’s identity.

### The Ecological Vector

The Respire Association strongly advocates against pollution's health risks, particularly for children (#6). A member states, “*We are not interested in engaging in politics; we simply want to be able to breathe,*”<sup>20</sup> emphasizing the dangers of returning cars to the riverbanks. Their petition underscores that “*the banks of the Seine have been transformed into a park,*”<sup>21</sup> advocating for maintaining pedestrian areas to benefit public health.

Airparif’s findings fuel both sides of the debate on road closures. Proponents highlight “*a 25% decrease in nitrogen dioxide levels*” along the quays (#7).<sup>22</sup> However, Airparif also reports “*a slight deterioration around the crossroads in this area and to the east from the end of the pedestrian zone,*”<sup>23</sup> which critics argue indicates pollution displacement rather than reduction.

Valérie Pécresse, President of Île-de-France, asserts that pedestrianization has increased pollution in surrounding areas, claiming it “*moved the pollution to the ring road and the A86,*” disproportionately affecting suburban residents (#9).<sup>24</sup> Conversely, Paris Mayor Anne Hidalgo’s administration views pedestrianization as an “*emblematic measure*” for reducing pollution and promoting sustainable urban living. Deputy Mayor Emmanuel Grégoire argues, “*None of our political adversaries question the principle of pedestrianization,*” framing it as a public health success.<sup>25</sup>

Meanwhile, the Administrative Court criticizes the City of Paris for “*inaccuracies, omissions, and inadequacies*”<sup>26</sup> in its studies (#10), finding they “*deliberately obscured a significant portion of the consequences,*” particularly regarding pollution displacement.<sup>27</sup>

This ecological debate highlights the tension between environmental goals, policy effectiveness, and stakeholder interests, underscoring the need for accurate data and comprehensive solutions.

### The Economic Vector

The 1974 energy crisis and financial constraints triggered a major reevaluation of highway expansion plans, with political priorities shifting toward public transportation over car-centric infrastructure (#11). As one article noted, “*several road projects could be called into question*” due to the energy crisis and economic pressures, while rising fuel costs emphasized reallocating resources to public transit.<sup>28</sup>

Pedestrianization initiatives, such as closing certain bank roads, redirected traffic, intensifying congestion in peripheral areas (#12). Airparif reported that traffic levels did not decrease; instead they shifted to other areas, exacerbating “*traffic conditions, especially on transfer routes outside the*



*pedestrian zone*.”<sup>29</sup> Key routes like Boulevard Saint-Germain and highways such as the A4 experienced increased congestion due to traffic displacement.

Business associations have raised concerns about the economic costs of congestion, particularly lost working hours and extended travel times during peak periods (#13). While specific figures are not cited, the negative impacts on economic activity have spurred discussions about anti-congestion plans to address these inefficiencies.<sup>30</sup>

Amid growing environmental advocacy for reduced car use, political actors emphasize the economic and social importance of automobile mobility (#14). Cars are described as “*an essential component of the cohesion of democratic societies*,” especially for suburban and peri-urban populations reliant on them.<sup>31</sup> Regional leaders like Valérie Pécresse have proposed plans to combat congestion while supporting car-based mobility.

In summary, debates over transportation infrastructure reveal a delicate balance between environmental goals, economic demands, and the enduring role of cars in urban and regional development.

### The Mobile Vector

The argument for aligning urban planning with technological progress emphasizes adapting cities for cars, exemplified by President Georges Pompidou’s assertion that “*we must therefore adapt Paris to the automobile*” (#15).<sup>32</sup> This approach prioritized modernizing infrastructure to maintain functionality and accommodate technological advancements, often at the expense of aesthetics. Pompidou further highlighted the utility of car-centric design, stating, “*23 million motorists have already used the right bank expressway, which proves that it serves a purpose!*” (#16).<sup>33</sup> This strategy facilitated rapid cross-city travel, underscoring the prioritization of cars over alternative transport modes.

Critics argue that road closures have worsened congestion and pollution. The 40 Million Motorists Association claims such measures “*force a bypass route which will be saturated*,” worsening conditions (#17).<sup>34</sup> Supporting studies indicate that diverted traffic during peak hours has increased travel times by 13 to 17 minutes.<sup>35</sup> Additionally, Île-de-France mayors, including regional President Valérie Pécresse, contend that pedestrianization without enhanced public transport creates challenges for commuters (#18). Pécresse warns, “*the closure of lanes on the banks only displaces traffic and pollution*” unless public transport is improved, advocating for a comprehensive transport strategy.<sup>36</sup>

Opposition groups, such as the 40 Million Motorists Association and local associations, criticize pedestrianization measures as unfair to the many daily motorists affected (#19). They argue these policies cause significant congestion on surrounding roads while pedestrianized areas remain underutilized. A petition to reverse these measures reflects widespread discontent, with motorists feeling sidelined in favor of a small pedestrian population.<sup>37</sup>

In conclusion, while efforts to prioritize pedestrianization and reduce car dependency gain support, sustainable and inclusive urban mobility requires balancing these measures with improved public transportation and consideration for motorists.

### The Political Vector

The highway projects in Paris have caused significant displacement, including the demolition of approximately 3,000 homes for the north-south axis project, as noted by the Prefect of Paris (#20). Critics emphasize the heavy social costs, with large-scale expropriations imposing undue burdens on local communities.<sup>38</sup>

President Georges Pompidou, a staunch advocate for pro-car policies, defended the *Seine* expressways, stating that the 23 million motorists who had used them “*proves that it serves a purpose!*” (#21).<sup>39</sup> He also praised the roads for providing “*aesthetic satisfaction*” and a unique perspective of Paris, reinforcing the car’s role in urban development.<sup>40</sup>

In contrast, Minister of Ecology Ségolène Royal supported closing the *Seine's* right-bank roads, aligning with Mayor Anne Hidalgo (#22). She described air pollution as a “*health scourge*” and argued that bold environmental actions, despite opposition, are necessary for a sustainable urban future.<sup>41</sup>

Valérie Pécresse, President of Île-de-France, criticized the closures, citing insufficient consultation with regional stakeholders (#23). She advocated for “*gentle pedestrianization*” and emphasized the importance of regional collaboration and compensatory measures.<sup>42</sup>

Critics of heritage-based pedestrianization argue that it overlooks modern traffic and pollution challenges (#24). They warn that closing key routes can increase congestion and pollution elsewhere, undermining intended benefits. Some political figures caution that prioritizing heritage without addressing contemporary mobility needs leads to ineffective policies.

The debate over Paris’s highway projects and pedestrianization underscores the tension between preserving heritage, promoting public health, and accommodating modern urban mobility, reflecting deep divisions about the city’s future development.

### **The Spatial Vector**

The proposal to expand highways in Paris reflects historical urban planning trends, prioritizing infrastructure to manage increasing car traffic and urban sprawl, including highways and “new satellite towns” (#25).<sup>43</sup> Balancing Paris’s aesthetic appeal with traffic management has been a persistent challenge. The closure of the Georges-Pompidou expressway (1967–2016) exemplifies this shift: “*This prestigious complex was nevertheless crossed...by a real urban highway... The problem seemed definitively resolved by its closure and that of its counterpart on the left bank*” (#26).<sup>44</sup> This move improved air quality while preserving the city’s charm.

Since 2001, Paris has prioritized walking and cycling, reducing car traffic by 28% (#27).<sup>45</sup> Efforts to reallocate public space highlight a significant imbalance: cars occupy 50% of public space but account for only 13% of trips (#28).<sup>46</sup> Policies are increasingly shifting car space to sustainable alternatives.

However, regional coherence remains a challenge (#29). Critics argue that the closure of the Georges-Pompidou expressway lacked adequate consultation, exacerbating traffic and pollution disparities. A more unified approach is necessary to address these issues.

In summary, Paris’s urban strategies strive to balance aesthetics, sustainability, and functionality, but addressing regional disparities and fostering coherent planning remains essential for equitable solutions.

### **CONCLUSION**

The evolution of urban planning paradigms, analyzed through the concept of paradigm vectors, reveals how city planning ideologies shift in response to changing priorities. These vectors—cultural, ecological, economic, mobile, political, and spatial—highlight the dynamic interplay shaping urban development. Dominant paradigms in different eras reflect broader socio-political, cultural, and environmental dynamics. For example, the transition from car-centric infrastructure to pedestrian-friendly designs marks a paradigmatic shift aligned with evolving societal values.

Historically, modernist urban planning prioritized functionalism, efficiency, and progress, often embodied in large-scale infrastructure projects catering to automobiles. In the 1960s, “conceived space” was defined by planners and technocrats who saw cars as symbols of modernity and economic vitality. This approach produced urban environments optimized for mobility but overlooked the *lived* consequences—congestion, pollution, and diminished public life. Over time, resistance to these outcomes led to a reevaluation of priorities.

The 21st century ushered in a new urban paradigm that reclaims public spaces for community and cultural activities. Cities began to embrace more holistic values, recognizing urban environments as

living systems shaped by culture, memory, and social interaction. Arguments for pedestrianization increasingly emphasized aesthetics, environmental sustainability, and community well-being. Public discourse shifted from viewing cars as tools of progress to acknowledging their role as impediments to cultural and ecological goals.

Henri Lefebvre's Spatial Triad—*conceived*, *perceived*, and *lived* spaces—offers a valuable framework for understanding these shifts. In early planning stages, *conceived* space reflects expert-driven visions prioritizing economic growth and functionality. However, as public perceptions and lived experiences expose limitations and unintended consequences, priorities adjust, leading to paradigms that align more closely with societal values.

Paradigm vectors, used as analytical tools in this research, categorize the ideologies driving urban planning strategies. The rise of vectors like “Cultural” and “Ecological” marks a shift toward paradigms emphasizing heritage preservation, environmental sustainability, and community well-being. For instance, the dataset reveals a transition from early car-centric debates to contemporary discussions on public health, sustainability, and cultural heritage.

However, the shift toward human-centered spaces involves trade-offs. Pedestrianized areas can enhance aesthetics and cultural experiences but may also lead to gentrification, excluding marginalized groups and transforming public spaces into curated environments for tourists or affluent populations. Additionally, car restrictions, while environmentally beneficial, may reduce accessibility for individuals with mobility challenges. The dataset's *pro-car* arguments highlight these complexities, cautioning against overly idealized plans that neglect practical needs and equity.

The Paradigm Triad framework, an adaptation of Lefebvre's Spatial Triad, captures this complexity by integrating cultural, ecological, economic, mobile, political, and spatial forces. These elements often exist in tension, requiring careful balancing in urban planning. As cities continue to evolve, these paradigms will remain fluid, shaped by external pressures such as climate change, economic demands, and cultural shifts. The growing emphasis on human-scale urban spaces, walkability, and cultural preservation underscores a broader reconfiguration of urban life.

This research demonstrates that urban planning paradigms are deeply entwined with the socio-political contexts in which they emerge. By integrating Lefebvre's Spatial Triad with paradigm vectors, it provides a comprehensive framework for understanding how urban spaces are conceived, contested, and transformed. These shifts are not merely technical adjustments but are driven by ideological conflicts and changing societal values. In the face of 21st-century challenges—climate change, social inequality, and cultural preservation—the continued adaptation of urban paradigms will be essential to creating sustainable, inclusive, and vibrant cities.

## NOTES

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# **FESTIVALS AS A FORM OF URBAN ACTIVISM: A CASE STUDY OF 'PAME KAIMAKLI,' A NEIGHBORHOOD FESTIVAL IN AN ISOLATED AND CONTESTED CYPRIOT NEIGHBORHOOD**

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## **INTRODUCTION**

The exploration of new forms of participation is particularly important in the context of Cyprus, where traditional avenues for urban engagement are still limited. Legislative amendments in 2007 marked a significant shift, as prior to these amendments, the 1972 Planning Law lacked any procedures for public participation.<sup>1</sup> Despite the facilitation of increased public participation in planning strategies afforded by these amendments, practical barriers such as a lack of public spaces,<sup>2</sup> limited funding and ineffective presentation methods continue to impede effective participation.<sup>3</sup> The issue of participation in urban matters is not unique to Cyprus; it is a challenge faced globally. Traditional participatory planning paradigms often lack clear definitions, an equitable distribution of power and meaningful participation.<sup>4</sup> The Pame Kaimakli Festival has been selected as a case study to examine in depth the dynamics of urban collective movements that address the democratisation of urban space.<sup>5</sup> The study addresses the dynamics and organisational tools of collective groups and, through the analysis of festivals and other temporary activities, aims to identify new methods for challenging conventional understandings of co-design, engagement and spatial transformation.<sup>6</sup>

In light of the dearth of involvement in urban settings in Cyprus and the pervasive culture of disengagement, we view the pursuit of novel avenues for engaging citizens in urban life as a form of subtle, humane activism. This ten-year ethnographic study,<sup>7</sup> uses multiple sources of evidence<sup>8</sup> to explore new methods of urban space reimagination and planning and identifies new participatory models for community engagement. The study has identified several important characteristics in the creation of such common participatory imaginaries. In particular, it has highlighted the importance of localism, the role of intermediaries as a crucial link between bottom-up and top-down approaches and argues for a model that prioritises ethical collaboration, and cultural sensitivity. This paper focuses on one aspect of the longitudinal study, namely the spatial attributes of a curatorial approach that was adopted with the objective of fostering community engagement in order to reimagine the urban environment. Such initiatives are accurately described by Melanie Dodd as they are rapidly emerging in response to crises and *"allow people to reconnect with their sense of agency."* Dodd further states that these initiatives *"embrace the political and the activist, but also the performative, the curatorial, the spatial, the architectural, and the urban."*<sup>9</sup>

## FESTIVAL AS AN AGENCY FOR CHANGE

“Free festivals are practical demonstrations of what society could be like all the time: miniature utopias of joy and communal awareness rising for a few days from a grey morass of mundane, inhibited, paranoid and repressive everyday existence”.<sup>10</sup>

The Pame Kaimakli Neighbourhood Festival, initiated by local residents in 2013 and led by the NGO Urban Gorillas since 2017, has grown into a significant cultural event. The festival transforms diverse urban spaces - from private homes and local squares to abandoned properties - into vibrant hubs for artistic and community engagement. The festival features a multidisciplinary programme of workshops, performances, spatial installations and socially engaged art projects, attracting both local and international artists. The organising team actively encourages and facilitates collaboration between residents, artists and different institutions in an effort to create new shared narratives in the neighbourhood. According to an interview with the curators, the festival aims to promote public interaction, cultural exchange, and sustainable neighborhood development. Since its inception, the number of visitors has grown significantly from a few dozen in 2013 to almost 3,000 in the 2023 edition of the festival (Figure 1).

“The festival creates the space to celebrate publicness and bring artistic and cultural practices to an audience that would otherwise not be involved in such activities. The festival, as a process, and the community dynamics preceding it, also provide an opportunity to initiate a discussion about the creation of a sustainable and socially inclusive neighbourhood development.”

Yiorgos Hadjichristou, Festival Founder.<sup>11</sup>

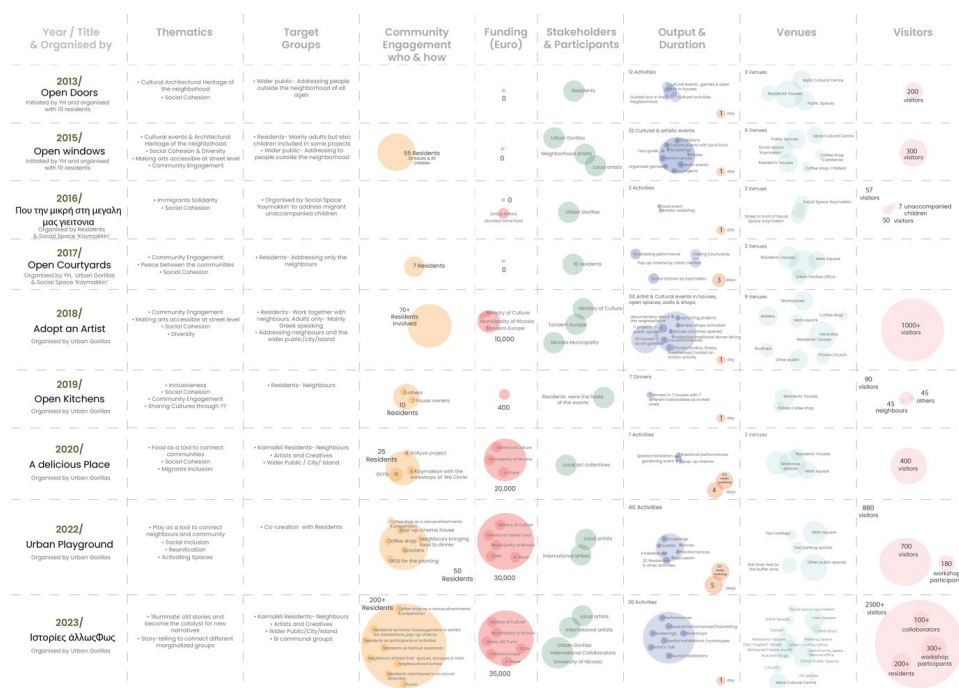


Figure 1. Analysis by Author of the Festival editions, in terms of curated thematics, engagement, stakeholders involvement, duration, funding, venues activated, visitors. Diagram by author.

The founders of the Pame Kaimakli Neighbourhood Festival, who continue to be actively involved in its organisation, are driven by democratic values and see the event as a powerful tool and agent for change within the neighbourhood. Echoing Lefebvre's 'right to the city', the festival is envisioned by the organisers as a democratic platform that not only redistributes material resources, but also enhances the social and symbolic capital of the community. The overall festival activities boldly challenge

conventional norms, emphasising community inclusivity, penetrating actions into enclosed spaces and cultivating a culture of openness through its creative tools. On the socio-political spectrum, they often relentlessly challenge and deconstruct prevailing political conventions and advocate for community-centred, inclusive values, often by reclaiming public space as a common good.<sup>12</sup> ART 05, participating in the 2023 edition said: “We know that UG has been trying for years to make the city their own, and this festival is a great way of doing that, simply and without fuss, for the people by the people.”

The organising team manifests the resistance against the conventional market-driven urban agendas, and despite financial limitations, offers the festival and all its activities free of charge advocating for a city that belongs to its citizens, rather than being a commodity serving market-based mechanisms.

The Festival activities are designed to draw in residents and visitors, encouraging them to interact with and think about the space in new ways. This engagement is activist in nature, reflecting the core values of the organisation, as it promotes a sense of community ownership and participation in redefining urban spaces. ART 12 coming from the Netherlands said: “I have participated in the festival, which showcased the results of my work during my three-week residency in Kaimaki [...] Participating in this festival has been a transformative experience for my career. The organisers and the socio-spatial issues of the neighbourhood have prompted me to rethink my work in a more activist manner.”

One resident's answer indicated that even if someone does not directly participate in creating a work, the activities implemented by Urban Gorillas would still provoke a reaction and engagement. The resident stated: “They put it out there, but it is not in your face. It's out there and it is very expressive and very different. You can agree or disagree with their opinions but not only passively, you need to explain yourself.”

## **A SPATIALLY INFORMED APPROACH**

In an interview with the curatorial team, we have identified three key objectives when organising spaces for the Festival: firstly, to create accessible common spaces that encourage reimagination; secondly, to imbue these spaces with a sense of possibility; and thirdly, to ensure that they are welcoming and inclusive. The curators aim to reimagine a multitude of locations and assign them with new meanings. The festival activities spanned an area of approximately 1 km in radius, situated in close proximity to the UN buffer zone and encompassing a diverse array of spaces, including rooftops, courtyards, ecclesiastical buildings, educational institutions, an ice cream factory, and more (Figure 5). The festival's identity is grounded in the exploration of novel applications, techniques and locales for spatial transformation. Collaboration with artists and residents is pivotal to the query and application of innovative uses for these spaces. The festival is designed as a walking festival (Figure 2), with the strategic selection of venues designed to take visitors into a series of experiences in urban spaces that, as outlined by Wunderlich,<sup>13</sup> constitute a spatial and temporal practice that takes three forms: purposive, discursive and conceptual.



Figure 2. Map of Pame Kaimakli Festival- 2023

As part of this spatial approach, a series of negotiations must be conducted with a variety of stakeholders to reclaim the space. This involves establishing connections, trust, and meaningful negotiations between the spaces, the artists, the respective artistic activities proposed, and the property owners. The stakeholders include a variety of community actors, including homeowners, institutions such as cultural spaces or associations, public administration in the case of a school, and church administration when a space around the church is utilized.

## THE ROLE OF SPATIAL INSTALLATIONS

The drive to transform spaces into common goods is often advocated through the design and construction of spatial structures that reimagine underused sites as platforms for cultural and communal interaction. The festival offers a unique opportunity to temporarily place these structures in the neighbourhood spaces, a process that is otherwise intricate and complex, and typically unavailable due to the city's urban design regulations that permit public space design through a direct and controlled process of the public services. This temporary reconfiguration allows the Urban Gorillas to experiment with spatial agency and transform underused, politically charged, and hegemonic sites into playful, inclusive, and fluid areas conducive to diverse encounters. This has been made possible by the organisation's growing popularity over time, the resulting trust from the municipality and community, and the availability of international funding, which has facilitated the construction of these spatial structures in the neighbourhood's central square. These strategically placed structures draw spectators to the heart of the neighbourhood, serving as focal points around which a variety of activities unfold. The recent edition in 2023 welcomed the Agora<sup>14</sup> (Figure 3), a mobile modular structure that completely transformed the square into a dynamic space of interaction offering sitting spaces, a performance space, workshop areas, and a central reception space. Agora was assembled following a collaborative effort of the NGO team, residents, and architecture students. The organizers aimed to recreate the notion of the ancient Greek agora, traditionally a symbol of democracy, but often not fully inclusive. By reimagining the functions of the Agora on the grounds of a religious establishment, the organisers



sought to create a democratic platform that is open to all, showcasing activities that include different genders, nationalities, ages and highlighting their stories through screenings and theatre performances. This counteracts the religious and hegemonic power of the church, exemplifying the festival's commitment to inclusivity and the transformation of public spaces into areas conducive to diverse community interactions. It also illustrates that subtle activism of this kind is an effective means of producing democratic spaces.



*Figure 3. PK2023: Agora spatial structure in the main square of Kaimakli*

Likewise, Vertical Gardens<sup>15</sup> is a steel structure designed by Urban Gorillas (Figure 4) to activate the main church square of the neighbourhood during the festival in 2020. The design process went beyond spatial considerations and focused on the process of engaging residents amidst the Covid-19 restrictions. Designed to accommodate 200 plant pots while providing seating areas, this intervention brought life to the underutilised square, encouraging daily neighbourly interaction. Members of the collective facilitated the distribution of the 200 plant pots by directly delivering them to neighbours or placing them at two central pick-up locations within the community. As the festival commenced, neighbours were encouraged to return a planted pot, transforming the space into a collective garden. This spatial practice was a beautifully choreographed gesture showing the communal effort in regenerating the square, where each resident personally contributed to the installation. Each pot, adorned with personal messages, poems, or recipes, turned the structure into an interactive display, inviting passersby to explore the aromatic diversity and connect with the community's stories (Figure 4).



*Figure 4. PK2020: Vertical Gardens in the main square of Kaimakli*  
*Left. Planting and mingling in preparation of the Festival*  
*Right. Round Table discussions organised by local groups*

The spatial transformations of the neighbourhood illustrate how spatial agency has cultivated a common sense through the co-creation and shared occupancy of the structures. Discussions with residents have identified these elements as important reference points in the square utilisation, and have succeeded in creating a shared narrative and the imagination of new possibilities.

### Threshold Spatiality

The activities of the Festival transforming the neighbourhood spaces emerge and function as a form of agency for change, awareness and engagement. The strategies employed by the festival organisers illustrate how the activities facilitate the formation of what Stavrides refers to as 'threshold spatiality'.<sup>16</sup> This concept refers to a spatial condition that encompasses both closure and opening, creating a 'common ground' that is 'open to newcomers', 'porous' and accessible to all users regardless of their identity.

The initial themes of the festival, including "Open Doors" (2013), "Open Windows" (2014), and "Open Courtyards" (2015), involved activities in residents' houses, terraces, verandas, garages, and courtyards, which showcased Kaimakli's architectural and cultural heritage (Figure 9). The ideas of permeating into spaces that are traditionally characterised by enclosures have been evident since these early editions as the doors, windows and courtyards of private houses being opened and private spaces transformed into open galleries. Ten years on from the festival's inception, this surge expanded to include liminal spaces, actively challenging both physical and socio-political boundaries, including the island's geopolitical divisions. The spatial transformation extends beyond conventional uses of public space, with events taking place in unconventional locations such as near the buffer zone, the church, the ice-cream factory, abandoned buildings and previously inaccessible public buildings such as the school premises (Figure 5). This re-occupation of spaces for public and communal use physically and symbolically reclaims marginal, peripheral or private spaces as shared grounds for creative encounters. This process of threshold spatiality involves not only physical interventions, but also the weaving of narratives that reshape perceptions and foster a sense of shared ownership, imagination and collective identity.

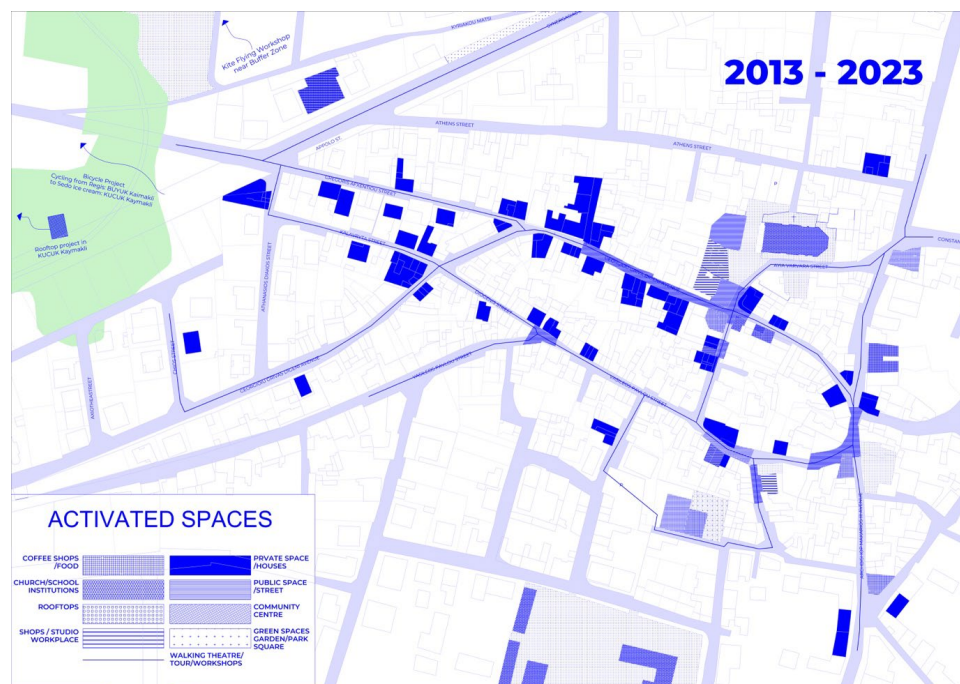


Figure 5. Mapping of spaces used in the Festival over the years. Diagram by author.

One of the most notable activities<sup>17</sup> of the 2023 edition involved a women's group performing improvisational pieces in a church (Figure 7), attracting over 1,000 attendees. This event marked the first time the church was utilised for a non-religious event in Cyprus. The success<sup>18</sup> of this initiative can be attributed to the curators' negotiation skills, robust community support, prior positive engagements with the church, and a broad network that effectively creates a reciprocal impact.

Similarly, kite flying along the buffer zone was a popular activity among residents in the 2022 survey,<sup>19</sup> serving as both a creative expression for peace and a medium for advocacy aimed at bridging divides and connecting marginalised communities (Figure 6).

The use of a private rooftop belonging to an immigrant family in the neighbourhood is another exemplary activity of threshold spatiality. Hosting two art projects on this rooftop attracted over 500 visitors, effectively rendering the once private space permeable and fostering newfound connections between the immigrant family and the broader community (Figure 8).

Based on the survey-based popularity<sup>20</sup> the activities described above were crucial in bringing diverse people together, fostering a sense of community and reimagining a new shared urbanity. These activities were imbued with a creative power that effectively engaged diverse participants who not only enjoyed being part of these events, but also contributed to the activist undertones of the festival. A survey conducted in 2022 yielded 101 responses from participants and 20 from visitors. The respondents were asked to identify their preferred activity and to assess the extent to which public space had been transformed. In the curatorial interviews, the same three activities -among 30 - were identified as those that most exemplified this kind of spatial agency, effectively challenging the boundaries of conventional spatiality to create a more porous and permeable condition.

Drawing from these results, consequent semi-structured interviews and direct observation, we conclude that participants were deeply drawn into the festival's activities in fringe settings. It was observed that the most 'militant' actions resulted in the dissolution of the boundaries of the private sphere, thereby creating newly formed shared spaces in which a heightened intimacy emerged. In instances where conventional or pre-existing spatial boundaries were deliberately challenged, participants were observed to converge in unexpected and unconventional interactions. The boldest and most audacious actions in the context of reactivating neighbourhood spaces proved to be catalysts in forging connections between individuals from diverse backgrounds within communities who would not normally interact. It could be argued that such settings, where this significant transformation of boundaries has taken place, have created new conditions of publicness, creating a unique synergy between intimacy, curiosity and proximity that had a profound and transformative effect in bringing together individuals from diverse backgrounds.

This illustrates how permeating in the public-private sphere fosters unique connections, enriches the public realm, and exemplifies the organisers' capacity to combine activism and creativity to foster the commons among a diverse urban population. The activities often manifest a blurring between public and private boundaries wherein the public experiences a transformed environment, different, imaginary place where novel possibilities were laid out. These newly formed environments provide novel conditions of intimacy, enabling the public to interact and share experiences that differ from the ordinary.





*Figure 6. PK2022: Flying kites near the Buffer zone*

*Figure 7. Women's improvisation choir singing in the church*



*Figure 8. PK2022: Artists project in neighborhood rooftop*

*Figure 9. PK2023: A renowned children's songwriter narrates stories in his private residence courtyard*

## CONCLUSION

Pame Kaimakli Neighbourhood Festival represents a novel approach to urban engagement and activism, integrating creative practices and artistic approaches to spatial practice. In this regard, the festival serves as an innovative case study of the transformative attributes generated through the temporary alteration of spaces and liminal locations, made possible by the creative drive of the organizing team, the active engagement of the community, and the collaboration of a diverse group of stakeholders. The event provided an opportunity for the organisers to advance their democratic ideas for urban living and showcase new spatial practices that facilitate coexistence through shared resources. Over the course of the festival's ten-year span, the festival demonstrated the capacity of spatial agency and community-led initiatives to transform the very concept of urban engagement, fostering a collective urban imagination.

The festival's activities find grounding in the concept of threshold spatiality, wherein the boundaries between public and private spheres are blurred into the creation of a new common ground. These newly conceived, albeit transient, spaces transform the neighbourhood into an imaginative and fluid space, providing conditions of intimacy that facilitate public interaction and the sharing of experiences that diverge from the ordinary. The favourable response of the public to these subtle activist gestures demonstrates their efficacy as engagement tools. Our observations indicate that such environments which engender curiosity motivate the community to engage in novel forms of participation, heightened inclusion, and the envisioning of alternative urban futures.

The study advocates for a reconceptualisation of participatory models within urban design and planning and encourages models that are spatially informed and emphasise ethical collaboration and cultural

sensitivity. The deployment of temporary and artistic interventions, as exemplified by the festival, represents a potentially efficacious strategy for community engagement into participatory urban practices. However, a limitation of the study is that it did not consider the location and urban morphology of the neighborhood as variables of active engagement. The unique typology of the urban fabric, the location near the buffer zone, and the prolonged isolation might have created different dynamics of such collective agency that are difficult to measure. This prompts a number of further questions: How can these principles be adapted to other contexts and respond to specific planning processes? How can these models create an impact beyond the temporal and be sustained over time? As cities continue to develop following the market-state principles it is crucial to experiment with different participation mechanisms to contribute to democratic and inclusive urban environments.

## NOTES

- <sup>1</sup> Geddes Ilaria, Charalambous Nadia, Psarras Michalis, Skitinis Paisios, Papallas Andreas. (2020). *Sustainable Urban Governance and Participatory Planning Framework* (INTERNATIONAL/USA/0118/0058; p. 65). Cyprus Research Promotion Foundation RESTART 2016-2020.  
<https://sugar.cyprusinteractionlab.com/wp-content/uploads/2020/08/D.3.1-Sustainable-Urban-Governance-and-Participatory-Planning-Framework.pdf>
- <sup>2</sup> Carraz, Antoniou, and Hadjichristou, *Green Urban Lab: Activating Public Spaces*.  
René Carraz, and Anna Merry. "Playful Experience Design: Reactivating Public Space in Cyprus, a Case Study Perspective." *Journal of Urban Design* 27, no. 2 (March 4, 2022): 181–204.  
<https://doi.org/10.1080/13574809.2021.1973889>.
- <sup>3</sup> Carraz, Antoniou, and Hadjichristou, *Green Urban Lab*.
- <sup>4</sup> Sendra, "The Ethics of Co-Design."
- <sup>5</sup> Domaradzka, "Urban Social Movements and the Right to the City: An Introduction to the Special Issue on Urban Mobilization"; Lefebvre Henri, "Le Droit À La Ville"; Hou, *Insurgent Public Space*.
- <sup>6</sup> Eynaud, Juan, and Mourey, "Participatory Art as a Social Practice of Commoning to Reinvent the Right to the City"; Chatterton, "Seeking the Urban Common."
- <sup>7</sup> My longitudinal observation of the festival commenced in 2013, as a mere observer and has continued to the present day as an active member of the organising team. This has granted a deep and nuanced understanding of its evolution. This insider perspective has allowed for unlimited access to all internal documents, extended observations in formal and informal meetings and access to a broad spectrum of key stakeholders, including policymakers, citizens and participating artists, for conducting interviews and in-depth discussions with them.
- <sup>8</sup> Yin, *Case Study Research and Applications*.
- <sup>9</sup> Dodd, *Spatial Practices*, 3.
- <sup>10</sup> Un-authored leaflet from 1980, quoted in George McKay, *Senseless Acts of Beauty: Cultures of Resistance since the Sixties* (London: Verso, 1996), 5.
- <sup>11</sup> Interview with the Festival Founder Yiorgos Hadjichristou, May 2023. The founder is still involved actively today in the organization of the festival and has a curatorial role.
- <sup>12</sup> Antoniou et al., "Activating the Publicspace. The Case of Urban Gorillas."
- <sup>13</sup> Filipa Matos Wunderlich. "Walking and Rhythmicity: Sensing Urban Space." *Journal of Urban Design* 13, no. 1 (February 2008): 125–39. <https://doi.org/10.1080/13574800701803472>
- <sup>14</sup> Agora is a spatial installation part of the MAPS project led by Urban Gorillas and funded by the Commonwealth Foundation.
- <sup>15</sup> Vertical Gardens was an action implemented by Urban Gorillas as part of the A-Place project, co-funded by the Creative Europe Programme of the European Union.
- <sup>16</sup> Stavrides, *Common Space*.
- <sup>17</sup> Following the 2023 festival, a series of meetings and informal discussions were held with local residents and festival organisers. A 12-person survey is also being used as a record.
- <sup>18</sup> Discussions with residents, visitors, and organisers, pointed out that this activity has been identified as the most successful of this year's edition. This is further evidenced by the fact that the church was filled, with approximately 1,000 spectators in attendance.
- <sup>19</sup> In the 2022 survey, when asked to choose their favourite event, the kite event and the rooftop art project ranked highest among the responses of the 101 participants. Specifically, of the 101 people who responded to the survey and the 33 projects presented, 17 ranked the kite event as their favourite activity and 15 ranked the rooftop project as their favourite.
- <sup>20</sup> the 2022 survey (as above).

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# THE INTERACTION OF SPATIAL CONFIGURATION & FUNCTIONAL DYNAMICS IN ASSESSING THE ECONOMIC PERFORMANCE OF URBAN COMMERCIAL AREAS IN INDIAN CITIES

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## INTRODUCTION

Urban systems embody complex networks characterized by spatial configurations and functional dynamics, influencing the functionality of cities. Commercial areas are the epitome of aggregated economic transactions that generate the flow of all urban activities. Given their important role, the dynamics of commercial centers require a thorough understanding to capture market share effectively. In Indian contexts, the absence of comprehensive market surveys and rigid planning constraints impede the efficacy of existing commercial areas. This study explains the relationship between spatial and functional attributes within urban environments in the Indian context to assess their economic performance. The commercial areas of Bhubaneswar, Odisha, India, were explored by conducting surveys and employing questionnaires. Factor Analysis was used to examine transactional dynamics to understand underlying patterns and relationships among the factors. The findings highlight the disparity between spatial configuration and functional efficiency within commercial areas, identifying key spatial and functional factors contributing to economic performance like age, presence of magnets, accessibility, price, and diversity among goods, etc. The study provides insights into the mechanisms driving economic performance by defining the market share and the intricate correlations among relevant variables shaping commercial activities. This assessment serves as a predictive method to plan urban commercial spaces efficiently. Furthermore, the research provides a perspective crucial in aiding the decisions of urban planners, policymakers, and stakeholders, essential for fostering a sustainable and livable urban environment.

## LITERATURE REVIEW

An urban structure comprises a set of spatial layouts with their associated activities, which defines the morphology and dynamic functioning of the city.<sup>1</sup> The urban structure is characterized by the degree of connectivity and accessibility and the array of land uses within a city.<sup>2</sup> The spatial urban structure influences movement, which subsequently determines the functions of the city.<sup>3</sup> Urban spatial structure is a collection of spatial relationships resulting from the interaction between various urban entities and the urban form.<sup>4</sup> Urban spaces are never static,<sup>5</sup> and the only thing that has always been constant in this transaction is the demand of the users and the supply to cater to the need, thus leading to the evolution of commerce. A new age of cities is evolving to solve the challenge of urban functional flows and fixed

locations and uncover a more detailed spatial structure.<sup>6</sup> With the meteoric urbanization in the urban and peri-urban areas, a vicious cycle of City Centre creation followed by infrastructure continues in a loop to meet the rocketing demand of the population. This results in a massive infiltration of migrants into the urban areas for better lifestyles and economic stability, thus increasing the demand for resources.

An urban spatial structure is a general or abstract depiction of the city's spatial layout.<sup>7</sup> The interactions between urban elements and their assimilation into a functional entity are the fundamental components of urban spatial structure.<sup>8</sup> It can also be characterized as a functionally interconnected network concentrated around a larger unit with morphological distinctions.<sup>9</sup> The history of urban evolution of contemporary cities reflects the concept of the formation of settlements along a water body,<sup>10</sup> which, with the advancements in transportation and accessibility, have substantially impacted the spatial structure.<sup>11</sup> Thus, the spatial structure can be classified as the Morphological and Relational dimensions.<sup>12</sup>

The morphological dimension, attributed as morphological polycentricity, primarily explores the scale and geographical allocation of the urban centers across the region and correlates more structured distributions with polycentricity.<sup>13</sup> The relational dimension, which is also referred to as functional polycentricity, examines a structured and dynamic set of relationships and the functional interactions between the settlements.<sup>14</sup> The balance between the absolute and relative relevance of these centers is the subject of morphological polycentricity and functional polycentricity.<sup>15</sup> Morphological polycentricity and functional polycentricity are thus contemplated as two separate analytical aspects in contemporary literature. Very little attempt has been made to integrate these two schools of thought. Moreover, the reason a settlement is morphologically polycentric and functionally polycentric is still under the covers.<sup>16</sup>

The interaction between the morphological and the relational dimensions of urban structure is responsible for the functioning and expansion of a city.<sup>17</sup> The ramifications of these interactive activities are the urban activities, be they economic or socio-cultural, enabling the flow of information and capital, leading to the growth of a region.<sup>18</sup> A better understanding of these interactions would help us assess the urban performance over a period of time and help us plan better liveable urban structures. A lot has been researched on the interaction of spatial elements, but an association between the space and the space function is still pending.

Commercial centers are the city centers or the business districts that generate economic and employment opportunities. According to the Indianapolis 2012 document, commercial areas focus on commerce and business and comprise settlements like offices, shopping centers, etc. The theory of commercial location suggests that the interplay of different rent structures, market supply-demand dynamics, and the mechanisms of aggregation and diffusion primarily influence the development of urban business districts.<sup>19</sup>

Commercial spaces are the core of urban interactions, bridging space and functionality. The necessity for trading within or among groups arose when the social populations began to live in cohorts.<sup>20</sup> It was conceived when housewives exchanged food items in their hour of need, and it has progressed from Barter Systems to QCommerce since then.<sup>21</sup> The concepts ranging from production, product, selling, profit, and Social to holistic have been crucial to commercial evolution.<sup>22</sup>

Commercial spaces have become crucial for land use planning to cater to the rising demand. Government-allotted commercial areas are provided in every neighborhood, with the sole purpose of catering to the adjacent catchment. Indian cities have suffered immensely due to conventional planning policies and rules, which are far from reality. The gulf between the planned and ground realities makes

the Indian cities suffer in terms of infrastructure and management. The lack of a market area survey results in stagnant commercial spaces with low footfall and economic turnover.<sup>23</sup>

The commercial performance of a node can be revealed through the market share of the place.<sup>24</sup> The Economic Performance of the commercial nodes was calculated as the contribution of each node to the overall economy generated by the commercial in the city's overall revenue, otherwise known as the market share of the commercial node. Various parameters are used to evaluate the location selection criteria in location analysis. For the optimum performance of the commercial center, the basic criteria considered are population structure, economic factors, competition, saturation level, and magnet and shop characteristics.<sup>25</sup>

## MATERIALS AND METHODS

### Study Location

The survey was carried out in Bhubaneswar, the capital city of Odisha. It inhabits almost 2% of the total urban population of the state. Bhubaneswar, often referred to as Ekamra Kshetra or the Temple City, effortlessly combines historical allure with contemporary convenience. Originally planned by German architect Otto H. Königsberger in 1946, the city stands proudly, depicting its distinct layers of planning and evolution. The city has a planned precinct based on the neighborhood concept, providing ample opportunity to analyze the commercial spaces among the residential neighborhoods.

In the last ten years, the city has shown substantial expansion in the Tourism and Education industries.

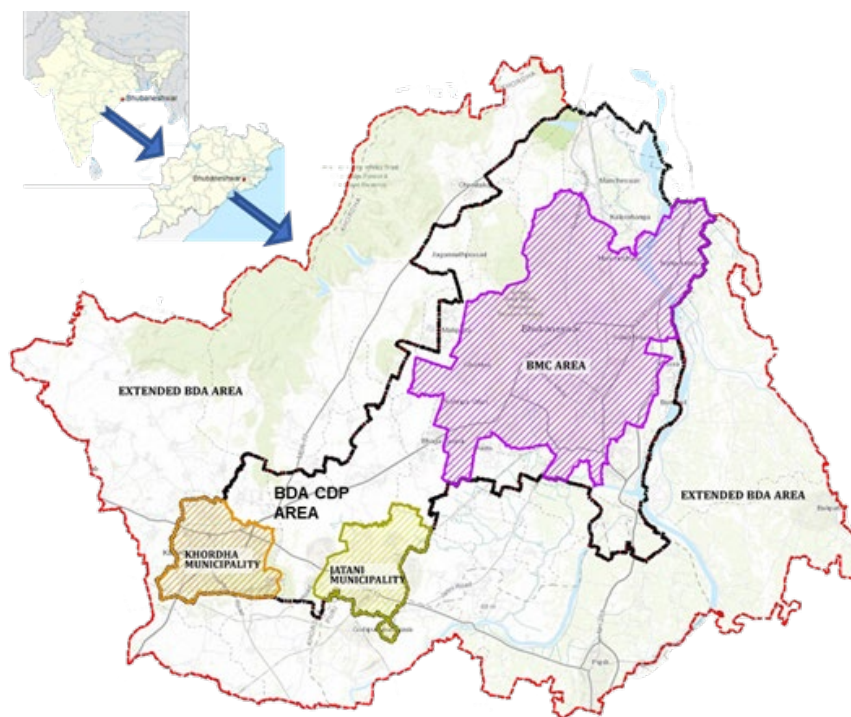


Figure 28. Location of Bhubaneswar. Source: BDA

In 2014, the World Bank acknowledged Bhubaneswar as the premier location for business in India, emphasizing its rise as a pivotal center for trade and commerce in both the state and eastern India. Based on the 2011 census data, the proportion of commercial land use in Bhubaneswar was 2.17%, which has significantly increased over the past two decades. The city has 1,857 commercial establishments, contributing around 33% of the city's employment. Approximately 78% of these shops are on government-owned land, and only 3% are permanent or pucca buildings. Owing to the city's bustling



and emerging commercial activities, identifying the indicators leading to these massive growths will be catastrophic in planning better commercial establishments.

Four major government-allocated markets were chosen and situated along major road network axes of Bhubaneswar. The markets chosen for the survey are Damana Market, District Centre, Unit 1, and Unit 11 Markets. Damana Market and District Centre were in the city's growth direction, i.e., towards Chandaka. Unit 1 and Unit 11 were in the city center, i.e., the city's CBD.<sup>26</sup> The markets were government-designated organized spaces covering at least 2 acres and housing at least 500 establishments. These markets serve the local neighborhoods and have a broader catchment area, supplying goods to the entire city of Bhubaneswar.

Sl. No.	Nodes	Area (In Acres)	Age (Years)	No. of Establishments	Major Road	Location
1	Unit 1 Market	5.5	50	1053	Rajpath	City Centre
2	Unit 2 Market	3.9	50	546	Rajpath	City Centre
3	Damana Market	4.2	40	654	NandanKanan Road	Growth direction
4	District Centre	5.5	29	511	NandanKanan Road	Growth direction

Table 9. shows the details of the surveyed markets in Bhubaneswar. Compiled by Author

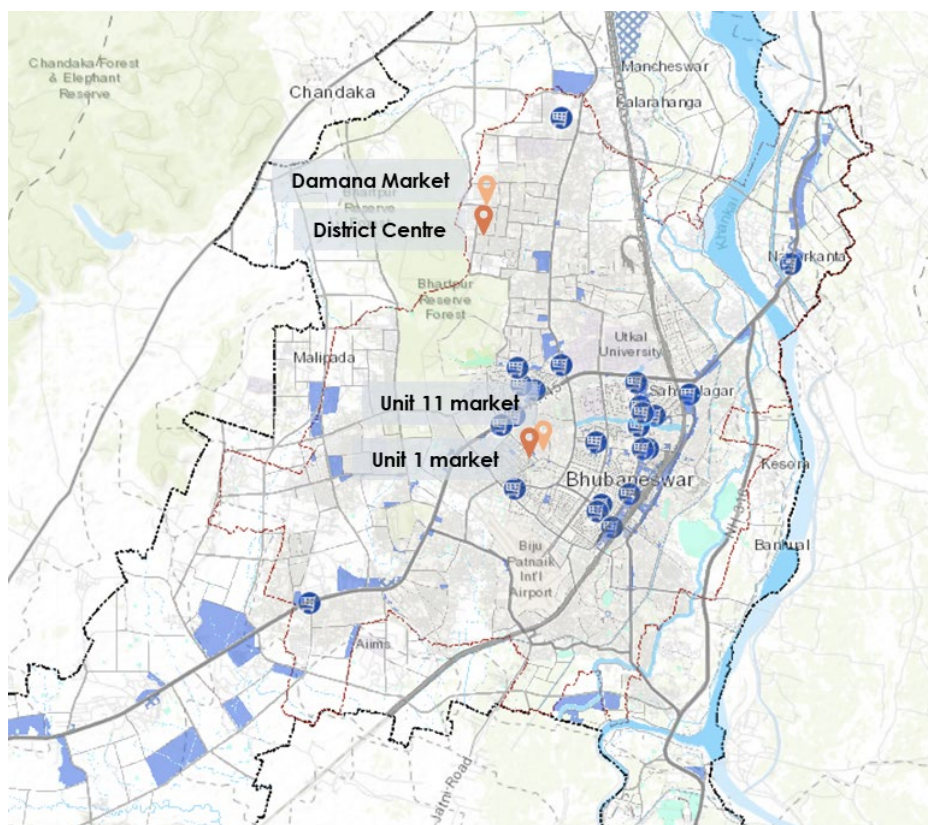


Figure 29. Map showing the location of surveyed markets. Source: bhubaneswarone.in

## Data Collection

A literature survey was done to identify the variables responsible for impacting the economic performance of the shops. A focus group survey was conducted before the main survey to determine the local parameters that played a crucial role, according to the retailers, in achieving better economic

performance in the Indian cities. An extensive discussion was conducted among 100 shopkeepers in the markets to understand their reasoning behind choosing the location of their shops for better economic performance. A qualitative transcript analysis was conducted to find the local indicators that influenced their decision the most. A total of 24 indicators that impact economic performance were identified from the Literature Survey and Focus Group Discussion with the shopkeepers. The 24 parameters that were selected are as follows:

Sl. No	Variables		Research Paper
1	Density		(Turhan, Akalın, and Zehir 2013; Lin, Chen, and Liang 2018; F. Wang et al. 2014; Tsou and Cheng 2013; Hao, Yang, and Wang 2021; Hiremath et al. 2023; Antunes, Wang, and Fernandes 2022; Nertinger, Frick, and El-ashker 2022; Porta et al. 2009; J. Wang et al. 2011; Cui, Han, and Methods, n.d.; Xu et al. 2022; Formánek and Sokol 2022; Achabal and Schilling 1984; K. Li et al. 2020; Satani et al. 1998; X. H. Chen et al. 2016)(Ciari, Löchl, and Axhausen 2008)
2	Road width		
3	Connectivity		
4	Adjacent Landuse		
5	Presence of Magnets		
6	Distance to the main road		
7	Parking convenience and other amenities		
8	Demographic and Socio-Economic Indicators	Age Gender Education Occupation Household size Population Density Growth rate Social class Household monthly income	(Turhan, Akalın, and Zehir 2013; Sreekanth et al. 2013; Veer, Pawar, and Kolte 2018; Deepika Jhamb et al. 2012; Glaeser, Fisher, and Su 2019; Hiremath et al. 2023; Colaco and Silva 2022; Kiran and Jhamb 2011; Davies 2007; Xu et al. 2022; Antunes, Wang, and Fernandes 2022; Formánek and Sokol 2022; Nakaya et al. 2007; Satani et al. 1998)Berman and Evans (2010)
9	Travel Cost		(Kiran and Jhamb 2011; H. Li, Jiang, and Peng 2022; Veer, Pawar, and Kolte 2018; Glaeser, Fisher, and Su 2019; Hiremath et al. 2023; Karamychev and van Reeve 2009; Xu et al. 2022; Formánek and Sokol 2022; D. Singh and Gál 2018; Yan et al. 2020; Parsons et al. 2015; L. F. Chen and Tsai 2016; Zehir 2013; Asmare, Zewdie, and Asmare 2021; J. Singh et al. 2020; Kim and Ratchford 2012; Dahiya 2017; Jan et al. 2019; Liang et al. 2021; Xue 2020; Gujrati and Uygun 2023)(Yi and Gim 2018)
10	Rent Value		
11	Footfall		
12	Operational cost		
13	Customer Loyalty, Behavior		
14	Market Saturation/Competition		
15	Digital Awareness		
16	Employee Availability		
17	Economic Opportunity		
18	Price flexibility		
19	Diversity of goods		Focussed group discussion
20	Cultural and Historical significance		
21	Presence of Expansion space		
22	Environmental factors		
23	Proximity to supplier		
24	Neighborhood reputation(in terms of safety)		

*Table 10. shows the literature study of the variables influencing the economic performance of the shops. Compiled by author*

A Physical survey was later conducted to collect data on shops from the retailers using the above indicators. The selected markets were visited, and a Reconnaissance Survey was conducted to

understand the markets' current situation. Discussion with the shopkeepers and the head of the market committee was also conducted to get accurate data on the site concerned. The figure shows the present scenario of the markets.



*Figure 30. The present condition of the surveyed markets*

Cochran formula with a 90% confidence interval and a 5% precision level was used to find the sampling size. A survey of 298 samples from the four selected markets was collected through a questionnaire. The data collected for the present study was ordinal, i.e., on a Likert scale, where the shopkeepers were asked about their opinion on the factors amplifying their economic performance.

### Data Analysis Methods

The commercial environment is undergoing significant changes as shopkeepers implement various strategies to remain competitive and enhance their financial performance. Exploratory Factor Analysis (EFA) was conducted to explore the key factors influencing market performance. This analysis used Principal Axis Factoring with Varimax Rotation on a dataset containing 24 parameters. This exploratory analysis was aimed to reduce the dimensionality of the data, identifying latent factors that could provide meaningful insights for retailers. The analysis identified 6 factors with 22 crucial indicators for understanding economic performance. The procedures adopted in EFA are as follows:

- a) Kaiser-Meyer-Olkin (KMO) statistic was used to assess sampling adequacy.
- b) Bartlett's test of sphericity, which checks whether the correlation matrix is significantly different from an identity matrix, was performed to validate Exploratory Factor Analysis (EFA).
- c) The factors were identified and retained on a Scree plot analysis basis, and only those with eigenvalues higher than 1.25 were kept.<sup>27</sup>
- d) The factor structure was simplified and made more interpretable by applying Varimax rotation.
- e) The underlying factors and their weights were identified to determine the strength and direction of the relationship.
- f) The rotated factor loadings were interpreted for each latent variable by labeling them based on the indicators serving them.
- g) Cronbach's Alpha was used to evaluate the retained factors' reliability and internal consistency to ensure that each Factor's components consistently measure the same underlying construct.

### RESULTS

A Likert Scale approach was adopted for measuring shopkeepers' attitudes, opinions, and perceptions about factors that affect the economic performance of shopkeepers. As mentioned, the literature review and focus group discussion were used to formulate the survey indicators. Since there was hardly any data relating to the perception of retailers in India, the focus group helped understand their thinking

process and local conditions that contributed to their strategic adaptations to be competitive in the marketplace.

The validity of the current data set was assessed using Kaiser-Meyer-Olkin (KMO) statistics and Bartlett's test of sphericity.<sup>28</sup> The KMO statistic is a measure of data adequacy, while Bartlett's sphericity test is done to assess the relationship strength among the variables. The sampling is adequate if Kaiser-Meyer-Olkin is above 0.5 and within 1. Bartlett's test tests the magnitudes of relationships among variables; a significance value less than 0.05 will reveal that it is not an identity matrix, so the dataset is suitable for extracting components.<sup>29</sup>

Table 1 shows the KMO value to be 0.726, and Bartlett's test has a significance level of less than 0.05. Hence, there exists a significant relationship between the parameters in the dataset and the suitability for exploratory factor analysis.

<b>KMO and Bartlett's Test</b>		
<b>Kaiser-Meyer-Olkin Measure of Sampling Adequacy.</b>		<b>0.726</b>
<b>Bartlett's Test of Sphericity</b>	Approx. Chi-Square	4047.081
	df	276
	Sig.	<b>0.000</b>

*Table 11. shows the KMO and Bartlett's Sphericity Test Results*

EFA using Principal Axis Factoring and Varimax Rotation with Kaiser Normalization was done under SPSS software Version 23 to reduce dimension. Kaiser's criterion and Scree test were used to extract factors that holistically defined the relationship.<sup>30</sup> In this study, we have used Kaiser's criterion with factors having an eigenvalue above 1.25,<sup>31</sup> while a Scree Plot considered those factors above the elbow joint.

Table 2 illustrates the eigenvalues, individual variance, and cumulative variance for all the components. We decided on the first six factors because their eigenvalues are greater than 1.25. The cumulative variance is 54.553%, considered adequate for explaining a significant percentage of the overall variability in the dataset. This provides a meaningful and concise representation of the main factors that influence the economic performance of the shops.

Total Variance Explained									
Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.357	26.486	26.486	5.980	24.915	24.915	3.836	15.985	15.985
2	2.812	11.715	38.201	2.462	10.257	35.171	2.456	10.232	26.216
3	2.082	8.674	46.875	1.619	6.744	41.915	2.207	9.198	35.414
4	1.821	7.588	54.463	1.303	5.428	47.343	1.958	8.159	43.573
5	1.456	6.068	60.531	.943	3.929	51.272	1.434	5.974	49.548
6	<b>1.260</b>	<b>5.249</b>	<b>65.779</b>	<b>.787</b>	<b>3.281</b>	<b>54.553</b>	<b>1.201</b>	<b>5.006</b>	<b>54.553</b>
7	1.042	4.342	70.121						
8	.959	3.996	74.117						
9	.756	3.150	77.267						
10	.660	2.749	80.016						
11	.640	2.668	82.684						
12	.597	2.486	85.170						
13	.549	2.287	87.457						
14	.532	2.218	89.675						
15	.425	1.772	91.447						
16	.392	1.635	93.081						
17	.358	1.493	94.574						
18	.287	1.196	95.771						
19	.277	1.153	96.924						
20	.236	.982	97.906						
21	.225	.938	98.845						
22	.172	.718	99.563						
23	.063	.262	99.824						
24	.042	.176	100.000						

Extraction Method: Principal Axis Factoring.

*Table 12. shows the Cumulative Variances of the extracted Factors*

Figure 3 depicts the Scree plot with the eigenvalues on the y-axis and the Factors on the x-axis, and the number of factors to be selected is 6. The Scree plot provides a visible and systematic method for balancing the model's complexity with the amount of explained variation in an EFA study.

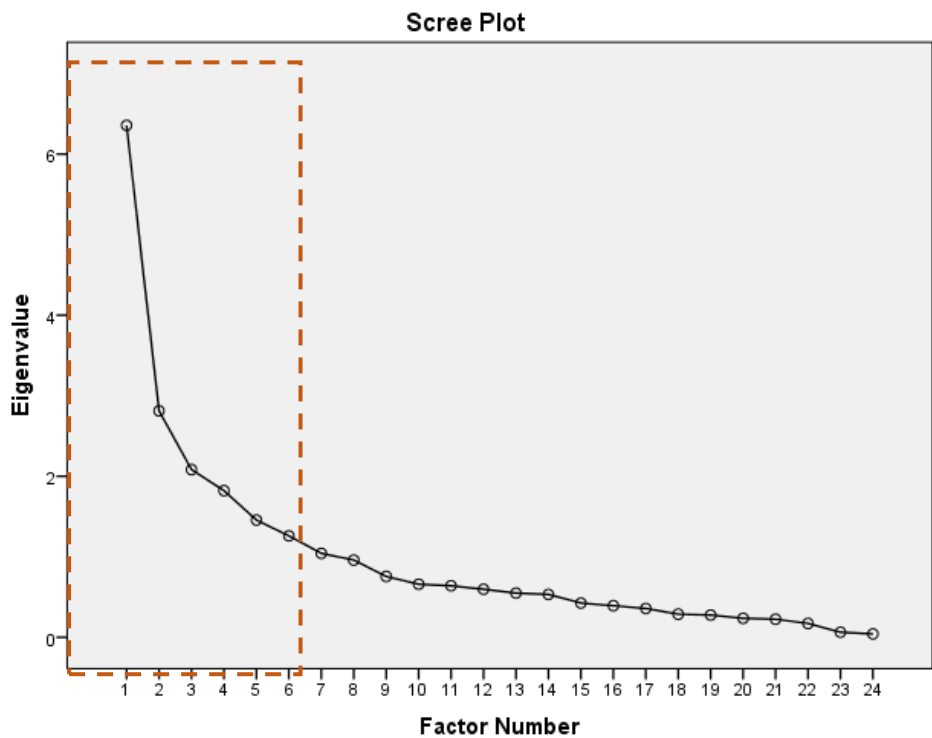


Figure 31. Scree plot showing the factors extracted in the elbow joint

Table 4 presents the rotated component matrix, which illustrates the loadings of the indicators and their clustering for the extracted factors from the use of orthogonal rotation, which eliminates the shared parameters and results in a distinct understanding of the structure of the components. The rotation successfully converged after 8 iterations, providing the precise magnitude and orientation of the interaction between the factors and the indicators. Indicators like the presence of expansion space and diversity of goods had low loadings, thus indicating a lower influence on the factors obtained.

<b>Rotated Factor Matrix<sup>a</sup></b>						
	Factor					
	1	2	3	4	5	6
Retail Density	.781					
Demographic and Socio-economic	.929					
Road connectivity	.952					
Distance to the main road	.743					
Adjacent Road width						.472
Adjacent Landuse						.509
Parking & other amenities		.476				
Travel Cost			.674			
Neighborhood reputation		.719				
Presence of Magnets		.695				
Proximity to suppliers		.629				
Economic Opportunity					.619	
Footfall					.686	
Availability of Employee					.506	
Rent			.769			
Operational cost			.580			
Customer Loyalty, Behavior				.789		
Environmental factors						-.513
Market Saturation/Competition				.522		
Cultural and Historical significance						-.510
Digital awareness				.453		
Presence of Expansion space						
Diversity of goods						
Price flexibility				.472		
Extraction Method: Principal Axis Factoring. Rotation Method: Varimax with Kaiser Normalization. Rotation converged in 8 iterations.						

*Table 13. shows the Rotated Factor Matrix with the individual loadings*

Six Factors, each explaining a cluster of related characteristics, were identified from the original 24 indicators. The six components, Indicators, and their corresponding loadings are shown in Table 6. The loadings obtained for the indicators depict the distinct contribution of each indicator to the Factor. A loading near  $\pm 1$  suggests a significant influence, whereas a loading closer to 0 indicates a minimal influence. The symbol reflecting on the loading affects the direction of the influence. The extracted loadings exceed 0.45, indicating a significant impact on the Factors.



Component	Label of Components	Parameters	Loadings
1	Retail Accessibility	Retail Density	.781
		Demographic and Socio-economic	.929
		Road connectivity	.952
		Distance to the main road	.743
2	Commercial Attractiveness	Parking & other amenities	.476
		Neighborhood reputation	.719
		Presence of Magnets	.695
		Proximity to suppliers	.629
3	Cost Efficiency	Travel Cost	.674
		Rent	.769
		Operational cost	.580
4	Market Dynamics	Customer Loyalty, Behavior	.789
		Market Saturation/Competition	.522
		Digital awareness	.453
		Price flexibility	.472
5	Growth Potential	Economic Opportunity	.619
		Footfall	.686
		Availability of Employee	.506
6	Site Context	Adjacent Road width	.472
		Adjacent Landuse	.509
		Environmental factors	-.513
		Cultural and Historical significance	-.510

*Table 14. shows the six components' labels, associated parameters, and loadings.*

Reliability statistics were also conducted using Cronbach's Alpha to evaluate the data set's dependability. Cronbach's Alpha measures a dataset's degree of correlation and internal consistency. The Cronbach's Alpha score must fall within the range of 0 to 1. It suggests that the higher the scores obtained, the more likely the data set is consistent and reliable, thus increasing confidence in the validity of the results.<sup>32</sup> Table 5 represents the Cronbach's Alpha for the obtained factors and the overall reliability statistics. Factor 6 has the lowest reliability among the others.

Sl. No	Factors	Cronbachs Alpha
1	Retail Accessibility	0.932
2	Commercial Attractiveness	0.808
3	Cost Efficiency	0.711
4	Market Dynamics	0.644
5	Growth Potential	0.572
6	Site Context	0.250
<b>Overall</b>		<b>0.813</b>

*Table 15. shows the Reliability statistics test using Cronbach's Alpha of the extracted rotated factors.*

## DISCUSSIONS

Interviews and focus group discussions were conducted to comprehensively understand local conditions for developing the components. This approach helps address the issue of potentially neglecting local factors that impact the economic performance of commercial shops. By identifying six key factors, the study offers valuable insights for physical retailers aiming to enhance their market share. Two indicators were excluded during the factor extraction process due to their lower relevance to the identified factors, ensuring that the results remain focused and robust, thus providing a clearer understanding.

The derived factors simplified the structure into Retail Accessibility, Commercial Attractiveness, Cost Efficiency, Market Dynamics, Growth Potential, and Site Context. Retailers can work on improving these factors to enhance their productivity and increase their market share. Factors like Retail Accessibility, Commercial Attractiveness, and Site Context are the Spatial attributes. At the same time, Cost Efficiency, Market Dynamics, and Growth Potential can be termed Functional attributes of the Commercial Urban Structure. These Spatial and Functional attributes interact to amalgamate space, movement, and building form.<sup>33</sup>

In Bhubaneswar, the surveyed markets primarily cater to low- and middle-income groups who prefer offline shopping for their regular needs. Retail Accessibility, Commercial Attractiveness, and Site Context significantly impact shop performance. Enhanced accessibility and amenities attract a larger customer base, improving market performance. Additionally, Site Context factors, such as the presence of cultural or historic sites, contribute to increased consumer traffic. For example, the historic Ram Mandir and the extensive commercial area of Janapath near Unit 1 and Unit 2 markets have established these locations as major shopping destinations in the city. Moreover, Damana Market and District Centre are situated near KIIT University and the IT Hub of Bhubaneswar, attracting customers and boosting the shops' economic performance.

Cost Efficiency, Market Dynamics, and Growth Potential help us understand the evolving needs of urban consumers and the challenges and opportunities associated with them. Proximity to public transit reduces travel costs for consumers and employees, making it beneficial for retailers. Bhubaneswar Railway Station near Unit 1 and Unit 2 markets makes the markets act as supply chains for surrounding towns and enhance their market share. In areas like Damana and the District Centre, consumer loyalty and online delivery options are highly effective. These markets experience increased foot traffic due to the bargaining opportunities and the strong trust among regular customers.

The factor analysis of these government-leased markets highlights their crucial role in shaping the market environment and influencing business strategies. Policymakers and stakeholders can better navigate the complexities of these markets and leverage their potential for sustained growth and development by addressing these dimensions.

## CONCLUSION

In conclusion, this study enhances our understanding of the interaction among the spatial elements and their functions, shedding light on the interdependencies that contribute to the stability of urban structures. It illustrates the evolving nature of the commercial sector and reveals how commerce has adapted to improve customer experiences. Rather than focusing on cause and effect, the study emphasizes the connections among various parameters that optimize market performances. This insight aids in a deeper comprehension of urban structures and the ability to predict the performance of commercial sectors based on different spatial and functional factors. The Exploratory Factor Analysis with Varimax rotation identified six key factors accelerating economic performance and market share. These insights will assist retailers in fostering sustained long-term growth by developing targeted strategies to navigate the evolving retail environment. Understanding these factors supports more

informed decision-making and policy development, enhancing commerce and facilitating efficient urban planning.

## NOTES

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# ACCELERATING DISPOSSESSION: INTERIOR DESIGN ON THE OUTSIDE

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## INTRODUCTION

This paper considers the visual and aesthetic language of a restored townhouse in the gentrified area of Spitalfields, London. The colour frontages of the 18<sup>th</sup> century textiles workshops reflect the contemporary trend of blending the old with the new, and effectively signals the taste making that is occurring on the inside.

The presentation of terraced houses on notable streets, Wilkes Street and Princelet Street, with their distinguishable (though sedate) frontages and stock brick, deliver up a restrained, yet stylised appropriation of history that does not deliberately reference this part of London as an enclave of elite consumerism. However, taking the example of the homeowners of one such property in this conservation area, as they express their style choices in the 2023 Christmas issue of *Living etc.*,<sup>1</sup> audiences are assured of the relevance of European interior design, its marketed superiority (and international dominance), heralded as an indicator of good taste, sophistication and markers of innovation, aids in understanding this valorisation of ‘the old’ and the transitory process of asset return. The owners of the showcased property; a celebrity antiques dealer and an editor for an online luxury lifestyle magazine, convey their authority as interior design connoisseurs. Their use of colour by the traditional paint company, *Farrow and Ball*,<sup>2</sup> is used as a backdrop to a collection of antiques, floor to ceiling artwork, and chandeliers, combined with mid-century furniture.

The paper reflects on the transformation of this former working-class territory and the dispossession which is masked by constructions of taste that shoulder with the communities of Brick Lane.

I draw on David Harvey’s<sup>3</sup> concept of accumulation by dispossession, set out in his book, *The New Imperialism*. I use this concept as a lens through which Harvey’s analysis of “prime central locations”<sup>4</sup> has become what Harvey describes as a “centre[s] of intense gentrification”,<sup>5</sup> and a hub for intense consumption practices. In Harvey’s *Spaces of Global Capitalism*,<sup>6</sup> he develops the concept of accumulation by dispossession and conveys the way in which the prime locations are marked by extreme levels of wealth, in turn producing what he describes as “cultural differentiations”<sup>7</sup> and “defined space of collective consumption and production ...”.<sup>8</sup>

What this paper aims to present, is an account of the “cultural differentiations”<sup>9</sup> that can be observed from the decoration of restored streets in the conservation area of Spitalfields, London. Drawing on Harvey’s articulation of asset accumulation, in which these differentials are “actively produced” and what he describes as generating “niche markets” of “consumption preferences”,<sup>10</sup> I discuss the

materiality of elite status that is being signalled by a 9-page feature of a townhouse, in the December 2023 issue of the home interiors magazine, *Living etc.*<sup>11</sup>

Harvey argues, that a “‘facilitative state’” creates conditions that are appealing to capitalist ends, by “enforcing certain institutional arrangements”.<sup>12</sup> Thus, Harvey explains that “state power, is always a major player in accumulation by dispossession”.<sup>13</sup> In the case of Spitalfields, the role of the local authority [Tower Hamlets] in aiding this dispossession, as “a ‘facilitative’ state”,<sup>14</sup> used what Harvey terms “appropriate structures of law and governance”;<sup>15</sup> conservation laws, which stipulate that it is *essential to obtain Conservation Area or Listed Building Consent from the council before changes to structures in the area [can] begin*.<sup>16</sup> “Structures of law and governance” include laws of enforcement; imprisonment and fines for unauthorised works.

Drawing on Harvey, in which he argues that “definitions of legality, [play] a crucial role in both backing and promoting these processes”,<sup>17</sup> the reconstruction and reimagining of the area as a preserved historical space can be observed. Indeed, the 2009 management guidelines state that:

*The Core Strategy states as an objective that we will ‘Protect and celebrate our history and heritage by placing these at the heart of **reinventing** the Hamlets to enhance local distinctiveness, character and townscape.*<sup>18</sup>

This can be observed as the process which produces geographical and economic unevenness. Thus, Harvey argues that “this unevenness must be understood as something actively produced and sustained by processes of capital accumulation”.<sup>19</sup> In this moment, the area of Spitalfields, is marked as both an enclave of elite consumerism and what I term as being an open-air museum, accelerating dispossession. As Harvey explains it, we can understand the processes of gentrification as being a key process of the activities that sustain capitalism and the fundamental need to capture resources, or enact the state to make assets available to the market.

The capture of Spitalfields has occurred as a trajectory of capital accumulation in London, “that is based in increasing connectivity across time and space but marked by deepening uneven geographical developments”<sup>20</sup> across the city.<sup>21</sup>

This is a contradiction. The geographical unevenness which the capture of resources (“land, raw materials, intermediate inputs [semi finished goods], labour power,<sup>22</sup> though may be in decline, can bring about the stability of capitalism. As Harvey states, “uneven geographical development through dispossession, it follows, is a corollary of capitalist stability.”<sup>23</sup>

From Saskia Sassen’s research on global cities, their analysis demonstrates that we are seeing “... a dynamic whereby growth contributes to inequality rather than to the expansion of the middle class[es] ...”.<sup>24</sup> This is against the backdrop of increasing polarisation in urban contexts within highly developed countries. Thus, “research covering the last two and even three decades show sharp increases in socioeconomic and spatial inequalities within major cities,”<sup>25</sup> such as London.

Contained within the processes of accumulation are what Harvey recognises as “investments in the built environment [which] effectively define regional spaces for the circulation of capital.”<sup>26</sup> These investments include the visual decoration of the frontages of the townhouses, which signal the accumulation and the dispossession. Yet, this simultaneously allows for the process of dispossession to appear less visible as it is more easily disguised by the focus on the acts of restoration. The power relations that are at the centre of such regimes are overlooked as the agents remaking Spitalfields, through restoration become keepers of history and control the narrative of preservation.

I now move on to discuss the “cultural differentiations,”<sup>27</sup> reproduced in what Mona Sloane describes as the “highly aesthetic spaces of the 21<sup>st</sup> century”<sup>28</sup> which are commonplace in commercial settings of “concept stores, boutique hotels and design restaurants.”<sup>29</sup> This is also in keeping with the process of aestheticization of which Mike Featherstone argues, as being an increase in the collapsing of

“boundar[ies] between art and everyday life.”<sup>30</sup> Dagalp and Hartmann further this analysis by considering that this anesthetisation is a “multilayered consumer cultural process that involves consumers, brands and markets.”<sup>31</sup> I argue here, that this process is underway in the council’s intention and ambition to reinvent Spitalfields to *reinforce and strengthen [its] local distinctiveness*<sup>32</sup> (my emphasis).

Dagalp and Hartmann argue that the process of aestheticization is made possible by “build[ing] on existing symbolic resources,”<sup>33</sup> for example the cultural position which ideas about heritage and conservation hold in the cultural imagination in the UK, are being channelled into the process of aestheticization of the everyday, taking these ideas from the valorization of historic residences to conservation areas in East London.

### [First Slide & doorway images]

The recent Spitalfields Neighbourhood Plan, states that *Original features such as recessed doorways, pilasters, mouldings and fascias should be retained and repaired where damaged*<sup>34</sup>. In the descriptions of images that follow, I provide accounts of the architectural details of the frontages that have been restored and are in keeping with the “highly customised woodwork in gentrified areas”, as noted by Sassen.<sup>35</sup> The *pilasters, mouldings and fascias*, were restored in 2023.

Harvey describes the complexities and unevenness that are features of spaces of intense capital, that “within these spaces, production, distribution, exchange and consumption, supply and demand ... class struggle, culture and lifestyle hang together within an open system that nevertheless exhibits some kind of ‘structured coherence.’”<sup>36</sup> So, the system contains a multiplicity of functions and unequal relationships, but does have the appearance of being coherent. The frontages have been painted in colours that can be found in the traditional paint archives, such as those popularised by the English paint companies, *Farrow and Ball*,<sup>37</sup> *Zoffany*<sup>38</sup> and *Little Greene*<sup>39</sup>. The photographs of properties on Wilkes Street and Fournier Street adhere to the commitment to reinvention of the area as described in the council’s conservation management guide. Thus, the coherence of the colours used to mark the territory and to show the coherence and the stability, as in Doreen Massey’s words “indulgence in nostalgia”<sup>40</sup> that is shaping this space as an enclave “opting-out from Progress and History.”<sup>41</sup>

The appropriation and retro consumption of the traditional paint colours aid in the aestheticization, that permits the formulation of taste judgements in this context of “retro consumption.”<sup>42</sup> As Anne Anderson notes in their account of the 1880s ‘harmonious home’ the “aesthetes [she states] also sought to distance themselves from the vulgar masses by contriving esoteric, pretentious names for the delicate tones they favoured.”<sup>43</sup> The front doors on Wilkes Street and Fournier Street, appear to have been painted in *Zoffany*’s<sup>44</sup> Huntsman Greene©, Tivoli© [*Little Greene*]<sup>45</sup> and Stiffkey Blue© [*Farrow and Ball*].<sup>46</sup>

### [A Vintage Christmas]

I now move on to discuss the process of aestheticization cultivated in the revival of collectable European glass and retro consumption with analysis of the feature, ‘A Vintage Christmas’ in the December 2023 edition of *Living etc.*<sup>47</sup>

The interiors magazine, *Living etc.*<sup>48</sup> signifies the continuing importance of the print magazine in the digital age, in that, citing Theodore Peterson, Dianne Harris notes that “print magazines hold rhetorical power ... because they often remain in readers’ homes for months and even years.”<sup>49</sup> In the feature under discussion here, the “carefully compiled interior,”<sup>50</sup> communicates to readers knowledge about “what and how to consume.”<sup>51</sup>

This “high-income gentrification [that] generates a demand for ... speciality items,”<sup>52</sup> that Sassen has observed in gentrifying areas, is signalled by the possession of antiques, the bespoke, the handcrafted

and rare and luxurious materials and conveys the shift away from the promotion of “modest affluence.”<sup>53</sup> Yet, what is still evident is that “possessions and the ability to select and use them knowingly,”<sup>54</sup> is central to communicating “cultural authority.”<sup>55</sup>

Statements of wealth are “material assemblages of various kinds” as Mona Sloane argues, and they rely on nostalgic elements.<sup>56</sup> The terraced building (architectural details, stock brick), the traditional paint colours, décor and possessions, configure this elite consumer culture. We are reminded of the conceptualisation of interior design as embellishment that is “connoted with domesticity and femininity,”<sup>57</sup> as it is Rachel’s voice that provides the authoritative account of aesthetic appreciation.

In the next section of the paper, I discuss the way in which lighting choices made for this property, create the cultural differentials Harvey<sup>58</sup> refers to as being a feature of the spaces of specific consumer preferences. The focus on the lighting is also significant as it references the attention which designers pay to lighting as central features of interior design in which structural pieces, “... are charging artifacts with symbolic meaning”;<sup>59</sup> authority and aesthetic appreciation. The practice of merging the stylistic vocabulary of different periods is evident in the restoration of structural architecture combined with the use of dramatic structural lighting:

*Sympathetic restoration, reinstating fireplaces, skirting and coving. In the place of 84 spot lights, the couple installed striking retro chandeliers*<sup>60</sup>

The installation of vintage lighting incorporated into a plethora of possessions, can be drawn upon as symbolic resources for judgement and as a means of demonstrating *how* to actively collapse the boundaries between art and the everyday. Glass, although fragile, a widely available material receives elevated status [treatment?] due to the context of its production. Thus, the production of Murano glass [hand blown glass produced in Murano, Italy] reflects the significance of context for understanding the speciality and small scale production of the luxury of the everyday.

Examples in the magazine feature include a bespoke Sputnik chandelier, the Tronchi Murano fluted glass chandelier, and a gold bullion bar inspired chandelier. They are used to provide contrast, or complement and echo the material assemblages arranged in the room.

### **[Sputnik light]**

Interior designers use ambient light to illuminate and set the tone of a room. This is usually achieved with overhead lighting, such as ceiling pendant lights. This approach has been taken in the living room, where a large Sputnik chandelier has been installed. Its name taken from the 1957 Russian satellite, is a constellation of pink glass globes, held together by a metal centre and brass arms. The shape, colour and size of the chandelier is central in creating what Sloane refers to as the “palette mood”,<sup>61</sup> which is emphasised by the *Farrow and Ball*<sup>62</sup> paint colour, Smoked Trout©, a shade of pink, used as a backdrop to the chandelier sculpture and sculptured furniture.

### **[Kitchen/gallery]**

In the second example, the kitchen becomes a centre piece for their design knowledge, in which the functionality of a kitchen is dispensed with to make a way for a gallery-inspired space. The visual language of the kitchen/gallery is achieved by furnishing the white walls with floor to ceiling artwork, and the organisation of the furniture which zones the space. The blending of functionality with art, continues with the highly polished mid-century Eero Saarinen tulip dining table, over which a large, round amber glass chandelier, is suspended.

### [Hallway Murano light]

The *Farrow and Ball* paint, Mole's Breath© is the backdrop for the Tronchi Murano Glass Chandelier suspended in the hallway ceiling and “symbolically” aligns the tastemakers with “traditional skills,”<sup>63</sup> with the glass making region of Italy that dates back to the thirteenth century.

*The ambience created indoors is more than matched outside. Counting the artists Gilbert & George among their friends and neighbours, Spitalfields is an ‘amazing’ place to live says Rachel. (Owen’s ‘hobby’, she adds, is guerilla gardening on their street, filling it with Columbia Road Flower Market purchases.)... Thanks to the frequent walking tours of the area, she says that, ‘We’ve had people walk into our house thinking it’s a museum’. Which, in a way, it is.*<sup>64</sup>

### CONCLUSION

The discussion of materiality of this elite condition and how they live provides insight into “the levels of comfort, status, and control over their lives.”<sup>65</sup>

The discourse around conservation as progressive and being retained for the collective good, on examination effectively disguises the “sophisticated class struggle”<sup>66</sup> being played out in Spitalfields which neighbours Brick Lane.

The role that these tastemakers have in shaping the constructions of desired aesthetics, the circulation of their taste and announcing/revealing (standing in for) Spitalfields’ full transition into being a location and residence for high-spending consumer class that generates desire for the lifestyle of the gentrifiers. The furniture, house decoration, the ‘look’ creates an image of a lifestyle as desirable or at least aspires to do so.

## NOTES

- <sup>1</sup> Living etc. (London: Future Publishing PLC, 2023).
- <sup>2</sup> Farrow and Ball Paint and Paper Colour Card, 2022.
- <sup>3</sup> David Harvey, *The New Imperialism* (Oxford: Oxford University Press, 2003).
- <sup>4</sup> Harvey, 158.
- <sup>5</sup> Harvey, 158.
- <sup>6</sup> Harvey, *Spaces of Global Capitalism: A Theory of Uneven Geographical Development* (London: Verso, 2019).
- <sup>7</sup> Harvey, 102.
- <sup>8</sup> Harvey, 102.
- <sup>9</sup> Harvey, 102.
- <sup>10</sup> Harvey, 102.
- <sup>11</sup> Living etc.
- <sup>12</sup> Harvey, 95.
- <sup>13</sup> Harvey, *The New Imperialism*, 156.
- <sup>14</sup> Harvey, 143.
- <sup>15</sup> Harvey, 143.
- <sup>16</sup> Brick Lane and Fournier Street Conservation Area 1. Character Appraisal 2. Management Guidelines, Brick-Lane-&-Fournier-StreetV1.pdf (towerhamlets.gov.uk), 2009, accessed December 3, 2024.
- <sup>17</sup> Harvey, 145.
- <sup>18</sup> Brick Lane and Fournier Street Conservation Area, 18.
- <sup>19</sup> Harvey, *Spaces of Global Capitalism*, 65.
- <sup>20</sup> Harvey, 65.
- <sup>21</sup> Open City Podcast. Weekly Podcast — Open City (open-city.org.uk) accessed December 3, 2024.
- <sup>22</sup> Harvey, *The New Imperialism*, 139.
- <sup>23</sup> Harvey, *Spaces of Global Capitalism*, 93.
- <sup>24</sup> Saskia Sassen, *Cities in a World Economy* (London and Thousand Oaks, CA: Sage 2012), 271.
- <sup>25</sup> Sassen, *Cities in a World Economy*, 5<sup>th</sup> ed. London and Thousand Oaks, CA: Sage, 2022), 235.
- <sup>26</sup> Harvey, *Spaces of Global Capitalism*, 102.
- <sup>27</sup> Harvey, 102.
- <sup>28</sup> Mona, Sloane, "Tuning the Space: Investigating the Making of Atmospheres through Interior Design Practices", *Interiors*, 5:3, (2015), 298. DOI: 10.2752/204191114X14126916211184.
- <sup>29</sup> Sloane, "Tuning the Space", 298.
- <sup>30</sup> Mike Featherstone, *Consumer Culture and Postmodernism*, (London: Sage, 2007), 64, quoted in Ileyha Dagalp and Benjamin J. Hartmann. "From "aesthetic" to aestheticization: a multi-layered cultural approach", *Consumption Markets and Culture* 1, (2022) 25:1, 1-20. DOI: 10.1080/10253866.2021.1935900.
- <sup>31</sup> Ileyha Dagalp and Benjamin J. Hartmann. "From "aesthetic" to aestheticization: a multi-layered cultural approach", *Consumption Markets and Culture* 7, (2022) 25:1, 8. DOI: 10.1080/10253866.2021.1935900.
- <sup>32</sup> Policy D. Spitalfields Neighbourhood Plan, 18 accessed December 3, 2024  
2020-25. 3-Spitalfields-Neighbourhood-Plan-Compressed.pdf (towerhamlets.gov.uk),.
- <sup>33</sup> Dagalp and Hartmann, "From "aesthetic" to aestheticization", 2.
- <sup>34</sup> Policy D. Spitalfields Neighbourhood Plan, 2020-25.
- <sup>35</sup> Sassen, *Cities in a World Economy* (London and Thousand Oaks, CA: Sage 2012), 270.
- <sup>36</sup> Harvey, *Spaces of Global Capitalism*, 103.
- <sup>37</sup> Farrow and Ball Paint and Paper.
- <sup>38</sup> Zoffany colour card. Sanderson Design Group, 2022.
- <sup>39</sup> The Little Greene Paint Company Ltd.
- <sup>40</sup> Doreen Massey, *Space, Place, and Gender* (Minnesota: University of Minnesota Press, 1994), 10.
- <sup>41</sup> Massey, *Space, Place, and Gender*, 5.
- <sup>42</sup> Dagalp and Hartmann, "From "aesthetic" to aestheticization", 2.
- <sup>43</sup> Anne Anderson, "Harmony in the Home: Fashioning the "Model" Artistic Home or Aesthetic House Beautiful through Color and Form", *Interiors*, 5:3, (2015) 357. DOI: 10.2752/204191114X14126916211265.
- <sup>44</sup> Zoffany.
- <sup>45</sup> The Little Greene.



- <sup>46</sup> Farrow and Ball.
- <sup>47</sup> Living etc.
- <sup>48</sup> Living etc.
- <sup>49</sup> Theodore Peterson, *Magazines in the Twentieth Century* (Urbana: University of Illinois Press, 1956), cited in Dianne Harris, *Little White Houses: How the Postwar Home Constructed Race in America*, (Minnesota: University of Minnesota Press, 2013), 63.
- <sup>50</sup> Sloane, "Tuning the Space", 298.
- <sup>51</sup> Harris, *Little White Houses*, 2.
- <sup>52</sup> Sassen, *Cities in a World Economy*, 268.
- <sup>53</sup> Harris, *Little White Houses*, 21.
- <sup>54</sup> Dell Upton, 'The Traditional Home and Its Enemies', *Traditional Dwellings and Settlements Review*1 (1990), quoted in Diane Harris, *Little White Houses: How the Postwar Home Constructed Race in America*, (Minnesota: University of Minnesota Press, 2013), 61.
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# LIVABLE CITIES IN AHMADREZA AHMADI STORIES FOR CHILDREN

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## INTRODUCTION

Livability is a matter of quality of life. A better quality of life can be achieved through quality architecture, urban spaces, and urban life. The quality of architectural spaces, from urban to interior, can significantly impact children's cognitive, emotional, and social development. How quality of architecture can be promoted? How can expectations be promoted to ask for a better quality of life, from architectural and urban points of view? Societies seek ways to improve the quality of life for their children. One of these ways is through education. Besides formal education, children's literature provides both knowledge and entertainment, using indirect storytelling techniques to convey various messages. Typically, narrative structures, character interactions, and thematic elements are used in children's literature to facilitate the conveyance of information to young audiences. Through children's literature, children indirectly develop cognitive and emotional abilities related to the environment they live in, including their homes, neighborhoods, villages and cities, as well as their countries.

Ahmadreza Ahmadi (1940-2023) is an Iranian contemporary poet, screenwriter, and painter. He was one of the founders of the New Wave Poetry Movement in the 1960s in Iran. He is the author of numerous children's stories, some of which have won major literary awards in Iran and abroad. He was nominated for the prestigious Hans Christian Andersen Award, in 2010, and Astrid Lindgren Memorial Award, in 2011. His vivid imagination and plain writing style allow children to easily connect with his stories, and visualize the plot, and the scene. He is among the authors who pay close attention to the architectural space and place of the story. This particular feature makes his stories valuable for architects to study.

## A Glimpse into Historical Sustainable Architecture of Iran

Today's archeological findings show architectural evidence in different locations in Iran such as Sialk (3000 B.C.E),<sup>1</sup> Shahr-e-Sukhteh (3200 B.C.E),<sup>2</sup> Hajji Firuz Tepe (5000 B.C.E),<sup>3</sup> Tepe Zagheh (5370 B.C.E),<sup>4</sup> Tepe Ozbaki (6 millennium B.C.E).<sup>5</sup> These findings demonstrate thousands of years of life experience in various climates with diverse tastes, materials, and other features, forming a long list of historical significance.

Such antiquity is despite that most parts of Iran are in the dry-climate belt. This means that people have learned to live in this climate sustainably. Proofs are available in the form of Iranian qanāts (underground aqueducts),<sup>6</sup> yakhchāls (ice reservoirs),<sup>7</sup> āb-anbārs (water reservoirs),<sup>8</sup> bād-gīrs (wind catchers),<sup>9</sup> asbads (wind mills),<sup>10</sup> āsiābs (water mills),<sup>11</sup> kabūtar-khānehs (pigeon houses),<sup>12</sup> and lesser-known buildings and techniques in different climates. These innovations reflect wisdom and creativity,

showing how humans have learned to coexist with nature using delicate and intelligent methods over millennia.

### **A Brief Look at the Modern Architecture in Iran**

During the 1920s changes in the traditional ways of thinking and living were inevitable.<sup>13</sup> In the 1960s the capital Tehran and some other major cities were enjoying their new looks and lifestyles. While some were aware of the values of historical and traditional sustainable architectural heritage, others humiliated them. In the meantime, modern building types like universities, museums and galleries, restaurants, hospitals, cinemas, and apartment and office buildings became inseparable parts and images of cities.<sup>14</sup> The young generation of the 60s was born in traditional houses but may be raised and educated in modern buildings. They were familiar with the past, but new facilities were so appealing. Many architects, educated in Iran or abroad, were designing, building, and participating in international competitions, winning awards, and were happy to be a part of the world. A similar situation was in other fields like industry, film-making, graphics, literature, and especially in children's literature.

### **Contemporary Iranian Children and The Situation of Architecture**

Iranian urban and rural environments and contemporary architecture suffer from numerous problems in numerous aspects. Environmental issues such as excessive extraction through deep wells leading to the drying up of underground water resources, land subsidence, waste crisis, groundwater and air pollution are significant concerns. It is essential to consider the contribution of architecture and urban planning to these issues. Additionally, we need to evaluate the impact of general education, beyond architectural and urban education. Except for a few, what is happening in the name of contemporary architecture in Iran, is mostly, and in its best definition, "the construction of buildings", but cannot be called "architecture" with its historical-artistic or historical-climatic wisdom, nor chasing the dynamics of the modern era in the 1960s or 70s. The quality of life and architecture of these buildings or constructions, however, is the subject of a lot of discussions. Whoever causes these problems has been a child once a time, and whoever is going to live in these buildings in the future is a child now. This child will either be an architect or a user of these buildings in the role of a legislator, an employer, an engineer, or simply an inhabitant with minimum influence on its quality.

Children can learn about architecture through various means, including children's literature, which indirectly educates them. By encouraging authors and illustrators of children's books to create high-quality architectural and urban content and backgrounds in their stories, it will be possible to provide conditions for children to develop an appreciation for well-designed environments. This could inspire them to contribute to respecting and considering indigenous knowledge in rural and urban environments, creating better architecture and urban spaces in the future.

### **A Peek into the Children's Literature in Iran**

Mohammad Hadi Mohammadi and Zohreh Ghaeni compiled a ten-volume comprehensive history of children's literature in Iran, examining the history of childhood culture from ancient times to 1979.<sup>15</sup> Two institutions have had significant influences on the development of children's literature in Iran: the Children's Book Council of Iran (known as Shora), founded in 1962,<sup>16</sup> and the Institute for the Intellectual Development of Children and Young Adults (known as Kanoon),<sup>17</sup> founded in 1965. The Children's Book Council of Iran, established by Touran Mirhadi and her colleagues, outlines its goals as follows: to support the growth and development of indigenous quality literature, to promote fiction, nonfiction, and quality translation, to enhance knowledge about children's literature, to advise professionals, students, young readers, teachers, parents, and librarians, to expand both national and

international relations, and to create the infrastructure for the compilation of the Encyclopedia for Young People.<sup>18</sup> Shora is a member of the International Board on Books for Young People since 1964.<sup>19</sup> The Institute for the Intellectual Development of Children and Young Adults' main goal is defined as providing the required facilities to develop children's and adolescents talents and creativity and to develop their intellectual abilities in their leisure time. Kanoon has outlined the following tasks:

1. Establishing branches to provide children and adolescents with books, and cultural, artistic, and literature training.
2. Contributing to the development of public libraries, libraries in mosques, and schools, including establishing special sections for children and adolescents.
3. Preparing and using audio-visual equipment, and instructional tools, and producing, distributing, screening, and selling motion pictures. Producing children and youth theaters and promoting children's literature by engaging with authors, illustrators, artists, and publishers.
4. Holding festivals, and literature, artistic, and cultural exhibitions for children and adolescents.
5. Producing various forms of entertainment such as toys, dolls, and computer games.
6. Producing mobile libraries for children living in villages.
7. Cooperating with Iranian and non-Iranian organizations that share similar goals as Kanoon.<sup>20</sup>

Although Shora is not involved in producing children's books, except for the Encyclopedia, Kanoon has produced books, animations, music, and movies. Kanoon operates more than one thousand branches throughout the country and has played a crucial role in providing high-quality children's literature and products nationwide, including in small towns and villages. This role was especially significant before the 1979 revolution.

### Ahmadreza Ahmadi

Ahmadreza Ahmadi hails from a generation of Iranian artists and writers whose formative years were in the 1960s. He comes from a generation who was breaking free from tradition and grappling with a perplexing sense of modernity. He was a renowned Iranian writer, poet, actor, voice actor, and screenwriter.



*Figure 1. A collection of Ahmadreza Ahmadi's photographs, spanning from his youth to his life as a father, and later as an esteemed author and poet.*

Ahmadreza was the youngest child of his parents. His father was an employee of the Ministry of Finance. He was born and raised in a typical Iranian house in Kerman until he was seven.<sup>21</sup>

At that time, his family moved to Tehran. During his school years, he befriended many teenagers who later became influential figures in their time's literature and art scenes. He completed his military service in the Literacy Corps as a teacher in the Mahounak village of Kerman.<sup>22</sup>

His literary career started with the release of his first book of poetry in 1961. It continued with the formation of the New Wave style in modern Iranian poetry and the establishment of the Torfeh Literary Group in the 1960s to perpetuate the New Wave movement. 1970 Ahmadreza Ahmadi was employed at Kanoon as the director of Music Production for Disc and Tape until 1980. From 1980 to 1994, he worked as an editor in the Publishing Department, when he retired.<sup>23</sup> His first children's storybook was published in 1969, but he returned as a writer for children in 1983 after the birth of his daughter, Mahoor.

Since then, he published almost 80 books for children and young adolescents. His last two books were published in 2022, only one year before his death.

### Ahmadreza Ahmadi's Style

Ahmadi is known as the poet of hope and peace. His work revolves around global human concepts. He has a unique style that presents his stories like short dreams. In an interview, he mentioned that he owes a lot to his dreams, saying, "I see pictures. I dream a lot. Some characters or parts are real, but the rest is my imagination and my dreams."<sup>24</sup>

In another interview, he mentioned that he still dreams of their house in Kerman. He described sitting on beautiful Kerman rugs with the family, next to a stone pond at the center of the courtyard surrounded by pomegranate trees. The air is filled with the scent of night-scented stocks and petunia flowers during the endless nights of the desert and its starry sky.<sup>25</sup> Although he lived in modern houses and later apartments, the house of his childhood, its courtyard, the trees, the neighborhood, the peaceful ambiance, and his family members all became fixed locations, characters, components, and images in his stories. However, one cannot imagine Ahmadi being stuck in the past. He is a modernist poet who founded the New Wave Poetry Movement, which was a brave step in its time. Despite suffering from several diseases, he claimed that he was defying death through his poems and stories. One could say that Ahmadreza Ahmadi was a product of his time: he was born in traditional Iran and raised in modernized Iran with modernist facilities, all of which creatively are reflected in his stories. His stories are plain, the complexity is in the global, inspiring, fictional world he creates.

### Fantasy

Ahmadi's children's stories are categorized as fantasy. Fantasy has various definitions, but generally, it can be accepted that fantasy is a popular literary genre that intentionally diverges from the universally accepted real world to explore new dimensions of reality through the creation of alternate worlds and the use of fantastic and imaginative events.<sup>26</sup>

The fantasy writer aims to understand the mindset and language of children by deliberately altering the established rules of the world and presenting new perspectives. This also serves as a way to encourage children to have the confidence and strength to change and improve the world, while shaping their future according to their desires, rather than being restricted by the ideas and imagination of previous generations. Fantasy brings joy and pleasure to children as authors create new and amazing situations through vivid imagination and place fictional characters in them. In fantasy, the imaginary spaces, characters, and places are completely logical and believable. By strengthening the sense of identity, fantasy can transport the audience to enchanting worlds, fostering self-awareness and introspection. In fantasy, there is a reflection of a higher truth that confronts the audience with spirituality and philanthropy.<sup>27</sup>

### Fantasy in Ahmadreza Ahmadi's children's stories

Mohamadi identifies several principles that classify Ahmadi's children's stories as fantasy. These principles include specific narrative logic, conveying the atmosphere of perception and visualization, fundamental imagination patterns, free design, unpredictability, suspense and disbelief, defamiliarization, surprise, relativism versus absolutism, open endings, transformation and metamorphosis, language games and standard language distortion, and creating playful situations.<sup>28</sup>

One may add dealing with dreams, loneliness, kindness, the gap between generations, the desire to paint, playing with colors, and searching for new situations to explore.

Atiyeh Firoozmand brings attention to Ahmadi's use of first-person narrators in his stories, which are not his life story but reflect the individuality of the modern man. Ahmadi does not believe in a special language for children's literature. He believes that children should not be considered stupid. In his opinion, they are wise people in small dimensions.<sup>29</sup> But at the same time, his stories are characterized by the use of simple prose and a childish, innocent tone that sometimes becomes nostalgic.<sup>30</sup> Abstract imagery, a theme of missing and longing for an absent father, repeated use of natural elements and phenomena, unique shapes and painting style, musical influence, creation of work, and fluidity in time and space are other features of children's stories by Ahmadi.<sup>31</sup>

His stories do not aim to capture a child's mind in a trap; they are like seeds that nurture the wings of their imagination. This helps them to transcend the boundaries between imagination and reality, going beyond the limits of the current time and space by internalizing and externalizing their thoughts.<sup>32</sup>

### Urban to Interior Architecture in Illustrations of Children's Stories by Ahmadreza Ahmadi

Ahmadi's stories have been illustrated by many artists with different styles and techniques, and published by various publishers. This paper aims to analyze Ahmadreza Ahmadi's children's stories with a focus on how architecture is depicted as the background or scene in illustrations. The goal is to provide insights into quality architecture, ranging from interior to urban views. The text and illustrations of sixty-four of his children's stories are reviewed (only twenty-six of them are presented in this paper); however, as the books are in Persian and the target audience of this article is assumed to be mostly non-Persian speakers, only illustrations featuring architecture are included and discussed. The results are categorized into themes.

Ahmadi finds great significance in family and views houses as inseparable settings in his stories. In some instances, the houses themselves become characters in his stories. His houses are reminiscent of the home in *One Hundred Years of Solitude* by Gabriel Garcia Marquez,<sup>33</sup> which serves as a multi-generational living space and seems to react to events.<sup>34</sup>



Figure 2. Global views of home from various illustrators.

Modern spaces like train stations, parks, city squares, factories, barracks, hospitals, and schools are lively spaces in Ahmadi's stories.<sup>35</sup>





Figure 3. Various events occur in contemporary spaces.

Some illustrators have more concern and try to give space to the rural, urban, or architectural background in their images.<sup>36</sup>



Figure 4. City or Village from above.

Sometimes they prefer to get inspiration for their illustrations from their nearby surrounding.<sup>37</sup>



Figure 5. Illustrations inspired by current urban backgrounds.

Some prefer to join the author in creating the dream house for the main character of the story: a house that no earthquake, war, flood, or storm could destroy. It's a home full of colors, flowers, trees, animals, and music.<sup>38</sup>



Figure 6. Joyful images of Home.

Some illustrators depict urban scenery in a minimalistic style, even when the story discusses the city, its products, trees, and streets. Others may portray a rural setting while the author talks about modern urban landscapes such as traffic lights, airports, train stations, nurseries, restaurants, and car cemeteries. But, some artists recreate images of Iranian architecture in various climates.<sup>39</sup>



Figure 7. Indirect education through establishing vernacular backgrounds.

It is often the case that the story is set in a house with an "eyvan" (a porch or balcony, with or without a roof), a "howz" (a pool typically located in the center of courtyards in Iranian houses in hot and arid climates), and gardens, all of which are typical features of Iranian house architecture. In one instance, the illustrator depicted a reference to one of the oldest Iranian historic carpets, Pazyryk. At times, the illustrator makes references to Persian painting forms, components, or techniques. Additionally, some illustrations resemble architectural drawings.<sup>40</sup>

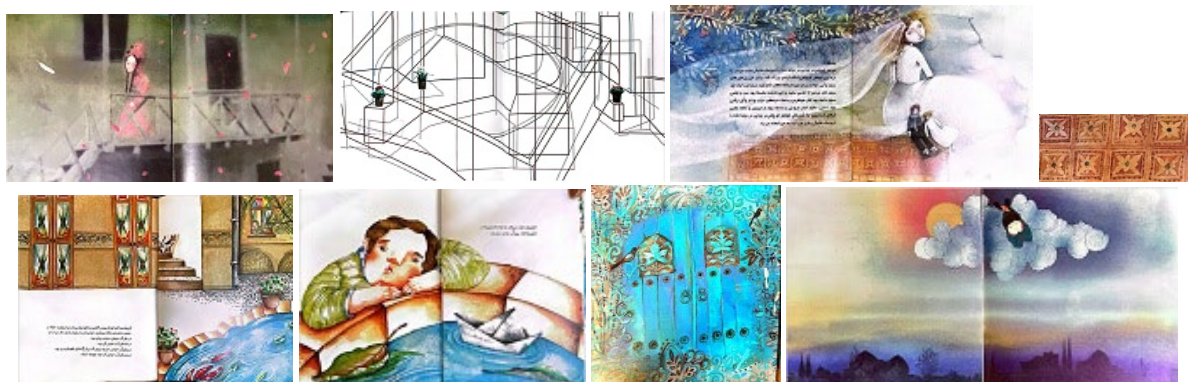


Figure 8. Indirect education through establishing backgrounds.

Some are loyal to the story and enjoy their imagination, ability, and style.<sup>41</sup>



Figure 9. Some illustrations following the playful ambiance of Ahmadi's stories.

In Ahmadi's stories, children are at peace with nature and have the ability to change the world through activities such as gardening, writing, drawing, and painting. Alternatively, they are depicted just dreaming, sometimes using simple tools like a magnifier. For example, a toy fire truck races toward a burning house. Firefighters rescue not only children and pigeons but also men and women. A man dressed in white then gives them apples and pomegranates.<sup>42</sup>





Figure 10. An illustration from *The Butterfly on My Pillow* by Lida Taheri, depicts a child playing with a magnifier, examining a toy, and imagining a peaceful story.

## CONCLUSION

Ahmadreza Ahmadi's vivid imagination offers a wide range of backgrounds for envisioning a peaceful world and architecture, allowing children to dream about their living spaces through stories. The tranquil atmosphere of his works can inspire the creation of livable cities for today's and future generations of children. The architectural aspects of Ahmadreza Ahmadi's children's stories revolve around three main themes: imagination, reality, and a blend of the two. It appears that many illustrators associate Ahmadi's global influence with Western urban and architectural imagery. However, all of the approaches help children and young people think about architecture and urban spaces, generate ideas, visualize, and build their own.

The authors acknowledge that the illustrations need to be larger to see more details and direct readers to the online presentation on YouTube: [https://youtu.be/Y0Y-yr\\_fH3k?feature=shared](https://youtu.be/Y0Y-yr_fH3k?feature=shared)

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# **BUILDING ADAPTABILITY AND URBAN REGENERATION: A DISCOURSE ANALYSIS IN THE BUILT ENVIRONMENT**

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## **INTRODUCTION**

As the world population continues to grow,<sup>1</sup> cities face unprecedented challenges in accommodating their spatial needs in a context of climate and social crisis. Recognising that urban areas are complex networks of buildings, services and infrastructures that evolve over time,<sup>2</sup> plagued by obsolescence, there is a growing interest in adaptability in both academic and professional discourse. Yet, the link between spatial adaptability in architecture and urban sprawl impacting city liveability remains unclear, as the predominant focus remains on component reuse rather than addressing obsolescence holistically within the urban realm.

This study proposes to examine the discourse on adaptability within professional literature to understand its meaning among design-decision makers in the built environment, including designers, financial stakeholders, and policymakers, and its connection to urban regeneration. Using a mixed-method approach, the study captures insights and challenges shared by these professionals, uncovering trends in this evolving area and the vocabulary used to advocate for adaptable practices. By providing a nuanced understanding of how architects and other professionals conceptualise spatial adaptability, the study aims to offer practical insights and guidance for planners, designers, policymakers, and stakeholders at large.

### **The dynamics of adaptability and obsolescence in the urban realm**

The rapid pace of urbanisation exacerbates the shortage of available space in cities, intensified by urban sprawl.<sup>3</sup> This phenomenon is particularly evident in Europe, where the growth of urban areas has outpaced population growth. In parallel, cities are plagued with the obsolescence of buildings at a time of increasing demands placed on them. In Britain alone, approximately 50,000 buildings are demolished annually, further emphasising the rapid transformation of urban landscapes,<sup>4</sup> and creating an additional challenge to urban regeneration.

Adaptability appears therefore as a potential catalyst for addressing both material and spatial scarcity, as demonstrated by the growing interest in the academic field to investigate, understand define and measure adaptability in the built environment.

However, these poses issue for practitioners, as scholars themselves question its meaning, and definition from both a quantitative and qualitative perspective, as they are on the quest for a framework to measure adaptability in the built environment.

Set within the scope of urban regeneration, it is therefore through the lens of obsolescence that we approach adaptability in the present research, as adaptability fits into a life cycle process.<sup>5</sup> This life

cycle is thus challenged by obsolescence, defined as the process of declining performance resulting in the end of service life.<sup>6</sup> In this research, a distinction is made between the buildings that web the urban fabric as “relevant”, “obsolete” and “abandoned/fallow” (Fig.1), recognising that obsolescence is in fact a process, occurring overtime and is therefore a spectrum nested between abandonment and use.

Adaptability, in contrast, serves as an active response to the passivity of obsolescence. It is a continuous process aimed at maintaining the relevance of structures by dynamically adjusting to shifting demands and addressing the uncertainty that contributes to obsolescence.

The focus of this paper lies in the decision-making process involved in optimising buildings in view to salvaging them from suboptimal functioning and preserving their utility integrated in urban settings over time.

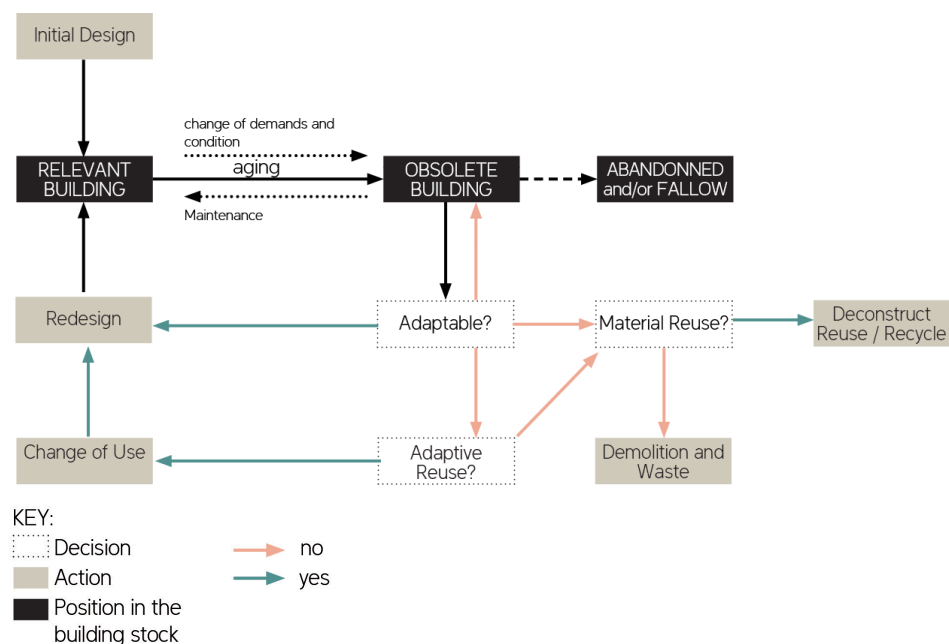


Figure 1. The building stock of urban areas, shift in the spectrum. Adapted from Rockow et. al<sup>7</sup>

### Adaptability, a potential catch-all phrase

The literature investigates at length adaptability in the built environment to understand how to measure it from regulatory and design perspectives,<sup>8</sup> through the establishment of frameworks and design measures to help meet the criteria defined in research settings. Interestingly, it widely however recognises the challenges posed by understanding the meaning of adaptability, and that very little research has been done to comprehend the meaning of “adaptability” amongst stakeholders in the build environment.<sup>9</sup> Some researchers also warn of the risk of the word becoming “a buzzword”<sup>10</sup> associated with this gap. Furthermore, it is acknowledged that since there is not one specific understanding of adaptability discourse amongst scholars there is not one specific way to grasp its meaning to define it, thus, to measure, identify and observe its mechanisms.<sup>11</sup> This presents, in turn, a major obstacle for the implementation of design decision that favours adaptable design solutions.

**A discourse analysis to elucidate the meaning of adaptability in the Built Environment**

In this context, it appears fundamental to study the meaning of adaptability amongst practitioners. In this study, the word practitioners encompass professionals making decisions about the built environment, including designers (architects, engineers, planners) but also the decision-makers that regulate the production of the built environment. Indeed, they later participate in the design process via the creation and enforcement of laws, fiscal policies, incentives that often go unnoticed in the study of design. The term stakeholders, defined as an entity expressing a need<sup>12</sup> is also used interchangeably in the present research.

The quest for a definition of adaptability from a stakeholder's perspective, through a semantic standpoint as well as its qualitative qualities, has previously been attempted by several scholars.<sup>13</sup> Indeed, it is widely recognised that architectural discourse is a science based on linguistics and definitions, as explored by Adrian Forty on "Words and Buildings",<sup>14</sup> which Leupen insists requires clarity.<sup>15</sup>

Askar for instance examined the requirements for adaptability currently proposed by multiple adaptability and circularity assessment models.<sup>16</sup> However, the lack of understanding amongst both scholars and practitioners illustrated by the, often conflicting, frameworks is paired with the issue of semantic debate amongst practitioners. This was for instance studied by means of coded interviews of multiple stakeholders,<sup>17</sup> which shed a light on the lack of consensus but set the stage for grasping motivations. Indeed, the field of architecture, a sub-category of the built environment domain, is parcelled by a complex array of discussion, context paradigm, sometimes disconnected from real life.<sup>18</sup> This, in turn can weaken the value of knowledge gathered through the investigating method of the interview process proposed by scholars investigating practitioners.

Furthermore, the various statements that make up a discourse create connections and shape the context based on specific frameworks. Different types of discourses—such as professional, technological, social, representational, and environmental—govern the context by setting boundaries and defining concepts. They assert their priorities and principles through the selective dissemination of certain statements, while suppressing others.

The present research offers an analysis of discourse in the British context, focusing on the concept of adaptability amongst stakeholders working in the Built Environment industry. Utilising periodicals as the object of the study as they are anchored in a contemporaneity due to their short shelf life.<sup>19</sup> Schwarzer indeed highlights that whereas books take a long time to publish, periodicals are released quickly, making their information current and relevant, capturing and reflecting the changes and trends in architectural practice and profession. They also have a promotional value that is evident, and valuable to understand the trends. It further acknowledges that interviewees and journalists shape a part of the discourse on architecture, but also their marketing value that highlights visions and aspirations that form a part of architecture. Indeed, recognising that architecture is the sum of the building, its image and its discourse,<sup>20</sup> this research will therefore analyse the images and texts in a systematic fashion, to sharpen the understanding of adaptability in the built environment, with a particular focus on the relationship between architectural adaptability and the urban realm from a professional perspective.

**MAPPING THE DISCOURSE ON ADAPTABILITY****Scoping review Framework**

To gather the data for this study, journals relevant to studying the discourse on adaptability in the built environment were required. Their selection was underpinned by several factors. Firstly, the publications had to be vetted by the Association of Architecture School Librarians which sets the standards for periodical literature in schools of architecture and leading to professional settings, ensuring they met

criteria of relevance to the field as a whole, by means of a series of lists called *Core*. Also, a further analysis of their list of criteria supported the selection of journals relating to and presenting characteristics of engaging with trade and professional discourse in affaire. The sub-list relevant to the present research, namely the *Core Recommended Periodical* list<sup>21</sup> was selected due to the high access worldwide to its publication, the value of the journal presented in the industry, and its multidisciplinary.<sup>22</sup> Finally, a practical access to the publication articles and linguistic was preferred, selecting British journals their scope goes beyond national borders.

Data was therefore collected from leading British architectural periodicals, namely the Architects' Journal and RIBA Journal. These sources were selected for their historical significance and wide readership within the architectural community, as well as belonging to the top three architectural journals distributed in the UK,<sup>23</sup> and their online readership. The RIBA Archive online library (Fig. 2) aided the search for articles within their large database, due to its cataloguing methodology that supported the identification of relevant literature, as the database serve as a future archive, tagging and organising the articles. The filters applied were the name of the journal and key words such as adaptable, adaptability and adaptation (Fig. 3) Articles were subsequently retrieved and screened manually to ascertain their relevance, obtaining a total of 31 articles used for this study.

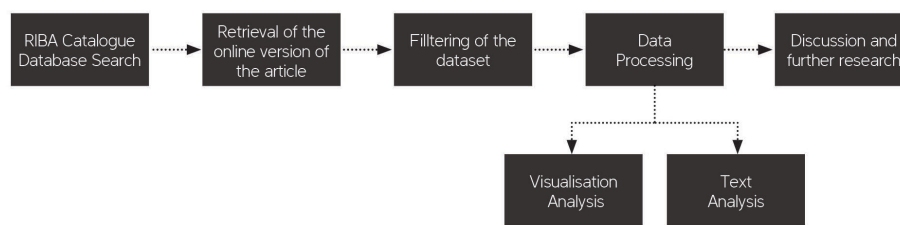


Figure 2. Data extraction and analysis protocol, by authors

### Analytical Techniques

The articles were then extracted and simplified, converting their texts and images from a website source into standardised text. This approach aimed to eliminate the bias of the layout, intrinsic to architectural magazine and their appreciation, thereby allowing an evaluation independent of the visual narrative constructed by the graphic design of the layout. Subsequently, a textual and image analysis was conducted (Fig 2).

Due to the navigating nature of webpages, only the first image was selected as it serves as the introduction to the article. Whereas in the print version, the reader interact with a series double spread layouts to make the choice to engage with the article, the first picture alongside a title and a short description of the articles inform the reader on the context of the writing, which is also the flagship of the article when shared on social media.

These images were then coded and clustered into categories. In the case of articles featuring multiple case studies, only the first image of each case study was selected. This was motivated by the visual narrative it provides, as these were set to construct an article to showcase multiplicity.

Similarly, the texts were screened, evaluated and coded by themes identifying key areas, mapping their occurrence to rate their prevalence, but also visualise their proximity in relation to one another (fig. 4).

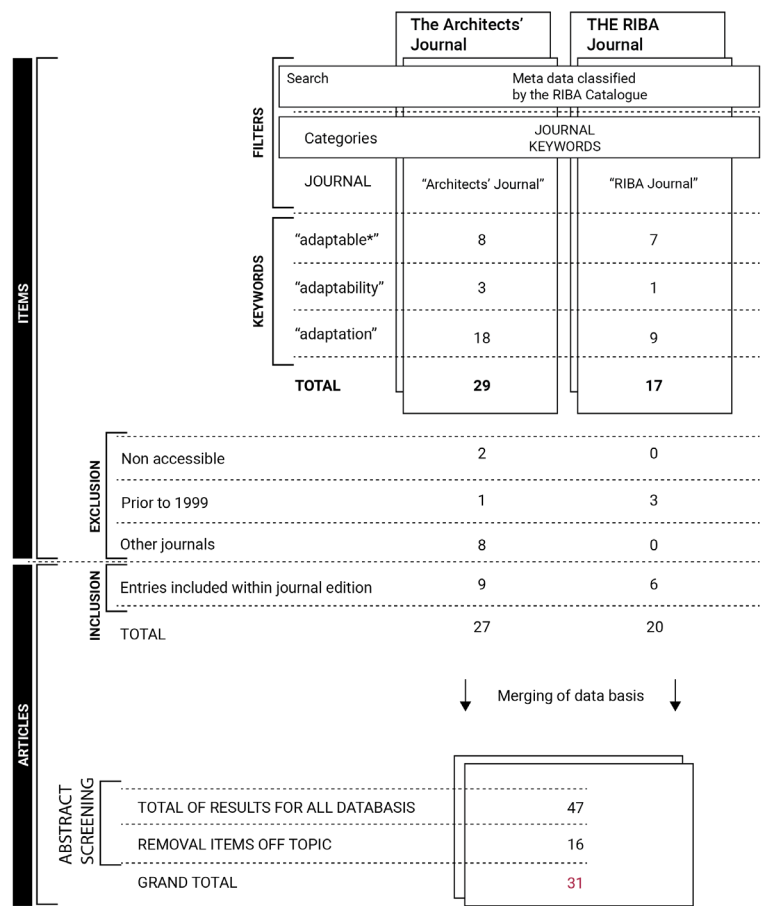


Figure 3. Data screening protocol, by authors.

INSIGHTS FROM THE PROFESSIONAL LITERATURE

Textual and Image clusters:

The results of this studies revealed a broad range of generic themes, which were systematically grouped into subcategories to establish the purpose of the statement. For instance, a statement on a topic (heritage, environment) could be associated with a goal, or a constraint for instance. To test the coding of the excerpts and ensure none was omitted, keywords were employed to further screen the data, their occurrence, and proximity to other subtopics to establish a relationship in the narrative. This approach facilitated, in turn, a deeper understanding of the thematic association, by way of providing a narrative through supporting the mapping of a narrative through their proximity (Fig 4). Moreover, it enabled the examination of the prominence of certain keywords associated with the general key themes at a granular level, thus contextualising what might otherwise be a mere simplification of a theme. For example, the theme of “environment” was subsequently split in two sections: “environmental impact” (GOAL) and “environmental concern” (MOTIVATION), by understanding the vocabulary associated with this topic, that is often conflated in discourse through shortcuts.

The image clusters were organised according to their composition and their association with the theme described in the text, also using their legend to understand the aim of their placement, a. More visual by nature, they supported the interpretation of the texts that they accompany.

## Visual representation and professional discourse on adaptability as a time-capsule

How do stakeholders convey visually adaptability in architectural discourse? The largest proportion of the images greeting the readers depict the buildings from a temporal perspective, by way of snapshots evoking a before-and-after-approach (Fig 5). The typical visual language of the before snapshot often applied (black and white, dull) evoking archival knowledge to highlight the time stamp before a design intervention was made. This also serves to contrast with vibrant colours of the after representations of the building. In some cases, only one time period was illustrated. All were devoid of human presence, highlighting the materialistic characteristic of the adapted building and prioritising the intervention of the designers, portraying a conversation between them and heritage assets.

Interestingly, this temporal perspective demonstrated by snapshots of time was paired with descriptions of “what used to be”, including anecdotal features of the buildings that were connected to their use and the heritage realm that it seeks to salvage, enhance or update. Indeed, like in renovation work, the themes of appliance update was often quickly evoked, and its impact on the environment.

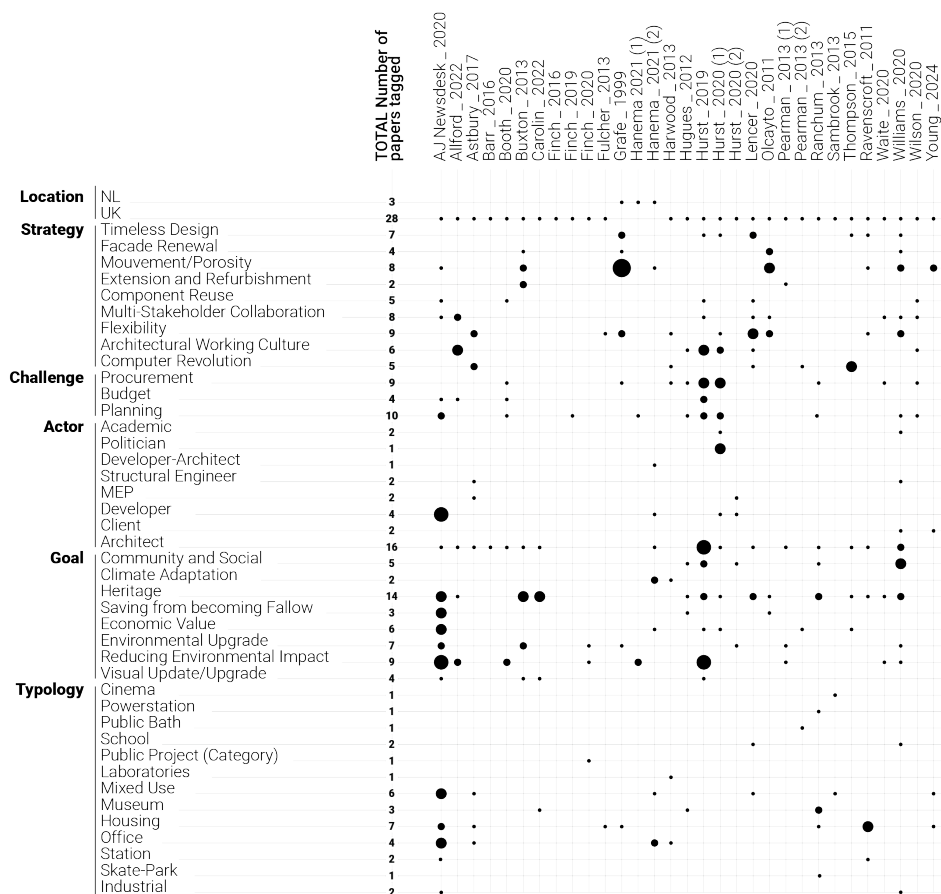


Figure 4. Textual mapping of the discourse, clustered and weighed paragraph mentions, by authors.

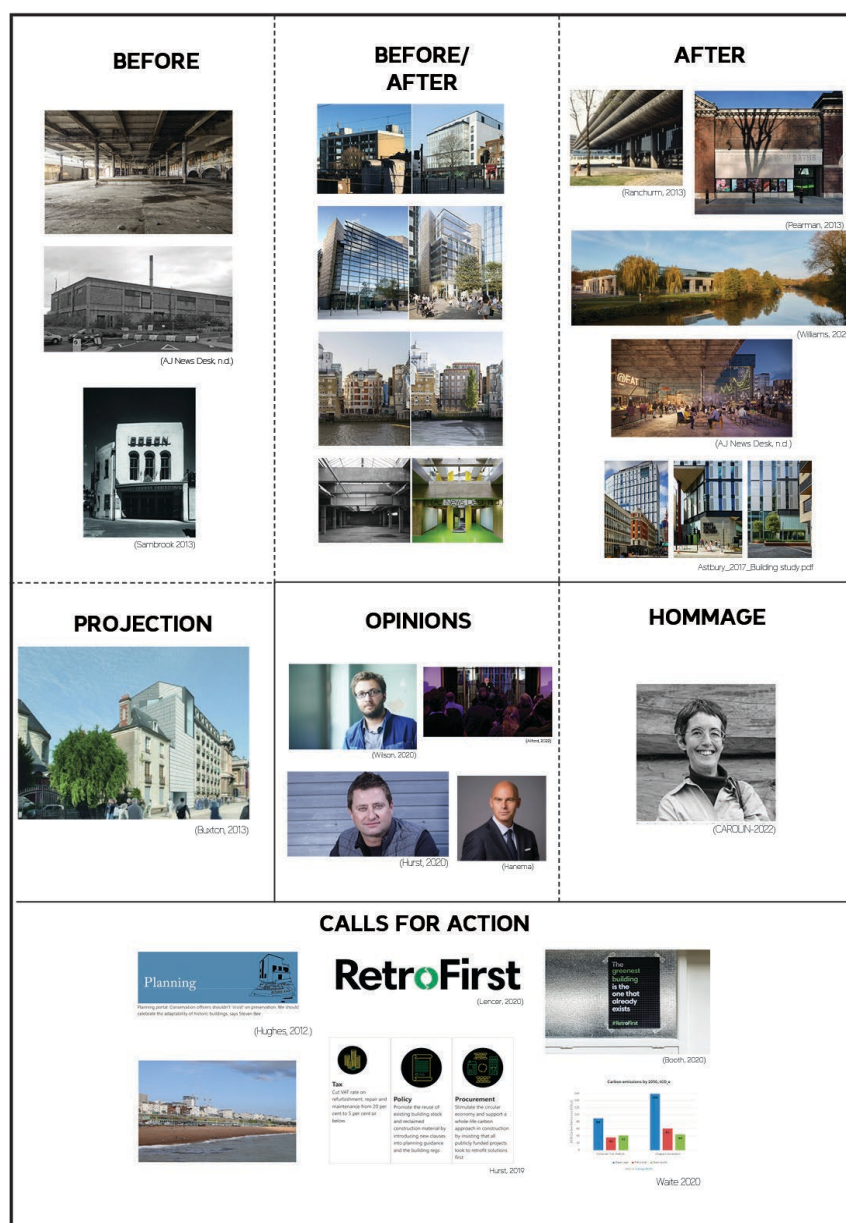


Figure 5. Mapping of the visual discourse, by authors.

### The professional takes on the strategies for adaptability

The majority of the interviewee or contributors to this journalistic work were mostly architects (17), while 12 interviews and contributions were attributed to other professions, such as engineers, developers, clients and, in some case, professional with dual role such as architect-developers. More abstract knowledge was provided in two instances by academics.

The vocabulary associated with adaptability was closely linked to the specialist's field when pertaining to explaining the process of design interventions, and the occurrence of teams work reflect the need for expertise and multidisciplinary knowledge to addressing adaptability to avoid neglect<sup>24</sup>. However, no difference was noted when describing the concept of adaptability itself.

Instead, the typologies gathered more similarities of language and measures pertaining to the specific areas of knowledge intrinsic to their complex nature. Adaptability is therefore, as revealed by Thomsen,



involving expertise<sup>25</sup>, based on the complex requirements placed on these buildings, which makes it typology specific<sup>26</sup>. It is worth noting that many of the case studies belong to the civic building category (Fig. 6), and are therefore more likely to attract journalistic coverage, contrasting with the academic scope of adaptability which focuses on domestic buildings and office that belong to the private sector. The challenges in relating to field knowledge were however highlighting fiscal measures unfavourable to adaptability, heritage constraints limiting the scope of intervention on listed assets and pointing directly to a lack of knowledge amongst planners, who are not represented in this sample, showing a disconnect, but noticed by many.

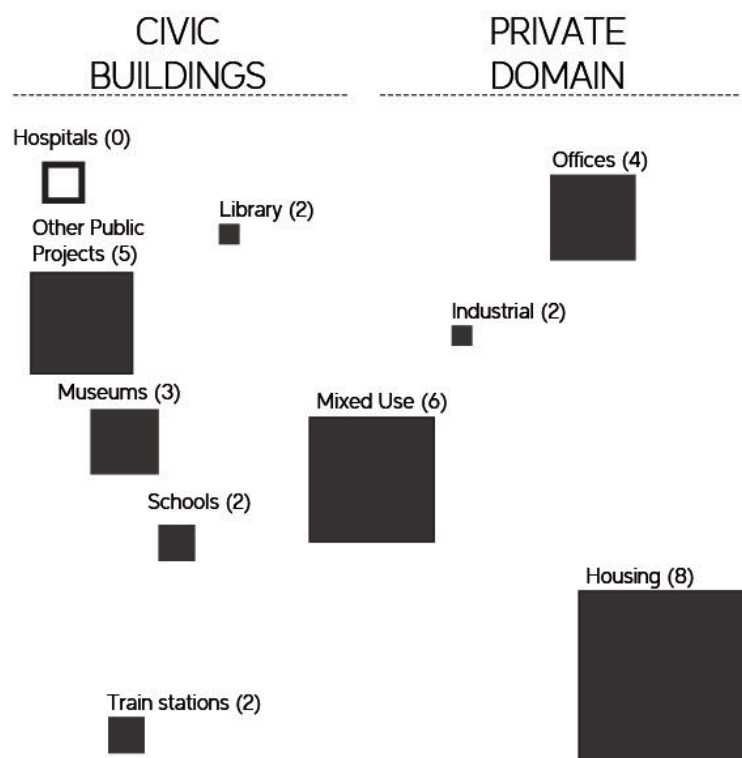


Figure 6. Typologies examined in the case studies examined in the 31 trade journals articles on adaptability in the Built Environment.

### Heritage and environmental impact and opportunities in the urban scope

Both environmental and heritage concerns were at the forefront of the motivations for adapting buildings that form part of the urban network.

Firstly, the environmental discourse around adaptability is the leading motivation described by practitioners (Fig.4). This contextualises the design intervention into a larger scope that transcends the boundaries of the site, as it places it within the pressing issues of climate change related to global initiatives such as the Paris Agreement and assert their relevance and importance with the Building industry itself. Indeed, mentions of market-based tools such as LEED (Leadership in Energy and Environmental Design) and BREEAM (Building Research Establishment Environmental Assessment Method) serve as both motivation and evidence of the environmental virtues of the scheme, as they serve as quantifiable evaluation of the qualities of the design.

In this context, carbon appears as the most cited evidence by practitioners of these qualities, which is supported by the primary focus of environmental impact of the building during its use, surpassing the material footprint of architecture. This was for instance critiqued by Sunand Prasad<sup>27</sup> in 2019. Our study

observes however (Fig. 8) that subsequently to the launch of the Retrofirst<sup>28</sup> campaign by the Architect's Journal in 2019, there is a shift in the narrative.

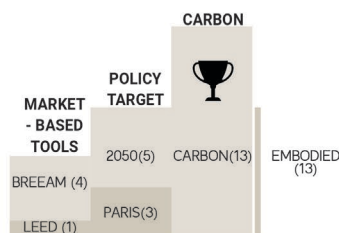


Figure 7. Evidence of environmental impact concepts displayed in the corpus (number of articles mentions), by the authors.

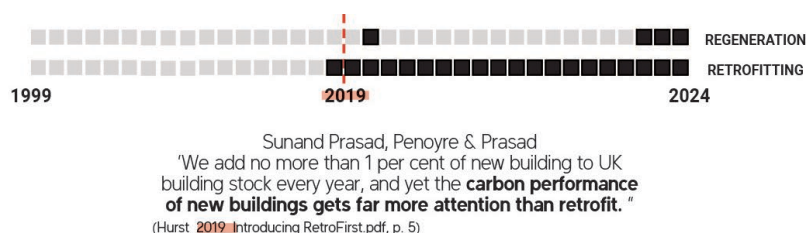


Figure 8. Occurrence of regeneration and retrofitting discourse, (number of articles mentions), by the authors.

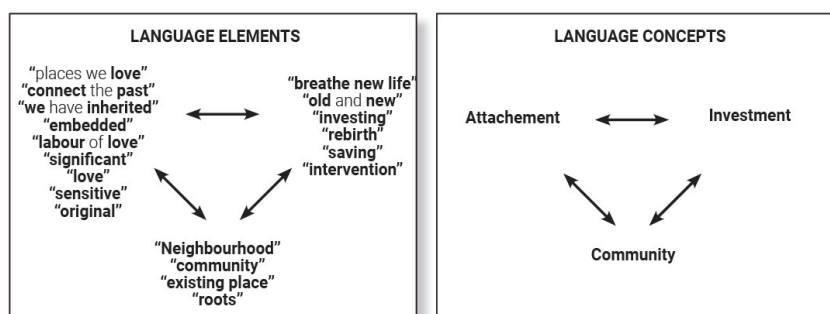


Figure 9. Elements of language correlated to urban heritage, and their concepts, by authors.

Secondly, the heritage concern show that this is a leading cause of both motivation and constraint, the current system favouring new built from a fiscal perspective, but also from the regulatory and planning framework, putting in jeopardy the urban regeneration and missing on a paradigm shift that the call for actions (Fig 5) does not correlate with heritage. Interestingly, heritage is mostly discussed by architects, using vocabulary pertaining to the emotional register, connecting the attachment expressed to a reason to invest and care about buildings that belong to the community. This further is ascertained by the proximity of long description of the experience of the building asset, through a promenade nearby, towards of within the buildings, making a direct but subtle correlation between the building, its adaptability and its connection to the urban realm. It describes the senses, the transition between threshold and the views, evoking the porosity that supports these assets and their integration in the community.

## DISCUSSION

This research into building adaptability and urban regeneration presents several key findings. Firstly, adaptability emerges as a complex and multifaceted concept, often hindered by fiscal constraints, regulatory frameworks, and heritage-related challenges. The discourse analysis underscores the crucial role of practitioners in defining and implementing adaptability, particularly in relation to how buildings are integrated within the urban network—a promising area for further exploration. Additionally, the strong connections communities have with heritage buildings highlight the importance of porosity, where the seamless integration between a building and its urban environment fosters greater community engagement and a stronger impetus for preservation. Notably, the study reveals that adaptability is not profession-specific but rather typology-specific, with various professions working together in a multidisciplinary way to address the unique challenges posed by different building types. Ultimately, incorporating urban design measures that ensure seamless connections between civic buildings and the urban realm could significantly enhance the long-term relevance and value of buildings within the urban landscape.

## NOTES

- <sup>1</sup> UN DESA, 'The Sustainable Development Goals Report 2023', 34.
- <sup>2</sup> Batty, *The New Science of Cities*, 79–80.
- <sup>3</sup> UN DESA, 'The Sustainable Development Goals Report 2023', 35.
- <sup>4</sup> Hurst, 'Introducing RetroFirst'.
- <sup>5</sup> Rockow, Ross, and Black, 'Review of Methods for Evaluating Adaptability of Buildings', 275–76.
- <sup>6</sup> Thomsen and van der Flier, 'Understanding Obsolescence', 353.
- <sup>7</sup> Rockow, Ross, and Black, 'Review of Methods for Evaluating Adaptability of Buildings', 275.
- <sup>8</sup> Askar, Bragança, and Gervásio, 'Design for Adaptability (DfA)—Frameworks and Assessment Models for Enhanced Circularity in Buildings'; Ross, 'The Learning Buildings Framework for Quantifying Building Adaptability'; Shahi et al., 'A Definition Framework for Building Adaptation Projects'; Conejos, Langston, and Smith, 'Designing for Better Building Adaptability: A Comparison of adaptSTAR and ARP Models'.
- <sup>9</sup> Pinder et al., 'What Is Meant by Adaptability in Buildings?', 6.
- <sup>10</sup> 'Flexibility: Beyond the Buzzword—Practical Findings from a Systematic Literature Review - Jane Carthey, Vivien Chow, Yong-Moon Jung, Susan Mills, 2011'.
- <sup>11</sup> Forty, *Words and Buildings: A Vocabulary of Modern Architecture*.
- <sup>12</sup> Olander, 'Stakeholder Impact Analysis in Construction Project Management'.
- <sup>13</sup> Schmidt III, Eguchi, and Gibb, 'What Is the Meaning of Adaptability in the Building Industry?'; Pinder et al., 'What Is Meant by Adaptability in Buildings?'; Askar, Bragança, and Gervásio, 'Adaptability of Buildings'.
- <sup>14</sup> Forty, *Words and Buildings: A Vocabulary of Modern Architecture*, 11–16.
- <sup>15</sup> Leupen, *Design and Analysis*, 132.
- <sup>16</sup> Askar, Bragança, and Gervásio, 'Analysis of Adaptability Requirements Against Their Implementation in Level(s) Framework'; Askar, Bragança, and Gervásio, 'Design for Adaptability (DfA)—Frameworks and Assessment Models for Enhanced Circularity in Buildings'.
- <sup>17</sup> Pinder et al., 'What Is Meant by Adaptability in Buildings?'
- <sup>18</sup> Basa, 'Environmental Discourse of Architecture', 273.
- <sup>19</sup> Schwarzer, 'History and Theory in Architectural Periodicals', 342.
- <sup>20</sup> Forty, *Words and Buildings: A Vocabulary of Modern Architecture*, 13.
- <sup>21</sup> 'Association of Architecture School Librarians - Core Periodicals List'.
- <sup>22</sup> Orcutt et al., 'Core or Not', 277.
- <sup>23</sup> 'Advertise with Us – The Architects' Journal'; 'Advertise With Us | RIBA J'.
- <sup>24</sup> Thomsen and van der Flier, 'Understanding Obsolescence'.
- <sup>25</sup> Thomsen and van der Flier.
- <sup>26</sup> Pinder, Schmidt III, and Saker, 'Stakeholder Perspectives on Developing More Adaptable Buildings'.
- <sup>27</sup> Hurst, 'Introducing RetroFirst'.
- <sup>28</sup> Hurst.

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# RENAVIGATING THE EMERALD CITY: AN URBAN INVESTIGATION OF INDIGENOUS PUBLIC ART, AMNESIA, & RECLAMATION IN SEATTLE

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## INTRODUCTION

Tourists and locals alike associate Seattle, the Pacific Northwest's largest city, with totem poles, an Indigenous archetype that looms over the city's streets, parks, and waterways. Yet, this region has been inhabited since time immemorial by tribal nations whose artistic customs did not historically include totem poles, and whose traditional art forms have been slow to receive acclaim within their own territory. Specifically, Seattle represents the urban homeland of the Duwamish Tribe, whose attempted erasure during the 19<sup>th</sup> century settler colonial era is tied to the slow growth of local Native art in the city. In this paper, I demonstrate how colonial-era Duwamish homelessness and displacement paralleled the urban denial of Duwamish art and culture—illustrating how Seattle nearly became an “unlivable” city for those who had long inhabited its lands and waters, as well as how Duwamish individuals resisted eradication during an otherwise tumultuous time period. The totem poles now associated with Seattle instead represent artistic creations from other tribes found to the north, including the Kwakwaka'wakw, Haida, and Tlingit. These cultures have proven popular amongst non-Native audiences in Seattle, largely owing to anthropological trends and the city's amnesiac tendencies that sought to exclude Duwamish narratives. In response, 21<sup>st</sup> century local Indigenous artists have gradually produced contemporary art displays throughout the city, representing artistic acts of protest and reclamation. Such installations are monumental in their intervention, albeit subtle when compared to the dramatic totems. This “new” mode of local public art offers covert yet powerful critiques of urban amnesia and simultaneously communicates the continuity of the Duwamish.

## TOTEM POLES IN UNLIKELY PLACES

Seattle's first neighborhood, Pioneer Square, is today known for its art galleries, homeless shelters, and Romanesque Revival architecture. Framed by picturesque Elliott Bay to the west and downtown Seattle to the north, Pioneer Square Park boasts a large totem pole, an emblematic landmark revered by both tourists and residents alike (Figure 1). Despite the pole's inextricable association with Pioneer Square, the perilous route by which the monument arrived in Seattle remains unknown to many. Originally created in Alaska by Tlingit carvers in 1790, the pole served as a tribute to Chief of All Women, an eminent Tlingit woman who tragically drowned. As the Klondike Gold Rush waned in the late 1800s, Seattle entrepreneurs orchestrated an expedition to Alaska, hoping to claim a souvenir for their city. After docking at the Tlingit village of Tongass, the group encountered the distinctive pole. Disregarding

that the settlement was still inhabited, the men swiftly felled the pole and relocated their prize to the Emerald City, where it was erected in Pioneer Square.<sup>1</sup> Over the years, countless other stolen, purchased, or commissioned poles were raised throughout Seattle, often on sites that were civically and spiritually significant to the Duwamish, including villages and ancient burial grounds. The most recent of these monuments was installed in 2015.



*Figure 1. “Chief of All Women” (replica) totem pole in Pioneer Square, demonstrating detailed Tlingit linework and blue-green paint. Carved by Charles Brown (Tlingit) in 1940, and based on original pole. Photograph by author, July 2, 2023.*

To some, the Seattle’s totems symbolize questionable collecting practices or nostalgia for Seattle’s formative years. But for those well-versed in local Indigenous art and history, the totem pole’s presence is more complex. A deeper inquiry into the peculiarly placed monuments necessitates a nuanced examination of recent Duwamish history, particularly the deliberate displacement of Duwamish communities from the urban core during the onset of settler colonialism. Only then is it possible to grasp the profound impact of Indigenous expulsion on local public art practices, elucidating the embrace of non-local icons.

**ATTEMPTED DUWAMISH EXPULSION FROM SEATTLE**

The Duwamish comprised over a dozen distinct villages at the time of settler colonial arrival in the 1850s. One of these settlements was situated four blocks south of the Pioneer Square totem pole. By 1800, the village in question was bustling, home to hundreds of Duwamish individuals and ten communal longhouses.<sup>2</sup> The village was encompassed by marshlands affording ample fishing and shellfish opportunities, as well as prime canoe access. Further enhancing its prestige, Siʔaʔ, or Chief Seattle, once resided here.

Siʔaʔ, a prominent Duwamish figure, dedicated himself to safeguarding Duwamish sovereignty and tactfully mediated interactions with newly arrived settlers. Despite establishing alliances with early settlers and signing the ambiguous 1855 Point Elliott Treaty on behalf of his people, the Duwamish were never granted an independent reservation or provided compensation for their losses. Instead, government agents proposed that the Duwamish move to a distant reservation with members of other Native nations. Siʔaʔ rejected this idea, expressing valid concerns regarding potential intertribal conflict and recognizing this as a federal attempt to evade treaty terms. In 1866, the Bureau of Indian Affairs attempted to rectify the situation by reserving land for the Duwamish along the Black River.<sup>3</sup> Nearly 200 settlers residing in Pioneer Square petitioned to block this reservation, fearing Duwamish encroachment upon white homesteads.

Although Siʔaʔ assisted many of Seattle's white pioneers in locating and developing suitable land for what rapidly became the city's epicenter, his Duwamish community found themselves homeless in their own territory, where they refused to leave or assimilate, instead electing to retain a distinct identity and customs. With nowhere to feasibly relocate to, the Duwamish population was subject to hostility in Seattle. The city passed Ordinance Number 5 in 1865, legally banning "Indians" from residing or staying overnight in Seattle. Enduring repeated incidents of arson and eviction, Duwamish individuals resisted and attempted to eke out a living in their nearly unrecognizable ancestral lands. For example, Siʔaʔ's daughter, Kikisoblu, maintained a modest cabin in downtown Seattle, where she supported herself by selling baskets, laundering clothes, gathering shellfish, and posing for tourist photographs. For a woman who descended from high-status lineage, Kikisoblu's circumstances had drastically changed.<sup>4</sup>

Situated at the base of Pioneer Square along the Seattle waterfront, Ballast Island formed as ships discarded debris and deposited boulders before loading cargo (Figure 2). Over time, this dumping ground expanded to encompass the periphery of Pioneer Square, whose lush wetlands were infilled to support urban development. The living conditions on Ballast Island resembled a makeshift camp, with Duwamish individuals inhabiting canvas tents and overturned canoes—where the artificial landmass was technically not part of city limits.<sup>5</sup> Despite its proximity to the former village at Pioneer Square, life on Ballast Island proved dangerous. The absence of a freshwater source, accompanied by urban pollutants and the shoddy protection of cloth tents against pounding rain or local harassment contributed to a bleak existence. Compounding this plight, King Street Station replaced the former village, resulting in trains roaring adjacent to Ballast Island. This chaotic and hazardous environment served as a stark reminder of all that the Duwamish had lost.





*Figure 2. Ballast Island in 1890, showing makeshift tent shelters and Coast Salish canoes. Native American camp with canoes, Ballast Island, Washington Street, Seattle, circa 1890.*

*Photographer unknown, 1890. Wikimedia Commons, United States Public Domain, [https://commons.wikimedia.org/wiki/File:Native\\_American\\_camp\\_with\\_canoes,\\_Ballast\\_Island,\\_Washington\\_Street,\\_Seattle,\\_circa\\_1890\\_\(MOHAI\\_8528\).jpg](https://commons.wikimedia.org/wiki/File:Native_American_camp_with_canoes,_Ballast_Island,_Washington_Street,_Seattle,_circa_1890_(MOHAI_8528).jpg)*

## **CREATING A NEW INDIGENOUS IDENTITY FOR SEATTLE**

Although unable to permanently expel the Duwamish from Seattle, settlers dramatically altered Seattle's landscape and fostered a narrative of triumph over the "undesirable" Duwamish.<sup>6</sup> Except for liminal spaces such as Ballast Island, few reminders of local Native presence survived, further entrenching the notion that Seattle was no longer a Duwamish place. Unlike imperialism or colonialism—where foreign powers seek to politically control sovereign populations—settler colonialism imagines a new landscape devoid of local Indigeneity. Eager to supplant local Indigenous populations through forced relocation, attempted genocide, and assimilation, settlers unify around a common goal of conquering Indigenous bodies and territories.<sup>7</sup> However, Seattle is unique in that the city both satisfies and counters this narrative. Although settlers were eager to rid the Emerald City of Duwamish presence, Seattle was rebranded with a new Native identity. That is, Seattle became known for its totem poles and Northern Northwest Coast public art, neglecting its Duwamish forebears.

Seattle exhibited a particular reverence for its carved icon, as evidenced by the poem recited during the raising of the Tlingit pole in Pioneer Square: "I am the only Civilized totem pole on earth, and civilization suits me well/While all the others of my kind are slowly settling on their stems among the salmon scented silences sequestered from the sight of man/Here in Seattle's surging scenes I stand, incomparable, and swipe the admiration of mankind."<sup>8</sup> This solemn recitation revealed settlers' perception of themselves as bearers of civilization to the Pacific Northwest, heroically salvaging the totem pole from its allegedly abandoned state while simultaneously rescuing Seattle from its purportedly savage state. Seattle's new persona relied upon an odd blend of settler colonial exceptionalism, embrace of Alaskan art forms and tropes of a mysteriously disappearing race, and violent Duwamish eradication. Believing that the totem poles would not be appreciated in Northern

villages presumed to have gone extinct as a result of disease or inevitable decline, settlers introduced the monument to Seattle. In other words, totem poles were acceptable as long as they weren't too heavily associated with the Native communities who produced them, just as Seattle could retain an Indigenous identity as long as it did not include the Duwamish. Soon, the symbol—as well as Northern tribes as a whole—became a city-wide identity, with Seattle founding an annual celebration in 1911 known as the “Golden Potlatch” or “Potlatch Days.” The festival’s name alluded to both the dwindling Gold Rush and the Native potlatches banned by the federal government. The Golden Potlatch relied upon pan-Indian and nativist sentiments, with settlers using garish imagery and “Indian” to announce events such as concerts, dances, and car rallies. Parades even featured performers dressed as totem poles (Figure 3). The Seattle Chamber of Commerce (who financed the Tlingit totem pole theft) donned facepaint and Tlingit regalia, advertising themselves as “shamans,” while other floats celebrated Captain George Vancouver’s “discovery” of Seattle.<sup>9</sup> These pseudo-Indigenous themes and imagery allowed settlers to “produce a past” for Seattle, relying upon Northern motifs and cultural customs that did not align with the city’s Indigenous inhabitants.<sup>10</sup>



*Figure 3. Seattle's 1912 Potlatch Parade, featuring marchers wearing totem pole costumes. Seattle Potlatch Parade showing people wearing totem pole costumes, 1912. Photographer unknown, 1912. Wikimedia Commons, United States Public Domain, [https://commons.wikimedia.org/wiki/File:Seattle\\_Potlatch\\_Parade\\_showing\\_people\\_wearing\\_totem\\_pole\\_costumes,\\_1912\\_\(SEATTLE\\_1506\).jpg](https://commons.wikimedia.org/wiki/File:Seattle_Potlatch_Parade_showing_people_wearing_totem_pole_costumes,_1912_(SEATTLE_1506).jpg)*

### **COAST SALISH SOCIETY: “MARGINALIZED & MISINTERPRETED”<sup>11</sup>**

In comparison to Northern art forms, Duwamish art was known for its abstraction and symbology, geometric patterns, and understated color palette—all elements that alluded to the more secretive nature of Duwamish society, as well as the role of art for private or personal use, rather than public consumption (Figure 5).<sup>12</sup> Uncertain how to interpret and define these seemingly impenetrable qualities, turn of the century scholars looked toward Northern societies, who were deemed captivating. With their intricate clans, elaborate ceremonies, and colorful totem poles, Northern nations caught the attention of anthropologists in ways that Coast Salish society did not. The North represented what scholars deemed a more complex, spectacle-based society, signaling that an evolutionary approach was used to classify

different Indigenous populations.<sup>13</sup> Because Northern art was considered more evolved, academics claimed that the North represented an “ancient” epicenter where “all [Northwest] coast cultures began.”<sup>14</sup> This preoccupation with Northern art and culture disparaged local communities such as the Duwamish, who were viewed as the “inferior” or underdeveloped cousin of the North.<sup>15</sup> Illustrating this characterization, terms such as “degenerate,” “uninteresting,” “deficient,” or “simplistic” were frequently applied to local artforms and societies.<sup>16</sup>



*Figure 5. Nineteenth century Coast Salish (Chemainus) carved spindle whorl with repeating patterns and human face (center) surrounded by a double-headed serpent.*

*Spindle Whorl (Sulsultin). Brooklyn Museum, Museum Expedition 1905, Museum Collection Fund, 05.588.7382, Creative Commons License Attribution 3.0 Unported, <https://www.brooklynmuseum.org/opencollection/objects/4923>*

Within historical literature, Duwamish society and its neighbors were presented as a monolithic, less developed cultural “backwater,” in which “the Northern maritime tribes...represented the cultural climax.”<sup>17</sup> There existed a misconception that advanced cultures were “to be found in the North” and that any noteworthy local customs “must have been borrowed.”<sup>18</sup> Such pejoratives posited that local Indigenous society was uncreative and deserving of little analysis, especially when compared to the “original” nations found to the north. Even the father of American anthropology, Franz Boas, held the erroneous belief that local populations were recent arrivals to the Northwest Coast, in contrast to Northern nations who were thought to possess more rooted histories and artistic traits.<sup>19</sup> (It should be noted that this theory is now heavily discredited, with some modern scholars suggesting that the artistic styles of the Seattle region were an ancient precursor to the Northern genre, and archaeological evidence confirming that tribes in Washington State have inhabited the region for 14,000 plus years.<sup>20</sup>)

As a result of their supposedly recent migrations, local communities were dismissed by anthropologists as “intrusive” and transient when compared to their apparently more advanced and established Northern neighbors.<sup>21</sup> This contributed to a stigma in which tribes such as the Duwamish were portrayed as

illegitimate, inauthentic, and even parasitic in their cultural traits. Echoing this anthropological characterization, banning Duwamish residents from city limits and disregarding local art reinforced the notion that the Duwamish were interlopers in their own homelands. This misrepresentation satisfied the settler colonial agenda, whereby settlers reimagined a landscape devoid of local “Indians” in favor of supplanting themselves as the rightful “new Natives”—an identity appropriated from the North.<sup>22</sup> Which is to say, it was not Indigeneity nor Native society, per se, that was regarded as inadequate. Instead, this form of discrimination targeted specific Native nations and favored others, likely to satisfy the narratives of foreigners who claimed Seattle as their new homeland.

## **ACKNOWLEDGING COAST SALISH URBAN ROOTS**

Unlike Northern art, popularized by collectors and scholars, local Indigenous art did not gain critical acclaim until the early 1980s. This period generated local artistic revival, in which Native artists reawakened distinct artistic practices based on ancient material culture, pre-colonial patterns, and cultural taboos that dictate which knowledge can be shared with outsiders or made publicly accessible.<sup>23</sup> This renaissance era coincided with the entry of local tribal nations into political dialogue with the federal government. For instance, it was during the late 1970s to early 1980s that the Duwamish began petitioning the federal government for formal recognition. (An effort that Duwamish Chairwoman Cecile Hansen spearheaded and continues to pursue at the age of 86.) As a result of their unfulfilled treaty, as well as the refusal of Duwamish bands in the Seattle area to join other tribes on reservations outside of the city, the Duwamish Tribe remains federally unrecognized. This unfortunate reality is the result of the federal government revoking any legal claims to Native identity or land for Native nations who refused to relocate to reservations or accept diminished treaty terms. Members of these communities were reclassified as “non-Indian” citizens without any provisions for their lost lands and rights. For the Duwamish, the struggle for federal recognition represents another phase in their erasure.<sup>24</sup>

Perhaps mirroring the ongoing Duwamish struggle for recognition—as well as the Emerald City’s reluctance to acknowledge its Indigenous roots—local Native art has been slow to (re)appear in Seattle. For instance, in 2006, Duwamish carver Michael Halady (a Chief Siʔaʔ descendant) created an unpainted monument with subtle carvings to illustrate the recent history of Seattle (Figure 6). These portrayals include Siʔaʔ, European ships, Duwamish individuals—covertly revealing Duwamish experiences with early settlers using the sparse aesthetics that define Duwamish art. It is rare to find explicit references to Duwamish art, history, and culture within Seattle, confirmed by the fact that Halady’s piece is the only major Duwamish installation in the city. Although monumental in its significance, the carving remains underappreciated because of its location. Situated at Admiral Way Viewpoint, this region is difficult for drivers or pedestrians to safely navigate, whereas the pole blends into a sea of telephone poles and trees. This placement both signals the Duwamish artistic propensity for privacy, yet reaffirms that the Duwamish occupy the city’s margins.





*Figure 6. Coast Salish carved pole by Michael Halady (Duwamish), featuring a Coast Salish guardian figure at bottom and a European ship above.  
Photograph by author, July 3, 2023.*

Local neighboring tribes, many of whom are related to the Duwamish and share cultural, artistic, and linguistic similarities, have recently implemented their own public art throughout Seattle, an act that can be interpreted through varying lenses of solidarity or erasure. In Seattle’s Ballard neighborhood—known for its Scandinavian-American history—a bronze welcome figure was raised in 2010 by artist Marvin Oliver (Figure 7). Crafted in the local Native style, it is initially unclear who or what the figure “welcomes.” The statue is located in a pocket park that passerby appear to avoid, but where homeless individuals have formed a small community. The artwork is beloved by this enclave, who proudly claim the figure as “our chief” while discussing plans to polish grime off the monument. Overlooking the waterfront, the welcome figure faces a historic Duwamish village where a Duwamish couple persisted until 1905, even amidst the expulsion of the rest of their tribe. As illustrated by the site’s present residents, the welcome figure communicates that the place has long been home to those who persevere despite being shunned by broader society.



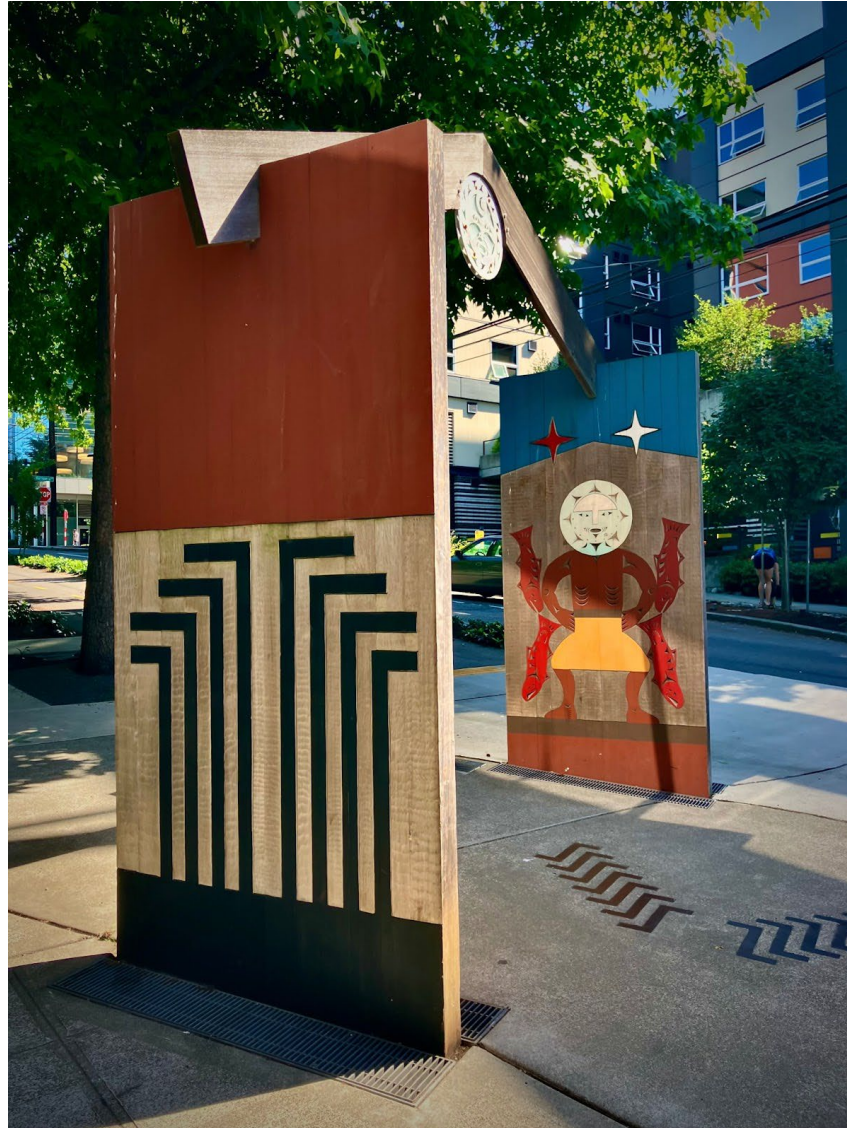
*Figure 7. "A Salish Welcome" by Marvin Oliver, situated in Seattle's Ballard neighborhood.  
Photograph by author, July 2, 2023.*

Within Seattle's Belltown neighborhood, Indigenous artist Roger Fernandes completed the "Transformer" archway in 2012, depicting local Native basketry, botanical, salmon, and deer designs (Figures 8-9). The structure also alludes to Duwamish displacement, superimposing an old map of the free-flowing Duwamish River with the straightening and dredging of the river that occurred in 1913. This disastrously affected Duwamish settlements, destroying village sites and introducing toxic waste and industrial chemicals to riparian areas when the city began using the river as its official dumping ground. Located on a quiet street flanked by yoga studios, an office park, and luxury condos, the archway appears somewhat incongruous within this gentrified neighborhood. Indeed, those cycling or strolling past appear unfazed by the archway's presence, seldom stopping to inspect its symbolism.





*Figure 8. "Transformer," a Coast Salish archway by Roger Fernandes (Lower Elwha S'Klallam), depicting the Duwamish River in blue and black, botanical and animal forms, and a moon-faced "Creator" figure. Photograph by author, July 3, 2023.*



*Figure 9. An alternate view of “Transformer,” a Coast Salish archway by Roger Fernandes (Lower Elwha S’Klallam), depicting geometric Coast Salish basketry designs, salmon and stars, and a moon-faced “Creator” figure. Photograph by author, July 3, 2023.*

An upcoming art installation brings us back to where we began: Pioneer Square, home to Seattle’s first totem pole. Soon, a wooden welcome figure (“Grandmother Frog”) carved by local Native artist Andrea Wilbur-Sigo will guard Pioneer Square’s Chief Seattle Club, a homeless shelter that specifically serves Indigenous individuals. In 2023, another of Wilbur-Sigo’s monuments was raised at the nearby Seattle Convention Center (Figure 10). The male figure stands proudly, wearing sparsely decorated regalia indicative of local Native clothing. One massive hand is raised in an Indigenous “welcome” gesture, while the other holds a modest “talking stick,” symbolizing his authority to speak uninterrupted and preside over meetings—an act that references Duwamish sovereignty in a city that does not recognize the tribe’s legitimacy. Closer inspection reveals that the welcome figure is oriented southwest, gazing upon the former Ballast Island, now a ferry dock. Most bystanders are unaware that this subtle placement honors and literally “points to” a significant Duwamish site and remnant of forced Indigenous removal.





*Figure 10. Coast Salish welcome figure by Andrea Wilbur-Sigo (Squaxin Island), located at the Seattle Convention Center. Photograph by author, April 19, 2023.*

## CONCLUSION

Just as settlers planted totem poles throughout Seattle in hopes that the artistic trend would permeate the urban fabric, encountering local Indigenous monuments in Seattle is slowly but surely proving unavoidable. Situated in public places such as convention centers and parks, this resistant form of public art transforms the everyday landscape.<sup>25</sup> By using public art to reclaim physical space and retell history from the periphery, a collective narrative is gradually formed in which Indigenous erasure and settler colonial amnesia are refuted—even though the general public may not comprehend the subtle ways in which these acts of resistance are occurring.<sup>26</sup> Unlike totem poles, which caused many Duwamish individuals to grapple with “the memorialization of their own extinction,” the local art displays uplift and highlight local Indigenous experiences, while acknowledging a troubled urban past.<sup>27</sup>

## NOTES

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<sup>2</sup> Coll Thrush, "City of the Changers: Indigenous People & the Transformation of Seattle's Watersheds," *Pacific Historical Review* 75:1 (2006); David B. Williams, *Too High & Too Steep: Reshaping Seattle's Topography* (Seattle, Washington: University of Washington Press, 2015); David M. Beurge, *Chief Seattle & the Town That Took His Name: The Change of Worlds for the Native People & Settlers of Puget Sound* (Seattle, Washington: Sasquatch Books, 2017).

<sup>3</sup> Coll Thrush, *Native Seattle: Histories from the Crossing-Over Place* (Seattle, Washington: University of Washington Press, 2007); B. J. Cummings, *The River That Made Seattle: A Human & Natural History of the Duwamish* (Seattle, Washington: University of Washington Press, 2020).

<sup>4</sup> Coll Thrush, *Native Seattle: Histories from the Crossing-Over Place* (Seattle, Washington: University of Washington Press, 2007) and "Hauntings as Histories: Indigenous Ghosts & the Urban Past in Seattle," in *Phantom Past, Indigenous Presence: Native Ghosts in North American Culture & History*, eds. Colleen E. Boyd & Coll Thrush (Lincoln, Nebraska: University of Nebraska Press, 2011); David B. Williams, *Too High & Too Steep: Reshaping Seattle's Topography* (Seattle, Washington: University of Washington Press, 2015); The Seattle Times, "'Real' Duwamish: Seattle's First People & the Bitter Fight Over Federal Recognition," *The Seattle Times*, May 29, 2022, accessed June 29, 2023, <https://www.seattletimes.com/seattle-news/real-duwamish-seattles-first-people-and-the-bitter-fight-over-federal-recognition/>

<sup>5</sup> Coll Thrush, *Native Seattle: Histories from the Crossing-Over Place* (Seattle, Washington: University of Washington Press, 2007); B. J. Cummings, *The River That Made Seattle: A Human & Natural History of the Duwamish* (Seattle, Washington: University of Washington Press, 2020); David B. Williams, *Too High & Too Steep: Reshaping Seattle's Topography* (Seattle, Washington: University of Washington Press, 2015).

<sup>6</sup> David B. Williams, *Too High & Too Steep: Reshaping Seattle's Topography* (Seattle, Washington: University of Washington Press, 2015).

<sup>7</sup> Patrick Wolfe, "Settler Colonialism & the Elimination of the Native," *Journal of Genocide Research* 8:4 (2006); Lorenzo Veracini, *Settler Colonialism: A Theoretical Overview* (New York, New York: Springer Publishing Company, 2010).

<sup>8</sup> Aldona Jonaitis, "Northwest Coast Totem Poles," in *Unpacking Culture: Art & Commodity in Colonial & Postcolonial Worlds*, eds. Ruth B. Phillips & Christopher B. Steiner (Berkeley, California: University of California Press, 1999), 111.

<sup>9</sup> Coll Thrush, *Native Seattle: Histories from the Crossing-Over Place* (Seattle, Washington: University of Washington Press, 2007); Aaron Glass & Aldona Jonaitis, *The Totem Pole: An Intercultural History* (Seattle, Washington: University of Washington Press, 2010).

<sup>10</sup> Eric Hobsbawm & Terence Ranger, *The Invention of Tradition* (Cambridge, England: Cambridge University Press, 1983), 220; Edward W. Said, "Invention, Memory, & Place," *Critical Inquiry* 26:2 (2000).

<sup>11</sup> Wayne Suttles, "The Recognition of Coast Salish Art," in *S'abadeb: The Gifts: Pacific Coast Salish Art & Artists*, ed. Barbara Brotherton (Seattle, Washington: University of Washington Press, 2008), 56.

<sup>12</sup> Steven C. Brown, "The Coast Salish Two-Dimensional Art Style: An Examination," in *Contemporary Coast Salish Art*, eds. Rebecca Blanchard & Nancy Davenport (Seattle, Washington: University of Washington Press, 2005); Wayne Suttles, "The Recognition of Coast Salish Art," in *S'abadeb: The Gifts: Pacific Coast Salish Art & Artists*, ed. Barbara Brotherton (Seattle, Washington: University of Washington Press, 2008); Alexandra M. Peck, "Totem Poles, A New Mode of Cultural Heritage? The Jamestown S'Klallam Tribe's Efforts to Restore Native Presence, Preserve History, & Combat Settler Colonial Amnesia" (Ph.D. dissertation, Brown University, 2021).

<sup>13</sup> Kenneth M. Ames & Herbert D. G. Maschner, *Peoples of the Northwest Coast: Their Archaeology & Prehistory* (New York, New York: Thames & Hudson, 1999).

<sup>14</sup> Charles E. Borden, "Facts & Problems of Northwest Coast Prehistory," *Anthropology in British Columbia* 2 (1951); Philip Drucker, "Sources of Northwest Coast Culture," in *New Interpretations of Aboriginal American Culture*, eds. Clifford Evans & Betty J. Meggers (Washington, D.C.: Anthropological Society of Washington, 1955) and *Cultures of the North Pacific Coast* (San Francisco, California: Chandler Publishing Company, 1965); Erna Gunther, "Vancouver & the Indians of Puget Sound," *The Pacific Northwest Quarterly* 51:1 (1960): 270.

<sup>15</sup> Franz Boas, "Conclusion," in *Memoirs of the American Museum of Natural History, Volume II, Anthropology I-The Jesup North Pacific Expedition IV: The Thompson Indians of British Columbia*, ed. James Teit (New York, New York: American Museum of Natural History, 1900), 390; Graeme F. Chalmers, "European Ways of Talking About

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<sup>16</sup> Steven C. Brown, "The Coast Salish Two-Dimensional Art Style: An Examination," in *Contemporary Coast Salish Art*, eds. Rebecca Blanchard & Nancy Davenport (Seattle, Washington: University of Washington Press, 2005) 11; Aldona Jonaitis, *Art of the Northwest Coast* (Seattle, Washington: University of Washington Press, 2006), 88; Karen Duffek et al, *Where the Power Is: Indigenous Perspectives on Northwest Coast Art* (Vancouver, British Columbia, Canada: University of British Columbia Museum of Anthropology, 2021) 67.

<sup>17</sup> Bruce Granville Miller, "Anthropology of Art: Shifting Paradigms and Practices," in *Native Art of the Northwest Coast: A History of Changing Ideas*, eds. Jennifer Kramer, Charlotte Townsend-Gault, & Ki-Ke-In (Vancouver, British Columbia, Canada: The University of British Columbia Press, 2013), 204.

<sup>18</sup> Joseph H. Stauss, *The Jamestown S'Klallam Story: Rebuilding a Northwest Coast Indian Tribe* (Sequim, Washington: The Jamestown S'Klallam Tribe, 2002) 66.

<sup>19</sup> Franz Boas, "The Jesup North Pacific Expedition," *Proceedings of the International Congress of Americanists* 13 (1905); Brian Thom, "The Anthropology of Northwest Coast Oral Traditions," *Arctic Anthropology* 40:1 (2003).

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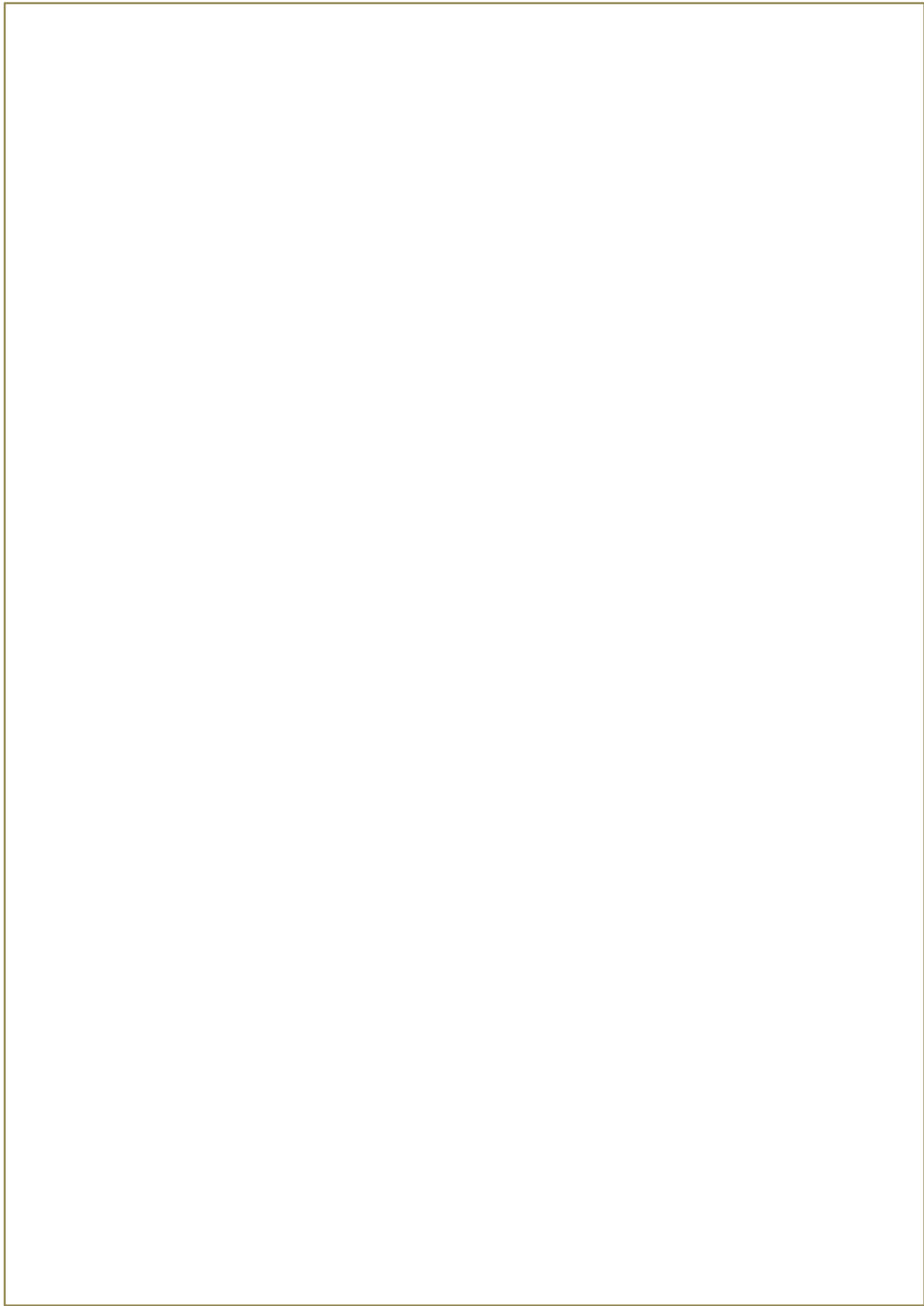
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