Manila's Other City:

Toward a Counter-Relocation Approach

by
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Author’s Declaration

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners. I understand that my thesis may be made electronically available to the public.

Abstract

This thesis explores the spatial and economic dynamics of informality in Barangay 105, Tondo, Manila, one of the most densely populated informal settlements in Metro Manila. Located along the industrial edge of the city, the barangay is shaped by rural displacement, state-led resettlement efforts, and infrastructural neglect. At the heart of the site are 25 warehouse structures, originally constructed as temporary relocation housing. Over time, these buildings have been incrementally transformed by residents into permanent live-work spaces, generating a distinct informal morphology that mirrors broader patterns of adaptation across Manila's socioeconomic landscape.

Informality, in this context, is not peripheral but central to the city's functioning. Approximately 20–35% of Metro Manila's population resides in informal settlements, many of which operate as self-sufficient ecosystems in the absence of state support. In Barangay 105, waste picking and small-scale recycling form the core of the local economy. Each day, informal workers collect, sort, and resell large volumes of waste, integrating themselves into larger material flows that connect domestic labor to regional and global waste economies. Despite their critical contributions, these workers remain structurally excluded from planning, labor protections, and service provision. To analyze these dynamics, the research draws on large-scale cartography, detailed studies of urban vernaculars, comparative case studies, and the documentation of daily routines.

Government housing responses have historically relied on mass relocation, often displacing communities to distant peripheries. Programs such as those led by the National Housing Authority (NHA), the Community Mortgage Program (CMP), and the Zonal Improvement Program (ZIP) have repeatedly failed to address the needs of informal residents, instead severing their access to livelihoods and social networks.

This thesis critiques these relocation paradigms and proposes a counter-relocation approach: one that strengthens communities in place rather than removing them. The design focuses on reimagining 15 of the existing warehouse structures as a distributed network of community depots: multi-use infrastructures that embed housing and economic production into the urban fabric. The project centers incremental, solidaristic, and community-led spatial strategies that reflect and strengthen the informal socioeconomic landscape of Tondo.

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Dedication

To the resilient families who have made their homes in informal settlements, forming remarkable communities that inspire us all. Your strength and unity are a testament to the human spirit's resilience.

To Manila and to those who envision a brighter future for the Philippines, one enriched with culture and prosperity. May your collective efforts lead to a flourishing tomorrow.

Para sa bayan ko, mahal ko.

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1 INTRODUCTION

The Unfolding of the Informal City

Each morning in Tondo, Manila, Amador Ang helps his aunt run the G&B scrap dealership, a modest operation that moves plastic waste from the nearby settlement of Happyland to a processing hub known locally as Plastic City ***(Fig1.1)***.[1] His day begins among mounds of discarded materials, collected, sorted, and sold, linking his labor to the wider economy of Manila's waste. But the fragments of Ang's daily life are not limited to materials alone: his wife works in Hong Kong, while his five children live with their grandparents.[2] This spatial dislocation, stretching across neighborhoods and countries, mirrors the broader fragmentation that defines life in informal settlements, where labor, care, and home are often divided across multiple, unstable geographies.

Amador Ang's routine is far from unique. Across the Global South, informal settlements are no longer anomalies but the prevailing urban condition ***(Fig1.2)***. Nearly a billion people live in these environments today, a figure projected to double by 2030.[3] Yet dominant planning paradigms continue to marginalize these spaces, treating them as anomalies to be cleared or formalized. Top-down urban frameworks prioritize zones of consumption, display, and capital accumulation, reinforcing spatial and economic inequality. At the periphery of these "global cities," however, a different urban logic unfolds, one grounded in improvisation, proximity, and social exchange. These neighborhoods, while often stigmatized, are sites of economic productivity and adaptive spatial practices.

These informal urban processes are deliberate and adaptive. They respond to immediate needs, scarce resources, and unstable policies through flexible spatial arrangements and makeshift systems of care. Buildings are rarely completed in one go; they are modified over time, expanded as families grow, repaired when resources allow. These environments are shaped through repetition, improvisation, and community labor.

In this context, belonging becomes a lived, material practice.[4] It is enacted through the daily negotiation of space, the coordination of shared infrastructure, and the informal governance systems that emerge in the absence of the state. These bottom-up systems, however fragmented, carry with them political and spatial agency. They offer alternative models for understanding the city: not as a singular, planned totality, but as a patchwork of interdependent practices.



Fig1.1 *Amador Ang infront of the G&B scrap dealership*



Fig 1.2 *Selection of large informal settlements across the Global South. While informal settlements also exist in the Global North, their presence is far more extensive in the South due to differing histories of urbanization, governance, and migration. Larger red dots denote greater population concentrations.*

Tondo: A Case of a Rising Informal Economy

To ground this work, the thesis turns to the Philippines, where informality is not an anomaly but a primary mode of urban life. In Metro Manila, 20–35% of the population resides in informal settlements. spaces shaped by colonial land histories, rural displacement, and an enduring lack of affordable housing.[5] Over time, these peripheral and marginal areas evolve into self-sustaining ecosystems of labour and social organization. Across the city, informal economies take many forms—home-based work, street vending, and waste picking—each sustaining livelihoods outside formal regulation ***(Fig 1.3)***.

Within this wider context, Tondo emerges as a critical site of study ***(Fig 1.3)***. It is one of the districts in Manila with the highest concentration of informal settlements, where density and livelihood pressures converge. Along its industrial fringe stand warehouse-type housing blocks, originally built as temporary relocation sites but now incrementally transformed into long-term dwellings and spaces of work ***(Fig 1.4, 1.5)***.[6] These structures frame a landscape where informal economies and material reuse overlap, creating a hybrid terrain in which waste is not only discarded but revalued.

Amidst systemic neglect, residents adapt these warehouses into places of production, residence, and exchange. In Barangay 105, located within Tondo, waste picking has become the dominant form of livelihood, linking neighborhood economies to the wider circulation of materials across the city. Each day, Manila generates nearly 9,000 tons of waste, with significant portions left uncollected.[7] Waste pickers, often invisible in planning policy, perform essential environmental and economic work, mitigating landfill overflow and sustaining entire networks of trade, yet they remain structurally excluded, working under dangerous conditions without support.

Lines of Inquiry

The research is guided by three key objectives: first, to analyze informal material practices and their role in sustaining local economies; second, to propose architectural interventions that reinforce and strengthen circular economies; and third, to examine how architecture can mediate between informal and formal systems without eroding community resilience and autonomy. These objectives are grounded in the understanding that informal economies are not anomalies but essential components of urban life, requiring strategies that integrate, rather than eliminate them. To frame



street vendors



home workers



waste pickers

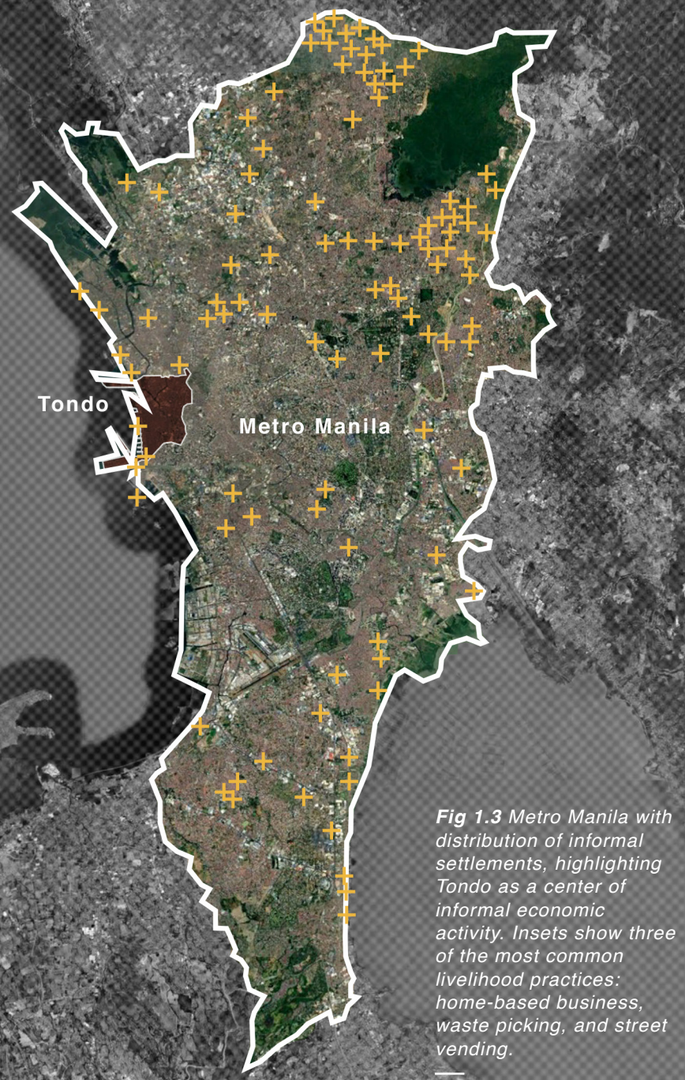


Fig 1.3 *Metro Manila with distribution of informal settlements, highlighting Tondo as a center of informal economic activity. Insets show three of the most common livelihood practices: home-based business, waste picking, and street vending.*

LEGEND

+ Informal settlements



Fig 1.4 *Aerial of Barangay 105's warehouse-type housing blocks.*



Fig1.5 *Front of one of Barangay 105's warehouse-type buildings.*

this inquiry, the research is guided by the following questions:

- How can we, as architects and designers, engage the complex urban processes through which informal communities of practice manage time, boundaries, people, spaces, and resources simultaneously?

- Can architects serve as mediators between top-down and bottom-up systems, facilitating flows of resources, governance, and design knowledge across institutional and community scales?

- Can architects and communities collaborate to produce a new economic model for small-scale urban development?

These questions shape the methodological and ethical stance of the project. They invite architecture to act less as a solution, and more as a companion practice, attuned to the infrastructures, temporalities, and solidarities that already hold informal communities together.

A Critique of Existing Paradigms

Informality is often mischaracterized as disorder or failure, an aberration in the otherwise planned city. Yet informal settlements generate their own spatial, economic, and social orders, shaped not by formal regulation but by necessity and adaptation. These settlements operate with extra-legal institutions that emerge in response to gaps left by the state: informal markets, governance structures, and building practices that collectively produce urban life. Architecture here is not fixed but negotiated, constructed incrementally through collective effort, and responsive to the evolving needs of the community. What emerges is a participatory urbanism rarely seen in master-planned developments.

Despite this complexity, Philippine housing policy has historically approached informality through centralized, top-down interventions. Agencies such as the National Housing Authority (NHA), Zonal Improvement Program (ZIP), and Community Mortgage Program (CMP) have alternated between strategies of resettlement, upgrading, and tenure regularization.[8] While these efforts mark shifts in intent, from displacement to participation, they often remain tethered to rigid planning frameworks that overlook lived realities. Mass relocation projects have severed residents from livelihood networks, pushing many to return to their original homes. Yet, despite

such state-led efforts, informal settlements in Manila continue to expand, a condition mirrored in many other rapidly urbanizing cities. Their persistence points not only to the limitations of existing paradigms but also to the resilience of alternative systems that residents themselves sustain. This thesis argues for a counter-relocation approach: one that builds from within rather than replaces from above. By investing in localized infrastructure, shared services, and spatial strategies rooted in community agency, architects and planners can help support the systems that already sustain urban life.

On Methodology

This research is guided by the understanding that architecture is not an isolated object but part of a larger web of relationships whether social, material, environmental, and spatial. Drawing from Bruno Latour's Actor Network Theory (ANT) and the framework of Behaviorology developed by Atelier Bow-Wow, the study examines how informal architecture operates as a network of interdependent "actors."[9] These actors include not only people and institutions, but also non-human agents such as discarded materials, circulation networks of roads and pedestrian paths, and underutilized spatial properties. As Latour notes, artifacts are not neutral; they shape human behavior as much as they are shaped by it.[10] Through this lens, architecture—especially Tondo's warehouses—becomes a co-producer of social life, embedded in everyday practices and local ecologies.

I draw upon the concept of productive voids as a way of understanding how structures intended as temporary can take on new and layered lives. In Tondo's Barangay 105, this is visible in the warehouse-type housing, as mentioned earlier, built in 1995 to relocate families from the Smokey Mountain landfill ***(Fig 1.4, 1.5).***[11] More than 30 two-storey blocks were erected as a transitional housing intervention, yet decades later they remain inhabited—some by families who never moved on, others by those who returned after relocation sites proved unsustainable.[12] Years of neglect have left the buildings and surrounding streets in poor condition, but they continue to anchor livelihoods tied to waste recycling and other informal work.

What was once framed as provisional has become part of the everyday fabric. Incremental repairs, extensions, and the reworking of open spaces show how residents negotiate permanence within transience. In this sense,

the warehouses illustrate how space is continually reshaped by social relations, echoing Henri Lefebvre's call to recognize everyday life as a site where production and survival are made visible ***(Fig 1.6).***[13]

To analyze these dynamics, the research draws on large-scale cartography, detailed studies of urban vernaculars, global and local case studies, and documentation of daily routines in informal settlements. Large-scale cartography is used to trace territorial boundaries, circulation networks, and spatial densities, making visible the structural conditions that frame settlement patterns. In parallel, close studies of urban vernaculars highlight how incremental construction and material reuse generate spatial logics that differ from formal planning yet remain systematic in their own way. Global and local case studies provide points of comparison, but more importantly, they offer lessons from other informal economies and recycling models—such as those in Dharavi, Cairo, and Belo Horizonte—that can be read alongside Philippine cooperatives to understand both parallels and divergences. Finally, documentation of daily routines grounds the research in lived practice, showing how ordinary acts of collection, sorting, care, and exchange continually reshape space and sustain economic and social life within Barangay 105.

The thesis is organized into six chapters that move from context to application. Chapter 1 introduces the research focus, situating Barangay 105 within Manila's broader informal economy and outlining the methodological and ethical stance of the work. Chapter 2 traces the emergence of urban informality in the Philippines, examining how migration, state policy, and cycles of displacement have shaped settlement patterns. Chapter 3 turns to theoretical frameworks, unpacking the formal–informal dialectic, the roles of actors in the informal economy, and the conditions and constraints that structure livelihood. Chapter 4 presents a detailed study of Barangay 105, mapping its spatial organization, material flows, and systems of governance. Chapter 5 advances the design application, proposing the adaptive reuse of warehouses into a distributed community depot and presenting a partial catalogue of selected warehouse typologies designed within the barangay. The final chapter reflects on the broader implications of this counter-relocation approach, considering how the strategies tested in Barangay 105 may inform work in other informal contexts.

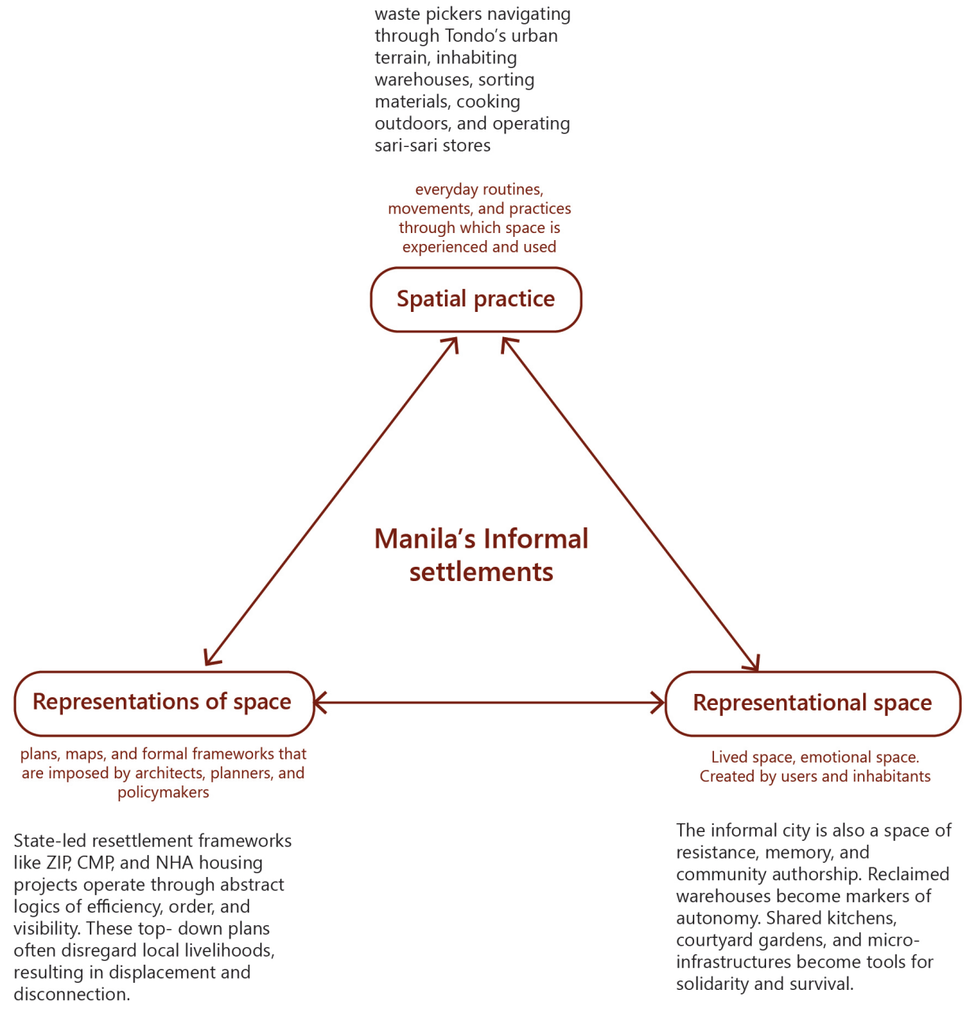


Fig1.6 *Diagram of Henri Lefebvre's theory of social space, applied to Manila's informal settlements, showing the interplay of spatial practice, representations of space, and representational space.*

Endnotes

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2

EMERGENCE OF URBAN INFORMALITY IN THE PHILIPPINES



1565-1898

Spanish Colonial Period

Under Spanish rule, Manila's urban structure was marked by rigid social and spatial segregation. Intramuros was designed as a fortified enclave for Spanish colonists and elites, with indigenous populations residing outside its walls in informal, lower-standard housing. This laid the foundation for spatial inequality, with the city's periphery developing as informal communities. Although not fully urbanized, early forms of informal settlements began here, establishing patterns of exclusion and marginalization.

1945

Post-war Reconstruction

After World War II, Manila was devastated by bombing and widespread destruction, displacing thousands. The absence of adequate housing led many to establish makeshift homes using war rubble, especially around economically strategic areas. Informal settlements expanded around key infrastructure such as railways, ports, and industrial zones, where residents could access jobs and resources. Tondo and Smokey Mountain became early examples of Manila's

1950s

Population Surge

As Manila's population grew rapidly in the post-independence period, rural migrants flooded the city in search of economic opportunities. The severe lack of affordable housing options led to increased informal settlement development on vacant lands, riverbanks, and railway tracks. In areas like Tondo, informal settlements grew unchecked, driven by the economic draw of the port and other industrial zones, setting a pattern of informal growth that would

Tondo Foreshore Development Authority

The Philippine government established the Tondo Foreshore Development Authority to address the housing crisis in areas like Tondo, one of Manila's largest informal settlements. While intended to improve informal housing, the initiative struggled due to limited resources and minimal political support. With the demand for housing outpacing resources, informal settlements continued to proliferate, especially around economic hubs and along infrastructure

1972

Martial Law

During the Martial Law era under Ferdinand Marcos, large-scale redevelopment projects aimed to modernize Manila, but at the expense of informal settlers. The government forcibly evicted thousands from informal communities, relocating them to distant sites like Carmona and Laguna. These sites lacked economic opportunities, pushing many displaced people back into the city to rebuild new informal homes. The period marked an era of displacement and state-led slum clearance, sparking local resistance and

1986

People Power Revolution

The People Power Revolution ousted Marcos, bringing a shift in governance and urban policy. The new 1987 Constitution recognized the right to adequate housing and encouraged policies to protect informal settlers. This led to initiatives like the Community Mortgage Program (CMP), which enabled informal communities to organize and collectively purchase the land they occupied. These policies reflected a growing recognition of informal settlers as integral to urban Manila and set the stage for

1992

Urban Development & Housing Act

UDHA was landmark legislation that protected informal settlers from forced evictions and promoted people-centered "people's plans" for housing. This policy was among the first to formally recognize the rights of informal settlers to participate in planning and development processes. Although implementation was inconsistent, UDHA was significant in shaping policies toward informal settlement upgrading and in-situ development as alternatives to

1990s

Community-led programs

Informal communities, with the support of NGOs and advocacy groups, began leading efforts to improve their neighborhoods through incremental upgrades. Programs like CMP provided financial tools for land ownership and self-organized improvements, and residents in areas like Tondo initiated small-scale infrastructure improvements. This period saw the influence of figures like John Turner and his ideas on self-help housing, fostering a model of incremental, community-led

2009

Metro Manila Flooding

In 2009, severe flooding from Typhoon Ketsana devastated many informal settlements, which were often located in high-risk areas along rivers and flood zones. This event underscored the need for climate adaptation strategies and prompted government-led relocation programs to safer areas. However, challenges remained as many informal settlers preferred to stay close to economic opportunities, highlighting the complex balance between safety and accessibility in informal

2020s

COVID-19 & Policy Shifts

The COVID-19 pandemic exposed significant vulnerabilities in informal settlements, such as overcrowded living conditions and limited access to sanitation and healthcare. This spurred policy efforts toward in-situ upgrading and improved infrastructure. Recent policies increasingly recognize informal settlements as resilient communities with potential for self-organization, resilience, and adaptive urbanism.

Fig 2.1 *Timeline of events that caused the emergence of informal settlements in the Philippines.*

Colonial and Post-War Urban Migration

1940s - 1960s

Following World War II, rapid rural-to-urban migration across the Philippines intensified patterns of informal settlement formation in major cities ***(Fig 2.2, 2.3)***. In the absence of affordable housing and land access, migrants constructed makeshift dwellings—referred to as barong-barong—on vacant or underutilized land. In Cebu City, the devastation caused by wartime bombing accelerated this shift, with 34 informal settlements documented by the mid-1970s.[14] By 1985, these communities had grown substantially, housing an estimated 232,000 people, approximately 40% of the city's total population. In Davao City, land previously held by Japanese nationals became the site of large-scale occupation in the 1950s, later formalized by the government.[15] Similar trajectories unfolded in Metro Manila, where reclaimed land in Tondo was rapidly occupied. By 1968, over 20,000 households had settled in the area.

The expansion of informal settlements was not limited to industrial zones; parks, military lands, and other interstitial spaces in the capital region were also appropriated for housing. During this period, organized movements began to emerge in response to growing threats of eviction and displacement. In 1970, the Zone One Tondo Organization (ZOTO) was established to advocate for land tenure and the rights of informal settlers.[16] This mobilization helped catalyze broader political organizing, including the formation of the Ugnayan ng Maralitang Tagalunsod (UMT) in 1976, which worked to represent urban poor communities at the national level. Despite these efforts, large-scale evictions persisted.h[17] The first recorded mass eviction in Manila took place in 1951, with the most significant occurring in 1963–1964, displacing approximately 90,000 residents.[18] By 1978, the number of informal settlers in the capital had reached an estimated two million, occupying more than 400 sites across the metropolitan region.[19] These figures reflect how informal urbanization became a dominant mode of city-making in the postwar period, shaped by state inaction and the unmet demands of a rapidly urbanizing population.



Fig 2.2 *Aerial view of Intramuros, Manila: Pre-war (1930s)*



Fig 2.3 *Aerial view of Intramuros, Manila: Post-war (1950s)*



***Fig 2.4** the beautification of Manila with waterfront improvements and construction of parks, parkways, and buildings Rizal Park (1975)*



PHILIPPINES Sunday Express — 10 CENTAVOS — VOLUME 1, NO. 141 — SUNDAY, SEPTEMBER 24, 1972 — 16 PAGES

FM DECLARES MARTIAL LAW

The nat'l situation in brief

• This is not a military takeover. Civilian government still functions. The officials and employes of the national government shall discharge their duties as before within the limits of the situation.

• All executive departments, bureaus, offices, agencies and instrumentalities of the government, as well as government-owned or controlled corporations, and all branches of provinces, cities, municipalities and barrios continue to function under the present officers and employes in accordance with existing laws.

• The judiciary shall continue to function underthe present organization and personnel and try and decide all criminal and civil cases with certain exceptions.

• All schools will be closed for one week beginning this Monday for all levels.

• Carrying of firearms outside the residence even if covered by license but without permission of the armed forces is prohibited.

• Curfew will be imposed from 12 midnight to 4 o'clock in the morning.

• Departure of Filipinos for abroad is temporarily suspended except for official missions.

(Please turn to Page 3)

But civilian gov't still functions; no military takeover

President Marcos announced last night that he had placed the entire country under martial law to prevent violent overthrow of the government by a foreign-backed conspiracy.

The Chief Executive said he signed the martial law order (Proclamation No. 1081) last Sept. 21, 1972, and authorized its implementation by the military at 9 p.m. Friday.

"I am utilizing the proclamation of martial law," he said. "For one purpose alone: to save the Republic and reform society."

To save the Republic and form a new society

In imposing martial law, Mr. Marcos said he would likewise wield this emergency power to establish for the country a "new society" — free of the evils of corruption and ineptitude in government.

Yet President stressed the imposition of martial law does not mean a military takeover. The government of the Republic continues, he said, stressing that the officials and employes of the government continue to discharge their functions as before within the limits of the situation.

(Please turn to Page 2)

PRESIDENT MARCOS addresses nation on television broadcast.

Nation is calm; business, life go on normally

The nation has taken President Marcos' declaration of martial law calmly.

There was little amount of confusion and panic that attended by the absence of the usual morning papers in the streets; the absence of radio broadcasts; and the reports of domestic travellers who had gone to the airport and discovered that all flights had been suspended indefinitely.

As the day wore on, however, this apprehension seemed to have dissolved into the day's chores. And the principal reason most people in the streets and the city of millions in the city's three thoroughfares, where traffic normally is heaviest on any day of the week, is pursuant of their daily routine. During the day, traffic was, in small, tolerable. It would grow later in the afternoon, as people hurried home to be with their families before curfew, and subside early in the evening, when shopping centers, which did brisk business during the day started to close up.

There was heavy buying in some supermarkets, but that is usual on Saturdays. Rustan Fiesta Pavilion, a supermarket which opens on Saturdays, posted earlier at less a crack in the morning, but by noon a sizeable number of people had come to "entertain situation." By and large, however, the people seem to have adopted themselves readily to the situation. A survey of the *Express* gathered after a day-long survey of the Greater Manila area showed that in Cubao, Quezon City, a fun girl swarmed in front of the gate, shyly asking the marines in command what seemed to be the "rules of the game" and what they are usually allow beyond belief. They were politely informed that the studios had been closed.

Nearby, a few executives of the Araneta Center, Inc. watched the situation. They said that the place was sealed at two o'clock the previous afternoon. On the ground again, but Chay Araneta, the archenemy of the armed, pleading belligerent action Gen. Ver.

(Please turn to Page 10)

***Fig 2.5** Martial law*

Martial Law and the Politics of Beautification

1970s - 1980s

The declaration of Martial Law in 1972 under President Ferdinand Marcos marked a turning point in the state's approach to informal settlements ***(Fig 2.5).***[20] By 1975, squatting had been criminalized through a presidential decree aimed at halting the expansion of urban informality. This policy enabled the state to carry out forced evictions and relocate settlers to peripheral zones located 30-40 kilometers outside major cities—often without adequate infrastructure or access to employment ***(Fig 2.9)***. The regime's urban policies were shaped not only by authoritarian governance but also by a campaign of aesthetic and economic repositioning. First Lady Imelda Marcos spearheaded efforts to beautify Manila in preparation for international events such as the 1974 Miss Universe Pageant and the 1976 IMF–World Bank meetings, resulting in the mass eviction of thousands of urban poor residents ***(Fig 2.4).*** [21]

While many of those displaced were moved to distant relocation sites, many returned to their original communities near sources of livelihood, highlighting the inadequacy of state-led resettlement schemes. In response to mounting urban pressures and visible failures of eviction policies, the government launched the Zonal Improvement Program (ZIP) in the late 1970s. This initiative marked a shift toward in-situ upgrading, with some informal communities granted legal recognition and basic services such as electricity and sanitation.[22] Despite this partial reorientation, evictions and relocations continued into the 1980s—including in areas like Bagong Silang and Payatas. These actions deepened social unrest and contributed to the growing opposition against the Marcos dictatorship, culminating in the 1986 People Power Revolution ***(Fig 2.8).*** The era underscored the tensions between authoritarian beautification campaigns and the everyday spatial claims of marginalized urban residents.[23]

From People Power to Present: Resistance, Reform, and Resettlement

1990s - Present

Following the 1986 People Power Revolution, Philippine housing policy began to shift toward participatory and community-based frameworks ***(Fig 2.8).*** The Community Mortgage Program (CMP) was one such effort aimed at enabling low-income families to transition from informal settlements to formal tenure.[24] By 2001, the CMP had supported roughly 106,000 families in over 800 communities. However, the scale of urban informality remained daunting—by the early 1990s, nearly a third of Metro Manila's residents, or approximately 2.39 million people, lived in slums, many in hazardous sites like Smokey Mountain and Payatas ***(Fig 2.6)***.[25] Despite policy rhetoric favoring inclusivity, major housing interventions continued to reflect centralized, state-led logic. The Smokey Mountain redevelopment project, for instance, prioritized public-private partnerships and coastal beautification over the lived realities of its inhabitants ***(Fig 2.10)***.[26] Displaced scavengers, unable to afford the long-term costs of housing units or to abandon their waste-based livelihoods, often relocated to other dumpsites such as Payatas ***(Fig 2.11).***[27] Families were particularly disadvantaged, facing discrimination due to their size, economic precarity, and limited access to education or skilled labor.[28] As housing units failed to match the demographic needs and economic capacities of their intended beneficiaries, skepticism toward government-led resettlement programs deepened.[29]

These limitations became even more visible in resettlement efforts like Kasiglahan Village, a government-constructed relocation site marred by infrastructural neglect and environmental risk.[30] Despite being presented as a model relocation community, Kasiglahan lacked adequate drainage, social services, and transportation links—shortcomings that culminated in devastating floods during Typhoon Ulysses in 2020 ***(Fig 2.14)***.[31] Such events exposed the fragility of top-down relocation policies that prioritize spatial clearance over sustained community integration. Meanwhile, urban poor movements such as Kadamay maintained a countervailing presence ***(Fig 2.12)***. Since its formation in 1998, Kadamay has consistently challenged the displacement of informal settlers and advocated for housing as a right rather than a commodity. The group's occupation of over 5,000 idle housing units in Pandi, Bulacan in 2017, and its appeals to international bodies like the UN, marked both symbolic and strategic resistance to exclusionary urban governance ***(Fig 2.13)***. These cases highlight the tension between formal housing models and grassroots survival strategies, pointing to the need for more flexible, locally grounded approaches.

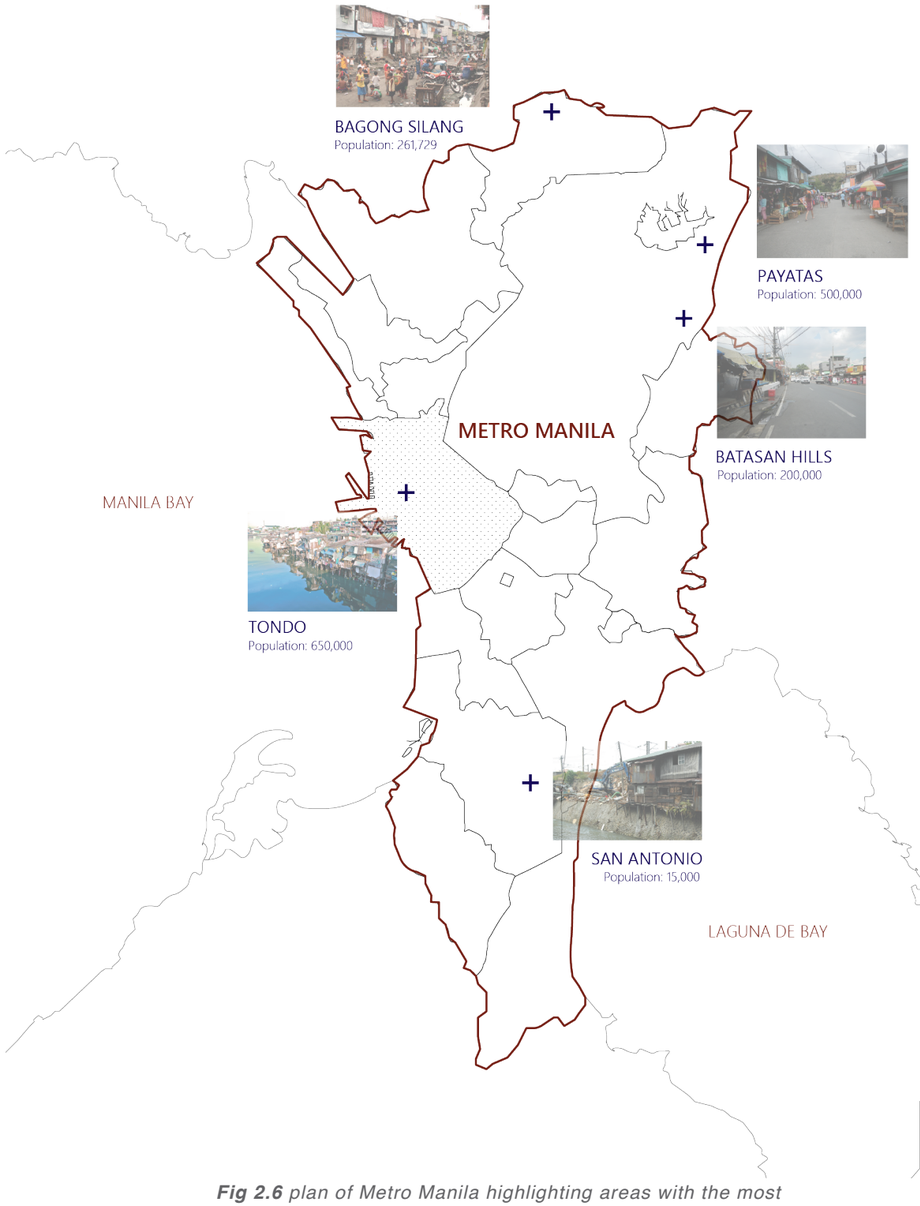


Fig 2.6 *plan of Metro Manila highlighting areas with the most dense informal settlements and their population*

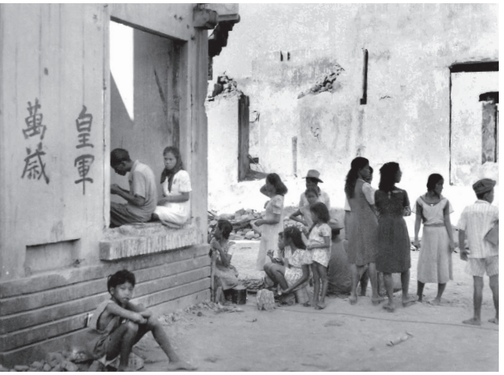


Fig 2.7 *Post war Manila, Philippines. Chinese characters mean "Long live the Japanese Imperial Army" (1950s)*



Fig 2.9 *Philippine National Railways (1980s)*



Fig 2.8 *People Power Revolution (1986)*



Fig 2.10 *Smokey Mountain Development & Reclamation Project (1993)*

A visual timeline tracing the emergence of urban informality in the Philippines, revealing how colonial legacies, state-led displacement, reclamation projects, and failed public housing policies have continually shaped patterns of settlement, resistance, and survival across generations.



Fig 2.11 *Payatas Quezon City (2010)*



Fig 2.12 *Kadamay protest (2011)*



Fig 2.13 *Housing units in Pandi, Bulacan (2017)*



Fig 2.14 *Kasiglahan Village wired in mud after typhoon Ulysses (2020)*

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3

UNDERSTANDING INFORMALITY

Revisiting the Formal-Informal Question

Formal urbanization typically refers to top-down, institutionally driven planning processes that shape the city through public infrastructure, civic design, and regulatory frameworks.[32] Traditionally led by government agendas, this model has increasingly been dominated by private development interests in the absence of strong public leadership often resulting in exclusive, fragmented urban forms with weakened public realms.[33] In contrast, informal urbanization arises from the ground up, driven by social, spatial, and economic practices that are extra-official, adaptive, and often invisible to formal institutions.[34] These emergent urban conditions reflect survival strategies and, at times, forms of resistance by marginalized populations navigating displacement, instability, or exclusion from the formal city.

While some scholars critique the binary between formal and informal as reductive, this thesis maintains the conceptual distinction to expose structural inequalities and power asymmetries in the neoliberal city.[35] The tension between formal and informal systems is not simply theoretical, it is spatialized in the form of urban inequity and contested space. Recognizing the hybridity of these systems in practice, the goal is not to collapse the distinction, but to use it as a lens through which to reimagine more inclusive and negotiated approaches to urban development ***(Fig 3.1).*** A new paradigm requires institutions to become more literate in informal urban dynamics, embracing flexibility, adaptability, and incremental growth. It also demands a recalibration of planning logic, moving away from standardized solutions toward frameworks that can mediate between state-driven agendas and community-led urbanism. In this contested terrain, the formal–informal dialectic becomes a tool not only for critique but for design.

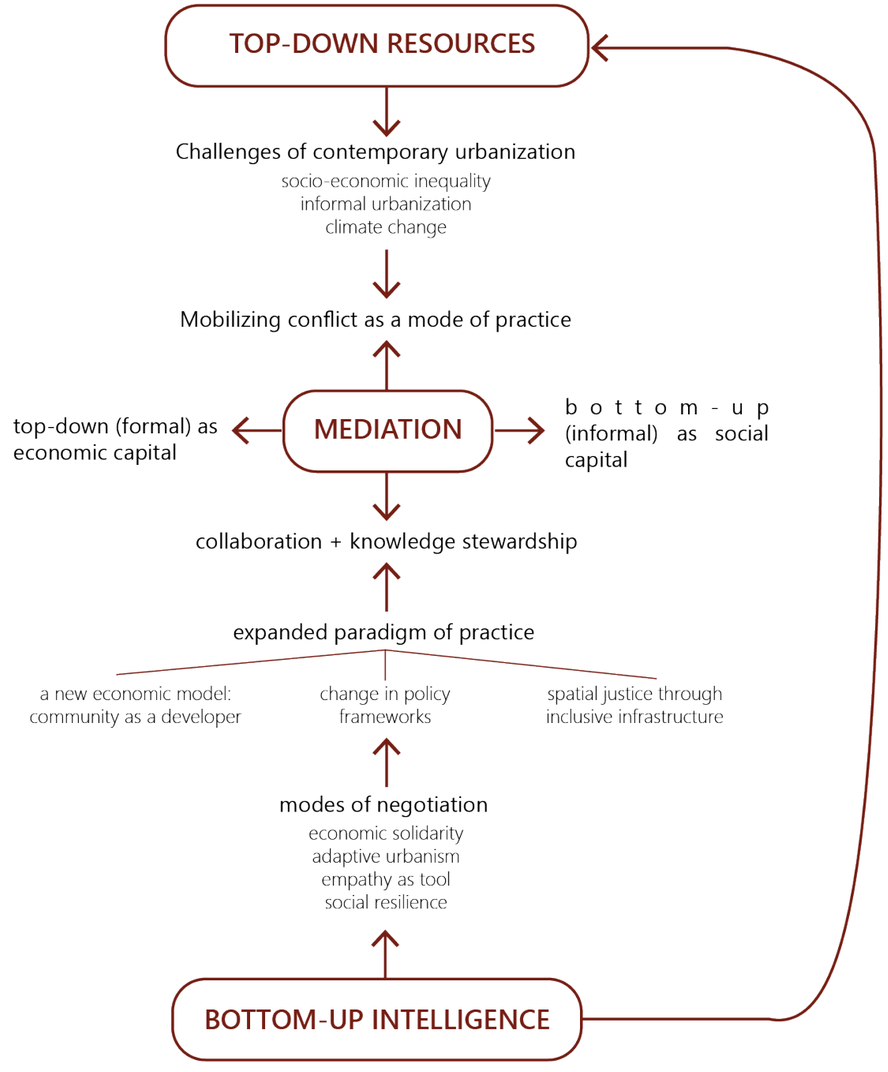


Fig 3.1 *Diagram illustrating the tension and negotiation between top-down resources and bottom-up intelligence, positioning mediation as a framework for bridging formal and informal systems toward more inclusive urban practices.*

Sociological scholarship on informality, particularly from the Global South, offers an important counter-narrative to dominant Western urban theories. In ***"Urban Informality: Transnational Perspectives"*** Asef Bayat argues that the rise of informal economies is not simply a symptom of poverty, but a response to the changing economies and political conditions of globalization.[36] He attributes this shift to three key factors: the decline of the welfare state, the rise of neoliberal economic policies, and the emergence of global consumer culture ***(fig 3.2).***[37] The historic shift from socialist and populist regimes to liberal economic policies has led to a considerable erosion of the social contract, collective responsibility, and former welfare-structures ***(fig 3.3).***[38] Thus, millions of people in the Global South have turned to informal systems not out of choice but necessity.

Actors and Contributions of the Informal Economy

The informal economy encompasses a wide range of income-generating activities that exist outside formal regulatory systems but are vital to the functioning of urban life, especially in cities of the Global South. According to the Informal Economy Monitoring Study (IEMS), the sector is composed primarily of home-based workers, street vendors, and waste pickers—groups that remain structurally excluded from legal protections, labour benefits, and planning frameworks, yet are foundational to everyday urban economies ***(fig 3.4).***[39] In the context of Tondo, Manila, waste picking emerges as the dominant form of informal labour. The informal, but not unorganized, collection, sorting, and resale of waste not only sustains local livelihoods but also links directly to broader systems of material reuse and resource recovery.

Waste pickers perform a variety of tasks across the recycling chain including door-to-door collection, composting, triage, processing, and resale. In some cases, they participate in administrative and cooperative

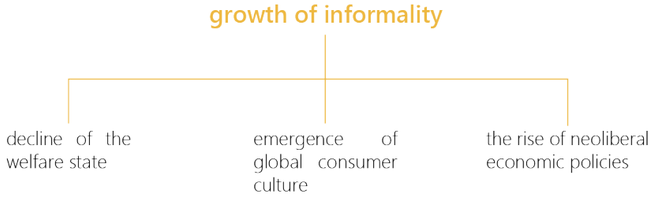


Fig 3.2 *Factors contributing to the growth of informality, as outlined by Asef Bayat.*

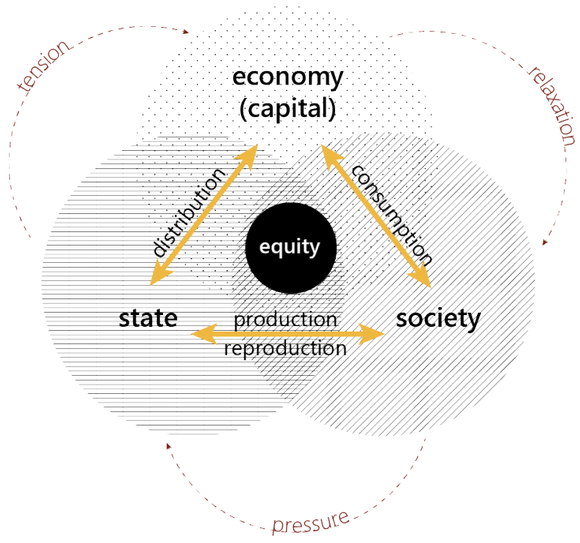


Fig 3.3 *Relationship of the capitalist economy, society, and the state, illustrating how shifting dynamics of production, distribution, and consumption destabilize equity and contribute to the growth of informality.*

governance roles. Their work is largely self-directed: schedules, routes, and methods are determined individually or within small groups, allowing for flexibility but exposing workers to income instability and precarious conditions. While often perceived as marginal, waste pickers contribute significantly to urban sustainability. They are responsible for managing 50–100% of municipal waste in many cities, diverting materials from landfills and reducing costs for under-resourced municipalities. [40] Despite these contributions, economic returns remain disproportionately low, with many earning under US$2 per day.[41] Plastics constitute a major portion of their earnings, up to 60% in some contexts, highlighting both their environmental role and their vulnerability within global value chains.[42] Positioned at the base of the waste economy, waste pickers enable critical ecological and economic functions while receiving limited recognition, support, or protection. Their labour demonstrates how informality not only fills systemic gaps but sustains urban metabolisms that formal infrastructures cannot match alone.

Morphology and Typology

Informal settlements in Metro Manila evolve through embedded spatial patterns that reflect proximity to labour, infrastructure, and access to circulation networks. These morphologies emerge in residual urban zones—railways, easements, drainage edges, industrial backlands, and estuarine corridors—where formal planning has either failed or withdrawn. In these spaces, residents generate adaptive spatial configurations: dwellings extend into alleyways, domestic programs overlap with micro-enterprises, and public thresholds become zones of livelihood.

Case studies illustrated through a series of spatial drawings analyze the morphology of these informal systems, revealing three recurring spatial processes ***(Fig3.5-3.7).*** The first is settling: the occupation of unclaimed or unregulated land, often on city margins.[43] The second is inserting which refers to the occupation of leftover fragments within the formal city such as vacant lots, in-between infrastructure, or fragmented parcels that formal development has overlooked.[44] The third is attaching: building onto or around the existing frameworks of the formal city.[45] These tactics unfold across diverse urban terrains—districts, easements, escarpments, backstages, and sidewalk edges—where informality capitalizes on opportunity, adjacency, and access.[46]

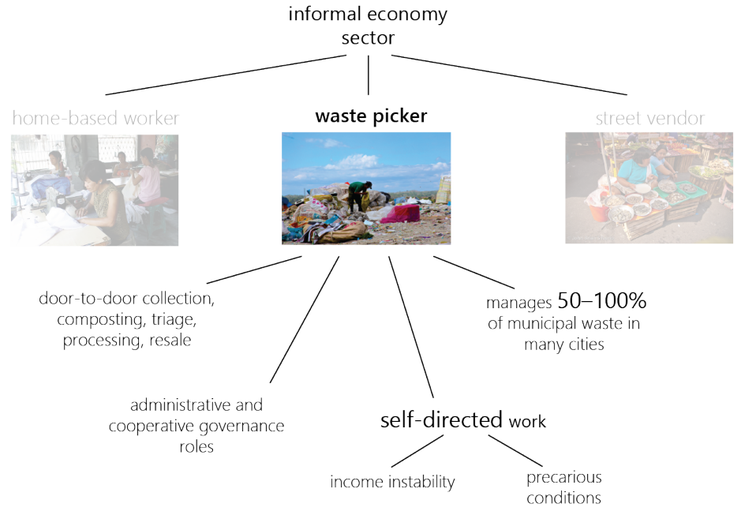


Fig 3.4 *Key actors of Manila's informal economy—home-based workers, waste pickers, and street vendors.*

The three drawings below show Baseco Compound, Manggahan Floodway, and Marikina City in Manila, each illustrating how informal settlements spatialize economic activity and social organization ***(Fig 3.5-3.7).*** At Manggahan, the flood-control easement has been reworked into narrow housing strips with pathways doubling as sites for vending and recycling ***(Fig 3.5).*** In Baseco, livelihood activities cluster along the waterfront, where fishing, boat repair, and small-scale trade meet the edge of the port ***(Fig 3.6)***. In Marikina, proximity to industrial zones has shaped settlements where home-based workshops and repair stalls line neighborhood streets ***(Fig 3.7)***. Across these sites, material reuse zones and household-based micro-economies—such as sari-sari stores along alleys, recycling yards at street edges, and home-based production spilling into walkways—are often located at circulation thresholds. These thresholds, where paths, roadways, and waterways intersect, become sites where economic exchange and social interaction overlap. In contrast, denser interior blocks concentrate sleeping, storage, and kin-based cohabitation. Together, the case studies trace the interdependency between spatial form and economic function, revealing shared typologies that respond to infrastructure gaps and conditions of precarity.



Fig 3.5 *Manggahan Floodway, Manila. Linear housing strips built along the flood-control easement.*

Economic

Civic space

1 *Passageways to the inner settlements*



Fig 3.6 *Baseco Compound, Manila. Settlement growth along the waterfront.*

- *Civic spaces*
- *Economic*
- 1 *Housing redevelopment complex*
- 2 *Home-based business (sari-sari store)*
- 3 *Streetscape*
- 4 *Informal markets*
- \+ *Landmarks*



Fig 3.7 *Marikina City, Manila. Densely packed settlement adjacent to industrial zones.*

- *Economic infrastructure*
- *Civic space*
- 1 *Streetscape + pedestrian bridge*
- 2 *Basketball court*
- 3 *Recycling depot*
- 4 *Shoe store*
- 5 *Home-based businesses*
- \+ *Landmarks*

Conditions and Constraints: Dynamics in the Sector

In Barangay 105, many residents sustain themselves as waste pickers, working across Metro Manila's recycling chain from street collection to landfill recovery. Their livelihoods are shaped by a range of structural and institutional constraints. Among the most reported challenges are fluctuations in the value chain, particularly the low and unstable prices of recyclables, which directly undermine income security. Waste pickers also face intense competition, both from fellow informal collectors and from larger private companies that dominate access to high-value materials. At the city level, gaps in legislation and policy exacerbate precarity: most municipal frameworks do not extend protection to informal workers, and some even criminalize their presence in public space. Harassment from local officials and disrespect from the public were reported by nearly half of surveyed waste pickers, with the location of their work (e.g., streets vs. landfills) influencing the likelihood of these negative encounters. Infrastructural deficits including a lack of safe, designated areas for sorting, storage, and processing further reduce productivity and expose workers to theft, injury, and exploitation.[47]

Despite these challenges, there are also positive drivers that support informal recyclers under certain conditions. In cities like Dharavi, Cairo, Mokattam, and Bel Horizonte, value chain dynamics were cited as beneficial when prices were more stable and demand for recyclables was consistent.[48] In Belo Horizonte, supportive municipal policies were key, particularly those that offered negotiation platforms for waste picker recognition and the provision of equipment and materials. Another major enabling force is the presence of Membership-Based Organizations (MBOs), as seen in Bogotá and Belo Horizonte, where collective organizing has improved access to markets, increased worker visibility, and allowed for more equitable engagement with local governments.[49] These cases demonstrate that when institutional and collective support structures are in place, informal workers can access safer, more dignified, and economically viable conditions.

Circular Economy Practices

The informal recycling sector plays a critical role in global waste management, particularly in the Global South, where formal systems are often under-resourced or incomplete. Comprising unregistered individuals, small-scale enterprises, and community-based groups, this sector carries out the collection, sorting, and resale of post-consumer waste with limited

institutional support or regulation. It is estimated that informal recyclers are responsible for up to 58 of all plastic waste recovered and recycled globally, making a substantial contribution to reducing landfill volumes, limiting marine pollution, and mitigating climate impacts.[50] Beyond environmental gains, the sector offers essential income opportunities for low-income urban residents and offsets municipal waste management costs through its decentralized labour. Despite these contributions, informal recyclers are rarely recognized in policy or planning frameworks. This section presents a comparative analysis of grassroots circular economy models both in Manila and in other global contexts to examine how community-led recycling initiatives operate, and how their logics of reuse, adaptability, and economic participation can inform more inclusive approaches to circular urbanism.

Regional Cooperative Models

Metro Manila, Philippines

a. Payatas Alliance Recycling Exchange Multi-Purpose Cooperative (PARE-MPC)

The Payatas Alliance Recycling Exchange Multi-Purpose Cooperative is a long-standing cooperative formed by waste pickers and junk shop owners in Quezon City, who previously scavenged at the Payatas dumpsite ***(Fig 3.8)***.[51] With support from the Japan Social Development Fund and the Solid Waste Management Association of the Philippines, PARE-MPC members received capacity-building assistance that enabled many to set up micro-enterprises and acquire essential equipment like collection trucks financed through cooperative microcredit scheme.[52] Formed in the aftermath of a tragic



Fig 3.8
Environmental and safety engineers inspecting the former Payatas dumpsite, the site of the 2000 landslide that later spurred the organization of waste pickers into the PARE-MPC.

landslide, the cooperative now includes approximately 3,000 members, organized into dual shifts that share revenue equally and prohibit child labor.[53] Through formalized operations and strategic planning workshops, PARE-MPC has structured itself with functioning governance bodies and a mission to leverage collective organization to build sustainable livelihoods for informal waste workers.[54]

PARE-MPC plays a vital role in this local circular economy, not only by recovering materials from the Payatas landfill but also by integrating informal labor into the city's formal waste management system. Their efforts have led to a marked increase in waste diversion rates while reducing municipal costs.[55] Members share revenue, manage micro-finance systems, and coordinate with local government units, illustrating a model of solidaristic infrastructure that supports social cohesion and economic resilience.

Metro Manila, Philippines

b. Sambayanan ng Muling Pagkabuhay Multi-Purpose Cooperative (SMP-MPC)

SMP-MPC was established by residents of the former Smokey Mountain dumpsite in Tondo, Manila, many of whom previously worked as informal waste pickers.[56] Formed in response to the closure and redevelopment of the landfill, the cooperative provided a pathway for displaced scavengers to reestablish their livelihoods through organized recycling and waste recovery. Registered as a multi-purpose cooperative, SMP-MPC operates



Fig 3.9 *Recycled plastic and paper woven into market bags by the SMP-MPC.*

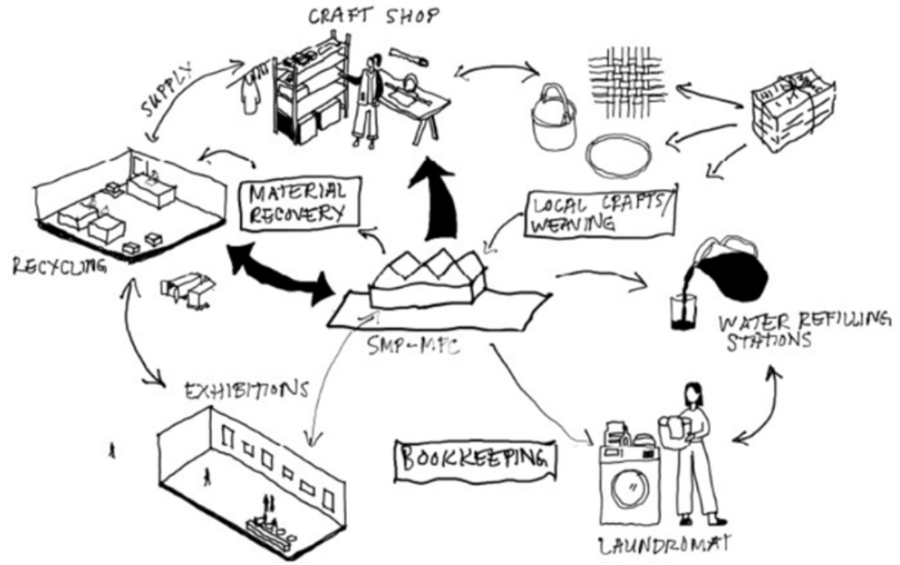


Fig 3.10 *This diagram illustrates the community-driven ecosystem of the SMP-MPC. The cooperative integrates informal labor into a cohesive economic model, offering services like a laundromat, material recycling, water refilling, and bookkeeping to sustain and scale community-based industry.*

within the framework of a formal legal entity while remaining rooted in the community's prior experience of informal labor.[57] Its activities include the collection and sorting of recyclable materials, supported by internal management systems that emphasize transparency, shared responsibility, and equitable income distribution among members.[58]

In recent years, SMP-MPC has diversified its livelihood strategies to include handicraft production using upcycled materials, particularly paper and plastic waste.[59] This initiative supplements members' income while expanding the cooperative's participation in local circular economy practices. Through partnerships with NGOs and government agencies, members have received training in design, production, and small business management.[60] The cooperative's transition from landfill-based scavenging to organized recycling and craft production demonstrates how informal labor can evolve into community-based enterprise.

Global Case Studies

Mumbai, India

a. Dharavi, Mumbai, India: Earth5R

Located in one of Mumbai's most densely populated settlements, Dharavi generates a substantial share of the city's plastic waste, yet it also sustains a long-standing informal recycling economy ***(Fig 3.11)***. Earth5R's initiative engages directly with this context, layering organised collection systems, segregation facilities, and training programs onto pre-existing practices.[61] Rather than introducing a new external framework, the model strengthens local capacities by positioning residents—particularly waste pickers—as key actors in the management and transformation of plastic waste. This approach allows large volumes of discarded material to be diverted away from landfills and waterways while embedding responsibility within the community.

The Dharavi Model further demonstrates how environmental aims can align with livelihood creation.[62] Structured workshops provide training in plastic identification, processing, and upcycling, enabling the production of items such as eco-bricks, household goods, and furniture.[63] These activities generate micro-recycling hubs that not only extend the value of discarded plastics but also improve income stability for waste pickers and artisans, with women often taking a leading role. At the same time, challenges such as inconsistent participation in segregation, limited infrastructure, and reliance on external funding highlight the fragility of such systems. Still, by formalising and reinforcing practices that already exist in Dharavi's dense urban fabric, the Earth5R model underscores the adaptability of informal economies and their potential contribution to wider circular systems.

Delhi, India

b. Self-Employed Women's Association (SEWA)

SEWA Bharat has supported home-based embroidery workers in gaining access to markets, fairer wages, and formal recognition within urban economies. These women, many of whom operate in dense informal settlements, perform intricate hand embroidery for middlemen who supply large fashion and export firms ***(Fig 3.12)***. Despite the value of their labor, they have historically been excluded from labor protections, social security, and direct relationships with buyers. SEWA's intervention included organizing women into collectives, documenting their working conditions, and creating visibility for their contribution to the garment supply chain. Through this organizing work, SEWA not only helped raise wages but also

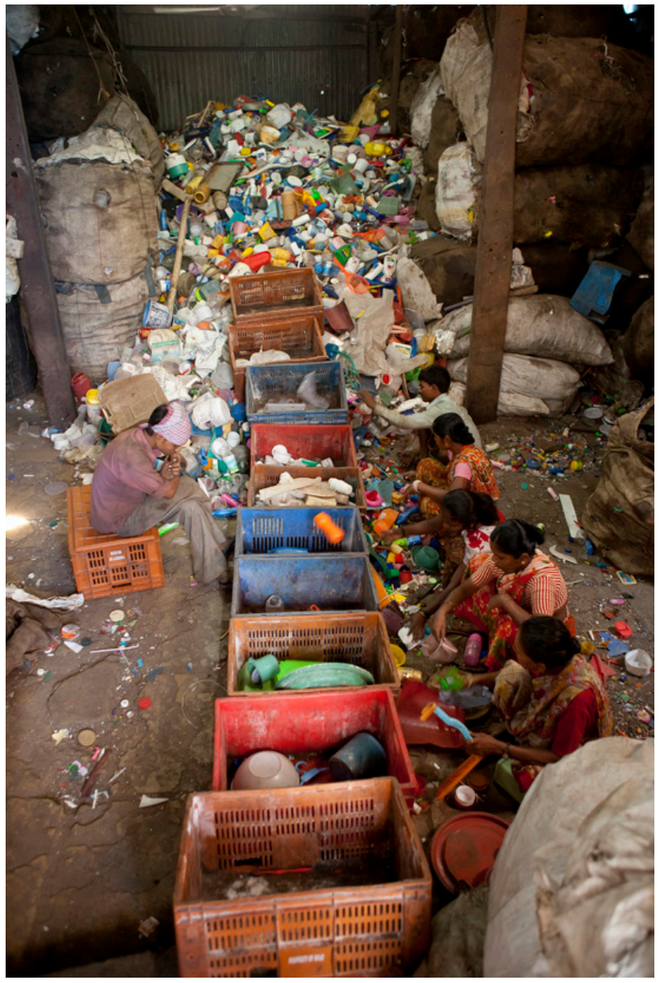


Fig 3.11 *Plastic recycling workshop in Dharavi, where waste from across Mumbai is sorted and processed. Recycling is one of the area's largest industries, employing an estimated 250,000 people across 5,000 businesses and 15,000 single-room factories*

built collective bargaining capacity among workers who were otherwise isolated in their homes.[64]

SEWA's approach emphasized capacity building, legal literacy, and market access while respecting the domestic spatial rhythms of home-based work. The embroidery workers were not relocated or centralized into factories but rather empowered to improve conditions within existing arrangements. By recognizing domestic space as both a site of production and of care, the SEWA case offers valuable insights into how architectural interventions might support localized, gendered economies especially in urban areas where formal employment remains inaccessible to many.



Fig 3.12 *Members of SEWA Delhi engaged in textile and craft work.*

Cairo, Egypt

c. The Association for the Protection of the Environment (APE)

The Association for the Protection of the Environment (APE) was founded in 1984 in Mokattam Village, a settlement on the outskirts of Cairo often referred to as Garbage City due to its dependence on waste collection.[65] APE was established to improve the lives of the zabbaleen—the city's informal garbage collectors—who provide a crucial service by managing the 40% of Cairo's waste left outside formal collection systems.[66] In Mokattam, where the population has grown from 8,000 in the early 1980s to over 25,000 today, nearly all residents rely on garbage-related activities



Fig 3.13 *Women at the APE in Mokattam, Cairo, producing recycled paper from collected waste materials.*

for survival.[67] The zabbaleen collect an estimated 7,000 tons of waste each day—about 40 percent of Cairo's total output—and recycle up to 90 percent of what they handle. While this system is notable for its efficiency, it is also marked by precarious conditions: children often participate in waste sorting and collection, and access to formal education and infrastructure has historically been limited.

APE positions recycling as more than subsistence labor by introducing programs that build skills and generate income through value-added activities. One example is its patchwork and recycled paper initiative, which trains over 250 women in fabric sorting, sewing, weaving, and design, producing goods such as quilts, rugs, and bags from discarded textiles ***(Fig 3.13)***.[68] These efforts diversify household incomes and create pathways for engagement beyond collection and sorting. At the same time, they highlight the uneven dependencies of Cairo's waste system, where the city benefits from the zabbaleen's efficiency at little cost, while the community itself faces structural chal lenges of marginalization. Mokattam's case shows how informal recycling economies operate at large urban scales, but also how external support, such as APE's interventions, mediates between survival work and broader social and economic development.

Belo Horizonte, Brazil

d. Associação dos Catadores de Papel, Papelão e Material Reaproveitável (ASMARE)

The integration of waste picker cooperatives into municipal waste management represents one of the most established and institutionalized examples of inclusive urban policy. The Associação dos Catadores de Papel, Papelão e Material Reaproveitável, founded in 1990, became the first formally recognized waste picker cooperative in the city.[69] Supported by the municipal government, ASMARE members were granted access to sorting warehouses, equipment, and formal collection routes ***(Fig 3.14)***.[70] This marked a shift in policy—from treating waste pickers as marginal actors to recognizing them as service providers critical to the city's sustainability goals. Through legal agreements and ongoing partnerships, waste pickers gained access to training, social services, and infrastructure, while the city benefited from increased recycling rates and cost-effective service delivery.[71]

The cooperative model in Belo Horizonte operates within a framework of co-production, where the state and organized civil society share responsibility for public service provision.[72] Waste pickers retain autonomy over the sale of recyclables, allowing them to generate income while participating in formalized systems of collection and processing. The success of this model lies in its capacity to combine municipal recognition with community self-management, resulting in improved livelihoods without erasing informal labor identities. For this thesis, ASMARE offers a compelling precedent for how local governments can support informal economies through negotiated infrastructures, rather than through displacement or over-formalization.



Fig 3.14 *Waste pickers of ASMARE in Belo Horizonte sorting recyclables on a conveyor line.*

Critique of Circular Economy Discourse

While circular economy principles emphasize material reuse and ecological stewardship, their application in the Global South often reproduces extractive dynamics. Kesha Fevrier argues that the celebration of informal recycling systems within circular economy discourse tends to obscure the exploitative labour conditions and structural inequalities that underpin these systems.[73] In many cases, informal waste workers, predominantly low-income populations, absorb the environmental and health risks of recycling while generating value that is extracted by transnational markets. Green growth strategies frequently portray informal waste work as efficient and entrepreneurial, yet this framing can act as a "green screen" that masks the socio-spatial violence and dispossession these communities endure.[74] Rather than transforming systemic injustice, the circular economy often reinforces the unequal flow of resources and labour from the Global South to the Global North.[75]

The paper critiques how circularity, as currently framed, co-opts informal labour without meaningfully improving working conditions, rights, or access to decision-making. For example, in Agbogbloshie, Ghana, the rebranding of toxic e-waste recycling as sustainable economic activity conceals the hazardous realities of those working within it.[76] These narratives risk legitimizing precarity while commodifying resilience. Within the context of this thesis, such critiques highlight the importance of resisting surface-level integration of circular economy ideals. Instead, architectural interventions must center local knowledge, material practices, and labour structures that are already embedded in informal communities.

A Manifesto of Spatial Practices (for counter-urbanism)

1. Anticipatory Urbanization. Informal settlements build in phases, anticipating future needs without a strict masterplan. This logic encourages design as scaffold: providing structural supports for growth without prescribing exact outcomes.

2. Material Temporalities. Incremental construction practices in informal settlements create layered spaces that evolve with use e.g. walls shift, extensions grow, and surfaces are reworked over time. This temporal logic enables programs to emerge gradually challenging the rigidity of pre-fixed, top-down spatial planning.

3. Making the Invisible Legible. Urban design often erases the social systems that precede it. This point calls for public infrastructure—like plazas, walkways, or water stations—that spatialize informal governance, making collective use visible and valued.

4. Coordinating Complexity + Transformative Adaptation. Informal settlements manage dense, overlapping flows of labor, care, and community life—where workspaces double as kitchens, and sidewalks host markets by day and gatherings by night. Architecture can draw from this by embedding multifunctional zones and shared infrastructures that adapt to shifting programs and temporal use.

5. Reframing Boundaries + Localizing Governance:. Informal settlements follow social and ecological boundaries rather than formal zoning, privileging relationships, proximity, and shared use. As a design principle, this enables flexible spatial overlaps—where areas of work, care, and community life converge—allowing architecture to adapt to lived rhythms and support grassroots systems of governance, where communities negotiate how space is used, maintained, and collectively managed.

6. Redefining Affordability. Affordability in informal contexts is not just about low cost but about collective investment—where residents contribute labor, time, and maintenance to sustain shared spaces. Architects can respond with low-tech materials, phased build-outs, and co-managed infrastructure that anchor residents economically and socially.

7. Rethinking Ownership. Informality introduces more fluid understandings of property, where spaces are claimed through use and negotiation rather than a legal title. This principle invites design strategies that blur public and private like open-air laundries or stairwells that serve as social porches.

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4

BARANGAY 105

Barangay 105, locally known as Happyland, is situated in the portside industrial fringe of Tondo, Manila. With a population of 24,971 residents across 5,701 households, it is among the most densely populated informal settlements in the region ***(Fig 4.1)***.[77] In the Philippines, a ***barangay*** refers to the smallest administrative unit of government—typically understood as a neighborhood or village—but in this context, it functions more as a loosely bounded territory shaped by both formal jurisdiction and informal occupation.[78] The area is marked by limited access to infrastructure and services, which has led to the development of a highly organized yet unofficial system of labor, housing, and material reuse. I have selected this site as the focus of my research because of its layered spatial practices: discarded materials are reused for construction, industrial warehouses are adapted into hybrid spaces for living and working, and economic activity is structured around the circulation and transformation of waste. Barangay 105 is not a fixed or isolated community but a continuously evolving urban environment shaped by necessity and local practice. This chapter situates the site within its demographic, spatial, and economic conditions to frame the design strategies that follow.

Spatial Analysis

The barangay occupies a dense, mixed-use urban territory bordered by port facilities, industrial zones, and major infrastructure corridors (Fig). Its location near Manila Bay and regional shipping terminals situates it within larger circuits of material and labor circulation, particularly those tied to Metro Manila's recycling economy. Here, localized waste economies—comprising junk shops, street aggregators, and cooperative transport systems—are embedded in logistical flows that connect neighborhood labor to regional processing hubs and global shipping routes ***(Fig).***

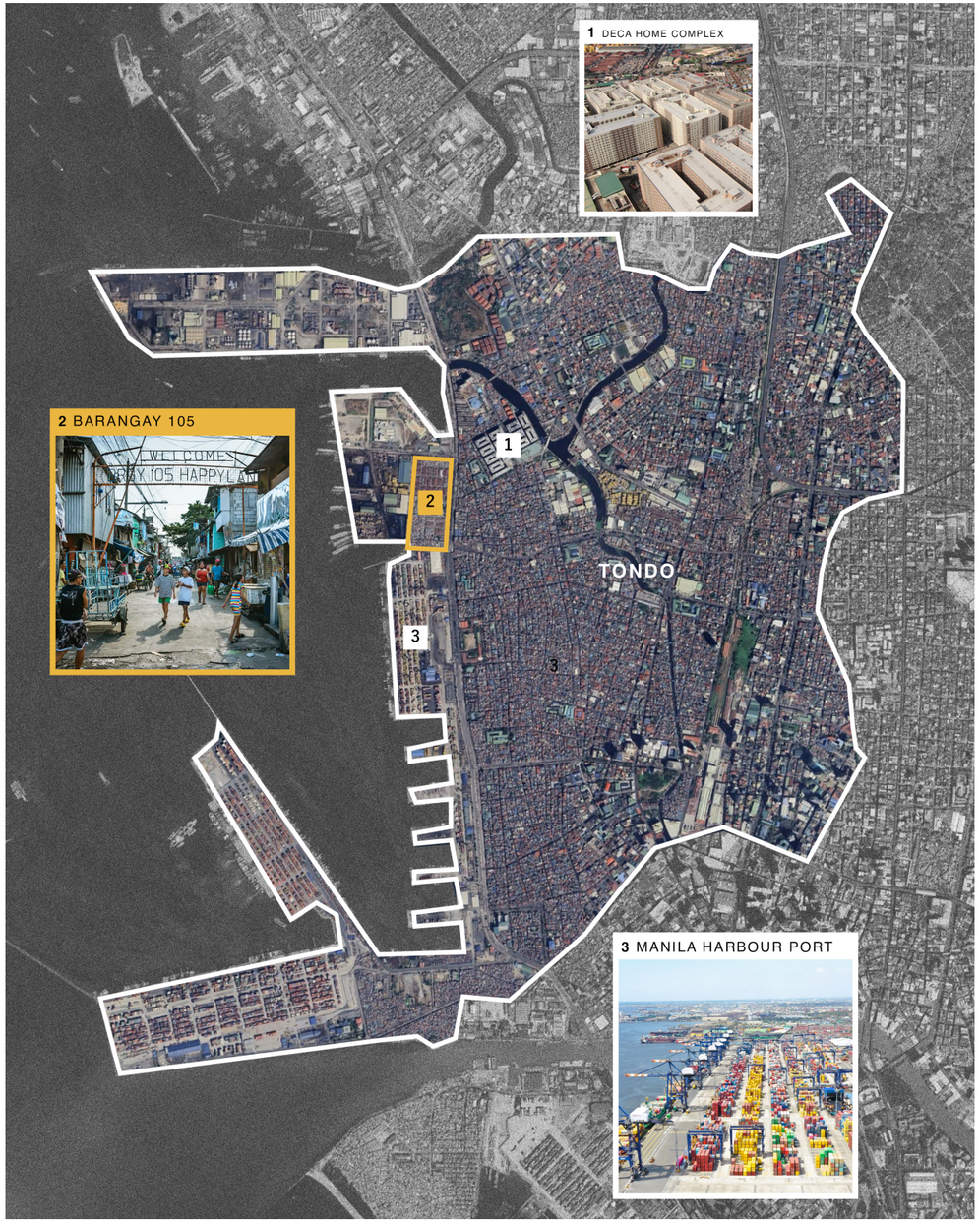


Fig 4.1 *Barangay 105 situated in the portside industrial fringe of Tondo, Manila.*



Fig 4.2 *Existing material flows in and around Barangay 105, showing how localized waste economies—junk shops, street aggregators, and cooperative networks—are embedded within regional recycling circuits that link the community to processing hubs, port facilities, and global shipping routes.*

- *Local junk shops*
- *Coal production*
- *Garbage collection point*
- *Local convenience store*
- *Market*
- *Industrial port*
- *Recycling facility*
- *Import*
- *Export*
- *Site*

Housing typologies

The barangay's architectural fabric is shaped by multiple layers of adaptation. Built forms range from makeshift dwellings (barong-barong) to the informal occupation and transformation of warehouse structures ***(Fig 4.4).*** Many warehouse have been incrementally converted into live-work housing ***(Fig 4.5).*** Residents tend to occupy the outer perimeter of these structures, leaving the core spaces largely underutilized due to limited daylight, poor ventilation, or inaccessibility ***(Fig 4.3)***. As a result, domestic and economic life extends outward—into streets, alleyways, and adjacent voids—where activities such as vending and washing take place in the public realm. The following drawings illustrates this layering: rooftop extensions made from corrugated metal or tarpaulin accommodate sleeping and storage functions, while ground floors support sari-sari stores, waste sorting areas, and communal wash stations ***(Fig 4.5, 4.6)***. These adaptive practices reveal a fluid integration of housing, labor, and commerce within a spatially constrained environment.



Fig 4.3 *Warehouse in Barangay 105 incrementally adapted into housing and workspace.*

Makeshift house
Type A





Makeshift house
Type B





Concrete block
house





Reused
warehouses



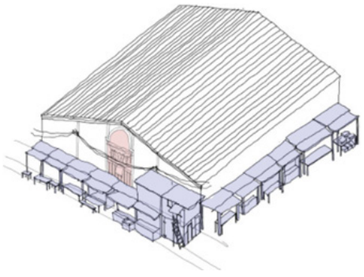


Fig 4.4 *Typologies of housing in Barangay 105, ranging from makeshift barong-barong to incrementally adapted warehouse structures.*

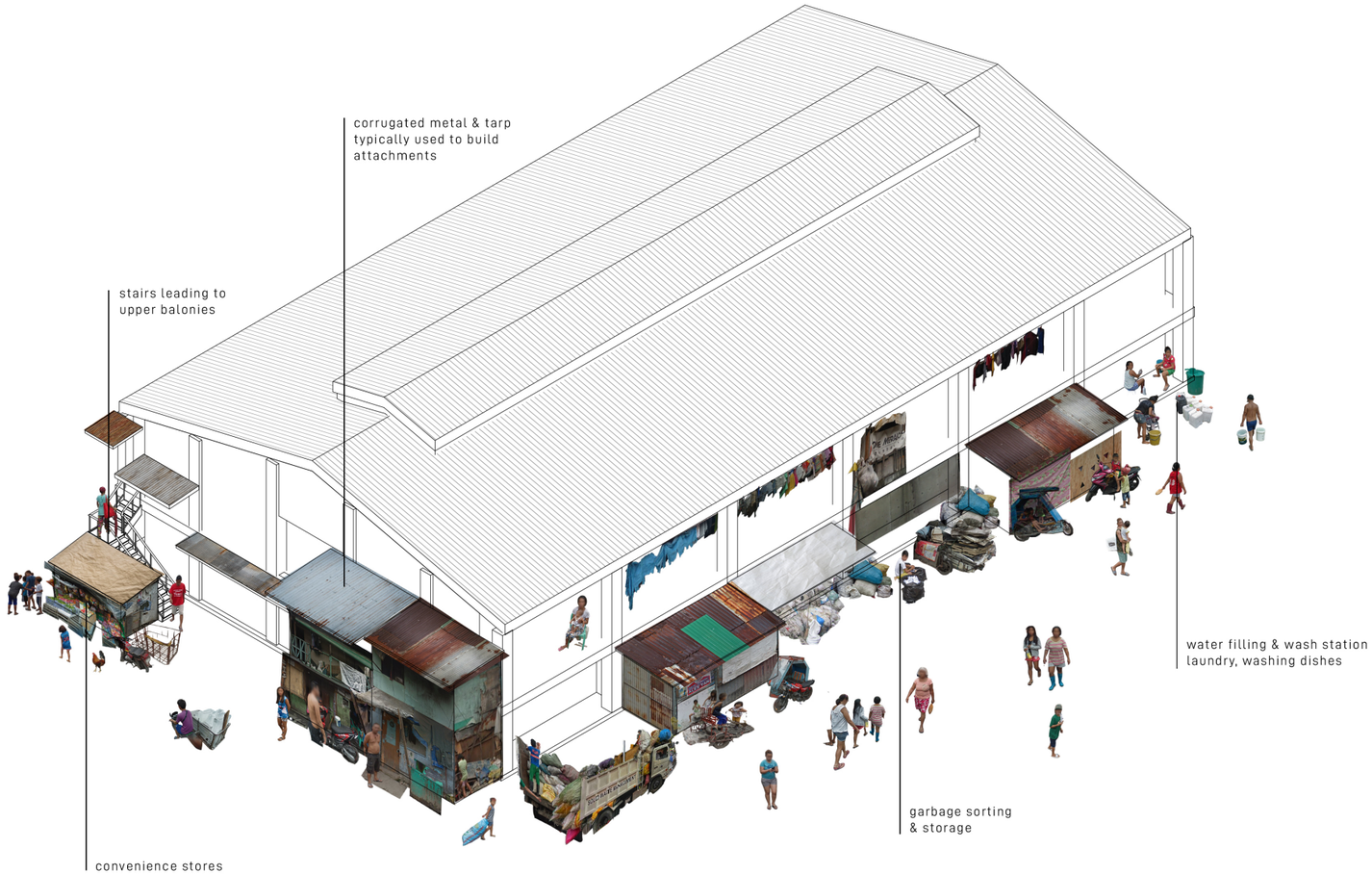


Fig 4.5 *Axonometric drawing of a typical warehouse in Barangay 105 adapted into mixed domestic and economic use. Perimeter edges host sari-sari stores, waste sorting, and communal wash stations, while circulation routes and extensions provide additional living space, illustrating how residents negotiate density and reconfigure form over time.*

Land use

Movement

In parallel, the spatial organization of the barangay emerges not from formal zoning but from everyday necessity. Residential, commercial, and industrial functions overlap at the scale of buildings and clusters, producing layered environments where homes, shops, and workspaces converge. Narrow alleys, cul-de-sacs, and residual open areas are repurposed for vending, material sorting, or domestic extensions, illustrating how households maximize limited space to sustain both habitation and livelihood. Movement through the settlement reflects a similar logic of adaptation. While paved roads trace its edges, internal circulation relies on improvised pathways that connect dwellings to civic institutions and work sites. At the same time, barriers such as fences, dikes, and elevated highways reinforce separation from adjacent districts. Despite these limits, residents generate alternative systems of access, ensuring that daily life remains connected to wider networks of exchange.

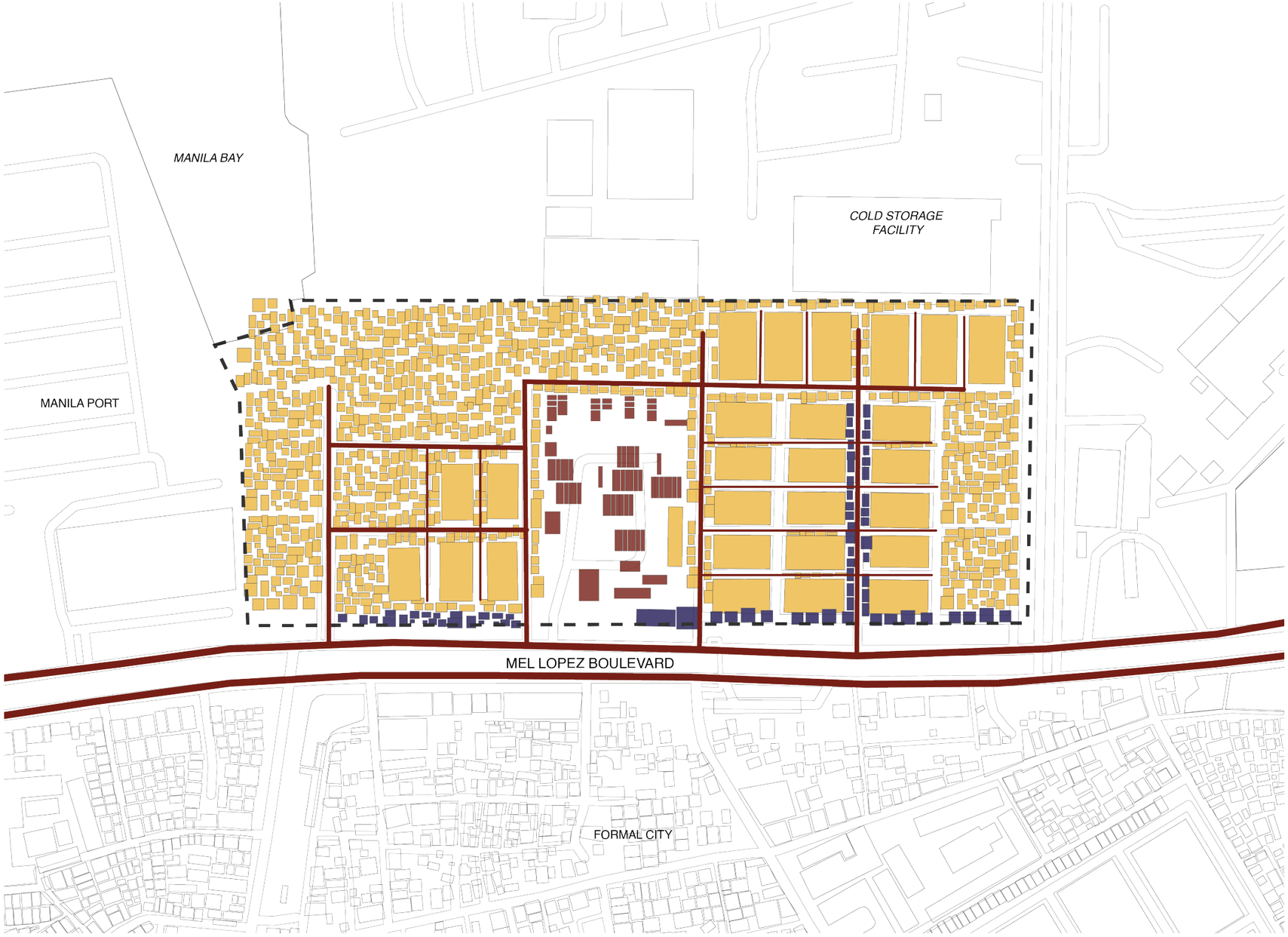


Fig 4.6 *Spatial analysis of Barangay 105's land use and mobility.*

Infrastructure

Barangay 105 is marked by high-density occupation alongside persistent gaps in basic services. Water is accessed through communal taps, electricity depends on improvised connections such as sub-meters or small generators, and proper sewage and drainage systems are largely absent. These deficiencies shape daily routines, requiring residents to negotiate access collectively while relying on makeshift provisions. Layered onto these infrastructural gaps are environmental vulnerabilities. Fire risks are heightened by combustible building materials and tangled wiring, while uncollected waste frequently blocks drainage channels, leading to localized flooding and pollution. Together, these material and ecological conditions underscore how systemic neglect intersects with everyday practices, leaving residents to manage risk within already constrained circumstances.

Environment



Fig 4.7 *Spatial analysis of Barangay 105's infrastructure and environmental challenges.*

○ Waste accumulation

\+ Infrastructure (water tower, electricity)

Social Organization

Amid infrastructural gaps and spatial constraints, informal governance structures provide forms of coordination that are central to community life. Cooperatives, churches, barangay checkpoints, and neighborhood-based waste collection routes act as organizing nodes, distributing responsibility and reinforcing social ties. These visible and invisible systems reflect a logic of proximity and mutual support rather than formal regulation. In doing so, they demonstrate how everyday practices of labour and care sustain a measure of stability and resilience within the settlement, even in the absence of comprehensive state provision.



Fig 4.8 *Spatial analysis of Barangay 105's social organization.*

Social groups (cooperatives, churches, barangay checkpoints)

Public space

Public space and the streetscape are central to the social and spatial life of Barangay 105. Streets extend beyond circulation: they become places of vending, cooking, laundry, and childcare. These corridors act as shared zones of interaction, where boundaries between private and collective use blur. Constructed from salvaged materials, the structures that line the streets reinforce this continuity. In the absence of formal civic infrastructure, the street becomes the primary arena for public life, where community is continually practiced and reinforced.

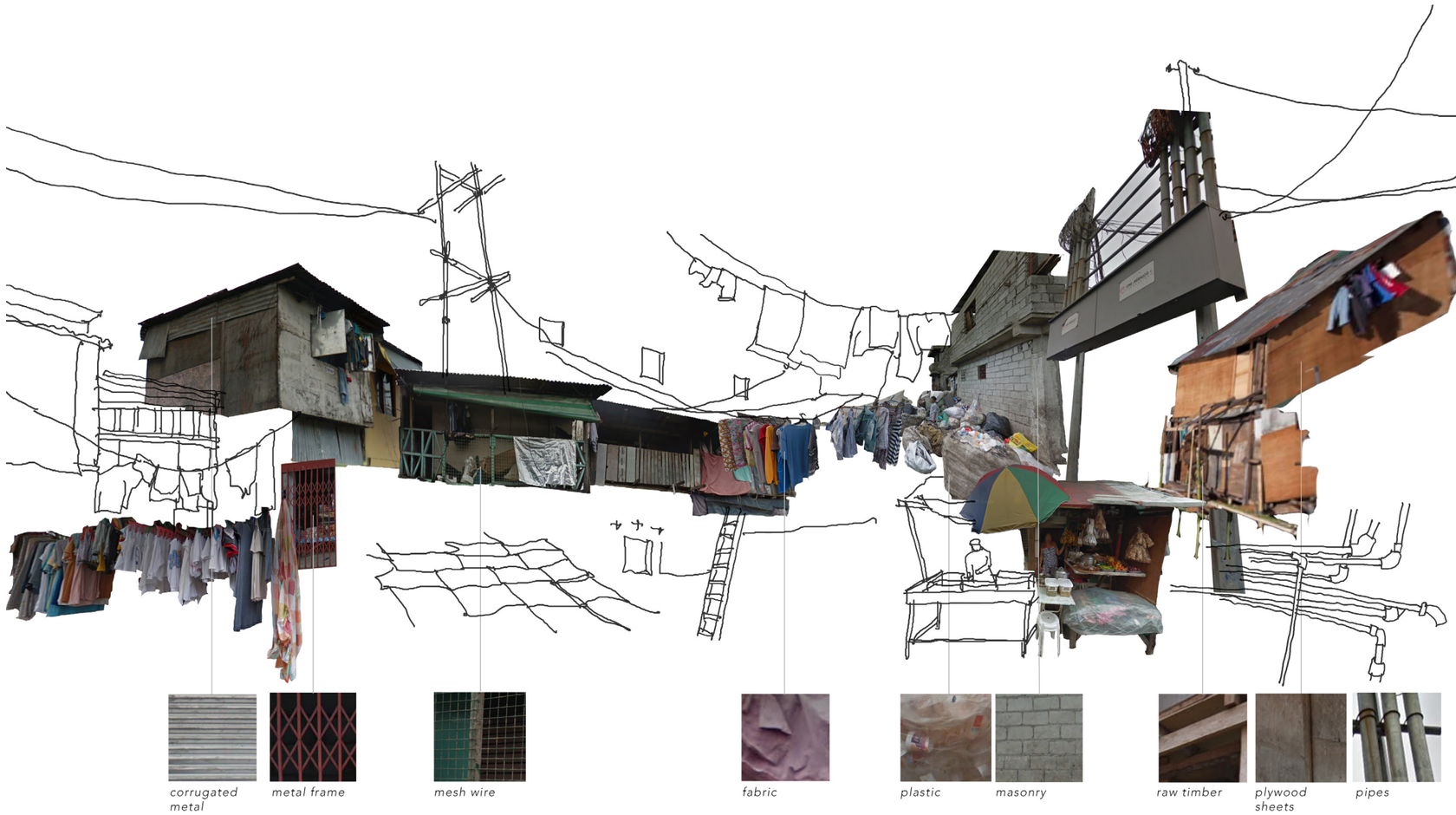


Fig 4.9 *Streetscape in Barangay 105, where salvaged materials form structures that extend domestic life into the street, blurring boundaries between private and public space.*

Actors of the Informal Community

Social Composition and Stakeholders

The social composition of Barangay 105 reflects a layered and interdependent community structure shaped by both residence and labor ***(Fig 4.10).*** Long-term settlers, multi-generational families, renters, caretakers, youth, and the elderly form the core of the neighborhood, occupying housing units along warehouse perimeters and engaging in daily maintenance of shared spaces. At the center of the barangay's informal economy are workers in the recycling sector—door-to-door collectors, street recyclers, dumpsite workers, itinerant buyers, and small- to medium-scale waste traders—who circulate materials through a decentralized system of recovery and exchange. Community-based organizations and cooperatives such as the Payatas Alliance Recycling Exchange and Sambayanan ng Muling Pagkabuhay MPC provide structure to these practices, anchoring livelihood to collective organization and resource sharing. Informal governance is reinforced through the authority of local leaders and elders, who coordinate neighborhood maintenance, resolve disputes, and mobilize responses to everyday needs. External actors, including NGOs, faith-based organizations, barangay officials, and municipal agencies, operate at varying levels of engagement—offering intermittent support, policy intervention, or regulatory enforcement. This multi-scalar network of actors illustrates how daily life in Barangay 105 is maintained not by centralized governance but by distributed systems of care, labor, and negotiation.

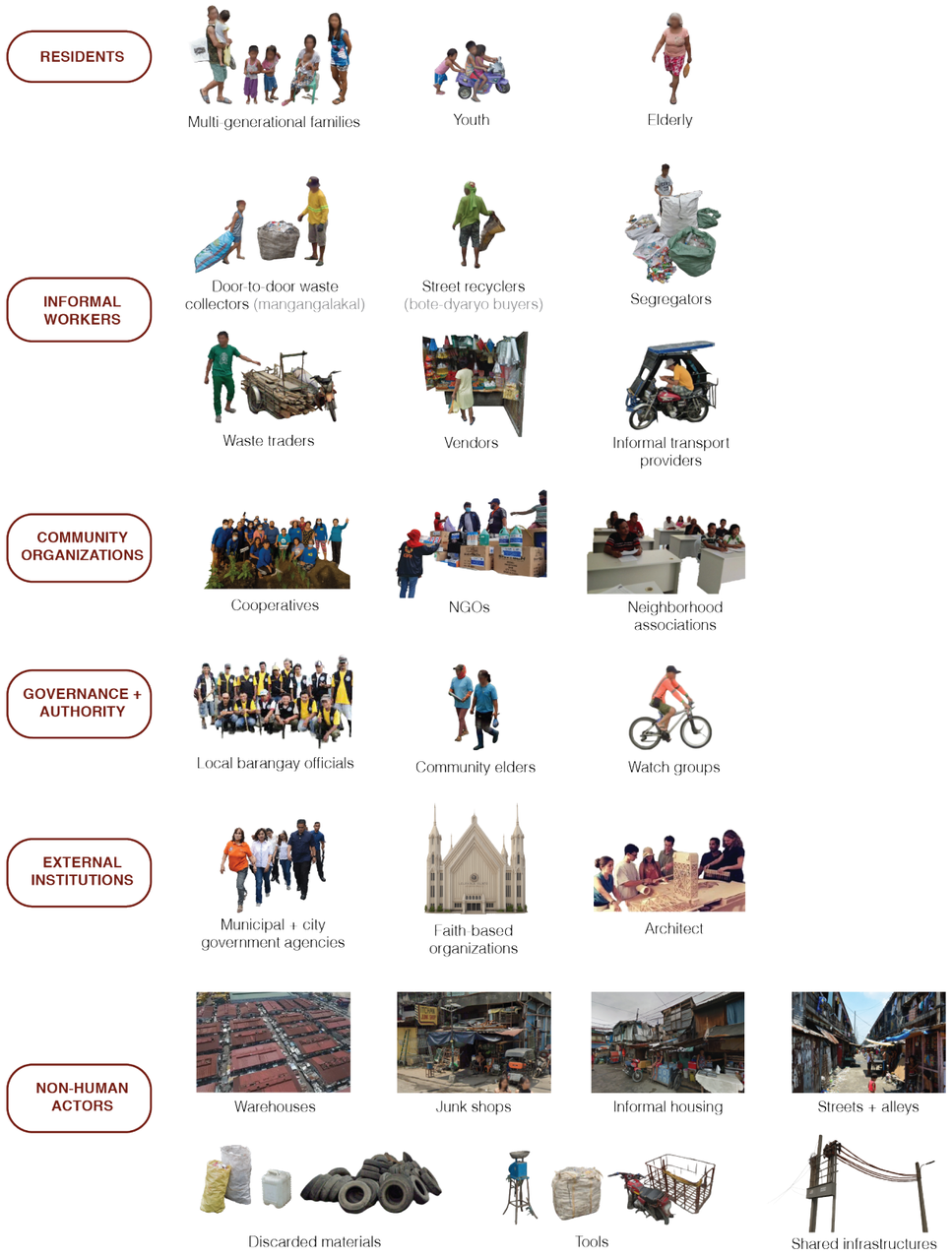


Fig 4.10 *Barangay 105 and its surrounding network of actors*

Roles, Relationships and Interconnectedness

The informal recycling ecosystem in Barangay 105 operates through a dense composition of people, materials, and space ***(Fig 4.11).*** Waste pickers move through alleyways and across districts collecting plastic, paper, glass, textiles, metal, and organic waste, with each material following a distinct yet overlapping pathway of transformation. Plastics are sorted and sold to junk shops or hauled to nearby recycling facilities. Textiles and e-waste are cleaned, repaired, or repurposed, while food scraps (pagpag) are either recooked and resold, or composted to nourish local gardens. These cycles unfold not in isolation, but across shared spaces that host both domestic routines and productive labour. What emerges is a system of distributed value-making, where everyday materials are kept in circulation through practices of care and exchange.

Within this spatial economy, social roles are not fixed but shift according to time, place, and need. For instance, a young truck driver maps his day across pick-up points and peripheral drop-off zones, bridging neighborhoods with the wider circulation network of Manila's waste trade ***(Fig 4.12).*** A grandmother, also a charcoal vendor, divides her time between sorting materials, caring for her grandchildren, and running errands through the barangay. A child waste picker begins their day collecting recyclables, then walks to school in the afternoon, navigating a city that rarely accounts for their dual role as labourer and learner. These routines reveal a network of interdependent roles shaped by shared spatial and economic conditions. Interactions are built on proximity, familiarity, and repeated collaboration, forming an informal infrastructure of labour and care embedded in the daily rhythms of the community.

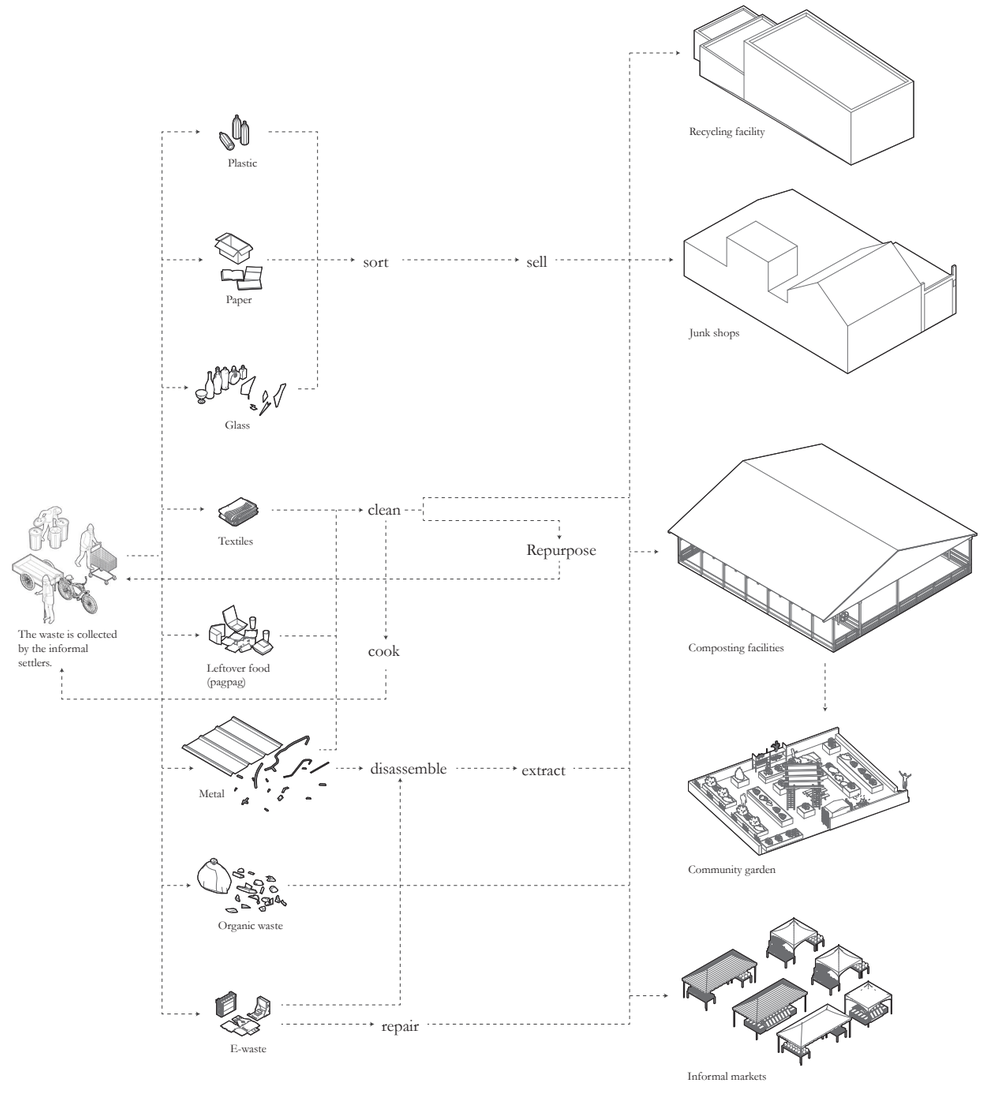


Fig 4.11 *Diagram of existing material flows in Barangay 105.*



Fig 4.12 *Map of daily routes and interactions in Barangay 105, showing how waste pickers, vendors, and drivers link neighborhood routines with Manila's wider circulation networks.*

Power and Visibility

Drawing from Nabeel Hamdi's argument in Small Change, the settlement exhibits elements of a community of practice, where residents engaged in waste collection and recycling develop shared routines, tools, and relationships that structure daily survival.[79] Simultaneously, it is a community of resistance, where informal networks organize in response to persistent threats of eviction or displacement.[80] Cultural ties and shared religious practices give rise to communities of culture, while geographically rooted residents represent a place-based community.[81] These categories are not mutually exclusive but rather form a layered socio-political fabric interweaving familial, economic, and spatial bonds that guide how people navigate precarity and assert their right to remain.

Beyond these visible groupings are invisible stakeholders who operate in the informal governance of the settlement. These actors such as elder mediators, volunteer safety patrols, informal educators, or women who coordinate community lending systems often manage conflict, negotiate access to resources, and sustain communal resilience without institutional recognition. Their roles are typically undervalued by formal planning systems, yet they are central to the daily reproduction of the settlement's social and economic life. These informal structures parallel what Teddy Cruz and Fonna Forman identify as informal public demands: claims for tenure security, self-determined governance, and a redefinition of ownership and zoning that protects the capacity of communities to self-organize.[82]

Toward a Counter-Relocation Approach

Relocation has long been the default response to informal urbanization in Metro Manila, with state-led redevelopment projects routinely displacing residents to distant peripheries under the guise of order and progress. These large-scale interventions often sever critical ties to livelihood, education, and social networks—conditions that lead many to return to their original neighborhoods. The persistence of this return migration points to a deeper misalignment between the logic of formal planning and the lived realities of informal communities. This thesis proposes an alternative framework: counter-relocation. Rather than displace, it suggests investing in place—providing infrastructure, services, and spatial strategies that support community wellbeing while enhancing the existing economic and social fabric ***(Fig 4.13).***[83] The goal is not to formalize in a top-down manner, but to build upon what already works—to recognize the value of proximity, interdependence, and autonomy.

This approach aligns with what Teddy Cruz and Fonna Forman describe as "soft master planning": a flexible, bottom-up model that privileges adaptability over fixed outcomes.[84] Through incremental development, infrastructure is deployed in phases, guided by community rhythms and material constraints. This design ethos is grounded in four principles, which will be developed in the next chapter: adaptability, incremental growth, solidaristic infrastructure, and social organization. Each principle reflects a commitment to architectural mediation that reinforces existing systems of sustenance and reciprocity.



Fig 4.13 *Diagram illustrating counter-relocation as the creation of a new material network that links Barangay 105 to the wider formal fabric of the city, mediating between top-down planning and bottom-up practices.*

- *Local junk shops*
- *Coal production*
- *Garbage collection point*
- *Local convenience store*
- *Market*
- *Industrial port*
- *Recycling facility*
- *Import*
- *Export*
- *Site*

Endnotes

77 “Barangay 105, Manila Profile,” PhilAtlas, accessed July 25, 2025, https://www.philatlas.com/luzon/ncr/manila/barangay-105.html.

78 “Barangay - Definition,” Oxford Dictionaries, December 22, 2015, https://web.archive.org/web/20151222164809/http://www.oxforddictionaries.com/definition/english/barangay.

79 Nabeel Hamdi, Small Change: The Art of Practice and the Limits of Planning in Cities (Earthscan, 2004).

80 Hamdi, Small Change.

81 Hamdi, Small Change.

82 Cruz and Forman, Socializing Architecture.

83 Alejandro Aravena, Elemental: The Architecture of Alejandro Aravena (Phaidon Press, 2018).; Alfredo Brillembourg and Hubert Klumpner, The Architect and the City: Ideology, Idealism, and Pragmatism (Hatje Cantz, 2021).

84 Teddy Cruz, Spatializing Justice: Building Blocks, with Fonna Forman and NODE Berlin Oslo (Hatje Cantz Verlag, 2023).

5 DESIGN

Parti

The design proposal introduces a networked approach to infrastructure, repurposing fifteen existing warehouses in Barangay 105 into a distributed community-managed depot facility and repurposed housing. Rather than consolidating programs into a singular, centralized facility, the project disperses them across multiple structures, allowing interventions to embed within the existing social and spatial logic of the settlement. This strategy avoids the pitfalls of the monolithic "community building" and instead aligns with informal patterns of use, occupation, and adaptation.[85] Informed by four guiding principles—adaptability, incremental growth, solidaristic infrastructure, and social organization—the design operates as a scaffold for existing community practices.[86] Each warehouse accommodates programs that aim to improve living standards and increase socio-economic productivity: waste processing, food distribution, knowledge stewardship, shared services, and micro-enterprise. The architecture does not arrive as a finished product, but as a framework, providing essential equipment and infrastructure to support residents in shaping, occupying, and evolving their spaces over time. In this way, the depot functions less as a solution and more as a platform for community-owned economic development.

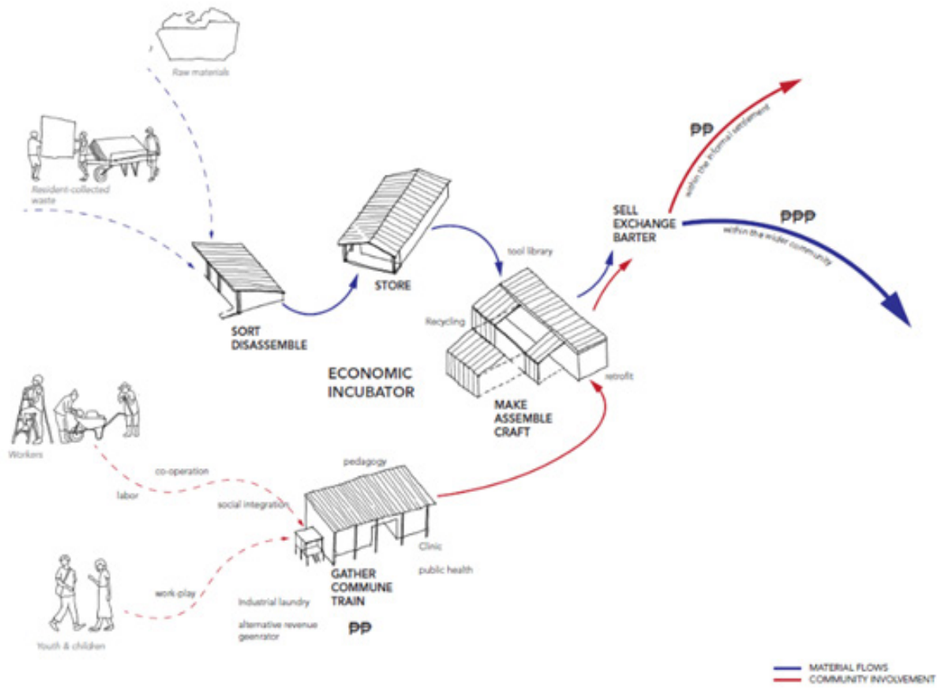


Fig 5.1 *Parti diagram of the distributed community depot as an economic incubator*

Site Approach

The site is positioned within Barangay 205, bordered by industrial zones to the north, a shipping container yard to the west, and a formal residential district to the south ***(Fig 5.2).*** This adjacency to both formal and informal systems creates opportunities for spatial overlap, material flow, and social integration. The layout of the intervention retains the warehouse grid, organizing 15 buildings into a matrix structured along north–south axes. Each block is organized according to its material specialization—organic waste, paper and textile, plastic and wood, and metal—with spatial arrangements that follow a gradient of use: sorting and triage, followed by zones for processing in the center, and finally, units dedicated to craft ***(Fig 5.3).*** The southernmost edge—closest to Mel Lopez Boulevard—houses open-air markets and civic spaces, activating the site's threshold with the broader community. Each warehouse maintains a hybrid programmatic mix that integrates housing, economic infrastructure, and social programming. This layering not only decentralizes activity but also accommodates diverse needs, reinforcing flexibility and informal modes of production.



Fig 5.2 *Context map of Barangay 105*

MANILA BAY

SITE: BARANGAY 105

EXISTING: COLD STORAGE FACILITY

EXISTING: SHIPPING COMPANY

EXISTING: INFORMAL HOUSING

EXISTING: SHIPPING CONTAINER YARD

JACINTO ST

1	2	3
ORGANIC WASTE	ORGANIC WASTE	ORGANIC WASTE
PAPER + TEXTILE	PAPER + TEXTILE	PAPER + TEXTILE
METAL	METAL	METAL
PLASTIC	PLASTIC	PLASTIC
MULTIUSE COURT	MARKET	MARKET

EXISTING: WAREHOUSE

EXISTING: PORT AUTHORITY

MEL LOPEZ BOULEVARD

EXISTING: JUNK SHOP

EXISTING: SHELL

EXISTING: JUNK SHOP

EXISTING: BARANGAY 106

EXISTING: BARANGAY 107

EXISTING: BARANGAY 103

EXISTING: ELEMENTARY SCHOOL

Fig1.1

97

98

Fig 5.3 *Site plan of Barangay 105 showing the reorganization of fifteen warehouses into a programmatic matrix. Material-specific blocks for organic waste, paper and textile, metal and wood, and plastic are arranged along north–south axes, while markets and civic spaces activate the southern edge along Mel Lopez Boulevard.*

- Sorting + triage
- Cleaning + processing
- Making
- Entry points

Program Matrix

This drawing maps the spatial distribution of programs across the 15 selected warehouses, organized by material type (organic waste, paper & textile, plastic, metal & wood) and a fifth row (E) for shared civic and open-air functions ***(Fig 5.4).*** Horizontally, the layout follows four key processes: (1) Store & Triage, (2) Clean & Process, (3) Craft & Making, and (4, implied) Sell & Exchange. The matrix visually layers three main program categories: social infrastructure (dotted hatch), housing (diagonal hatch), and economic use (plus sign hatch), with open-air programs (ochre, yellow) occupying courtyards, informal markets, and the multi-purpose court. More than a site-specific tool, this diagram reflects a form of systems thinking at the urban scale, positioning each warehouse as part of a coordinated network that links material flows to the socio-economic landscape of the city.

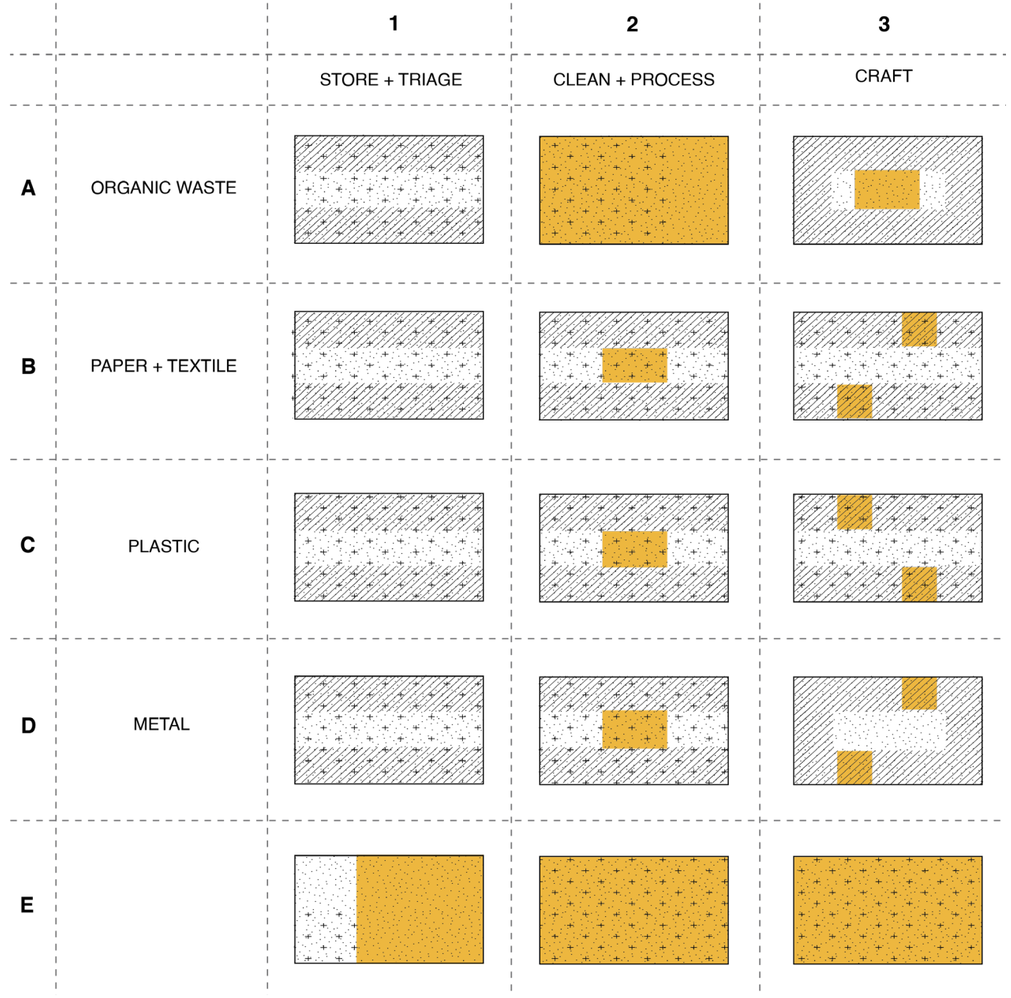


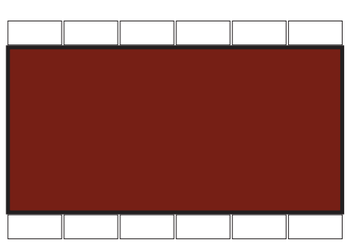
Fig 5.4 *Systems thinking in an urban scale: Program matrix of the distributed community depot.*



Fig 5.5 *Year 0 of the distributed community depot.*

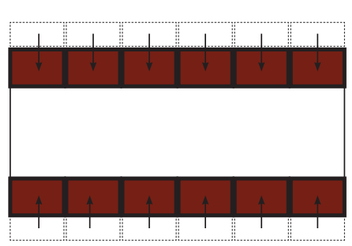
Phasing

The following diagrams illustrate a phased rehabilitation strategy for a single warehouse ***(Fig 5.6)***. This sequencing enables continuous occupation while upgrading housing and shared infrastructure in stages. Framed as systems thinking at the architectural scale, the process situates each warehouse within a broader network of adaptation. Incremental steps allow residents to remain in place while structures are reinforced, repaired, and extended over time. In this way, phasing becomes a counter-relocation strategy, renewing the settlement from within and allowing both housing and communal spaces to adjust gradually to the evolving needs of the



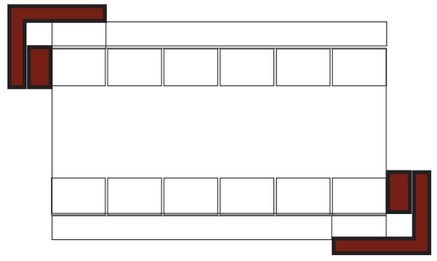
P1 I Core Repair

The warehouse shell is reinforced with roof, slab, and column repairs, supported by temporary scaffolding and safety measures. Basic utilities are provisionally provided to allow residents to remain on-site during this stage.



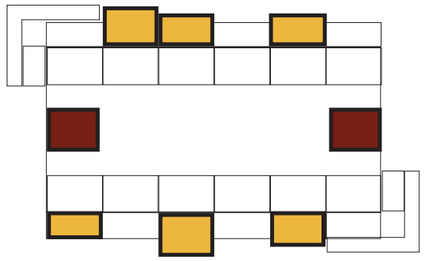
P2 I Housing Relocation

Housing units are constructed in the central core once it is structurally secure. Families relocate from balcony units into the core, freeing the balconies for repair and future adaptation.



P3 I Service Core

Vertical service cores are added to the warehouse edges, integrating water towers, sanitation blocks, stairwells, and electrical risers.



P4 I Communal areas + Balcony Extensions

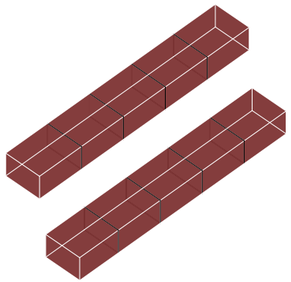
Central communal areas in the 2nd floor are developed such as kitchens, laundry, and living rooms. Balconies are reassigned as resident-owned extensions for sleeping, or storage.

Fig 5.6 *Systems thinking in an architectural scale: Phased rehabilitation strategy for a typical warehouse*

Phasing change

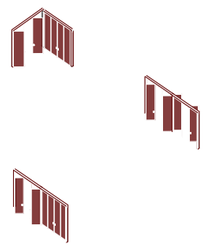
Balcony addition

Architectural Strategies



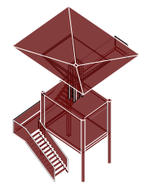
Housing

Each warehouse is framed by a perimeter shell with second-floor housing. The shell is delivered as basic structure; residents self-build cores, expand incrementally, and reconfigure as households change. Housing is embedded within a shared framework that links domestic and economic functions.[87]



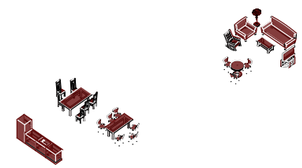
Foldable Partition

Lightweight panels enable daily reconfiguration of units. Rooms shift between rest, work, and play.



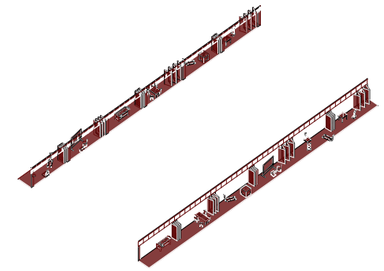
Service Tower

Fixed infrastructural blocks at each end concentrate stairs, toilets, baths, and laundry. Integrated cisterns and rainwater systems distribute recycled water for household and communal use.



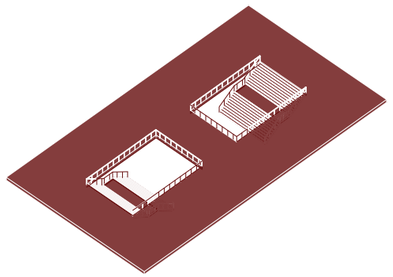
Threshold

Corridors and catwalks are not residual but programmed as kitchens, wash zones, and living rooms. Circulation doubles as multi-use collective infrastructure.



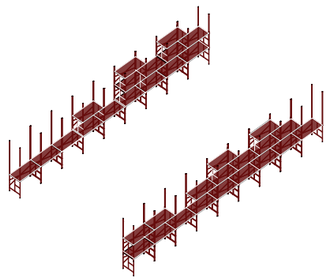
Arcade

A continuous passage organizes circulation together with multi-use functions including gathering, informal workshops, storage, and vending.



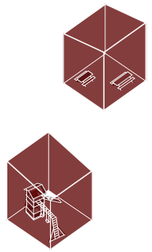
Mezzanine

Inserted mezzanines increase density by stacking food courts and social zones above ground market stalls. Vertical layering extends productive space within the same footprint.



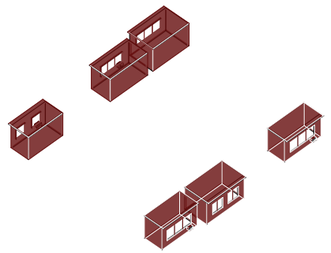
Scaffolding

These scaffolding units function as anticipatory frames supporting incremental vertical or lateral additions over time.[88]



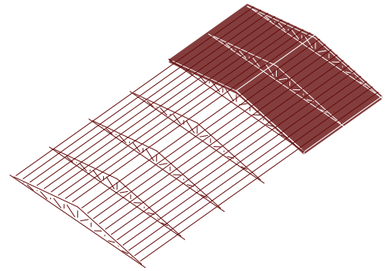
Voids + Volumes

Voids carved into the warehouse shell operate as light wells, vents, and shared courtyards. Interior volumes are adjusted, low bays for storage, double-height for drying or sorting materials.



Balcony Extension

Balconies are extended outwards to host auxiliary programs such as sleeping lofts or enclosed storage. These micro-extensions respond to residents' spatial constraints while maximizing the adaptability of limited footprint.



Roof Upgrade

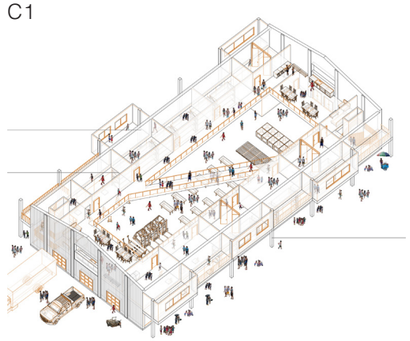
Roofs are re-skinned with lightweight panels and retrofitted with rainwater collection systems and shade devices.

Fig 5.7 *Diagram of architectural strategies.*

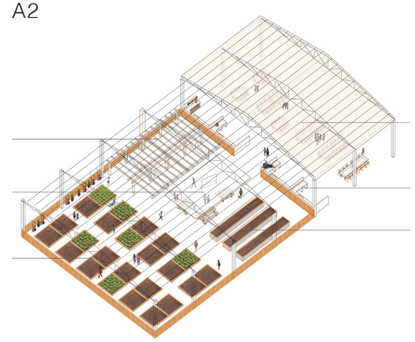
A (Partial) Catalogue of Warehouses

The following axonometric drawings present a series of adapted warehouse typologies within the Barangay 105 site. Each structure was selected based on the specific programs it now accommodates, ranging from housing and markets to recycling facilities and communal spaces. The drawing language distinguishes between the layered authorship of space: existing architectural elements are rendered in black, highlighting the industrial skeletons inherited from the site's former use; proposed interventions by the architect are marked in orange, denoting infrastructural supports such as service cores, equipment, and circulation frameworks; and collaged elements depict how residents actively inhabit and transform these spaces through incremental additions and everyday use. Dashed lines map the flows of materials illustrating the operational logics that run through each typology.

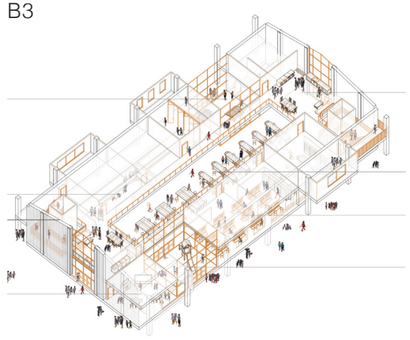
+ C1



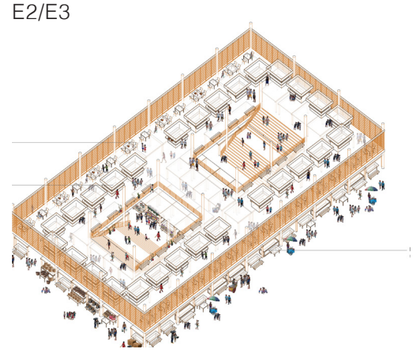
+ A2



+ B3



+ E2/E3



+ E1

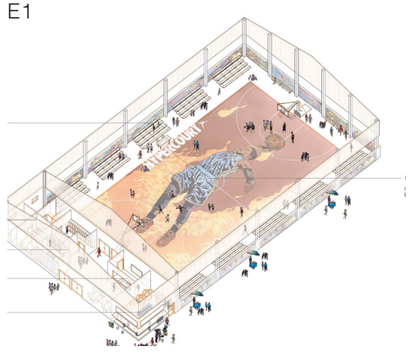
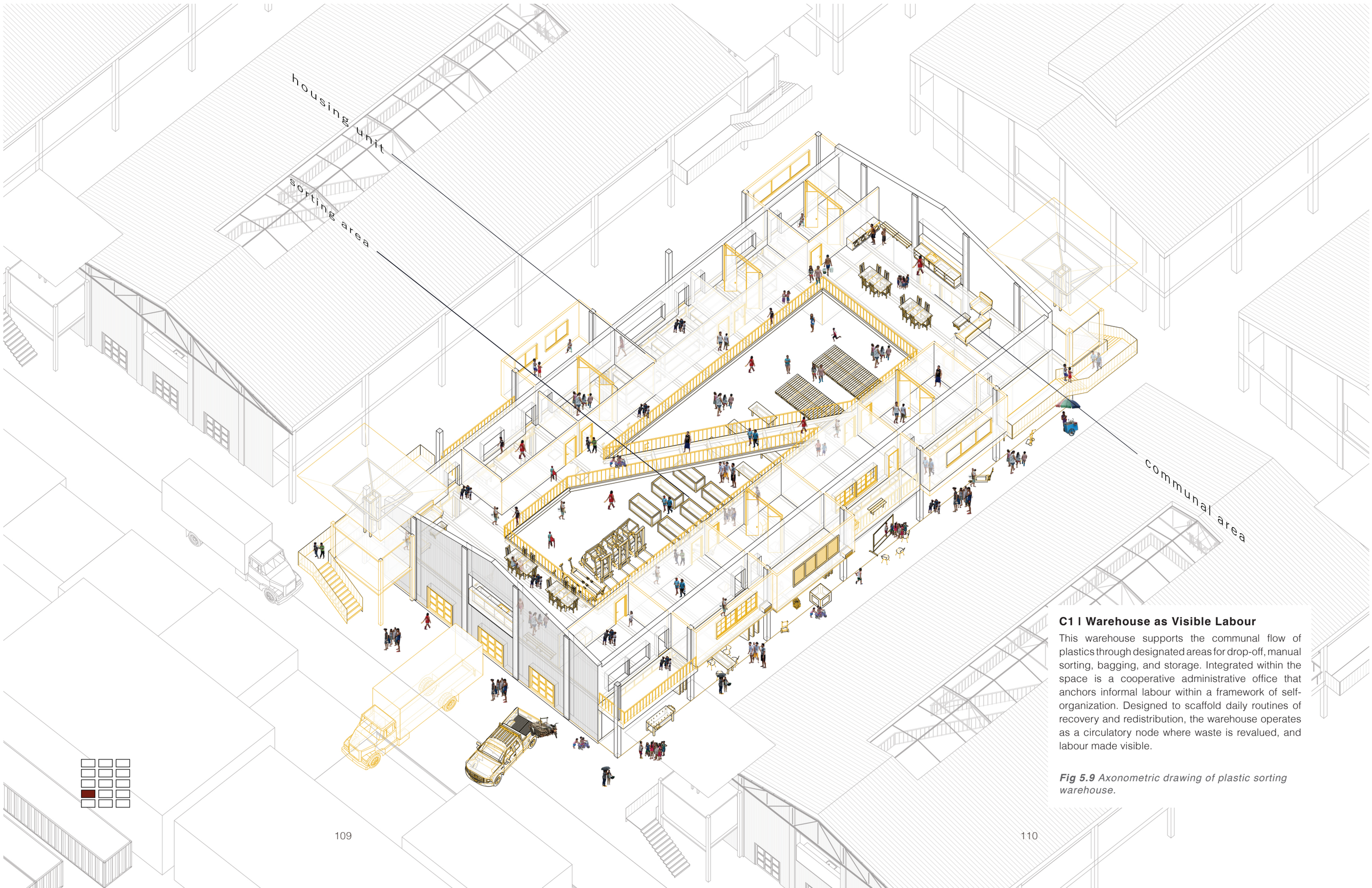


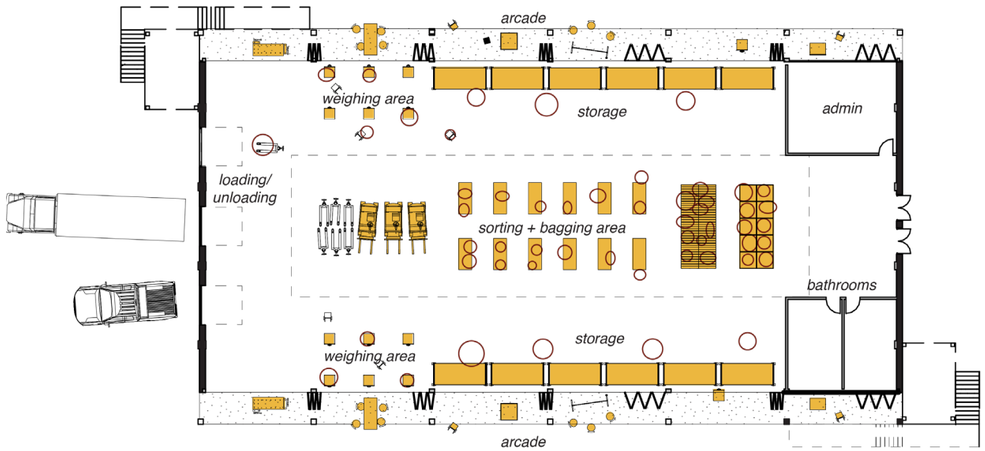
Fig 5.8 *A partial catalogue of the warehouses.*



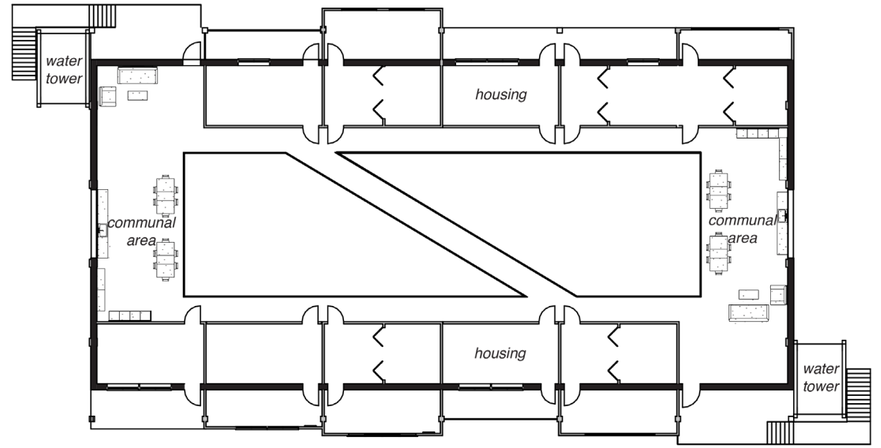
C1 | Warehouse as Visible Labour

This warehouse supports the communal flow of plastics through designated areas for drop-off, manual sorting, bagging, and storage. Integrated within the space is a cooperative administrative office that anchors informal labour within a framework of self-organization. Designed to scaffold daily routines of recovery and redistribution, the warehouse operates as a circulatory node where waste is revalued, and labour made visible.

Fig 5.9 *Axonometric drawing of plastic sorting warehouse.*



1F



2F

Fig 5.10 *Floor plans of Plastic sorting warehouse showing everyday collective shaping of space.*

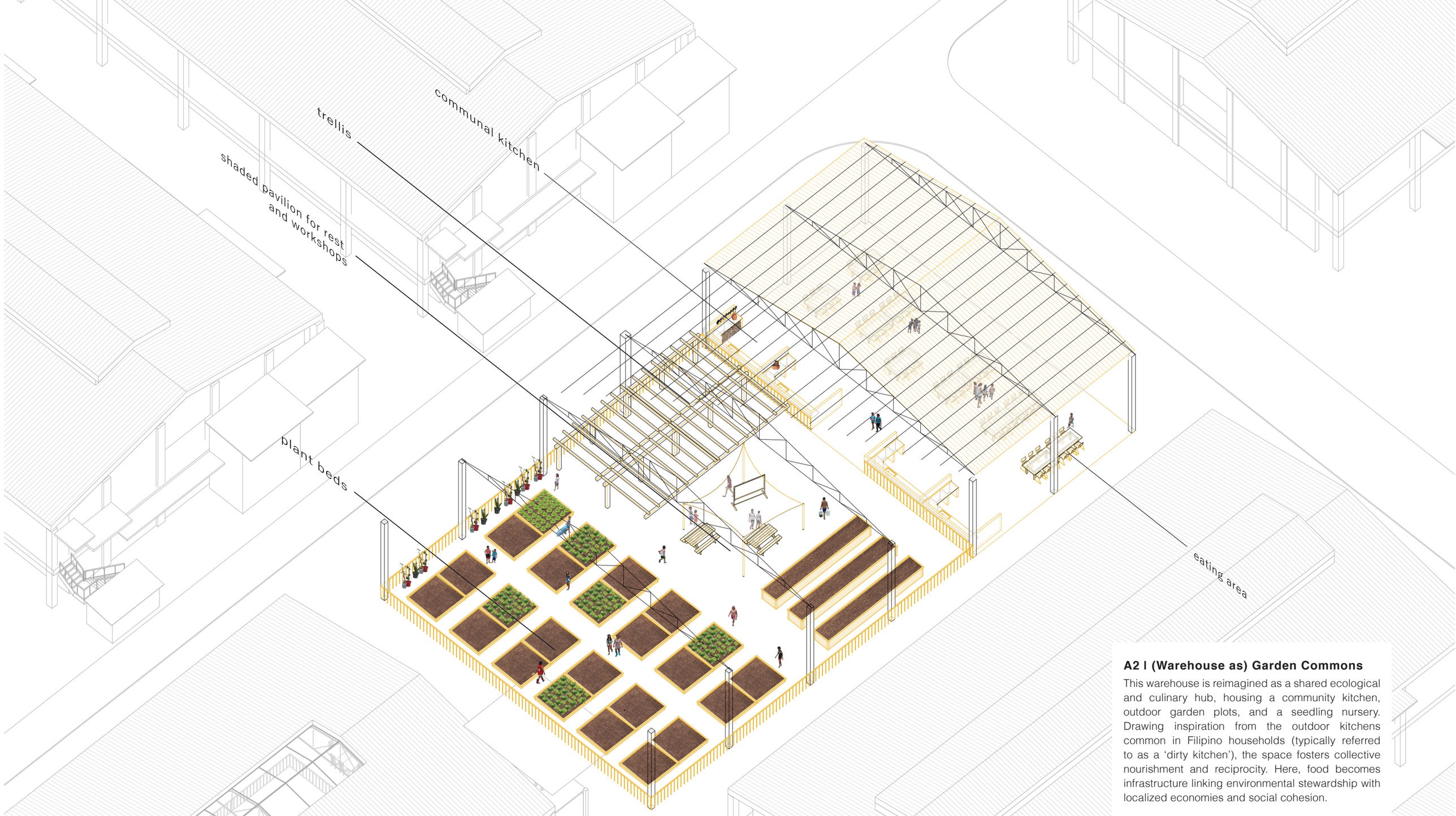
Social infrastructure

Economic infrastructure

Shared objects



Fig 5.11 *View of plastic sorting atrium.*



A2 I (Warehouse as) Garden Commons

This warehouse is reimagined as a shared ecological and culinary hub, housing a community kitchen, outdoor garden plots, and a seedling nursery. Drawing inspiration from the outdoor kitchens common in Filipino households (typically referred to as a 'dirty kitchen'), the space fosters collective nourishment and reciprocity. Here, food becomes infrastructure linking environmental stewardship with localized economies and social cohesion.

Fig 5.12 *Axonometric drawing of garden warehouse.*

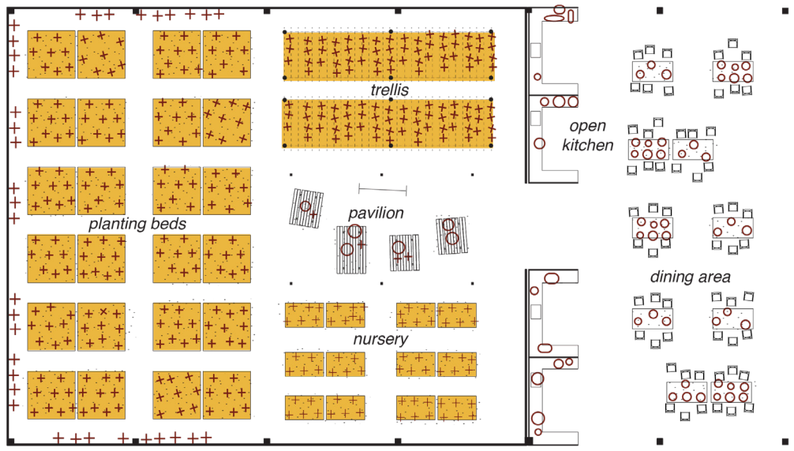
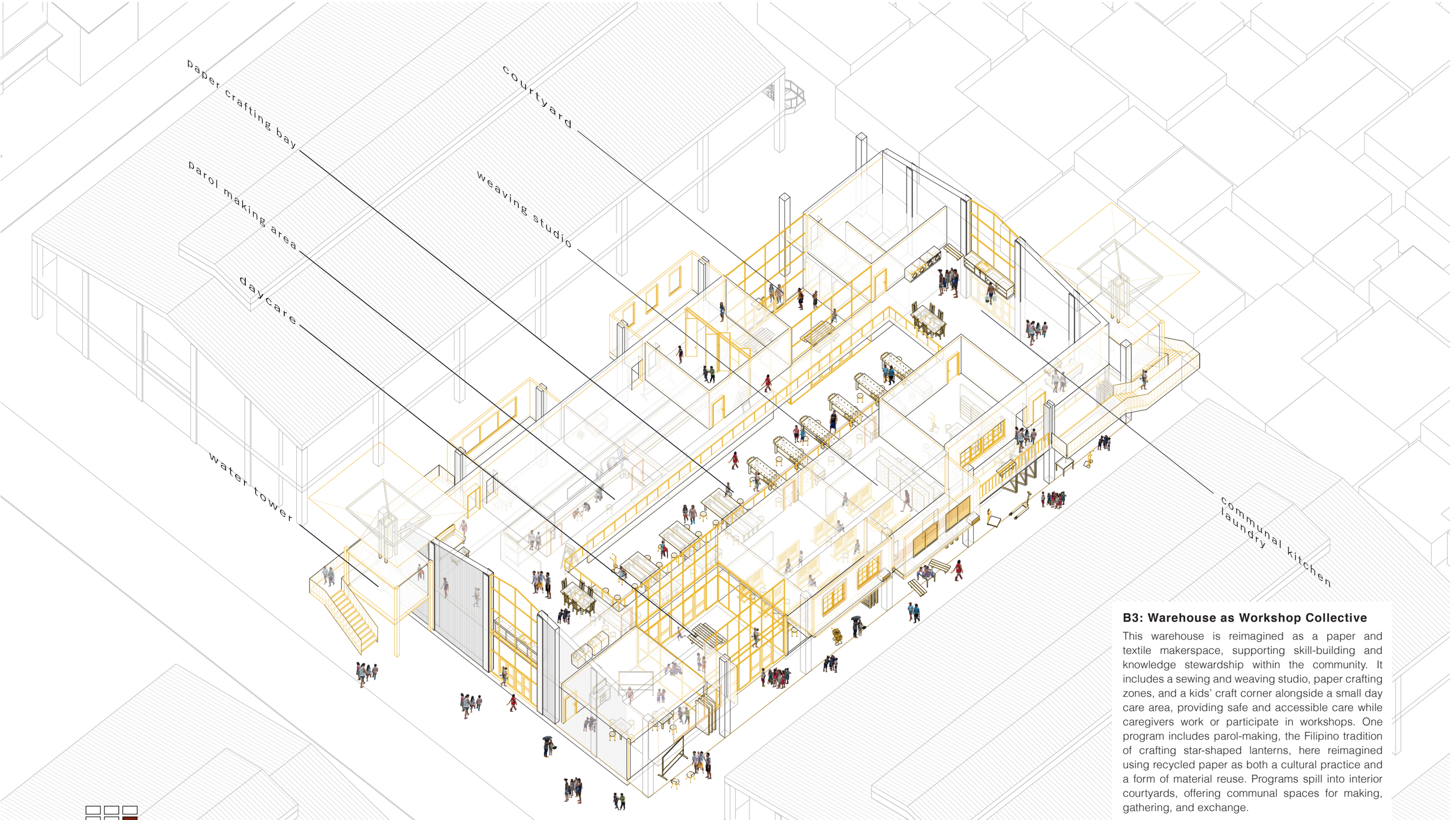


Fig 5.13 *Floor plan of garden commons warehouse showing everyday collective shaping of space..*

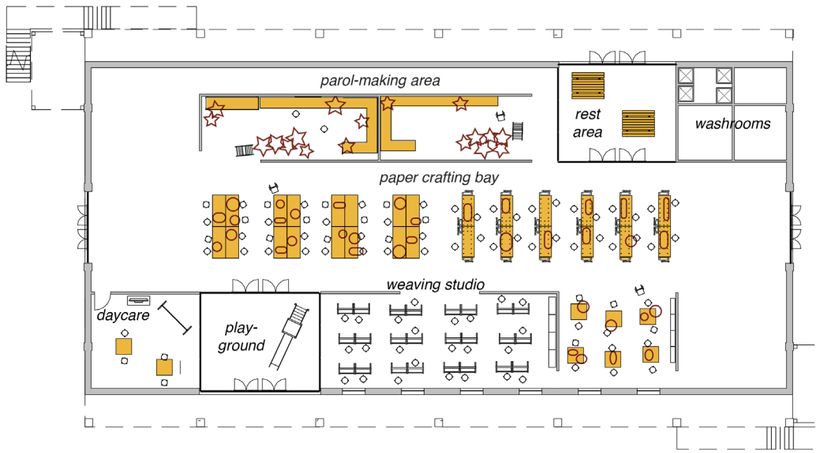
Social infrastructure
Economic infrastructure
Crops
Shared objects



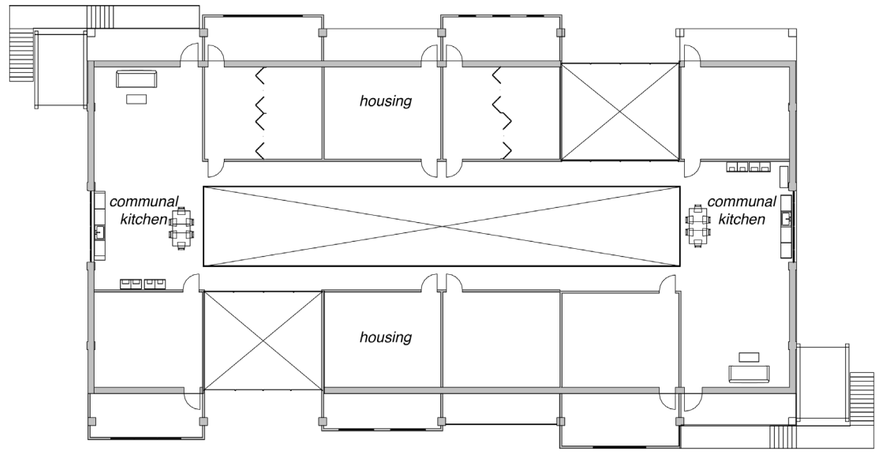
B3: Warehouse as Workshop Collective

This warehouse is reimagined as a paper and textile makerspace, supporting skill-building and knowledge stewardship within the community. It includes a sewing and weaving studio, paper crafting zones, and a kids' craft corner alongside a small day care area, providing safe and accessible care while caregivers work or participate in workshops. One program includes parol-making, the Filipino tradition of crafting star-shaped lanterns, here reimagined using recycled paper as both a cultural practice and a form of material reuse. Programs spill into interior courtyards, offering communal spaces for making, gathering, and exchange.

Fig 5.14 Axonometric drawing of workshop collective



1F



2F

Fig 5.15 Axonometric drawing of workshop collective showing everyday collective shaping of space.

Social infrastructure

Economic infrastructure

Crops

Shared objects

Fig 5.16 *View of the weaving studio and alleyway.*

murals

basketball court

showers,
washrooms
changing room

drinking water
refilling station

E1 | Warehouse as Play and Civic life

This warehouse is reimagined as a multiuse court, offering both a space for play and a venue for civic life. Basketball, a common sport across the Philippines, organizes the space, drawing youth and families into daily rhythms of recreation and gathering. Around the court, shaded areas provide zones for seating, meetings, informal events, allowing the space to shift easily between athletic use and community assembly. The court can also serve as a venue for fiestas, community festivals that bring residents together through food, music, and collective celebration. A water refill station also supports both play and everyday needs, reinforcing the court as part of the neighborhood's shared infrastructure.

Fig 5.17 *Axonometric drawing of multi-use court.*

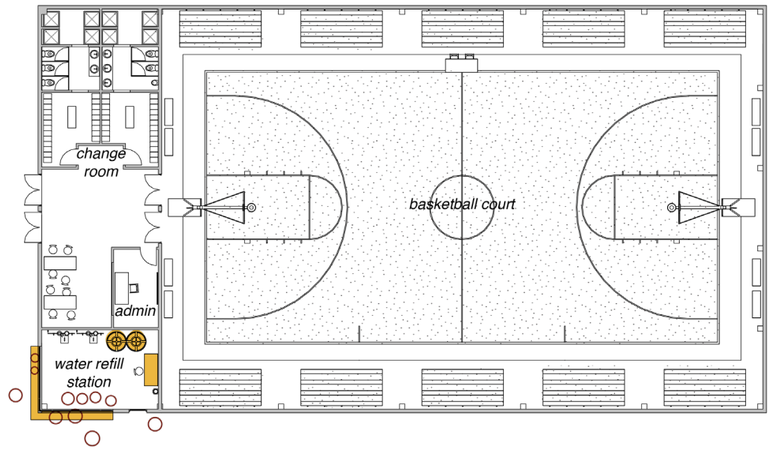


Fig 5.18 *Floor plan of multi-use court showing everyday collective shaping of space.*

Social infrastructure
Economic infrastructure
Crops
Shared objects

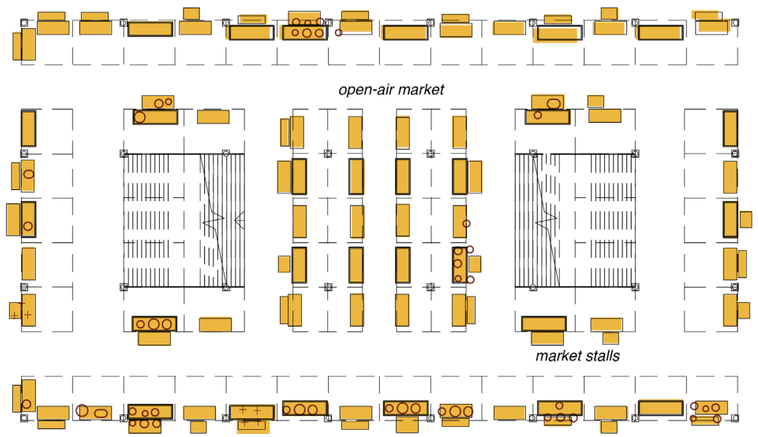
food court

local market
divisoria

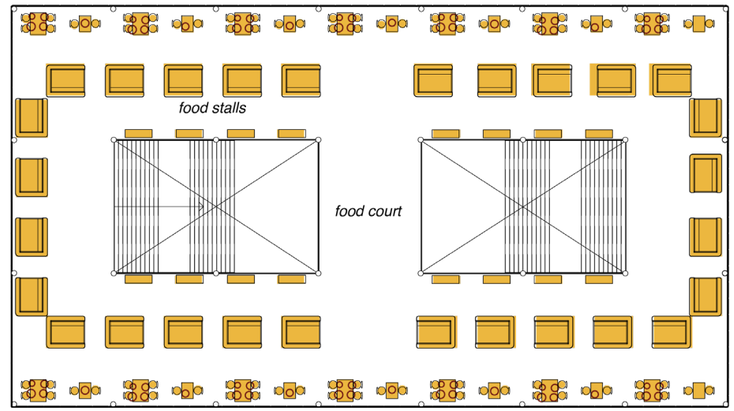
E2 + E3 | Tiangge

A “tiangge” is a Filipino term for a bazaar or open-air market where goods are sold. This drawing illustrates a newly constructed open-air market, made from recycled materials, that functions as a gateway where residents and outsiders meet, linking the neighborhood to the wider urban fabric of Tondo, Manila. The ground floor follows an open-plan concept with market stalls selling crops harvested from the community garden alongside upcycled materials produced within the depot network. Above, a mezzanine level accommodates food preparation and a food court, where low-waste cooking practices connect production to shared meals. A center plaza-like space host exhibitions, creating opportunities to imagine future possibilities of material reuse. The market operates both as a site of commerce and as a civic common, where sustenance and exchange converge.

Fig 5.19 *Axonometric drawing of tiangge*



1F



2F

Fig 5.20 *Floor plans of the tiangge showing everyday collective shaping of space.*

Social infrastructure

Economic infrastructure

\+ Crops

Shared objects

Fig 5.21 *Year 0 of the distributed community depot.*

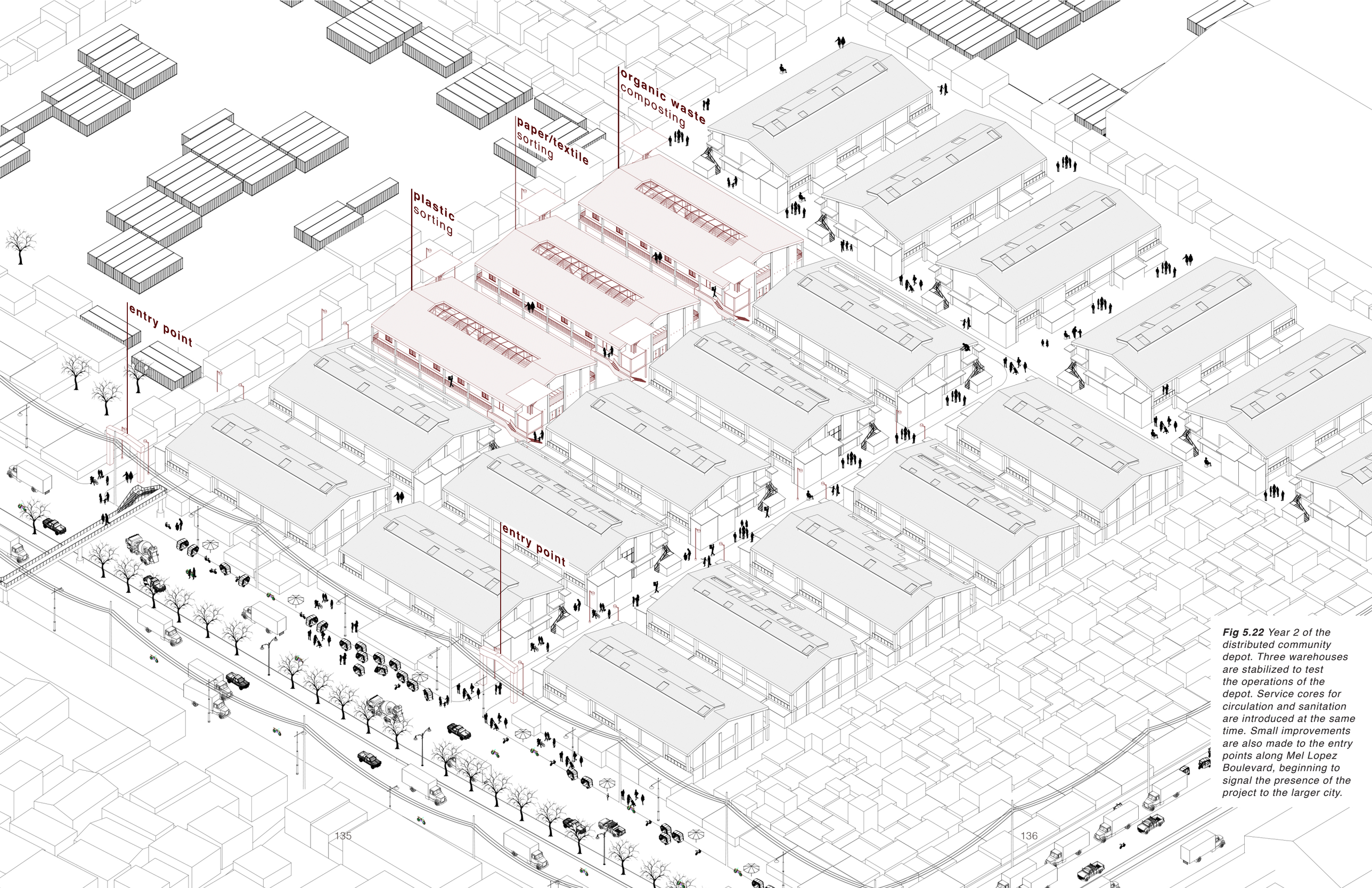


Fig 5.22 *Year 2 of the distributed community depot. Three warehouses are stabilized to test the operations of the depot. Service cores for circulation and sanitation are introduced at the same time. Small improvements are also made to the entry points along Mel Lopez Boulevard, beginning to signal the presence of the project to the larger city.*

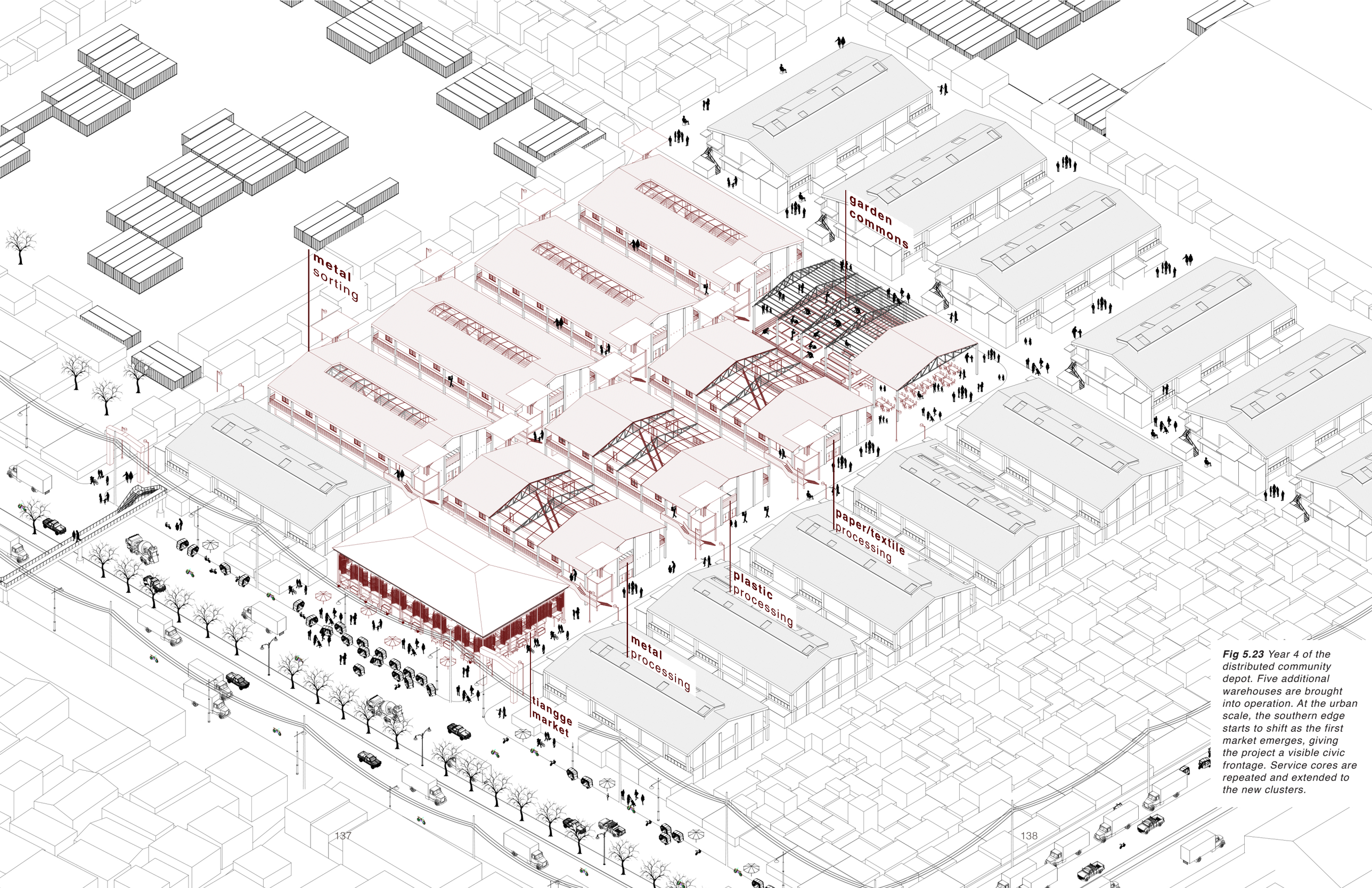


Fig 5.23 *Year 4 of the distributed community depot. Five additional warehouses are brought into operation. At the urban scale, the southern edge starts to shift as the first market emerges, giving the project a visible civic frontage. Service cores are repeated and extended to the new clusters.*

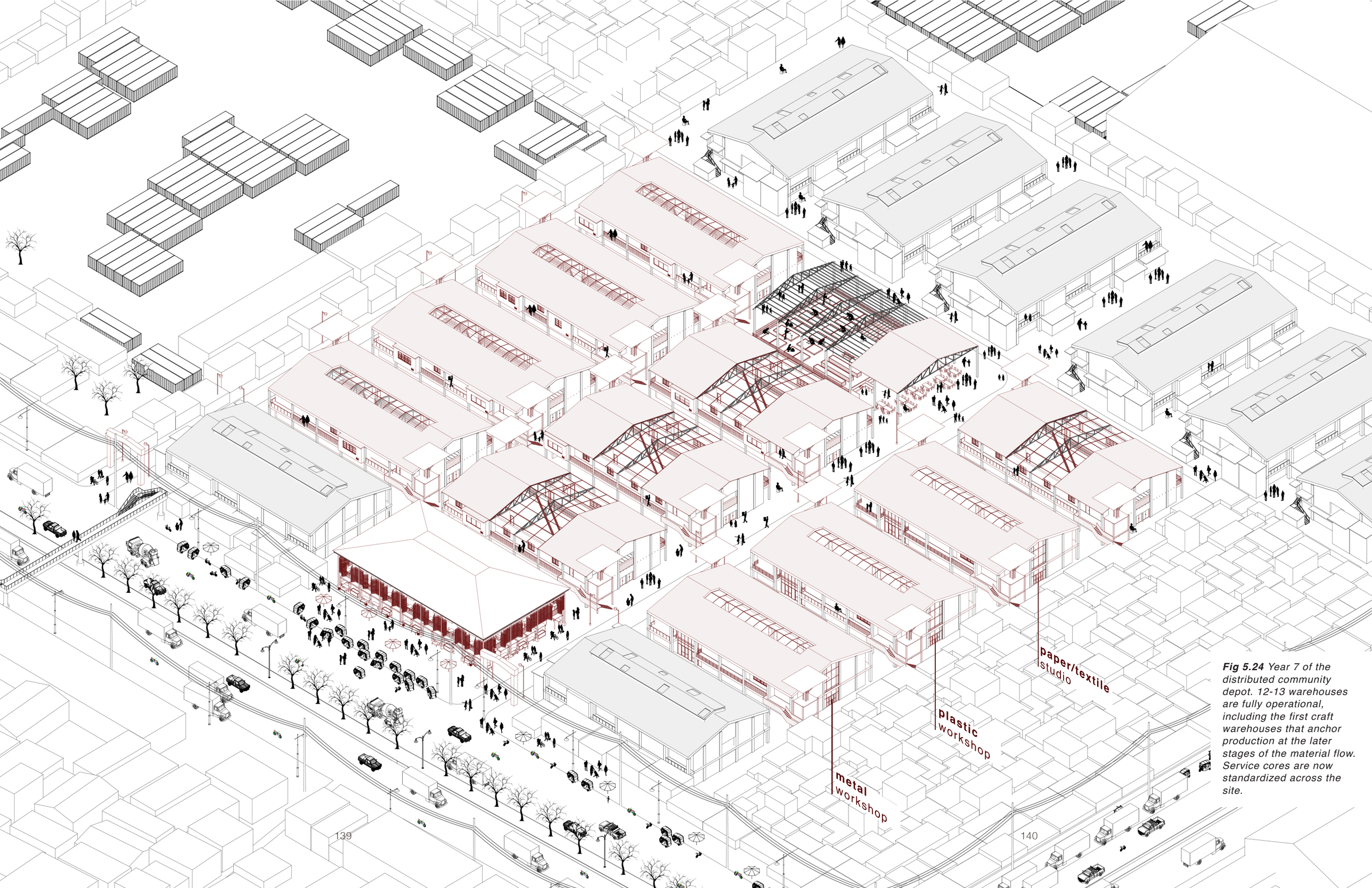


Fig 5.24 *Year 7 of the distributed community depot. 12-13 warehouses are fully operational, including the first craft warehouses that anchor production at the later stages of the material flow. Service cores are now standardized across the site.*

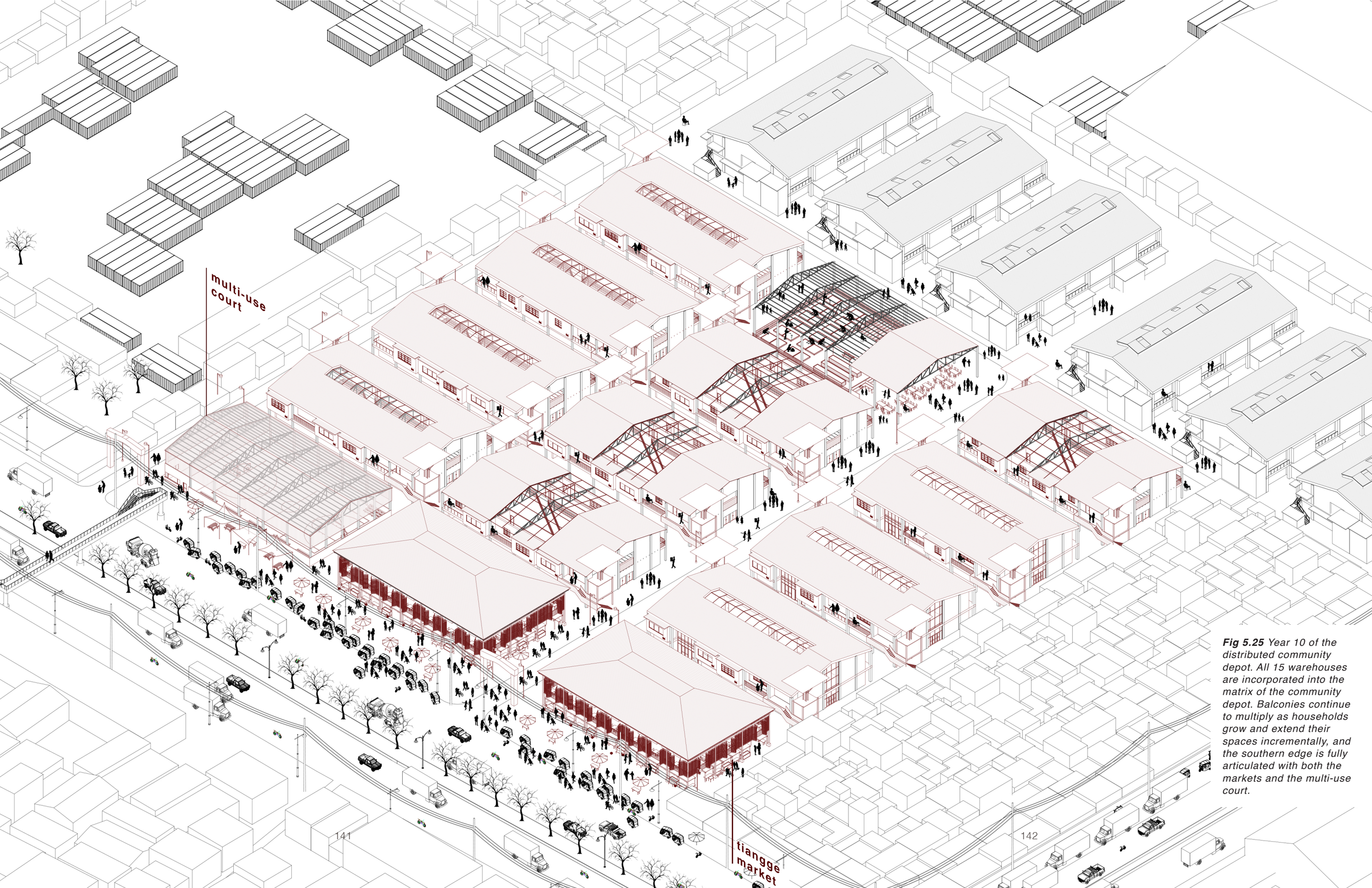


Fig 5.25 *Year 10 of the distributed community depot. All 15 warehouses are incorporated into the matrix of the community depot. Balconies continue to multiply as households grow and extend their spaces incrementally, and the southern edge is fully articulated with both the markets and the multi-use court.*

Endnotes

85 Hamdi, Small Change.

86 Cruz and Forman, Socializing Architecture.

87 Cruz, Spatializing Justice. P102

88 `Stan Allen, Points + Lines : Diagrams and Projects for the City, n.d.

6 CONCLUSION

This thesis has argued that relocation, long the dominant response to urban informality in Metro Manila, is inadequate to the lived realities of communities such as Barangay 105. State-led programs, whether through clearance, resettlement, or redevelopment, have consistently disrupted livelihood networks, displaced residents to peripheral zones, and overlooked the value already present within these settlements. The persistence of return migration highlight how these policies fail to align with everyday practices of sustenance and care. Against this backdrop, the work has proposed a counter-relocation approach: a framework that invests in place, strengthens local infrastructures, and recognizes the informal economy as integral rather than peripheral to urban life.

The design strategies presented in this study, centered on the adaptive reuse of warehouses into a distributed community depot, illustrate how architectural interventions can support, rather than replace, existing systems. By dispersing programs across multiple warehouses, the project avoids the singularity of the monolithic “community center” and instead integrates new functions into the settlement’s established spatial logics. The design is not a solution in itself but a scaffold, providing infrastructural supports that residents may appropriate, extend, or reconfigure over time. In this way, architecture operates less as a prescriptive tool than as a mediating practice, one that acknowledges the resourcefulness and agency already implanted in the community.

Framing architecture as scaffold requires a rethinking of professional roles. Rather than arriving as external providers of fixed forms, architects are positioned as facilitators of incremental growth, attuned to the temporalities and solidarities that sustain informal urbanism. This role recognizes that residents are not passive users but active co-authors of space, whose practices of stewardship are central to the production of the city. The thesis demonstrates that architectural design can reinforce these practices by making room for flexibility, incorporating shared infrastructure, and recognizing the blurred boundaries between domestic, economic, and civic life.

Although the thesis is grounded in Barangay 105, its implications extend beyond the site. Informal settlements across Metro Manila and across the Global South share similar conditions of precarity and adaptive reuse. While each settlement has its own histories and ecologies, the principles put forth here (adaptability, solidaristic infrastructure, incremental growth, and community agency) may inform strategies

elsewhere. The distributed depot model is not presented as a template to be replicated wholesale, but as a set of transferable practices that other communities might adapt to their own circumstances. Its value lies in demonstrating that support for informal economies and social infrastructures can be built from within rather than imposed from above.

At a broader scale, this work contributes to ongoing debates about the place of informality in urban theory and practice. Informal settlements are often portrayed as failures in need of correction, while circular economy discourses risk celebrating their productivity without addressing the structural inequalities that reinforce it. The counter-relocation approach aims to resist both erasure and romanticization. It instead positions informality as a constitutive part of a region’s socioeconomic landscape, one that calls for careful investment in locally grounded forms of infrastructure and governance. In doing so, it stresses the necessity of rethinking what counts as progress in urban development, not as clearance or beautification, but maybe as the recognition and reinforcement of systems that already sustain urban life.

Through this lens, Barangay 105 can be read not only as a case of neglect but also as a site of alternative urbanism. Its material economies, solidaristic networks, and adaptive spatial practices suggest how cities might be made differently from bottom-up knowledge. The challenge for architects and planners is not to resolve informality but to engage it: to provide supports that strengthen community autonomy, mediate flows of resources, and open space for incremental transformation. In this way, the counter-relocation approach offers a pragmatic and grounded contribution to urban design discourse and practice, particularly in contexts where informality constitutes the norm rather than the exception.

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