

**Promising Youth: Retroactive Cultural and Public Infrastructures
in San Jerónimo**

by

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Dalhousie University is located in Mi'kmaq'i,
the ancestral and unceded territory of the Mi'kmaq.
We are all Treaty people.

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To the residents of San Jerónimo for their dedication, endurance, and resilience in becoming an exemplary neighbourhood community in the city of Asunción, Paraguay.

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Abstract

Youth delinquency in Asunción, Paraguay is a prevalent issue that stems from socioeconomic factors, a lack of public space, and a broken penal system. San Jerónimo is a neighbourhood in Asunción whose community deals with delinquency from their own youths and surrounding urban environment. The use of a retroactive infrastructure focus on cultural arts programmes alongside public spaces contribute to community change by restoring a sense of belonging for youths and the spatial dignity of the community. Physically, the design highlights the industrial site in form and existing building conditions with the transformation of warehouses into contemporary spaces to accommodate the development of youth support programmes alongside a public space designed for safety and community engagement. The result is a contributory place for a promising youth future and a community that is transformed through a common platform in which members relate to each other.

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Chapter 1: Introduction

1.1. My Interest in San Jerónimo

In a trip back to the country where I was born and raised, I visited the neighbourhood of San Jerónimo for the first time in August of 2023, and immediately felt a warm hospitality alongside a deep sense of historical and cultural pride from their community members. However, I also learned about many of the problems and concerns currently threatening the community: issues of delinquency, public safety and socioeconomic prosperity, to name a few. Overall, I realised there is a general overgrowing concern in the community for the future development of their youths.

1.2. Hypothesis

1.2.1. Main Issues

For too long the issue of delinquency in the urban areas of Paraguay has been in the front pages of newspapers and political campaigns of politicians. Lack of security appears to be a stressful normality for citizens and tourists who go about their lives reminding themselves to mind their surroundings in public areas and avoid certain 'red areas' of the cities if they want to avoid being robbed, assaulted, or murdered. In Asunción, a lot of these 'street crimes' are caused by youth delinquents, and they affect not just the population at large but especially the youths of small neighbourhoods communities such as San Jerónimo. This is the issue this thesis aims to address.

1.2.2. Thesis Statement

Youth delinquency is an issue which can be combatted through retroactive methods by regenerating cultural and

public infrastructures for youths and communities. Through the analyses of cultural infrastructures rooted in the history and identity of the community, and the interpretation of public infrastructures found in places of urban memory of the neighbourhood, these infrastructures can be regenerated through retroactive methods and become youth development and community engagement programmes that restore the sense of belonging of youths and the spatial dignity of the community. The result is a contributory place for a promising youth future and a community that is transformed through a common platform in which members relate to each other.

1.3. Project Overview

1.3.1. Addressing Youth Delinquency

Youth delinquency is an issue prevalent in Paraguay, especially in the urban areas of the country. Contributing factors to youth delinquency stretch far and wide across the nation and is a major social problem in the city of Asunción, particularly affecting small neighbourhoods such as San Jerónimo. Social theories of youth delinquency have aimed to explain the origins of delinquency, its discourse and association to youth groups, and the relationship of delinquency to urban growth and the lack of public spaces.



Diagram of thesis statement.

These theories help provide a social perspective to the problem of youth delinquency in Asunción through a social and urban focus. Michel Foucault's theory on society's evolution of penal reforms designed to address and fix youth delinquents, is represented in a local context with the acceptance of prisons as the sole institution capable of addressing the issue of delinquency amongst youths. These theories lay the foundation for the theoretical framework associated with delinquency and how this thesis deviates from positions such as penal reforms to help address the issue of delinquency amongst youths.

1.3.2. Retroactive Infrastructures to Address Youth Delinquency

Through the theoretical lenses of Loreta Castro, Jose Pablo Ambrosi, and Rahul Mehrotra, this section defines the individual and collective concepts of basic needs and their potential to become retroactive infrastructures. In the context of San Jerónimo, these infrastructures are identified through theoretical methods of cultural interpretations as defined by Clifford Geertz, as well as Pierre Nora's interpretation of collective memory and identity found in public spaces. Through these theoretical frameworks, this thesis identifies the youth and community programmes that help address the issue of youth delinquency in San Jerónimo.

1.3.3. Design Goals and Methods

This thesis has four design goals encompassing the youths, community, neighbourhood, site, and adaptive reuse of buildings. They are the following:

Goal 1: Programmes Supportive of Youth Development

The first design goal is to provide spaces which support youth development. This goal aims to connect the youths to the cultural infrastructures of San Jerónimo and to engage in constructive and creative activities such as music, dance, and theatre. As Robert Ersing explains, the cultural arts create a medium through which youths direct their energy toward achieving positive, social, emotional, and academic outcomes. Through these programmes youths learn about and appreciate the visual, performing, and media arts, along with some of the social and academic benefits they offer (Ersing 2009, 33). Spaces for supporting youth development are designed for professional development staff to counsel, advise, and support youths. In addition, youths need to be able to develop their academic skills through learning, reading, and studying in spaces designed for those tasks. These programmes benefit all age, gender, and social groups by teaching them skills, giving them a sense of self-actualisation, and future goals.

Goal 2: An Urban Site for Community Engagement

The second goal is the implementation of public infrastructures to engage the community through the creation of public spaces for arts, informal markets and events. According to Ersing, programmes serving youths should ensure opportunities for pro-social involvement to enable them to build their competencies and become engaged as partners in their own development as well as the development of their communities. As such, youths need a chance to learn through direct skill building, for example, painting a mural (Ersing 2009, 34–35). In addition, public spaces are an antidote to the problem of public insecurity

as these spaces lay-out the foundations for community interactions, which are also necessary for addressing youth delinquency.

Goal 3: Transform Warehouse Site Into Contemporary Spaces

The third goal is to transform the existing warehouses into contemporary spaces for cultural arts programmes and community public spaces while retaining the industrial identity and character of the site. Through a process of identifying spaces for performance and everyday events, reducing the site to its essentials, and scraping away layers of the existing, as described by Sally Stone, these existing building structures adapt to the new functions of programmes and incorporate the project site with the neighbourhood.

Goal 4: Facade Systems for Natural Lighting, Ventilation, and Privacy

To respond to the needs of programmes, natural orientation of the site, and existing Community Centre, the fourth goal of this thesis is to provide a facade system that allows natural lighting and ventilation to the buildings as well as privacy to youth users, while maintaining a material relationship with the existing Community Centre located adjacent to the site. Natural lighting, ventilation and privacy are key elements to the design of youth spaces, as Sarah Scott explains, spaces need to be managed according to acoustics, colour, light, scale and access to the natural environment, to create environments that are stimulating, protective, comfortable and beautiful (Scott 2010, 37). A local material capable of providing multiple facade systems is clay brick masonry. To achieve the functionality of programmes, the brick facade systems to be implemented are perforated screen walls, brise-soleil, and cladding.

1.3.4. Design Proposal

The site is located at the base of the San Jerónimo hill in between private dwellings, a military base complex, and a naturally sloped terrain site which has a four meters height difference from its highest level to its lowest level. Through the adaptive reuse of existing warehouses and the introduction of a pedestrian street to the site that acts as the backbone of the design programme, the architectural intervention of this thesis encompasses a site strategy for retroactive cultural and public infrastructures for anticipated youth development, community engagement, diverse programming targeting a variety of age groups and interests, and a contemporary adaptation of the industrial warehouses located in the neighbourhood of San Jerónimo. This design intervention ultimately becomes a seed for the transformation of the neighbourhood community and youths through a cultural public site welcoming to everyone and cared for by its community.



Illustration of thesis design proposal.

1.4. Situating the Project

La Loma San Jerónimo (The San Jerónimo Hill), as is locally known, is a small historical 'barrio' (neighbourhood) adjacent to the downtown of Asunción, the capital city of Paraguay. Located on a hill, the neighbourhood somehow escaped the grid system that characterises downtown Asunción, and their pedestrian-only streets make their alleyways and passages perfect for kids to play and visitors to wander. The community is known by its vibrant colourful houses, outdoor events, and small businesses that would organise street markets in the cobble-stone streets of the neighbourhood. In the last decade, the site has been the focus of a nascent project by Paraguay's tourism ministry and local residents to promote the neighbourhood as a historical, cultural, and touristic destination (Kugel 2013).



Photograph of a musical event in the streets of San Jerónimo (Paraguaitete 2013).



Map of Paraguay location in South America. Scale 1:1000km (base map from INE n.d.).



Map of Central Department location in Paraguay. Scale 1:200km (base map from INE n.d.).



Map of Central Department and city of Asunción and suburbs location. Scale 1:20km (base map from INE n.d.).



Map of neighbourhoods in Asunción and location of the San Jerónimo neighbourhood (base map from INE n.d.).



Map of the San Jerónimo neighbourhood and surroundings within the larger Dr. Gaspar Rodríguez de Francia neighbourhood. Scale 1:1300 (base map from INE n.d.).

Chapter 2: Addressing Youth Delinquency



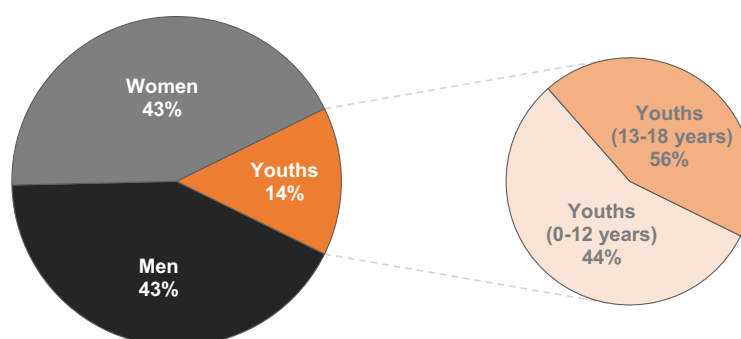
Photograph of youths playing in the streets of San Jerónimo.

2.1. Youth Delinquency in San Jerónimo

Approximately 500-600 inhabitants live in San Jerónimo with a young population of approximately 80 youths (45 youths ages 0-12; and 35 youths ages 13-18) (Anonymous 2023a). Safety is the number one priority of its residents since they need it to maintain their tourism industry and small businesses. The biggest threat to this community is youth delinquency from their own young residents, and from youths living adjacent to the neighbourhood. According to a newspaper article, “85% of urban crime in Asunción are perpetrated by adolescents and young people between fourteen and twenty-five years of age” (La Nación 2022b).

2.1.1. Socioeconomic Efforts To Combat Delinquency

During the second half of the 20th century, the neighbourhood was considered a shanty town due to the high level of illiteracy amongst its residents and lack of public safety (Anonymous 2023a). In 1996, San Jerónimo was categorised a historic and natural heritage, with redevelopment projects



Pie chart diagram of 2023 population of San Jerónimo (data from Anonymous 2023a).



Photograph of neighbourhood alley prior to redevelopment (Rada 2009).



Photograph of neighbourhood alley post redevelopment.

to promote cultural and public activities for the community and visitors. In 2013, the neighbourhood was recognised by the municipality as the first official ‘touristic neighbourhood’ of Asunción, and since then the community has relied on its tourism economy. This tourism environment in the neighbourhood is due to the community’s focus on security as a priority as well as warning the local youths about bringing ‘unwanted’ friends from outside the community (Anonymous 2023a). As a result, residents and businesses are respected, nobody catcalls women, and visitors are welcomed. Yet, “the neighbourhood is always looking to monitor safety with, for example, the installation of street security cameras” (Anonymous 2023a). However, despite the community’s efforts to reach better standards of living through their tourism industry the challenges that continue to stand out are the academic training of children, the future development of young people and the specialisation of adults (Allende 2011, 54).

Despite the community’s efforts of regulating the issues of safety within their streets and their own residents, the reality is that the neighbourhood is surrounded by urban delinquency in the city of Asunción. The community, including their youths, live their daily lives outside the neighbourhood by frequenting places of school, work, and other public places in which they are being exposed to the social problems of delinquency and insecurity that is very prevalent in the city.

2.1.2. The Youth Programme of Club San Jerónimo

The Club San Jerónimo is a sports institution located in the heart of the neighbourhood, and is a gated open-air small venue for recreational, competition sports, as well as community events. One of the Club’s most important mission



Photograph of Club San Jerónimo.

is to provide development programmes in the community, and to focus on youth development through sports, such as football (soccer) (Anonymous 2023a). Although the success of football is most likely associated in the local popularity of the sport, a youth football programme brings a sense of identity, camaraderie and hope for the youths of San Jerónimo. However, the lack of community ownership of the Club venue is a problem for the residents. As explained by a local resident, the Club is owned and managed by an external entity, and the organisation is constantly at odds with the residents due to different interests and opinions on the Club's management and programmes (Anonymous 2023b). This disengagement between the Club owners and community members naturally leads to a discontinued and incomplete development of youth programmes. Despite football being a local popular sport in the neighbourhood, cultural arts programmes are another alternative for the development of San Jerónimo's youth due to the rich cultural history and identity of the place.

2.1.3. The Lack of Public Space

San Jerónimo is in fact a neighbourhood which lacks public spaces, an important component of public safety. The Club venue is walled, and therefore the community does not have guaranteed free access to the premises. In 2017, the neighbourhood opened a Community Centre building with a sports venue with the intention of bringing residents and visitors together through events and programmes with multiple functions. However, the Centre is detached and disconnected from the neighbourhood due to its location and surrounding warehouses. In addition, the Centre is most times locked and not used due to an external organisation which controls and manages the gated building (Anonymous

2023a). These two existing cases are examples of communal spaces originally designed for public use and the delivery of communal programmes, where in fact, they are not public spaces due to their management and situating. As Meyer argues, public space reflects a society's most urgent needs and shortcomings, it provides a forum to deal with the conflicts and divergences of each social group in a public and civic manner, and the welfare of any society is manifested in the quality and use of its public spaces (Meyer 2022, 93-94).

This thesis aims to introduce public spaces into the neighbourhood by incorporating an urban site programme with the existing Community Centre building. A key aspect of addressing the issue of youth delinquency is to incorporate youth programmes alongside public spaces. These programmes must be focused on producing multifunctional spaces of high value for communities, as well as spaces of interaction and free expression that can foster values that facilitate harmonious social coexistence (Meyer 2022, 96).



Photograph of San Jerónimo Community Centre.



Legend

- Private buildings
- Community Centre
- Sport areas

Map of the existing San Jerónimo neighbourhood highlighting the lack of public spaces and the location of existing sports areas, and the Community Centre. Scale 1:500 (base map from INE n.d.).

2.2. Social Perspectives on Youth Delinquency

2.2.1. The Delinquency Discourse

The origins of the word ‘delinquency’ can be attributed to the stigma of the word when describing a delinquent as “one who fails in duty or obligation, a defaulter, more generally, one guilty of an offence against the law, an offender” (Jordan 2017, 33). Adam Jordan further argues, the definition suggests not being a delinquent seems to mean a successful fulfilment of a duty or obligation. In his view, delinquency changes through time and culture, and it exists to categorise. Therefore, by definition delinquency is understood as abnormal behaviour by a certain subset of the population that poses a risk for the rest of ‘us’ (Jordan 2017, 33). Notably, the labelling of delinquency is very prevalent in Asunción, and is used to describe young delinquents associated with drug addictions.



Photograph of a young indigenous girl consuming ‘chespi’, a type of drug. In Asunción young delinquents are labelled as ‘chespi’.

Labelling Youth Delinquents in Asunción

In Asunción, the word ‘chespi’, also known as crack, is the name of a highly addictive cocaine base drug typically consumed by delinquent youths. According to a local news article “various references suggest that the consumption of smokable cocaine is increasing, especially in vulnerable groups such as street and indigenous youths” (Zárate 2023). However, ‘chespi’ is also a colloquial term used to describe youth delinquents, since out of all the urban crimes committed by youths, “82% consume drugs and 80% are repeat offenders” (La Nación 2022b). The name ‘chespi’ is a labelling mechanism adopted by society to blame the problem of delinquency on youths and drug addiction, thus creating an association between the two. As a local Deputy Commissioner stated, “there are no thieves, only ‘chespis’,

addicts become thieves”, claiming that most delinquent activity is caused by occasional addicts driven by drug use (Última Hora 2023). Youth delinquency in Asunción is therefore explained as a social construct that is accepted by society and combatted by the authorities that define it. As Jordan argues, the word exists in order to intentionally ‘other’ someone outside of the ‘status quo’ (Jordan 2017, 34).



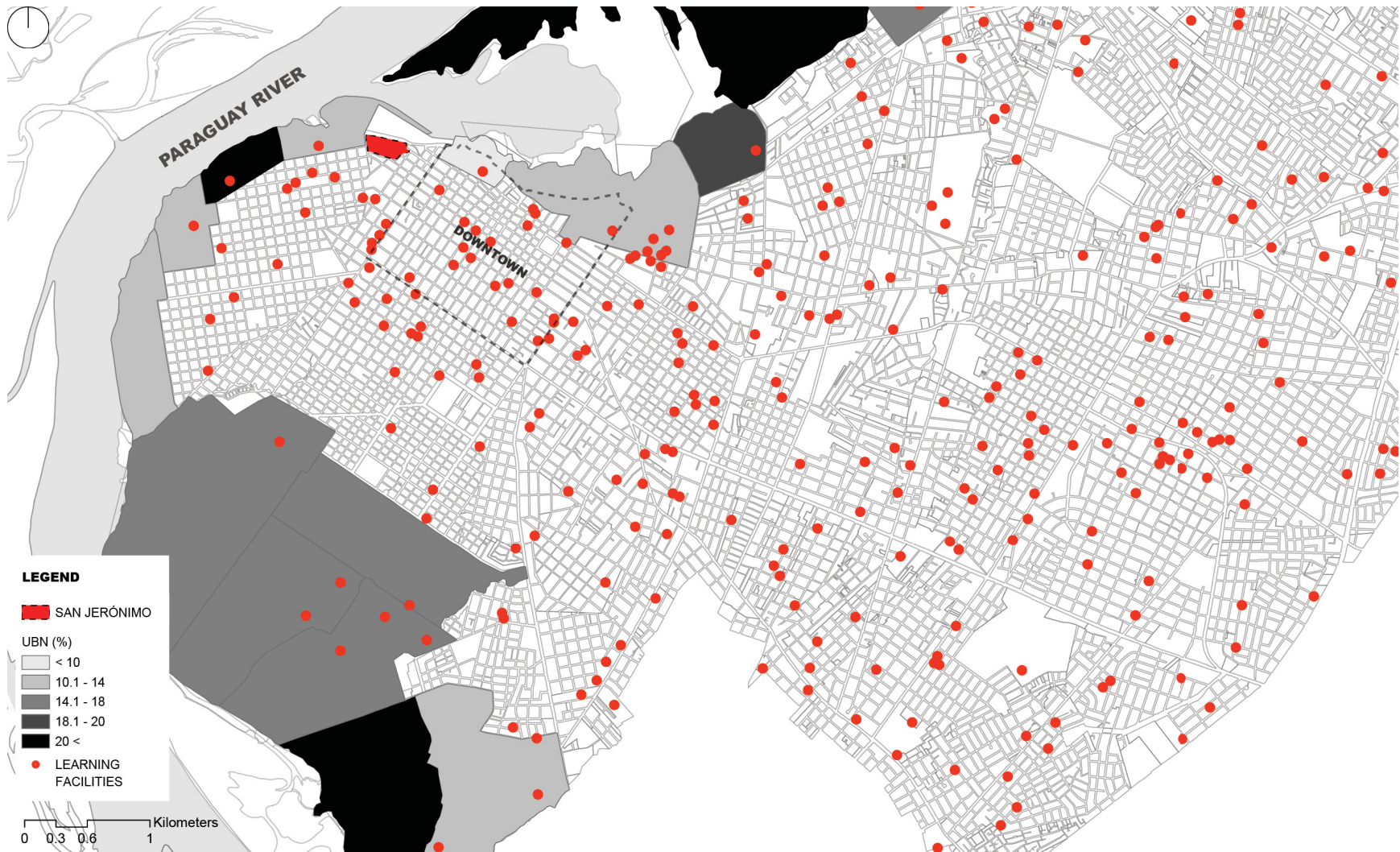
Photograph of a group of young boys ‘looking after’ customer vehicles parked in downtown Asunción for a small fee. Youths doing this type of informal work are locally known as ‘cuidacoches’ (car-caretakers).

Contributing Factors to Youth Delinquency in Paraguay

However, according to the Legal Research Institute of the Supreme Court of Justice in Paraguay the contributing factors for youth delinquency in Paraguay are due to child poverty, lack of education and disintegrated homes (IJJ 2019, 83). Under each factor, UNICEF reports:

- Child poverty. Data reveals that 38% of children and adolescents live in poverty. The situation is worse for indigenous groups of whom 73.7% live in poverty, and 40% in extreme poverty (UNICEF 2022).
- Lack of education. It is estimated that 464,000 children and adolescents (5-17 years) are outside the educational system, and 22.4% of them engage in child labour (UNICEF 2022).
- Disintegrated homes. Data shows that 52% of children suffer violent discipline and corporal punishment at home (54.8% of boys and 49.3% of girls) (UNICEF 2022).

This data suggests a more accurate representation to the problem of youth delinquency. Far from being a social construct, a large number of youths in Paraguay are dealing with issues of poverty, lack of education, and disintegrated homes, especially in areas of Asunción with a high percentage of ‘Unsatisfied Basic Needs’ (UBN) and limited access to learning facilities (Canese de Estigarribia et al. 2019; INE n.d.). These factors may ultimately cause certain



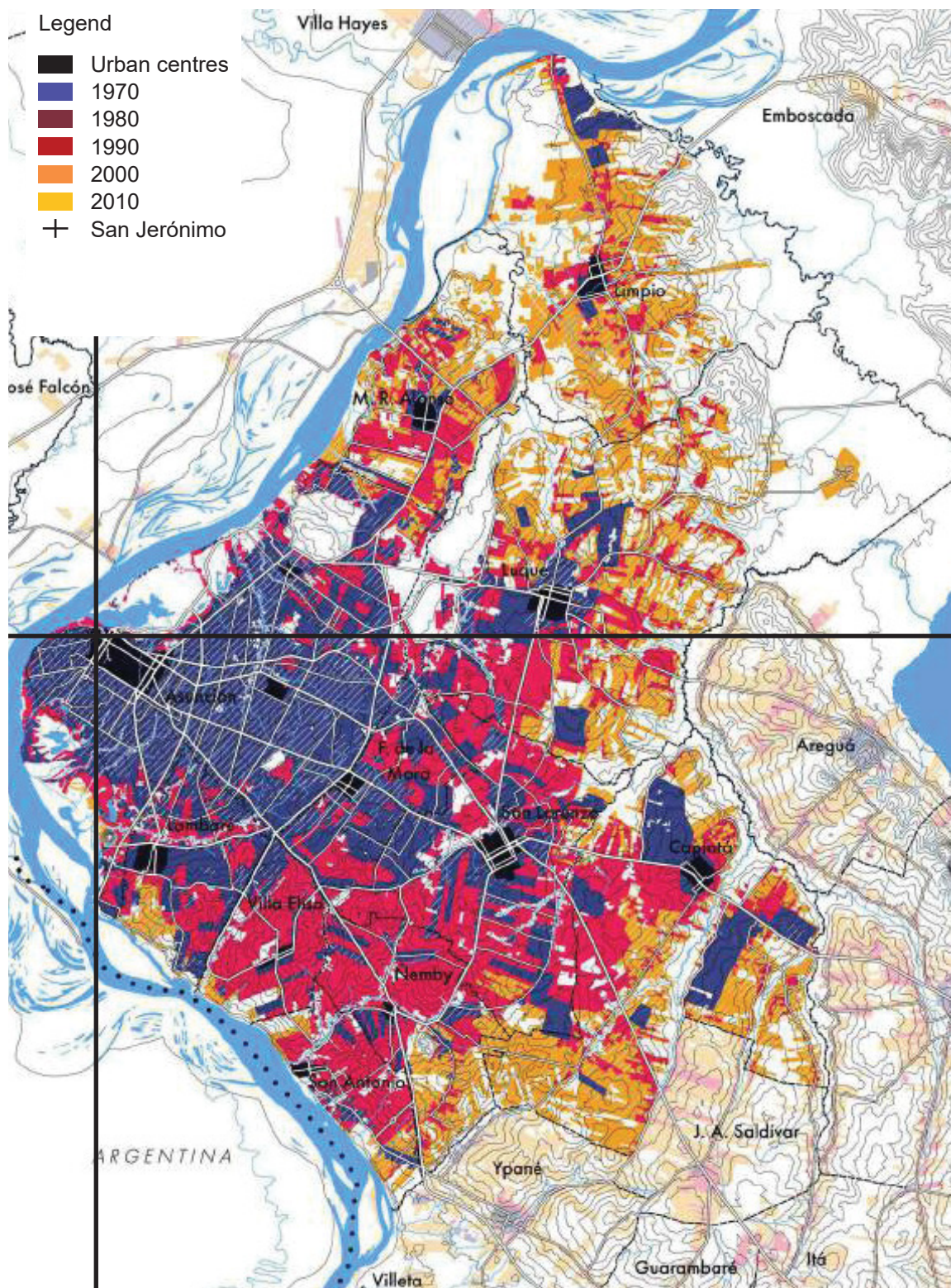
Map of Asunción with an urban percentage of people with Unsatisfied Basic Needs (UBN), and location of learning facilities (Canese de Estigarribia et al. 2019; base map from INE n.d.).

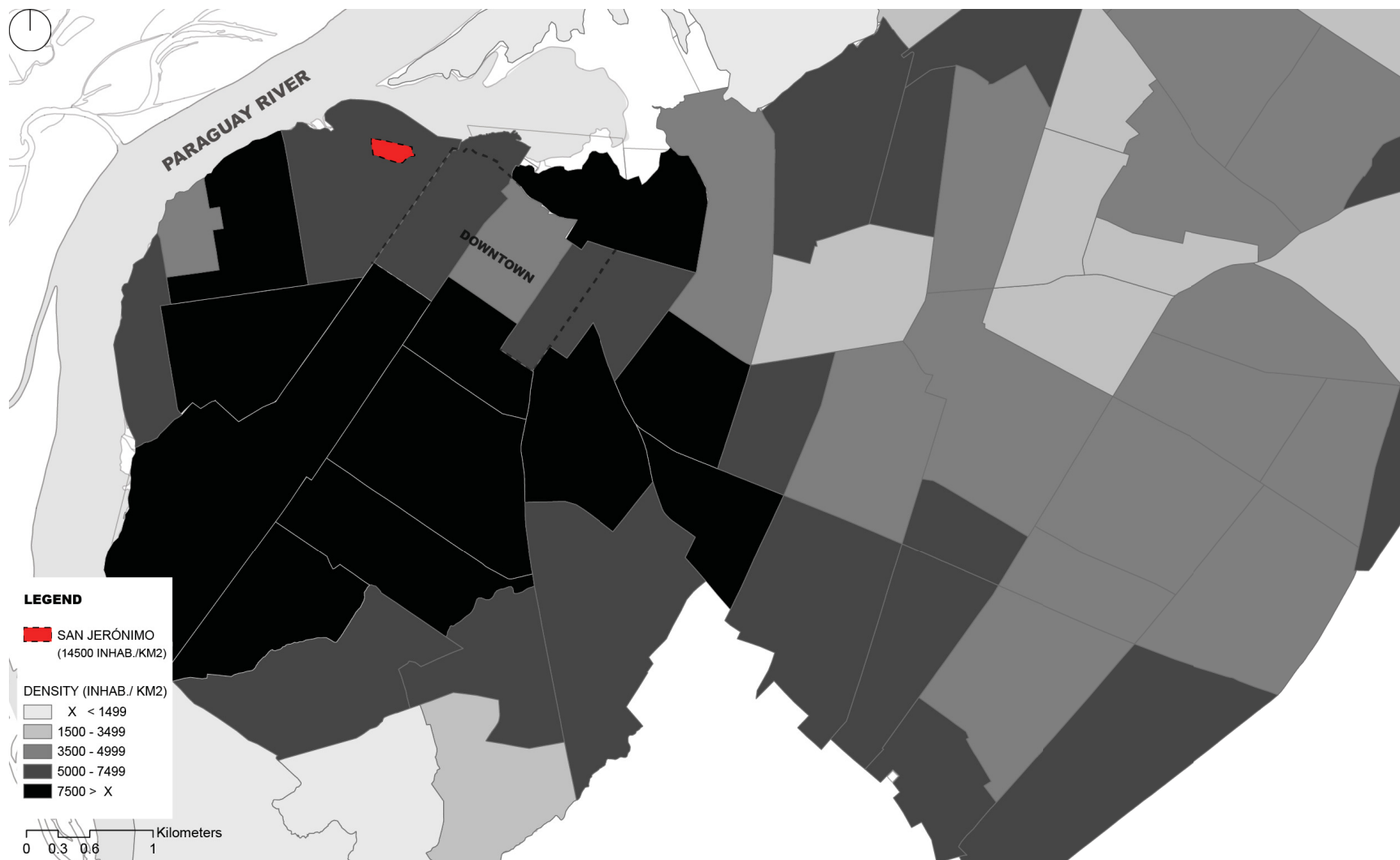
group of youths to restore to illicit substances and addiction, since “people who live in poor or unsafe neighbourhoods lacking basic utilities experience greater frustration and increased feelings of exclusion” (Meyer 2022, 95). However, the labelling of young delinquents as ‘chespi’ does not address the issue of youth delinquency, it rather further cements a stigma associated with addicted delinquent youths in Asunción.

2.2.2. Delinquency, Urbanisation, and The Lack of Public Spaces

Delinquency and Urbanisation in Asunción

From a social theory perspective it is argued that delinquency accelerated as societies began to urbanise and people living in closer proximity, thus resulting in societies becoming disintegrated due to the lack of common public spaces. Delinquent acts did not emerge alongside urbanisation, rather the discourse of delinquency emerged as larger groups of people had their daily lives disrupted, or perhaps even threatened (Jordan 2017, 35). In Paraguay, 63% of the total population live in urban areas (World Bank n.d.). The ‘Metropolitan Area of Asunción’, as the largest urban area with 45% of the total population of Paraguay, is the most dense populated area in the country (UNData n.d.). However, the areas with the highest densities are located around downtown Asunción, as well as in the peripheries of the city. By contrast, the areas with lower densities are located east of the city. As Meyer explains, this is a result of the 20th century urban growth in which many cities in Latin America grew rapidly and chaotically, causing a gradual displacement of the less privileged classes towards the peripheries (Meyer 2022, 94).





Map of urban density in Asunción (Lopez 2023; STP 2021a; STP 2021b; base map from INE n.d.).

Therefore, as urbanisation grew in Asunción so did social inequality and society's negative perception of the less privileged in dense urban areas of the city. Meyer argues, "as inequality grew, so did the fear of insecurity, violence, and the 'other' as imminent threats" (Meyer 2022, 94). This concept resonates with the previously mentioned notion of labelling delinquents, while spatially "as fear became a fundamental aspect of urban life, public space degraded to the level of abandonment" (Meyer 2022, 94).

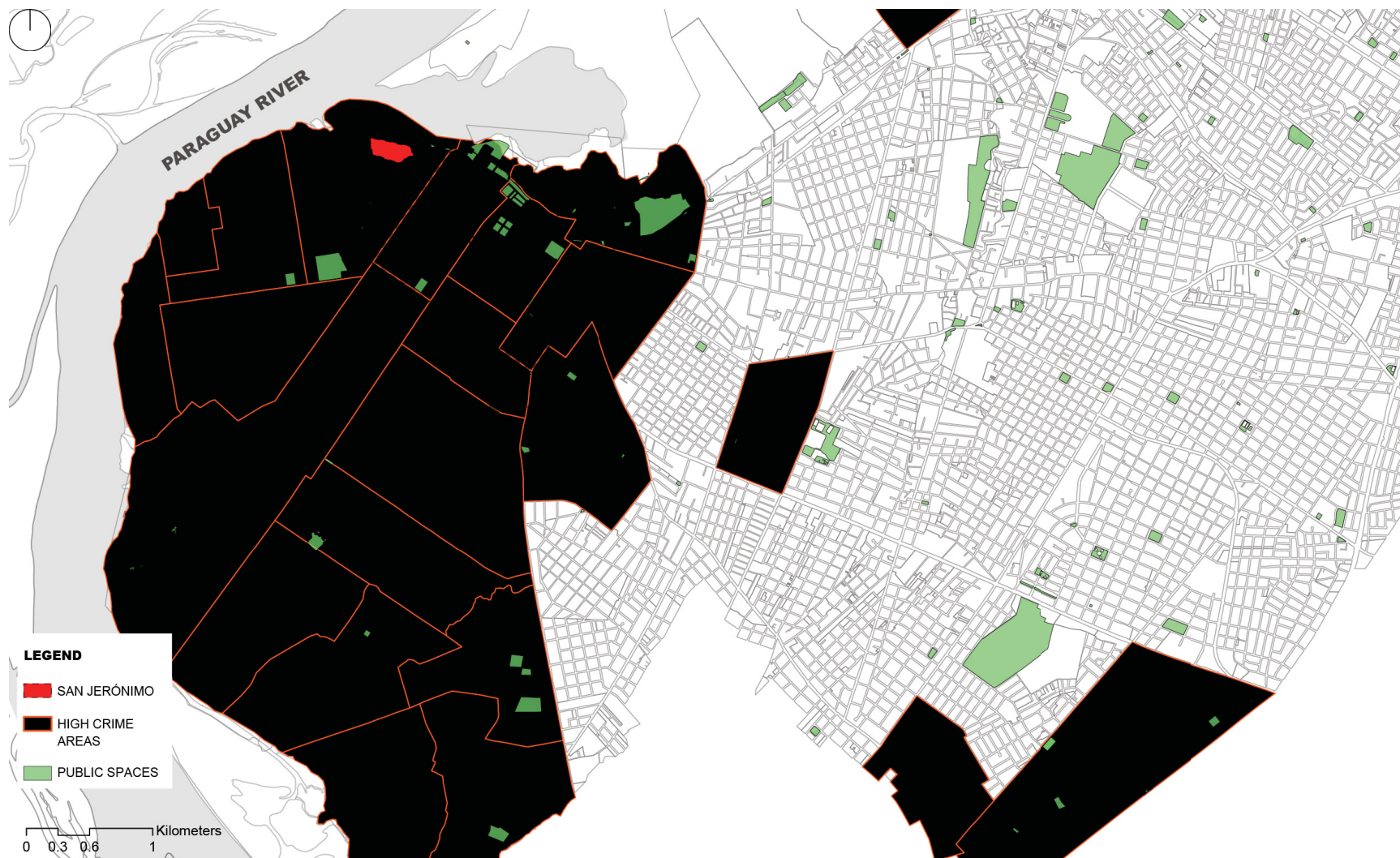


Photograph of police presence in a gated public park of downtown Asunción.

Delinquency and The Lack of Public Spaces

In Asunción, urban growth neglected producing public spaces, and the very few 'public spaces' in the city are in fact gated parks with heavy police presence. According to Meyer, this negligence limits opportunities for social integration and strengthening ties within communities, and as a result, "the social fabric becomes damaged and fragile, giving way to the popular notion of public space as eminently insecure, where citizens must be constantly alert" (Meyer 2022, 94). In Asunción, the areas with the highest reported crimes caused by armed robbery and traffic of drugs are located in the central neighbourhoods as well as in the peripheries of the city (Última Hora 2015). These areas disproportionately lack a significant number of public spaces in relation to the vast territories they occupy. As Meyer points out, the lack of shared space and shared experience in these neighbourhoods prompts marginalities, fear of the other, and difference as a threat, and "when differences are accentuated the social fabric is damaged" (Meyer 2022, 95).

Communities which lack public spaces foster delinquency and other crimes as residents "stop looking outside their



Map of Asunción with areas of high crime, and location of public spaces (ABC Color 2021a; ABC Color 2021b; ABC Color 2023; Lopez 2023; Sosa 2023; Última Hora 2015; base map from INE n.d.).

immediate surroundings and begin to erect barriers, physical or ideological, to isolate themselves from the outside, from the other, who begins to constitute a latent threat. Segregation is perpetuated, inequality grows, and fear provokes violence due to a lack of equitable development conditions” (Meyer 2022, 100). In fact, this social reaction currently takes place in many neighbourhoods of Asunción, including San Jerónimo, where the absence of public spaces fosters the issues of delinquency and insecurity. Residents of these neighbourhoods are in a constant fear of insecurity due to the high level of crime from their surroundings which threatens the welfare of their community and their youths. Children living in these parts of the city frequently end up in the penal system due to their marginality or committing crimes for survival. This results in a forgotten childhood caused by social exclusion and state abandonment which inevitably leads to youth crime (IIJ 2019, 83).

2.2.3. Penal Reforms on Delinquent Youths

The current penal reform system in Paraguay does not address youth delinquency by failing to restore youths back into society. Michel Foucault’s work on the role of penal institutions in ‘Discipline and Punish’ is an evaluation which conveys how society’s response to crime evolved from torture to punishment to discipline, and ultimately to the creation of the prison (Sellers 2017, 2). According to Foucault, rather than restoring the offender to the social pact, the system of

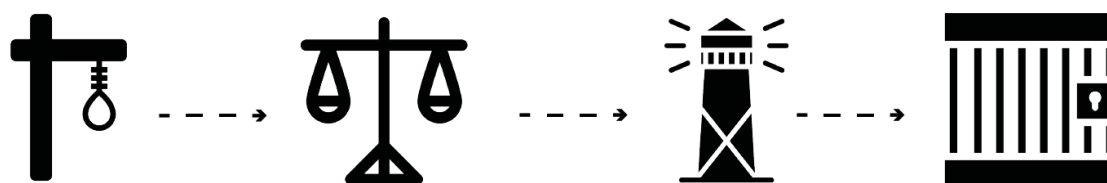


Diagram of the evolution of society’s response to delinquency according to Foucault (Sellers 2017).

penal reform opted for shaping the offender into an obedient subject by using punishment as a technique of coercion that trained the individual's habits, which ultimately lead to the adoption of the modern coercive institution known as the prison (Sellers 2017, 4).

Foucault points out that rather than reduce crime, prisons produce delinquents, and prison conditions encourage criminal networks to flourish, which later condemns the released inmate to future recidivism and perpetual supervision, as well as being susceptible to the temptations of deviance. Foucault is not necessarily arguing that prisons create crime; however, he does suggest that without prisons, crime and the criminal would be perceived in different ways (Sellers 2017, 6). In effect, the penal reforms created to address the issue of youth delinquency have failed to prevent youth criminal behaviour, and to restore convicted youths back into society. This current reform creates a perpetual cycle of youth delinquency in many societies.

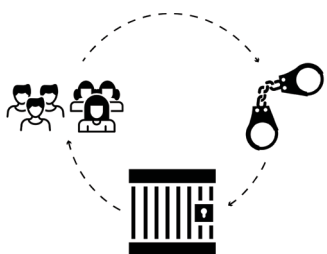


Diagram of the perpetual cycle of youth delinquency-prison-recidivism.

Incarceration as the Response to Youth Delinquency

The current penal system in Paraguay punishes youth delinquents by incarcerating them in 'Education Centres', or penitentiary centres for youths, with the intention of restoring the offender. However, the penitentiary system is not only expensive but also ineffective, the number of recidivism amongst youths in Asunción is 50% (La Nación 2022a). To this effect, the judges who are sentencing these youths usually lack a different perspective when sentencing and chose confinement as the only answer to the problem of delinquent adolescents (La Nación 2022a). According to Foucault, this approach led to the formation of the lockup system we have today. Foucault also argues that the prison

is now an essential building block of society, “so removing it without changing other aspects of the system would be futile” (Sellers 2017, 8–9).

Neighbourhoods such as San Jerónimo have gone through socioeconomic efforts to combat youth delinquency. The lack of public space in the neighbourhood as well as in the city of Asunción are among some of the social perspectives associated with the notion of the delinquent label and urbanisation problem. These perspectives aided by contributing factors of poverty, lack of education, and disintegrated homes, suggest an accurate representation of how the current penal system in Paraguay is focused on removing the ‘unwanted’ from society rather than using preventing methods for youths from committing delinquent acts, an issue this thesis aims to revert.

Chapter 3: Retroactive Infrastructures to Address Youth Delinquency

This chapter argues for retroactive methods to regenerate public and cultural infrastructures and combat the issue of youth delinquency in neighbourhoods such as San Jerónimo. Individual and collective basic needs and their potential to become retroactive infrastructures are theoretically interpreted as retroactive cultural and public infrastructures. Through these theoretical frameworks, this thesis identifies the youth and community programmes that eradicate the issue of youth delinquency in San Jerónimo.

3.1. Retroactive Infrastructures

The concept of 'Retroactive Infrastructures' is a term coined by Loretta Castro and Jose Pablo Ambrosi as part of the 'Retroactive' exhibition during the Lisbon Triennale of 2022. The exhibition focused on dislocated areas in the world that may or may not be informal in their nature (broken cities) and explored the possibility of intervening in it through projects that restore spatial dignity and belonging by structuring basic needs and services through the design of public facilities (Castro and Ambrosi 2022, 10). These interventions are designed to become seeds for transformation, which in this thesis, are implemented through the cultural and public infrastructures of San Jerónimo.

3.1.1. Basic Needs as Retroactive Infrastructures

Castro and Ambrosi argue the places for basic needs and services should reconcile diverse necessities from diverse concerns – migration, land tenure, water, sanitation, overcrowding, waste, violence, and mobility – by building

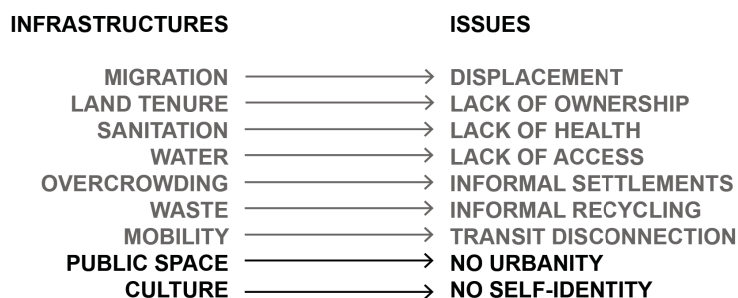


Diagram of infrastructures and their abilities to address specific issues (Castro and Ambrosi 2022).

bonds between people and their contexts, to the extent that the powerful and unexplored possibilities of public interventions lie in their capacity to become infrastructures (Castro and Ambrosi 2022, 10).

Rahul Mehrotra further argues that a community can only be transformed through a common platform of basic needs and services through which the members relate to each other, this is what he calls ‘infrastructures’ (Mehrotra 2020). He further argues, these platforms become retroactive infrastructures by its physical, social, and cultural nature and can include schools, health facilities, public spaces, water supply, sewage systems, roads, bridges, information technology, etcetera. As Mehrotra explains, “it is through this notion of infrastructure that people relate to each other as a community, because it becomes a shared asset, it is an extension of the idea of the commons” (Mehrotra 2020).

3.1.2. Culture and Public Space as Retroactive Infrastructures

In the neighbourhood of San Jerónimo, culture and public space are retroactive infrastructures that empower the youths through cultural programmes and engage the community in public places. According to Maslow’s ‘Hierarchy of Needs’ pyramid, ‘safety and security’ are considered basic needs

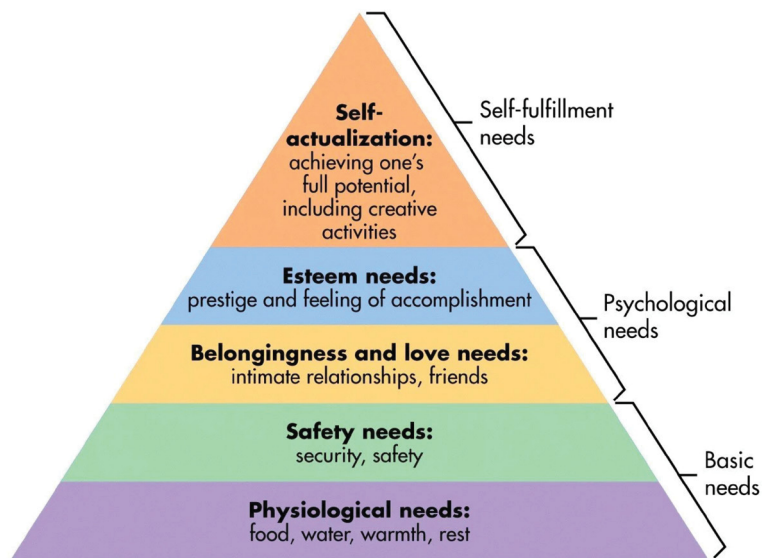


Diagram of Maslow's 'Hierarchy of Needs' (McLeod 2022).

fundamental for human existence. At the top of the pyramid is 'self-actualisation' referring to the realisation of a person's full potential, self-fulfilment, and personal growth, including creative activities (McLeod 2022).

Through the lenses of Castro, Ambrosi, and Mehrotra's view on the abilities of basic needs to become catalysts for community transformation, any common platform such as culture and public space can become retroactive infrastructures if they serve a common need, while in the process becoming a shared asset, a common space. By interpreting Maslow's concept of needs, culture as a 'self-fulfilment need' can provide 'self-identity' for youths, while public space can be interpreted as a 'safety need', and provide urbanity to the community. Together, culture and

RETROACTIVE INFRASTRUCTURES	BASIC NEEDS	OUTCOME	LEVEL
CULTURE	SELF-FULFILLMENT	SELF-IDENTITY	YOUTH
PUBLIC SPACE	SAFETY	URBANITY	COMMUNITY

Diagram of retroactive infrastructures theory addressing this thesis' issues of youth delinquency.

public spaces as retroactive infrastructures are seeds of individual and collective transformation that eradicate the issue of youth delinquency in San Jerónimo.

3.2. Interpreting Cultural Infrastructures

San Jerónimo is a neighbourhood rich in culture, and interpreting the cultural infrastructures of the community allows a deep understanding of the rooted traditions and celebrations that help form the programmes focused on developing the self-identity of youths.

3.2.1. The 'Thick Description' of San Jerónimo

In the 'Interpretation of Cultures', Clifford Geertz introduces the theory of 'thick description' to understand the culture of Balinese cockfights. As Geertz explains, culture is not something to which social events, behaviours, institutions, or process can be casually attributed; "it is a context,



Illustration of the 'thick description' of cultural infrastructures in San Jerónimo.

something within which they can be intelligibly – that is, thickly – described” (Geertz 1973, 14). Going deeply into the roots of a culture is what allows the discovery of cultural infrastructures embedded in a certain society to bring them to the surface. In interpreting the culture of San Jerónimo, Geertz would argue that understanding a people’s culture exposes their normality without reducing their particularity. It renders them accessible, setting them in the frame of their own banalities, it dissolves their opacity (Geertz 1973, 14). In other words, the cultural infrastructures of San Jerónimo are a normal part of the residents’ every day lives and should remain as part of their identity.

3.2.2. Once A Hub for Poets, Musicians, and Artists

San Jerónimo was once known as a cultural hub for many poets, musicians, and artists. Its history helped create many of the cultural identities and memories of the community to this day. As a long-time resident wrote in her memoirs,

When you remember the daily hustle and bustle of this neighbourhood, it seems that until 1947 its best splendour was experienced then because it was a place of friends, poets, musicians and artists, all of whom found a wild place for their meetings and encounters. (Allende 2011, 52)

Some notable artists who live in the memory of the residents and the murals of the neighbourhood are, to name a few:

- Emiliano R. Fernandez. Born in 1894 and lived in San Jeronimo, he was one of the most prolific exponents of popular poetry in Paraguay. Author of more than 2,000 poems (Wikipedia 2022).
- Agustin Barboza. Born in San Jeronimo in 1913, singer, composer who is considered a national treasure, and popular music legend (Wikipedia 2023).



Photograph of mural of Emiliano R. Fernandez in San Jerónimo.

Through their stories and work, these local artists are revered by the local community as they helped established the cultural infrastructures of the place, while simultaneously

contributing to the cultural and artistic identity of the whole country. In this sense, the cultural traditions of San Jerónimo are linked to the national cultural traditions of Paraguay, which are largely represented through music and the cultural arts.

3.2.3. National Cultural Traditions from the Jesuits and the Guaraní

The national cultural traditions of Paraguay originated in previous centuries through the interactions between the European Jesuits and the indigenous Guaraní. The Guaraní had been living in the region of Paraguay long before the establishment of Spanish colonies. Following the interactions with the Jesuits, which lasted more than 150 years, the Jesuits found European baroque cultural art in the Reductions of Paraguay as the most influential means of evangelising the Guaraní.

The cultural artistic means used by the Jesuits to evangelise and teach the Guaraní were mainly through the making of:

- Art Sculpture. Through the carving of wood and stone Guaraní sculptors produced the beautiful carvings and figures still visible in the remains of mission churches (Main 2001).
- Music. Many of the Jesuits brought with them their wealth of musical knowledge and taught the Guaraní how to make and play musical instruments such as flutes, trumpets, lyres, harps, violins and even church organs (Main 2001).
- Theatre. Similar to the use of music as a method of conversion, they saw that the instructional role of theatre as the best method of explaining the complex truths of religion (Caraman 1976, 212).



Photograph of indigenous Guaraní boy playing an organ made in the Reductions of Paraguay (McNaspy and Blanch 1982).

The 'thick description' interpretation of the traditions of art, music, and theatre as cultural infrastructures deeply rooted in the national cultural identity of Paraguay, does not intent



Photograph of Anga Rory International Cast during a traditional performance show in San Jerónimo (Anga Rory 2022).

to justify any of the atrocities brought upon the indigenous Guaraní by the Spanish colonists. On the contrary, it attempts to understand how such a small nation was able to retain its inherited traditions of art, music, and theatre so alive for so many generations, even after the expulsion of the Jesuits from the region. These national traditions can be also discovered in the ‘thick description’ of the local Guaraní language of the region, widely spoken today by most of the population, and making Paraguay the most bilingual country in Latin America (Costa 2020).

Cultural infrastructures are inherited traditions that connect the youths of San Jerónimo back to their cultural identity while giving them a sense of purpose and belonging. By establishing programmes in the music, arts, and theatre these infrastructures create links and bonds to the cultural past of the neighbourhood.

3.2.4. Case Studies of Cultural Arts Programmes for Youths

The following are case studies of cultural arts programmes developed into community cultural infrastructures, and how they became tools for the cultural and artistic development of youths throughout various vulnerable communities.

Prodigy Cultural Arts Program – Hillsborough County FL, USA

Established in 2000 in a low-income high-crime area of Florida, the Prodigy Cultural Arts Program is a community-based prevention, intervention, and diversion programme for youths ten to seventeen years of age, based on the Positive Youth Development (PYD) model which views youths as assets able to create and contribute to community change (YMCA of Greater St. Petersburg n.d.). The youth-centred

programme teaches visual and performing arts, including dance, drama, painting, and photography (Ersing 2009, 36), and applies an asset-based model that views each young person as having inherent skills, talents, and abilities to be nurtured and developed through cultural and creative expression in the arts (Ersing 2009, 36). The Prodigy case emphasises the role that acquired skills and community-based programmes play in empowering neglected youths to become agents of change. Through the lens of the positive youth development, this thesis demonstrates how cultural infrastructures can address the issue of youth delinquency by uncovering intrinsic talents and abilities that can support young people in overcoming social and environmental barriers (Ersing 2009, 28).



Illustration of recycled instruments of the Recycled Orchestra of Cateura (NRC 2012).

Landfill Harmonic - Asunción, Paraguay

The Recycled Orchestra of Cateura is in the landfill of the city of Asunción. The orchestra was established in 2012 to keep youths out of gangs and drugs with a music programme comprised of instruments made from scrap materials. Since new instruments were few, not affordable, and prone to theft, community members decided to build their own instruments from the garbage just outside their homes (Nantais and Redekopp 2021). This local success story illustrates how youths can be given a better future through music. Similar to the Recycled Orchestra's community involvement in making instruments, a goal for this thesis is to engage the community of San Jerónimo through the painting of murals, and workshops where hand-making skills are learned and transferred between youth and community residents.



Photograph of the Mae Luiza Music School (Bosco de Araujo 2018).

Mãe Luiza Music School - Natal, Brazil

Mãe Luiza is a neighbourhood in northern Brazil that was once a ‘favela’ (shantytown) that in 2018 opened the Mãe Luiza Music School to nurture the dreams of young talents and have a positive impact on the whole community (Scartazzini 2021, 238). Similar to the Music School, another goal for this thesis is to foster the development of youths in San Jerónimo by connecting them to the cultural infrastructures of art, music, and theatre through community events. Through their dedication, the local youths can inspire their audiences by showcasing their art work, and music and theatre performances as development tools tool for professional training, the strengthening of self-esteem, and the formation of cultural identity.

3.3. Interpretation of Public Infrastructures

Through the lens of Pierre Nora’s ‘lieux de memoire’, the identity of San Jerónimo is found through the interpretation of public infrastructures in the neighbourhood. These public infrastructures are not to be confused with government infrastructures, rather they are places of memory which are experienced as an extension of people’s homes, where they feel secure, recognised, and protected by neighbours, colleagues, friends, and family (Meyer 2022, 97).

3.3.1. The ‘Lieux de Memoire’ of San Jerónimo

There are very pleasant memories in many places of the neighbourhood such as alleys, streets, sidewalks, bars, houses and outdoor gatherings (Allende 2011, 41). These places of memory are what Nora describes as “material, symbolic, and functional” (Nora 1989, 18), and can be interpreted as public infrastructures where memory lives.

In San Jerónimo, Nora would argue, these places "are created by a play of memory and history" (Nora 1989, 19), and need to be kept in broad categories – from anything pertaining to the cult of the dead (festivals), to anything administering the presence of the past with the present (murals), including some seemingly improbable objects (instruments) (Nora 1989, 20); for Nora all memories can be considered 'lieux de memoire.'

3.3.2. Places of Memory as Public Infrastructures

Festivals

The celebration of festivals in the streets, alleys and steps of the neighbourhood are considered public infrastructures found in the collective public memory of religious, processional, gastronomic, musical, and artistic celebrations deeply embedded in the identity of the community.

Many of these festivals are traditional, such as the religious 'Via Crucis' (Way of the Cross) procession during Easter, or more sporadic events such as street markets during weekends. The most popular form of cultural expression seen in the neighbourhood is traditionally every September 30th during the feast day of Saint Jerome. Allende writes, "there was total participation of the neighbourhood residents during the patron saint's festival" (Allende 2011, 29). With the support of public spaces, festivals create spaces of encounter and brings youth and community residents together in an environment of festivity, preparation and coexistence.

Murals

The murals of San Jerónimo are public infrastructures that represent a distant connection to the notorious poets,



Photograph of 'Via Crucis' procession event in the streets of San Jerónimo (Loma San Jerónimo 2015).



Illustration of the murals of San Jerónimo.

musicians, and artists that once lived in the neighbourhood. Nora would argue, these murals “are created by a play of memory and history, an interaction of two factors that results in their reciprocal over-determination” (Nora 1989, 19).

These iconic figures live forever in these murals, they embed the history of the community and become part of the natural landscape of the neighbourhood. Public murals, especially the ones representing past artists, are part of the cultural identity of the neighbourhood, and are powerful tools for the skill learning of painting to connect the youths with their culture through the public infrastructures of San Jerónimo.

3.3.3. Case Studies of Retroactive Infrastructures

Sanitation Hub - Mumbai, India



RMA Architects, Community Toilets for SPARC, Mumbai, India, 2012 (RMA Architects 2012).

This project addressed the challenge of reinterpreting a community toilet as a sanitation hub rather than just a mono-functional toilet facility. The project looked at how the hub could contain a range of programmatic functions: community toilets, a health care centre, a laundromat, and clean water distribution. The hub also serves as a platform for community activities like festival celebrations, weddings, children’s or elder’s’ gatherings, and potential weekend markets (Mehrotra 2022, 68). The interpretation of public toilets as retroactive infrastructures that serve more than one need is the retroactive method approach to interpret culture and public spaces as infrastructures capable of

developing the self-identity of youths while also supporting the festive and creative activities of communities.



Taller Capital, Parque en el Represo Colosio, Nogales, Mexico, 2019 (Arquitectura Viva 2022).

Parque El Represo - Nogales, Mexico

El Represo was as a rainwater harvesting centre that had been poorly kept for years and used to prevent flooding in the neighbourhood area. After the implementation of a government redevelopment of the site, El Represo was transformed into a 15,000m² park with green areas, playgrounds, and a walkway. The project had benefited 32,000 people who live and enjoy the space daily, displaying solidarity with a communal project and learning first-hand that keeping it in good conditions reduces vandalism and violence (Meyer 2022, 98). This project is an example of the community-oriented approach to safety through public infrastructures, and how the residents of the neighbourhood take ownership of their own public space.



Photograph of a Chicano mural on Whittier Blvd (UCLA Newsroom n.d.).

Chicano Street Murals – East Los Angeles, USA

East Los Angeles is a large community of mostly Spanish-speaking Mexican immigrants and Mexican-Americans where street murals are used to represent the local culture and “the realities of everyday life” (Holscher 1976, 45). Many of these public murals are painted on empty spaces found on a variety of different structures, serving different purposes, and carrying diverse meanings for the artist, the community, and the people living outside the neighbourhoods (Holscher 1976, 43). According to Holscher, there are a number of themes which generally prevail in the murals of East Los Angeles: “a search for identity, an affirmation of the Chicano culture, an emphasis on social problems, emotions and feelings” (Holscher 1976, 45–47). Murals as public infrastructures can convey messages about the culture of a

place (Holscher 1976, 45). Similar to the expression of the Chicano culture, murals allow a more realistic and accurate analysis of the attitudes, feelings, and life styles present in the youths of San Jerónimo.

Although public spaces can be argued to be an antidote against violence, they are certainly not a one-stop solution to the problem of youth delinquency. Public infrastructures are core solutions to the problem of public safety as they lay-out the foundations for community interactions, which are necessary for addressing the issues of delinquency. Together with cultural infrastructures they offer a retroactive platform for the individual qualities that youths possess which are to be explored through the arts and reinforced through community engagement.

Chapter 4: Design Goals and Methods

Explored in this chapter are the four design goals of this thesis and the methods used to achieve them. These goals are:

1. Programmes supportive of youth development.
2. An urban site for community engagement.
3. Transform warehouse site into contemporary spaces.
4. Facade systems for natural lighting, ventilation, and privacy.

4.1. Goal 1: Programmes Supportive of Youth Development

The first goal for this thesis is to create programmes that support youth development by creating and fostering developmental assets in youths. As Ersing argues, “evidence-based youth developmental assets are important for the maturation of children” (Ersing 2009, 31). The role of assets in young people is that it encourages them to make informed decisions, leading to an increased likelihood that they achieve successful outcomes in their development (Ersing 2009, 31). These programmes benefit all age, gender, and social groups by teaching the youths skills, giving them a sense of self-identity, and achieving future goals.

4.1.1. Internal and External Assets for Development

Goal 1 consists of two categories of developmental assets for youth programmes: internal and external.

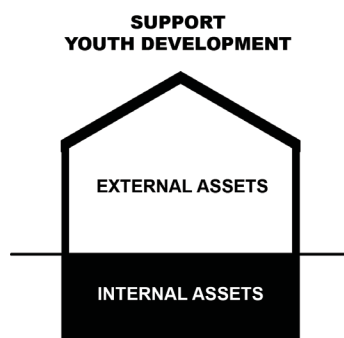


Diagram of goal 1.

Internal Asset Programmes

Internal asset programmes focus on the healthy, physical, intellectual, psychological, and social development of youths. These programmes are specific to support youths in developing life skills and social competencies, specifically problem-solving, communication, and anger management skills (Ersing 2009, 36). As Ersing explains, internal assets are attributes or characteristics of young people, such as commitment and motivation to learning, sense of caring and responsibility, decision-making, conflict resolution skills, self-esteem, and a sense of purpose (Ersing 2009, 31). The proposed programmes to support youth development by focusing on internal assets are the following:

- Workshop. As start-up spaces to teach and acquire skills necessary to fix and make instruments for music, crafts for selling or personal use, costumes for theatre performances, or other skills that youths find interesting.
- Exhibition Room. A common space that is flexible and open to host lectures, seminars and talks focused on youth development. Also, a space for youths to showcase their artwork and sale exhibitions.
- Backstage Lounge and Cafeteria. To relax, eat, and socialise. A place for young people to learn how to cook, 'hang out', and build healthy friendships with equally motivated peers. As a central space adjacent to the music studios, and performance spaces, this room also acts as a backstage room; a space commonly known in the performing arts where performers meet and relax before or after going on stage.
- Study Room. As there is a significant emphasis from the community to address the education focus of their youths, a space for learning, reading, and studying helps them focus on their school obligations.
- Offices. To counsel, advice, and treat youths in need. Youth development is an ongoing process and is important to professionally evaluate the situation and progress of every individual, as some youths may struggle with addictions. Is also important to establish

parameters to evaluate the skills of each young person when they first encounter the programme. This requires private spaces for professional counsellors, nurses, and teachers who are invested in the development process of youths.



Illustration of music as a cultural infrastructure for youth development (Rojas 2013).

Cultural Infrastructures as External Assets

External assets are focused on the social contexts of family, school, community and the resources necessary to navigate those interactions (Ersing 36, 31). As Ersing argues, external assets offers the sense of feeling valued and empowered, having positive adult and peer experiences, which can be accomplished by spending time engaged in cultural and social programmes (Ersing 36, 31). Cultural infrastructures are inherited traditions that connect the youths back to the identity of San Jerónimo. By establishing cultural programmes in music, art, and theatre these infrastructures create links and bonds in developing an appreciation for the cultural arts and increase artistic skills in youths (Ersing 36, 36). As Ersing explains, the cultural arts create a medium through which youths direct their energy toward achieving positive, social, emotional, and academic outcomes. This way youths learn about and appreciate the visual, performing, and media arts, along with some of the social and academic benefits they offer (Ersing 2009, 33). The proposed programmes to support the development of youths by focusing on external assets are the following:

- Theatre. A flexible theatre for youths to be able to demonstrate their learned skills and creativity to their community as part of their self-development.
- Studios for music and theatre rehearsal. Music, and theatre as a skill and a tool of development requires many hours of practice and rehearsal. A music and theatre rehearsal studio serve the uses for each discipline.

- Storage for theatre outfits, sets, and costumes. Storage spaces to be shared and located adjacent to rehearsal studio and performance spaces.
- Locker-rooms for changing and showering. Spaces for young musicians, and performers to change and shower before and after rehearsals, performances, and events. These are private and adjacent to studios and auditorium.
- Loading Area. For loading equipment, sets, and materials with open access to the streets of the workshop, art, exhibition rooms and auditorium.

4.1.2. Spatial Organisation

The spatial organisation of the proposed programmes is achieved by analysing the function of each space according to the external or internal assets category they belong to. The theatre, backstage lounge and rehearsal rooms share the external asset programmes of theatre and music, therefore their adjacencies are desired when designing these spaces. Workshop, art studio, exhibition room, and cafeteria overlap in their asset category as they serve both external and internal developmental programmes, therefore their adjacency is also desired in designing these spaces. In designing the programme configuration it is important to allow flexibility and openness when designing spaces for

YOUTH DEVELOPMENT SPACES	EXTERNAL ASSETS			INTERNAL ASSETS		
	THEATRE	MUSIC	ART	MAKING	LEARNING	COUNSELLING
THEATRE/AUDITORIUM	██					
BACKSTAGE LOUNGE	██					
STUDIO ROOM			██			
REHEARSAL ROOM	██					
CHANGING ROOM	██					
LOADING DECK	██					
STORAGE	██			████████████████████		
WORKSHOP	██			██		
EXHIBITION ROOM			██	██		
CAFETERIA				██	██	
STUDY AREA					██	
OFFICE SPACE						████████████████████

Spatial organisation chart for the support of youth development programme goal according to the external and internal assets programmatic categories.

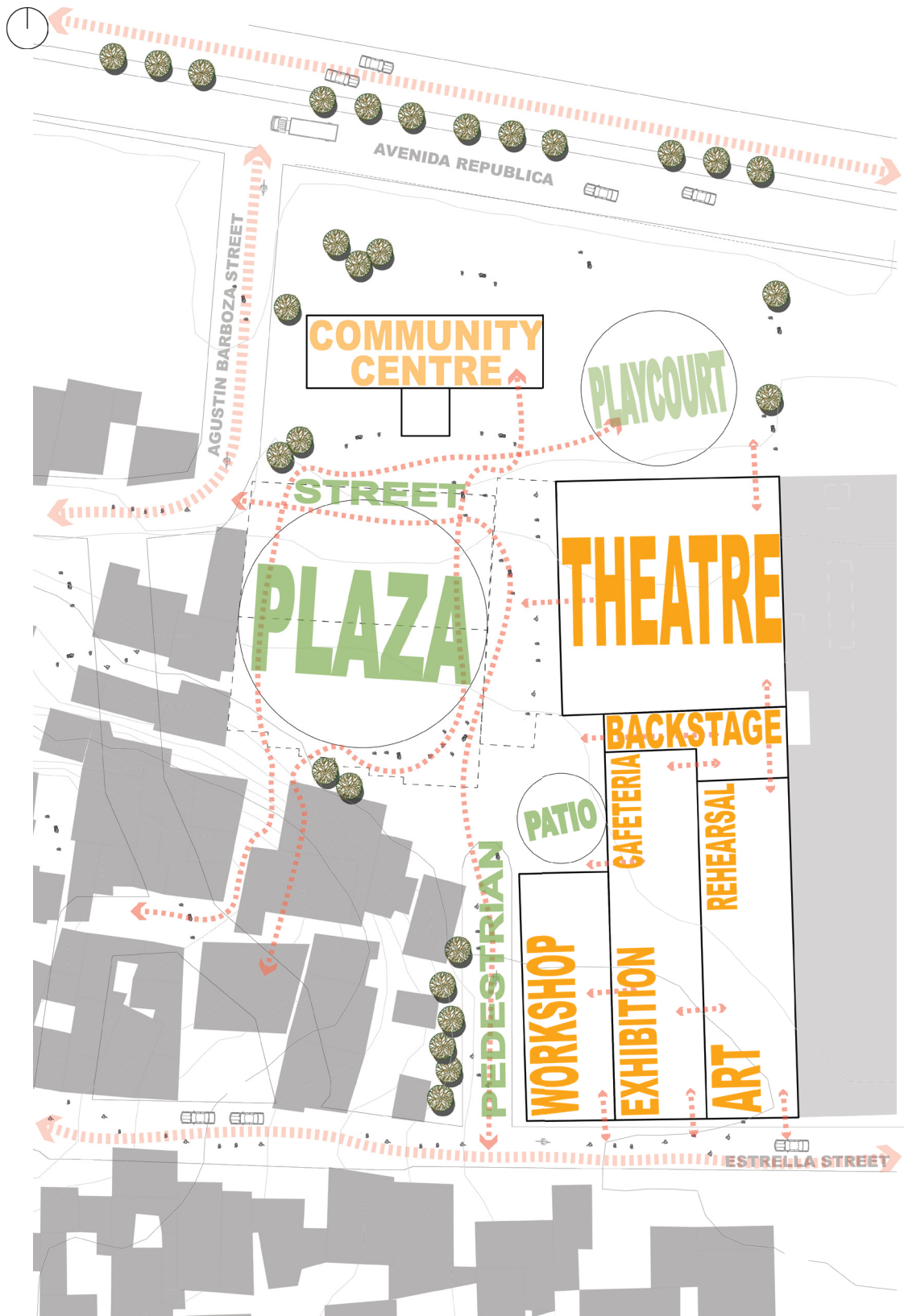


Diagram of site proposal and spatial organisation of youth and community programmes.
Scale 1:200.

youths, thus allowing the overlap of spaces under both internal as external assets does not prescribe the uses of spaces to one specific function.

The Taxonomy of Youth Spaces

The activities of internal asset programmes need to be examined and assessed according to the spatial dimensions and proportions of the buildings, since many of the youth programmes may require individual rooms and others large open spaces (Stone 2019, 94-95). This is what Frank Duffy in 'The New Office' called the taxonomy of office spaces. This taxonomy is built not upon personality and position but upon task, assignment and undertaking (Stone 2019, 99). Through the lens of Duffy's taxonomy of office space method, youth spaces can be similarly broken into his four organisational types:

- **Hive:** individual process. Characterised by individual and process work that has personal levels of interaction and high autonomy. Art studios fit this category.
- **Den:** group processing. A space of group work suitable for short-term highly interactive, often noisy work such as a team brainstorming event. Spaces for workshop are suitable for this type.
- **Club:** transactional processes. A space that encourages intimate interaction in a quiet often private environment. An office or counselling spaces fit this category.
- **Cell:** concentrated study. This is a space for concentrated individual study that needs little or no interaction or interruption. The backstage mezzanine support study spaces are ideal for this configuration.

Through this approach, youths wont necessarily have a dedicated space but would use the space most suitable for the task that they were completing. As Stone puts it, these spaces have to encourage interaction and creativity, create impromptu and spontaneous get-togethers, and having

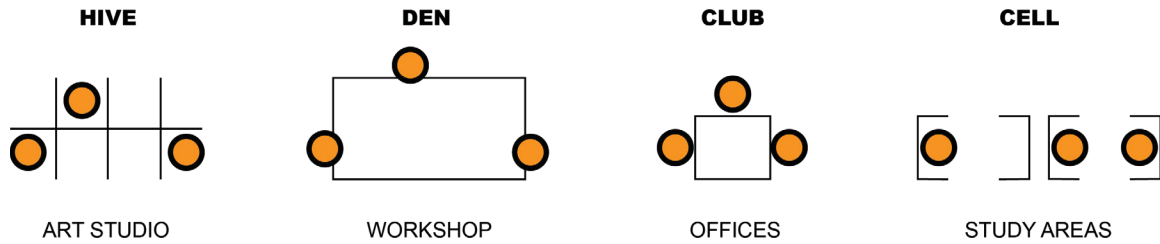


Diagram of taxonomy of spaces for the design layout of youth programme spaces (Stone 2019).

conversations aimed to be beneficial, constructive and creative (Stone 2019, 99).

4.1.3. Case Studies of Goal 1

Royal College of Arts - London, UK

Designed by Herzog & de Meuron this campus is a centre for education, research, and entrepreneurship that explores the creative possibilities at the intersection of science, the arts, and design. As the architects describe it, the campus is a flexible architectural solution that adapts to the constantly changing programmes of teaching and research with the aim to unite and strengthen the culture of design innovation and entrepreneurship (Herzog & de Meuron 2021). This project resonates with one of the core programmes of this thesis, spaces for the development of youths through making, creating, and learning. The spatial configuration of the College helps determine the allocation of spaces for this thesis project, as well as the important relationship of students with nature and the outdoor environment.

The Schaubühne Theatre - Berlin, Germany

Designed in 1928 by Erich Mendelsohn it was severely damaged during the war and later went through various transformations aiming to be restored to its former glory.



Diagram analysis of the ground floor programmatic layout relationship between interior programmes (orange) with outdoor spaces (green). Herzog & de Meuron, plan of Royal College of Art, London, 2021 (Herzog & de Meuron 2021).



Jürgen Sawade, Schaubühne, Berlin, Germany, 1981
(Schaubühne n.d.).

In 1981, the space was turned into a black box theatre without a separation between the stage and seating. The theatre became fully flexible and functions as either stage space or seating area. In addition two large panels can be used to divide the large hall into three stages, fully allowing different theatrical forms of proscenium, transversal, thrust, arena and opera stage. (Schaubühne n.d.). Similar to the Schaubühne Theatre, the theatre for youth and community events offers flexible seating and stage configuration to connect to the public plaza and allow the free delivery of cultural performances and multiple uses for the large space.

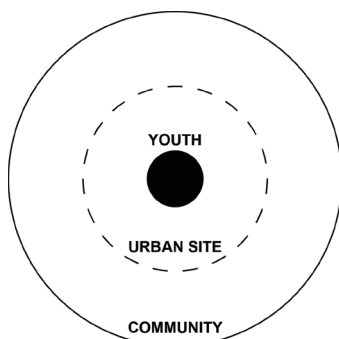


Diagram of goal 2.

4.2. Goal 2: An Urban Site for Community Engagement

The second goal of this thesis is an urban site to engage the youths and community through the creation of public spaces identified with the public infrastructures of San Jerónimo. Together with cultural infrastructures, public spaces offer urbanity and public safety, as well as a communal platform for the individual qualities of youths, to be explored through the arts and reinforced through community engagement.



Illustration of murals as outdoor youth development programmes (Rojas 2013).

4.2.1. Public Infrastructures as Public Spaces

Public spaces are an extension of the existing public infrastructures of San Jerónimo found in the murals, processions, and open-air festivals of the neighbourhood. As Ersing points out, programmes serving youths should ensure opportunities for pro-social involvement to enable them to build their competencies and become engaged as partners in their own development as well as the development of their communities (Ersing 34-35).

In addition, public spaces are an antidote to the problem of public safety as they lay-out the foundations for community interactions, which are necessary for addressing the issues of youth delinquency. By introducing public spaces into the neighbourhood, these new infrastructures change the way people occupy public spaces and relate to each other by gradually becoming more dynamic and stimulating for their inhabitants (Meyer 2022, 97). The proposed urban site programmes designed for youth and community engagement are the following:

- Public plaza. With multiple access points that connect with the neighbourhood. A public space without rears of leftover space for socialising, networking, interacting, eating, and selling, events and celebrations, thus restoring the dignity and identity of the community.
- Pedestrian street. To create access from surrounding urban fabric of the neighbourhood and connect with the city. A street also becomes a performance space for festivals, processions and street art.
- Murals, art installations and central performance spaces. These enhance external assets for youths and allows them to express themselves openly while engaging the community in their developmental process by demonstrating new found skills.
- Community Centre. Using the existing premises of the Centre to incorporate a sports programme that

teaches youths indirect or social skill building through teamwork, and managing conflict (Ersing, 34-35).

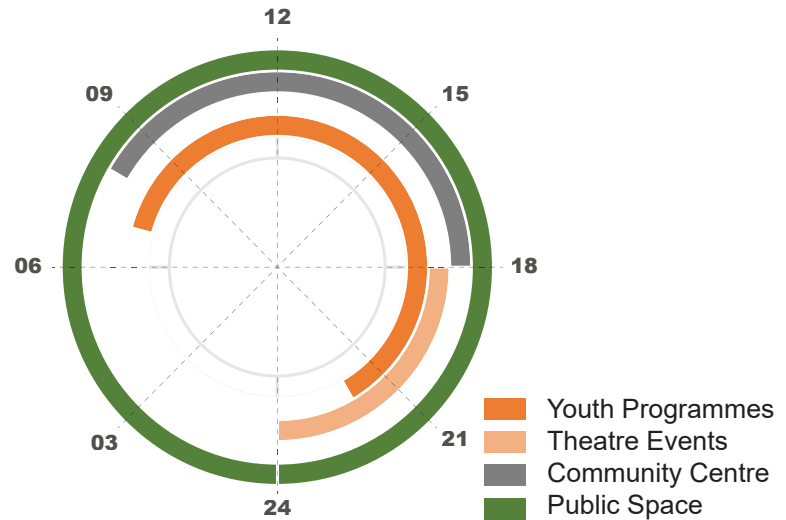
- Patio and Courtyard. Open-air spaces within spaces for youth development support to give youths a direct connection to nature and outdoor gathering without having to enter the urban site.
- Public amenities. Such as a vendor areas, public washrooms, and parking that serve the community, and visitors from outside the neighbourhood during the occasion of large cultural arts events.

4.2.2. Spatial Organisation Based on Time and Activity

In order to achieve a continuously public site, the programme spaces are designed to be engaging and safe to the public, while also becoming spaces that focus on making, performing and learning. This is achieved by designing spaces that remain open throughout the day. Youth based programmes for development run from 7:00 to 22:00 hours throughout the week. In Asunción, is common that students attend ‘double-turn’ schools which offer the option of attending classes for half a day, either in the morning or in the afternoons. This allows a continuous use of the youth spaces that rotates them based on school hours, while the more scheduled spaces for theatre events are mostly active

URBAN SITE FOR COMMUNITY & YOUTH ENGAGEMENT	PUBLIC INFRASTRUCTURES			PUBLIC SPACES	
	MAKING	PERFORMING	LEARNING	ENGAGING	SAFETY
PLAZA SQUARE	████████████████████			████████████████████	
PEDESTRIAN STREET	████████████████████		████████████████	████████████████████	
MURAL SPACE	████████████████████			████████████████████	
ART INSTALLATION SPACE	████████████████████			████████████████████	
COMMUNITY CENTRE		████████████████	████████████████	████████████████████	
PATIO				████████████████████	
COURTYARD				████████████████████	
PUBLIC WASHROOMS				████████████████████	
PARKING				████████████████████	

Programmatic chart for design goal 2: urban site for community and youth engagement.



Time wheel diagram of activities for youth development programmes and the urban site.

during the later afternoon or evening hours, and the public spaces of the plaza and pedestrian street are always open.

4.2.3. Case Study of Goal 2

Tapis Rouge - Port-au-Prince, Haiti

Designed by EVA Studio, the design itself is inherently community-oriented and introduces public space as an anthropological ground from which identity and social relations grow. Similar to this thesis' approach to the public site in San Jerónimo, this public space project aims to transform a local community by providing the residents a sense of ownership, identity and pride while reducing crime, violence, and anti-social behaviour in the area. The programme is an open-air amphitheatre at the centre of the space, with seating and a workout area. The perimeter wall has been transformed by the community and children into a colourful mural which reflects local traditions (EVA Studio 2016).



EVA Studio, Tapis Rouge, Port-au-Prince, Haiti, 2016 (EVA Studio 2016).

4.3. Goal 3: Transform Warehouse Site Into Contemporary Spaces

The third goal of this thesis is to transform the existing warehouses of an industrial area of the neighbourhood into contemporary spaces for youth cultural arts programmes and public community engagement while retaining the industrial identity and character of the site.

4.3.1. Adaptive Reuse of Warehouses

The existing warehouses have an industrial past in the neighbourhood as former distillery buildings which no longer serve their original function. Today, the site is a decaying



Illustration of adaptive reuse approach of warehouses for cultural arts and community engagement programmes.

warehouse complex which poses a physical danger to the rest of the neighbourhood due to its lack of maintenance and negligence. The transformation of these warehouses into cultural arts spaces aims to adapt these industrial sites, returning the site back to the neighbourhood and restoring the buildings' sense of being.

Spaces for Performance and Rehearsal

Part of the proposed cultural arts programme involves a venue for performances and studios for rehearsal, practicing and playing. The largest unobstructed space of the site is transformed into a public theatre venue, however as Stone explains, studio spaces for either dance, music, or theatre are designed to mirror a performance venue, a wide rectangular area (Stone 2019, 86). This can be a challenge with adaptive reuse projects due to the existing layout and former functionality of the original building, and yet if carefully analysed, it can be achieved. Stone explains that the studio is a pure rectangular space that cannot be compromised, its the basis of the project, and suggests other rooms such as support spaces, circulation, or study areas, can be misshaped or deformed “but the studio has to be faultless” (Stone 2019, 86).

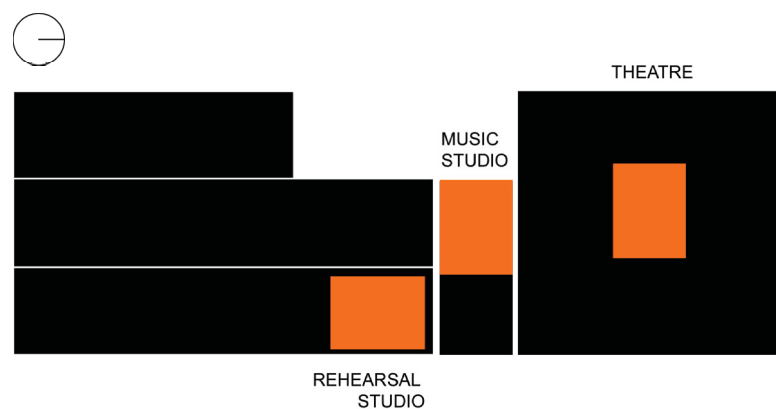
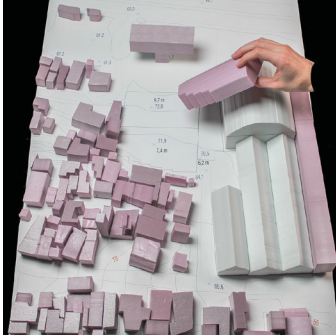


Diagram identifying unobstructed spaces for rehearsal within existing warehouses matching theatre stage dimensions.



Photograph model of the site being reduced to its essentials.

4.3.2. Reducing the Site to its Essentials

Not every building on the site is able to adapt to the proposed programme due to its unkept condition, inconvenient location, and mere presence. This part of the neighbourhood is presently dealing with an unbalanced proportion of small residential houses, a neglected existing Community Centre building, and six large industrial warehouses; all of these elements are disconnected from the each other and need to be brought together to become spaces for retroactive cultural and public infrastructures inhabited by youths and community. Through a process of taking away components of the site, as Stone describes, the subtraction of elements liberates the space by making a statement that connects with its immediate environment, and exposes the inequalities that exists within the surrounding areas (Stone 2019, 167).

Scraping Away Layers of the Existing

However, this process is not exclusive to removing only entire neglected warehouses, remaining parts of buildings are to be subtracted as well if it revives a structure that is

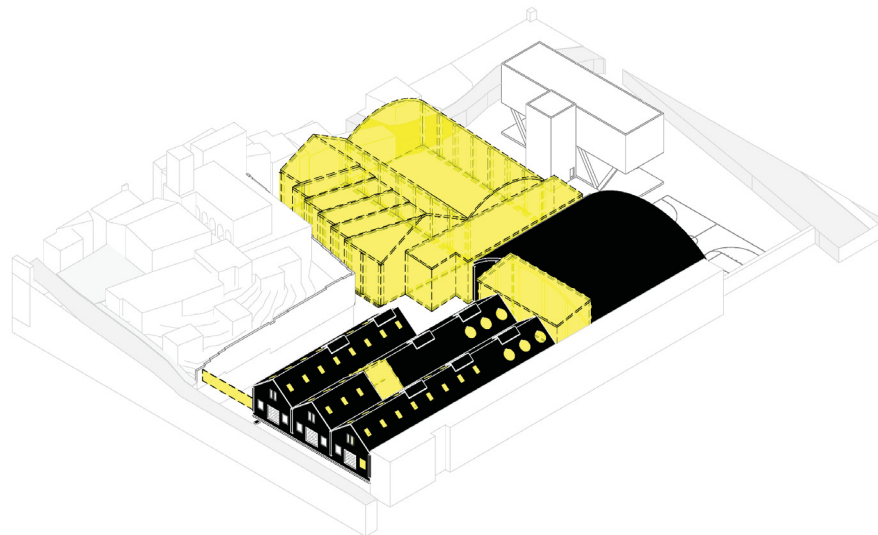


Diagram of site with adaptive reuse buildings (black), and subtracted elements (yellow).

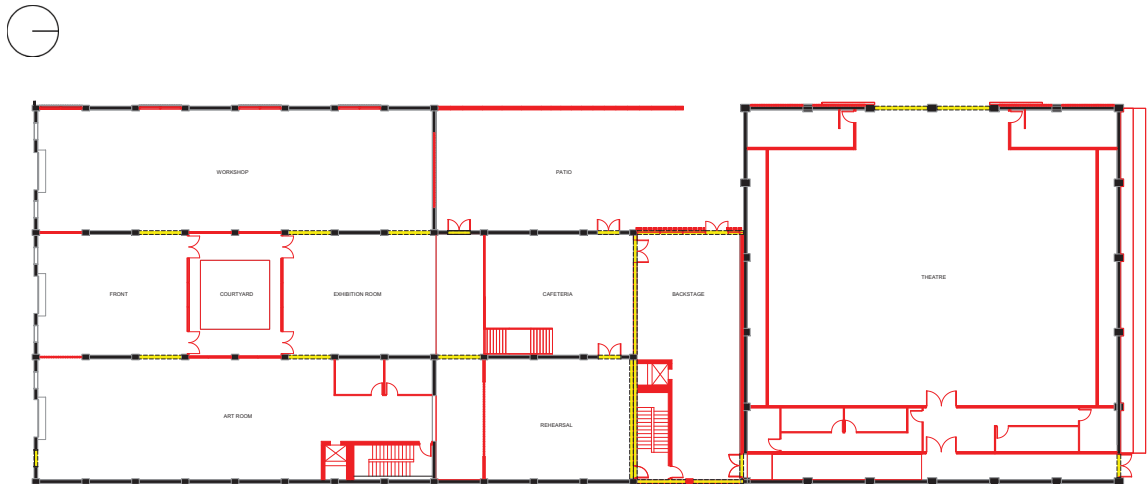


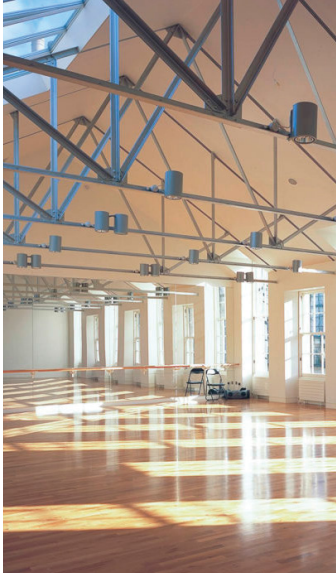
Diagram of warehouse buildings floor plan with existing (black), subtracted (yellow), and new (red) elements.

tired and rundown (Stone 2019, 170), and which would allow for an opening to the exterior or natural lighting in otherwise dark spaces. The process of taking away by reduction or removal, it reduces what is available and what is there (Stone 2019, 169), and ‘scrapping away’ can be achieved through “control, suppression, cutting, bowdlerization, editing” (Stone 2019, 181). As Scott explains, visual connection to the natural environment is fundamental for youths and children in particular, who yearn for that outside connection (Scott 2010, 40).

4.3.3. Case Study of Goal 3

DanceBase - Edinburgh, UK

By Malcolm Fraser Architects, this project is a combination of reused existing buildings, new structures and the natural landscape. The principal consideration within the project was whether the studios could be accommodated. Each rectangular studio has its own distinct character created through a combination of the quality of light, the materials, and the structure. These spaces are linked together by a



Fraser/Livingstone Architects, DanceBase Studio, Edinburgh, UK, 2001 (Fraser/Livingstone Architects 2001).

series of ramps and staircases that seem to play around the space. Similarly, to this thesis' site the approach is to first consider the specific spaces able to house a rehearsal studio while maintaining the configurations of the structures, while everything else follows accordingly to support the cultural arts spaces.

4.4. Goal 4: Facade Systems for Natural Lighting, Ventilation, and Privacy

The fourth goal of this thesis is to provide a facade system that allows natural lighting and ventilation to the buildings as well as privacy to the youth users inside, while maintaining a material relationship with the adjacent Community Centre. As Sarah Scott emphasises, interiors are required to emulate outdoor qualities if they are to be effective areas for learning, “so perhaps the ideal is an ever present sense of not just our immediate surroundings but also the larger context around us” (Scott 2010, 37). Natural lighting, ventilation and privacy are key elements to the design of youth spaces, as Scott further explains, spaces need to be managed according to acoustics, colour, light, scale and access to the natural environment, to create environments that are stimulating, protective, comfortable and beautiful (Scott 2010, 37).

A local material capable of providing multiple applications is clay brick masonry. Brick in Paraguay is widespread used in contemporary architecture due to its low cost and mass production, and is ingeniously used in walls, facades, sieves, vaults, floors, and pavements (Dejtjar 2023). Due to the north-south positioning of the existing warehouses, a large portion of the west facade is exposed to the intense afternoon sun. The west facade is also the elevation visually connected to the rest of the neighbourhood, thus giving

the opportunity to “accentuate the materiality and lend the brickwork a vibrant presence” (Herzog & de Meuron 2016). For the different interior functions of this thesis programmes, the facade systems to be applied with clay brick masonry are perforated screen walls, brise-soleil, and cladding.

4.4.1. Perforated Screen Walls

To achieve a spatial relationship between interior and outdoor environment, a common local application of brick is in the use of perforated masonry walls in which bricks are arranged to generate different patterns to filter sunlight and allow natural ventilation, thus improving thermal comfort in buildings (Vazquez 2017). In effect, these walls are an affordable way to protect buildings in locations with hot and humid climates, like Paraguay (Vazquez 2018).

Case Study: Casa Ilona - Asunción, Paraguay

The architects Grupo Culata Jovái reused clay ceramic shingles from the demolition of the project’s original roof to build a simple perforated screen wall on the exterior facade of the house for privacy of the dwellers and to provide natural ventilation to the interiors (Grupo Culata Jovái 2014). In addition, the wall can be shut with interior door sliders to allow more privacy during nighttime hours or to protect from cooler temperatures. The application of this system is very effective in a workshop space in which natural lighting and ventilation is needed as well as translucency from being exposed to the pedestrian street by providing the necessary privacy for the youths inside.



Perforated screen wall.
Grupo Culata Jovái, Casa Ilona, Asunción, Paraguay, 2014 (Grupo Culata Jovái 2014).

4.4.2. Brise-Soleil

Another facade system to be implemented is brise-soleil which perform the specific function of reducing heat gain

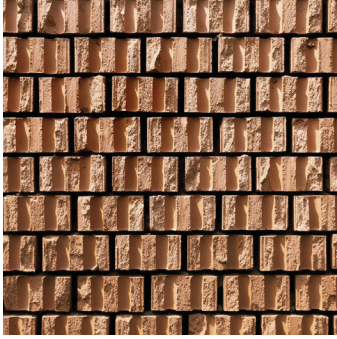
within a structure by deflecting sunlight (Borden and Meredith 2012, 330). A brise-soleil facade system is significant to this thesis because it constructs a material boundary between the inside and the outside as a mediating facade that expands the distance between the inside and the outside of the building (Borden and Meredith 2012, 331). This form of spatial extension, as Scott describes, of views out and beyond, and a visual sense of the collective, create a sense of openness rather than enclosure for youths (Scott 2010, 40).

Case Study: ASA Steam School - Asunción, Paraguay

The architects Equipo de Arquitectura looked for a system that not only responds to the climate conditions but also dialogues with the immediate surroundings of old brick materials. These slender materials create a veil that protects the interior from sun and rain in all orientations while providing greater privacy to the interior classrooms (Equipo de Arquitectura 2020). Similarly, for the number of floor stories proposed to accommodate the programmes of this thesis, a brise-soleil system of bricks, as implemented in the school case-study, can provide sun protection in the large open vertical structures that are exposed to the west sun and visual privacy from much of the public space of the site.



Brise-soleil. Equipo de Arquitectura, ASA Steam School, Asunción, Paraguay, 2020 (Equipo de Arquitectura 2020).



Half-brick cladding.
Herzog & de Meuron,
Vitra Schaudapot, Weil
am Rhein, Germany, 2016
(Herzog & de Meuron
2016).

4.4.3. Cladding

Not every space on the site requires the elements of natural lighting and ventilation for programmes, others require complete enclosure and opacity from the exterior to be able to carry out their function. The theatre is a space that requires minimal natural lighting and needs adequate sun protection. A brick cladding system can fulfil the technical demands of a theatre, protect the structure from direct weather exposure while “offering an unpretentious expression of function” (Herzog & de Meuron 2016).

Case Study: Vitra Schaudapot - Weil am Rhein, Germany

The architects Herzog & de Meuron used clay brick masonry to built a warehouse form and as a material that is ‘indigenous’ rather than ‘invented’ to the adjacent sawtooth factory building of the site. Respecting the neighbouring site conditions, each brick is hand-broken, so each one has a unique pattern, thus giving the facade texture and depth (Herzog & de Meuron 2016). Similarly, the warehouse building of the theatre is adjacent to the existing Community Centre, whose main exterior material is made of exposed brick elements. By upgrading its exterior cladding system, the material of the theatre should be ‘indigenous’ and economical in the urban context of the neighbourhood and wider city, ultimately maintaining a material relationship amongst all buildings of the site.

Chapter 5: Design Proposal

5.1. The Site

The site is located at the base of the San Jerónimo neighbourhood hill, in between private dwellings, a military base and the existing Community Centre, in a naturally sloped terrain site which has a 4.0 meters height difference from its highest level on Estrella Street to its lowest level on Republic Avenue. An L-shaped public street used to be located at the site and interconnected the south face of the Community Centre with Estrella Street and ultimately Agustín Barboza Street and República Avenue (Anonymous 2023a). The street no longer exists as it was gradually overtaken by six existing warehouses owned by a governmental enterprise of alcohol spirits. Originally, these warehouses were used to distil and age sugar cane spirits, while today the warehouses are used mainly to store barrels and equipment as the distillery production moved to another location (Anonymous 2023a). From their appearance and neighbour comments, the warehouse site is rarely used, poorly maintained and in deteriorating conditions, and they pose a physical danger to the neighbourhood due to recurrent fire incidents which took place inside these buildings (Anonymous 2023a).



Photograph of the curved roof warehouses seen from the church's belvedere.

5.1.1. Typologies of Warehouses

The six existing warehouses are former distillery buildings which no longer serve their original function. These buildings represent the warehouse typology of the city's industrial past. However, many of these forgotten structures are currently being used throughout the city for parking and storage, or illegally occupied by squatters and gangs. The warehouse typology is categorised in two types:



Photograph of steel truss curved roof structure of the warehouse typology in the area.



Photograph of timber gable roof structure of the warehouse typology in the area.

- The first typology is the curved roof building, also known as 'tinglado'. This typology of warehouses is characterised by their concrete shell and long span steel truss structure that extends approximately 30 metres long spaced at 5 meters off centre. Three of these warehouses currently exist at the site in which one of them would be adapted for a theatre space.
- The other topology of warehouses is the gable roof timber framing structure that approximately spans 10 meters wide. These warehouses are long and narrow and can support high ceilings creating series of interconnected spaces underneath them. These warehouses are supported by 4 metres space columns that allow for an open adaptive reuse of their interior spaces while retaining the structure.



Project site plan with existing warehouse buildings and surroundings.

5.2. Intervening on the Site

The architectural intervention of this thesis encompasses a site strategy for retroactive cultural and public infrastructures for anticipated youth development and community growth, diverse programming targeting a variety of age groups and interests, through a contemporary adaptation of the industrial warehouses located in the neighbourhood of San Jerónimo.

5.2.1. Site Procession

The pedestrian street is the backbone of this thesis' public site. The street establishes a natural and prominent public entrance for pedestrians through a 70 meters long universal ramp that responds to the topography of the site by connecting Estrella Street with the Community Centre. Is an inviting gesture that creates an urban necklace of alternating public spaces and buildings which establish a new cultural and public destination closely connected to the neighbourhood. The street is an event-space for parades, processions, and the display of mural spaces painted by youths which enters directly into the heart of the site towards the plaza square, theatre, and the rest of the supporting indoor programmes. It's materiality is cast in place asphalt concrete for everyday pedestrian circulation and occasional vehicle transit.

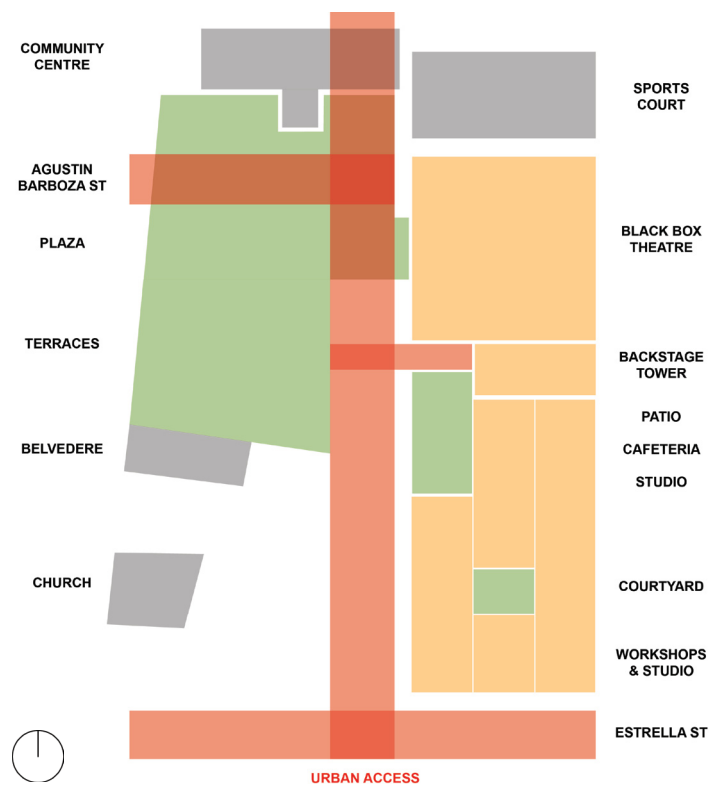


Diagram of proposed cultural and public space programmes and main circulation of the site.



Plan of the San Jerónimo neighbourhood highlighting the privacy of dwellings against the openness of the public site proposal. Scale 1:500.



North view of pedestrian street and mural wall from Estrella Street.

The mural space is an outdoor programme for mural painting to showcase the artistic abilities and skills of youths and develop their identity in a familiar context that relates to the existing murals of San Jerónimo. The mural space is an extension of the 'lieux de memoire' spaces found in the alleys and corridors of the neighbourhood.

Adjacent the pedestrian street, is the patio area. The patio is an outdoor space for social events that connect the kitchen and cafeteria amenities with nature and the public site. As a social space for youths and community visitors, is an open-air space which can be accessed from the pedestrian street, cafeteria and backstage lounge at Level 1 (1.0m). It responds to the topography by cutting it into the ground



South view of patio connecting the pedestrian street and cafeteria.

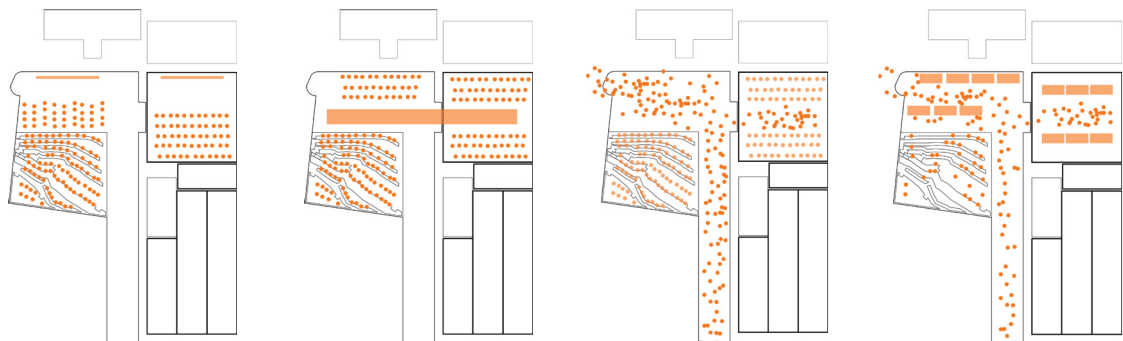
levelled with the cafeteria space and surrounded by two retaining walls thus creating a sense of privacy within the outdoor space. The ground is made of pavers and grass for trees that provide natural shading and privacy.



Plaza square during evening event.

At the bottom of the pedestrian street is the plaza square, the largest gathering space for youths, community members, visiting public, as well as the audience for performance events. The plaza square is a public space for spontaneous gatherings, outdoor shows, and street markets. During a performance evening, the square turns into a festive space through lights, ready to host a formal crowd and prepare the audience emotionally for the performances. It's location is levelled and interconnected with the adjacent theatre at Level 0 (0.0m - 60.0m above sea level), as well as the existing community centre and the rest of the neighbourhood. It is made of flat performance platforms and seating terraces that connect with the back of the existing church's belvedere with a series broken up steps and stairs. It's materiality is cast in place concrete, open air with trees for shading, and accessible to the community and visitors throughout the day.

These spaces are the retroactive infrastructures of an urban space characterised by public safety and community ownership of the public arena.



Diagrams of public space flexibility for multiple event uses of cinema, concert, theatre, processions, and street markets.



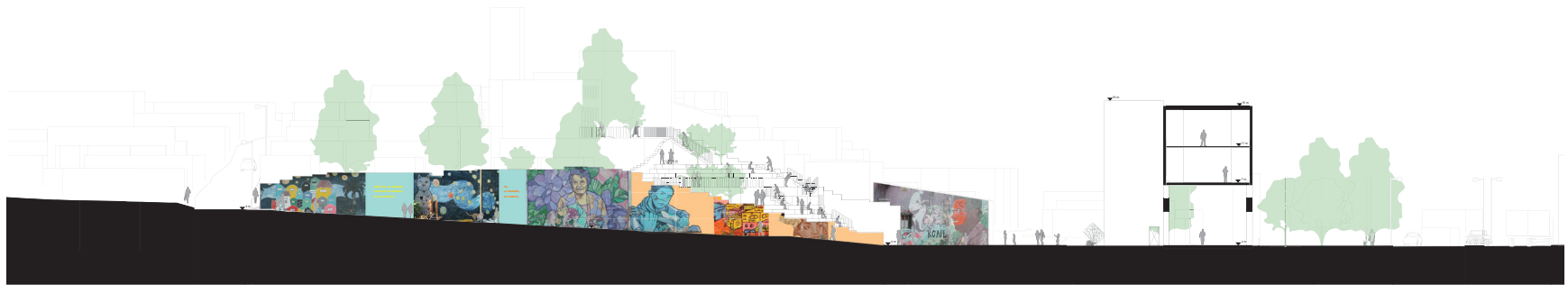
South view of the plaza square during daytime activities alongside the terrace seating, pedestrian street, and theatre from the existing Community Centre.



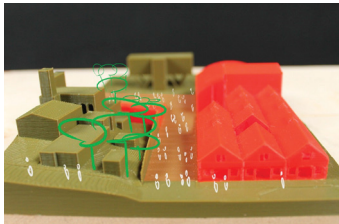
South view of the plaza square during nighttime activities alongside the terrace seating, pedestrian street, and theatre from the existing Community Centre.



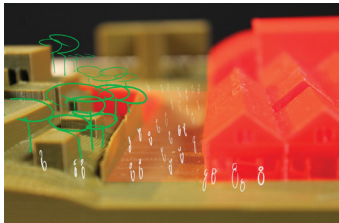
Site plan. Scale 1:200.



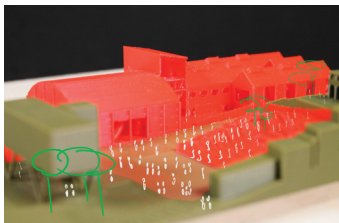
West section of the pedestrian street alongside the mural wall, plaza square, terraces, and church's belvedere, and existing Community Centre.
Scale 1:200



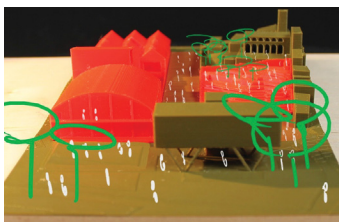
View of south elevation.



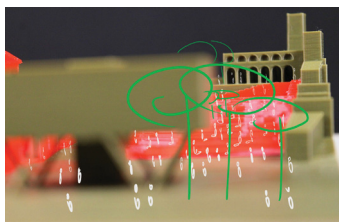
View of south elevation.



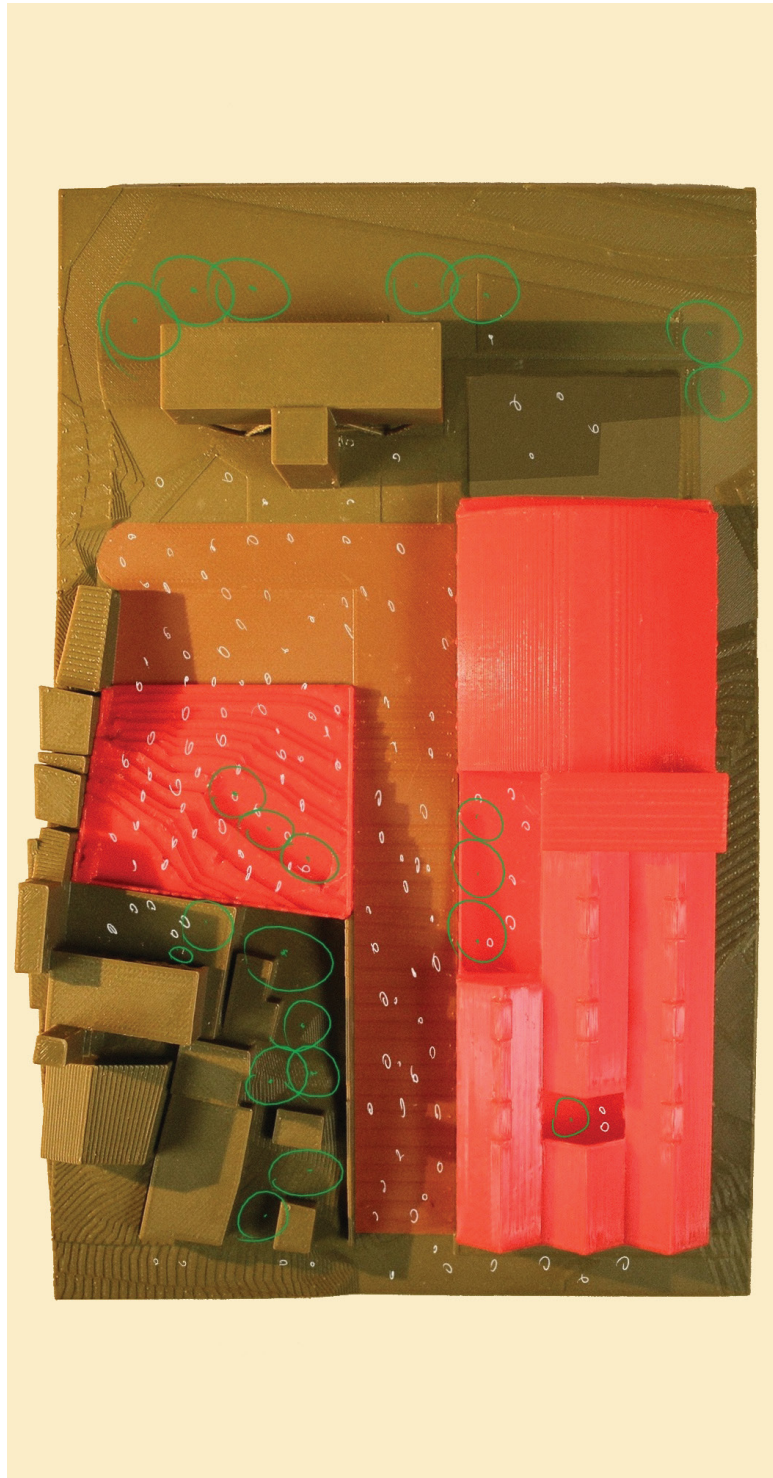
View of northwest elevation.



View of north elevation.



View of north elevation.



Site plan model highlighting the urban site and adaptive reuse of project proposal (red) and existing context (green). Scale 1:200.

5.2.2. Warehouses Adaptation

The first adaptation of the warehouses is the conversion of the large curved roof warehouse into a theatre. The theatre is the covered performance space for youths to showcase their cultural art talent in a central space for cultural retroactive infrastructures enabling community participation in the development of youth programmes. It's a theatre for 240 people that provides flexible seating and stage layout. Its flexible layout with removable seating allows this theatre to be used in a variety of future scenarios as a multipurpose event and gathering space. Supported by public toilets and change rooms for performers, technical rooms, and storage for retractable seating. The overall dimensions are 30 by 30 metres and accessible through the plaza square at Level 0 (0.0m) through large door openings, thus becoming an extension of the public performances and events. Internally is accessed from the backstage lounge through a ramp which connects through an exit to the sports court. It's



View of theatre during a community performance event.

exterior materiality is an opaque brick cladding to protect the exterior envelope of the theatre from weather and openings with interior plaster walls on the existing concrete, dark painted to meet the standards of a theatre. Artificial lighting is used for performances alongside technical equipment and natural ventilation through door openings.

The Backstage Tower

The backstage tower is the only vertical structure of the warehouse adaptation that is converted to accommodate the programmes focused on the support of youth development: a study area, counselling offices, a music studio, and a ground floor backstage lounge.

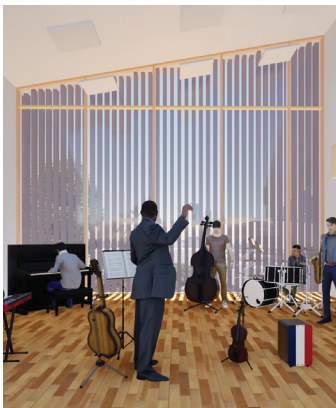
Located on Level 1 (1.0m), the backstage lounge is a place for youths to relax and hang out before a performance show. It's also a space for them to dwell during the day and a place to socialise, play games and make friendships. The backstage is the transition point between the theatre, outdoor spaces, upper floors support spaces and cafeteria. It is additionally accessed through elevators and exit stairs. It contains furniture such as couches, lounge chairs and ping pong tables.

Overlooking the backstage lounge is the backstage mezzanine and study area. The mezzanine's space layout is designed after the 'cell' category type and is an acquired space designed to be a study space for youths when they're concentrated on their schoolwork or tutoring hours.

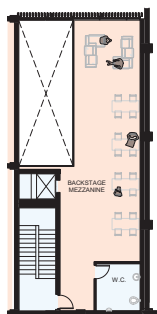
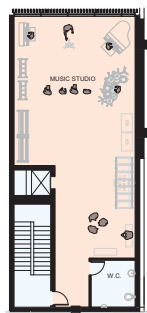
A level above the mezzanine study area are the offices for staff members who are responsible for counselling, supporting, and monitoring the progress of youth development in the community. Under the 'club' layout configuration, these



West view of the backstage tower.



View of music studio during musical practice.



Floor plans of backstage mezzanine at Level 3, office rooms at Level 4, and music studio at Level 5 (bottom to top). Scale 1:100.

spaces encourage intimate interaction in an often quiet environment.

At the top floor, a music studio is part of the cultural infrastructure programme where youths learn music, play instruments, and rehearse for musical performances. The provided space for a music studio of a band or an orchestra far exceeds the minimum requirements of a music studio. The studio is 5.0 metres from floor to ceiling, with acoustic panels on ceilings, walls, and absorbs natural lighting from the bris-soleil west facade.

The rehearsal studio is the space where theatre and dance rehearsals, choreographies and sets take place. The studio is visually connected through a large perforated brick wall, high round windows and naturally lit with roof skylights. It is 8 metres floor to ceiling tall and spatially matches the floor dimensions of the theatre stage rectangular dimensions. It is accessed from the cafeteria at Level 1 and the back corridor exit which connects to showers for post-rehearsals. The room has sprung floors made with wood laminate, and mirrors on the wall with top natural lighting from round skylights.

Adjacent is the cafeteria as the central space for social gatherings, meal breaks and food preparations. Connected with the patio, these spaces offer infinite possibilities for get-togethers and spontaneous exchange. The cafeteria connects the backstage lounge and rehearsal studio at Level 1 with the exhibition room at Level 2 (4.0m) through an open staircase.

Located on Level 2, the exhibition room is an educative space for lectures, seminars or guest speakers to deliver presentations and a space for youths to exhibit their work



View of rehearsal studio during dance choreography.

internally. It's a flexible open space partially enclosed for pinup walls and removable seating and partitions. In addition to being accessed from the cafeteria, it is also accessed from the adjacent central courtyard, workshop, front and art studio.

The courtyard is located at the heart of the art studio and workshop. Is an internal outdoor space that connects the youths to nature through dynamic and diverse exchanges while allowing natural lighting into the core of the long and narrow warehouses. The intervention consisted of partially removing eight by ten metres of existing roof without affecting the existing structure of the warehouses. The roof was removed to allow natural daylight at the heart of



View of cafeteria during lunch break.



Level 1 floor plan. Scale 1:100.

the warehouses and youth development spaces. Due to its central location the courtyard is visually connected with every room and can be accessed from any point inside the warehouses. Its materiality is made with glass for transparency and natural lighting and framed with wood mullions to relate to the timber trusses of the adapted warehouses.

The art studio and workshop are the backbone programmes of youth development. These spaces run the entire length of the long and narrow warehouses at Level 2, and are conceived as a network of youth activity spaces within the site.

The art studio is a learning space for the visual arts focusing on painting, sculpting, ceramics, and exploration of mixed materials. Designed to be a 'hive' space characterised by individual and process work that has personal levels



View of courtyard located in between workshop, art and exhibition rooms.

of interaction and high autonomy, allowing sharing of knowledge and ideas. The studio has direct and convenient access to Estrella Street the storage and shower levels below. The interior of the studio is white painted walls with top natural lighting from rectangular skylights.

Opposite the art room, the workshop is a maker space equipped with all necessary workshop and support tools for learning basic skills and trades such as wood-working, casting, fixing instruments, costume making for performances, and other high-tech equipment such as laser-

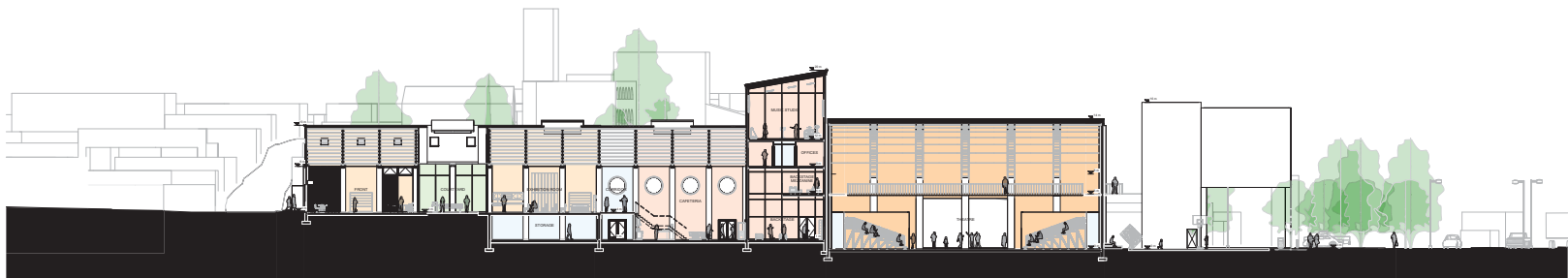
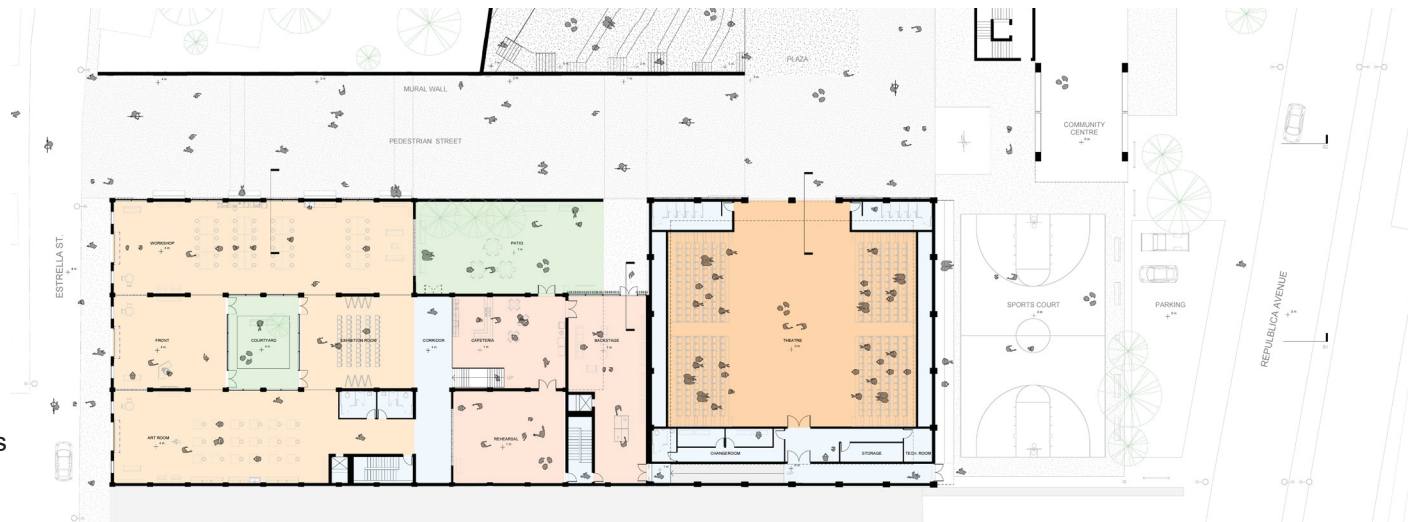


View of art studio during learning session.

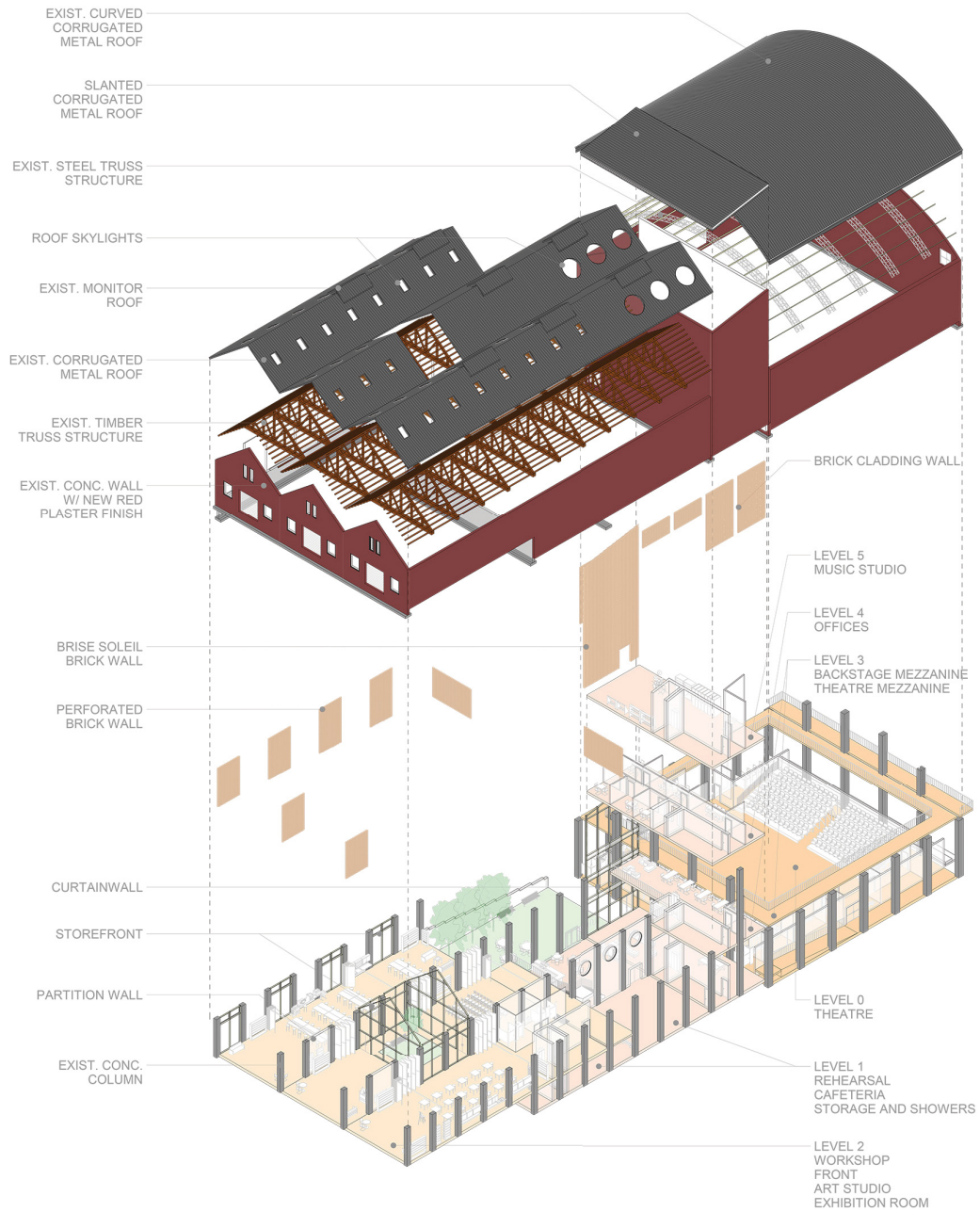


Room Legend

- Level 2 (4.0m)
- Workshop
- Front
- Art Room
- Exhibition Room
- Level 1 (1.0m)
- Cafeteria
- Rehearsal
- Backstage Lounge
- Level 0 (0.0m)
- Theatre
- Circulation/Services
- Patio/Courtyard



Floor plan of Level 2, Level 1, and Level 0; Building section. Scale 1:200.



Exploded axonometric diagram of warehouse buildings adaptive reuse. Scale - 1:200.

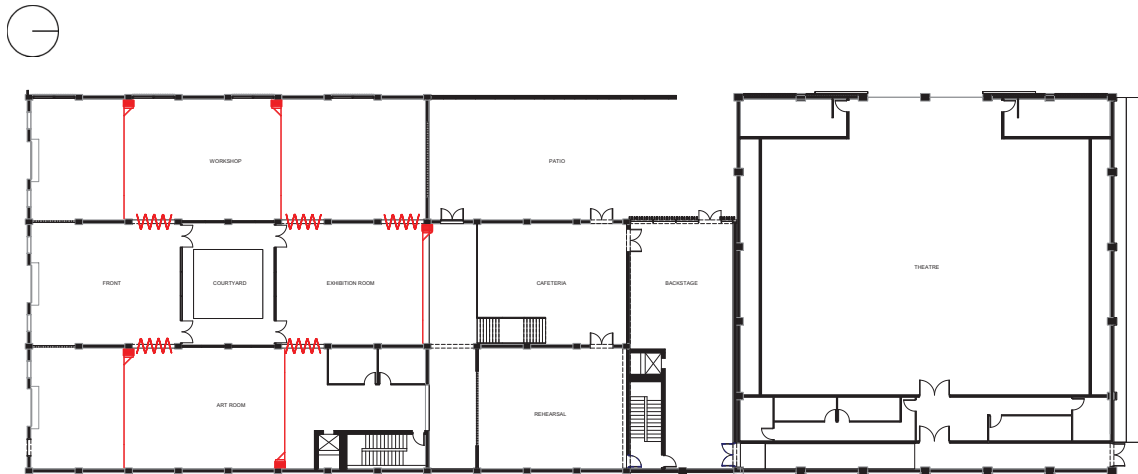


Diagram of floor plan highlighting the flexibility of interior spaces with folding walls (red) within the open spaces of the adapted warehouses.

cutting, CNC machines, 3D printers, and any school related crafts. The work space areas are large and organised to be a 'den' for highly interactive, often noisy work. Modular partition walls give the flexibility for different uses for the space. This space is naturally ventilated and illuminated with perforated brick walls that allow air and light to come through the wall while maintaining the translucency of the interior space with privacy.



View of workshop room during programme activities.

5.2.3. Facade System

The application of facade systems responds to the varied needs of programmes, natural orientation of the site, and existing Community Centre by providing natural lighting and ventilation to the warehouse buildings as well as privacy to youth users. As a readily available local material, clay brick masonry is a material that addresses each of these demands in through the varied applications of perforated brick wall, brise-soleil, and cladding.

Perforated Brick Wall

Perforated brick wall is used mainly in the workshop west facade to create a relationship between the interior and exterior environment. The system is composed of:

- (1) Self-standing clay masonry bricks of 230x120x10mm dimensions, mortar joined and spaced at 150mm off centre.
- (2) Glass sliding door to protect the interiors from weather.
- (3) Concrete floor finish beyond.

This application filters sunlight and allows natural ventilation and aesthetically acts as a translucent lace type of wall. Perforated walls also provide the necessary privacy for

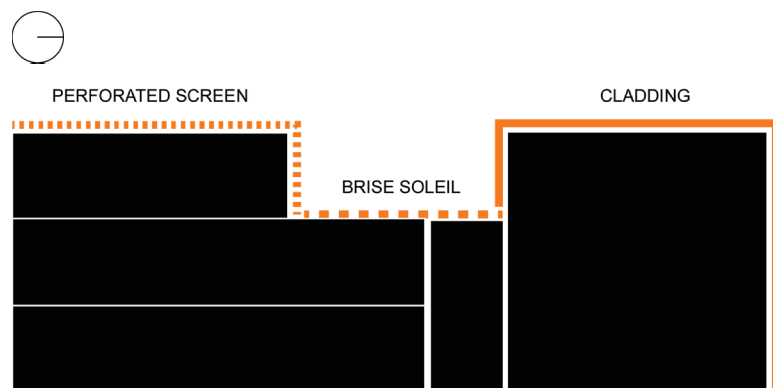
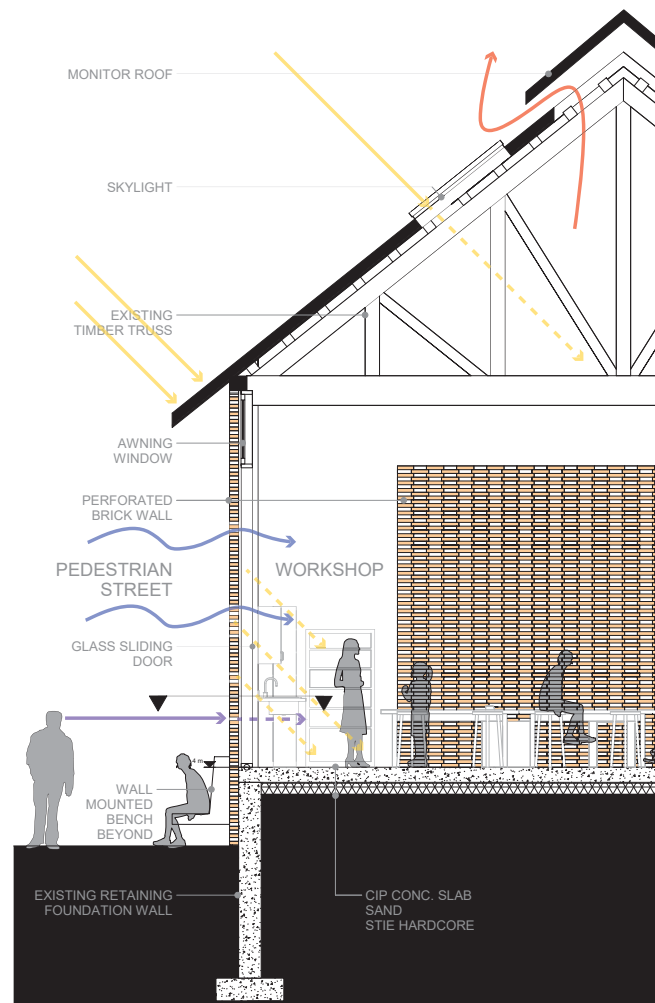


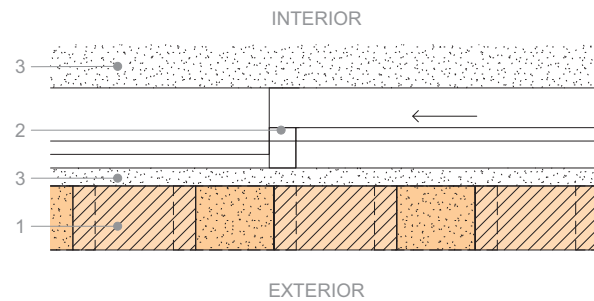
Diagram of warehouse's west sun exposure and facade system applications.



West view of workshop and perforated screen wall from pedestrian street.



Section detail of perforated screen wall achieving natural lighting, air ventilation, and privacy. Scale 1:25.



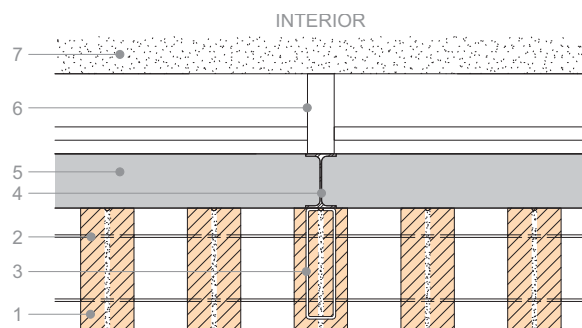
Plan detail of perforated screen wall. Scale 1:5.

youth spaces, while connecting the youths visually to their exterior surroundings. These walls also act as interior space dividers without fully enclosing a room, thus allowing light to penetrate through spaces.

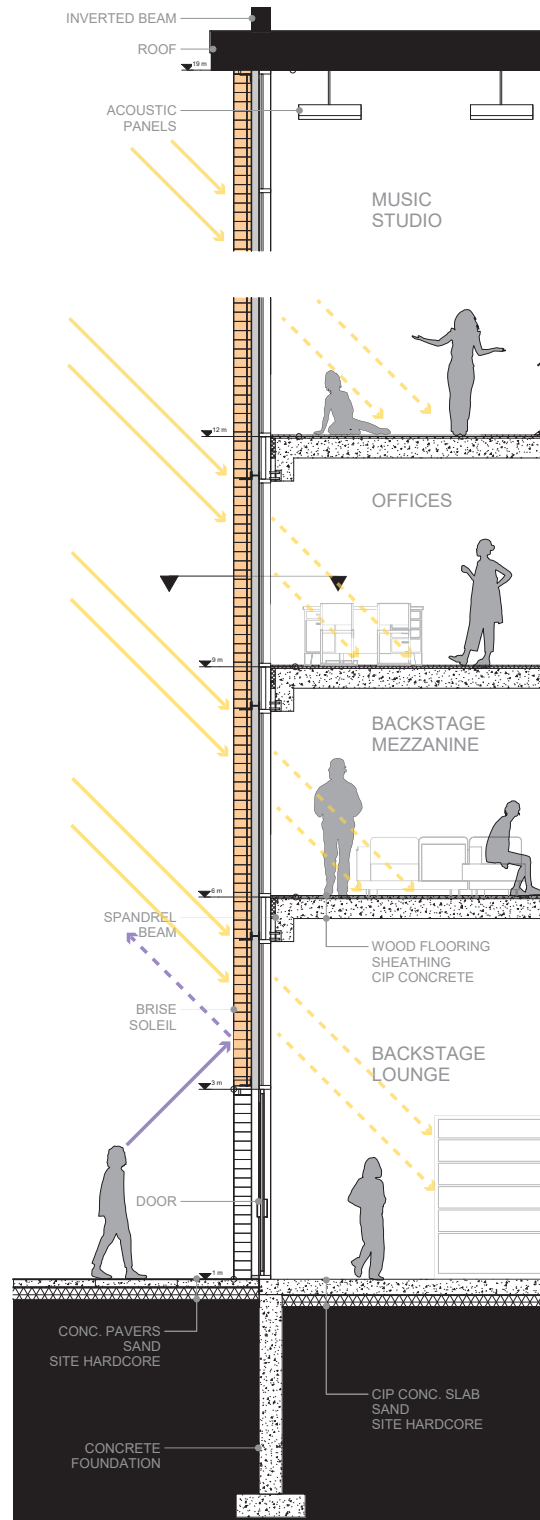
Brise-Soleil Brick Wall

The main purpose of a brise-soleil facade system is to reduce heat gain within a structure by deflecting direct sunlight. The system is composed of:

- (1) 2 brick stacked unit of 100x230x120mm dimension, spaced at 100mm off centre.
- (2) 2 horizontal pencil rods, galvanised.
- (3) Rectangular steel tie, galvanised.
- (4) Vertical w-flange steel column.
- (5) Horizontal w-flange steel beam.
- (6) Curtain-wall.
- (7) Concrete floor beyond.



Plan detail of brise-soleil wall. Scale 1:5.



View of the brise-soleil facade from backstage lounge.

Section detail of brise-soleil wall achieving heat reduction from sun, natural lighting, and privacy. Scale 1:25.

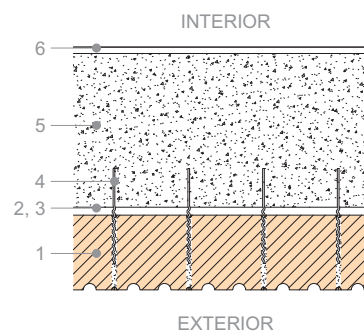
The backstage tower is the tallest structure in the site, and therefore very exposed to direct sunlight without shade protection from adjacent buildings or trees. By just not reducing heat gain from the interiors, this facade allows the penetration of natural daylight through the spaces, minimising the need for artificial lighting and also achieving the need of privacy through its multiple stories.

Brick Cladding

Brick cladding on the largest building, the theatre, achieves complete enclosure and opacity from the exteriors, while protecting the existing warehouse structure from weather erosion. Its is mainly composed off hand-broken bricks of:

- (1) 140x60mm dimension.
- (2) Air gap of 40mm.
- (3) Vapour barrier.
- (4) Helical ties, galvanised.
- (5) Existing concrete wall.
- (6) Plasterboard, black finish.

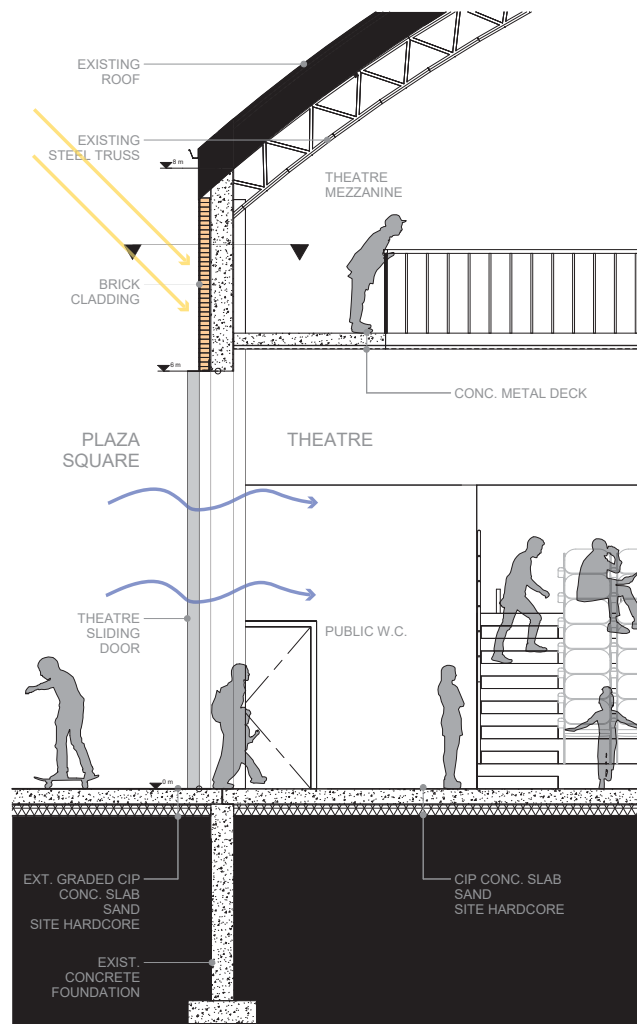
As a fully enclosed building facade, hand-broken bricks is an economical approach to cost-reduction in materials, that not only gives a unique pattern on the cladding, but also respects the adjacency of the Community Centre, and the rest of the site by becoming an enclosure that has texture and depth.



Plan detail of brick cladding wall. Scale 1:5.



West view of theatre and brick cladding wall from bottom of pedestrian street and plaza square.



Section detail of brick cladding wall achieving sun protection, and air ventilation. Scale 1:25.

Chapter 6: Conclusion

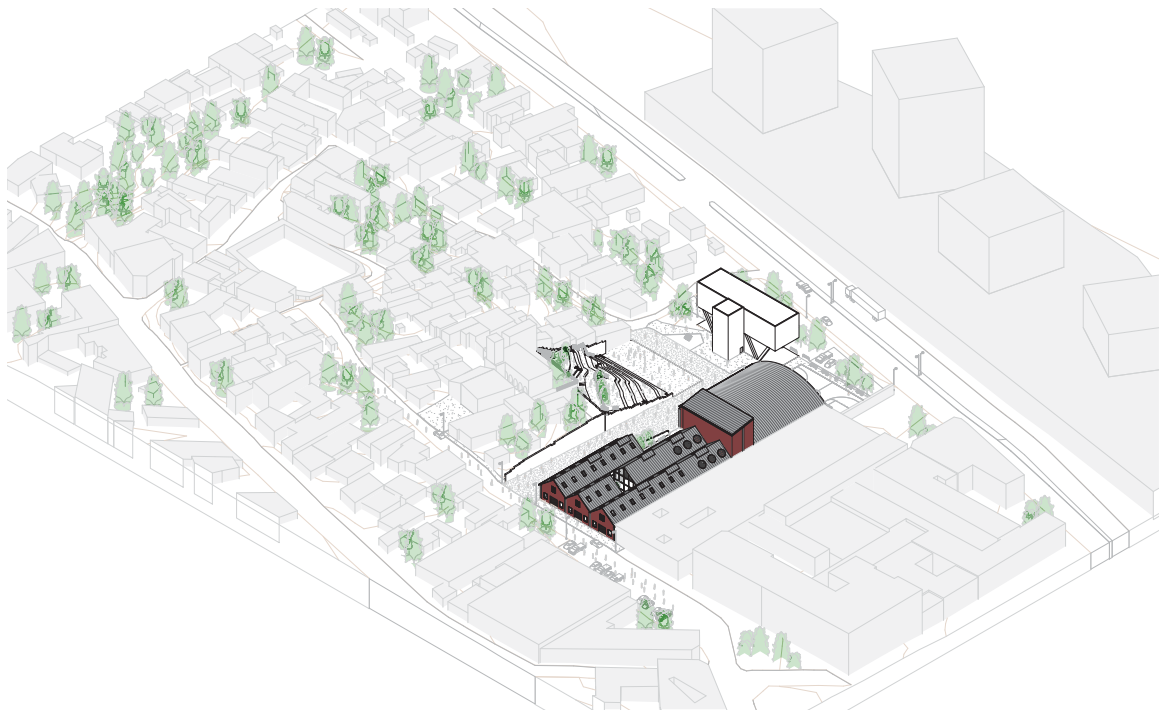
This thesis began with the identification of the problem of delinquency amongst youths and the unexplored possibilities of a community's cultural and public infrastructures to solve it. At the conclusion of this project, the proposal provides a clear picture of the impact of youth delinquency on small communities such as San Jerónimo in large cities such as Asunción. The proposal develops a positive outlook of the opportunities available through retroactive cultural and public infrastructures to give the youths and community of San Jerónimo a promising future through public spaces and cultural arts programmes. The proposal presents a pragmatic and programmatic use of public spaces to help achieve safety and ownership in small communities. And finally, the proposal demonstrates a clear framework for the interpretation and regeneration of cultural and public infrastructures for communities that strive to provide a better future for their youths.

There are four design goals for this thesis project to enable retroactive methods to address issues of youth delinquency by regenerating cultural and public infrastructures in the neighbourhood of San Jerónimo. They are:

1. Programmes supportive of youth development.
2. An urban site for community engagement.
3. Transform warehouse site into contemporary spaces.
4. Facade systems for natural lighting, ventilation, and privacy.

This thesis demonstrates a clear framework for the use of a retroactive infrastructure focus on cultural arts alongside

public spaces, to create and contribute to community change by restoring a sense of belonging for youths and the spatial dignity of the community. The architectural intervention in this thesis draws on the neighbourhood's history of festivals, murals, poetry, music, and art and regenerates them as retroactive cultural and public infrastructures that through time not only changes the young generation, but the community at large. In the long run, these retroactive programmes reconnect the youths with their community, as well as rest of the city, by giving them opportunities for a better future reflected in the creation of small businesses, where residents paint their homes and sidewalks, and collectively working towards the beautification of their lives and their entire neighbourhood.



Aerial perspective of the San Jerónimo neighbourhood transformed through retroactive cultural and public infrastructures.

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