UNIVERSIDADE FEDERAL DA INTEGRAÇÃO LATINO AMERICANA
ARCHITECTURE AND URBAN PLANNING COURSE
FINAL PROJECT

A PROPOSAL FOR PUBLIC SQUARES IN GHANA AS A CATALYST FOR SOCIAL AND URBAN DEVELOPMENT: CASE STUDY IN TEPA

STUDENT: GILBERT FORDJOUR APPIAH

SUPERVISOR: JULIANA RAMMÉ

CO-SUPERVISOR: FABIANA FELIX DO AMARAL E SILVA.

2025

ACKNOWLEDGEMENTS

Recognitions on the Journey of Dreams

First, I would like to express my deepest gratitude to God for granting me health and determination, allowing me to persevere throughout the course and the development of this project. I am immensely grateful to my mother, Mrs. Olivia Manu, whose unconditional love and support were fundamental to my academic journey. Even though we haven't lived together since I was six years old, she has always believed in me and guided me. Her life is the reason for my existence in this world. Although I cannot recover the lost years, I am sure that we will build even more valuable memories together.

I would like to thank my grandmother, Maame Ama Serwah, the queen of the family, for her prayers and advice during difficult times. She is a source of storytelling and motivation whenever I call her.

How could I be discouraged after receiving such encouragement? I am also grateful to my sister, Deborah Serwah, Aunt Janet and her husband David, Aunt Gladys and her husband, and my stepfather, Mr. Yeboah, who has been an inexhaustible source of energy on my journey. My gratitude to my girlfriend Joyce, my haven of peace when my world is in turmoil, and Trevor, my brother for life. Thank you for being my greatest role model in the academic world.

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Furthermore, I dedicate this work to the children of the King Jesus orphanage in Tepa, Ghana, who have deeply inspired me. Their smiles, hopes, and resilience were the driving force behind my creation of a space that welcomes them and fosters the development of their neighborhood and country as a whole.

My motivation stems from personal curiosity and my strong love for cultural diversity. I grew up learning and believing that Europeans/Americans were the best, that the Western world was superior to ours, and that they were more capable than we were. That's what I grew accustomed to, but today, after visiting two continents besides Africa, I've realized that many great achievements have their roots in Africa and that we have the potential to be a continent capable of anything. That my country is also one of the best in the world. I want to be an example, a prototype for young people. My society, as well as Francis Kéré, has been a great inspiration to me, showing that we are capable by merging our traditional methods and materials with those of the Western world. I had the opportunity to work with children in orphanages. I saw a lot of potential in them, but they need an environment that fosters the growth of their talent, strength, and skills. I don't see much difference between us because they come from the same society as me and go through the same teachings as me.

I believe we don't need to rely solely on governments or wait for the Western world to come to our rescue. We are capable of making positive changes in our communities.

SUMMARY

This research proposes the introduction of public squares in Ghana as a strategy to promote social and urban development in contexts marked by the absence of accessible and inclusive public spaces. Based on a historical understanding of urban occupation in Ghana—from traditional settlement patterns to the transformations brought about by colonialism and the post-independence period—the study investigates how the implementation of well-designed squares can strengthen social cohesion, foster community engagement, and reinforce local identity.

The methodology adopted includes a literature review, a comparative analysis with successful examples of public squares in Latin America—especially in Brazil—and a case study conducted at the King Jesus orphanage, located in the city of Tepa. The research culminates in the architectural proposal for Nkwa Square: a multifunctional square that integrates contemporary urban design principles with traditional Ghanaian cultural values, prioritizing accessibility, sustainability, and the collective use of urban space.

By reimagining the role of public spaces, this work seeks to contribute to inclusive urban planning in Ghana, offering a replicable model for urban and peri-urban areas in the country.

Keywords: public squares; urban development; Ghana; public space; social architecture; Tepa.

Gye Nyame
God's Omnipotence and Immortality

ABSTRACTO

In many Ghanaian urban and peri-urban contexts, the lack of accessible, inclusive, and well-designed public spaces poses a significant challenge to community life and urban cohesion. This research proposes the strategic integration of public squares across Ghana to foster social development, strengthen community engagement, and reinforce local cultural identity. Grounded in a historical analysis of Ghanaian settlement patterns—tracing spatial transformations from traditional communal setups through colonial disruptions to the post-independence era—the study examines how public squares can serve as catalysts for civic life.

The methodology combines an extensive literature review, a comparative spatial analysis with successful Latin American public square models (with a primary focus on Brazilian urbanism), and a localized case study conducted at the King Jesus Orphanage in Tepa. Synthesizing these insights, the research culminates in the architectural design of Nkwa Square: a multifunctional, sustainable, and accessible public space that weaves contemporary urban design principles with traditional Ghanaian socio-cultural values. Ultimately, this work offers a visionary yet replicable framework for inclusive urban planning in Ghana, redefining the role of civic spaces in strengthening the social fabric of evolving African cities.

Keywords: Urban Planning, Public Space, Ghanaian Architecture, Social Cohesion, Nkwa Square, Civic Infrastructure.

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PROF.ª DR.ª JULIANA RAMMÉ, CO-SUPERVISOR: FABIANA FELIX DO AMARAL E SILVA
GILBERT FORDJOUR APPIAH

NYANSAPO

SUMMARY

Nyansapo:
"Intelligence, Ingenuity, and Patience"

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SUMMARY

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1.0 INTRODUCTION

"What if we can make a change?

What if there is no "if" and the change is not to replace but to improve?

Then we are the change, I say. "

Gilbert Fordjour Appiah.

"What if we could make a change?"

What if there is no "what if," and the change is not to replace, but to improve?

So we are the change, I say.

Gilbert Fordjour Appiah

Sankofa:

"To return in order to acquire knowledge and wisdom from the past."

This research aims to investigate the concept of public squares as fundamental elements of urban design, analyzing their potential to strengthen social interaction, stimulate community engagement, and contribute to the sustainable development of urban spaces in Ghana. Throughout history, squares have played a central role in urban contexts, acting as multifunctional spaces where citizens gather, interact, and participate in cultural, political, and recreational activities.

This study proposes a contextualized adaptation of this concept to the Ghanaian sociocultural reality, examining the opportunities and challenges associated with incorporating public squares into the country's urban planning structure.

This research aims to demonstrate how the creation of well-designed plazas can address the current lack of accessible and inclusive public spaces in Ghanaian cities, thereby promoting social cohesion and improving the quality of urban life.

Furthermore, the work will be based on case studies of successful public squares in other parts of the world, with emphasis on Brazil and other European countries, where the square constitutes an essential element of community life. The aim is to extract lessons that can be adapted to the specific urban and socioeconomic context of Ghana, valuing local identity, fostering economic activities and supporting sustainable urban growth.

The research will culminate in the proposal of a public square model that simultaneously reflects the traditional Ghanaian community spirit and contemporary urban design principles. The proposal will initially focus on implementation in strategic urban and peri-urban areas, with particular emphasis on the square designed for an orphanage (King Jesus Orphanage -Tepa), chosen as the main case study.

1.1 THEME

This final course project aims to explore the concept of public squares as essential elements in the urban design of contemporary cities and their potential to improve social interaction, promote community engagement, and contribute to the sustainable development of urban spaces. Therefore, this work aims to focus on the development of a plaza in the city of Tepa, located in western Kumasi.

to serve as a pilot project to enrich the debate on the importance of public squares in Ghana.

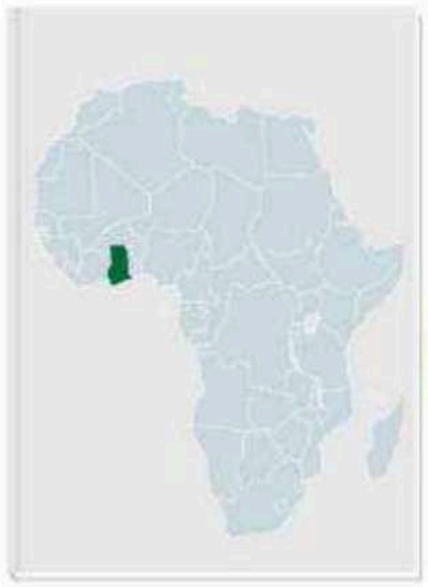
Figures 1 through 5 show the path to find Ghana on the map, as well as the path.

To find the map of Tepa in Ghana. Starting in Ghana on the African map, and going to Ghana and its regions, up to the Ahafo Ano Norte region in the Ashanti region.

According to Gehl (2011), public squares are "spaces where people can gather to socialize and develop community interactions." They play an essential role in stimulating social interaction and community cohesion, providing environments that promote leisure and interaction among citizens. Squares offer opportunities for recreational and cultural activities, as well as being places where the community can collectively express their cultural and social identity.

Reference: Gehl, J. (2011). Cities for People. Washington, DC: Island Press.

Figure 1: MAP OF Location of Ghana (Africa)



Source: Gratispng, 2025.

Figure 2. Map of Ghana with its 16 regions.

Source: Google: Ghana mission UN, 2025.

Figure 3. Identifying the Ashanti region on the map of Ghana.

Source: Sascha Laessig, 2025.

Figure 4. Map of the Ashanti region and its districts.

Source: Graphic online, 2025.

Figure 5. Map of Ahafo Ano district North

Source: Graphic online, 2025.

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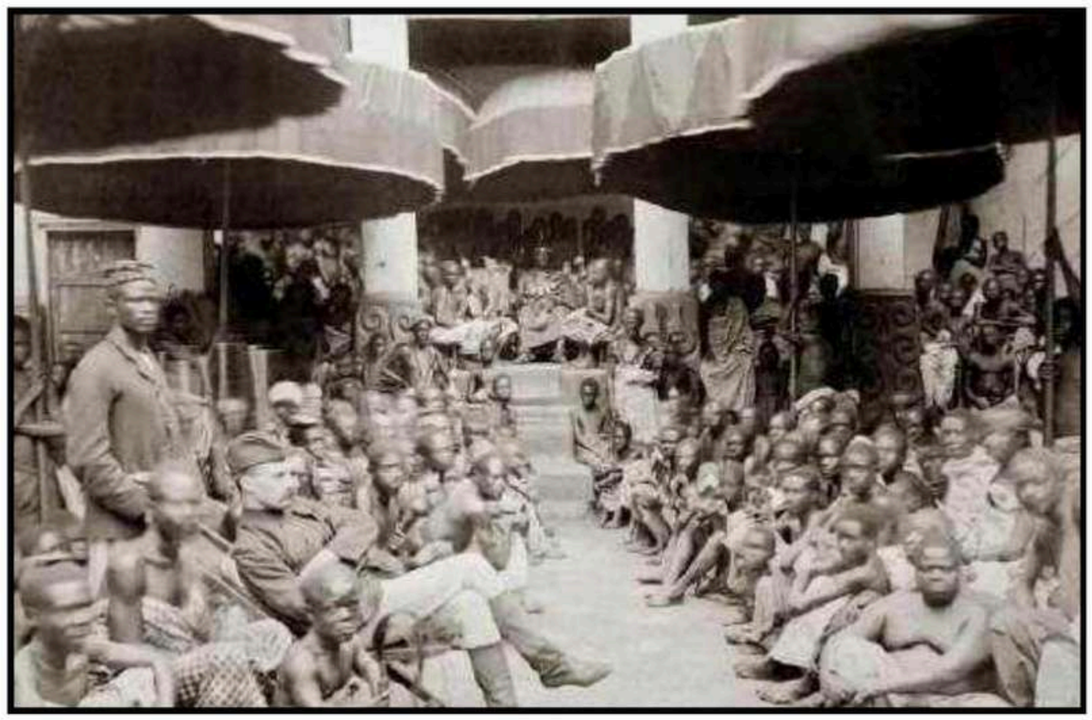
1.2 PROBLEM

The normalization of the absence of dedicated public spaces in Ghana makes it difficult to hinder the development of inclusive environments that support community well-being. Although neighborhoods often rely on open-space fields, multifunctional spaces for social and cultural activities, these areas lack the infrastructure and design necessary to fully meet the various community needs.

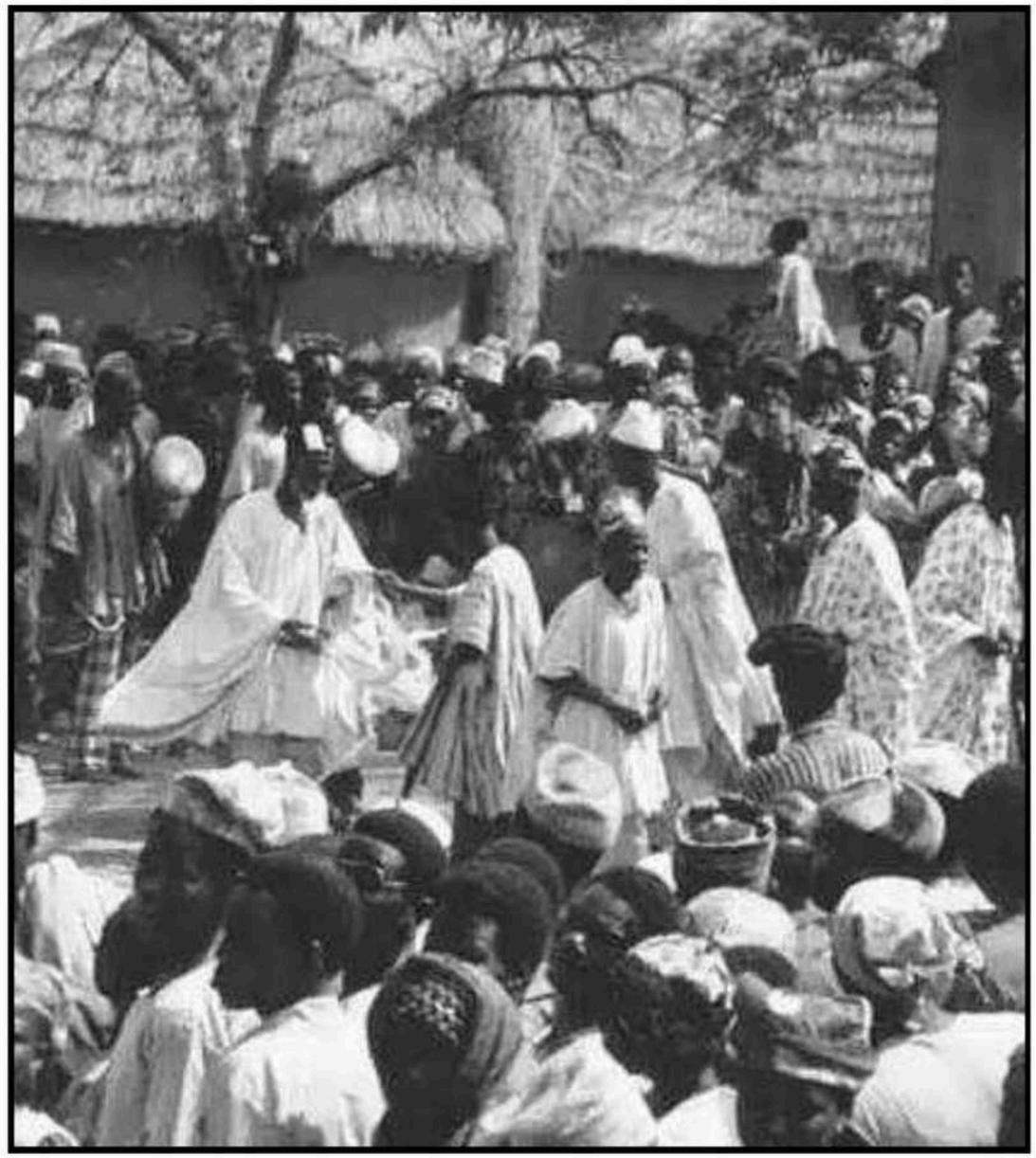
Public squares have traditionally been vital to urban life, functioning as multifunctional spaces where citizens gather, interact, and participate in cultural, political, and recreational activities. In addition, these spaces offer experiences accessible to individuals of all ages, as evidenced in Figures 05 and 06. Illustrated, showing the Akwasidae Festival Celebration, held every six weeks in the Ashanti Region. This festival is a public durbar of the chiefs.

Figure 5 shows an important palace meeting in the Ashanti Kingdom. The British delegation visited Otumfuo Kwaku Duah II in June 1884.



Source: AFRICAN LEADSERS MAGAZINE, 2025

FIGURE 06: TRADITIONAL MEETINGS - OPEN FIELDS MULTIFUNCTIONAL.



Source: AFRICAN LEADSERS MAGAZINE, 2025

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Figure 07 shows the celebration of the "Adae Kese" festival. Held during the last Akwasidae of the year in the Ashanti region, this festival is a public durbar of the chiefs. It marks the beginning of a new year. In the Asante calendar, it is a time to reaffirm the authority of the Asantehene (King of Ashanti), the monarch of the Ashanti people.

It is a time for chiefs and people to purify themselves through traditional rites. "Akwasidae" refers to any regular Sunday celebration within the Adae festival cycle.

FIGURE 07: TRADITIONAL MEETINGS -MULTIFUNCTIONAL OPEN FIELDS.

Source: AFRICAN LEADSERS MAGAZINE, 2025.

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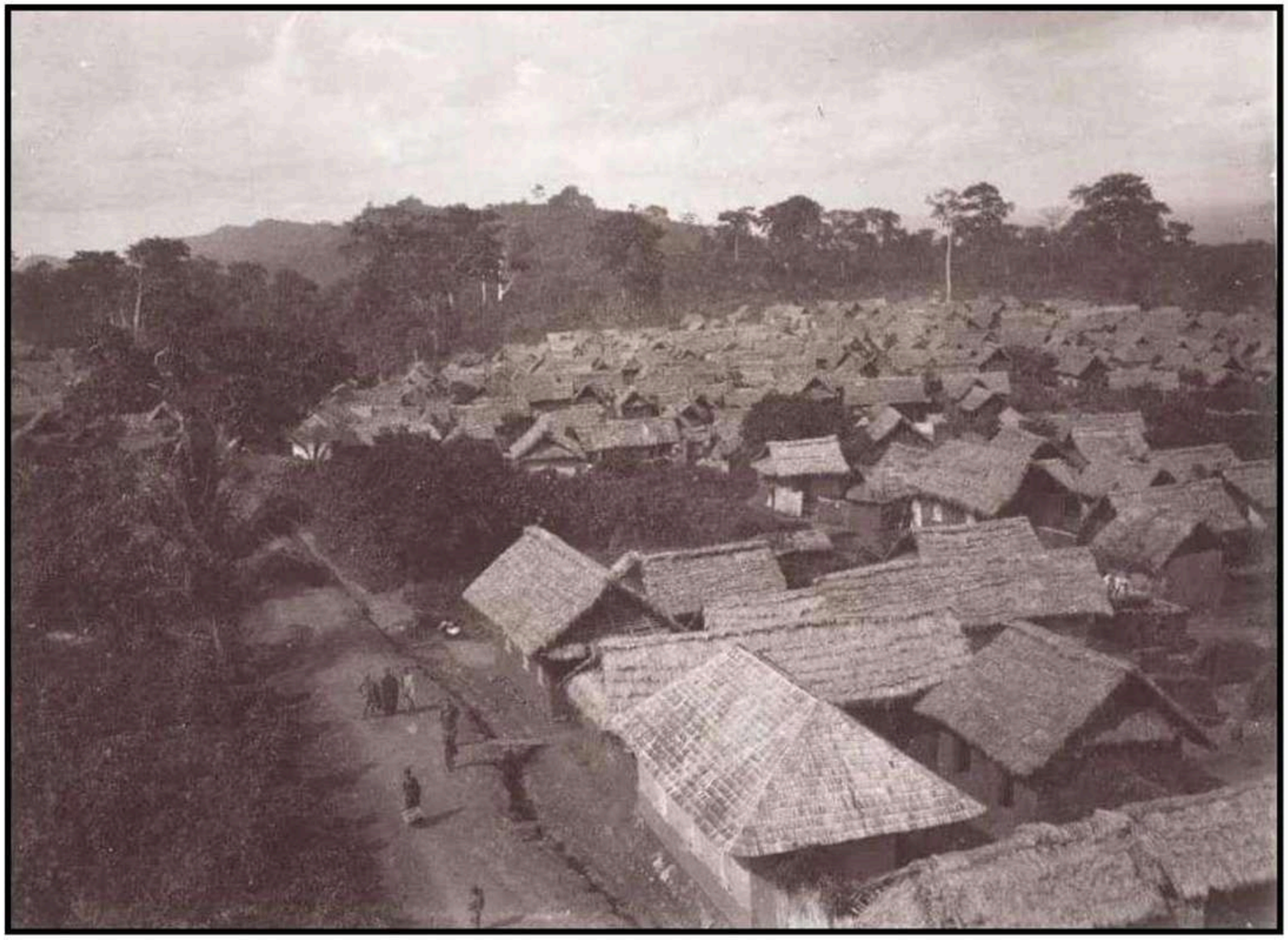
Ghanaian settlement patterns are deeply rooted in historical and cultural traditions. Early Ghanaian settlements were characterized by circular layouts, where the head of the family built a central house and other family members built their homes around it, as shown in Figure 08. This arrangement created a communal courtyard at the center, serving as a space for recreation and gathering. Such spatial organization reflected the values of kinship and community that were integral to traditional Ghanaian society.

Figure 08: Avillage in Kumasi - ASANTE PRE-COLONIAL SETTLEMENT.



Source: AFRICAN LEADSERS MAGAZINE, 2025.

During the colonial period, although it led to social class segregation, European administrators—impressed by this indigenous architectural ingenuity—adapted similar designs, as shown in Figure 8. Colonial buildings often featured courtyards or central patios, mirroring the communal spaces found in Ghanaian settlements. Despite this integration, urbanization and population growth significantly altered traditional settlement patterns, leading to a decline in the availability of communal spaces.

According to urban planners who conducted research on environmental planning, "The results showed significant changes in land zoned for parks, primarily due to land ownership and management policies, as well as other social factors" (Santos et al., 2022, p. 10). These open spaces, commonly referred to as parks, serve as venues for funerals, local ceremonial gatherings, and various recreational activities. When not occupied by large-scale events, these areas function as open fields where boys frequently play soccer. However, this dynamic results in the exclusion of girls, as they lack access to spaces that do not naturally welcome them. This reality is also present in Tepa, Ghana, the location selected for this study.

12 JUSTIFICATION

Sometimes, projects become more than just projects; they become something personal, a form of identity and belonging. That's what this project means to me.

I have lived most of my life in the Ashanti region of Ghana, and, in my view, the way the population uses public spaces is concerning. Aside from major ceremonies or events, these spaces are primarily used by boys—often turning into soccer fields—thereby excluding girls, women, and the elderly, as illustrated in Figures 09 and 10.

By providing infrastructure for exercise, social interaction, and recreational activities, these spaces can improve physical health, foster social connections, and create vibrant hubs for cultural exchange, thereby addressing key socio-environmental challenges in Ghana and the needs of the elderly within these spaces.

My first impression of a public square stirred something in me, but it was only when I started taking Landscape courses at UNILA, this circumstance. It triggered a deep reflection and questioning about my role in the field of architecture and urban planning. It was at that moment that I realized the importance of my contribution to the development of my community, as well as my responsibility. to promote exemplary environmental practices that give value and identity to the local population.

The goal has the potential to challenge the prevailing paradigm that public spaces

Open mouths are predominantly used by men when they are not engaged in...

Recreational activities. It seeks to promote inclusion by encouraging the active participation of children. girls, women, and elderly people in these spaces.

Figure 9: Children playing in a park.

Source: Citi news room, 2025

Figure 10: Boys use the open space to play football.

Source: Citi news room, 2025

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2.1 OBJECTIVES

The objective of this final project is to develop apreliminary plan for the implementation of a
Public square next to the King Jesus orphanage in Tepa, Ghana. With emphasis on community and traditional values and principles, contemporary landscape designers. Drawing on examples from Brazil and European countries, the study aims to demonstrate how these multifunctional open spaces, which have historically connected people can inspire the creation of similar spaces in Ghana.

2.2 SPECIFIC OBJECTIVES

a) Read books and articles to explore concepts regarding public squares and their relevance to contemporary urban design.

b) Analyze case studies of similar and dissimilar public square projects that foster social interaction, community engagement, and sustainability to serve as project references.

c) Investigate the background of Ghana, including cultural, social, and urban aspects, to understand the local context and specific requirements.

d) Conduct a physical-environmental survey of the study area to identify site characteristics and challenges to be considered during project development.

e) Formulate the concept and guidelines that will steer the development of the public square project.

2.3 METHODOLOGY

This work will be carried out in four stages, the first consisting of a literature review and the structuring of the project. Research will be conducted using databases such as Google Scholar, interviews, and reference materials such as laws, books, and articles.

The second stage involves fieldwork aimed at data collection. This will be achieved through the use of maps and site visits conducted by colleagues residing in Tepa, constituting the fieldwork component.
Following the study and understanding of the area, it will be possible to develop a preliminary design proposal for the implementation of a public square.

This work is both theoretical and practical in nature, conducted within the Integrated Studio of the Architecture and Urbanism program at the Federal University for Latin American Integration (UNILA), integrating the fields of Architecture, Urbanism, and Landscape Design.

3 HISTORY OF GHANA

Understanding Ghana's history is essential for grounding design decisions within a deeply rooted social, cultural, and urban context. This section presents an overview of the evolution of architecture, urban planning, and governance in Ghana, highlighting the influences of tradition, colonization, and contemporary transformations. Throughout the text, connections between the past and the present are drawn to provide a thorough justification for the relevance of the proposed project. Ghana is currently divided into 16 administrative regions (shown in Table 1), which are subdivided into 216 local districts. Ghana's regions constitute the first level of subnational government administration within the Republic of Ghana.

Table 1: The administrative regions in Ghana

REGION	MINISTERS	MANAGEMENT
Ahafo Ashanti	Charity Gardner	2025
Ashanti	Frank Amoakohene	2025
Bonus Bono East	Joseph Addae Akwaboh	2025
	Francis Owusu Antwi	2025
Central	Ekow Panyin Okyere Eduamoah	2025
East	Rita Akosua Adjei Awatey Linda	2025
Greater Accra	Obenewaa Akweley Ocloo	2025
North East	Ibrahim Tia	2025
North	Ali Adolf John	2025
Oti	John Kwadwo Gyapong	2025
Savannah	Salisu Be-Awuribe	2025
Upper East	Akamugri Donatus Atanga	2025
Northwestern	Akamugri Donatus Atanga	2025
Upper West	Charles Lwanga Puozuing	2025
Return	James GunuL	2025
Northwestern	Wilbert Petty Brentum	2025

Source: Ghana mission UN, 2025.

It is worth noting that the ten previous regional boundaries were officially established in 1987, when the Alto Oeste Region was inaugurated as the state's newest administrative region, as shown in Figure 11. Although the official inauguration took place in 1987, the Alto Oeste Region had already been functioning as an administrative unit since the dissolution of the Alto Region in December 1982, prior to the 1984 national census. The referendum on the creation of six new regions was held on December 27, 2018—and all the proposed new regions were approved.

Figure 11: Map and Regions of Ghana

Source: Google: Ghana mission UN, 2025.

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3.1 Pre-colonial Ghana: the birth of public spaces

Long before the arrival of European colonizers, the land now known as Ghana was home to several powerful kingdoms and empires, such as the Ashanti, Dagbon, and Fante. These societies were highly organized, featuring centralized authority, vibrant trade networks, and rich cultural traditions. Public squares, known as "durbar grounds" or "festival grounds," were central to community life.

These open spaces served as venues for important gatherings such as royal ceremonies, judicial proceedings, and cultural festivals. The Ashanti Kingdom, for example, held its famous Akwasidae festivals in the courtyard of the Manhyia Palace, where the king (Asantehene) would address his people, resolve disputes, and celebrate the kingdom's unity. The public square was not merely a physical space but a symbol of collective identity and governance. It was where the community gathered to discuss important issues, celebrate achievements, and strengthen social bonds. These spaces were often adorned with symbolic artifacts, such as the Ashanti Golden Stool, which represented the soul of the nation, as seen in Figure 12.

Anderson, D. M., and R. Rathbone. 2000. ‘Urban Africa: Histories in the making’.

Figure 12: Akwasidae Festival in the Palace courtyard Manhyia

Source: Google: All thats interesting, 2025.

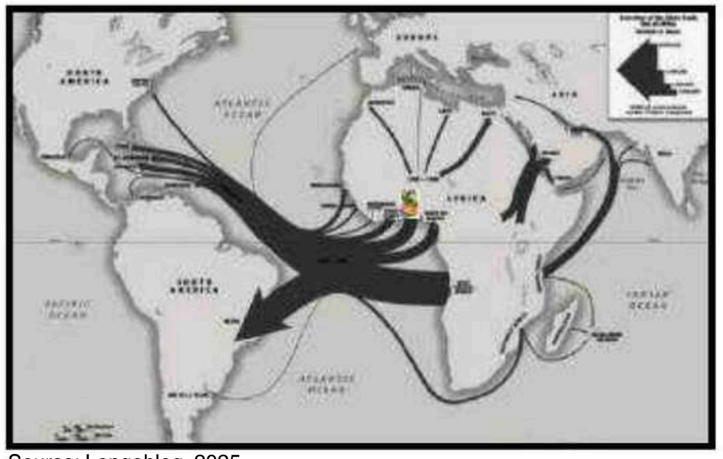
3.2 Colonial Era: The Erosion of Spaces Publics

The arrival of European powers in the 15th century, particularly the Portuguese, Dutch, and British, marked a turning point in Ghana's history. The transatlantic slave trade and subsequent colonization disrupted traditional governance systems and community life, as illustrated in Figure 13, which depicts Atlantic slave trade routes. The British, who eventually colonized Ghana (then known as the Gold Coast), imposed their own administrative structures and urban planning models. Colonial cities such as Accra and Kumasi were designed to serve the colonizers' interests, with little regard for indigenous public spaces.

During this period, traditional public squares lost their prominence. Colonial authorities often discouraged large gatherings, fearing they could become focal points for resistance. Instead, they constructed European-style town halls and churches, which became the new centers of public life. The Jamestown lighthouse area in Accra, for instance, became a colonial administrative hub, overshadowing indigenous *durbar* grounds.

Yaro, Tulloch and Taylor (2017)

Figure 13: Route of the slave trade in Atlantic



Source: Lengoblog, 2025

3.3 Contemporary Ghana: The Public Spaces Phase

Ghana gained independence from British rule in 1957, becoming the first nation in sub-Saharan Africa to do so. Under the leadership of Kwame Nkrumah, the country sought to reclaim its cultural heritage and rebuild its national identity, as shown in Figure 14.

Today, Ghana is a vibrant democracy with a growing economy, yet the country continues to grapple with the challenges of urbanization and globalization. Public squares, in the traditional sense, are becoming increasingly rare. In urban areas such as Accra and Kumasi, open spaces are frequently privatized or repurposed for commercial use.

The Golden Stool

"Golden Stool." Wikipedia: The Free Encyclopedia.

Figure 14: Speech on the Day of Independence - Ghana

Source: cocorioko, 2025

3.4 Rescuing Sport in Ghana: Minister Kofi Iddie Adams (MP)

The importance of public spaces in fostering physical activity, social interaction, and cultural preservation has been increasingly recognized as a fundamental aspect of urban planning. However, Ghana faces a persistent shortage of adequately equipped and well-maintained public recreational spaces.

In this context, the interview with the Minister of Sports and Recreation, Kofi Iddie Adams shown in Figure 15, highlights the critical role of urban public spaces in promoting community well-being. Furthermore, it underscores the government's recognition of the lack of such spaces and the need for strategic interventions to improve their accessibility and functionality.

In the interview, the Minister of Sports and Recreation, Kofi Iddie Adams, addressed the importance of recreational exercise, inclusion, and the promotion of well-being. According to him, regular physical activity helps reduce non-communicable diseases such as diabetes, hypertension, and depression, as well as many other health conditions. In this regard, he highlighted that his administration would encourage mass participation in recreational sports, promoting the creation and strengthening of physical activity clubs and community centers to stimulate exercise among the population. However, the minister emphasized that, over the years, the country has neglected and even destroyed public spaces and parks that could contribute to this initiative. Given this scenario, he stated that his ministry has a responsibility to reverse the situation through collaboration with local governments, traditional and religious leaders, and other government ministries. He emphasized his office's commitment to restoring community parks and recreation centers, ensuring these spaces are equipped with urban facilities suited to the population's lifestyle. Furthermore, the minister emphasized the importance of reviving and valuing the country's traditional games such as oware, spa, pii lolo, and draft, as well as storytelling, while highlighting the recreational and social nature of these activities. According to him, reintroducing these practices will not only promote local leisure and culture but also enable the export of Ghana's traditional games to the international stage, with the potential for inclusion in continental competitions and even the Olympic Games.

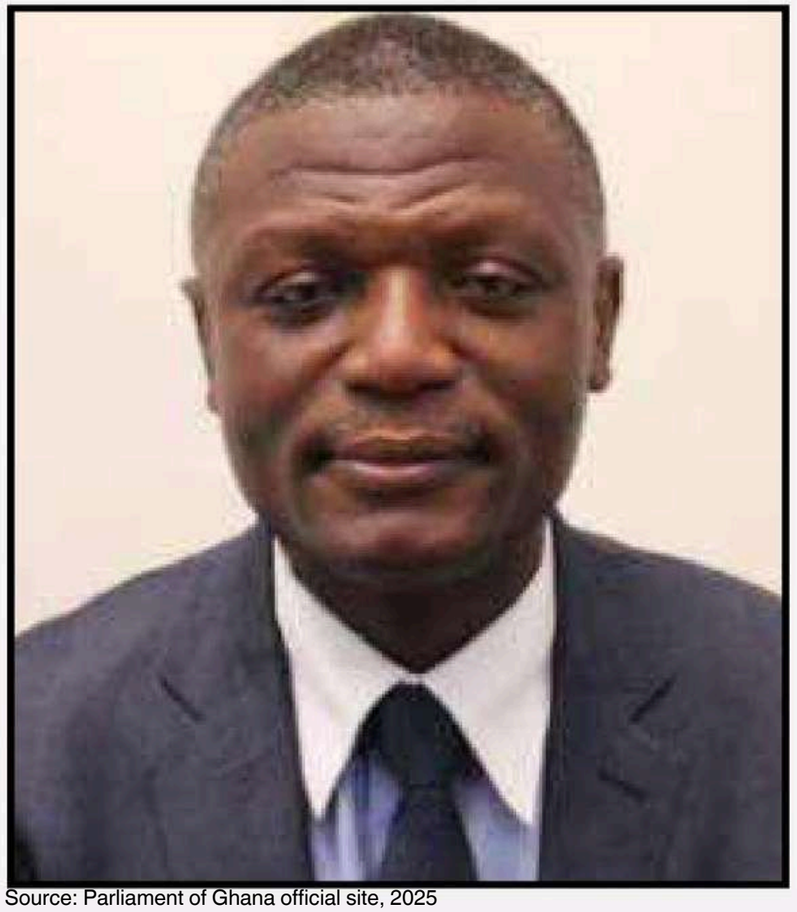
Another point highlighted by the minister was the need for collaboration among local government sectors, including assembly members, community committees, municipal, district, and metropolitan mayors, and regional ministers, since these stakeholders are responsible for managing public parks and gardens.

Finally, he mentioned the importance of involving security forces, such as the army and other agencies, in the preservation and maintenance of these spaces, ensuring their functionality and safety for the public.

(Interview about sports and recreation. YouTube: Osikanitv. Transcribed by the author.)

Urban theorists argue that well-designed public spaces contribute to physical and mental well-being, social cohesion, and cultural preservation (Jacobs, 1961; Gehl, 2011). In this context, the Minister of Sports and Recreation, Kofi Iddie Adams (2025), reinforced this notion by emphasizing the importance of public parks in fostering mass participation in exercise and recreational activities.
Accessed on: March 6, 2025.

Figure 15: Honorable Kofi Iddie Adams (MP)



Source: Parliament of Ghana official site, 2025

3.5 Ghana - Historical and Social Housing Context

Throughout Ghana's history, a significant transformation in architecture and urban planning is evident, with diverse cultures exemplifying vernacular architecture, as illustrated in Figures 16, 17, and 18. Construction methods, materials, and spatial organization were directly influenced by local climatic conditions and available natural resources. For instance, in the arid regions of northern Ghana, thick earthen walls and small openings were used to regulate indoor temperatures, whereas in tropical zones like the Ashanti region, elevated structures featuring wide eaves and natural ventilation promoted thermal comfort. These adaptive strategies reflect a profound empirical understanding of environmental factors, gained through generations of localized architectural knowledge.

With British colonization, which officially began in 1874 (in what was then the Gold Coast), new construction materials and techniques were introduced. From 1901 onwards, the British administration implemented a system of spatial and social organization that reinforced class divisions, particularly through urban planning and residential segregation. One of the most significant aspects of this strategy was the deliberate spatial separation between the colonial elite, comprising British officials and a small group of Western-educated Africans, and the indigenous population at large.

Figure 16: Ancient architecture in the Northern Region

Source: Alamy, 2025

Figure 17: Ancient architecture in the Ashanti region

Source: X (@ukpuru), 2025

Figure 18: Ancient architecture in the Southern Region

Source: Wikimedia Commons, 2025

Figure 19: Map and Regions of Ghana

Source: Google: Ghana mission UN, 2025.

With British colonization, officially begun in 1874 (at the time, the Gold Coast), according to what is depicted in Figure 20, new materials and construction techniques were introduced. The British administration introduced a system of spatial and social organization that reinforced the class divisions from 1901 onwards, particularly through urban planning and residential segregation. One of the most significant aspects of this strategy was the separation. Deliberate spatial planning among the colonial elite, including British authorities and a small group of Africans with Western education, and the indigenous population in general.

This spatial segregation institutionalized classism, in which access to comfort and services was limited. and access to urban opportunities became restricted to a privileged minority. Over time, the The British not only reinforced economic inequality but also promoted a cultural hierarchy, encouraging the elite to adopt Western values and distancing them from society. Traditional Ghanaian culture. This legacy of socio-spatial inequality persists in many urban areas. of Ghana today, where former colonial enclaves continue to be inhabited by classes wealthy communities, while the poorest populations reside in less developed neighborhoods and often marginalized.

After independence in 1957, led by Kwame Nkrumah, there was a state effort to promote affordable housing and improve urban infrastructure, marking the beginning of a more inclusive approach to the development of Ghanaian cities. The British developed well-planned, low-density residential areas with better infrastructure, sanitation, and amenities for themselves and for the emerging African elite. These areas, such as Ridge and Cantonments in Accra, were shaped according to the ideals of British suburban areas, intentionally located far from indigenous settlements. Overcrowded and unplanned, these zones have become symbols of privilege and modernity, accessible only to those who conformed to colonial standards of education, profession, and lifestyle.

Currently, the 1992 Constitution of Ghana does not explicitly mention the right to adequate housing. However, it addresses aspects related to: Property and privacy in Chapter 5, guarantees the right to property and protection against arbitrary deprivation of property. Expropriation is only permitted in the public interest and must be accompanied by fair compensation to protect against unfair expropriations.

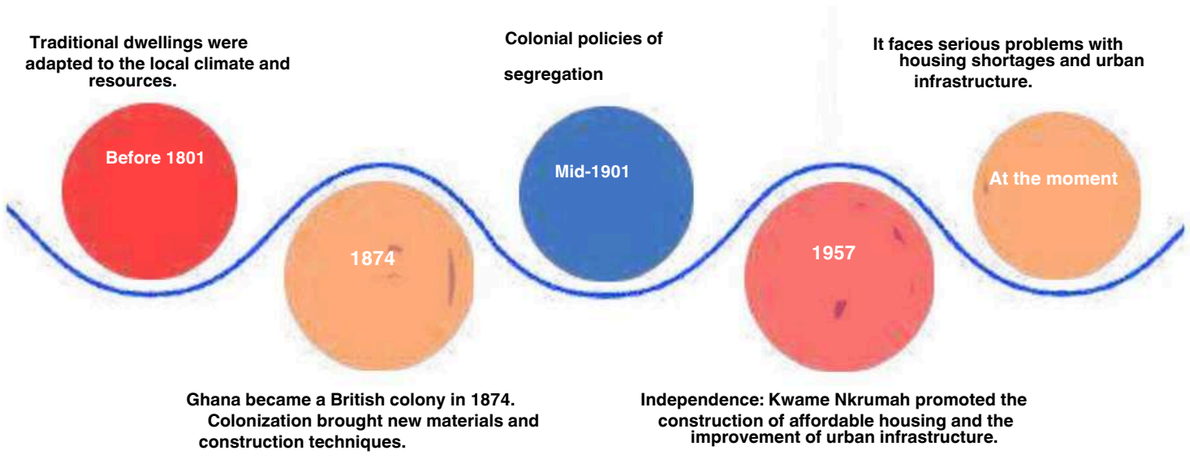
Article 11 of the Constitution - recognizes existing laws and current legislation. In context

In terms of housing, this includes the Rent Act of 1963 and the Transfer Ordinance of 1973, which are important for the regulation of the housing and rental sector.

Figure 20: African ships carrying captive slaves- Slave Coast - slave trade

Source: Britannica, 2025

Figure 21: Timeline between Housing and Urban Infrastructure



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ADMINISTRATIVE AND POLITICAL MANAGEMENT OF SPACE IN GHANA

3.6.1 The Role of the Leadership Institution in Ghana's Development

The management of space in Ghana is marked by the coexistence of two systems of authority: the traditional and the state.

This section analyzes how these structures, rooted in ancestry and the constitution, work. Modern factors influence territorial administration, land use, and decision-making processes.

Understanding this duality is fundamental to interpreting the challenges and potential of urban planning in the contemporary Ghanaian context.

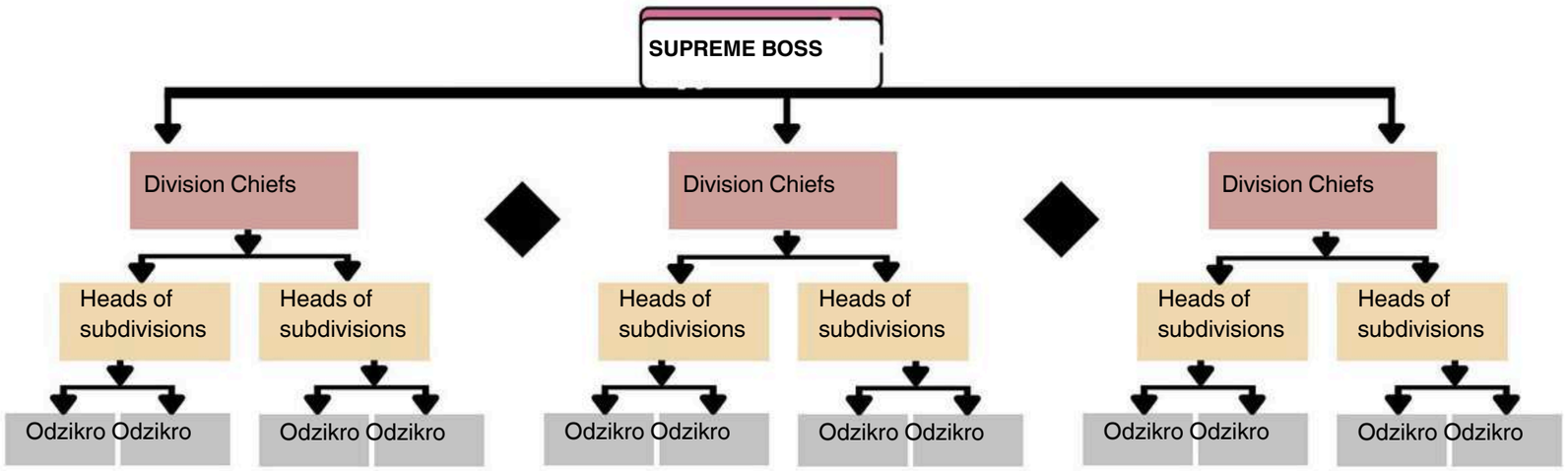
To gain a comprehensive understanding of the governance structure in Ghana, it is essential to contextualize the coexistence of two parallel systems of authority: the traditional institution of leadership and the modern democratic political system. The chieftainship system, rooted in pre-Indigenous governance, is materialized in the authority of kings, chiefs, and other customary leaders who maintain sociopolitical and spiritual roles in their respective communities. This form of governance is based on lineage, customary law, and community consensus and continues to exert significant influence in local affairs, conflict resolution, and the preservation of cultural identity.

In contrast, the democratic political system, introduced and institutionalized during and after the colonial rule, operates within a constitutional framework, characterized by elected representatives, separation of powers, and a centralized government structure. This system governs the administration. national public policies and legislative processes, operating under the principles of universal suffrage, of the rule of law, and of accountability.

The coexistence of these two governance systems reflects the complex historical evolution and sociopolitical landscape of Ghana, where modern state structures and traditional institutions coexist. They intersect, often collaborating or coexisting in tension. Understanding this duality is fundamental for analyzing governance, development planning, and local administration in contemporary Ghana.

The institution of chieftainship in Ghana has deep historical roots, originating from migration patterns of various African groups between the 12th and 14th centuries. This migration, often motivated by armed conflicts, autocratic regimes, and natural disasters and driven by the search for arable land, was generally well-organized under the leadership of individuals who demonstrated extraordinary abilities. These leaders were fundamental in the liberation of their communities from adversities such as war, oppression, crises, and environmental concerns, and they were responsible for establishing and governing new settlements. Over time, they and their descendants assumed the role of traditional rulers, or chiefs, thus laying the foundations for the institution of leadership illustrated in panel 2.

Table 2: The traditional structure of the leadership institution.



Source: Author's own work, with basic information from the Ministry of Religious Affairs of the Headquarters. 2021

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3.7 Structure of the Chiefdom Institution in Ghana

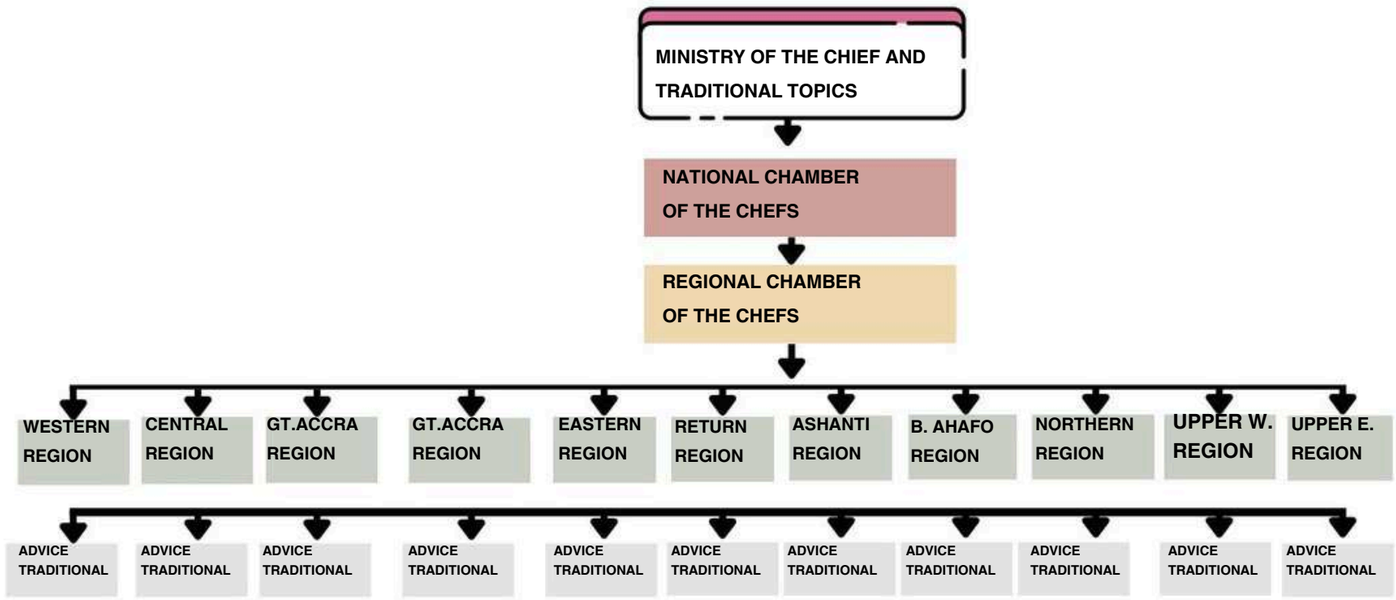
The term "boss" is therefore associated with governance and political leadership, and the institution of leadership represents a formalized system of traditional authority in Ghana. According to Brobbey (2008), the political nature of the chieftainship is evident in its function. Fundamental: the governance and administration of communities. As an institution Historically entrenched, leadership continues to play a fundamental role in guaranteeing order and social cohesion, maintaining its relevance in the socio-political landscape. of Ghana, despite the forces of modernization.

The leadership has a well-defined structure, which can be discussed in two ways: Traditionally, the country is divided into traditional areas, and each traditional area is headed by a supreme chief (Omanhene). This is shown in diagram 2. Each traditional area is divided into divisional areas, and these are headed by chiefs. divisional chiefs. Below the divisional chiefs are the deputy chiefs, and below the deputy chiefs...

These are the chiefs (Odzikros). There may be variations in this structure in some areas. traditional.

The second can be described as the executive and administrative structure. Under this structure, the body of the Ministry of Headship and Traditional Affairs is ultimately responsible for establishing the leadership. Administratively, the ministry oversees the functioning of the institutions of the executive branch. namely the National Chamber of Chiefs. The National Chamber of Chiefs is composed of 55 members. Five members from each Regional Chamber are elected to represent their regions in the National Chamber of Chiefs. Below the National Chamber are the Regional Chambers of Chiefs. A Regional Chamber of Chiefs is composed of all the supreme chiefs of the region. Below the Regional Chambers contain the Traditional Councils, which are the basis for the institution of leadership. The framework in Figure 3 shows how this division works.

Table 3: The traditional structure of the leadership institution.



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3.8 Land acquisition process in Ghana: from traditional authorities

For a deeper understanding of the origin of the field of study, it is essential to examine the processes by which land is acquired in Ghana. Investigating these mechanisms does not only reveal the sociopolitical dynamics that shape the territories but also provides a critical understanding of patterns of ownership, use, and transformation over time.

Land acquisition in Ghana occurs through two main mandatory channels: authority. traditional and governmental authority.

In Ghana, the acquisition of land from chiefs or traditional authorities must follow procedures. customary and statutory rules to guarantee security of tenure and legal protection. The lack of the recording of customary land allocations often results in land disputes. Therefore, a dual-conformity approach—recognizing the authority of traditional leaders and validating ownership through the Land Commission is essential for legal property. and secure land in Ghana.

3.8.1 The land acquisition process in Ghana: from traditional authorities to government validation.

The land acquisition process in Ghana is characterized by its complexity due to the coexistence of customary systems of possession and legal (statutory) structures of land administration. It is estimated that between 80% and 85% of the country's land is under this regime. customary, managed by traditional chiefs, family leaders, or known entities. such as "stools" or "skins," who act on behalf of their respective communities (EDUSAH & OSEI-TUTU, 2014).

The remaining lands belong to the State or to private owners. Acquisition: Formal land ownership acquisition involves two main steps: customary negotiation and statutory validation.

A. Negotiating the Terms of Acquisition

Initially, the process begins with identifying the desired land parcel and verifying its legal nature, whether it is customary, state, or private. In the case of lands In customary matters, it is necessary to negotiate directly with the responsible authority, which may be a supreme leader, a divisional leader, or a family head, depending on the structure of authority over the territory. This negotiation involves several crucial aspects, such as the value (consideration) to be paid; the size and location of the land; the duration of the lease (generally 99 years for Ghanaian citizens and 50 years for foreigners); as well as the purpose of land use, whether residential, agricultural, or commercial. In traditionally well-established areas In structured settings, leaders often rely on the support of traditional councils or secretariats of land to conduct this process.

B. Customary Allocation and Documentation: After the negotiation is concluded, the customary allocation and documentation process takes place. In this stage, a note or deed of allocation is issued by the customary authority, to which a site plan (or cadastral plan), prepared and signed by a licensed surveyor, is attached. The document must be signed by the grantor (head or traditional entity) and the donee (buyer) and by witnesses. To guarantee its authenticity, the document must be sealed with the official stamp of the stool, skin, or traditional council.

B1 Statutory Validation: Registration and Legalization

Once the customary stage is complete, the next step is statutory validation, which guarantees protection. Legal to the transaction through registration in the state land administration system.

Firstly, the stamp duty corresponding to the value of the land must be paid, and a stamped deed must be obtained. validated by the Ghana Tax Authority (GRA). If the plan has not yet been authenticated, the surveying and demarcation of the land are carried out by a licensed surveyor; the plan must be authenticated by the Regional Survey Department.

The final document, now legally valid, is then submitted to the Land Commission of the region. This entity conducts a search and verification to ensure that the land does not correspond. be encumbered, meaning it has not been previously sold or is under legal dispute The final step consists of registering the property right, which may result in the issuance of a Certificate. of Land (in cases submitted to the Property Title Registration system) or in the registry of Transaction in the old Land Registry, a system that is currently being deactivated. If you intend to build on the acquired land, the process also includes obtaining a building permit. issued by the competent municipal assembly.

B2. Building Permit from the Municipal Assembly (if there is an intention to build)

Request a building permit from the Municipal or District Assembly. Submit architectural plans. Site plans and proof of land ownership. This ensures that the development complies with zoning and planning regulations.

4.1 The Role of Public Squares in Urban Dynamics

Squares play a fundamental role in structuring cities, functioning as spaces for socialization, leisure, and cultural identity. Historically, many of these spaces emerged from areas of residual elements of the urban fabric, which were subsequently adapted and qualified to meet the demands of the population (FRANCO, 2003). The proper planning of public squares should consider not only aesthetic aspects but also its social, environmental, and economic function. Barbosa Júnior (2021) highlights that Praça da Sé, located in Crato/CE, represents a classic example of the evolution of Brazilian squares. Initially a large unpaved courtyard, the site was transformed and built in the square in the 1950s and underwent several renovations until its current configuration. An analysis functions.uare from a social perspective reveals the importance of ensuring accessible and safe spaces for different people and population groups. The study also highlights the need for adequate urban equipment, such as street furniture and efficient lighting, to encourage continued use of the area.

Furthermore, the economic sustainability of the squares can be improved. through public-private partnerships, allowing for maintenance and adequate use of spaces without overburdening public coffers.

In this sense, practices such as the granting of standardized kiosks and the adoption of public squares by companies can contribute to the preservation and improvement of these urban spaces (BARBOSA JÚNIOR, 2021).

4.2 Sustainability in Public Spaces

The concept of sustainability, widely debated since the United Nations Conference on the Human Environment of 1972, was consolidated with the Brundtland Report (1987) and reinforced at the Earth Summit '92 and in the UN's 2030 Agenda. This concept encompasses the need for balancing economic development, environmental responsibility, and social justice (WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT, 1991).

In the context of urban planning, sustainability is embodied in the design and maintenance of public spaces that promote quality of life, accessibility, and environmental preservation. According to Barbosa Júnior (2021), sustainability applied to squares and urban spaces must be analyzed from three perspectives: the social perspective, which seeks to address user needs and integrate different social groups; the environmental perspective, which prioritizes soil permeability, the preservation of vegetation, and the rational use of water; and the economic perspective, which evaluates the financial viability of the interventions and the efficiency of maintenance of urban equipment.

The Praça da Sé, in Crato/CE, analyzed by Barbosa Júnior (2021), exemplifies the importance of these three aspects. The square underwent transformations over the decades, consolidating itself as a space of coexistence and identity for the population. However, the reduction of soil permeability and the absence of a tree-replanting plan They highlight challenges to their environmental sustainability.

Furthermore, the lack of public consultation in reform decisions points to the need for greater community participation in the processes of urban planning.

4.3 Sustainability and Economy in Urban Furniture

The integration of sustainability and economic principles. In urban furniture design it has proven essential for the development of more resilient cities and inclusive projects that prioritize the use of materials. Recyclable and low-cost options not only reduce the environmental impact, but they also promote accessibility and social inclusion. An example of this is winning the project of the Architecture Competition and Urbanism, which stood out for its innovative approach in its use of sustainable materials and solutions. economical in its elements of urban furniture. This initiative demonstrates that it is possible to combine design with quality with environmental responsibility and viability. economical, contributing to the improvement of urban public spaces. (COUNCIL OF ARCHITECTURE AND URBAN PLANNING IN BRAZIL). National Public Competition of Ideas for Urban Furniture Elements in the City of São Paulo, 2024.

4.4 Architectural Strategies for Mitigating Urban Environmental Impacts

In the current urban context, it is imperative that architects and urban planners adopt strategies to reduce the impacts. environmental factors resulting from land occupation.

As highlighted by Lima (2024), when designing spaces In urban settings, it is essential to consider aspects such as the choice of using materials that reduce heat absorption, the creation of green areas that function as zones of flood mitigation, and road planning that encourages active mobility, reducing the dependence on motor vehicles. These practices do not They only mitigate the effects of climate change, but they also promote a better quality of life for them. urban dwellers. The integration of solutions Sustainable architectural design is fundamental for developing more resilient and adaptable cities. demands environmental context from the University of Fortaleza Architecture and Urbanism.

to reduce environmental impacts, 2024.

5.0 CASE STUDIES

5.1 Brief introduction of the three selected squares

Atthis stage, case studies related to the topic of interest will be presented:

First, we will analyze the playground in Jaworek Park in Tychy shown in Figure 22. We highlight its creativity in generating multi-purpose spaces, and, in addition, we will analyze precisely the use of the primary materials employed and their importance. Next, we will analyze the Max Wolf Square, in Figure 23, and the concept behind it. At the end of the case study, the "Healthy Square - Construction" shown in Figure 24 will be analyzed, and this case study will be used to highlight the importance of its presence. Physical education professionals will be on hand to guide residents. The location will promote inclusion, as the square will also feature equipment for people with disabilities. special needs.

Figure 22: View of the TYCHY Jaworek PARK area.

Source: ArchDaily, 2025

Figure 23: 3D view of the Max Wolff Square area.

Source: Municipality of Niterói, 2025

Figure 24: 3D view of the Healthy Square.

Figure 14.. Source: SESPORT 2025.

5.1 TYCHY JAWOREK PARK 2024

Figure25:View of the TYCHY Jaworek PARK area.

Source: ArchDaily, 2025

Figure 26: View of the PARK TYCHY area.

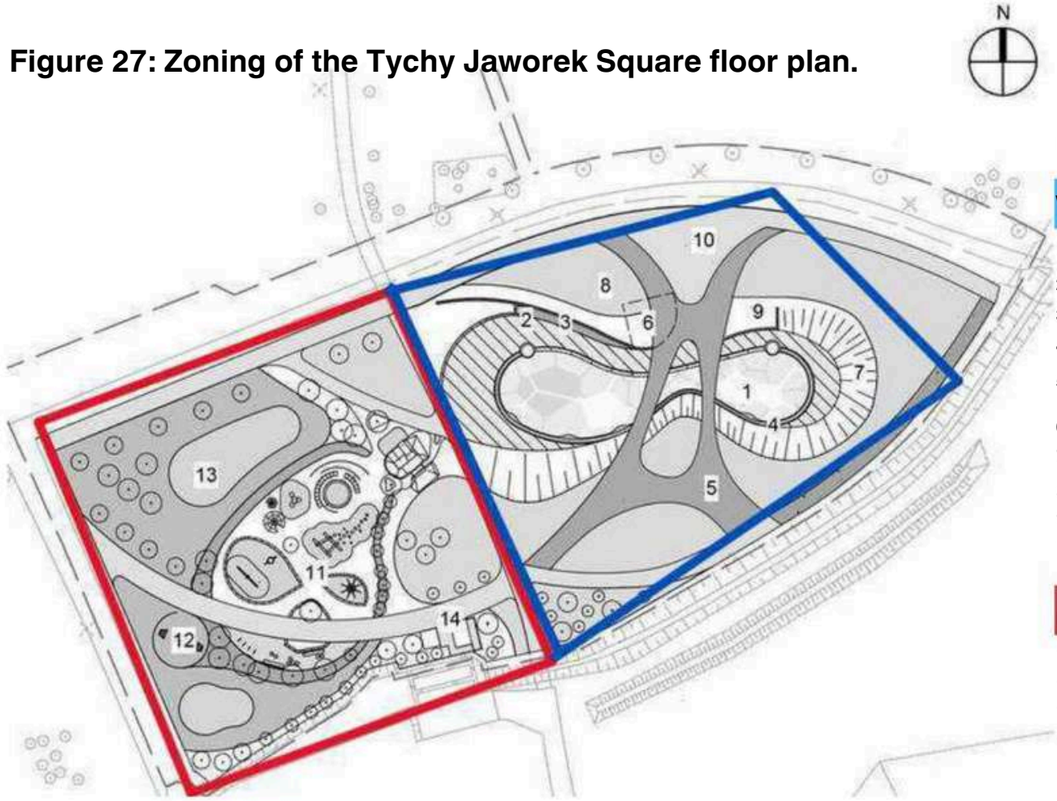
Source: ArchDaily, 2025

5.1.1 General Information

TYCHY PARK, POLAND, designed by the architects RS+ Robert Skitek, with an area of 7874 m².

The investment plot in Jaworek Park is a space that combines the natural landscape with modern recreational facilities solutions. The area was undeveloped. Surrounded by paths and small trees. Near the site. There is a toboggan. The area was divided into two zones: one aquatic recreation area and a natural playground, using existing pedestrian paths. The The water playground is located in a basin.surrounded by hills, echoing the shape of a toboggan run next. These hills provide natural protection for the buildings close to the noise of children playing. Bridges, suspended above the basin, play a role. communicative function, connecting the southern and northern parts of local, while at the same time offering apoint of observation. In the depression in the terrain, there is a colorful water attraction zone, around which we placed wooden seats.

Figure 27: Zoning of the Tychy Jaworek Square floor plan.



Source: ArchDaily, 2025

Figure 28: Children playing in the aquatic playground area.

Source: ArchDaily, 2025

5.1.2 General Information

Tychy Square, Poland was built by

Architects: RS+ Robert Skitek, with an area of 7874 m^2.

in the year: 2024

5.1.3 Comments

In Figure 27, the area is divided into two zones. distinct: a water recreation area and a natural playground, interconnected by a network of pedestrian paths that they cross and surround the place. The area of water recreation is strategically located, positioned between the hills, using the natural topography to serve as a noise dampener, mitigating the impact from children playing in buildings and around. (ArchDaily, accessed in 2024)

The division of the space into zones with distinct functions, the water play area in the depression, and the natural playground in the higher-elevation areas, while retaining the site's existing pedestrian paths. This approach not only preserves the landscape but also maximizes accessibility and inclusion by offering diverse recreational opportunities for various age groups and abilities, a key focus of this thesis.

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PARK TYCHY 2024

In Figure 29, a suspension bridge can be seen crossing the basin, serving as a crucial connecting element between the southern and northern sections of the site. In addition to its primary function of facilitating movement, the bridge provides shade for part of the seating area while also functioning as a strategic observation point to watch the surroundings.

The project stands out for its integration with the natural landscape, creative use of topography, and sustainable materials, as well as offering diverse recreational spaces.

However, care must be taken with information about accessibility, which may require high maintenance due to elements in natural and aquatic areas, and it doesn't mention infrastructure. complementary amenities, such as bathrooms and rest areas. Despite these challenges, it is an innovative project that values interaction. with the environment and the playful experience.

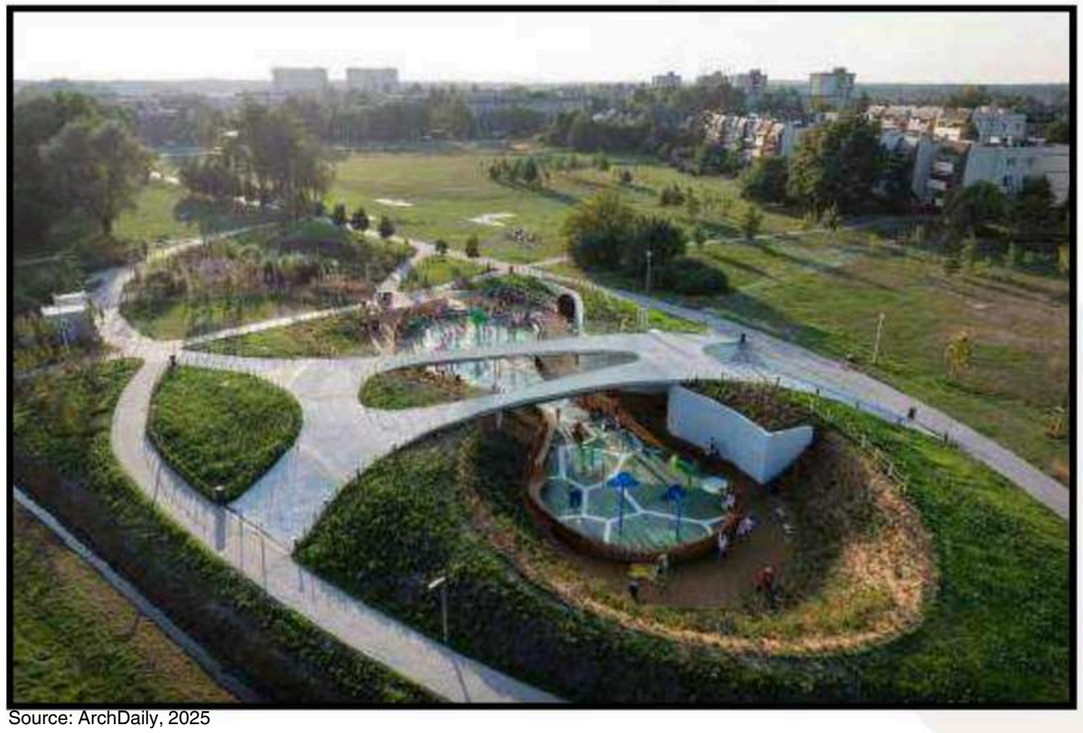
Figure 29: Water area of PRAÇA TYCHY Jaworek.

Source: ArchDaily, 2025, adapted by the author, 2025

Figure 30: Pedestrians walking on the overpass.

Source: ArchDaily, 2025

Figure 31: Pedestrians walking on the overpass.



Source: ArchDaily, 2025

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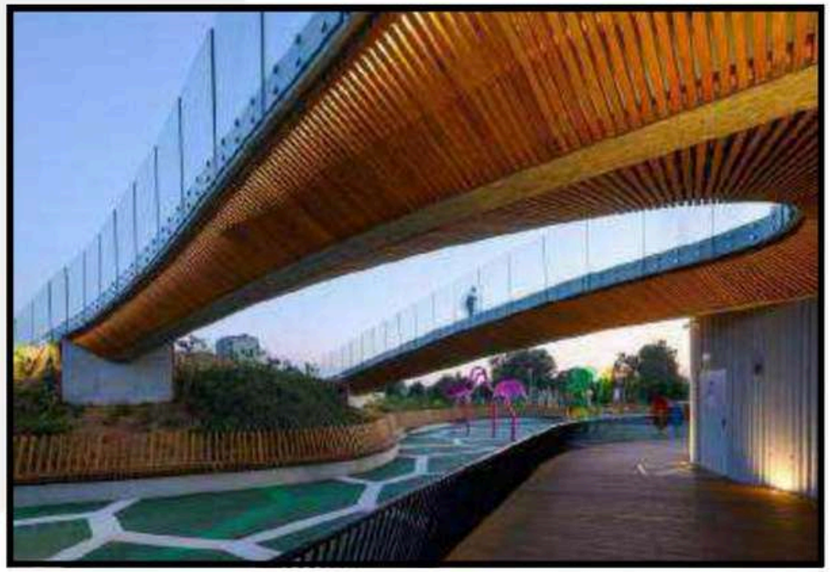
Figure 32: Children's playground made of wood and sand.

Source: ArchDaily, 2025

The area is divided into two distinct zones: the first part of it, shown in figures 32 and 33, is a playground. natural area interconnected by a network of trails for pedestrians crossing and surrounding the area, and another part, shown in figures 34 and 35, is an area of an aquatic nature. The aquatic recreation area is strategically positioned between the hills, using the natural topography to serve as a noise dampener, mitigating the impact of children playing in the neighbouring buildings.

(ArchDaily, accessed in 2025)

Figure 34: Children's playground made of wood and sand.



Source: ArchDaily, 2025

Figure 33: View from below the bridge, Tychy Square

Source: ArchDaily, 2025

The park sought to work with organic elements, using plant-based materials and natural colours. Street furniture, including integrated benches in the curves of the landscape, consists of wooden slats. In figures 33 and 32, it can be identified that the space features structures of the game. Winding paths, surrounded by well-designed vegetation, are complemented by rain gardens that promote the natural water cycle and contribute to biodiversity.

Figure 35: Water park, TYCHY SQUARE

Source: ArchDaily, 2025

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5.2 MAX WOLF SQUARE

5.2.1 Brief history

The international organization Urban95 conducted a study that highlights the lack of suitable street furniture for young children. According to the research, most squares in Brazilian cities do not have appropriate infrastructure to care for children up to three years old. Faced with this reality, Urban 95 initiated a series of interventions aimed at this audience, with Praça Max Wolf being one of the first to to receive these improvements (Urban Network, 2022).

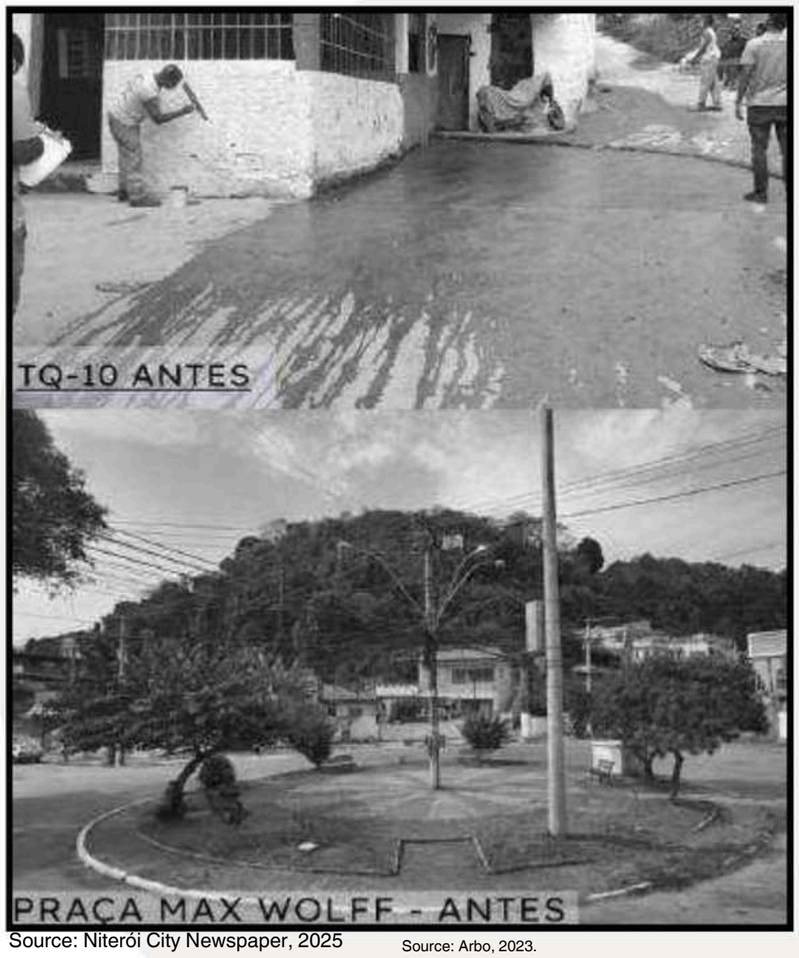
Residents of Fonseca, located in the North Zone of Niterói, welcomed the expansion and revitalization of Max Wolf Square, a project aimed at improving public space and community engagement.

5.2.2 General Information

The intervention promoted the introduction of new recreational elements, including equipment geared towards children's leisure. in addition to plans for the implementation of facilities intended for the practice of physical activities (REDE URBAN, 2022).

Additionally, the renovation includes the installation of a concrete ping-pong table, as well as other tables. specific for playing checkers and chess, accompanied by wooden benches, aiming to improve the options of seats available. As part of the planned improvements, measures will be taken to conceal the water pump. currently located in the square, which plays an essential role in supplying the hillside areas adjacent.

Figure 36: Old image of the square, Mário Sousa. Max Wolff Square, Niteroi.



Source: Niterói City Newspaper, 2025 Source: Arbo, 2023.

Figure 37: New design for the square, Mário Sousa.

Source: Municipality of Niterói, 2025. Source: Arbo, 2023.

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5.2.3 Comments

Street furniture, among them the playgrounds located on the site, tree trunks surrounding the square to serve as protection and bring aesthetics to the place, and eye-catching colours to attract children. In addition, busy squares and well-lit areas tend to increase the feeling of security, reducing the incidence of problems such as vandalism and crime.

Figure 38: Max Wolf Square.

Source: Municipality of Niterói, 2025
Source: Arbo, 2023.

Source: Municipality of Niterói, 2025
Source: Arbo, 2023.

Source: Municipality of Niterói, 2025
Source: Arbo, 2023.

Source: Municipality of Niterói, 2025
Source: Arbo, 2023.

Source: Municipality of Niterói, 2025
Source: Arbo, 2023.

Source: Municipality of Niterói, 2025
Source: Arbo, 2023.

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Figure 39: Max Wolf Square.

Figure 32. Max Wolf Square. Source: Arbo, accessed in 2023. Source: Arbo, 2023.

Figure 40: Max Wolf Square.

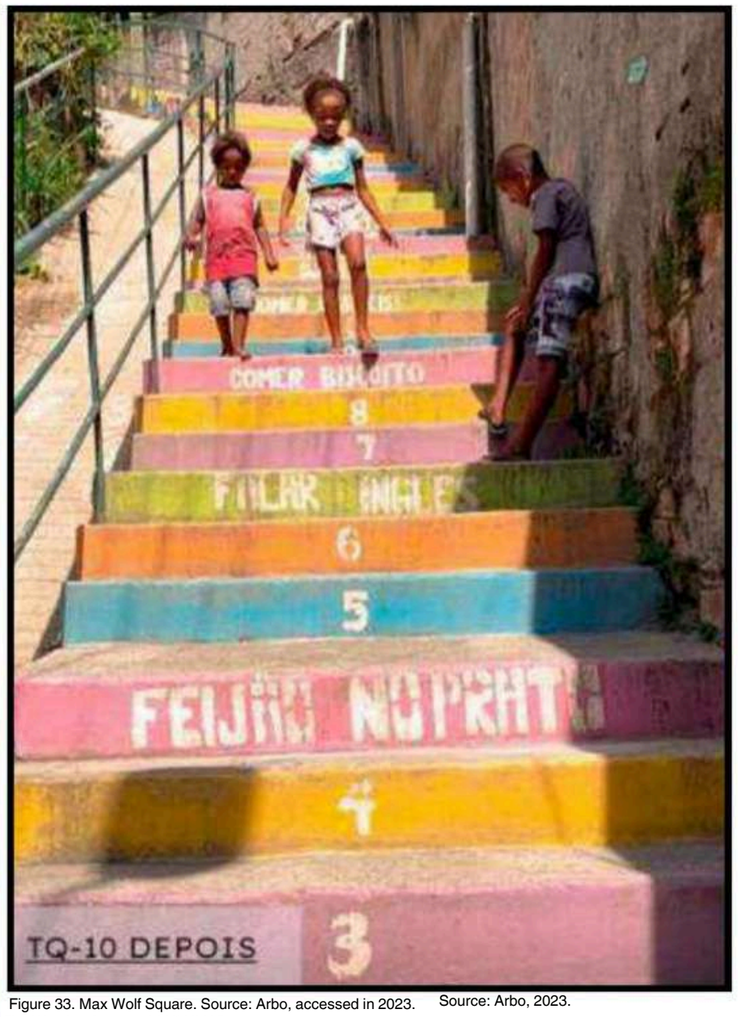

Figure 33. Max Wolf Square. Source: Arbo, accessed in 2023. Source: Arbo, 2023.

In the concept of a public square, urban equipment is designed to cater to children up to three years old. considering their specific accessibility and safety needs. For this audience, the heights of equipment are reduced in order to provide a more suitable and safe play experience, as well as optimize playtime. Furthermore, the presence of ramps, as indicated in PDT12 (2022), reinforces accessibility and inclusion in the urban environment. One factor that will be considered in this thesis is the zoning of the site into multifunctional areas. In other words, spaces for exercise, recreation areas, and seating areas while working with the natural flatness of the terrain to encourage diverse uses without the need for excessive modifications.

Figure 41: Max Wolf Square.

Figure 34. Max Wolf Square. Source: Arbo, accessed in 2023. Source: Arbo, 2023.

Figure 42: Max Wolf Square.

Source: Arbo, 2023.

The demands of early childhood are often not considered in urban planning, in strategies of mobility, and in programs and services intended for children. However, some municipalities, such as Niterói, in Rio de Janeiro, have developed policies, infrastructure, and services specifically geared towards this age range, aiming to meet their needs in a more appropriate way. (Vincent, PDT12, 2022).

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5.3 HEALTHY SQUARE -CONSTRUCTION

Figure 43: Healthy Square - Construction.

Source: SESPORT 2025.

5.3.1 General Information

Although the proposal is innovative and represents a milestone in urban infrastructure aimed at public health, some challenges must be considered. The effectiveness of the project will depend not only on the construction of the space but also on the ongoing maintenance of equipment and the range of programs offered that encourage regular use of the square by the population.

Furthermore, it is essential that the project be aligned with long-term public policy timeframes that guarantee its sustainability and expansion to other regions of the state.

5.3.2 Brief History

According to Leite (2024):

This is a very important project for us and for the communities that will benefit from it. It will be the beginning of a new concept for a public square. It will be the first space in the state dedicated to leisure. The well-being and health of residents will also be invested in a project that, in addition to the practice of Physical exercise will promote inclusion, as the square will also feature equipment. Designed for people with special needs.

The Healthy Square project, launched by the government of Espírito Santo, represents progress. significant in promoting leisure, well-being, and social inclusion. According to the Secretariat of State Department of Sport and Leisure, the project aims to create an accessible space for practicing activities. physical and community interaction, also including people with special needs (ESPÍRITO SANTO, 2024).

5.3.3 Comments

The inclusion of adapted equipment for people with disabilities reinforces the importance of accessible and democratic urban planning. However, accessibility is not limited to just that. availability of equipment, but also the surroundings of the square, security and connectivity with other urban spaces. Therefore, it is essential that the project be developed based on a participatory approach, involving the local community in the planning and monitoring of the use of space. The presence of Physical Education professionals is essential to ensure that physical activities be carried out in a safe, effective and inclusive manner. Many people exercise without adequate knowledge, which can lead to injuries. The professional It provides guidance on correct posture, intensity, and adaptation of movements according to each individual's needs. individual.

The concept behind this thesis is to connect the zones through accessible pathways that integrate the plaza. to the urban fabric, promoting fluid circulation for pedestrians, walkers, and individuals with reduced mobility.

HEALTHY SQUARE - CONSTRUCTION

Figure 14.. Source: SESPORT 2025.

Figure 14.. Source: SESPORT 2025.

Figure 14.. Source: SESPORT 2025.

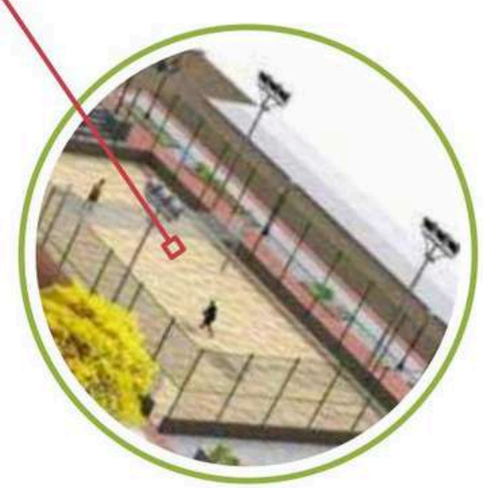


Figure 14.. Source: SESPORT 2025.

5.4.1 Comments

The Healthy Square presents an innovative and necessary concept for promoting population quality of life. However, its effectiveness will depend on efficient management, maintenance of equipment and active community participation to ensure that the space meets the long-term social demands, something which is very important.

6.0 AREA DIAGNOSIS - TEPA

6.1 Introduction to the Site

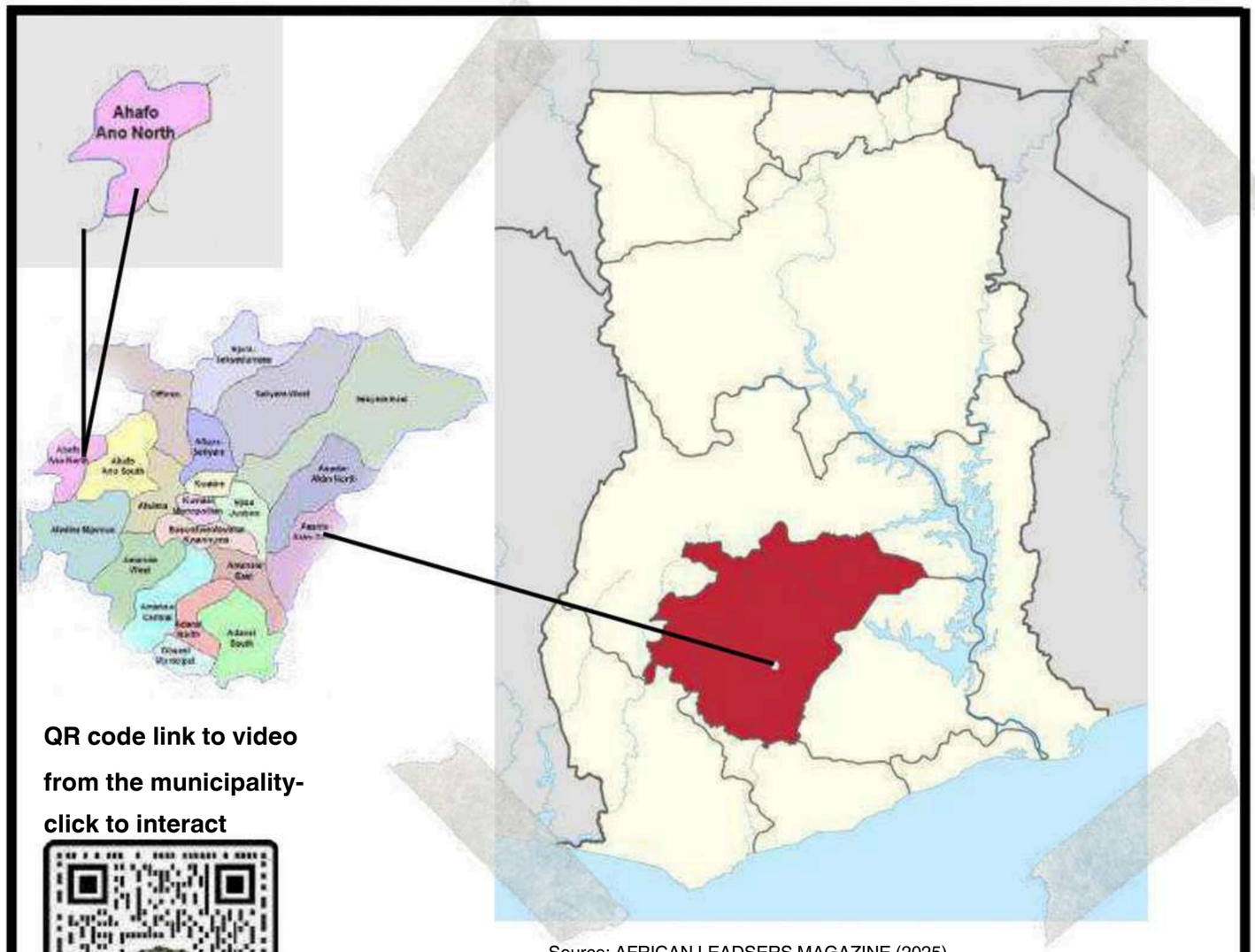
This chapter presents a diagnosis of the city of Tepa, located in the western region of the Ashanti region in Ghana. The analysis covers physical, socioeconomic and environmental factors, such as land use, main roads, and equipment. Urban areas, topography, and demographic characteristics. The objective is to understand the urban and regional context. The public square project will be included.

Tepa is the capital of the Ahafo Ano Norte municipal district. One of the 43 districts that make up the Ashanti Region. The area has 39 electoral zones, administered by a municipal council and six local council areas. The district was originally created in 1988 as part of the former Ahafo Ano District Council and, subsequently, elevated to the status of municipality in November 2017, effective March 15, 2018.

The municipality is located between latitudes 6°47' N and 7°02' N and longitudes 2°26' W and 2°04' W, bordering the districts of Tano Sul and Asutifi (Brong-Ahafo Region) and with the Ahafo Ano Sul district (Ashanti Region), as seen in figure 45.

According to the profile of the Ahafo Ano Norte District (2009), the total area of the territory is 57,340 hectares.

Figure 45: Identifying the North Ahafo region on the map of Ghana.



Source: AFRICAN LEADSERS MAGAZINE (2025).

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6.2Economics

Of the 57,340 hectares of total area, approximately 45,872 hectares are dedicated to agricultural activity.

Data from a survey conducted in 2002 indicate the following:

Cultivated area: 3,061.96 ha.

Non-cultivated area: 1,513.78 ha.

Wetlands or inland water bodies: 860.1 ha.

The main economic activity is agriculture and livestock farming, employing approximately 83% of the municipality's workforce, according to the Ahafo North Municipal Profile. Agriculture is predominantly rain-fed, involving the cultivation of food and cash crops such as cocoa, oil palm, bananas, maize, yams, rice, and cassava. Vegetable production is significant, particularly in the communities of Asuhyiae, Tepa, and Manfo, where small-scale initiatives operate during the dry season.

Figure 46: Corn production.

Source: Ministry of Food and Agriculture, Ghana, 2023. Accessed on: July 14, 2025.

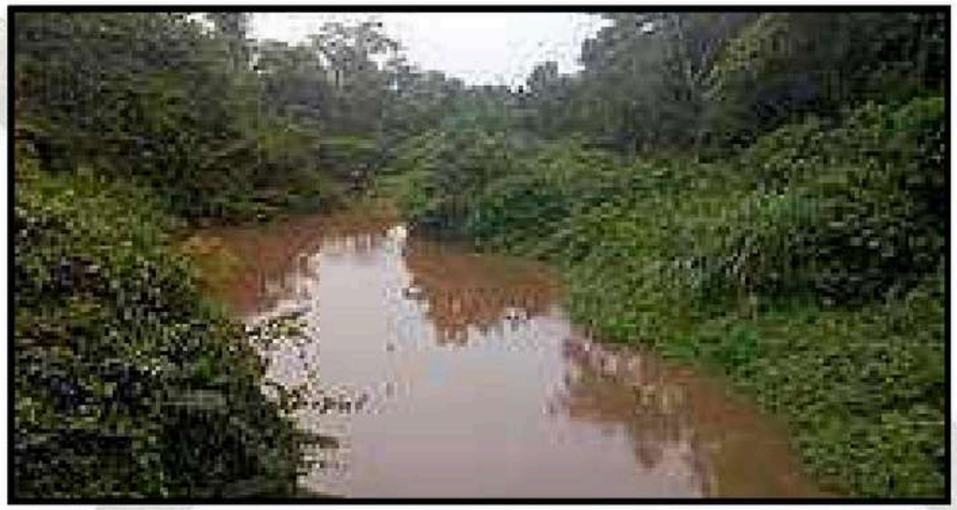
Figure 47: Cocoa production.

Source: Ministry of Food and Agriculture, Ghana, 2023. Accessed on: July 14, 2025.

6.3 Topography, Hydrography and Vegetation

The municipality is characterized by a gentle, rolling landscape drained by many rivers, the main river being the Tano River. It has been said that the Tano River could be dammed for irrigation and power. hydroelectric plant. Below are maps of the municipality showing its topography, drainage, and also vegetation.

Figure 48: Rivers and green areas.



Source: Ministry of Food and Agriculture, Ghana, 2023. Accessed on: July 14, 2025.

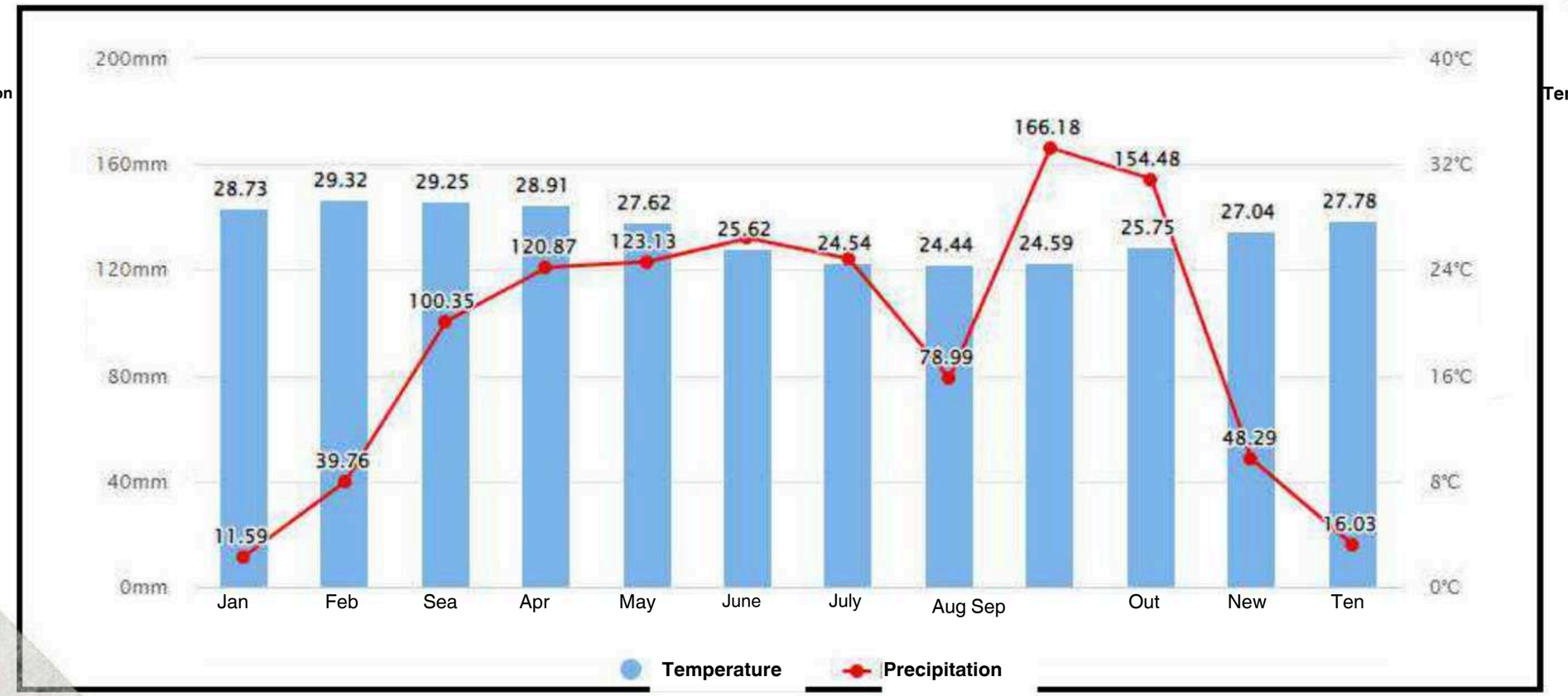
Figure 49: Local market and bus terminal.

Source: Google Earth, 2024. Accessed on: July 14, 2025.

6.4 CLIMATE

According to data from Figure 50, taken from Weather and Climate, 2025, the municipality is located in the semi-zone.
It is a humid equatorial region with peak rainfall occurring twice in June and October. It has an average annual rainfall of 1,750 mm with quite high temperatures between 26°C in August and 30°C in March. These conditions favor the cultivation of Cocoa, citrus fruits, oil palms, and many food crops such as corn, rice, cassava, and bananas, as well as vegetables. such as eggplant, tomato, okra, pepper, cabbage, etc., conditions for the main and secondary harvest seasons. The graph in Figure 50 shows the average monthly temperature and precipitation over the last few years.

Figure 50: Rainfall vs. Temperature Index



Source: Weather and Climate. 2025

Temperature **Precipitation**

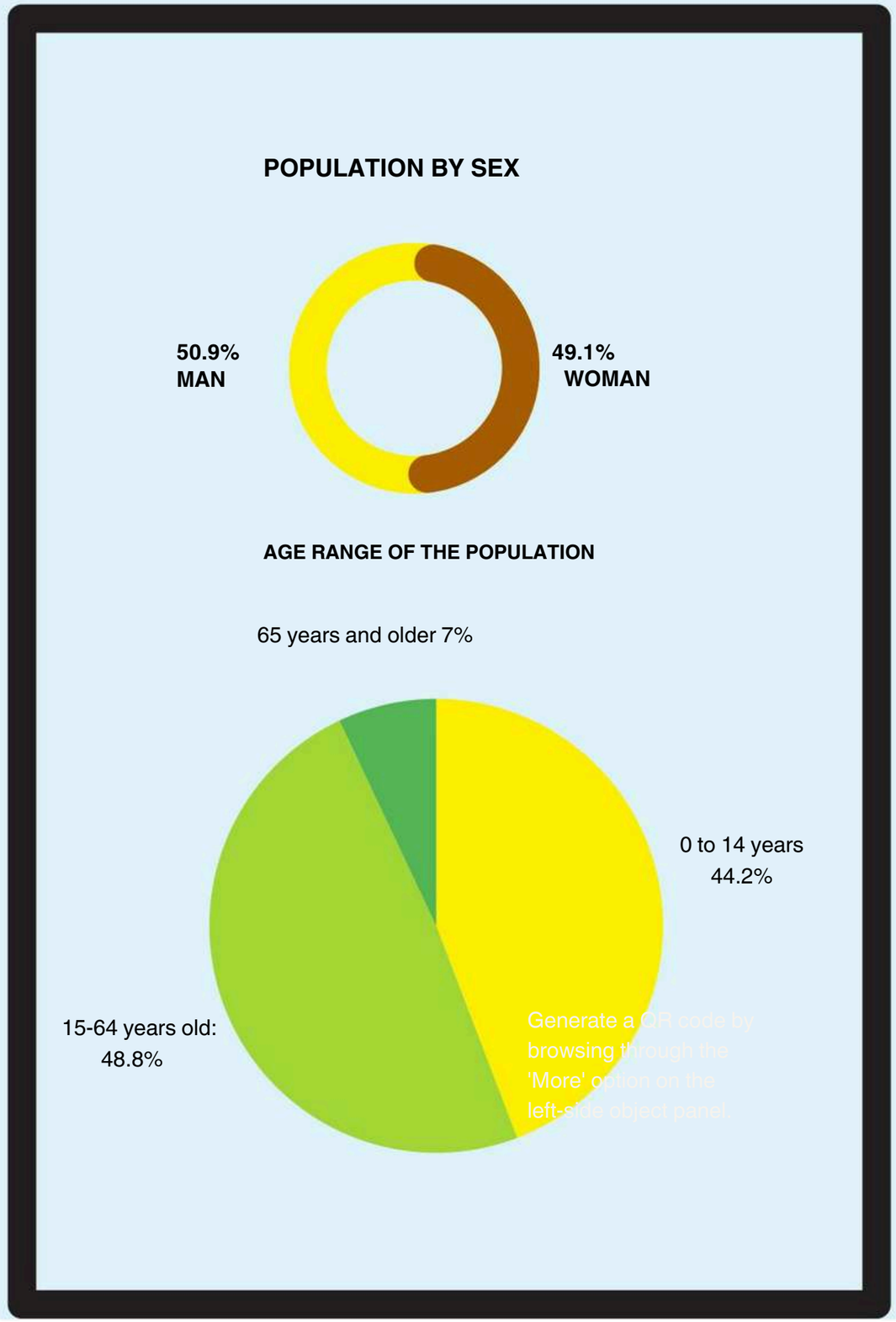
6.5 Demographic Characteristics

POPULATION GROWTH RATE, SIZE, AND DISTRIBUTION BY SEX

The 2010 Population and Housing Census gave the total population of the municipality. such as 94,285, representing about 2.0% of the total population of the region, with a growth rate of 2.96%. Using the rate of the district's population growth, which was 2.96%, the municipal population's current figure is 115,644.

Men make up approximately 50.9% of the estimated total population and women, 49.1%.

Ahafo Ano Norte District Assembly. It is estimated that approximately 44.2% of the current population of the municipality is in the 0 to 14 age range, while those aged 15 to 64 make up about 48.8%. Those aged 65 and over make up about 7% of the estimated total population. The district's population density is 125 people per square kilometre. This is lower compared to the regional Ashanti number of 148 people. per square kilometre, but higher than the national average of 79 people per square kilometre. The average district household size is 5.



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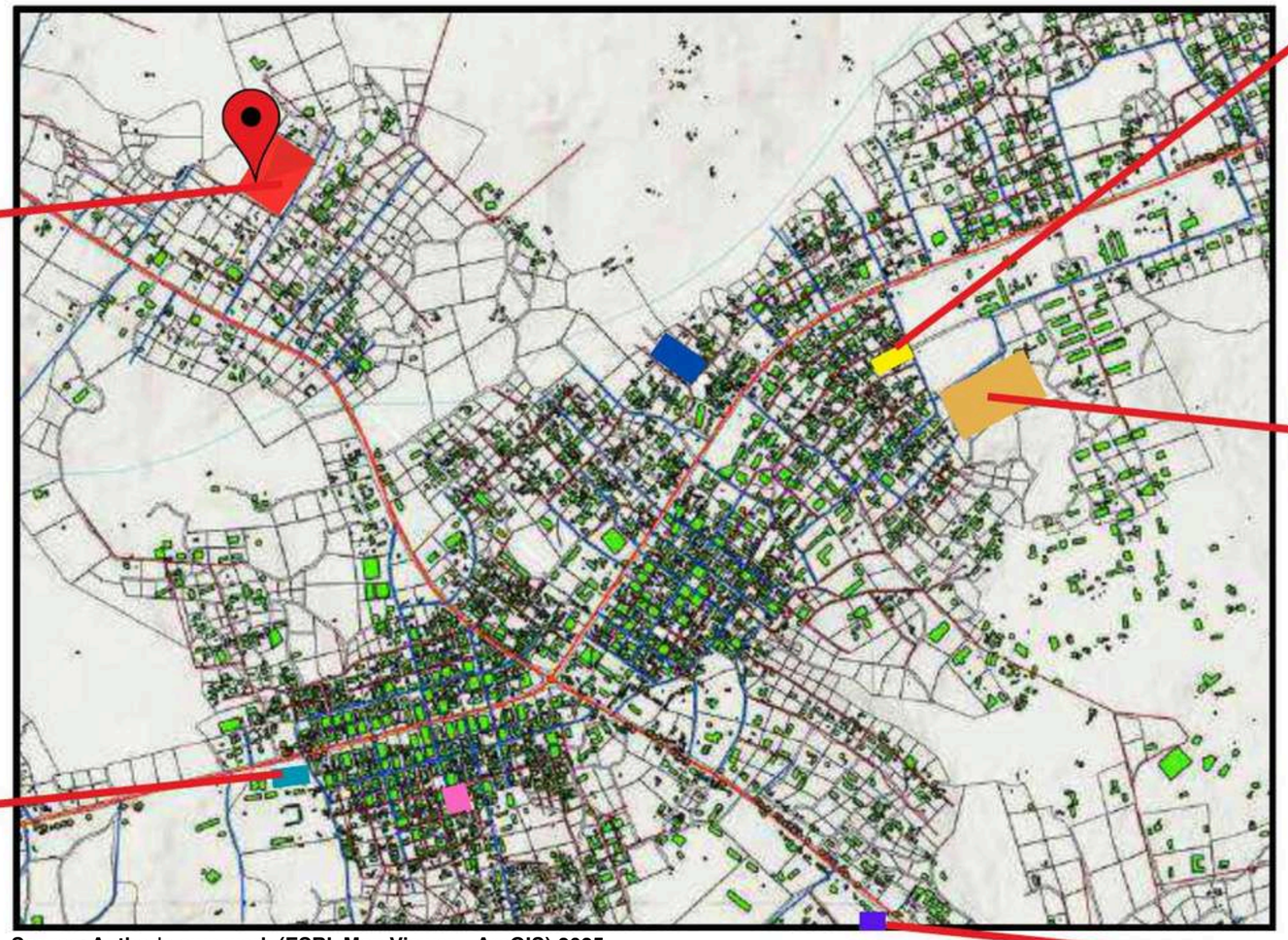
6.6 Land Use - Tepa

Public infrastructure such as Tepa secondary school, training in immigration services and health units They also occupy a considerable amount of land, serving the The needs of the local population and nearby cities. The Chiefs Palace serves as a local court, handling disputes local land ownership and land acquisition.

In addition to education and health, these public institutions generate jobs for teachers, healthcare professionals and staff security, while also attracting businesses such as Hostels, restaurants, and transportation services. This stimulates local economic growth and improved quality of life for residents. In addition, access to education and health promotes social stability, reduces poverty and minimizes rural migration to urban, creating better opportunities within the community.

Figure 51: Land Use - Tepa.



Source: Author's own work (ESRI. Map Viewer – ArcGIS) 2025

Figure 52: KING JESUS - TEPA

Source: Facebook. (King Jesus Orphanage profile)

Figure 53: Catholic Church - TEPA

Source: Google Maps. 2025

Figure 54: Secondary school - TEPA

Source: Tepa SDA JHS

Figure 55: High school - TEPA

Source: Schools in GH

Figure 56: Immigration service - TEPA

Source:Tepa Immigration Training School

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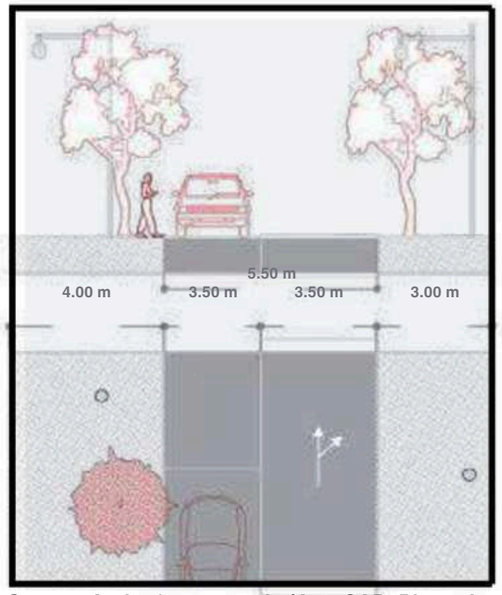
Road System 6.7

There is a total of 520 km of road network in the Municipality, of which 49 km are paved and 471 km unpaved. This has been a major problem for the development, because mobility from one community to another is almost impossible during the rainy seasons.

Tepa Street - Goaso

Tepa Street - Goaso Road has approximately 15 meters of roadway with a distance of 1.72 km from the centre of Tepa to the outskirts of Tepa. The main road from the centre of Tepa to the study area does not have published information that may be helpful in this project.

Figure 57: Dimensions of the roads in Tepa

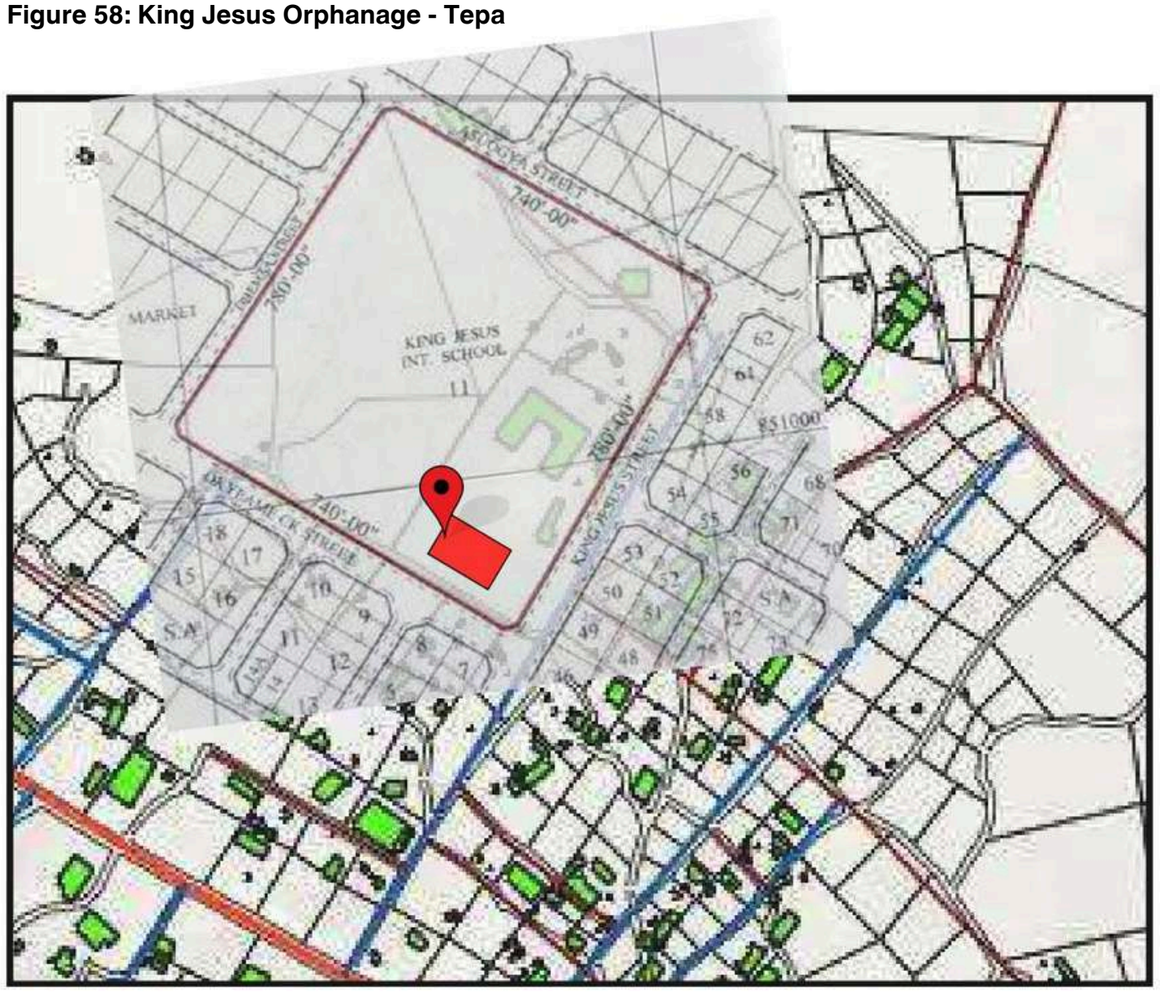


Source: Author's own work. (AutoCAD, Photoshop) 2025

Mankranso Street - Tepa

Mankranso Street has a roadbed approximately 15 meters wide. accessible by car, 1.2 km from the centre of Tepa to the surroundings of Tepa.

Figure 58: King Jesus Orphanage - Tepa



Source: Author's own work (ESRI. Map Viewer – ArcGIS) 2025

Caption:

Main Roads

Secondary roads

Tertiary Roads

Trail

Study Area

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TEPA TOPOGRAPHY

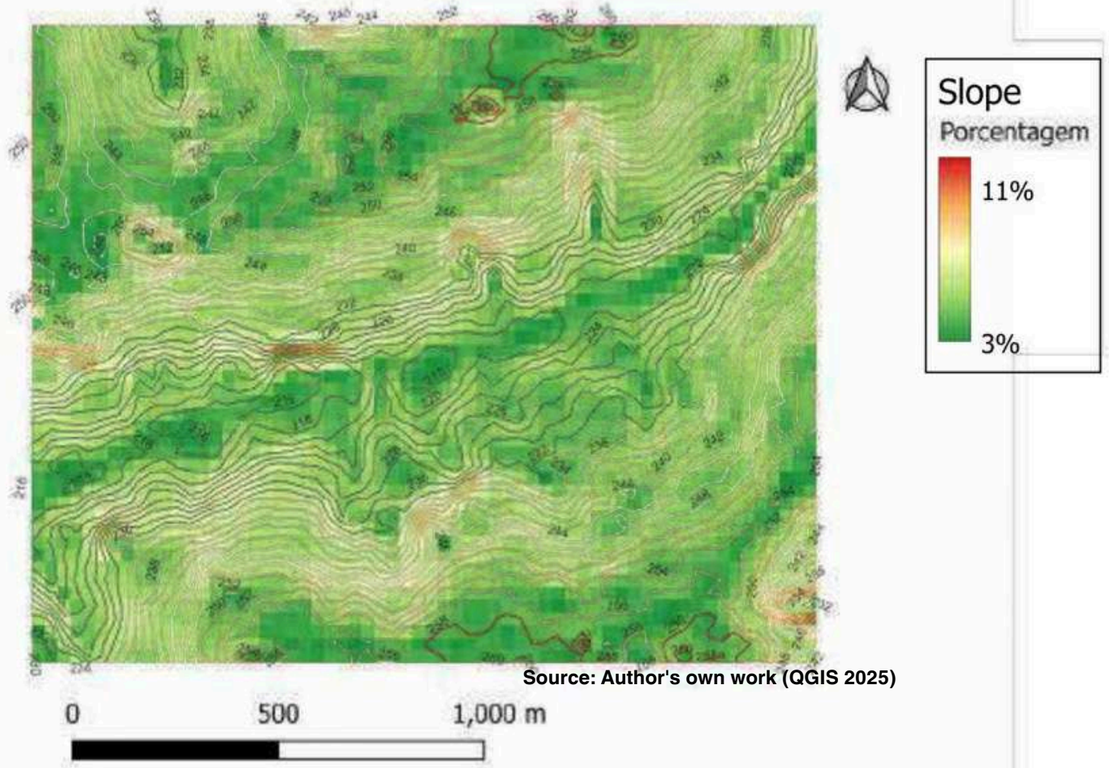
Topography and slope of the land Tepa 6.8

Topographic analysis is fundamental to understanding the physical characteristics of the terrain, affecting this directly influences choices regarding the implementation, accessibility, and spatial structuring of the project. The survey aims to identify the natural conditions of the area, such as relief, drainage, and boundaries physical aspects, in addition to evaluating the technical feasibility of the proposed intervention. However, access to data Accurate surveys of the terrain and its surroundings faced significant limitations, as described below.

The data needed to develop a constructive and social typology of the surrounding area, as well As for the precise definition of local zoning, information is not readily available in public sources, including widely used platforms such as Google Maps or Google Earth. The lack of accessible information highlights the need for field investigations, supplementary and direct consultations with the relevant municipal bodies, such as urban planning and technical registration departments.

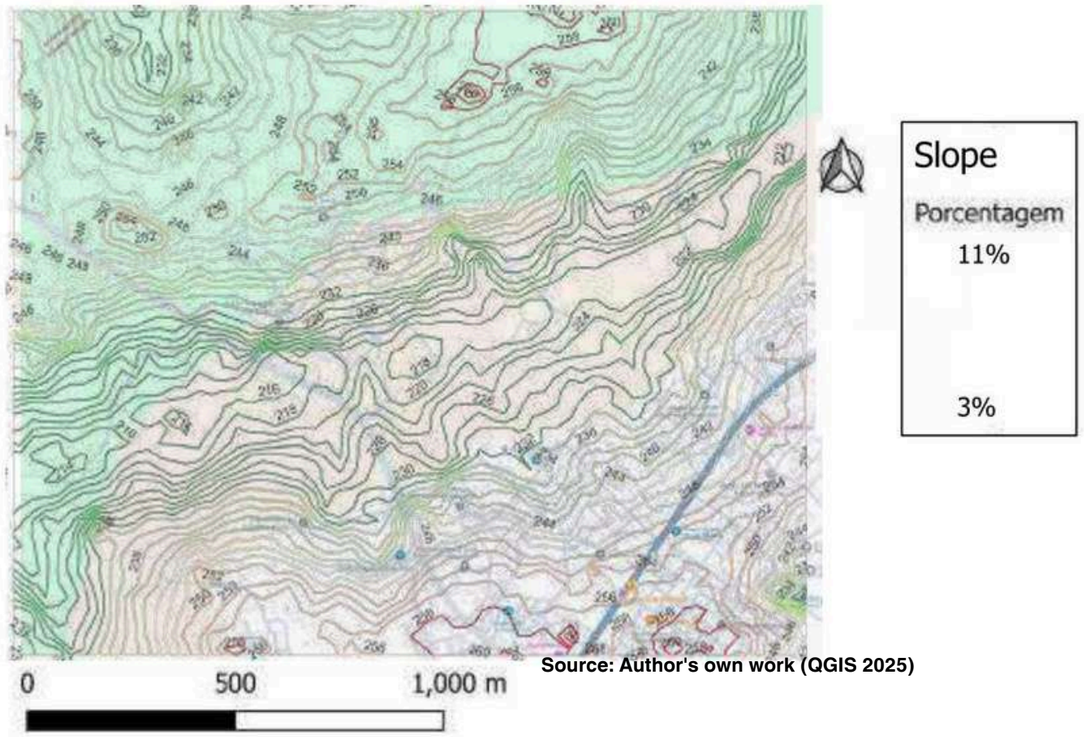
The scarcity of systematized data reflects a structural weakness in the systems of georeferencing and urban mapping in certain regions, compromising the accuracy of territorial analyses. This gap hinders the formulation of well-founded urban planning proposals based on evidence. In the case of this project, unfortunately, it was not possible to obtain technical information. essential elements that would ensure greater accuracy, reliability, and legitimacy to the proposed design intervention.

Figure 59: Slope of the land Tepa



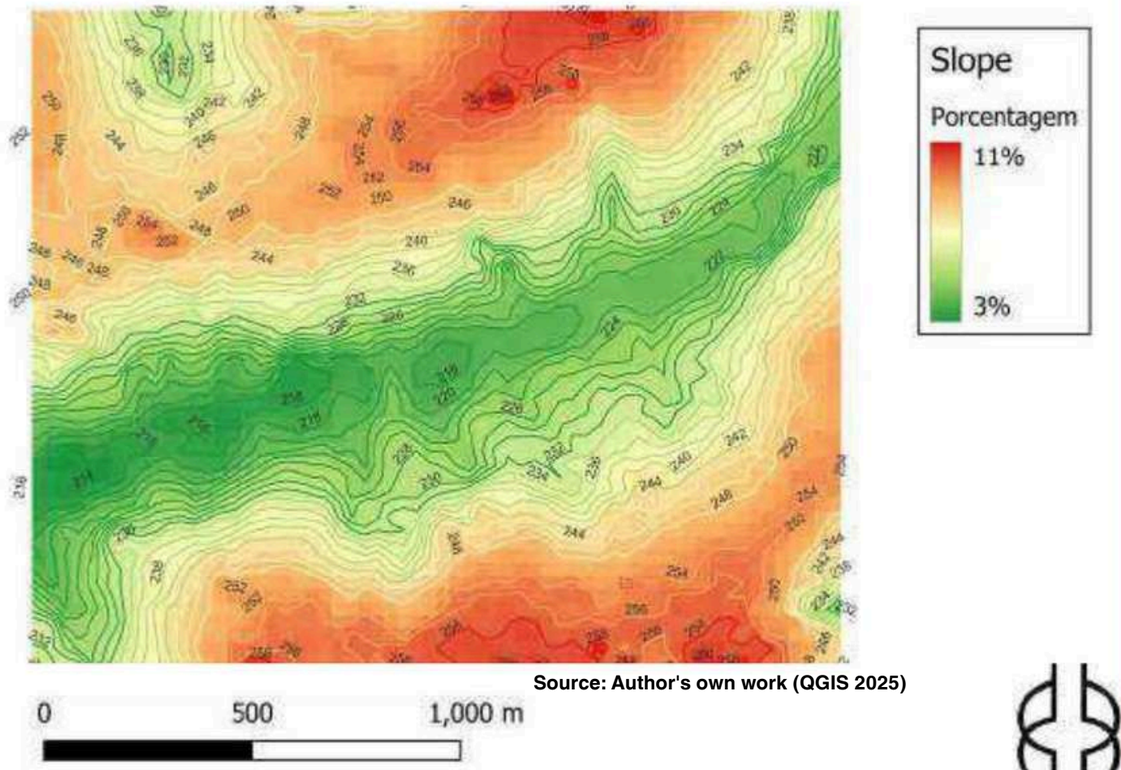
Source: Author's own work (QGIS 2025)

Figure 60: Topography of the land of Tepa



Source: Author's own work (QGIS 2025)

Figure 61: Slope of the land Tepa



Source: Author's own work (QGIS 2025)

Link to access the topographic map of Ghana : https://en-gb.topographic-map.com/map-rwtp/Ghana/?center=7.00466%2C-2.1663&zoom=17

7.17.0 AREA OF STUDY

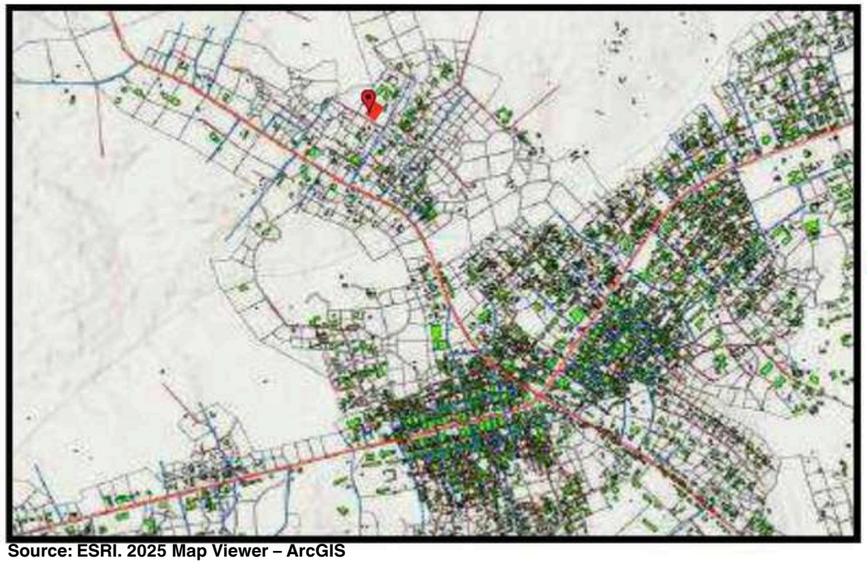
Presentationof the Land

The choice of landlocated at the KingJesus orphanage,in the city of Tepa, Ahafo Ano Norte Region, in Ghana, is based on technical, social, and strategic criteria aligned with the central objectives of this work course completion. The land belongs to a family known to the author, which facilitates access to the space with a simplified and legally secure method.

The creation of a public square in this location aims to address the evident lack of diverse public spaces in the region, configuring itself as an occasional action of the social and urban development of the community. The area has specific physical characteristics, such as flat topography, good accessibility, and proximity to main roads. Furthermore, it is situated within a context of social vulnerability, marked by the presence of children, young people, and families in vulnerable situations, especially those living in orphanages and adjacent communities, as shown in Figure 63.

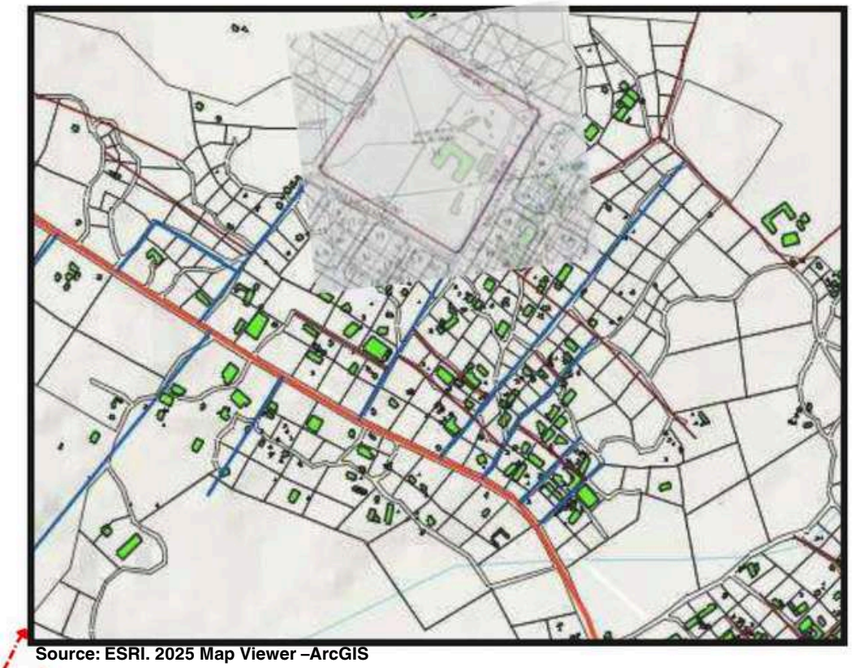
The absence of squares, parks, or public leisure spaces in the vicinity significantly limits the right to the city, which is dedicated to fun and social interaction. In this sense, the public square proposal seeks to create a space that is multifunctional and inclusive, promoting leisure, health, safety, culture, citizenship, and a sense of belonging. The project is based on the principles of social urbanism and spatial justice, prioritizing intervention. in an area where the positive social impact will be more profound and transformative. The space was designed to encourage community ownership, respect local dynamics, and strengthen ties among residents. especially with the most vulnerable. Thus, the choice of land for the King Jesus Orphanage is justified not only by its technical aspects but mainly because of its potential to promote a concrete change in the quality of life of the inhabitants of Tepa. The proposed square aims to establish a new central point for the community, making it a hub of meeting, exchange, and strengthening of the local urban and social fabric.

Figure 62: Tepa -Community



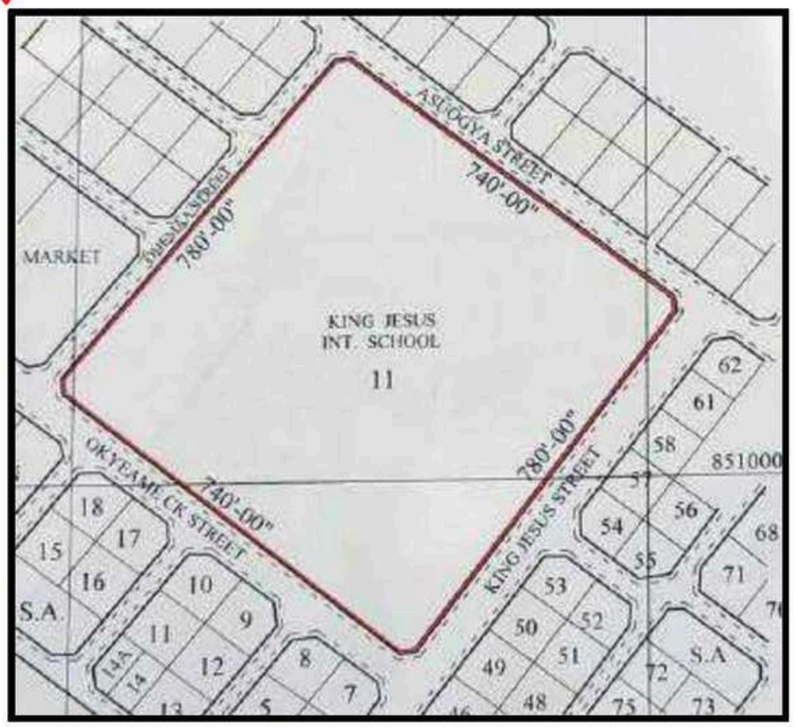
Source: ESRI. 2025 Map Viewer – ArcGIS

Figure 63: Tepa - Community approaching the chosen terrain



Source: ESRI. 2025 Map Viewer –ArcGIS

Figure 64: King Jesus Orphanage - Tepa



Source: Author's personal archive, 2025.

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LAND DELIMITATION

7.2 Land demarcation.

Land demarcation is a fundamental step in defining the physical and legal boundaries of the area. Intervention, guiding design decisions and ensuring compatibility with the urban environment. Figure 66 shows the exact demarcation. In this study, the selected location is situated in the municipality of Tepa, Ghana, within the boundaries of the King Jesus Orphanage. The selection was based on criteria of accessibility, safety, and social relevance, considering the potential of the location to meet the needs of the community and residents of the orphanage. Below are the dimensional characteristics and landmarks that define the exact boundaries of the area designated for the public square.

Figure 65: The community surrounding the land - Tepa

Source: Author's own work. 2025

Figure 66: Marking of the surroundings of the King Jesus Orphanage site - Tepa

LEGEND:

Property boundaries

Area m^2 =76,896.06 m^2

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Land Demarcation.

7.2.1 Land Demarcation

Site Area (105m x 69m) =7,245 m^2

The designated location for the project implementation is a large, flat plot of land located opposite the King Jesus Orphanage in Tepa, as shown in figure 74. This area constitutes a transitional space within the premises. from the orphanage, simultaneously fulfilling functions private and public. Its semi-public nature makes it an ideal location in terms of security, offering protection and controlled accessibility for both the orphanage and for the proposed public square.

The space is regularly used by the local community. during the day for recreational activities, especially football games and funeral ceremonies, and it becomes especially busy after school hours and during weekends.

Figure 67: Implementation Area

Source: Author's own work, Google Earth Pro, AutoCAD. 2025

LEGEND

Implementation Area

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7.3 Initial Site Studies

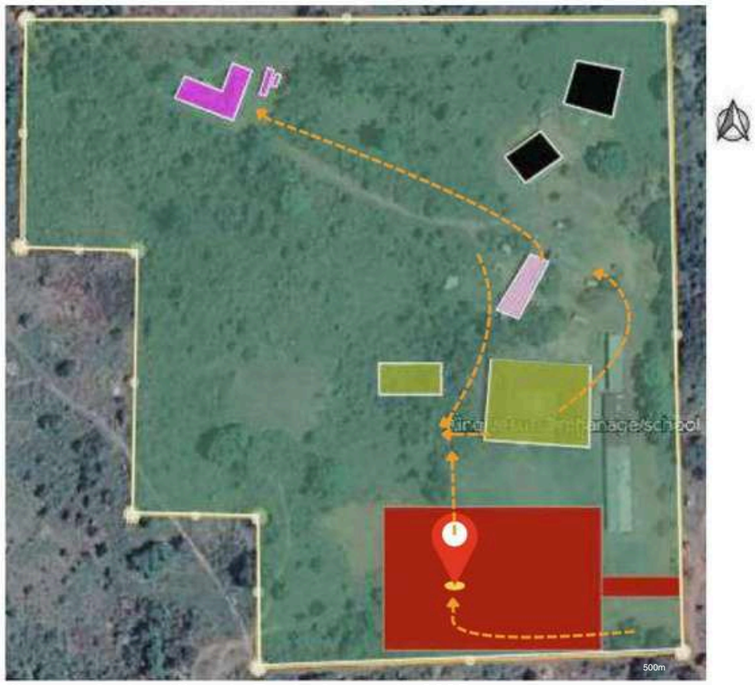
The implementation phase is fundamental to understanding the project's relationship with the land and its immediate surroundings. This section presents the initial studies. carried out on the site intended for the square, addressing both the physical conditions and existing challenges regarding the irregular occupation of the surrounding area. The The images included in this chapter help to visualize the physical and urban context that
guided the initial design decisions.

The isolated horizontal section, located on the right side of the pre-existing school building, is currently undergoing demolition. This intervention aims to enable the construction of new classroom blocks with improved functional conditions, contributing to the improvement of educational infrastructure and, consequently, of the learning environment. In the immediate vicinity of the proposed site, one can observe buildings constructed outside the established boundaries.

of the legal provisions defined by the official government subdivision plan, as shown in Figure 67. Many of these structures occupy land in an irregular way, resulting from informal urbanization processes that disregarded the fundamental guidelines by municipal authorities.

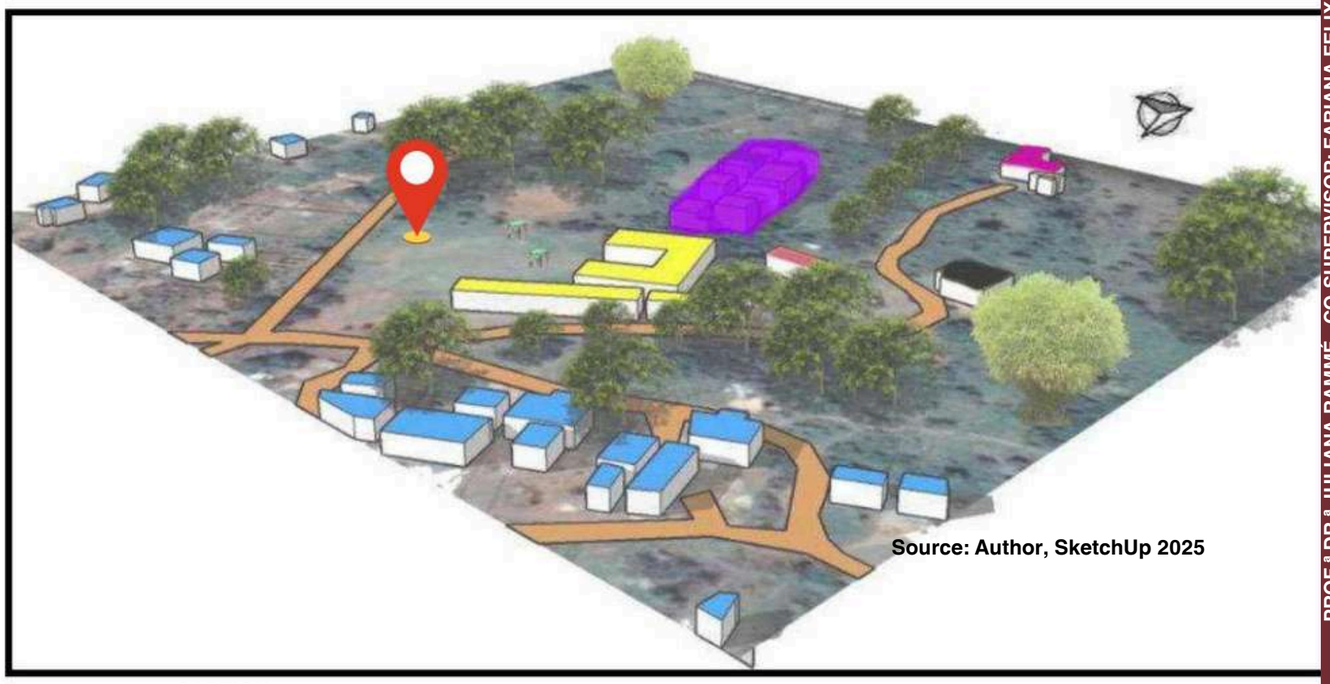
If a future government intervention to regularize and rehabilitate an area is broken, the subdivision where the square will be built could be integrated into the new land use plan. respecting the technical criteria and current urban planning regulations. This adaptation reinforces the relevance of the proposal as part of a land-use planning and justice strategy. socio-spatial.

Figure 68: Initial site/layout studies.



Source: Author (Google Earth, Autocad), 2025.

Figure 69: Location of the existing deployment



Source: Author, SketchUp 2025

CAPTION:

- School
- Canteen
- Separate dormitories for girls and boys.
- Circulation (Ground Flow)
- Residences around the land
- Corn Flour Factory
- Implementation Area

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Figure 70: Initial site/layout studies

Photos related to the map

Corn Flour Factory

Separate dormitories for boys and girls.

Cafeteria

School

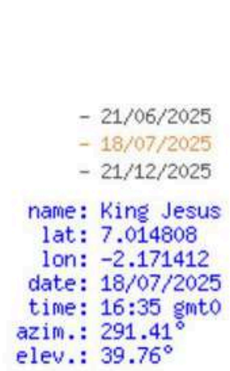
School

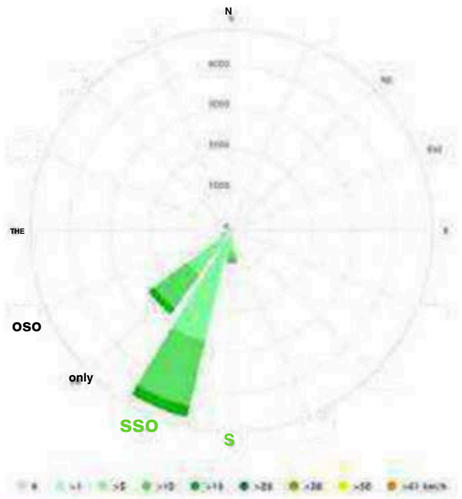
Source: Author (Google Earth, Autocad), 2025.

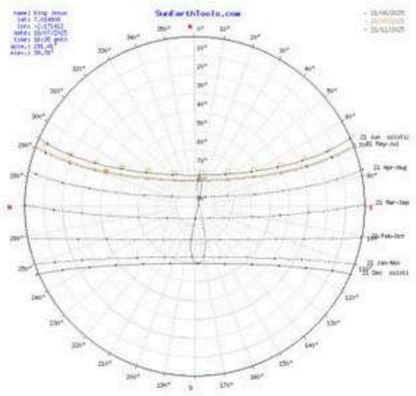
Note: It was not possible to obtain images of the corn factory and the dormitories.

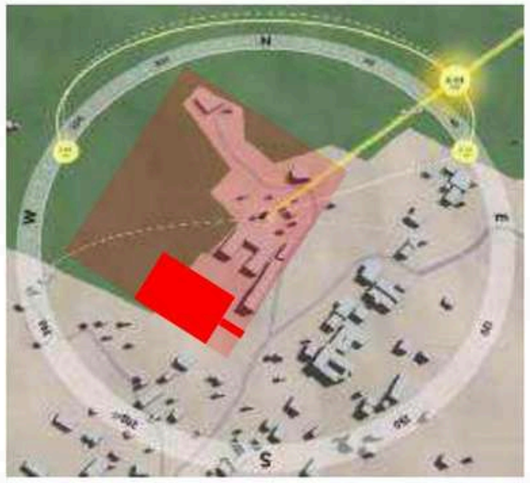
7.3.1 Solar Analysis and Wind Direction

Solar and wind analysis of the King Jesus Orphanage grounds in Tepa, Ghana, highlighted the importance of integrating climate aspects into the square design project. Due to its location near the Equator, the region features constant natural lighting throughout the year, with approximately 12 hours of sunlight per day. The sunset, especially in July, occurs after 5:45 PM, favoring the use of natural light in space. The orientation of the square's axes was planned to enhance the solar incidence, especially on the main route leading to the monument. As for the winds, those from the southwest to northeast predominate. during the rainy season, and the dry northeast during the Harmattan. The project incorporated pathways and vegetation that promote natural ventilation, in addition to vegetation barriers on the northeastern border for protection against dry winds, ensuring thermal comfort and environmental integration to the urban space.









Source: author, (SketchUp 2022), 2025.

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7.4 Land zoning

This stage aims to present a critical analysis of the territory of the city of Tepa, focusing on urban characteristics, land use patterns, and structural deficiencies observed in the study area. The investigation highlights the challenges faced in collecting reliable and up-to-date data, which are fundamental to supporting proposals for urban intervention. The absence of consolidated public information and the fragmentation of the urban fabric reveal that there is an urgent need for more integrated approaches and detailed field research.

The territorial analysis of the city of Tepa reveals a fragmented urban configuration, with a predominance of settlements. informal housing, educational institutions, and small-scale facilities in an urban fabric lacking public leisure infrastructure. Land use in the region is predominantly residential, with some occasional development. schools, churches, and small businesses, but with little or no public space available. coexistence.

The data needed to develop a constructive and social typology of the surrounding area, as well as to define Precise zoning information for the area in question is not readily available from public sources, including widely used platforms like Google. This lack of accessible information reinforces the need for field research and direct consultations with the relevant municipal bodies, such as the planning departments. urban and technical records. The scarcity of structured data also highlights the fragility of the systems. Georeferencing and urban mapping in certain locations compromises the accuracy of the analyses. Territorial limitations hinder the development of well-founded urban planning proposals. Unfortunately, I was unable to obtain this essential information to ensure the reliability and legitimacy of the design intervention.

Figure 71: King Jesus Orphanage - Tepa

Source: Arthur Próprio. 2025

Figure 72: King Jesus Orphanage - Tepa.

Source: Arthur Próprio. 2025

Figure 73: King Jesus Orphanage - Tepa

Source: Arthur Próprio. 2025

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8

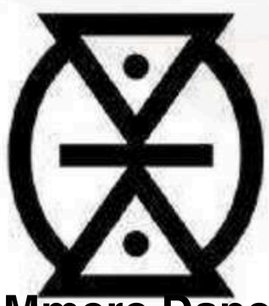
PROPOSAL: NKWA SQUARE

8.1 Concept

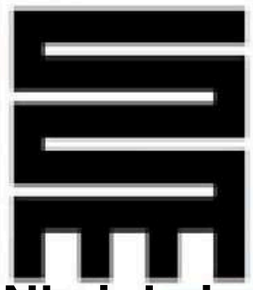
The conceptual development of the project is anchored in deep cultural values that they reclaim African identity and, at the same time, engage with contemporary challenges in urban space. In this section, the concept is presented through traditional Ghanaian symbols, revealing the link between collective memory, social transformation, and architecture as an agent of change. The included images aid in the symbolic and philosophical understanding that underlies the proposal.

Based on the ancient proverb “mmere dane a dane woho” (change your habits when the time comes), the central concept seeks to promote community education and social empowerment by architecture as a means of mediation between tradition and contemporaneity. Rather than a physical structure, the project is configured as a living platform for the promotion of collective well-being and cultural continuity, thus ensuring healthy benefits for the present and future generations.

Figure 74. Adinkra symbols of Ghana



Mmere Dane



Nkyinkyim

Meaning:The journeyof life, dynamism,and learning.

It symbolizes life's twists and turns, including experiences with different cultures. Reflect. Adaptability, personal growth, and historical awareness are essential for learning from the past. It is frequently used to convey progress in the learning process, especially from diverse encounters and experiences. Nkyinkyim is aligned with the message of openness. Cultural growth and development through historical awareness. The Nkyinkyim symbol illuminates the project. Nkwa in promoting adaptation and progress.

'Nkwa,' which means 'life' in the Akan language, serves as the symbolic basis for the project. representing the revitalization and renewal of Ghanaian communities through the creation of Inclusive and vibrant public spaces.

8.2 Visual Identity.

In this way, the plaza project seeks to incorporate a visual identity rooted in local Ghanaian culture, drawing inspiration from the colors, shapes, and materials that are part of everyday life and expressions. traditional to the community. The color palette used is marked by the predominance of earthy tones and strong colors, such as red, black, and ochre-yellow, which are frequently present in traditional fabrics (such as kente) and cultural expressions of the region. These visual elements They reinforce the feeling of belonging and identity among the users of the space. The materials used in the construction of the square were selected based on vernacular knowledge and local availability, which contributes to environmental sustainability, cost reduction, and valuing popular knowledge. Sustainability was a key factor in choosing the materials to be used; therefore, among The main materials used are bamboo, wood, adobe (raw earth), and straw, resources widely used in traditional constructions in the Tepa region due to their thermal resistance. Ease of handling and low environmental impact. Bamboo, in particular, plays a central role not only in the structural composition of small pavilions and urban furniture but also in decorative elements, due to its lightness, durability, and aesthetic appeal. Complementing the materials, natural materials, concrete, and metal were selected to meet the structural demands of the project. being used in bases, light fixtures, poles, and other infrastructure components.

Color palette and textures

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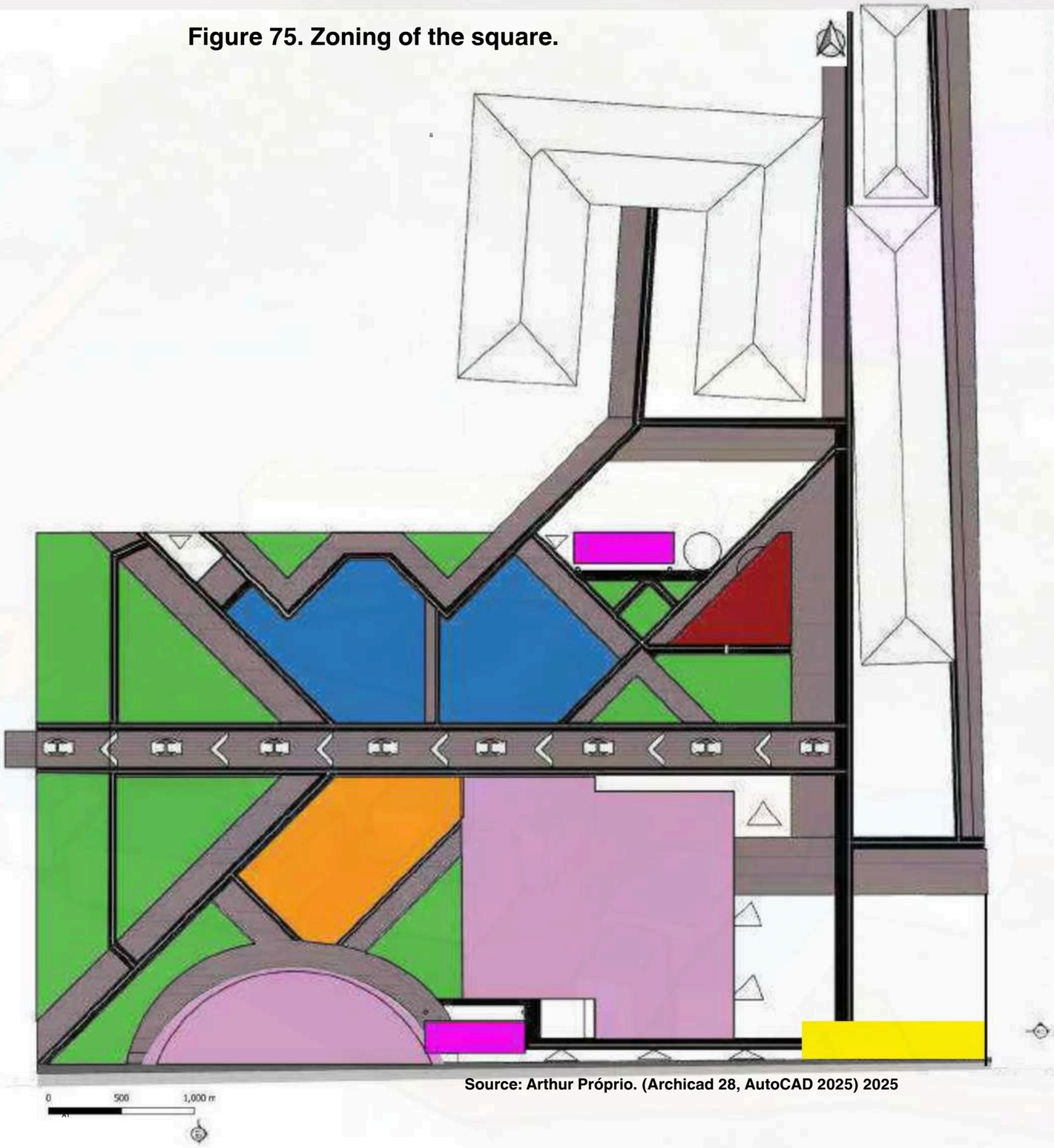
8.3 Sectorization.

The proposed zoning of the public square aims to organize the space's various uses and users in a functional and inclusive manner, ensuring accessibility, intergenerational interaction, and full utilization of the available area. This sectoral division was designed based on the specific needs of the local community, seeking to foster social well-being, recreational activities, and cultural preservation within an integrated and harmonious environment.

CAPTION:

- Cultural Zone
- Sports Zone
- Family and Children's Zone.
- Recreation area.
- Garden Area
- Bathroom
- Parking

Figure 75. Zoning of the square.



Source: Arthur Próprio. (Archicad 28, AutoCAD 2025) 2025

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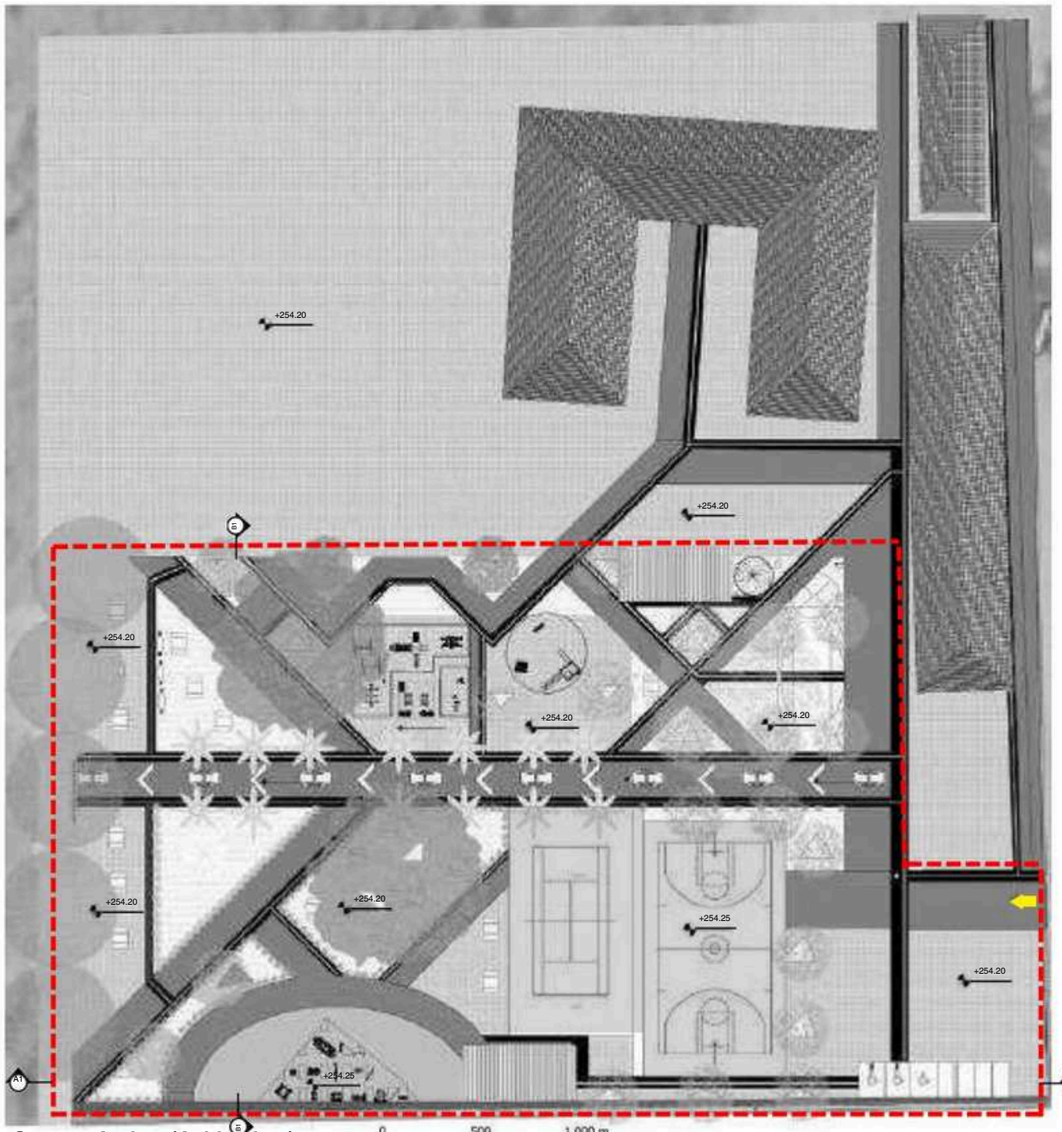
8.4 Implementation



Source: Author (Achicad 28), 2025.

Scale: 1/300

LEGEND:

Main Entrance

Implementation Area

8.5 Requirements Programs

The definition of the square's program requirements was guided by criteria of functionality, social inclusion, and promotion of quality of life in the local community, with special attention to the different age groups and cultural dimensions of the territory. The main programmatic elements are described below:

1. Central Axis for Social Interaction and Circulation.

- Wide, accessible, and interconnected roads.
- Tactile paving and inclusive signage.
- Solar lighting and low-voltage streetlights issuance.
- Shaded benches for rest.

2. Community Multipurpose Space

- Covered structure for workshops, meetings and cultural events.
- Educational panels and community murals.

3. Educational and Agroecological Garden.

- Urban gardens with medicinal plants and food.
- Informative signs about local species.
- Sensory area accessible for people with visual impairment.

4. Interactive Children's Area

- Toys made from recycled wood.
- Rubberized floor for safety.
- Educational tables and board games fixed.

5. Youth Recreation and Social Area.

- Tables for outdoor study.

6. Sports court and outdoor gym.

Inclusive weight training equipment.

- Space for volleyball, tennis, and basketball.
- Drinking fountains and public showers.
- Stretching area with instructional panels.

7. Space of Memory and Cultural Identity

- Monument honoring local leaders.
- Open-air gallery featuring photographs and sculptures.
- Cultural centre built using traditional construction techniques.
- Space for musical performances and storytelling.

8. Supporting Infrastructure

- Accessible public restrooms.
- Recycling bins.
- Safe and efficient night lighting.

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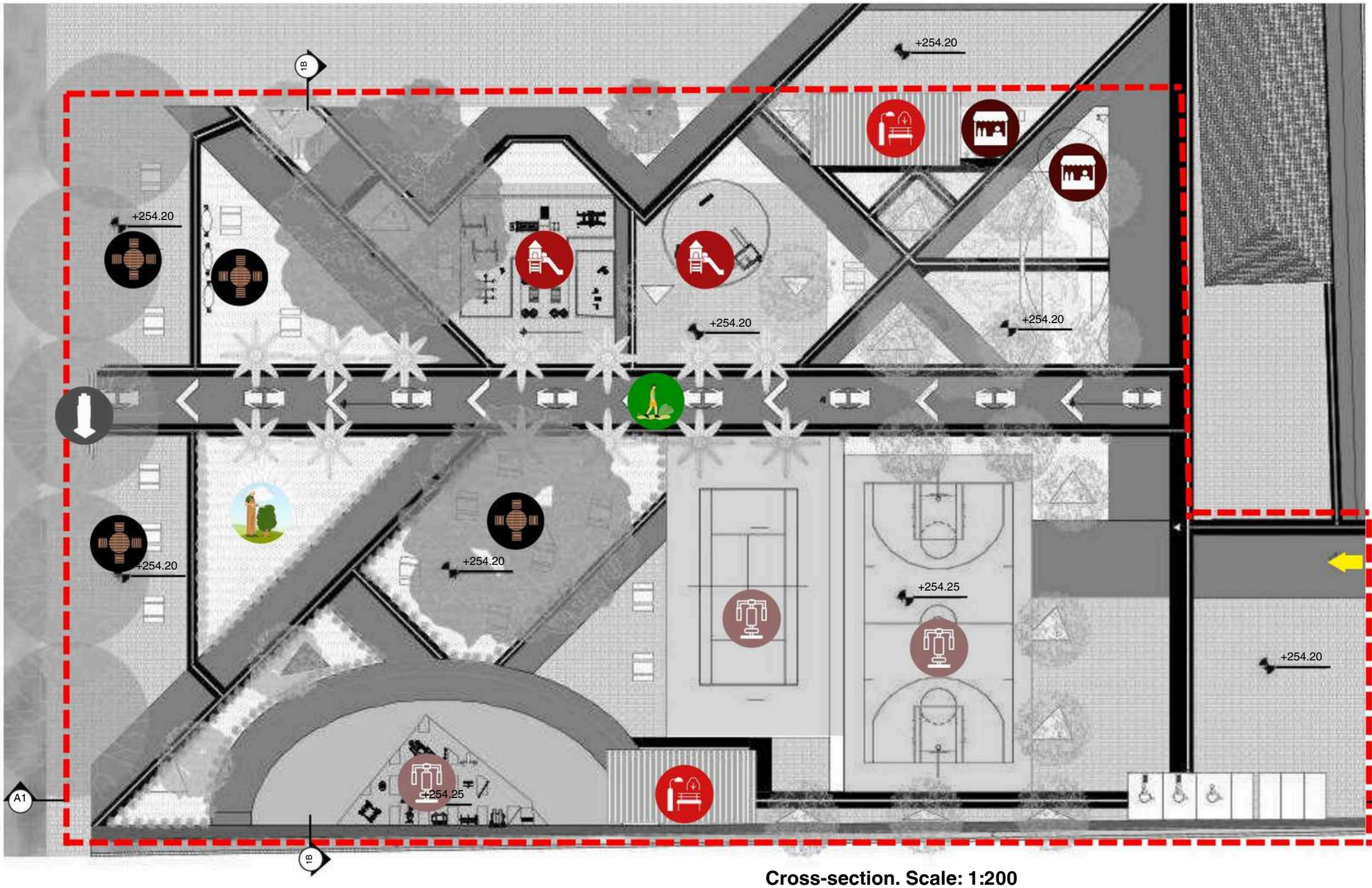
Implantation



Cross-section. Scale: 1:200

Longitudinal cut. Esc: 1:200

Source: Author (Achicad 28), 2025.

Source: Author (Achicad 28), 2025.

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8.6.3 Floor flows and pagination

Crushed stone:

With a focus on sustainable and environmentally responsible solutions, the chosen approach was deliberately to minimize the use of concrete in the paving of the square. Instead of the traditional concrete slab, crushed stone (crushed rock) was adopted. as the predominant material in areas where rigid flooring was not essential. The decision was applied comprehensively, covering most of the total scope of the square. The use of crushed stone offers multiple advantages in the context of the project. Firstly, it is a permeable material, which allows for the absorption of rainwater. directly through the soil, contributing to the reduction of surface runoff and to the replenishing of the water table, a fundamental aspect in times of growing concern about stormwater management. Furthermore, crushed stone has less environmental impact in its production and application, significantly reducing the carbon footprint of the project compared to traditional concrete. From an aesthetic and functional point of view, crushed stone also contributes to creating a more natural and integrated environment, reinforcing the concept of a public square. that respects and engages with the environment in which it is located. Ultimately, this choice reaffirms the project's commitment to sustainability, seeking accessible and environmentally responsible solutions that can serve as a reference for urban interventions in similar contexts.

Sand:

Sand is a material widely used in playgrounds due to its safety, versatility, and sensory benefits. It provides a soft surface. for landing that helps reduce injuries from falls, making it ideal for areas around climbing structures or slides. In addition to safety, the sand stimulates Imaginative and tactile play, which helps in the development of motor skillsCreativity and social interaction. Children can dig, build, pour, and explore. textures, which enhances their cognitive and sensory experiences. Furthermore, sand is a natural and economical material that integrates harmoniously into outdoor environments. Regular maintenance, however, is essential to ensure cleanliness and hygiene.

The red tactile paving

Was strategically installed along the entire axis across the square, functioning as a fundamental orientation element for this lane, which is for people with visual impairments and for all users who are moving around. The guide not only fulfills a technical accessibility function but also has strong symbolic and aesthetic value in the context of the project. The color red was intentionally chosen for its cultural significance linked to life.

and to ancestry, especially in the Ghanaian context, where red can refer to blood shed by ancestors in defence of the freedom and identity of the people. Thus, tactile paving not only physically guides users' steps but also symbolically connects the present to the past, the community to its history. Furthermore, the material used for the flooring ensures strength, durability, and a texture that is sensorially perceptible to the touch of feet and canes, ensuring its efficiency as an accessibility feature. Its continuous presence throughout the route. transversal also acts as a backbone of the project, linking the different sectors of the square and promoting clear, safe and inclusive circulation for

all.

Concrete:

The application of concrete in this project is targeted and strategic, distributed in sectors where its mechanical resistance, durability, and low maintenance are important. These are essential. The material will be used in the following areas: foundations of restrooms, the technical bandstand, and the senior citizens' cabin, as well as the gym floor outdoors. The choice of concrete in these sectors aims to guarantee structural stability. comfort and safety for users, especially in circulation areas and prolonged permanence. For the foundations, reinforced concrete will be used in accordance with the NBR 6118:2014 guidelines. Design of concrete structures – Procedure ensuring adequate structural performance for the type of soil and the expected loads. AlreadyFor outdoor flooring, such as that of the outdoor gym, a layer of [material/material] will be used. Concrete with a non-slip finish, in accordance with NBR 9050:2020 – Accessibility to buildings, furniture, urban spaces, and equipment; prioritizing accessibility and user safety were prioritized. A controlled use of concrete was chosen in accordance with the principles of sustainability and landscape integration in order to reduce environmental impact and promote lighter and more natural construction solutions in other areas of the project.

The plaza's pathway system was carefully designed to ensure easy access to all its areas, promoting fluidity in circulation and integration between the different sectors, as shown in figures 77 and 78. The main axis, located in the centre of the square, leads directly to the monument in honor of the ancient king of Tepa. The longitudinal extension was designed to create a sense of welcome and solemnity. symbolically guiding the visitor towards a point of remembrance and gratitude.

In addition, an accessible route was implemented, specially designed for people with mobility impairments. This path connects to all areas of the square — for people with reduced mobility or who use wheelchairs. including leisure areas, sports facilities, children's recreation areas, and the community garden—ensuring that the user is often excluded from the experience of the space. In a context like Ghana, where frequently there is a lack of inclusive infrastructure in public spaces, the implementation of this route does not represent. not just a gesture of accessibility, but also a powerful symbol of belonging, respect, and dignity for people with disabilities. Thus, the square becomes a truly dignified, democratic environment designed to welcome the diversity of its visitors.

Figure 77. Main Flow

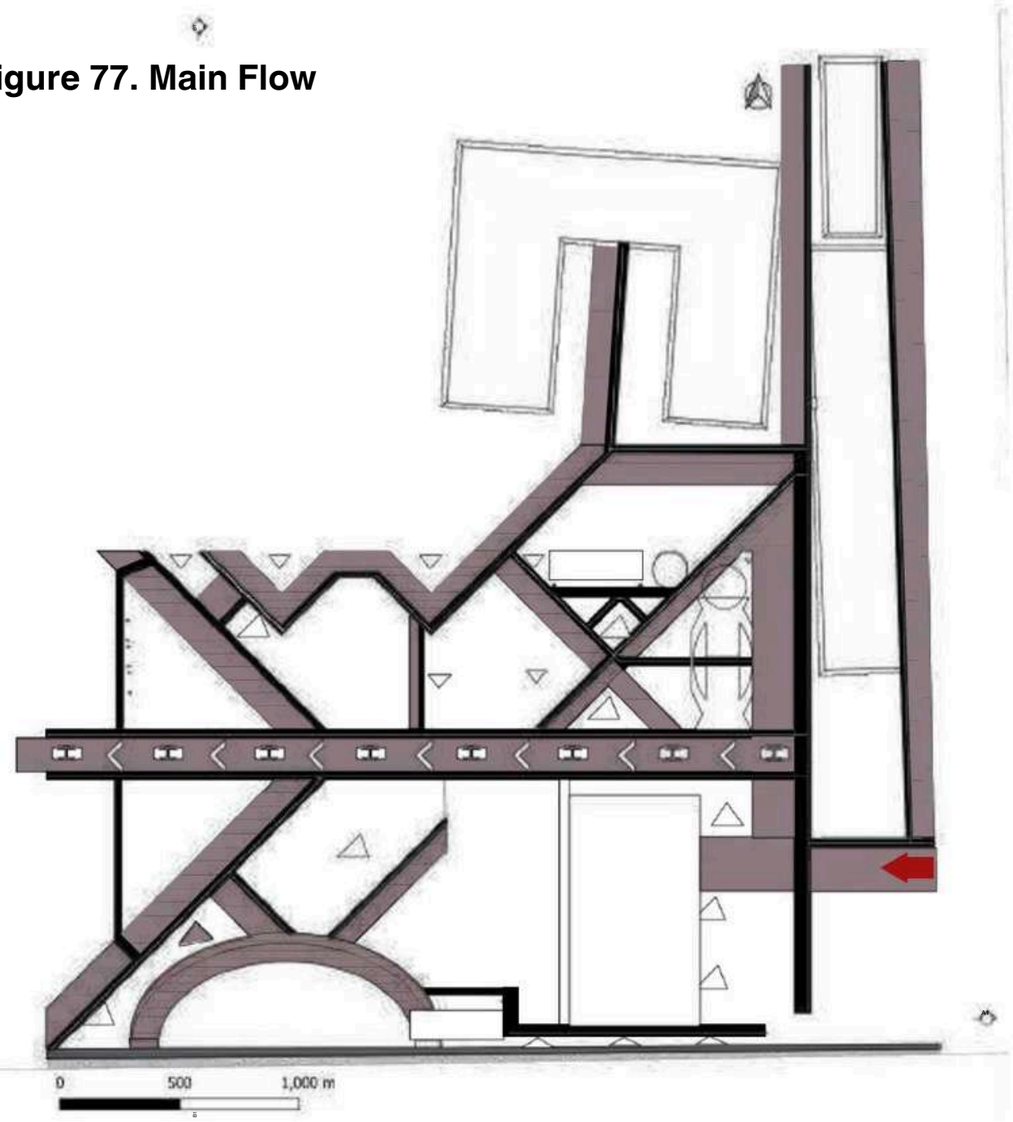

Figure 78. Flow for people with reduced mobility.

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8.6.1 Vegetation

Types of trees planted and their colors

Plant Composition and Landscaping.

The vegetation selected for the landscape design of the square was carefully chosen based on aesthetic, functional, and ecological criteria. The adopted species have predominantly flowers or foliage in red, yellow, and white, creating a palette, a harmonious colour scheme that reinforces the visual identity of the public space and provides a welcoming and vibrant atmosphere.

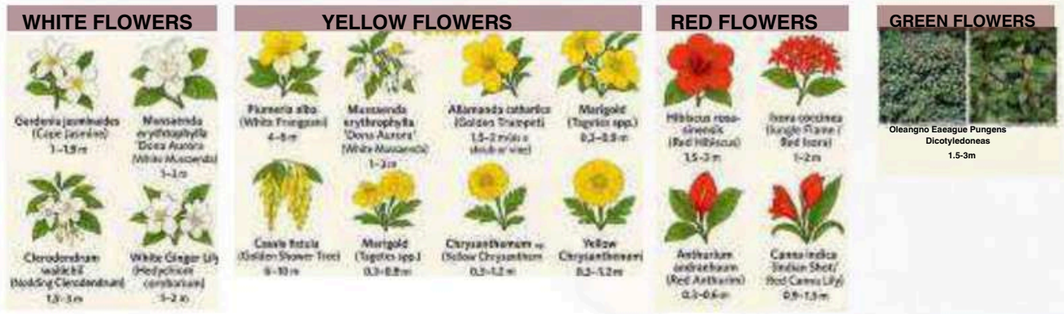
The choice of colors was not solely based on aesthetic reasons but also on their symbolic and cultural potential, evoking sensations of vitality (red), joy and energy (yellow), and peace and balance (white). This palette contributes to building a cohesive visual identity in dialogue with the other architectural elements and with the conceptual proposal of the square as a space for social interaction, memory, and well-being.

In addition to the visual dimension, priority was given to the use of native species or species already adapted to the urban context of Tepa and its surroundings, respecting local climatic conditions, such as the intensity of solar radiation, the rainfall regime, and soil type. This approach contributes to the sustainability of the project, reducing the need for intensive maintenance, artificial irrigation, and constant replacements.

The trees and shrubs were strategically positioned to complement the areas of shading of the square, especially along circulation routes, gathering areas, and zones for children's recreation and sports. The vegetation acts as a microclimatic regulator by providing natural shade, promoting ventilation, and contributing to the thermal comfort of users. Furthermore, the presence of native vegetation promotes local biodiversity and encourages practices of environmental education within the community.

Thus, the landscaping of the square goes beyond a mere ornamental feature, becoming a fundamental component of the proposal for a sustainable public space, sensitive to the cultural context and Tepa's environmental policy.

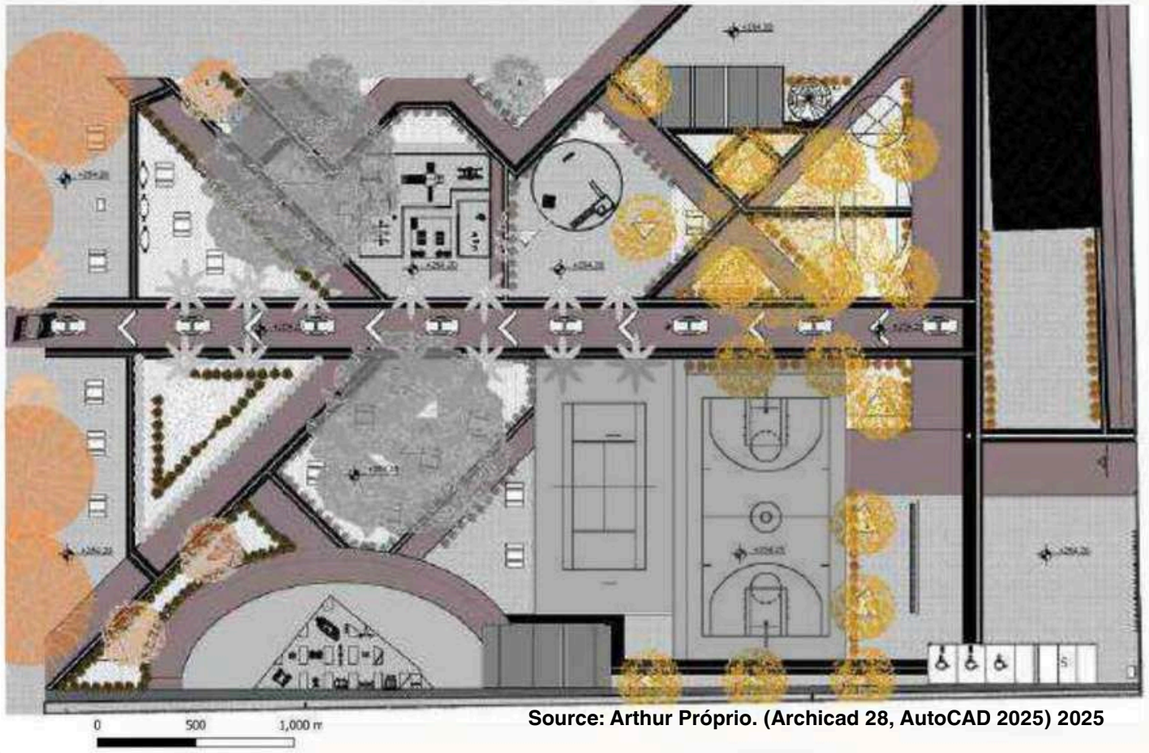
FLATBAND — BUSH



Source: Arthur Próprio. (Archicad 28, Canva) 2025

TREE

Figure 75. Vegetation Plan



Source: Arthur Próprio. (Archicad 28, AutoCAD 2025) 2025

CAPTION:

- Red vegetation.
- White vegetation,
- Yellow vegetation
- Green grass

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8.6.4 Night Lighting

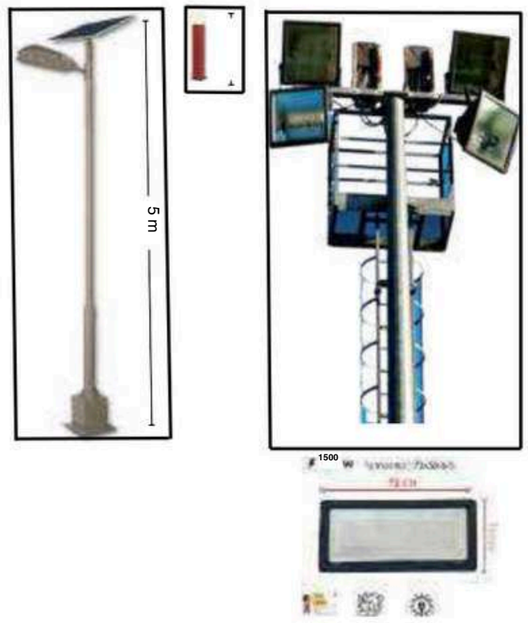
The square's lighting was designed strategically and functionally, incorporating various types of fixtures to meet the specific needs of each zone and ensure safety, visibility, and visual comfort at night. In total, three distinct lighting types were employed, distributed according to the usage and environmental characteristics of each area.

In areas requiring higher light levels—such as the sports zone, the children's section, and the far end of the square characterized by dense vegetation and significant shade—solar-powered floodlight poles were installed. These large-scale poles offer long-range illumination and efficiently cover a wide area, ensuring adequate visibility even in the square's most remote and darkest spots, thereby enhancing the users' sense of safety.

The main pathways and areas with continuous pedestrian traffic have already been equipped with 5-meter-high solar-powered streetlights, whose function is to provide light closer to pedestrian level, ensuring visual comfort, safe orientation, and harmony with the landscaping of the place.

Complementing these elements, the following were added. floor lamps with a height of 60 centimetres along specific stretches of the paths, especially in the most frequented circulation areas, are intimate. These smaller lights not only They enhance sidewalk lighting, but also They offer a welcoming aesthetic atmosphere and

inviting—ideal for couples and visitors who wish to enjoy the square in a more peaceful and contemplative way during the night. A combination of these different lighting levels contributes to a pleasant nighttime experience that is safe and visually rich, reinforcing the proposal's inclusive and sensory aspects.



Source: Author's own work, Achicad 28 (2025).

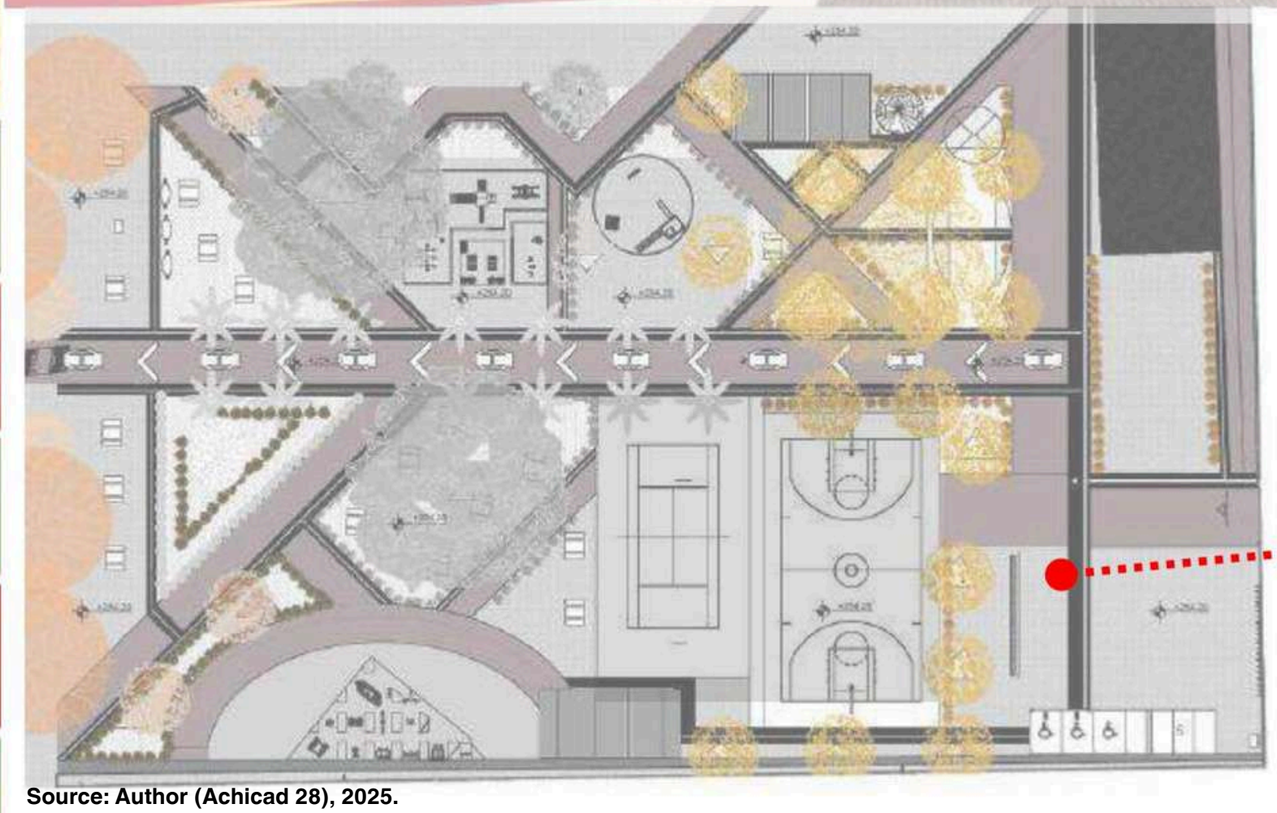
Caption:

- Spotlight lighting.
- 5m post
- 60 cm floor lamp

3D Perspectives Module

Main Entrance

Source: Image generated by the author using Enscape in ArchiCad 28, 2025.



Source: Author (Achicad 28), 2025.

Source: Image generated by the author using Enscape in ArchiCad 28, 2025.

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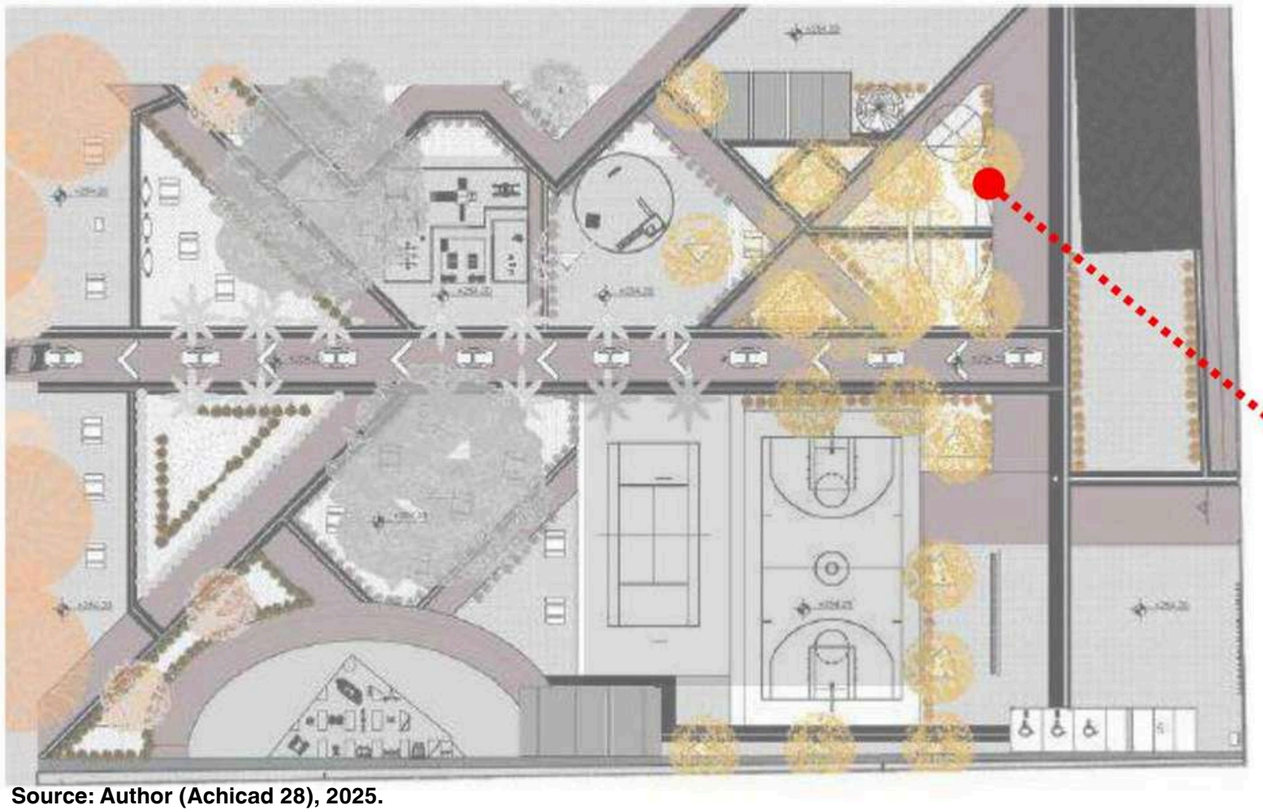
Area with the bandstand and the cabin for the elderly.

Source: Image generated by the author using Enscape in ArchiCad 28, 2025.



Source: Author (Achicad 28), 2025.

Source: Image generated by the author using Enscape in ArchiCad 28, 2025.

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3D Perspectives Module

Main flow

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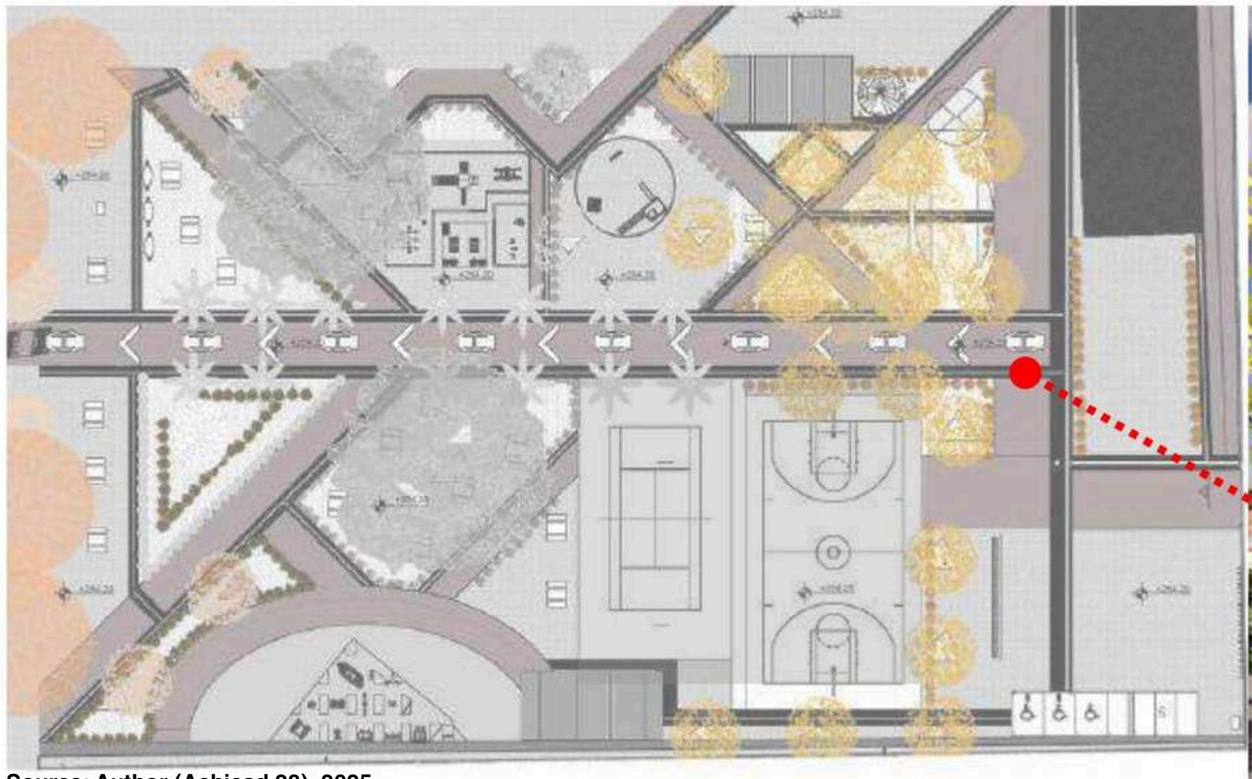

Source: Author (Achicad 28), 2025.

Source: Image generated by the author using Enscape in ArchiCad 28, 2025.

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Playground

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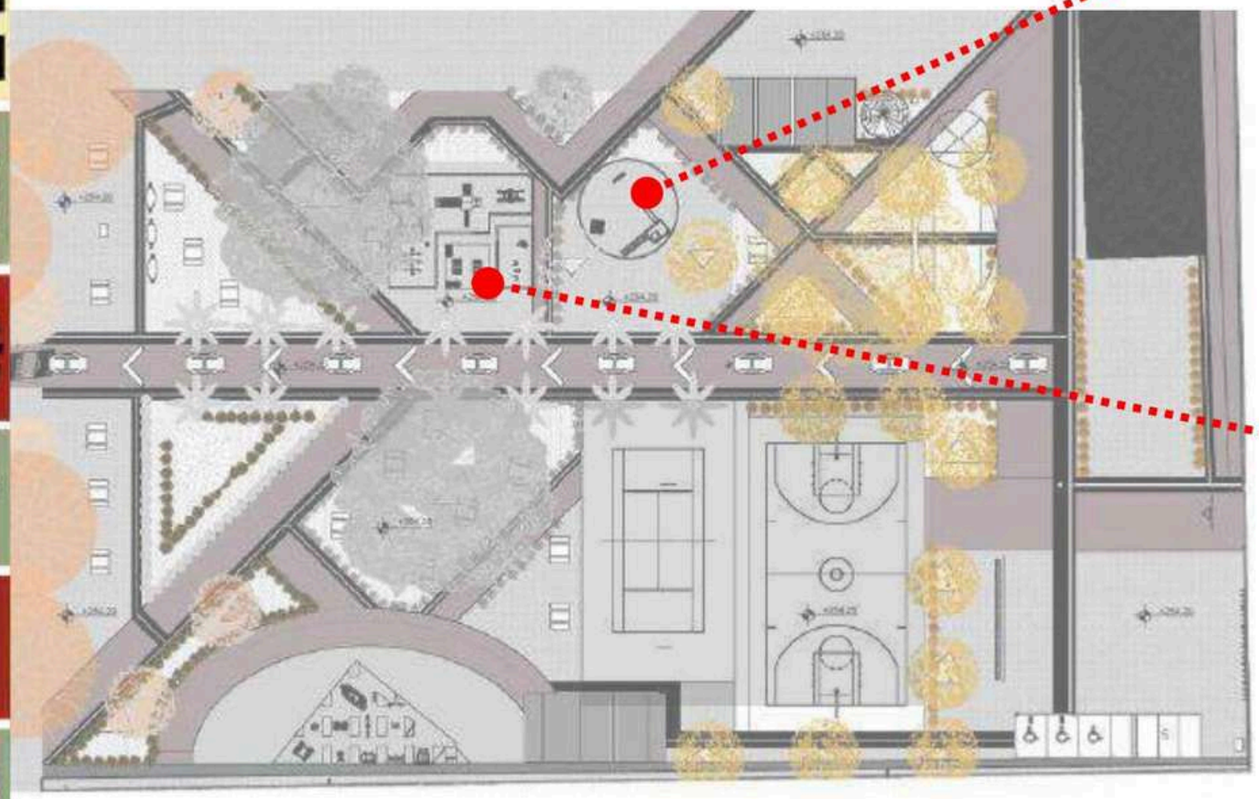

Source: Author (Achicad 28), 2025.

Source: Image generated by the author using Enscape in ArchiCad 28, 2025.

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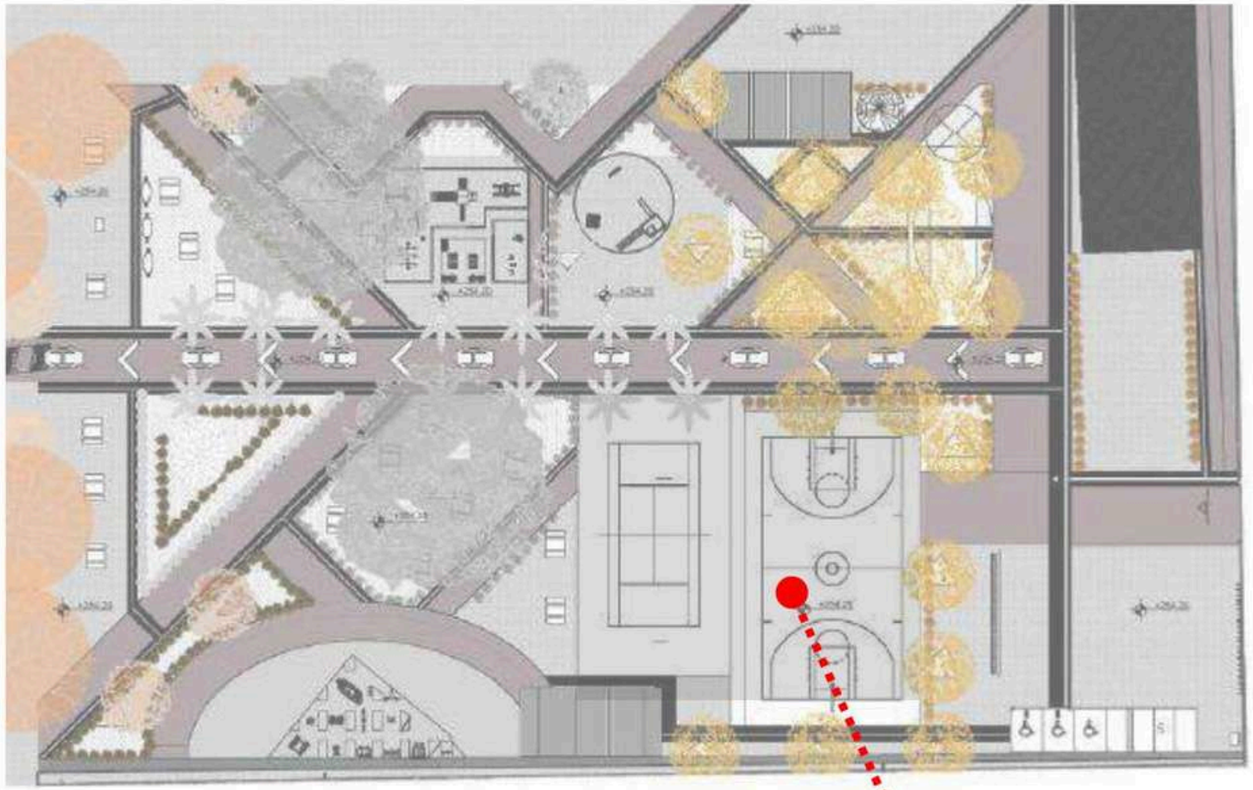
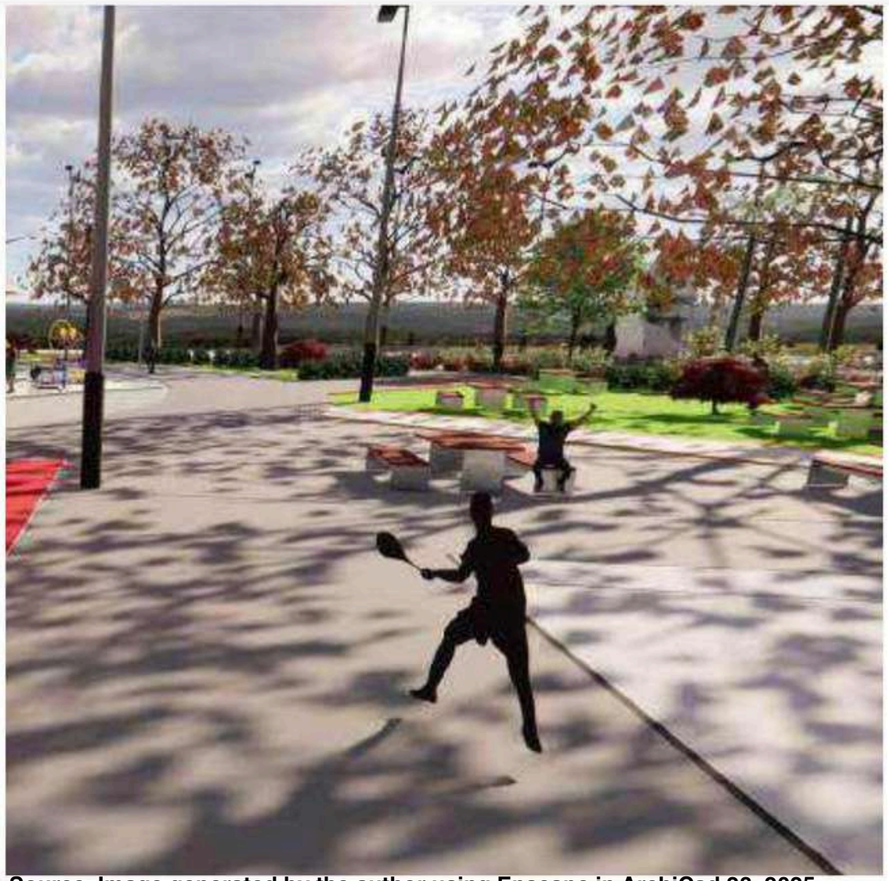
Sports Area



Source: Author (Achicad 28), 2025.



Source: Image generated by the author using Enscape in ArchiCad 28, 2025.

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Recreation Area

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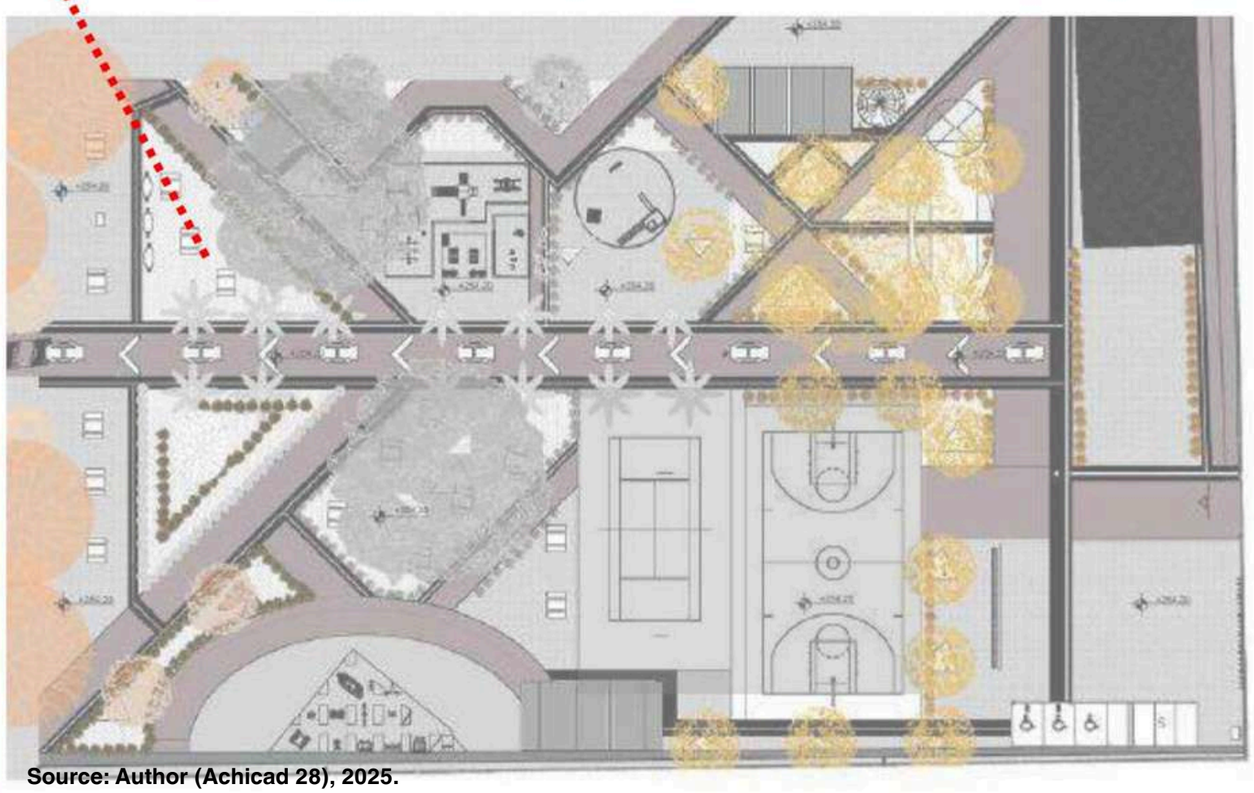

Source: Author (Achicad 28), 2025.

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Outdoor Gym Area

Source: Author (Achicad 28), 2025.

Source: Image generated by the author using Enscape in ArchiCad 28, 2025.

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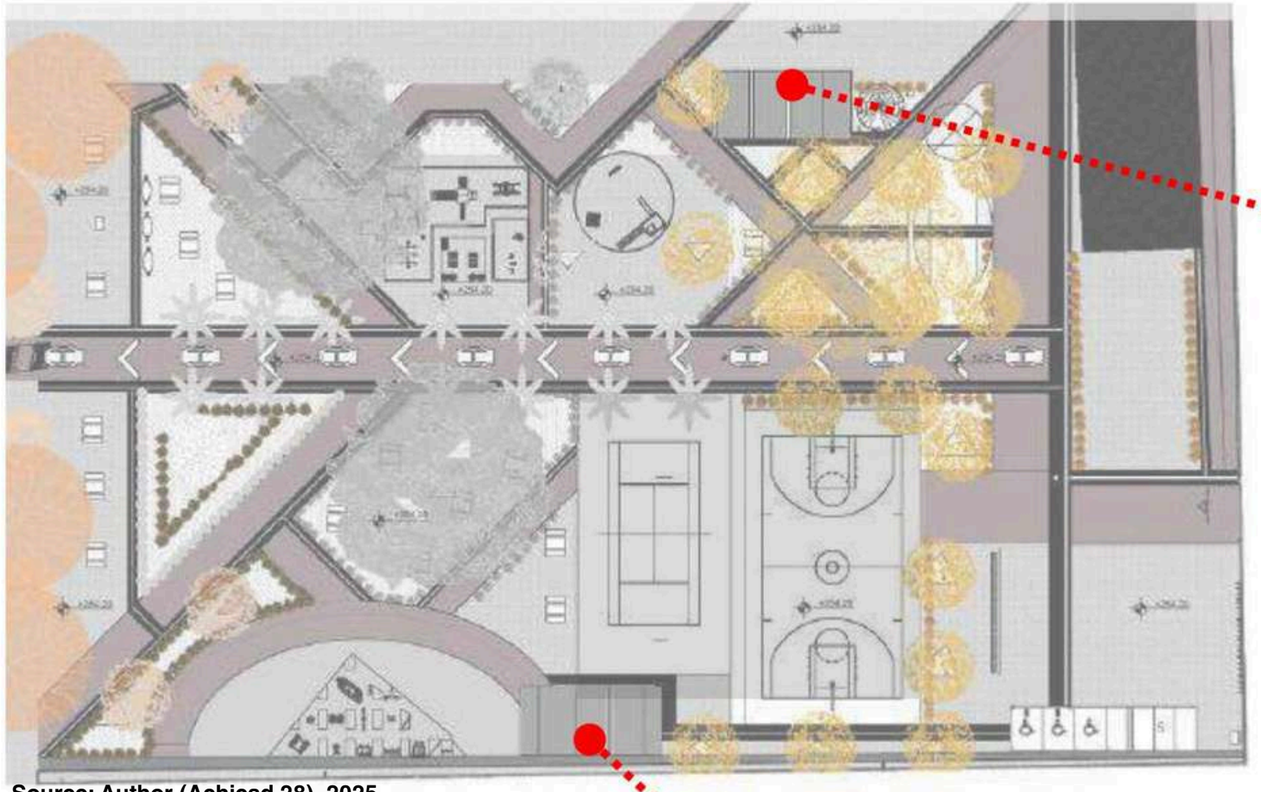
Guest bathrooms.



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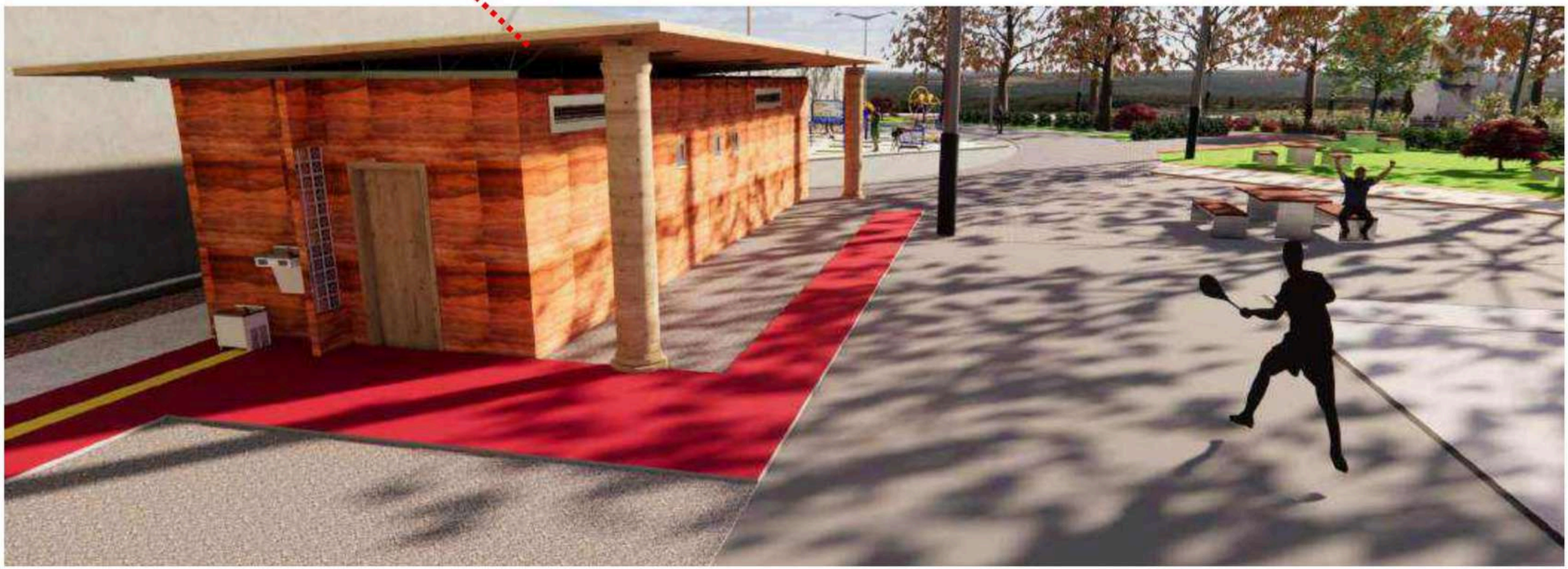

Source: Image generated by the author using Enscape in ArchiCad 28, 2025.

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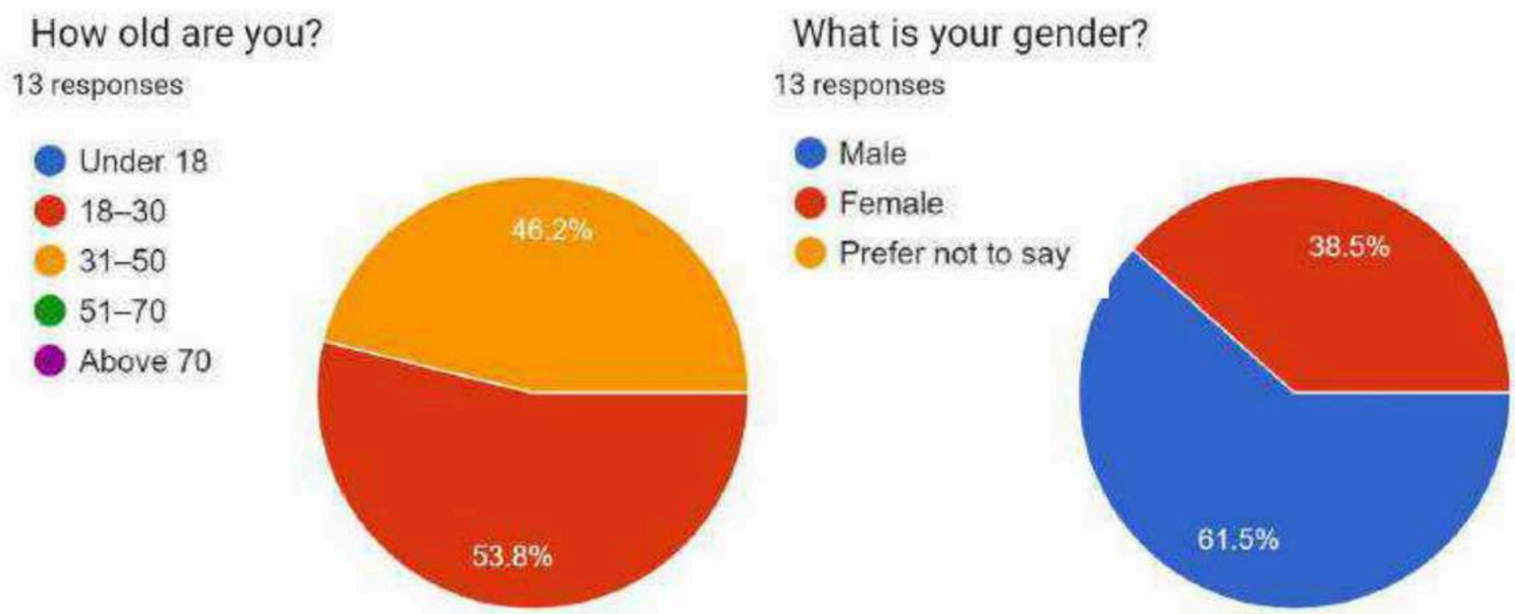
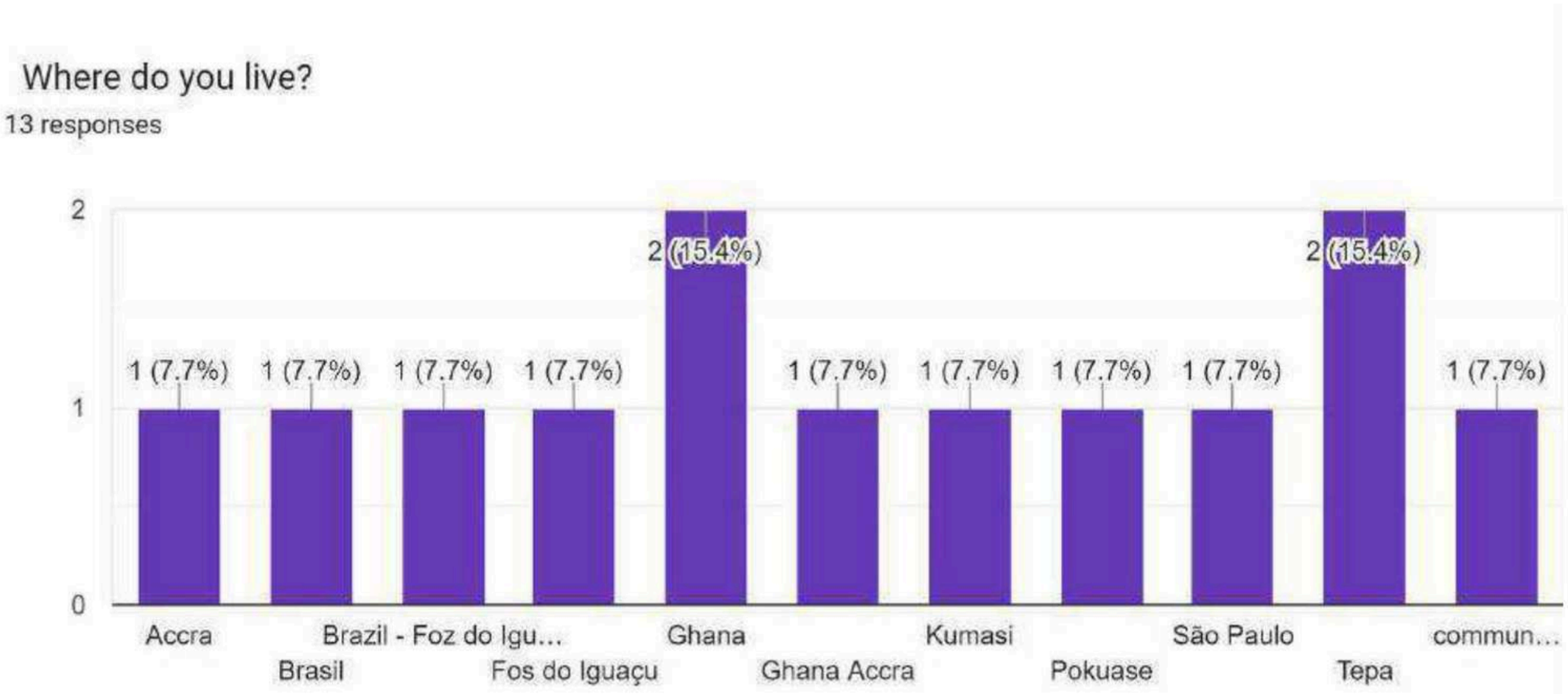
PROPOSAL RESEARCH





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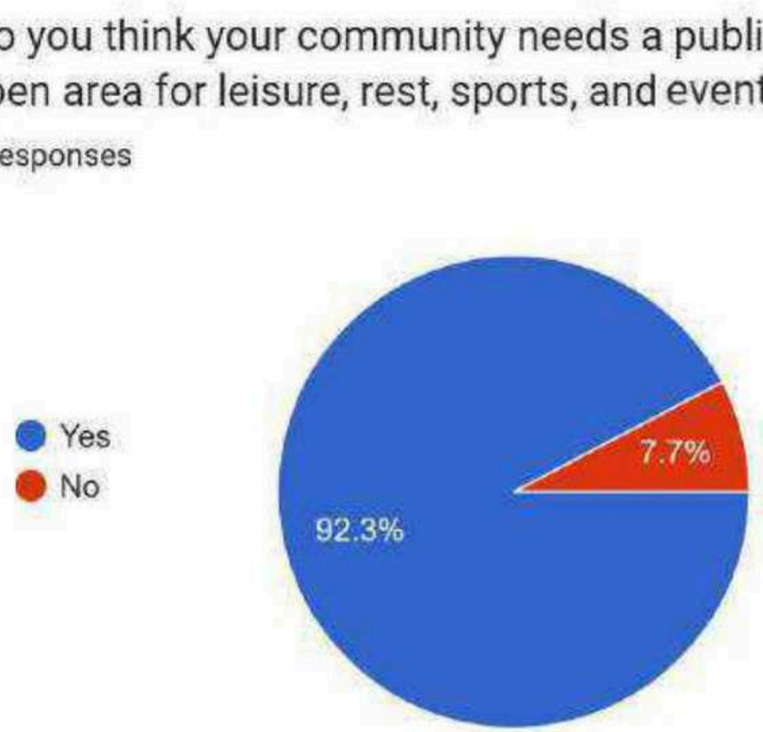

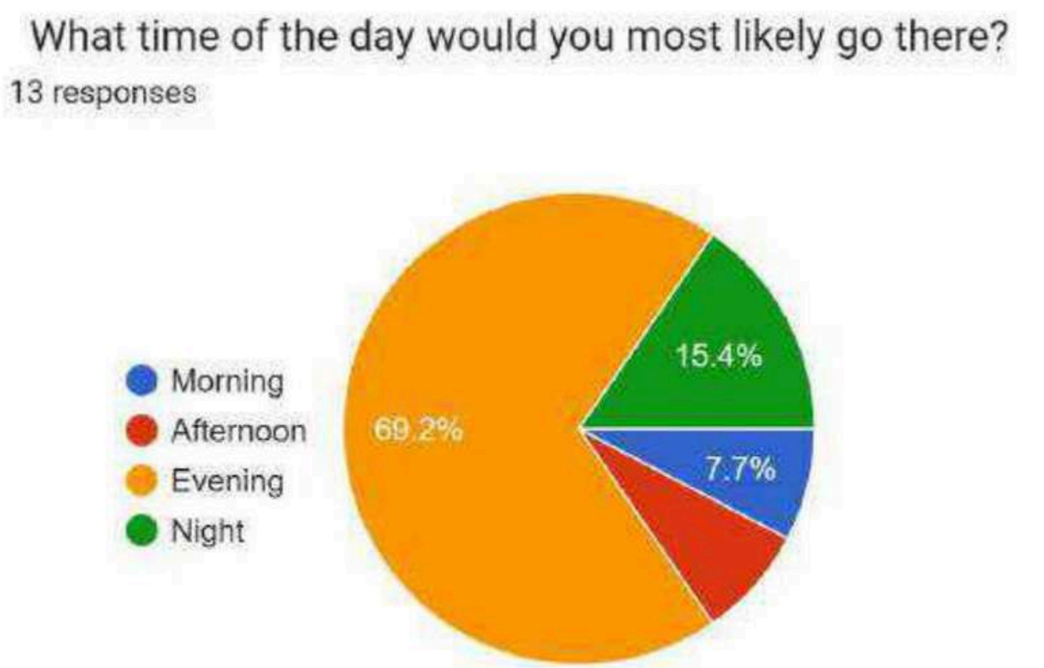

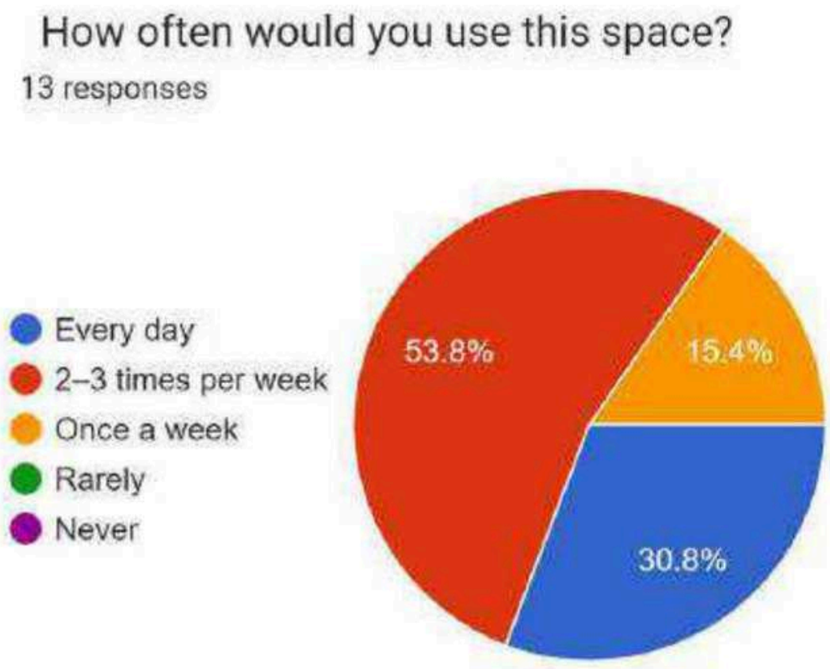

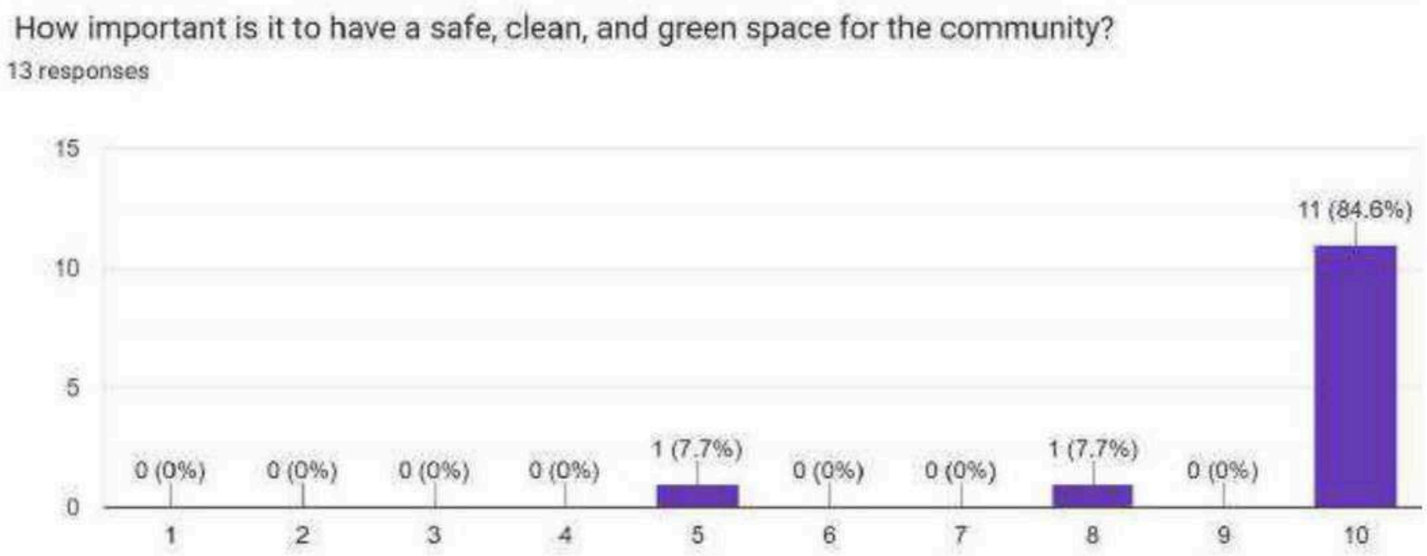

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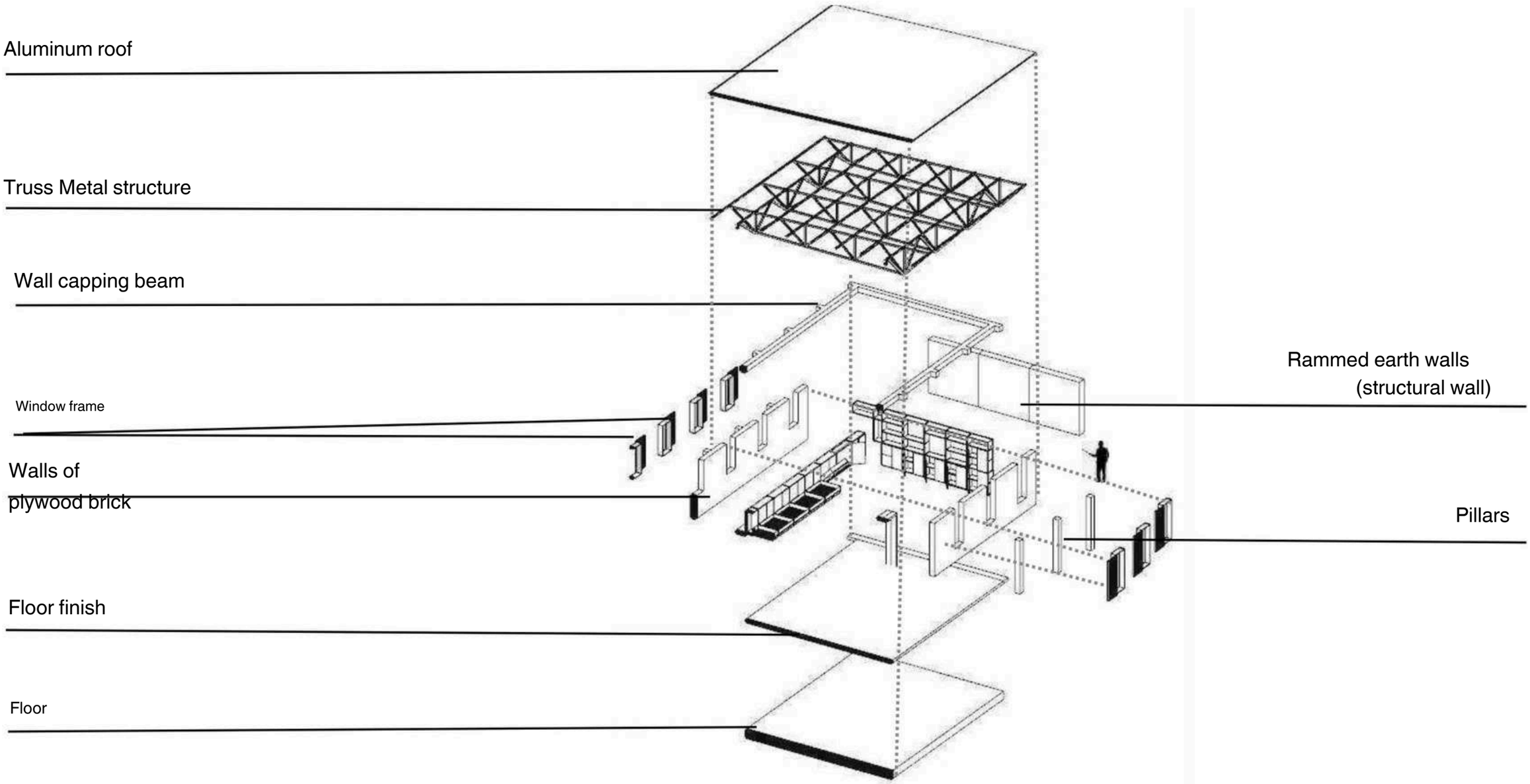
ADDITIONAL DETAILS

Axonometric Bathroom Module



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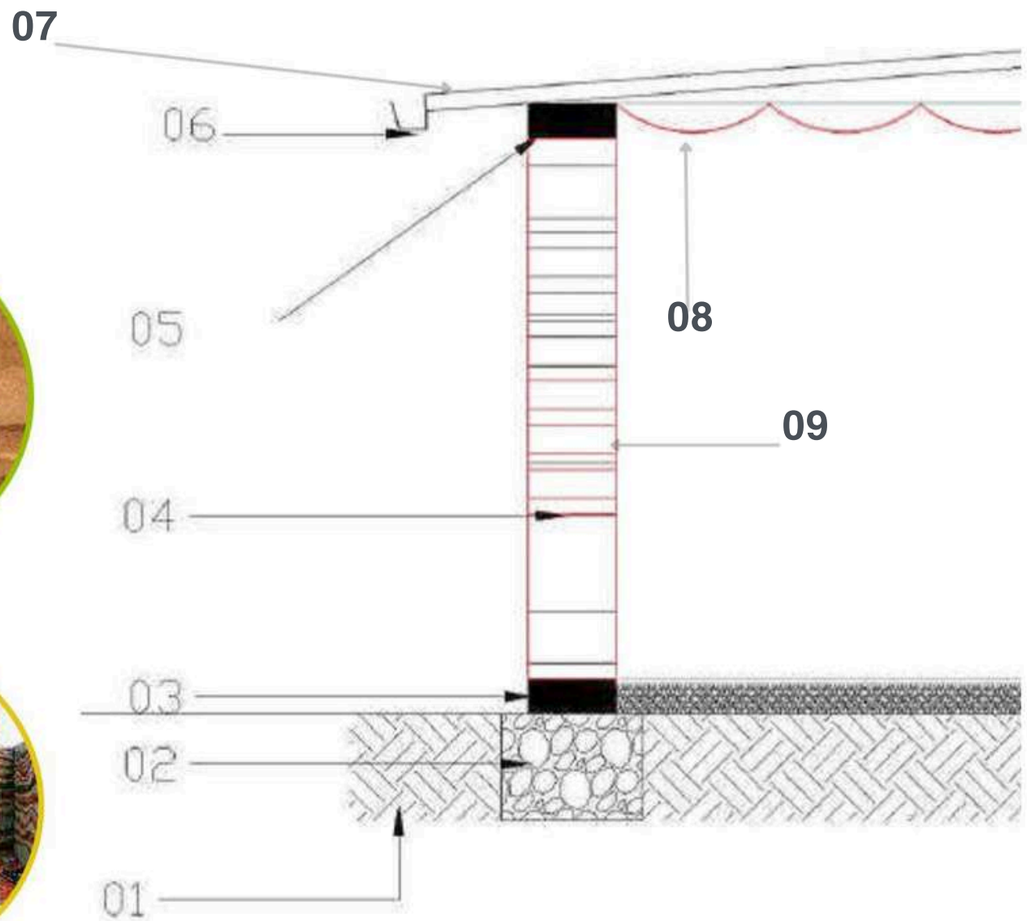
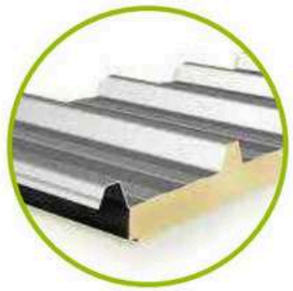
Pillar/ Foundation/ Materials



1. Earth/Soil
2. Compacted stone foundation 3. Concrete/cement brick/plywood brick base.
4. Layers of rammed earth.
5. Concrete crowning.
6. Gutter.
7. Sandwich tile.
8. Fiber fabric lining.
9. Aesthetic wood finish.

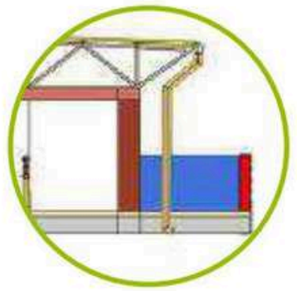
Coverage



Sandwich panel

Metal structure from the roof

Cuumeira transparent



Gutter/decide rainwater

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11 FINAL CONSIDERATIONS.

This capstone project aimed to propose the creation of public squares in Ghana—specifically in the town of Tepa—viewing these spaces as catalysts for urban and social development. A contextual analysis—encompassing historical, social, cultural, and urban aspects—revealed a lack of public gathering spaces capable of meeting the population's diverse needs in an accessible, inclusive, and sustainable mannerThe "Nkwa Square" proposal seeks to address this gap by integrating areas dedicated to sports, children's activities, intergenerational leisure, and the preservation of cultural heritage. The strategic programmatic layout of the space aims to promote collective well-being, encourage healthy habits, and strengthen community ties. Furthermore, the design highlights local identity and respects the specific characteristics of the site.

More than just a localized solution, this project sought to foster broader reflection on the role of public spaces in the daily lives of Ghanaian cities. Thus, my goal was not merely to create a square for children in Tepa, but also to help instill a way of life that is currently lacking across Ghana. Tepa was selected as the pilot location due to its strong emotional and identity-based significance, serving as the starting point for a transformation that could be replicated in other communities.

Among the challenges faced throughout the process, the limited availability of up-to-date urban data and the absence of specific public policies aimed at enhancing public spaces in Ghana stand out, underscoring the importance of further studies and investment in this area.

The initial proposal was to develop a simple plaza designed exclusively to meet the needs of the King Jesus orphanage in Tepa. However, as the process unfolded, the project's transformative potential became apparent, leading to a vision of it as an urban and social catalyst capable of being replicated across different regions of Ghana. This shift in perspective required deep reflection on how to propose an intervention that respected local cultural and social specificities, avoiding the imposition of foreign models disconnected from the Ghanaian reality.

Thanks to the guidance and support of the supervising professors, it was possible to develop a proposal that resonates with the local identity, values traditional knowledge, and simultaneously introduces contemporary urban planning concepts such as accessibility, social inclusion, and sustainability.

It is hoped that this proposal can serve as a basis for future interventions and research, encouraging governments, architects, urban planners, and the community itself to recognize the value of public squares as spaces for gathering, a sense of belonging, and citizenship. Thus, it is believed that initiatives like Praça Nkwa can contribute significantly to building cities that are more humane, sustainable, and just.

Source: Author's personal archive, 2025.

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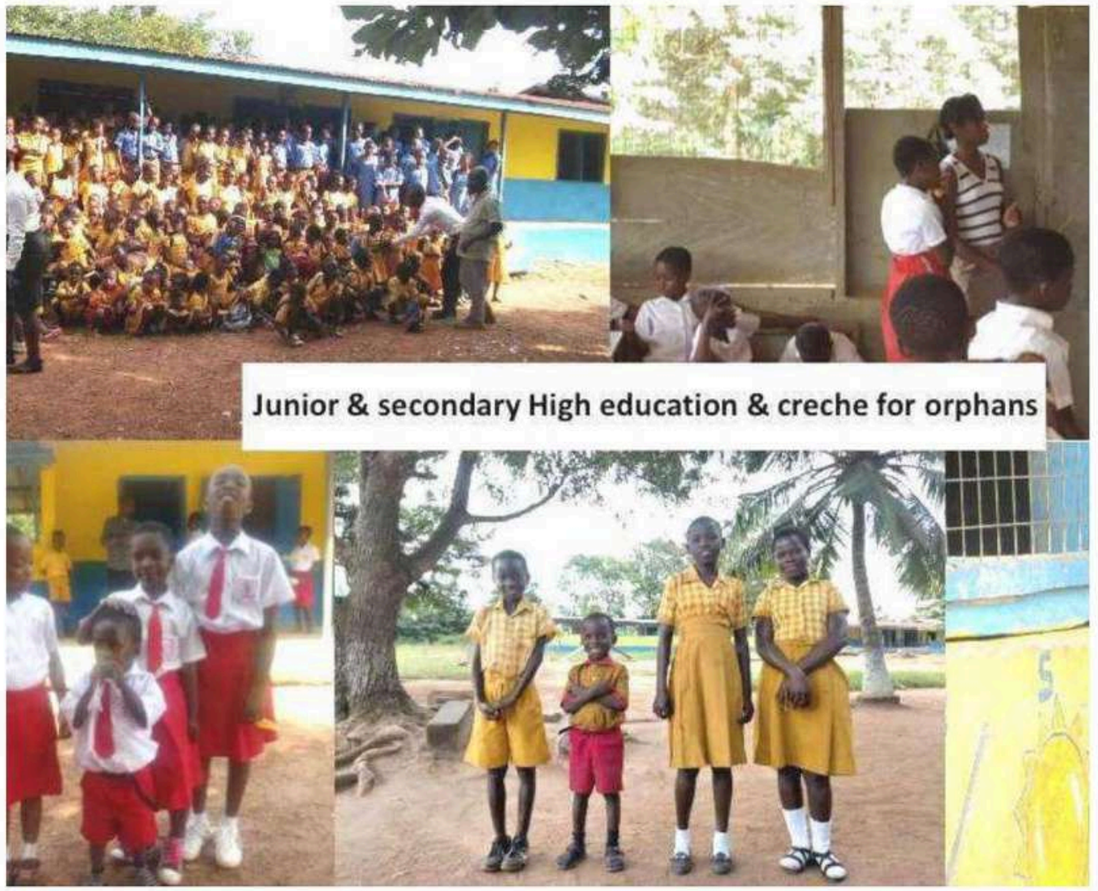
Source: Author's personal archive, 2025.



Source: Author's personal archive, 2025.

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Acesso em: 15 fev. 2025.

ResearchGate, **Mapa do distrito de Ahafo Ano Norte.** Disponível em: ResearchGate. https://commons.m.wikimedia.org/wiki/File:Locator_map_of_Ghana_in_Africa.svg
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APPENDIX: LIST OF FIGURES

thank you

PROF.ª DR.ª JULIANA RAMMÉ, CO-SUPERVISOR: FABIANA FELIX DO AMARAL E SILVA
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Figure 49: https://www.geopoll.com/blog/geopoll-uses-sms-to-map-adoption-of-isfm-practices-in-rwanda/
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