

# THE PLACE BEYOND THE RUINS

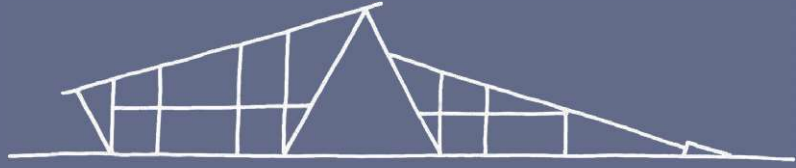
Colectivo COBA

An integrative platform for  
collective development

SOFIA RAMOS MARIN









# THE PLACE BEYOND THE RUINS

Colectivo COBA

An integrative platform for  
collective development

## Diplomarbeit

Ausgeführt zum Zwecke der Erlangung des akademischen Grades  
einer Diplom-Ingenieurin unter der Leitung von

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# Abstract

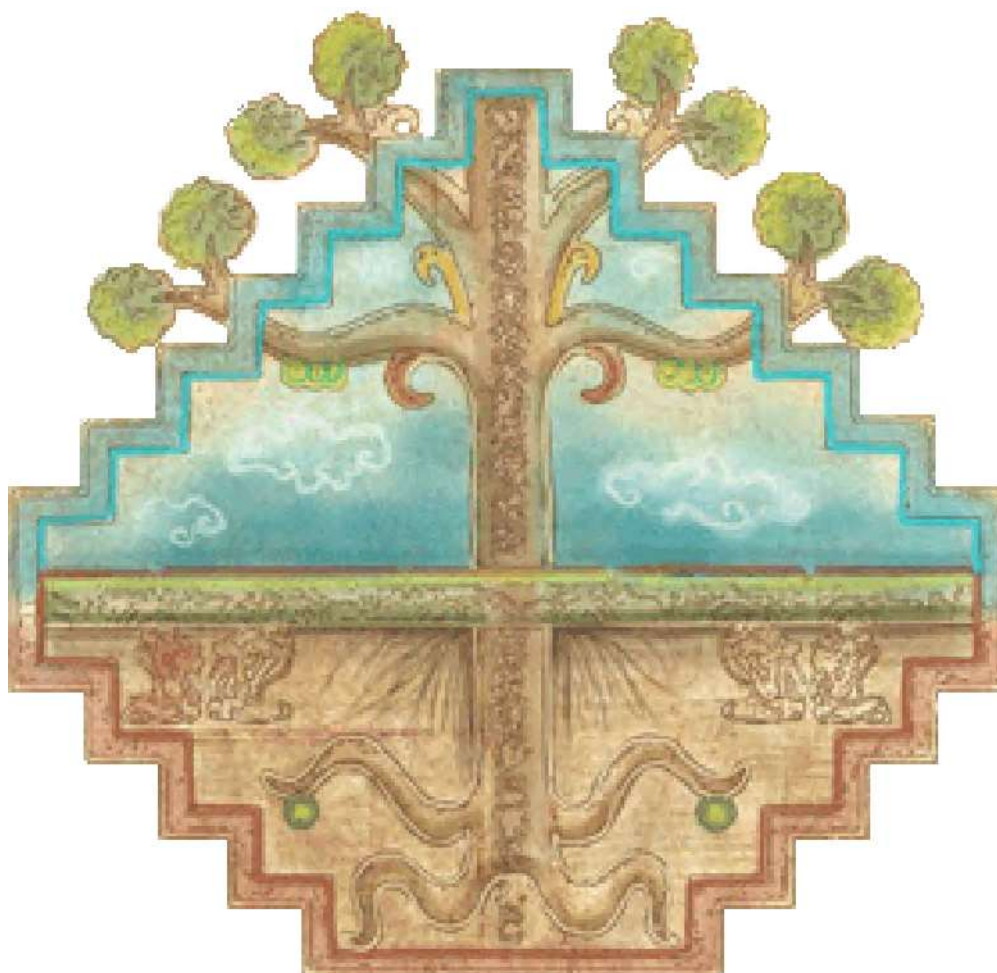
Modern touristic developments have led to persistent social injustices that plunge remaining native settlements and Mayan communities into precarious living conditions. In the past decades, the intense growth the Yucatán Peninsula has undergone has created a deep dichotomy between small mayan towns, where increasing poverty and organised crime impel human development; and growing cities, where the touristic expansion primarily led by extractive companies take advantage of the natives and their land. A predatory pattern is established, where activities outside the touristic bubble are systematically overshadowed.

This project focuses on recovering the unique cultural heritage found in the Yucatán Peninsula by building spaces that enable participation and active engagement with the local communities, thus restoring and strengthening a debilitated sense of individual self-esteem and collective identity. I am choosing to direct my attention towards excluded communities beyond the cities and archaeological sites that belong to the touristic bubble, aiming first to achieve small-scale changes that will become the platform for a much stronger humanitarian development throughout the region.

Moderne touristische Entwicklungen haben zu anhaltenden sozialen Ungerechtigkeiten geführt, die die verbliebenen einheimischen Siedlungen und Maya-Gemeinschaften in prekäre Lebensverhältnisse stürzen. In den letzten Jahrzehnten hat das intensive Wachstum auf der Halbinsel Yucatán eine tiefe Kluft zwischen kleinen Maya-Städten, in denen zunehmende Armut und organisierte Kriminalität die menschliche Entwicklung bestimmen, und wachsenden Städten, in denen die touristische Expansion, die vor allem von Bergbauunternehmen angeführt wird, die Einheimischen und ihr Land ausnutzt, geschaffen. Es entsteht ein räuberisches Muster, bei dem Aktivitäten außerhalb der touristischen Blase systematisch in den Schatten gestellt werden.

Dieses Projekt zielt darauf ab, das einzigartige kulturelle Erbe der Halbinsel Yucatán wiederzugewinnen, indem Räume geschaffen werden, die eine Beteiligung und ein aktives Engagement der lokalen Gemeinschaften ermöglichen und so ein geschwächtes Selbstwertgefühl und eine kollektive Identität wiederherstellen und stärken. Ich habe mich dafür entschieden, meine Aufmerksamkeit auf die ausgegrenzten Gemeinschaften jenseits der Städte und archäologischen Stätten zu richten, die zur touristischen Blase gehören, um zunächst kleine Veränderungen zu erreichen, die zur Plattform für eine viel stärkere humanitäre Entwicklung in der gesamten Region werden.





01 Ya'axche Sacred Ceiba Tree / Believed to be the connection between Heaven and the Underworld

**múul aajo'ob** *Name of a cenote meaning "they woke up together".*

**Yuumtsil** *Father, Lord, God.*

**ceiba-tree** *Sacred tree of the Maya*

<sup>1</sup> *Original text in Maaya t'aan (Yucatec Maya) / English translation from spanish version.*



# The navel of my territory

## U tuuch in lu'umil

Pedro Uc Be

My territory has four extremities  
in the center lies  
the basin of its navel,  
it has given itself the name **múul aajo'ob**.

From the east rises  
the raging, consuming fire,  
drives away the summer rains,  
melting the polar ice of the sea.

From the west the darkness breaks in,  
it is the appetizing gaze,  
death and violence  
is its nocturnal raid.

From the north the fighting spirit freezes,  
it is the winter of **Yuumtsil**,  
it is the suffering of resistance,  
it is the fog that clouds the tracking eye.

From the south blows the wind  
dividend of the prey,  
source of betrayal,  
selfishness bearing the same names.

My creed is in the navel of my territory  
there sits the trunk of my **ceiba-tree**  
in its root extends my lineage,  
and its pollination scatters my dream.

Kanti'its yaan tu wíinklil in lu'umil,  
chúumuk yaan  
u ka'anakabil u tuuch,  
"múul aajo'ob" u k'aba'intmaj.

Lak'iin ku tíip'il  
u chakjole'enil tooókik sijنالو',  
táan u yáalkabeensik cháak,  
táan u yibik u batilo'ob k'a'ak'náab.

Chik'iin ku ek'joch'e'ental  
u wí'ija'anil aj xak'al xook,  
pakláan kiinsaj yéetel loobitajil  
u yáak'abil u yóol u máan yich.

Xaman ku siistal t'a'ajil,  
ti' ku ke'eltal Yuumsili',  
ti' ku k'oja'antal tooj óolali',  
ti' ku sakt'áajta u yiich ch'úuki'.

Nojol ku suuytal iik',  
ti' ku nu'ukbesaj taak'ini',  
yaan pakláan takpolili',  
ts'u'util ku máan tak ich láak'tsilili'.

Ti' ala'an in wóol tu tuuch in lu'umile',  
ti' u xachmubáa u chuun xya'axche'i'  
tu moots ku bin u táabal in ch'i'ibal,  
tu niik ku k'i'itpajal u yalab in náay.

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# I. INTRODUCTION

In the Mayan region of Mexico there are at least 16 indigenous languages and an equal number of native communities, in addition to 90 immaterial cultural manifestations and traditional knowledge.

\_UNESCO México

*Data UNESCO México, (2021) International Seminar World Heritage and the Mayan Civilization: Challenges and Alternatives*



02 *El Castillo*, Tulum Archaeological Site

## Story

In the summer of 2001, my family and I traveled through the Yucatan Peninsula and the Mayan Riviera. We visited numerous Mayan archaeological sites, and encountered locals with occupations ranging from Shamanic activity to artists to fishermen, we walked through the vast jungle and swam in rivers surrounded by mangroves. As we drove across the Region, we came across hidden small villages enclosed by nature and as our journey concluded in Cancún, I remember being in awe of the beauty and richness of this paradisiac place.

I returned two years ago with my two German best friends, excited to show them the magical place that I had experienced when I was younger. On the back of my head, I knew about the increasing popularity of the Peninsula among tourists and the growth it had undergone in the past twenty years, however, this did not prepare me for what my eyes witnessed upon our arrival. The changes were dramatic: massive hotels took up most of the coastline, shopping malls sprouted everywhere, prices were adapted to European and American consumers and even some establishments rejected the national currency. Everything seemed generic and lacked character and authenticity. The place I knew did not exist anymore.

While traveling further, we passed through small towns that were forsaken. The more we moved away from the tourist epicenter, the more poverty became visible. In spite of their humble appearance, these villages and communities held cultural authenticity, and maintained a particular originality that had been long lost in Cancún.

# Context

Modern touristic developments have led to persistent social injustices that plunge remaining native settlements and Mayan communities into precarious living conditions. In the past decades, the intense growth the Yucatán Peninsula has undergone has created a deep dichotomy between small Mayan towns, where increasing poverty and organized crime impel human development; and growing cities, where the touristic expansion primarily led by extractive companies take advantage of the natives and their land. A predatory pattern is established, where activities outside the touristic bubble are systematically overshadowed.

The economic development model followed by Mexican policymakers maximizes opportunities for the small elite and ruling class while keeping the great majority of the impoverished population in a state of disposition. The consequence of wealth being amassed by a privileged few is the dispossession of land for local populations as well as the erasure or commercialization of cultural traditions. This situation has made it almost impossible for marginalized communities and poor rural settlements to develop sustainably.

Attempts have been made to achieve a more sustainable approach in the development of Peninsular infrastructure, yet several international organizations and groundwork activists have questioned their genuineness. Indeed, the challenges posed to redress such unregulated growth are gargantuan. The intention behind these "more sustainable" interventions does not prove to be about redistribution of wealth and opportunities with the local people and more about

financial gain for investors and developers. Ideally, the focus of these projects would be protecting the natural and human resources that are under constant threat of being consumed by massive tourist developments. The economic stimulation created by said phenomenon never reaches the communities that have historically occupied the land. Disparities continue to grow even as colossal fortunes are made on the territory. Intensifying this preoccupying dynamic, capital invested and created in the Peninsula often leaves the country due to foreign investments. It appears that touristic expansion in the peninsula is unavoidable, but it is only by creating collective consciousness, facilitating access to information, and integrating instead of invading said communities that a better future is perceivable. The goal is to give back a little bit of what has been taken. Only then will we achieve equality and more sustainable growth.

## Project

This project focuses on recovering the unique cultural heritage found in the Yucatán Peninsula by building spaces that enable participation and active engagement with the local communities, thus restoring and strengthening a debilitated sense of individual self-esteem and collective identity. I am choosing to direct my attention towards excluded communities beyond the cities and archaeological sites that belong to the touristic bubble, aiming first to achieve small-scale changes that will become the platform for a much stronger humanitarian development throughout the region.



There is an urgency to create opportunities for uneducated groups and overlooked social sectors for them to engage in cultural activities. The objective is to establish easy access to artistic expression and artistic performance for people to bolden their pride and claim their rights on the territory. On a demographic level, I expect to help reduce the migration pressure from urban areas by gradually activating said communities that in time will start developing in a self-sufficient way.

The multifaceted nature of this project aims at involving multiple social and economic aspects but most importantly underlying the immense value that lies within neglected parts of the country, while also highlighting the transformative power of art. I am a firm believer that art helps people find and rebuild themselves, and that is an essential tool for all human beings to learn, reflect, and grow. I am hoping to help set up a more equitable social structure and lay the groundwork for native people to grow creatively as they celebrate their culture and regain confidence in their capacities. Not only is art crucial to our development as individuals and as a society, but freedom of expression is a fundamental human right.

Through analyzing the constellation of cities and towns that constitute the Yucatán Peninsula as well as researching local materials and construction techniques, the assignment is to develop a prototype for a participative cultural center. Through its sustainable conception and adaptive typologies, it could be reproduced throughout key locations in the Peninsula. This pilot project should evolve into an expansive network of interdisciplinary knowledge exchanges that would unite weakened communities and promote partnerships and cooperation at a local, national, and even international level.



03 Collage: Power Dynamics

## Questions

How can we entertain a healthy dialogue between local community values and touristic expansion?

How can we conceive spaces that nurture local communities?

## Objectives

Create and impulse environments that stimulate curiosity, creativity and innovation.

These public spaces should encourage collective participation within visitors and locals creating a pole of attraction that in turn generates economic activity.

A response against the pressing tourism in the Yucatan Peninsula.

# 01. The Yucatan Peninsula



04 Beach and Mangroves in the northern coast of Quintana Roo

# Jungle, Caves and Limestone

## Geographical Context

The Yucatan Peninsula, heartland of Mayan civilization is in present-day southeastern Mexico. It is the territory that separates the Gulf of Mexico from the Caribbean Sea and occupies the states of Yucatan and Quintana Roo, almost all of Campeche, the Petén region in the Republic of Guatemala, and the north of Belize. With approximately 181.000 square kilometers in area, about ninety percent of the peninsular extent lies in Mexican soil.<sup>1</sup>

<sup>1</sup> Bautista, Francisco & Palacio, Gerardo (2012), "Península de Yucatán"

Apart from the southern part and the coastline, most of the terrain is composed of hard coralline limestone, lacking rivers and important mountains. It is a region of low relief with altitudes of less than 400 meters above sea level. One of the most notable features of the Peninsula within the Mexican territory is the scarce presence of surface drainage which runs almost entirely underground. Cave formations underneath the land called cenotes, a Spanish adaptation of tz'ono'ot in the Peninsular Maya language, provide access to the water table. These sinkholes act as permanent water sources and belong to the complex underground river system which remains in constant flow as rainwater from southern highlands drains to the subsoil and makes its way to the ocean. The ancient inhabitants of the region used them as a vital water reserve, building their cities and ceremonial centers around them. Without the cenotes, ancient life in the Peninsula and the ascent of Mayan civilization would not be fathomable.<sup>2</sup>

<sup>2</sup> Ramirez-Carrillo L.A. (2020), p. 9-10



The Peninsula lies just below the Tropic of Cancer, receiving permanent vertical sun radiation resulting in all-year-round hot temperatures with light variations from north to south. The tropical climate ranges from semi-arid in the northwest to humid in the south. Average rainfall varies seasonally. It also increases geographically from north to south affecting the vegetation, which is more arid in the northwest shifting into dry forest, then into semi-evergreen forest, and finally into rain-forest in the south. In the summer storms, tropical depressions and hurricanes sweep the peninsula, where as in winter it stays mostly dry with occasional rainfall due to cold northern fronts.

Distinctive to the region is the vast diversity of flora, and fauna. Jungle forests contain varieties of precious woods, palm trees, flowering trees, and exotic fruits; animal life includes the jaguar, monkeys, iguanas, and abundant bird species. Mangroves, found along the coast in the southwest, the northern shore

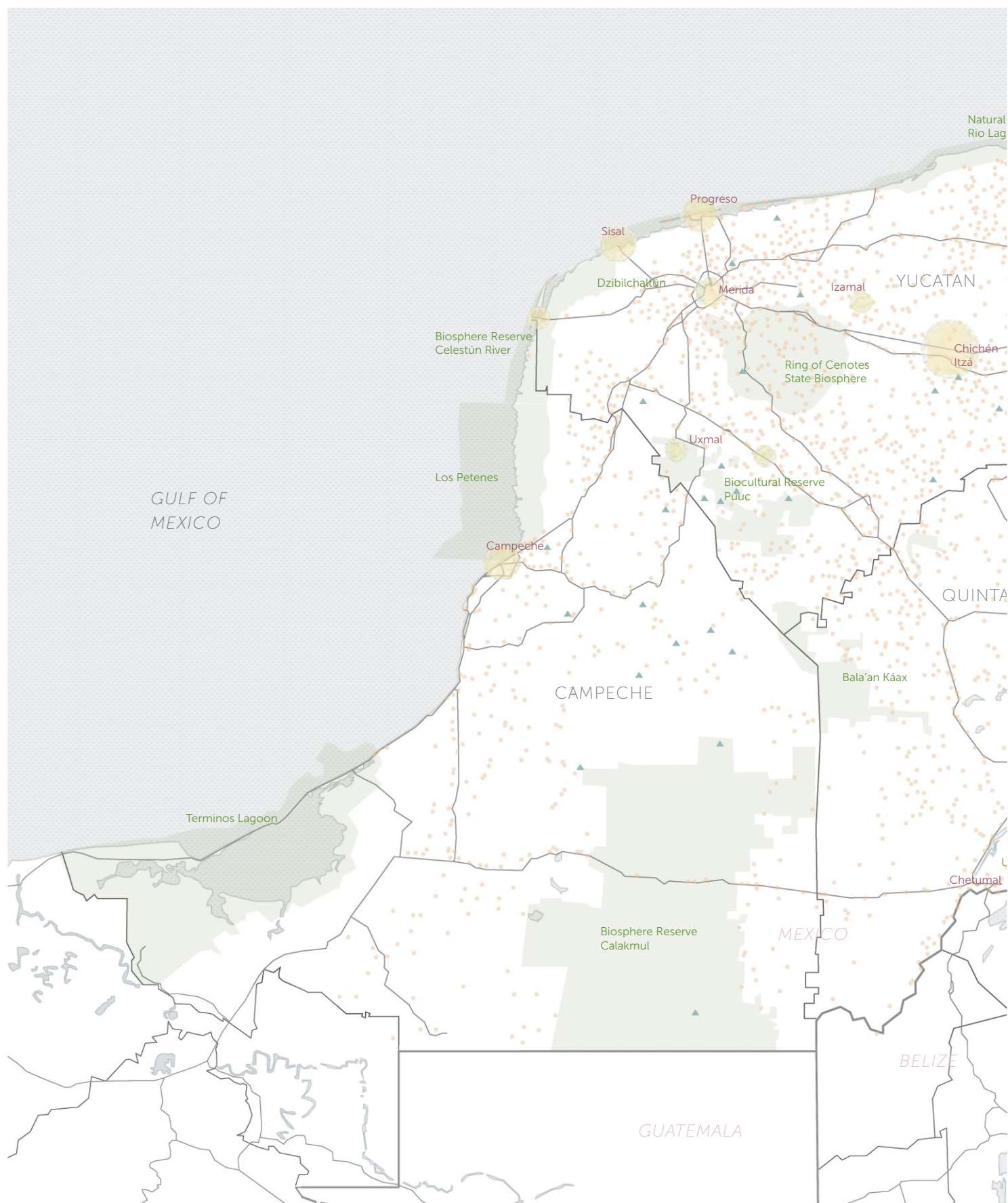


05 The Yucatan Peninsula in context

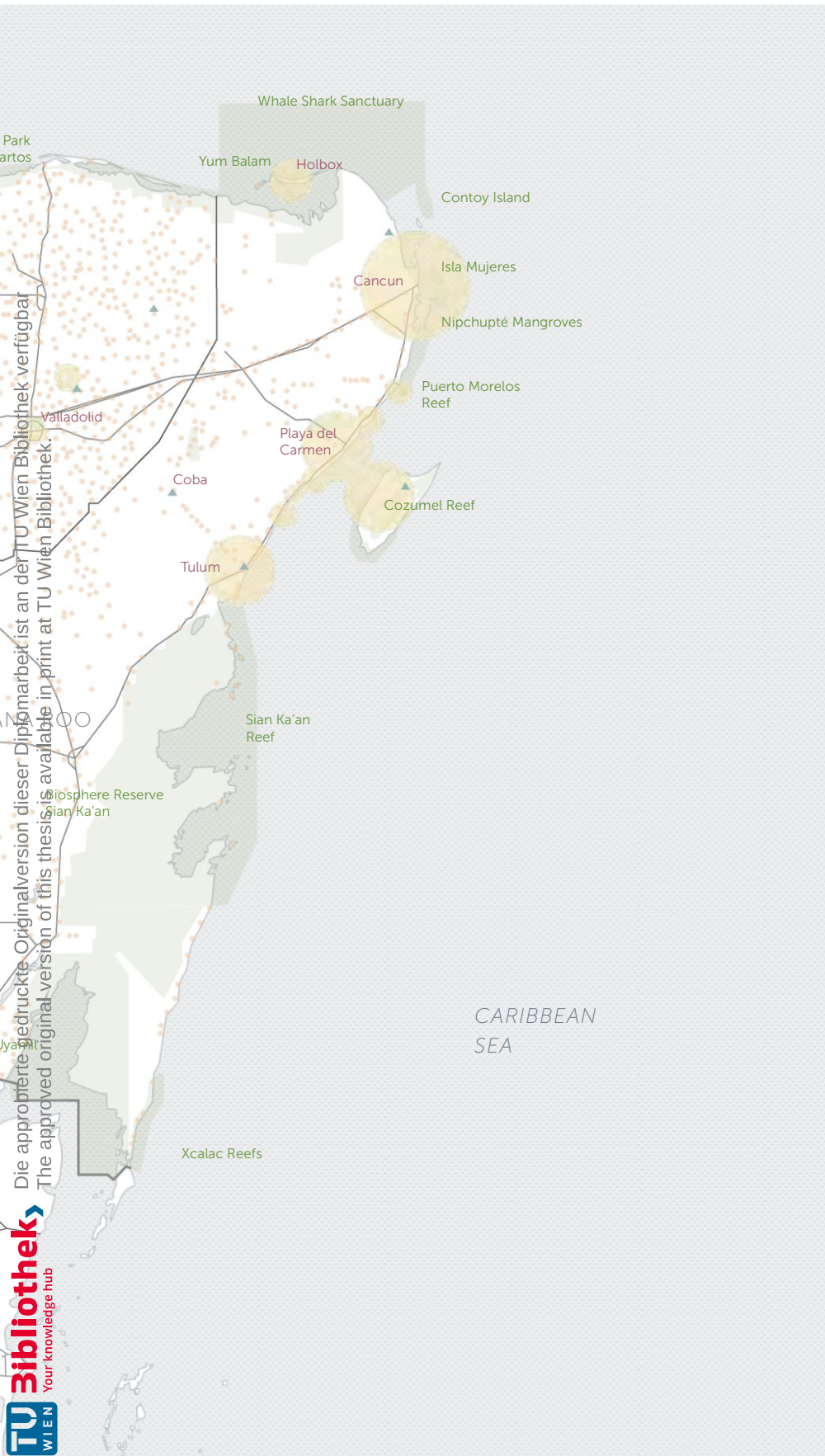
of the peninsula, and to the east by the Caribbean Sea, are delicate ecosystems vital to the regulation of the natural environment and home to a myriad of animals such as crocodiles, storks, and flamingos. Also, fundamental to the Peninsula is the Mesoamerican Barrier Reef System stretching over 1100 kilometers along the eastern coast, encompassing a rich mosaic of marine and coastal habitats. This sanctuary for wildlife holds native species of plants and minerals that played a fundamental role in Mayan culture and remain essential to many communities throughout the region.<sup>3</sup>

<sup>3</sup> T. Editors of *Encyclopaedia* (2019)











07 Alligator, native species in the Peninsula



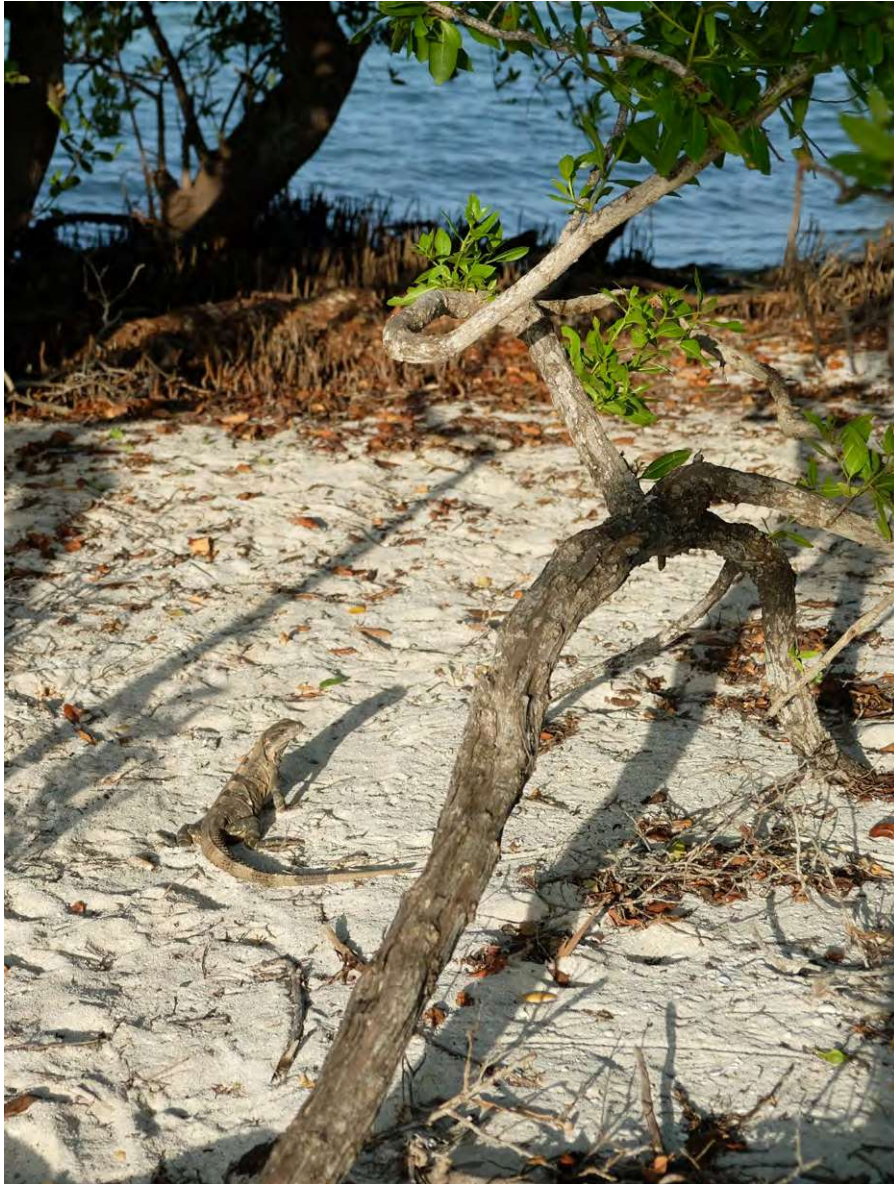
08 Cenote Yalahau, north of Yucatan





09 Red mangroves, crucial to Yucatans biodiversity





10 Iguana, abundant in the Region



11 Cormorant resting in Puerto Morelos

"The sea flows into these passages with such impetuosity that a great lagoon is formed, teeming with fish of all kinds, and where there are so many islets that the Indians make signs on the trees to help them find the way between Tabasco and Yucatán; and the coasts and sandy beaches of these islands are full of such a variety of sea birds that it is an astonishing and beautiful sight; there are also endless game, deer, rabbits, the pigs of the land, and monkeys [...]"<sup>4</sup>

\_Diego de Landa

<sup>4</sup> Diego de Landa (2010), *"Bericht aus Yucatan"*, p.10





12 *Governors House, Uxmal, 1844, Frederick Catherwood*

# In the Beginning

## The Ancient Mayan Civilization

The occupation of the region by humans dates back at least 12.000 to 13.000 years. During the following millennia, the slow transition from hunters and gatherers to agricultural practitioners took place. Around 2000 BCE the emergence of small villages and sedentary activity such as the domestication of crops like corn, beans, squash, and chili peppers, fundamental in Mayan sustenance, led to the formation of larger established populations that would over time transform into more complex societies.

The rise and downfall of Mayan indigenous cultures are divided into three historical periods. During the pre-classic period (2500–250 BCE) a large number of urban centres sprouted in today's State of Quintana Roo. Besides monumental architecture, evidence shows a profound understanding of mathematical and astronomical concepts, as well as writing, arts, and religion, built upon the influence of one of the oldest and most significant cultures in Mesoamerica: The Olmecs. Their belief was based on polytheism, besides the elite-ruling class, priests acted as the governing authorities claiming to be directly descended from the gods.<sup>1</sup> Other significant rising cultures in Mesoamerica like the Olmecs and the Toltecs had some influence over the Mayan and vice-versa.

<sup>1</sup> Pablo et al. (2018)

<sup>2</sup> History.com Editors (2009)

By the beginning of the classic period (250 BCE-950 CE) an already solidified culture was thriving, major cities like Palenque in Chiapas, Chichen Itzá in Yucatán, and Calakmul in Campeche reached up to 100.000 inhabitants.<sup>2</sup> Conceived as city-states, these urban centers held autonomy and control over their surroundings, crucial to their progressive establishment throughout the Peninsula was the constant engagement in warfare to determine political and economic dominance over each other. Even under persistent military activity, their cultural development flourished. Their proficiency in architecture and engineering allowed for the erection of the iconic pyramids, complemented by the stucco decorations, sculptural elements, hieroglyphs, and paintings on the walls. The composition of these monumental constructions reveals their artistic sensibility. Based on the accuracy of these structures as well as their ability for calendric calculations supported on profound astronomical knowledge, they belong to one of the most advanced civilizations of the ancient Americas.

At the close of the classic period the Mayan civilization was at its peak. Its decline can be seen as a series of events that slowly ruptured the balance that had been held centuries prior. Steadily, the heavy exploitation of natural resources and devastating agricultural practices in combination with centuries of periodic droughts unchained famine across the Peninsula. In addition, social rebellions and excessive inter-city military conflicts proved enough to break the social system. Progressively, the cities were abandoned and most of their knowledge faded. The arrival of the Spanish in the sixteenth century marked an end to the post-classic period (1000-1511 CE).<sup>3</sup> Despite ongoing research and investigation, much about the decline of the Mayan civilization remains an unanswered question.

<sup>3</sup> Ramírez-Carrillo, L.A. (2020)





13 Overview of ancient Maya City-States



ARCHAIC PERIOD  
ca.12000 BCE

First hunter-gatherers settle in the Maya highlands and lowlands

1500

Olmecs become first Mesoamerican civilization to establish  
- work in stone  
- first major cities appear

200

Proliferation of urban centres, with major southern cities like Palenque, Tikal and Copan

300

Height of Mayan civilization  
Carving of ornate stelae and imagery of leaders and rulers

600-900

More than 80 developed Maya city-states warred, allied and traded with one another

PRE CLASSIC PERIOD  
2000 BCE - 300 CE

CLASSIC PERIOD  
300 CE - 900 CE

300

Adoption of a hierarchical society ruled by nobles, priests and kings

750 - 1200

Flourishment of Chichén-Itzá in Yucatán

600 BC - 800 CE

(Zapotec Period)  
Writing, mathematics and astronomy start disseminating.  
Earliest known solar calendars carved in stone

ca.1800

Establishment of villages and first agricultural activity

200 - 900

Long distance trade with Mesoamerican cities like Teotihuacan: Dominant religious and cultural center in Mesoamerica  
-> Influence in pottery and architecture





1517  
First arrival of the Spanish  
in Mesoamerica  
-spread of diseases like  
smallpox and measles  
following a strong native  
depopulation

#### XVII-XVIII Centuries

Slow transformation of  
national identities through  
Mestizaje: Mixed race,  
culture, language, etc.

1970

Beginning of Tour-  
ism development in  
the Mexican Carib-  
bean

Cancún, first  
planned destination

POST CLASSIC PERIOD  
900 CE - 1500 CE

CONQUEST & COLONY  
1500 - 1820

SOVEREIGN MEXICO  
1820 - now

#### XXI CENTURY

The Mayan Riviera  
becomes an increasingly  
popular destination at a  
global level. Negative  
impact in culture, society  
and environment

950 - 1500

Decline of Maya  
civilization: excessive  
warfare  
overpopulation  
ecological disasters

1542

Mérida is established  
as capital of Yucatán.  
Natives become  
subject to forced  
labour under the  
encomienda

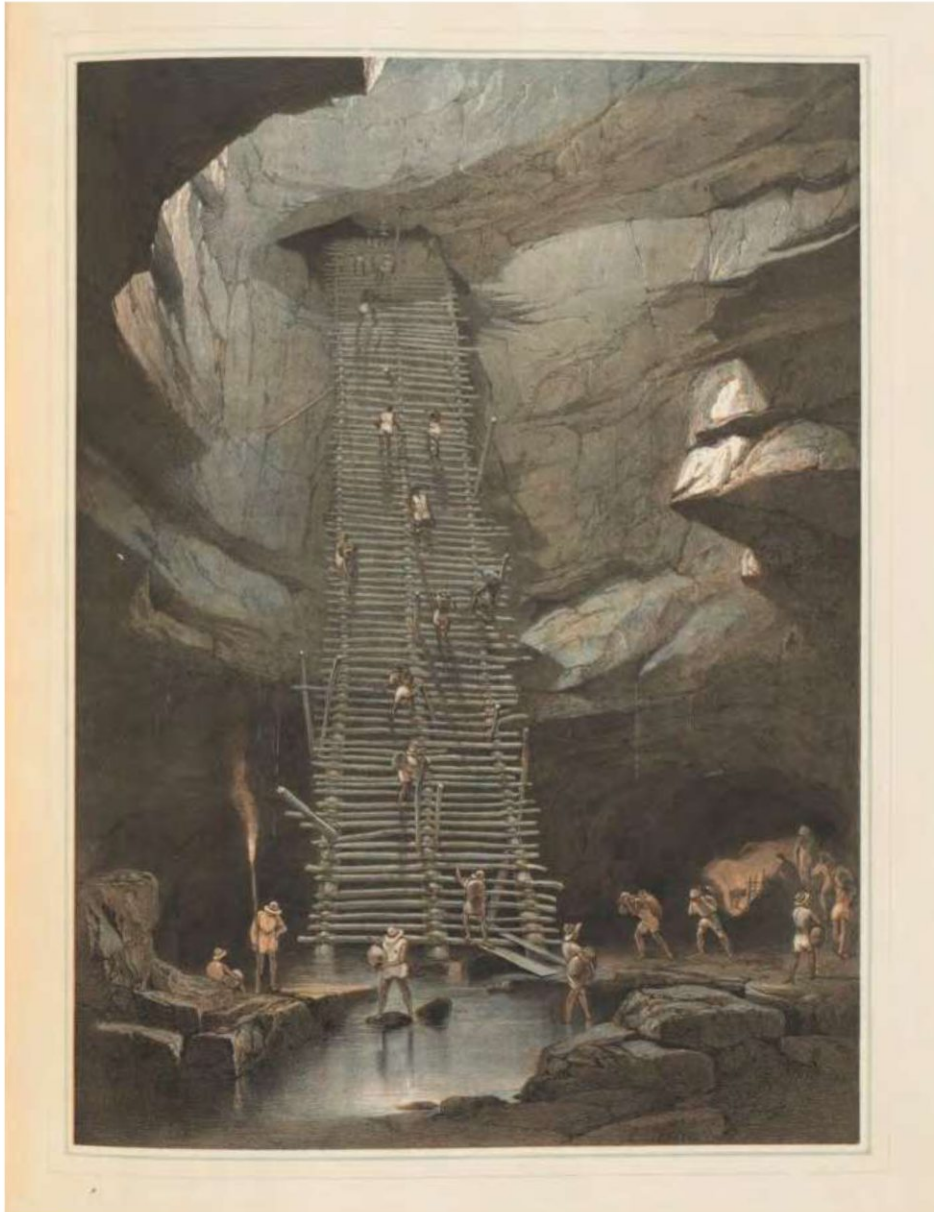
1910

Corruption leads  
to Mexican  
Revolution

1846

Caste War,  
indigenous  
rebellion against  
abuse and  
subjugation





14 Bolonchen Cenote, 1844, Frederick Catherwood





15 *El Castillo*, Chichén Itzá, 1844, Frederick Catherwood



16 Cuadro de Castas, 18th C., Graphic representation of castes in Central America through mestizaje

# Conquest, Colony and Independence

## The Spanish Rule and its Consequences

The colonial period corresponds to the years of Spanish domination in which the country acquired the name of New Spain. Officially this period began after the fall of Tenochtitlan in 1521 and concluded with the proclamation of independence three centuries later. The beginning of the colonial era was associated with a series of striking events that began with the arrival of the Spanish and their first incursion into Mesoamerica. The conquest should be understood not only as the outcome of a military victory but also as a complex process of confrontations and adjustments that lasted until around 1560.<sup>1</sup> As such, many native tribes and cultures remained independent, among them the Maya, which weren't completely conquered until 1697. This allowed for an extended conservation of their culture as well as their social and political organizations. Once Spain had consolidated dominance in central Mexico, they began a series of campaigns to expand.

<sup>1</sup> García, Martínez, Bernardo (2018)

During the first century of Spanish domination, there was a strong decline in the Mayan population due to epidemics brought by European diseases like smallpox and measles. At the same time, the combination of culture, language, and ethnicity conveyed a new Mestizo society. Catholicism also played a significant role in the transition of ideology and faith embedded in Mexico today. Churches sprouted throughout the Peninsula to convert indigenous people to Christianity, slowly displacing Mayan culture. During this time, a substantial number of books, images, statues, and Mayan cultural artifacts were deliberately destroyed.

Ultimately the destruction of Mayan society and its culture was the economic impact that the colony had on the Peninsula. Being considered one of the poorest regions of New Spain due to the absence of precious minerals like silver or gold, (abundant in other parts of the country) valuables that could be exported, and flawed agricultural practices Yucatecan economy never really prospered. Eventually, the ultimate source of wealth was found in the natives. The colonizing population as well as those who sought to appropriate the land, applied under the direct mandate of the crown, the *encomienda*, a Spanish labour system conferring the right to demand tribute and forced labour from native inhabitants. The exploitation of indigenous workforce was the foundation of wealth being amassed by the *encomenderos*, the catholic church, and the government. This was the beginning of a perpetual cycle of poverty among the Maya in the Peninsula, still perceptible today.<sup>2</sup>

<sup>2</sup> Ramírez-Carrillo, L.A. (2020)





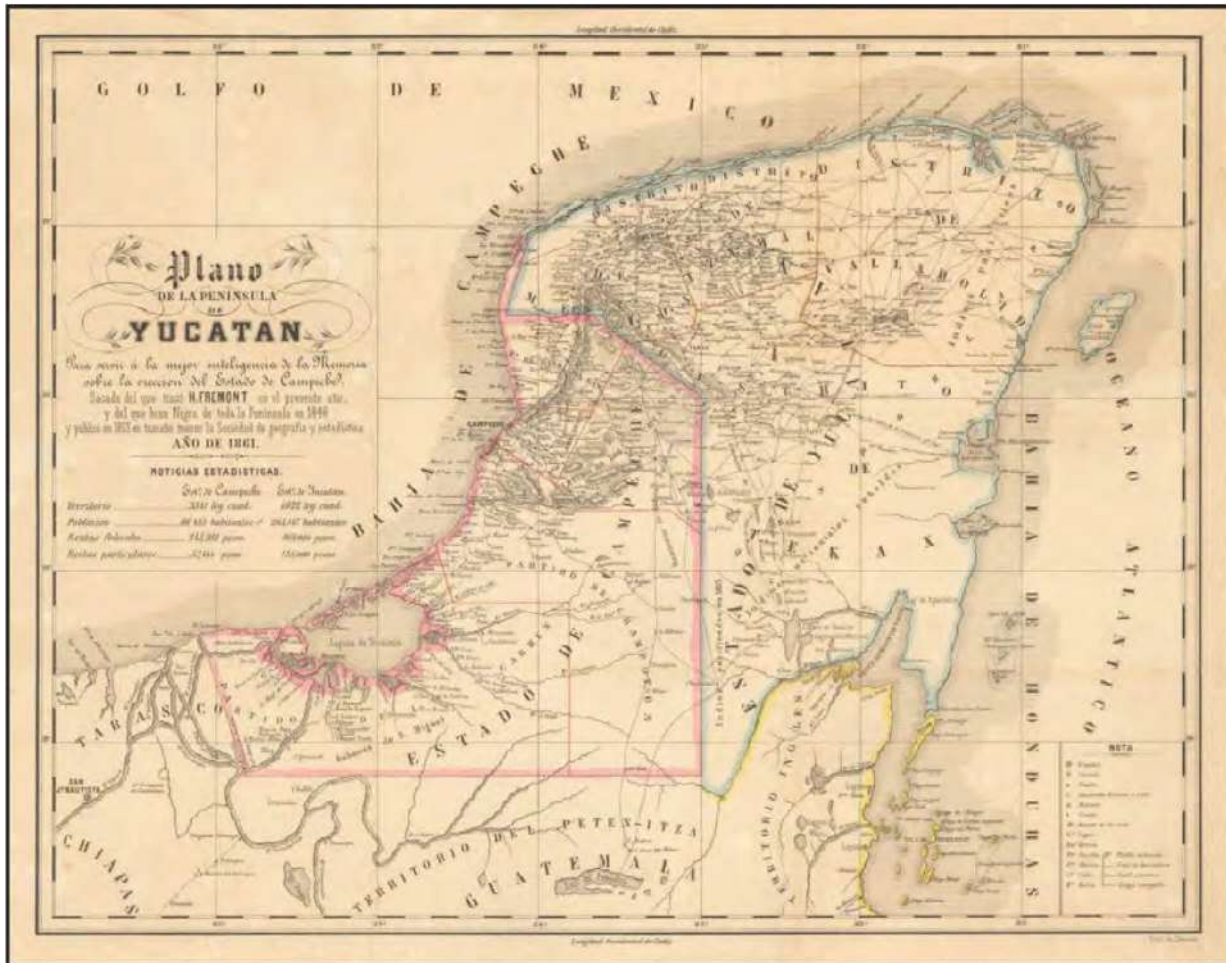
17 Colonization or the arrival of Hernan Cortez, 1951, Mural by Diego Rivera

The nineteenth century brought the consolidation of a national identity that was predominant mainly in criollo and mestizo cultures. Even though the consciousness of identity was reserved for a reduced intellectual elite, this lack of awareness did not mean the absence of common denominators, for instance, the cult of the Virgin of Guadalupe, increasingly popular, was an exceptional ideological catalyst. But the strongest identities were based on regional sentiments and, in the case of the indigenous population, on the individuality of the people, which, despite their evolution and fragmentation, continued to be the basic and often the only reference point for social and cultural life.<sup>3</sup>

<sup>3</sup> Aboites Aguilar, Luis (2018)

The independence of Mexico was proclaimed in 1821, Yucatán adhered to the now-independent Mexican Empire but remained a remote province. The following years brought a struggle among several groups with opposing economic and political interests. The dispute involved federalists who fought for a democratic republic with sovereign states and provinces and centralists who were rather interested in a political regime with a highly centralized authority. Consequently, military instability was prevalent as separating from or remaining in Mexico was disputed.<sup>4</sup> The indigenous population of Yucatan, then encompassing the current states of Campeche, Quintana Roo and Yucatan rose against the continuous exploitation, and the loss of their communal land to the progression of private property. The uprising, known as the Caste War, marked one of the most violent indigenous rebellions in Mexico. Lasting over 25 years, the outcome of this conflict had a strong demographic decrease and economic downfall. Mayan rebels remained independent scattered around today's state of Quintana Roo and eventually lost all political autonomy, as soldiers took their capital at the beginning of the 20th century.

<sup>4</sup> Aboites Aguilar, Luis (2018)

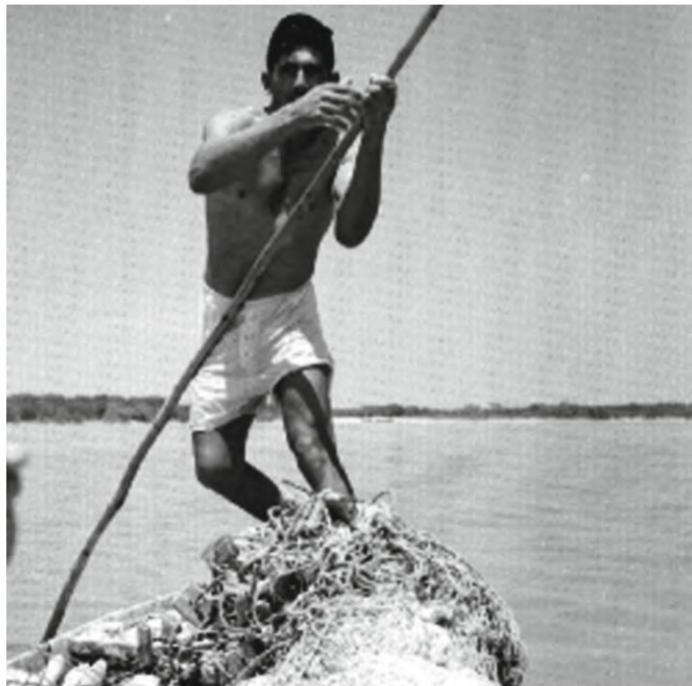


18 Yucatan Peninsula in 1861

This historic map of the Yucatan Peninsula from 1861 shows the lack of urban density in what today is the state of Quintana Roo. Before it became a separate State in 1974 it belonged to the State of Yucatan, in contrast to a more developed and well connected Yucatan, there are only a few visible connections to the east and mostly small settlements along the Caribbean coast.



19 Henequen Plantation



20 Fisherman in the coasts of Yucatan

# A Changing Century

## Economic Revival Through Oil Extraction and the Birth of Tourism

After the Mexican Revolution in 1910, the Yucatán Peninsula saw a period of abandonment and isolation as its main agricultural industry based on the production of Henequen Fiber declined. Agricultural diversification was challenging and the creation of pastures for livestock reduced the land available for the cultivation of corn, negatively affecting Mayan communities. Opposed to the economic growth in other parts of the country after the restructuration period known as the "Mexican Miracle", the Peninsula remained isolated with high emigration rates and minimal urban development. For over fifty years poverty, lack of opportunity, and social stagnation prevailed until 1970.

The economic revival arrived because of two major changes that laid the foundation for a new model of regional development. The first one was the construction of offshore platforms for large-scale oil extraction in the Bay of Campeche, and the second was the creation of a tourist destination on the beaches of the Mexican Caribbean, starting in the port and city of Cancún, Quintana Roo. Both endeavours were controlled by the federal government. This stimulated urban and demographic growth.<sup>1</sup> In addition to the established capitals of the peninsular States: Merida in Yucatan, San Francisco de Campeche in Campeche and Chetumal in Quintana Roo, Ciudad del Carmen and Cancun rose in prominence as new urban centers, attracting not only people from surrounding townships, but from other parts of the country.

<sup>1</sup> Aboites Aguilar, Luis (2018)



<sup>2</sup> Ramírez-Carrillo, L.A. & Baños Ramírez, Othon (2004)

From 1990 on Mexico has been a participant in a global market, inserting itself in a competitive model of extensive growth. Since then, further impactful changes in policies have been implemented affecting not only in the Peninsula but Mexico as a whole.<sup>2</sup> Some examples are the signing of the North American Free Trade Agreement (NAFTA) in 1994, modifications in land ownership, and agricultural modernization. Leading at the turn of the century, to a surge of different political and economic players and the flux of capital from outside of the country focusing mainly on tourism, oil, and the exploitation of natural resources. The companies controlled by the government gradually drew back as national and international corporate and private monopolies took their place. The Yucatan Peninsula has profoundly changed in the last decades. Although there are visible improvements in infrastructure, connectivity, life expectancy, and a decline in extreme poverty, the region is still struggling with vast social inequality and an increasingly vulnerable natural environment.

Economic impoverishment and the transformation of identities are undeniable facts among contemporary Maya. It is important to state that the commercial opening of Mexico to the processes of economic and cultural globalization over the last two decades, is only an imperative enhancer of a series of cultural subjugation and progressive pauperization that go back almost a century. While the next section of the project focuses on the impact of the recent phenomena of tourism and globalization, the history of perpetual inequality and exclusion of opportunities for social and ethnic development formerly summarized illuminates the contemporary situation beyond the short-term events.



21 Tourists in the 1970s in Cancun



22 First Hotel appearances in Cancun



23 Aerial view of Cancun 1980



24 Aerial view of Cancun 2000

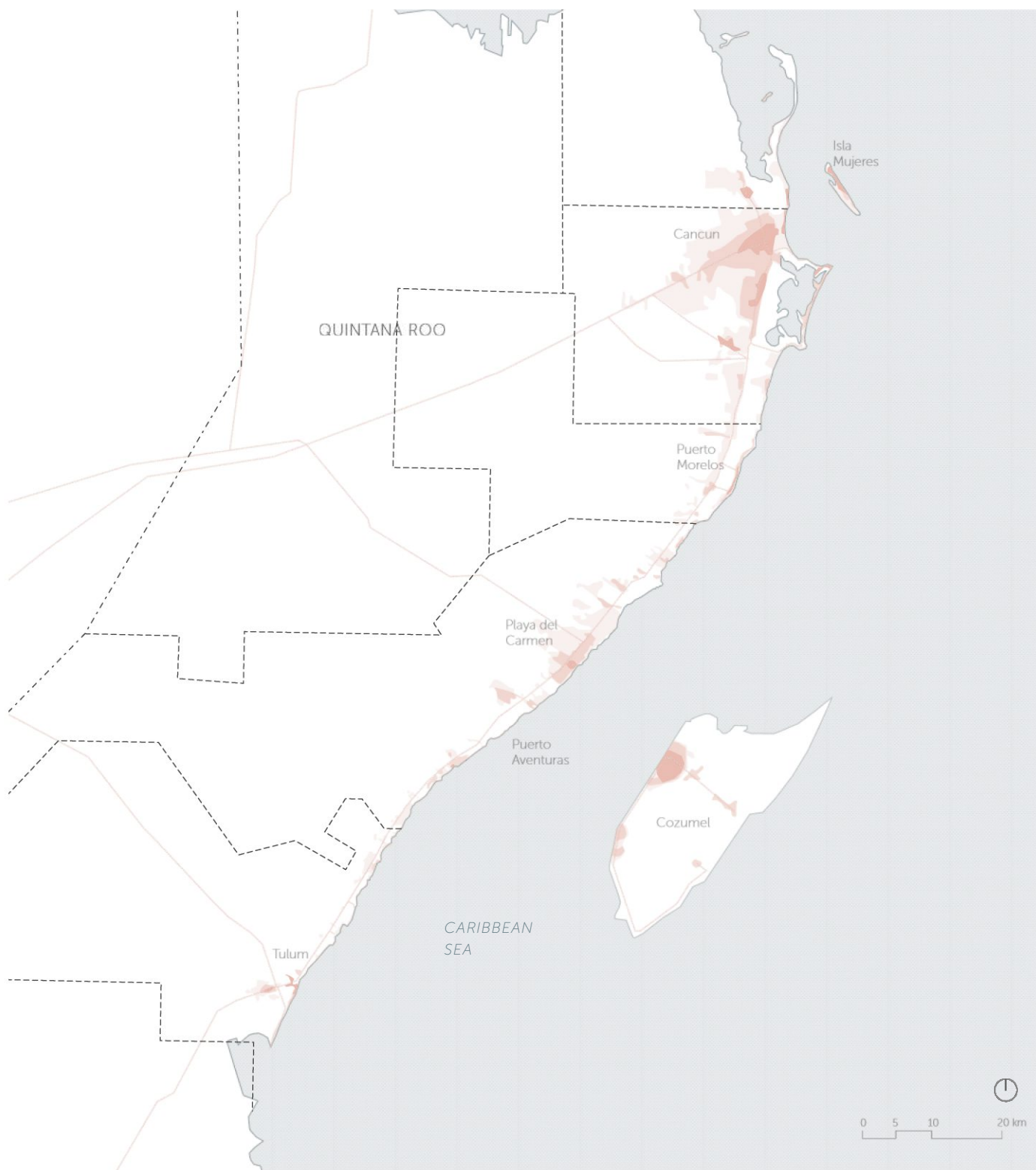


# The New Millenium

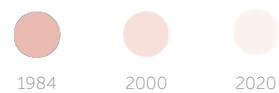
## Globalization and the Rise of Mass Tourism

In the sixties, Mexico began the process of a large-scale planned tourism development in the city of Cancun. The intention behind the project was the attraction of foreign exchange, the creation of employment, and the promotion of development in the Caribbean region. In the following decades, new models of production and consumption emerged and continue to develop to this day.

The appeal of the Yucatan Peninsula relies mainly on its natural and cultural heritage. With more than 2,000 archaeological sites scattered throughout, a couple of them declared World Heritage Sites by UNESCO like Chichén Itzá and Uxmal, one of the main attractions is without a doubt Mayan Culture and its archaeological heritage. Equally significant are the colonial historical buildings and monuments such as churches, convents, and henequen haciendas, related to the region's past. Some of them have recently been adapted as hotel boutiques and holiday retreats embracing touristic advancement. Paradisiac landscapes such as natural reserves, beaches, coastal lagoons, caves, and cenotes combined with a warm climate and an astonishing diversity of endemic flora and fauna, constitute an undeniably attractive tourist destination.



25 Urban Sprawl in the Mayan Riviera



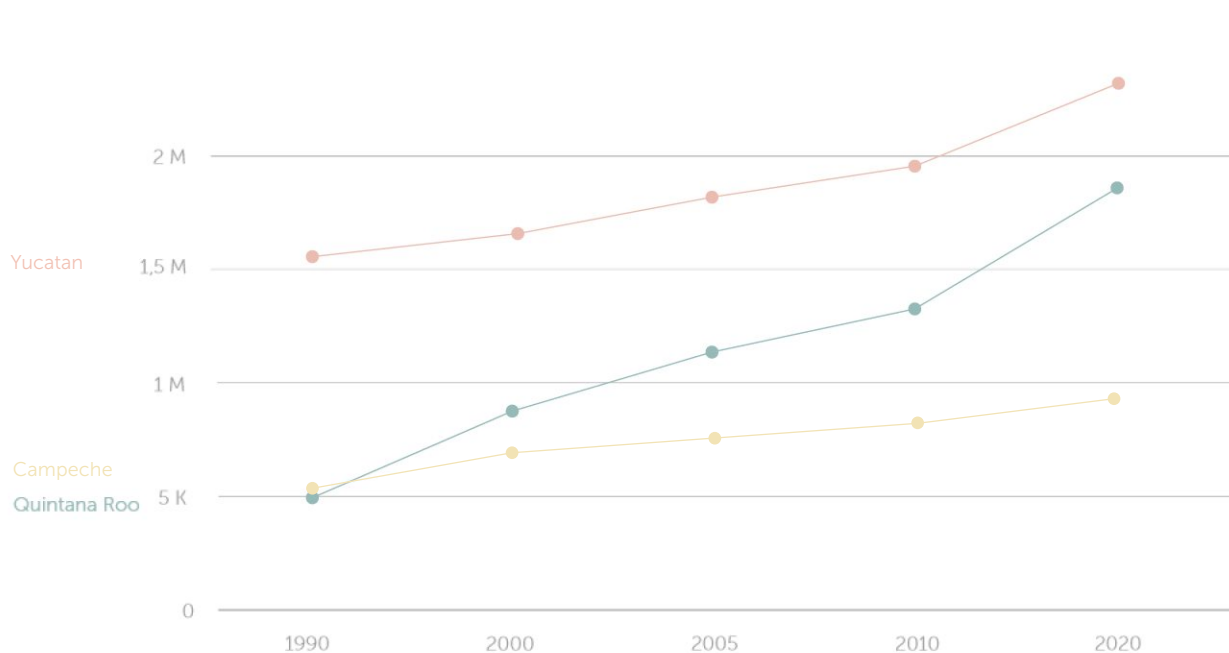
The wave of booming tourism spread from Cancun to the entire coast of Quintana Roo, giving birth to the Riviera Maya and further expanding to other parts of the Peninsula. Cities, towns, and small communities, both along the coast and in the inland areas of the states, have been integrated into the tourism market, imprinting new meanings and values on their natural and cultural heritage. The emerging patterns of the local economy are subject to processes of capital investment, territorial appropriation, modification of access to natural resources, and interregional migration, having a decisive influence on the reconfiguration of local society.<sup>1</sup>

<sup>1</sup> *Marín Guardado, Gustavo et al. (2012)*

Rather than trying to define the concept of globalization, understanding its impact in the Peninsula comes down to a simplification of the term into two guidelines or characteristics. The first one is economic referring to the outward movement of businesses and capital from the trade, industry, and service sectors of the richer, more industrialized nations to the poorer, less industrialized ones; or else from developing nations seeking comparative advantages to mobilize their industrial base. In Mexico, this process has been going on for 20 years.<sup>2</sup> The second one moves away from economic significance and has to do with the process of cultural globalization driven by two realities: The penetration of ideological and cultural messages from the mass media, and the transformation of consumer habits and products. This implies new ways of appropriation of the world and its meanings at an individual and family level, as well as in everyday life. No social class or ethnic group has been exempted from this process in the last decade in Mexico. Particularly the peninsular inhabitants have been participating with singular intensity.<sup>3</sup>

<sup>2</sup> *Ramírez Carrillo, L.A. (2013)*

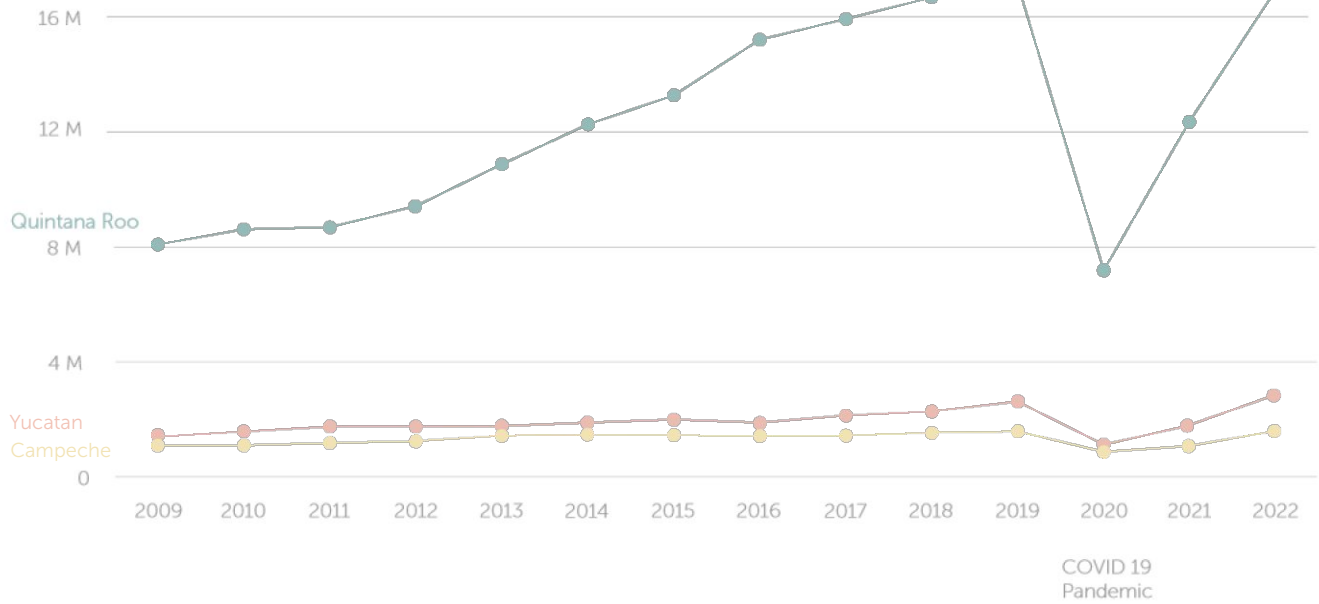
<sup>3</sup> *Baños Ramírez, Othon (2000)*



26 Population growth by entity in the last thirty years

Today we can also witness the environmental consequences of mass tourism in the region. In the 1960s, with the creation of Cancun, the state of Quintana Roo was made up of about 40,000 inhabitants. Today, the state is home to 1.7 million inhabitants, with more than 70% of its population living in one of the cities located along the Riviera Maya coastline, most of them in Cancun.<sup>4</sup> This population growth, along with the astonishing growing numbers of visitors, reaching a peak of 17 million visitors in the year 2019, has been reflected in the rapid environmental deterioration of the area, ultimately losing some of the beauty that ironically attracts tourists.

<sup>4</sup> Calderón Maya, J.R. & Orozco Hernández, M.E. (2009)



27 Total number of tourists by entity in the past ten years





28 Tourists sunbathing in the coast of Playa del Carmen



29 Tourists visiting Chichen Itza



30 Cruise arrival in Cozumel



31 Excessive party tourism in Tulum



32 Sargazo, Seaweed plague along the Mayan Riviera



33 Landfill Dump in the middle of the Jungle



34 Closed Cenote due to contamination



35 Plastic and packaging waste along the coast



## Los Angeles Times

MÉXICO

## La ola de violencia continúa imparable en el Caribe mexicano



Imagen de archivo que muestra una playa en el centro de recreo de Cancun, en el Caribe mexicano (México). EFE/Alonso Cupul

El Economista &gt; Estados

INFRAESTRUCTURA

## Tren Maya y Aeropuerto de Tulum serán inaugurados en 2023: AMLO

El presidente informó que para la construcción de la nueva terminal aérea han adquirido 1,200 hectáreas en el municipio de Felipe Carillo

| ESPECTACULAR DISEÑO INTERIOR DEL

## Tren Maya contará con 3 ti

De acuerdo con lo informado por el servicios y en el espectacular diseño diferentes espacios.

Al respecto, Fonatur destacó que un será el que lleve como nombre "Jardín interior, se ofrecerá el servicio de re



| DISEÑO DE RESTAURANTES DEL TREN M.

## Le Monde

Consulter le journal

Se connecter

ACTUALITÉS ▾ ÉLECTIONS 2022 ▾ ÉCONOMIE ▾ VIDÉOS ▾ DÉBATS ▾ CULTURE ▾ M LE MAG ▾ SERVICE

ÉCONOMIE • MEXIQUE

Partager

## Au Mexique, les cartels de la drogue menacent les joyaux du tourisme de la Riviera maya

Règlements de comptes et trafic de drogue rythment la vie de ce pilier de l'économie mexicaine, au bord de la mer des Caraïbes, dont la croissance attise la convoitise des cartels.

Par Frédéric Saliba (Cancun, Tulum (Mexique), envoyé spécial)

Publié le 26 juin 2022 à 05h30 - Mis à jour le 26 juin 2022 à 16h07 - Lecture 7 min.

Article réservé aux abonnés



La garde nationale patrouille sur la Playa Pescadores, à Tulum (Mexique), le 8 novembre 2021. ARTUR WIDAK / NURPHOTO VIA AFP



TRAVEL | FEB. 20, 2019

## Who Killed Tulum? Greed, gringos, diesel, drugs, shamans, seaweed, and a disco ball in the jungle.

By Reeves Wiedeman | Photographs by Sam Youkilis

The walls of seaweed first started washing over the white-sand beaches of Tulum, Mexico, in 2015. They came from deep in the Atlantic and across the Caribbean, darkening the neon-blue water. Some of the seaweed was puke brown, while the rest was dark red, and in the summer it was so thick that swimming was impossible. Dead fish and other sea creatures were mixed in, and the piles on the beach smelled like rotten eggs. Where was it coming from? Development in the Amazon was

# dpnoticias

TREN MAYA (FONATUR)

## tipos de servicio

Fonatur, el Tren Maya incluirá 3 tipos de servicio interior de ellos, se muestra que habrá

no de los servicios que tendrá el Tren Maya también mismo que contará con 8 trenes en cuyo restaurante.



AYAT (FONATUR)

CHALLENGER TOURISMUS

## Wie Mexikos Touristiker sich auf die neue Generation Reisender einstellen

Das neue Tourismus in Retortenstädten am Strand war einmal. Organisationen helfen Mexikos Touristikern dabei, sich für ein Publikum neu zu erfinden, das klein und nachhaltiger mag

ndre Weiss aus Cancún

Dezember 2021, 12:00, 103 Postings



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TU WIEN



## Is This the Next Tulum?

Travelers in the know say the Yucatán peninsula town of Bacalar is poised to be the region's next big destination. Can it survive the tourist onslaught?

A hammock at Azul Nomeolvides, a waterfront hotel on Laguna Bacalar. Adrian Wilson for The New York Times

Forbes

Portada / Forbes Política /

Yared De La Rosa  
febrero 26, 2022 @ 3:29 pm

## ASF detecta irregularidades por 86 mdp en la construcción del Tren Maya

La ASF detectó irregularidades en la construcción del Tren Maya por 86 millones por pagos indebidos, duplicados y obras que no se comprobaron su ejecución.



Tren Maya



# On identity transformation

## The image of present-day indigenous Maya

The general assumption today is that contemporary Maya, as descendants of the great ancient civilization, are a specific racial group with a shared ethnic consciousness. However, the criteria for defining someone as Maya goes beyond speaking the Mayan language or looking a certain way. Indigenous groups across the peninsula differ from one another depending on local and historical contexts, as well as other significant factors like descendants, occupation, dress, and cultural practices.<sup>1</sup> Without forgetting, that Mayan civilization did not only encompass Mexico but also Guatemala, Belize and parts of Honduras and El Salvador. A contemporary Mayan from Guatemala would probably not identify the same as a Yucatec Mayan and vice versa. Terms and labels are always evolving, the constant change in social relations throughout history, as well as the difference between self-ascription and outsider's designation show just how complex it is to address the identity of a specific indigenous group.

<sup>1</sup> Magnoni, Aline et al. (2007)

In the context of cultural heritage tourism promotion, popular and sometimes even academic representations of the peninsular Maya have led to the misconception that despite historical events like colonization and its impactful consequences, they have maintained a homogeneous indigenous identity. There is an immense number of advertisements and promotions both from government institutions as well as private touristic businesses that emphasize adventure and exoticism based on a vast





37 Collage, Behind the glass



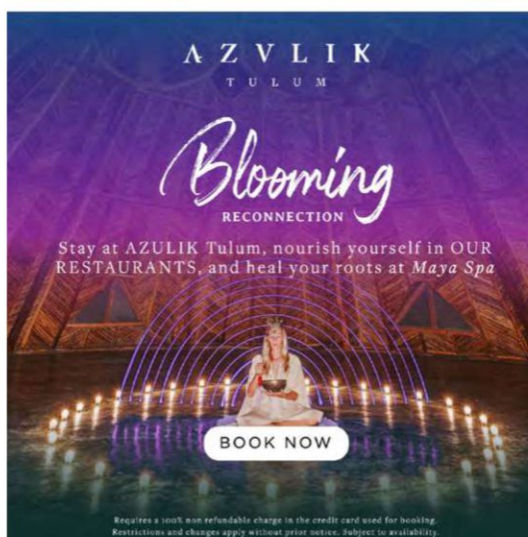
38 Staged performance of ancient ceremony



39 Touristic promotion flyers in the 70s



40 Mayan rituals as touristic attractions



41 Marketing of mayan rituals by luxury resorts

ancient history of cultural development. A continuum between the living descendants of the Maya and the prehispanic people who constituted Mayan civilization is often implied and even openly suggested through these publicities.<sup>2</sup> This not only affects the notion of self-identity and self-ascription but heavily fuels prejudice and misconstructions of cultural identity to the outside world.

<sup>2</sup> Magnoni, Aline et al. (2007)

Moreover, it is imperative to highlight poverty as a critical factor in the process of identity formation, being particularly acute among native inhabitants. Poverty in southeast Mexico is historic, and for centuries being poor was synonymous with being indigenous, but this has seen some diversification throughout the last and present centuries. The population considered indigenous, be it through language or self-description, no longer constitutes the poor. They now include people with indigenous roots who have entered a milieu of mestizos, acculturated and/or have lost their traditions and language, and no longer consider themselves part of a specific ethnic group.<sup>3</sup> Furthermore, immigration from all over Mexico and from diverse backgrounds has created a new regional population mixing cultural, biological, and ideological traits. Being so, they can no longer be considered Maya or any other indigenous ethnicity, nevertheless, they have been added to the population of native inhabitants.

<sup>3</sup> Ramírez Carrillo, L.A. (2020), p. 24-25

Since this regional native population is relatively large, the striking ethnic connotation that conveys various forms of poverty in the peninsula, affects a population that has lived in a constant state of inequality and marginalization throughout history and remain to this day particularly vulnerable. Hence, the approach towards a more equitable structure, and the efforts towards a reduction of poverty and vulnerability in the region need to address the cultural, linguistic, legal, and human rights components that are specific to this constellation of natives and minorities.<sup>4</sup>

<sup>4</sup> Ramírez Carrillo, L.A. (2015)

# The Mayan Train and beyond

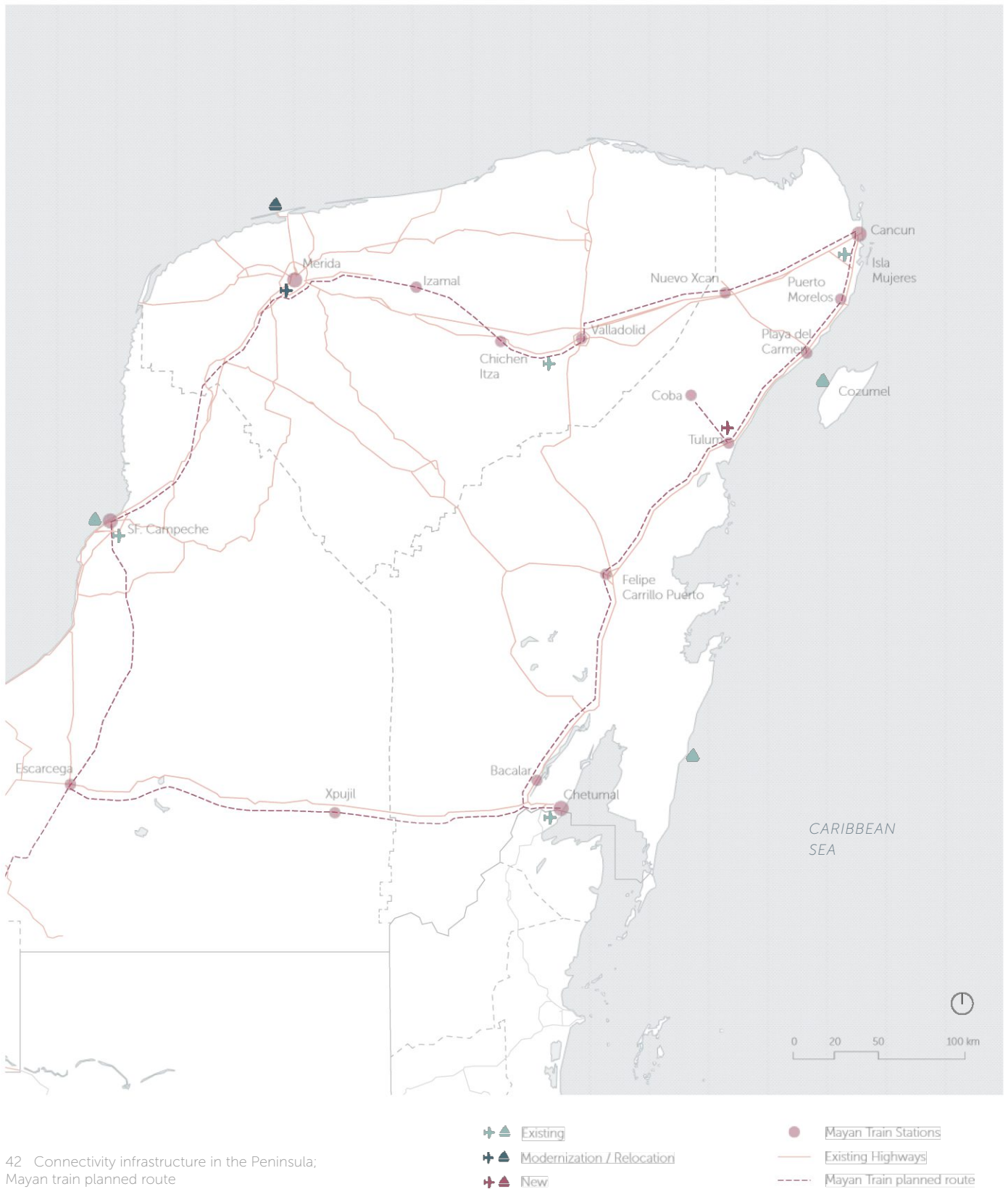
## Current infrastructure and future development

A few years ago, the federal government in Mexico announced the construction of the Mayan Train, a project that aims to reorganize the southeastern region of the country through the construction of a train, two highways, and at least nine new urban centers. This ambitious work of infrastructure will connect significant cities and towns in the region including main archaeological sites. On the one hand, the project seems to address the infrastructural deficiencies in the region while looking for networked economic growth channeling the increasing tourism in recent years, as well as creating new forms of housing and employment opportunities across the territory. However, this project has become highly polemical due to its environmental implications and its lack of transparency in social matters.

The type of train that is proposed and the route it is planned to follow will have without question a huge environmental impact. In addition to the massive jungle deforestation and disruption of natural habitats, the MIA (Manifestation of Environmental Impact) warns that special attention should be paid to the route design of the project around the Chicxulub cenote ring.<sup>1</sup> The karstic soil of the region has a high permeability that allows pollutants to pass quickly to the groundwater and it is also fragile, the weight of a fast and heavy train along with the planned infrastructure projects could tear it to pieces. More detailed geological studies should be carried out accurately to

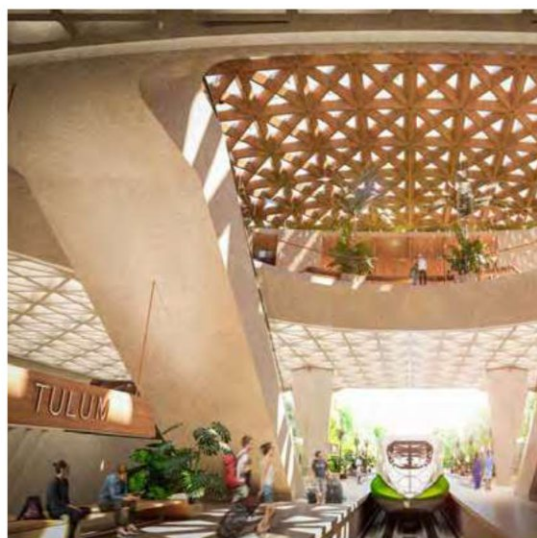
<sup>1</sup> *Manifestación del Impacto Ambiental. (2020), p.82-83*





42 Connectivity infrastructure in the Peninsula;  
Mayan train planned route





43 Design for Tulum train station



44 Design for the interior of the Mayan Train



45 Mayan Train construction work



46 Mayan Train ongoing deforestation

determine the probable existence of underground caverns. With the construction of urbanization poles, which are the project's major commitment, the impact is multiplied. Undeterred by the experience of Cancun and its rapid extension along the coast of Quintana Roo with little to no regulation, the attraction of international tourism does not make up for the unbalanced land use and regional dynamics that have led to land speculation, increased unemployment and violence. In this regard, it is also enough to remember that urban centers are the largest emitters of pollutants, generators of non-degradable waste and carbon dioxide emissions.<sup>2</sup> Tulum is the perfect example, where most hotels run on Diesel generators and sewage water is discharged into the groundwater and the ocean because of lack of proper infrastructure.

<sup>2</sup> Zambrano & Medina (2019), pp.9-15

This process also endangers the living conditions of rural and semi-rural populations. As shown in the cases of Cancun and Merida, inhabitants attracted to the cities in search of better opportunities end up working precarious jobs at the cost of breaking the link with their community and agricultural economies.<sup>3</sup> Clinging to the current development model in the Yucatan Peninsula, this megaproject along with its ripple effect raises concern regarding the ever-growing social inequity as well as the implicit environmental consequences. In addition, further development projects are unveiled, like the construction of an airport in Tulum and the modernization and/or expansion of various archaeological sites.

<sup>3</sup> Daltabuit Godás et al. (2007), p.102

While an improvement in public space and infrastructure is essential in modern-day regions, it remains imperative that sustainable solutions are found, that tourism ventures be carried out in harmony with local interests and that locals be integrated as part of participative processes. Furthermore, the historic wealth, as well as the biodiversity of these territories should become assets rather than liabilities in the development of the Region.

## II. IN SITU



47 Sunset in Tulum

"The crisis of the community, its dislocation,  
the distress of most of its members, went hand  
in hand with technological progress and social  
differentiation."

\_Henri Lefebvre



## 02. Coba



48 Coba Lake, view from the Pier



# The Town and its Surroundings

## Geographical & Spatial Context

The small village of Coba situated adjacent to the archaeological site known by the same name, is in the north-eastern portion of the Peninsula in the state of Quintana Roo. It lies in the Tulum Municipality about 50 kilometres inland from the city of Tulum and the Mayan Riviera coast, and approximately 180 kilometres from the city of Cancun. About 60 kilometres further west, crossing over to the state of Yucatan lies the colonial city of Valladolid. Considered a Magic Town (Pueblo Mágico) it is an extremely attractive tourist spot and the second largest city in the state after its capital Merida, leaving Coba between two substantial poles of touristic attraction. Contrary to the larger cities in Quintana Roo, where most touristic activity happens along the beach and revolves around luxury and excess, smaller semi-remote settlements such as Coba maintain a historic and cultural element supported by a majority of indigenous inhabitants as well as a predominantly community centered society.<sup>1</sup> In the past few years Coba has attained significant prominence among visitors due to its proximity to ever expanding touristic epicenters, but mainly because of its notable archaeological site featuring the tallest Mayan Pyramid in the Peninsula. Established around sixty years ago by a few families from the neighbouring state of Yucatan, the village of Coba has increased in population from 918 inhabitants in the year 2000 to 1738 in 2020,<sup>2</sup> becoming increasingly dependent on tourism for its basic livelihood.

<sup>1</sup> *Pueblos America, L.A. (2022)*

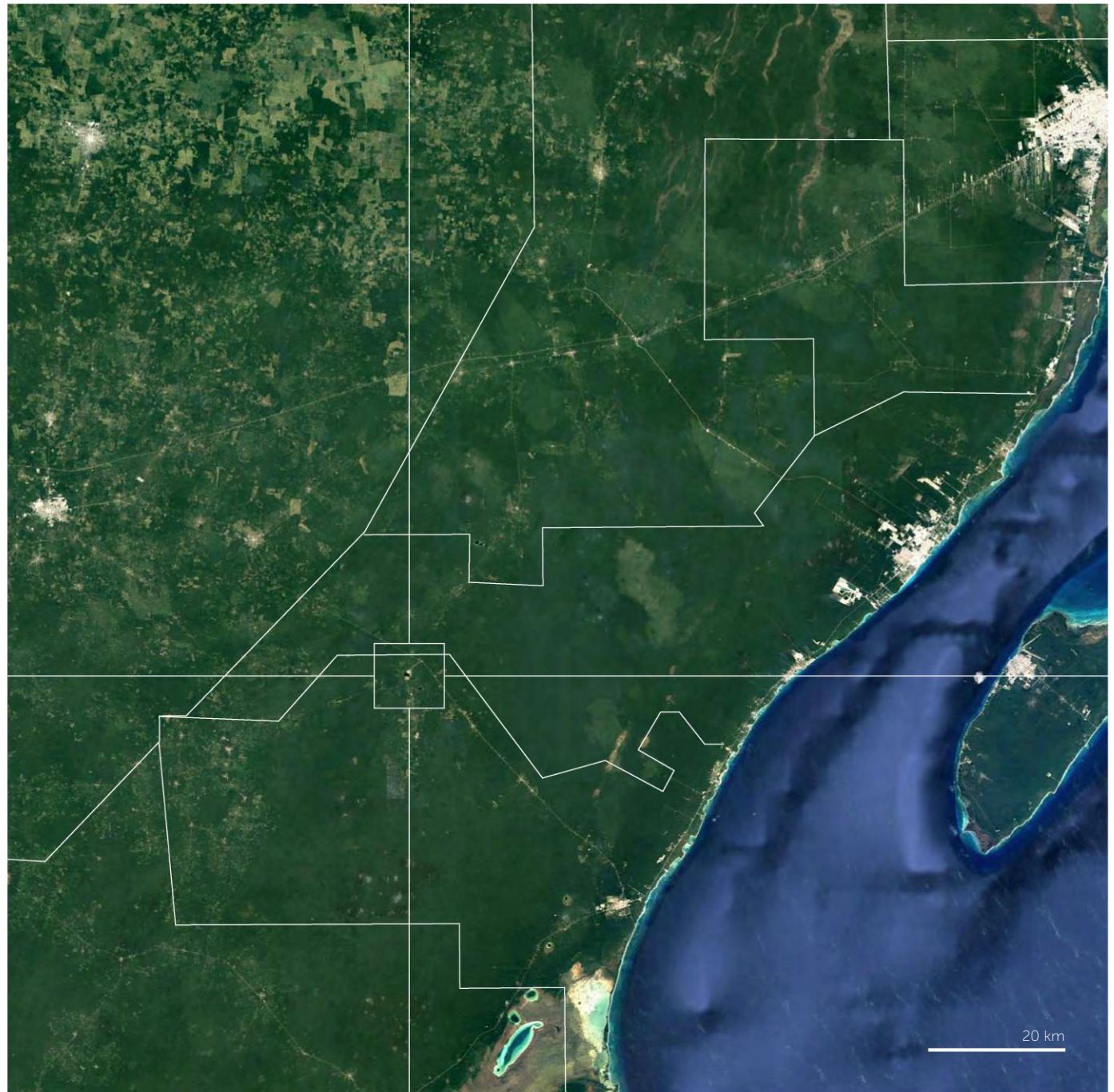
<sup>2</sup> *INEGI (2020)*



49 Satellite Image, Coba in context: the Yucatan Peninsula

Most visitors will arrive either by car or by bus departing or passing through Tulum taking the two-lane Nuevo X-Can-Tulum highway. On the way, one will encounter small settlements offering numerous services and selling goods or souvenirs to passing travelers. Even though the road is mostly surrounded by Jungle, the rising expansion of the urban fabric becomes visible as one passes one construction site after another advertising eco-friendly apartments, hotels, and retreat centers. The town is naturally divided into a southern and a northern portion by Lake Coba. The main road that links to the highway crosses through the middle of both sections of the town surrounding the lake, guiding visitors directly to the entrance of the archaeological site. Most commercial services are located alongside the main road such as restaurants, grocery stores, souvenir shops, and small hotels. In contrast, the southern portion of the town below the lake is visibly less tourist-oriented and therefore offers fewer amenities to visitors. The main cultural attraction is naturally based around the ruins of the ancient Mayan City. Beyond the archaeological site there are further ecological attractions near the village, about six to eight kilometres south of the ruins there are four cenotes adapted as adventure venues for visitors to swim or dive in them, besides the impressive cave formations. Most visitors will link both experiences in a single visit to the town of Coba. About twenty kilometres further north of town, there is a natural park reserve by the name of Punta Laguna, also a beloved site since one can see spider monkeys and other wildlife in the lagoon by the same name. Other immediate surroundings involve neighbouring smaller settlements enclosed by jungle.



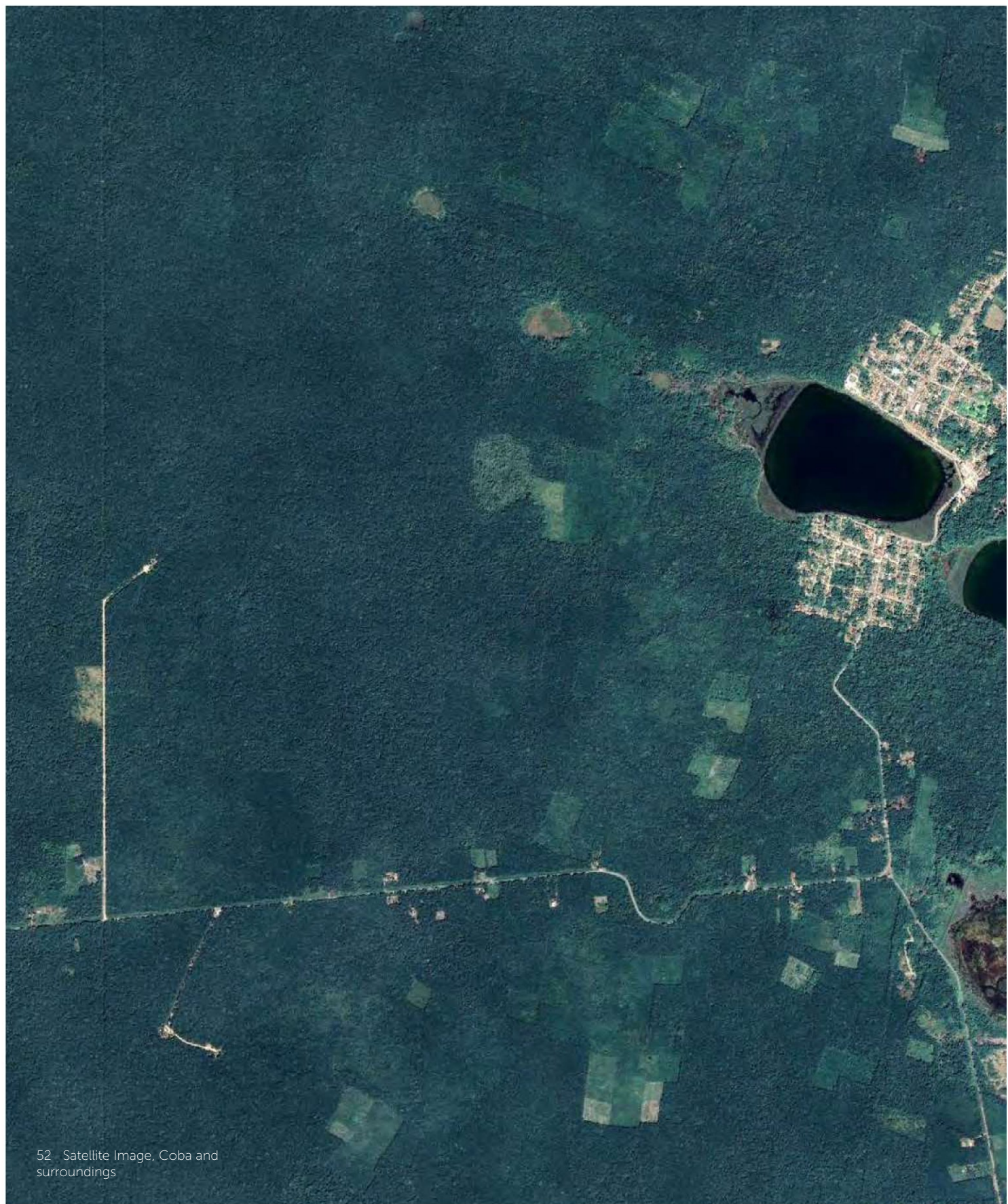


50 Satellite Image Coba in context: Quintana Roo Municipalities



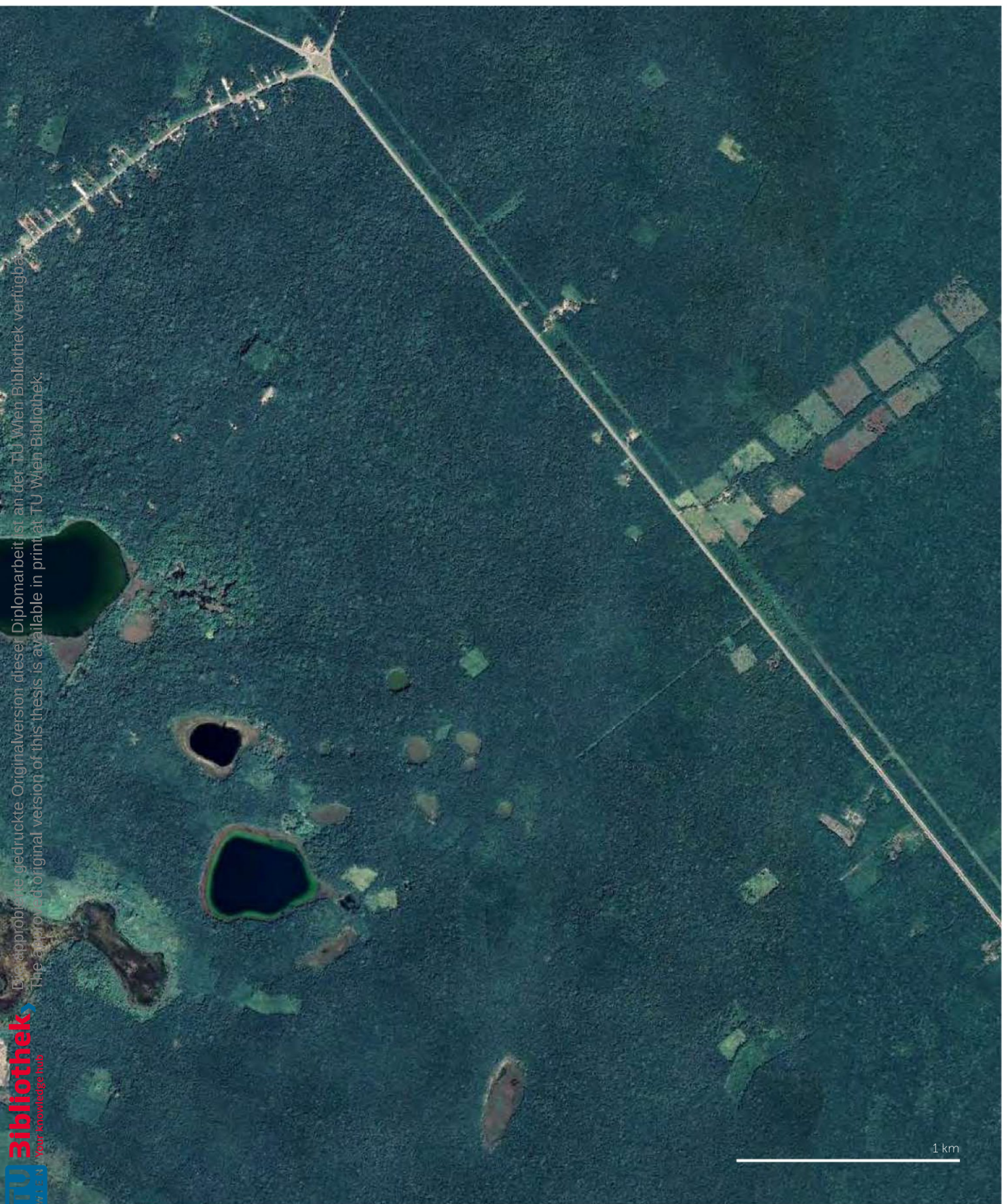
51 Coba in context: connectivity roads & highways





52 - Satellite Image, Coba and surroundings





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53 Plan of Coba

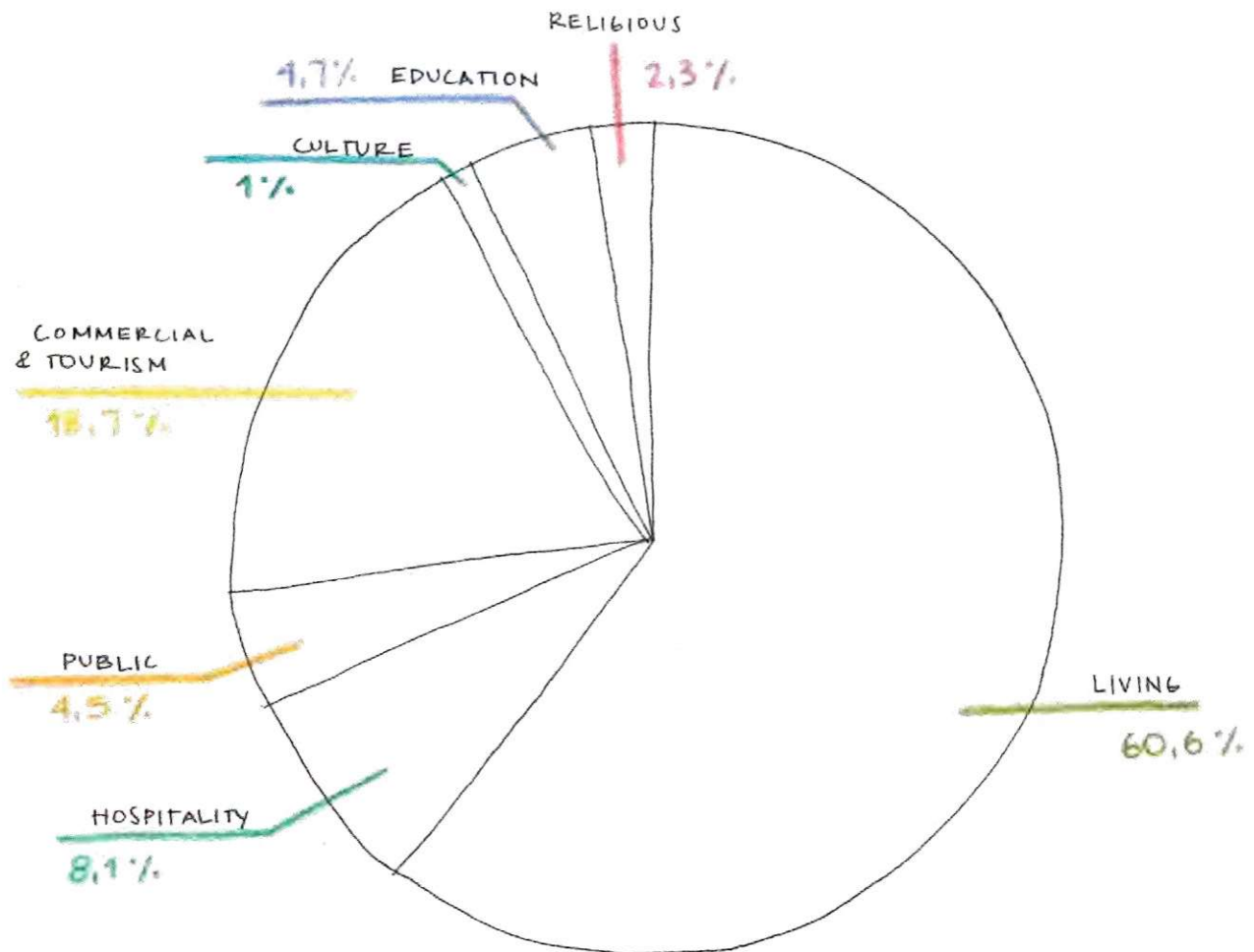






54 Coba, building use

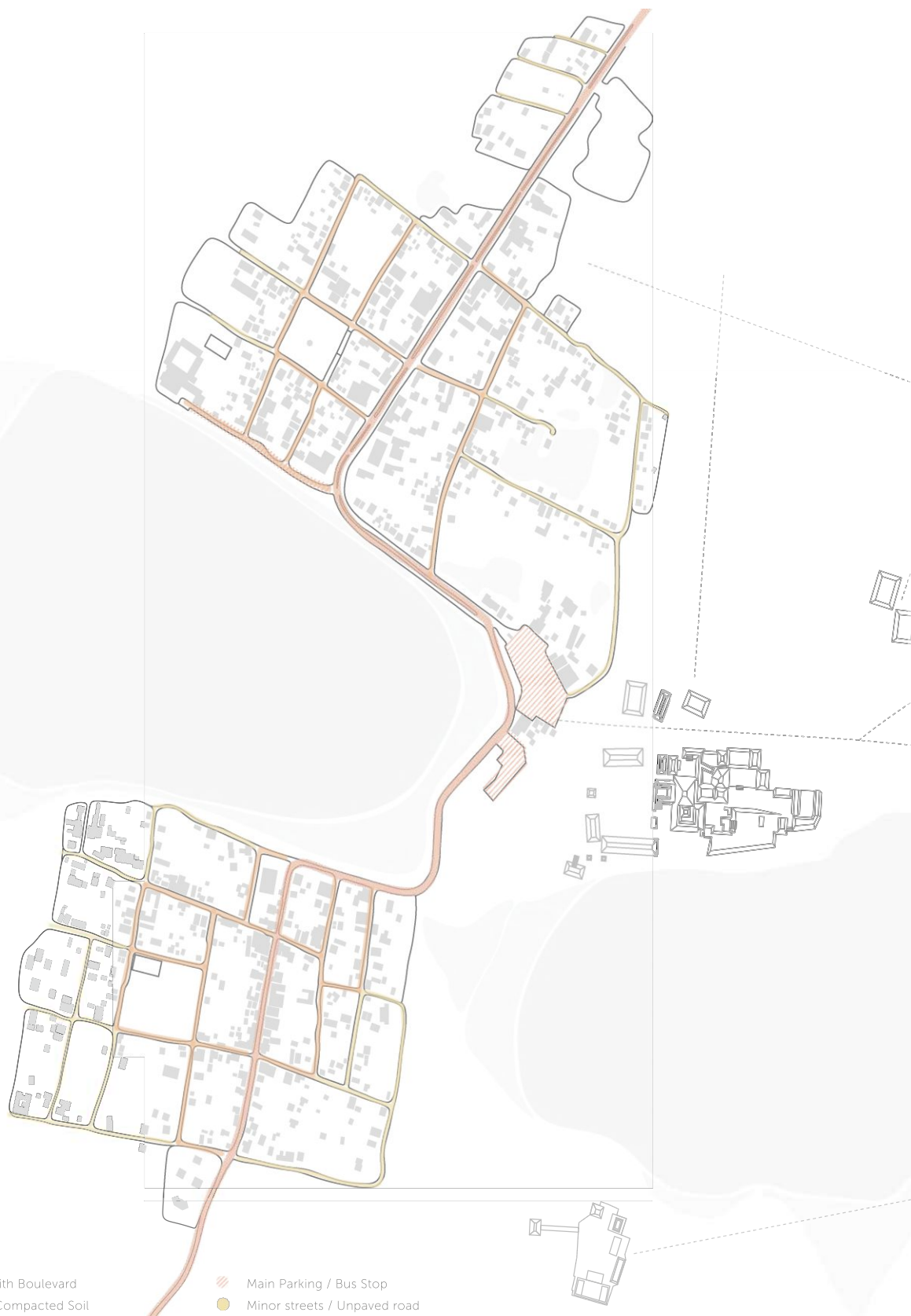


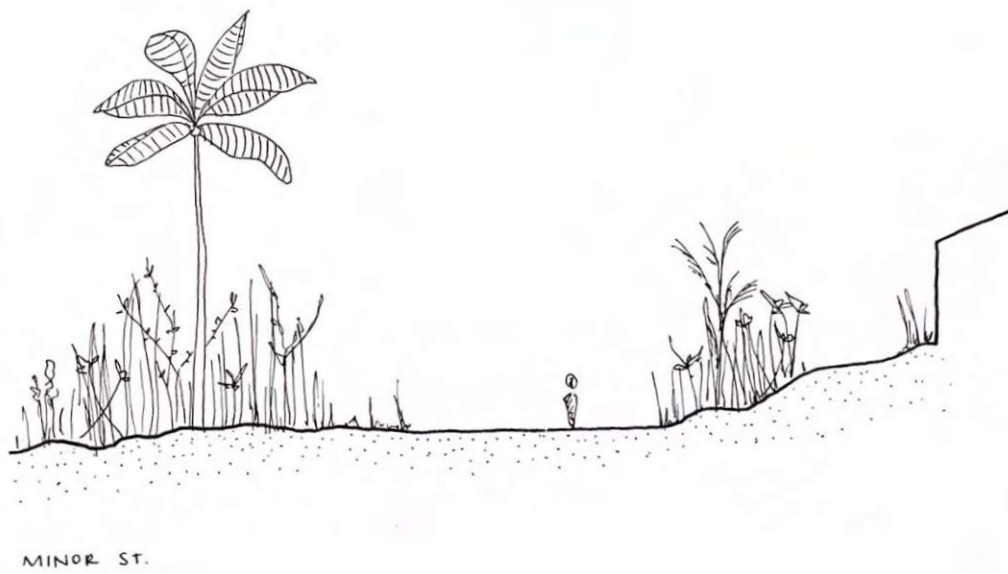
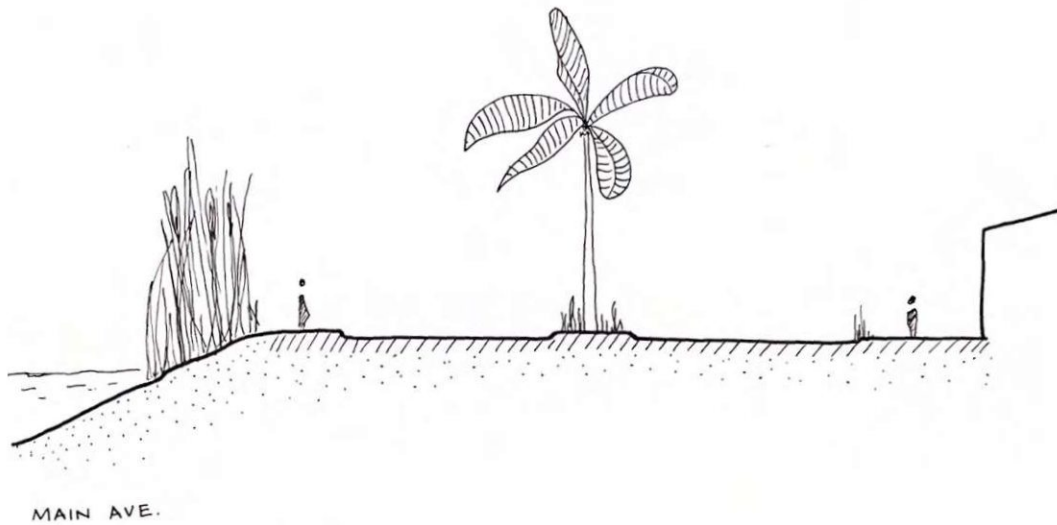


- Main avenue / Paved with Boulevard
- Side streets / Paved & Compacted Soil

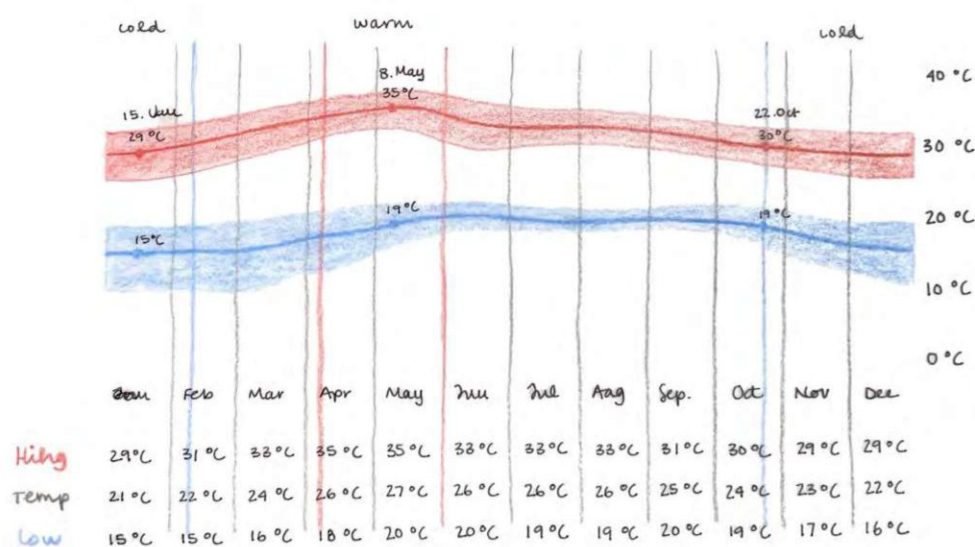
- Main Parking / Bus Stop
- Minor streets / Unpaved road

## 55 Coba, streets & roads

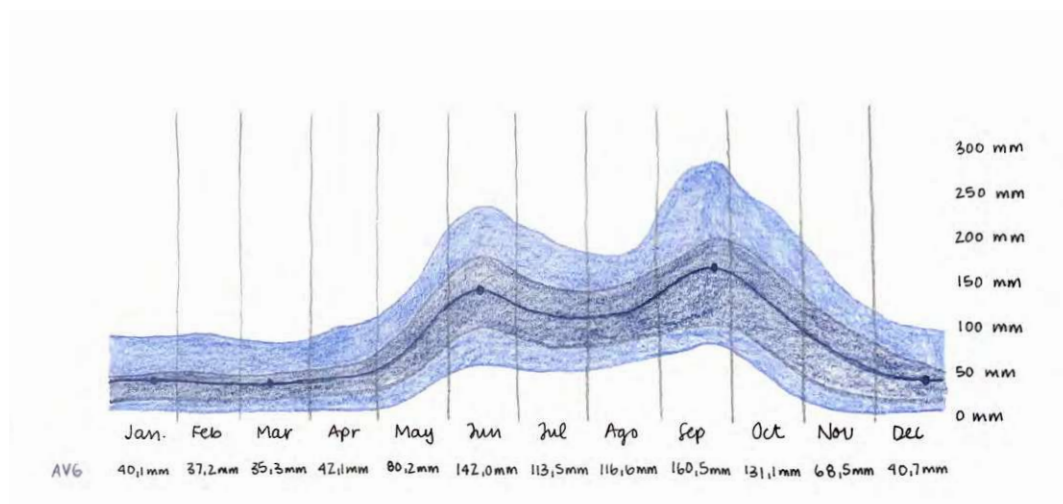




## Local Climatic Conditions

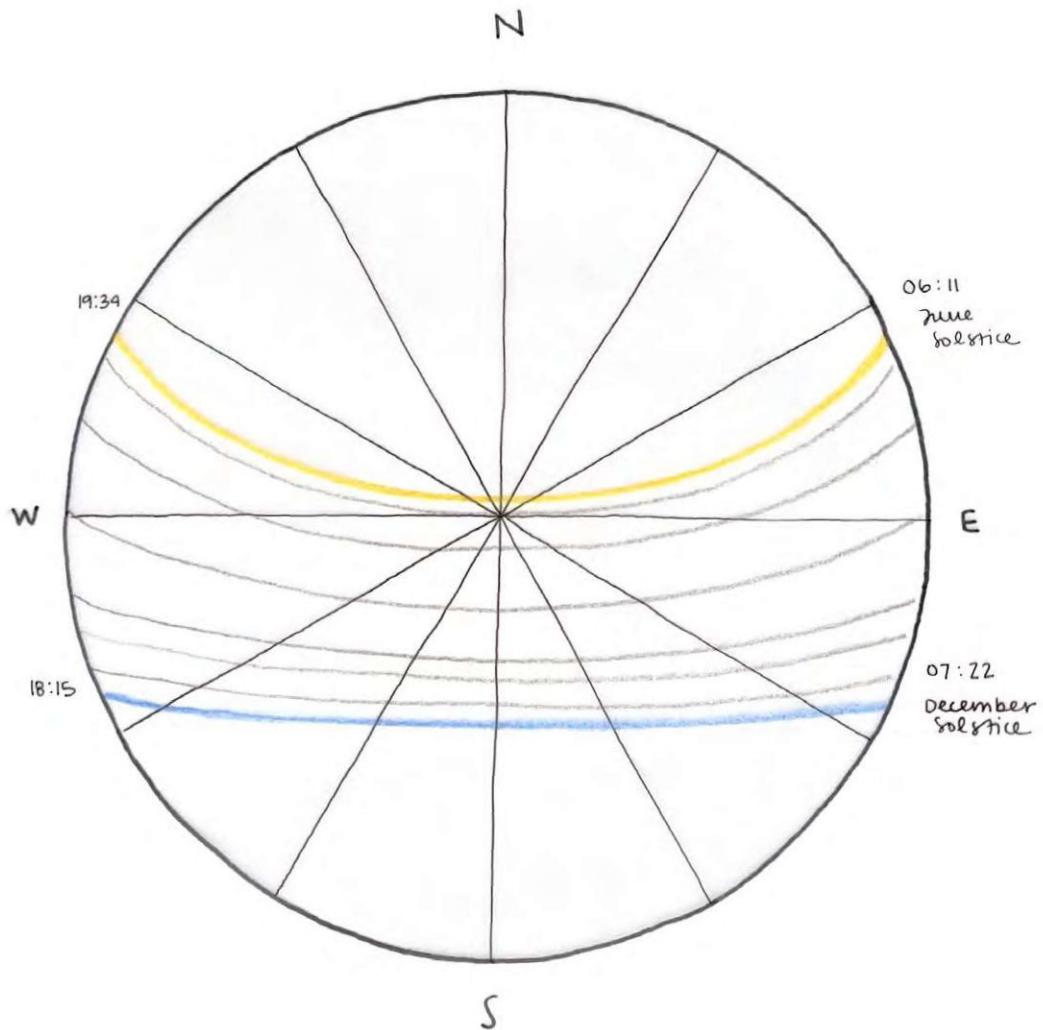


56 Coba, Avg Temperature



57 Coba, Avg Rainfall





58 Coba, Yearly Sun position

# Ways of Life

## Between Social, Political, and Physical Structures

According to traditional spoken history, the modern town of Coba was first settled around 1950 by gum resin collectors known as chicleros and then by families from surrounding villages. Following a traditional Maya system, the land was established mainly for milpa cultivation (cornfield), the primary mode of subsistence for Yucatec Maya. The early Mayan settlers called the territory Coba, which can be translated to "muddy waters", referring to the surrounding lagoons, otherwise scarce in the Peninsula. Since the community was dedicated to the activity of agriculture, the attractiveness and benefits offered by the surrounding water bodies were crucial for its growth and sustenance.

In the early seventies, Coba received the status of ejido, meaning a system of communally owned land, constituting about 3800 acres.<sup>1</sup> This arrangement of collective land use pre-dates the colonial era. Under Spanish rule, it was disrupted by the labour regime of the encomienda but following the Mexican agrarian reform at the beginning of the XX century the collective land system today known as ejido was reinstated. "The concept of an ejido was to expropriate land from colonial landowners and give it to communities as land grants to be parcelled out to individual ejidatarios (the recipients of ejido rights)." <sup>2</sup> Originally the system did not allow ejidatarios to own the land, they had to work their parcel and pass it on through

<sup>1</sup> Litka, Stephanie (2013)

<sup>2</sup> Christie, Jessica J. (2021)



59 Traditional Structure, Aldea Xunaan Kab, Coba



60 Hammock, essential element of the mayan house used for resting and sleeping



61 Maya woman making tortillas

generations by keeping it within their families. Changes to the Agrarian Law in the early 1990s made it possible for ejido land to be divided, leased, and/or sold by the right owners, completely changing the system of community land management, and slowly moving onto private, individual property.

This system has had a significant impact on the social and political structure of Coba which continues to this day to be a kin-based community around the ejidatarios and their families. They position themselves as the local voice of the community holding meetings regularly to reinforce the common governance of the village.<sup>3</sup> Moreover, the importance of family ties that extend beyond the standard two-generational group found in Western countries, also plays a fundamental role in the social and spatial organization in contemporary Coba. There is a multilayered notion of the structure of community-based settlements. According to Maya mythology, the world is layered horizontally, referring to the physical spheres of the household, the land, and the milpa corn fields; and vertically, separating

<sup>3</sup> Barsimantov, James A. et al. (2010)





62 Family inside traditional living compound *Solar*

the underworld, the earth, and the upperworld. Although this concept blended with Christianity during the colonial era, it is still embedded in the contemporary Mayan ideology.<sup>4</sup>

<sup>4</sup> Gillespie, Susan D. (2000)

To better understand how these structures are played out in our contemporary setting let us look at the household organization. The basic residential entity is referred to as solar, which is the site containing several generations of a family. Solares are made up from a collection of najo'ob, these are single living units in the form of palapas or simple concrete constructions for the nuclear families (spouses and their children). A key component to this organization, referred to as otocho'ob, are the multifunctional and communal spaces within a solar which also comprehend the main circulation. Opposed to najo'ob, the term referring only to the physical structure of the house, otoch carries a deeper meaning of the social role of a complex, being the link between the private spaces within the solar.<sup>5</sup> These living structures base their organization and daily life in family bonds and kinship, besides

<sup>5</sup> Litka, Stephanie J. (2012)



63 Pig farming for self sustenance



64 Altar as central element of the Solar

<sup>6</sup> Gillespie, Susan D. (2000)

a solar is inherited through the male lineage from one generation to the next. According to anthropological scholars who have analyzed this more profoundly,<sup>6</sup> similar to the example of the household organization, this concept is further applied to the community, as the Yucatecan view it as an additional layer expanding outwards mutually connecting one another. Each expanding layer: the house, the solar, the milpa, the broader community, and even the geographical region; persist as a symbolic representation of the universe and have always been vital to Yucatec Mayan identity.

The foundation of daily life in Coba used to be of an agricultural nature, however, it has significantly reduced since the beginning of tourism business. A simpler form of agriculture is still practiced for self-sustenance in addition to keeping the land as a source of patrimony for future generations. Corn, which used to be the primary actor in milpa production is not harvested anymore as it is very time and effort-consuming, furthermore, such a laborious activity is not economically



65 Altar as central element of the house

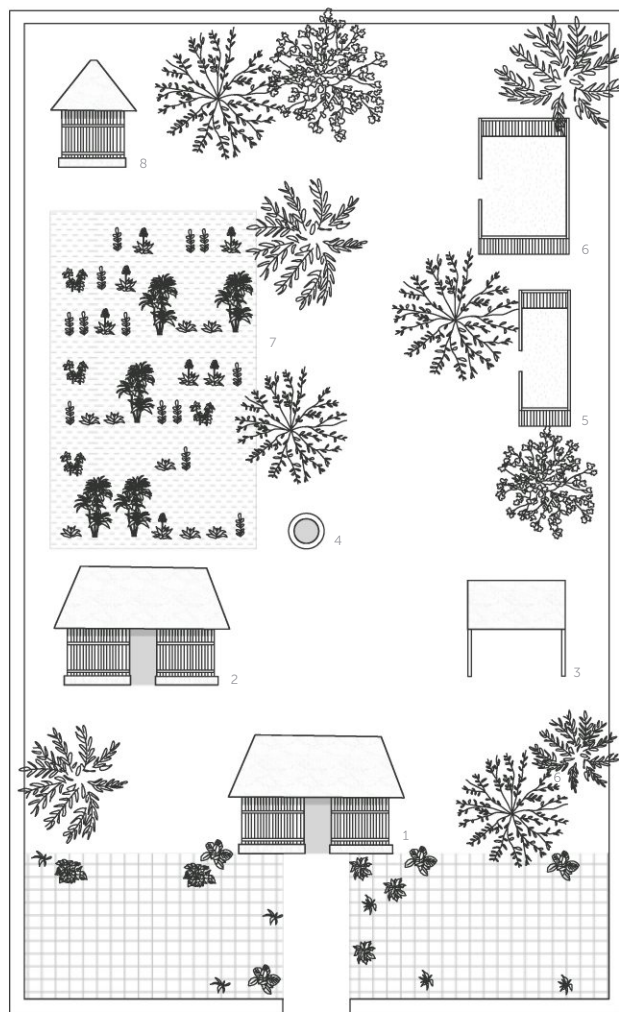
viable to survive on anymore. Still, the land maintains a prominent place within the community and is kept for a variety of uses, the harvesting of other crops, beekeeping, and even as a setting for social gatherings. Even though the tourism business brings in more profits, the inhabitants of Coba are aware of the instability of the industry. Both the 2009 Swine Flu outbreak and the more recent Covid 19 Pandemic have been key events carrying substantial consequences for everyone involved in tourism, thus threatening their sustenance, and fuelling uncertainty within the community. In this sense, the milpa remains an important asset for auto production as well as for maintaining a certain independence from external factors.

Lastly, a study conducted in two Mayan communities north of Quintana Roo, showed that communities with a predominantly homogenous indigenous ethnicity and a less corrupted social structure by heavy migration tend to have a stronger interconnection.<sup>7</sup> This can be applied to Coba as its majority of inhabitants, 94 percent, are of Yucatec Mayan descent.

<sup>7</sup> Barsimantov, James A. et al (2010)

## Solar

### Traditional living compound



- 1 *Najo'ob* single house unit
- 2 Kitchen
- 3 *Lavadero* Washing Area
- 4 Water Well
- 5 Pig Pen
- 6 Chicken Coop
- 7 *Milpa* Solar Produce
- 8 Sanitary





## Productive & Domestic Activities



### BEANS, SQUASH & OTHER LEGUMES

Growing along corn, these are some of the foods that one can find in a mayan Milpa



### METATE

Corn grinder for Masa for tortillas



### MAIZ

Corn in all its varieties

Main source of nourishment

Tortillas / Corn based flatbread

Atole / Corn base

Beverage

Tamales / Baked corn flour cakes with fillings



### COMAL

Main cooking utensil, essential in Mayan (and mexican) households





## BANANAS

Plant leaves used for traditional dishes



## ACHIOTE

Spice essential in Yucatec Cuisine

Seeds used for pigment



## MAYAN HONEY

From endemic bee *Melipona beecheii*

Used for its medicinal properties



## HAMACA

Made from *Henequén* (Agave) fibers.

Made using traditional eaving technique



## CHAYA

One of many local greens

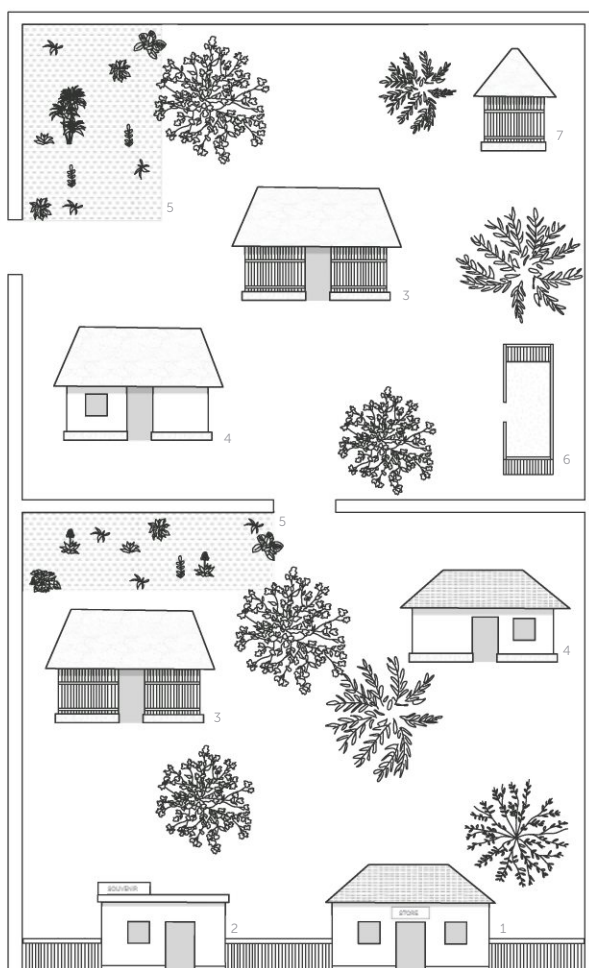


## CERAMICA Y BARRO

Traditional arts and ceramics

# Transformed Solar

## Modern living compound



- 1 Commercial / Local Services
- 2 Commercial / Tourism Services
- 3 Traditional House Unit
- 4 Modified single house
- 5 Reduced Produce Garden
- 6 Mixed Coop
- 7 Sanitary







66 Tourists visiting the Coba Ruins

# Tourism adaptation

## On local management and power dynamics

Today most of the town's income is based around the tourism business. This industry began slowly developing in the early seventies with the construction of a few amenities in the village. Despite its semi-remote location, touristic activity has increased considerably in the past few decades, reaching an estimate of around 755.8 thousand visitors in 2018.<sup>1</sup> Remaining a small-scale development, there are currently nine active hotels in the area, ranging from standard locally managed lodgings to pricey boutique hotels with greater commodities. An increase in the number of restaurants, shops, and stores along with the appearance of Starbucks Coffee manifests the intensified external interest in Cuba. Indeed, as the memoir of once un-gentrified locations in the region serves as example, Cuba's appeal lies in the reduced built environment which simultaneously enhances the surrounding nature.

<sup>1</sup> López, Ana, *Statista* (2019)

Cuba residents have managed to develop various ways of generating profit through tourism. Small businesses, generally linked in some way to Mayan culture, are dedicated to offer goods and services for visitors. Among them, the commerce of artistic and handcrafted items is one of the biggest in town. However, some of the products can be found in different locations, even outside of Cuba, raising the question of the actual origin and the genuine artisanal value they might have. The mass production of "Mayan" items is a large profiting sector in Peninsular mass tourism centers.



67 Stores along the main road of the town

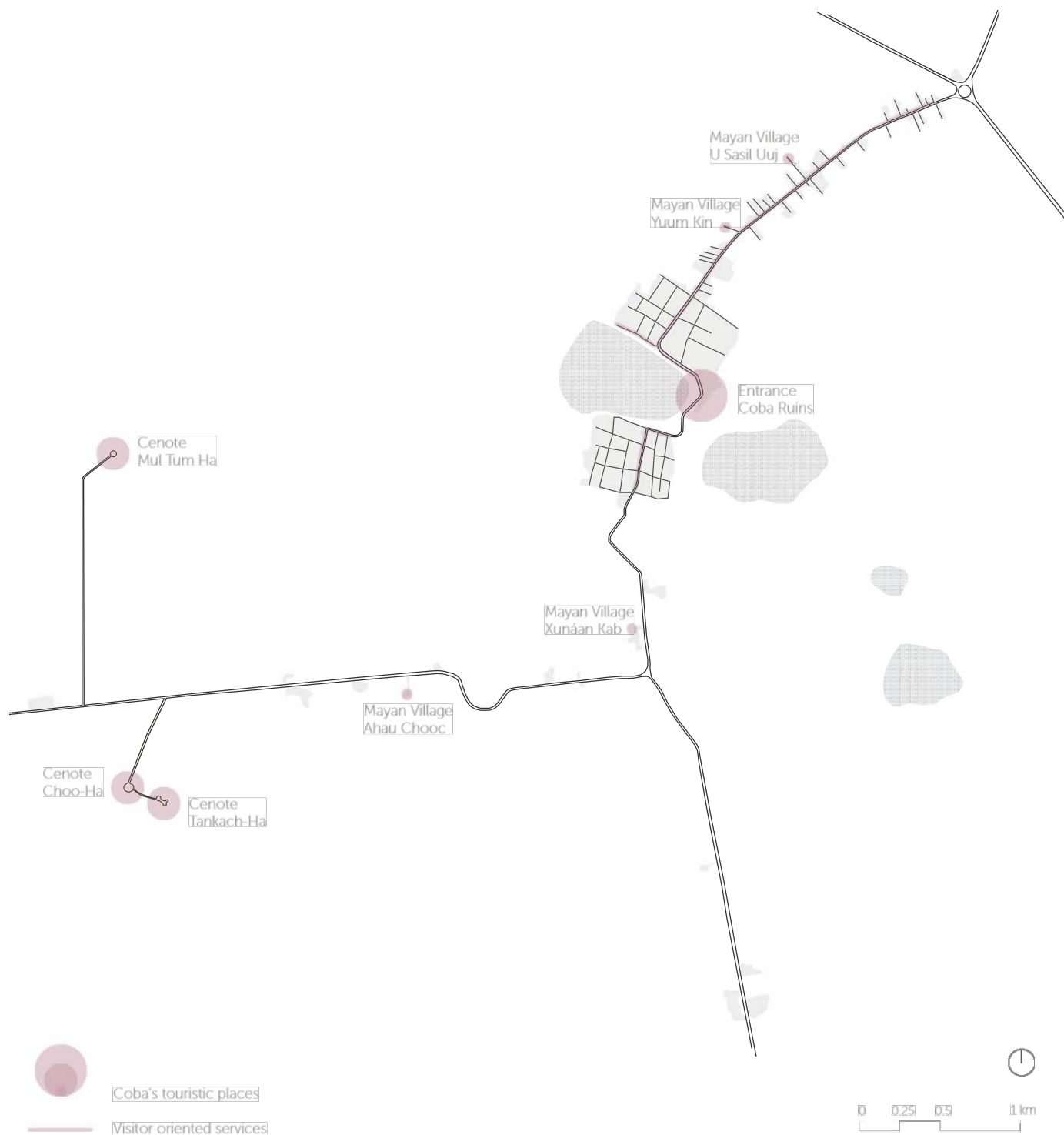


68 Main entrance to Cenotes



69 Inside of Cenote Choo-Ha





70 Main touristic attractions, Coba



71 Main entrance to Mayan Village



72 Handpainted signs advertising Mayan Village



73 Traditional food offered by Mayan Village

In contrast to conventional tourism businesses, there is another model I witnessed in Cuba where the primary beneficiary is the family itself: The Mayan Villages. Throughout town, predominantly in the peripheries, one can find hand-painted signs advertising "Mayan Village"; these are solar compounds where families open their homes to visitors for a guided tour of an authentic Mayan household. They usually show guests into their living compound known as Solar explaining their traditional way of living and involving them in daily activities like farming, agriculture, and beekeeping as well as sharing their history, ancient traditions, and natural medicine. This family-centered approach ensures that the absolute control and management is kept in the hands of the families, as well as the profits from their efforts. Beyond attracting visitors, this type of tourism enriches the lives of residents and strengthens their capacity in heritage management, sustainability and the establishment of a local oriented tourism. Not only do they offer a tour of their home, additionally, they offer guests a traditional home-cooked meal as well as other specialties specific to each Village. Even though the visits are free of charge, most earnings are made through tips and/or by selling their produce, for instance locally harvested honey, medicinal herbs, hand-crafts and even products from other remote villages as a form of a cooperative system. This model shows how communities have learned to adapt to the changing world, recognizing the advantages of the tourism industry without having to move away from their homes or depend on bigger fish to survive. Moreover, they have been able to market their Mayan heritage by celebrating and emphasizing their own culture, history and environment. These experiences represent an immersion into the life, culture, and local customs and are aligned with the historical and social values of the zone, making it a much more sustainable form of tourism and encouraging respect for the cultural identity of Cuba.





74 Nohoch Mul Pyramid, Coba Archaeological Site



# The Ruins

## An Overview of the Archaeological Site

As the core of the town, the archeological site is located right in the middle of Coba, between the lakes Coba and Macanxoc, and between the southern and northern portions of town.

The site extends for about 70 square kilometers connected by ancient roads called *sacbe*, which used to link the ancient city with former Mayan urban centers. Inside, the ruins are categorized into different groups, including temples, ball game courts, residential palaces, and stone panels named *stelae*, containing old writing and hieroglyphs.

The entrance to the ruins is through the parking lot, there is a small construction where tickets are sold, as well as a restaurant, a convenience store, and some gift shops. The main souvenir store and restaurant belong to the *ejido*, as such the earnings are equally divided among the *ejidatarios*. In addition, they receive a percentage of the tickets sold to be distributed among the head families of the community, as well as the parking fees. Further sources of income are created inside the site. Visitors can choose to hire local guides to show them around the ruins, offering detailed explanations of the ancient Mayan history, additionally, since the archaeological groups are far away from one another, there is the option of renting either tricycle cart taxis or single bicycles for the guests to move around the site to avoid walking long distances in the heat.



75 Observatory, Coba Ruins

Today the ruins are under the control of the National Institute of History and Anthropology, INAH by its Spanish acronym. Even though tourism is still largely locally managed, there have been disputes about the management of the site between the institution and the ejidatarios. One recent example is from the past year when locals closed the archaeological site as a sign of protest to ignore budget negotiations by the government about the Covid-19 Pandemic. Another pressing matter is the initiative PROMESA (Programa de Mejoramiento de Zonas Arqueológicas translated to Archaeological Site Improvement Program). Carried out by the INAH as part of the primarily tourism-oriented development agenda, it promises to strengthen the infrastructure of various archaeological sites in southeastern Mexico, Coba included, as it is foreseeing an increase in visitors once the Mayan Train is complete.<sup>1</sup>

<sup>1</sup> Secretaría de Cultura (2022)



76 Map of the Archaeological Site / INAH



77 Overview of the Coba Ruins

This generates worries among the locals regarding the future of their region, as how it might be carried out and affect their involvement within the tourist industry. The proposal includes the creation of a museum in the community, as well as the modernization and digitalization of the installations at the archaeological site. The community firmly demands that the projects should be carried out in collaboration with them, also maintaining their management position within the ruins and its further additions, as well as a percentage of the revenue being destined to the community and its inhabitants.

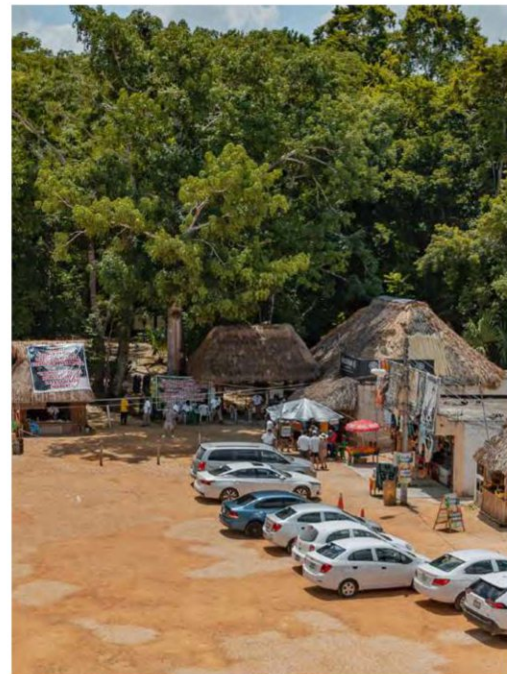




78 Souvenir stores outside the ruins



79 Bike taxis inside the ruins



80 Overview of entrance to the ruins

# Voices

## Brief interactions with Cobá locals



### On Cobá Community needs

"We live primarily on Tourism. The pandemic really hit us hard: no tourism, no money. Sometimes tourists want to buy things, but there is no ATM in town. Some take cards, but we do not want to deal with banks, they end up taking a big part of our gains."

"There are still some families that practice agriculture around town, but it is not enough for all of us. We need a supermarket. Most convenience stores are expensive and they do not sell fresh fruits and vegetables. For a supermarket we have to go far, there is no way my mother can carry food for all of us on foot."

Antonio "Toni"  
Family owns souvenir shop



Victor  
Director of Cobá Cultural  
Centre

## On art and development

"I want to do something with this cultural centre. I worry about our youth's wellbeing. I do not want to see them turn to drugs and alcohol, I want to give them something to grow, something to turn them away from apathy and inactivity."

"I dream that one day we will have the support we need from the government, but every day is a battle with bureaucracy. We don't have functioning restrooms, we have no materials and the ones we do have need to be repaired. The classes we offer are free but we still need to pay our teachers."



Javier  
Tourist guide

## On archaeological institutions and tourism

"There has always been a conflict between the ejidatarios and the INAH. They say they are going to do maintenance and modernize the archaeological site, but they just come to close the site and we see no progress. We are supposed to receive 50% of the entrance fees, and it has been years since we have received payment"

"The archaeological site is the only motive for tourists to come visit Cobá. They come, park their cars and leave once they are done with the tour. The lack of infrastructure and commodities drives them away"

# Transformations of the Habitat

## Between Tradition and Modernity

In previous chapters we have talked about the profound changes that rural areas of the Peninsula have undergone in the last decades, as the established new patterns of organisation slowly displace local values for universal ones. With a focus on the habitat and the physical spaces where daily life happens, this chapter will try to illustrate the evolution of said spaces providing a background context to their transformations.

In the rural areas of the Peninsula, tradition and modernity go hand in hand. The newly established global order rises in the rural context altering cultural practices and symbolic contents considered traditional. While modernity is generally used to describe something new and positive and tradition refers to something old and often primary, traditions have always been discarded and invented within any society.<sup>1</sup> It certainly cannot be argued that tradition eventually loses against modernity, but what is modern at some point becomes traditional. Based on one study from the late 1990s and a recent interview from 2018, I expect to highlight the specific transformations of the habitat and the elements that have been kept or changed in the process, directing the main focus on the used materials and the construction techniques.

<sup>1</sup> Baños Ramírez, Othon (2002), p.161-163



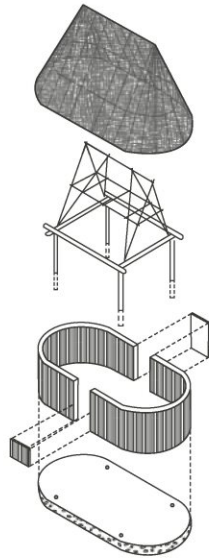


81 Men building traditional home



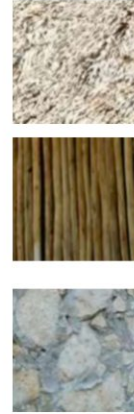
82 Contemporary mayan home

## Traditional Mayan House



Construction knowledge passed on from generation to generation

Ritualistic methods involved



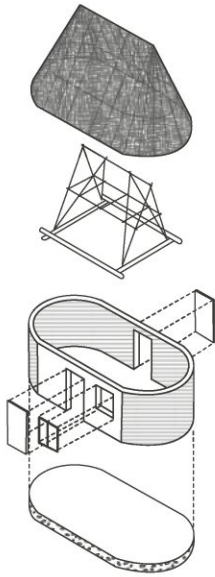
Traditional Mayan housing is a result of the conditions and the lifestyle of rural society. The solar, for instance, is not merely a piece of land for settling down but is rather a complex social space with symbolic value within the collective. The same applies to the traditional form of the rural mayan house, primarily conceived to take advantage of the land and its vegetation, as well as provide a cool climate for this region. The constructive knowledge of this vernacular architecture is based on tradition. The know-how was inherited from generation to generation to provide a new living space for the newlywed offspring.<sup>2</sup>

<sup>2</sup> Sánchez Suárez, Aurelio (2006), p.84

The constructive process is based on ritualistic practices and religious beliefs that prove to be significant, as these practices are intrinsically tied to a profound understanding of the natural environment.<sup>3</sup> The building process begins once all construction materials and elements have been collected, and it takes around five people and two days to complete a house. The structure is defined by four main wooden pillars, the walls are

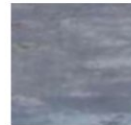
<sup>3</sup> Casanova Rosaldo, Aida A. (2021)

## Hybrid Mayan House



Multifunctional open structure is kept with additional openings

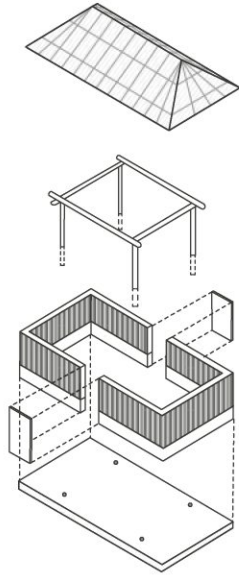
Shift towards industrialized materials



built according to the bahareque technique (bahareque: traditional building technique in central and south america) wich consists of bamboo or similar wooden structural elements, reinforced, and covered in plaster made from soil. The roof underconstruction rests on the main four pillars and is covered with palm tree leaves (Palma de Guano), these are carefully woven in overlapping layers to avoid water penetration. Each region throughout the peninsular territory uses slightly different techniques and materials but the unit remains a similar typology.

This typology has been subject to multiple transformations throughout the last decades. The slow but steady disappearance of traditional mayan housing is made visible by the modifications in crucial elements of the house. Since the used materials are perishable and have a lifespan of around 30 years, Yucatan's rural inhabitants look for alterations in the structure as well as materials to improve their homes. The living unit changes its original oval floor plan for a square one, bahareque

## Hybrid Mayan House



Keeps traditional space distribution and use

At least one traditional material is kept

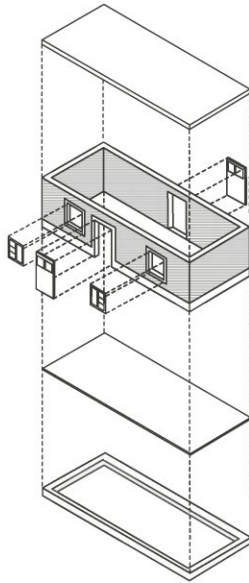


walls are swapped for concrete blocks, window openings appear, and palm leave roofs exchanged for steel and concrete. These transformations upon living spaces embody the presence of modernity in rural communities. The first cited study revealed that most of these changes were more visible around urban centres as well as coastal areas due to heavy migration and the rise of tourism. Furthermore, government campaigns promoting a modern typology for "popular housing" did not consider the cultural and traditional values of the house. There is an underlying evolving social process in the living dynamics where the traditional meaning of the solar and the house have lost their significance. Family members working outside of their communities, the introduction of television and the internet as well as the economic shift towards tourism, all play a role in the transformation of the rural space.

In recent years there has been an interest from the architectural sphere to take on a more conscious building approach, based upon sustainability and the engagement with marginalised

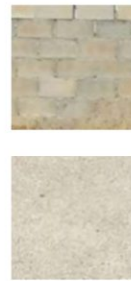


## Modern Mayan House



Rural structures transformed into urban stereotypes

Contemporary space divisions: kitchen, bedroom, bathroom



communities through participatory processes. In an interview, the architectural practice Comunal Taller based in Mexico disclosed some of their research regarding the building environment in the Yucatán Peninsula and the loss of the traditional building techniques. Besides migration and urban expansion, terrible government housing policies suggest that the traditional house is unsafe because of the use of biodegradable materials. In addition, they have a template of the house which they use for their social housing programs, resulting in generic architecture that abolishes cultural and traditional values. Social aspiration also plays a vital role in this shift, as younger generations prefer to build with industrialised materials as they convey an image of higher status. Traditional houses are becoming a sign of poverty. Finally, the natural resources needed for traditional housing are starting to disappear, the palm trees used for roof constructions and the excessive wood sourcing for luxury products have also a heavy impact in the rural built environment.<sup>4</sup>

<sup>4</sup> Ordoñez Grajales, Mariana & Luque, Onnis (2018)

## Building Materials



PALM LEAVES

*Palma de Guano, Peninsular*  
*Species:*

*Sabal Mexicana*  
*Sabal yapa*  
*Sabal Mauritiiformis*

- Biodegradable
- Renewable
- Used in traditional and modern architecture
- High demand



WOOD

*Cedro / Cedrela Odorata*  
*Caoba / Swietenia Macrophylla*  
*Ciricote / Cordia Dodecandra*  
*Tzalam / Lysiloma Bahamaensis*  
*Chechen / Metopium Brownei*  
*+300 timber species*

- Renewable
- Over 300 regional timber species
- Overexploited precious timber species like Cedar and Mahogany



STONE

*Karstic Soil*

*White Limestone*  
*Red Limestone*  
*Marble*  
*Onyx*  
*+Soil resources*

- Natural resource
- Used in traditional and modern architecture
- Severely exploited: Quarry limestone, Marble

CONCRETE  
BLOCKS

*Prefabricated*

*Concrete*  
*+Additives*

- Industrial material
- Accesible
- Easy to build
- Cheap

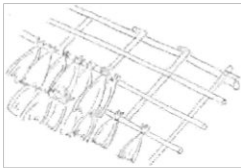
ROOF  
PANELS

*Prefabricated*

*Glass Fiber*  
*Compressed Cardboard*  
*Plastic*  
*Aluminum*

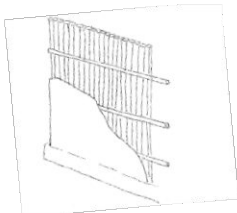
- Industrial material
- Can be upcycled/recycled
- Easy to build
- Cheap

## Building Techniques



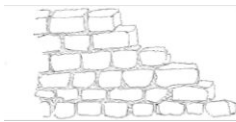
THATCH

Palapa roof typology  
Traditional housing  
Contemporary Buildings



BAJAREQUE

Traditional housing  
Design element in contemporary architecture

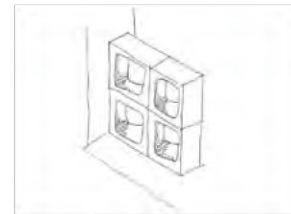


MASONRY

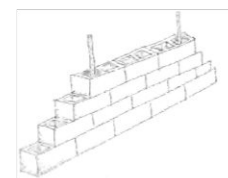
Mayan Temples / Ruins  
Traditional Housing  
Contemporary Buildings



SKELETON FRAME

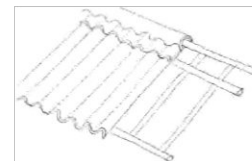


CELOSIA



PREFAB / MODULAR

Informal Typologies  
Self Built Structures  
Contemporary housing  
Public buildings



OTHER BUILDING  
SYSTEMS

Contemporary housing  
Informal Typologies  
Self Built Structures  
Public infrastructure

# 03. Studies



84 Caba, green surroundings

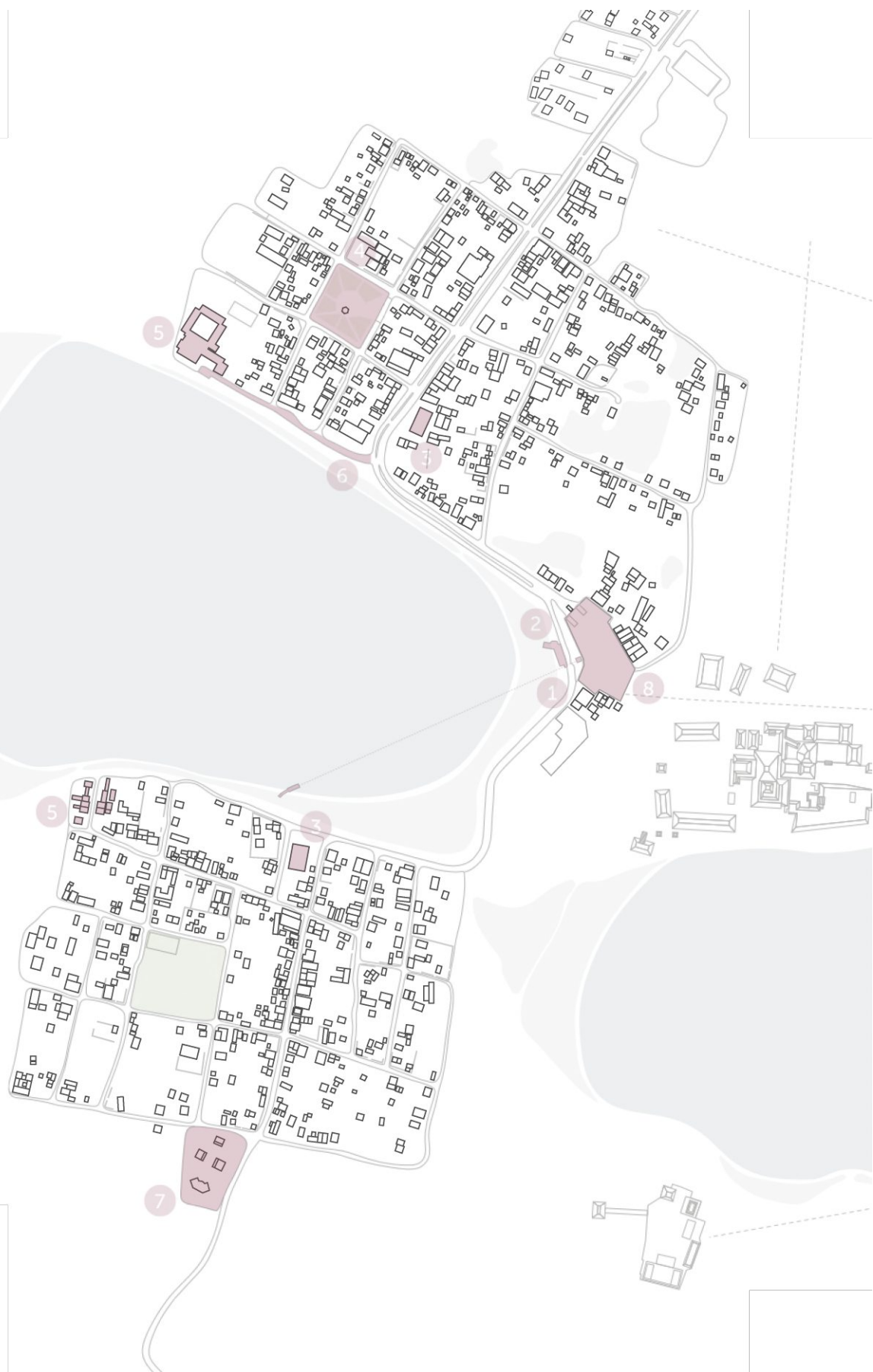


# Case Studies

## The current condition of public space

To better understand the multifaceted public layers of Coba, I have selected several structures and spaces located throughout the town that define today's public spatial configuration and its use. They possess characteristics varying in nature: intentional, conceptual, material or temporal which unfold as defining manifestations of engagement or detachment from the urban fabric. They have been chosen under the criteria of being public, each one of them addressing a different need and thought.

Working first as isolated architectural elements, then as part of a whole, this study aims to uncover and pinpoint systematic issues in the development of Coba based on physical examples. At the same time each approach reveals a specific standpoint from which solutions can begin to surface. As each narrative is unveiled, we find a profound necessity for a transformative change in the dynamics of the conception and creation of public spaces.





1 Tower

2 Pier

3 Sports Court

4 Main Square

5 Hotels

6 Parking Street

7 Cultural Centre

8 Entrance Ruins

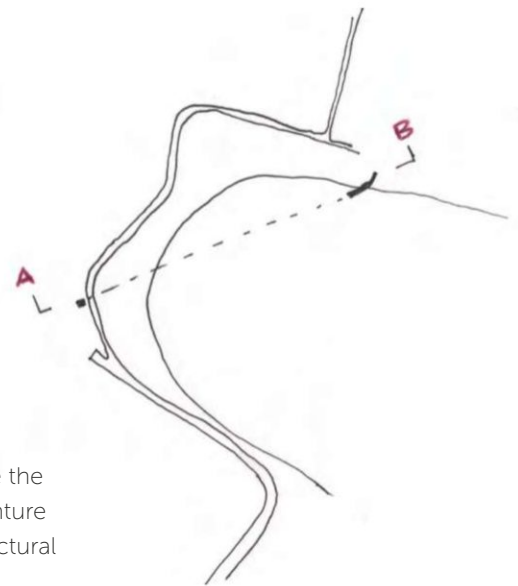


## Tower

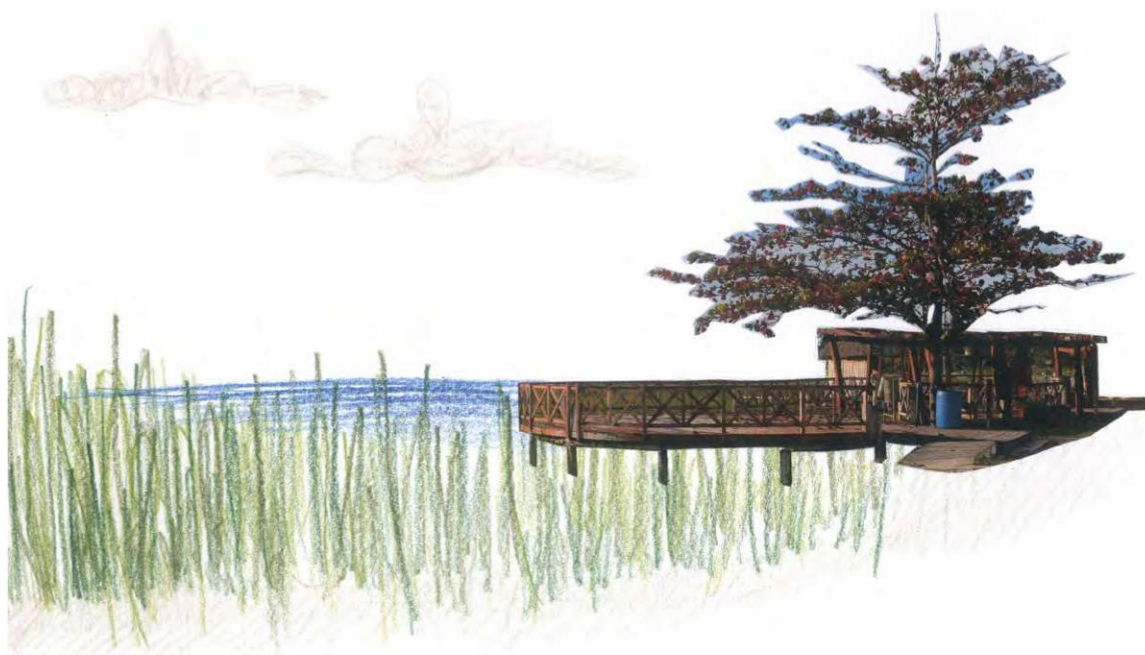
Located between the Main entrance to the Ruins and the Lake Coba, lie the remains of what used to be a zip-line across the lake intended for adventure tourism. Today the structure remains untouched and out of use. Its structural integrity is unknown, and its purpose has been revoked.

Even though it no longer serves its original purpose, the structure maintains a central position in the fabric of the town as it is the tallest body of architecture beside the pyramids. Its prominent location gives it a definite role of importance.

The lightweight structure is made from wooden profiles and palm tree leaves for the roof. After each flight of stairs, the construction allows for surrounding views of the town, and reaching its highest point it holds a platform from where the zipline used to be attached. The tower stands upon a stone foundation and follows traditional palapa construction techniques. On the other side of the lake, we find the remains of a wooden walkway which used to be the end of the zipline.





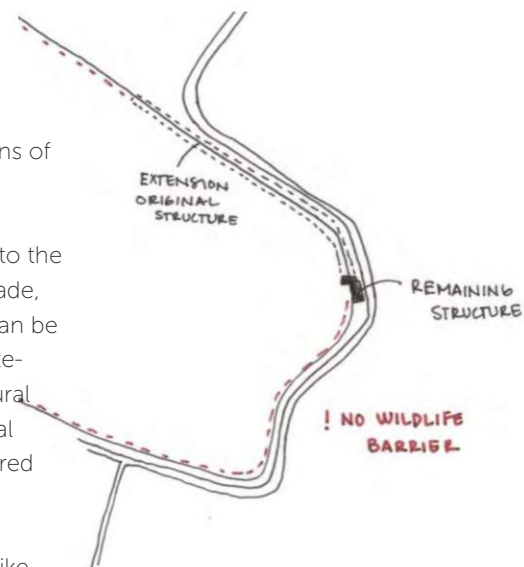


## Pier

Crossing the street opposing the Tower, the partly still functioning remains of a Pier at the edge of lake Coba make their appearance.

The wooden structure used to surround the border of the lake adjacent to the main street functioning as a promenade whilst offering seating areas, shade, and walkways into the water. Today only a small part of the whole Pier can be walked on as the construction has suffered substantial damage. The material has visibly rotten, or it has completely disappeared, hence the structural integrity is compromised. Other visible elements belonging to the original composition such as trash bins, street signs and other remains lay scattered around as wooden rubble.

This used to be the main public space open to both locals and visitors alike. Lack of maintenance, resources or proper construction knowledge has led to the permanent removal of the space. According to locals, it is intended to be rebuilt in the near future but for now the site is blocked by orange traffic cones.



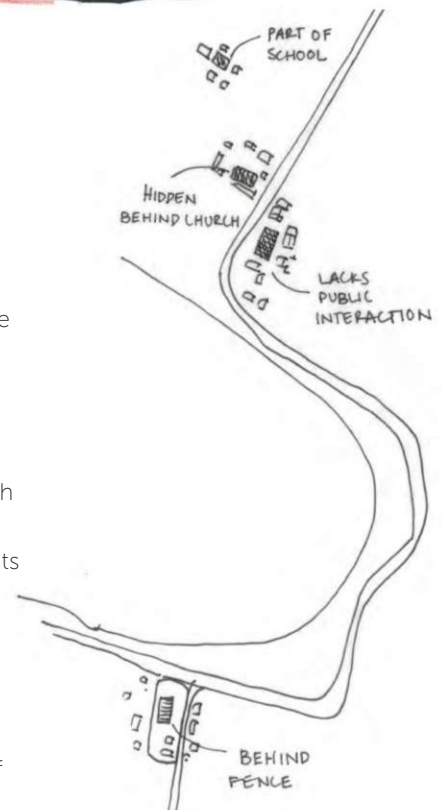


## Sports Court

Formal or informal, sports venues remain essential spaces in the configuration of urban settlements. It is no exception for Coba as we find at least three of them throughout the town. This typology bears similar characteristics in conception, structure, materials, and aesthetics and is found in almost every town and city in the Yucatan Peninsula.

These sports venues consist of a simple steel construction on four pillars with a curved laminated panel roof on top, providing shade over a concrete base with basketball hoops on each end and a variety of concrete seating elements on both sides of the court.

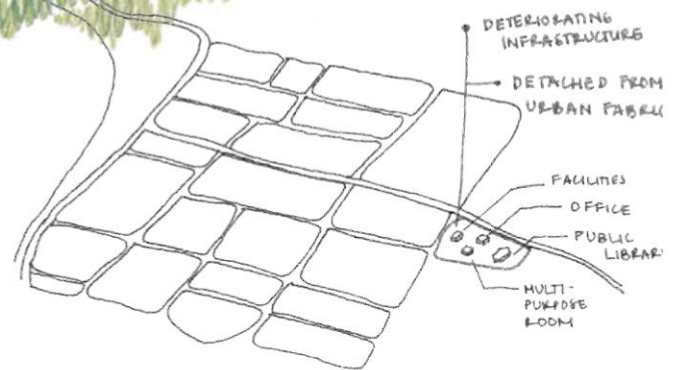
Most of these structures find themselves isolated and detached from their surroundings, as they are often fenced or lack elements for public engagement. Since sports venues are usually government-funded, they fulfill the basic purpose of being built as a sign of improvement in the infrastructure of settlements but end up generically meeting their functional goal.





## Cultural Center

Crossing Coba, behind the town there is a small complex that serves as a cultural center and a public library. The modest concrete buildings are arranged to face each other at each cardinal point in the open plot, one of them contains the library, one is for services, another serves as the main office and the last one is a big classroom for multi-purpose activities.



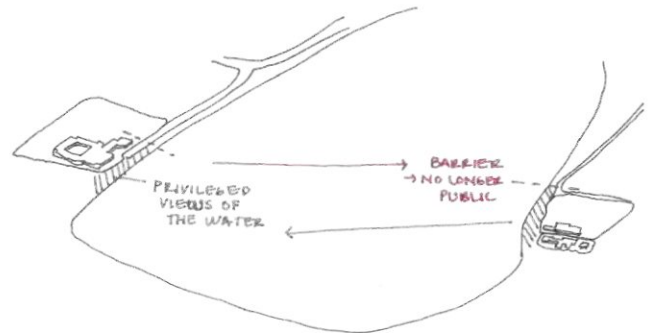
Talking to the owner, spoke about the difficulties of maintaining and organizing the centre as state funding for artistic activities is scarce. Additionally, the infrastructure of the centre is in a precarious condition and in desperate need of refurbishment. In the past, there have been collaborations with international organizations offering for instance English classes for children, and enabling a broader interaction with the locals. Such spaces are key to the development not only of children and youth but also of the community, enabling engagement in cultural activities and reinforcing traditional values.





## Hotel

Amenities in Coba have multiplied because of the increasing number of visitors. While one can find modest lodging options in town, this example shows the level of commodification that has reached remote locations looking to offer a specific group of wealthy tourists what already gentrified cities and towns can't do anymore: the luxury and exclusivity of an unbuilt environment surrounded by nature, with a promise of local authenticity.



Advertised as a hideaway, the hotel is in the southern part of town, encompassing a portion of the shore of Lake Coba at the edge of the village. The luxurious complex offers, besides the hotel, additional services like a spa, a restaurant, and a boutique shop and isolates itself from the rest of the town.

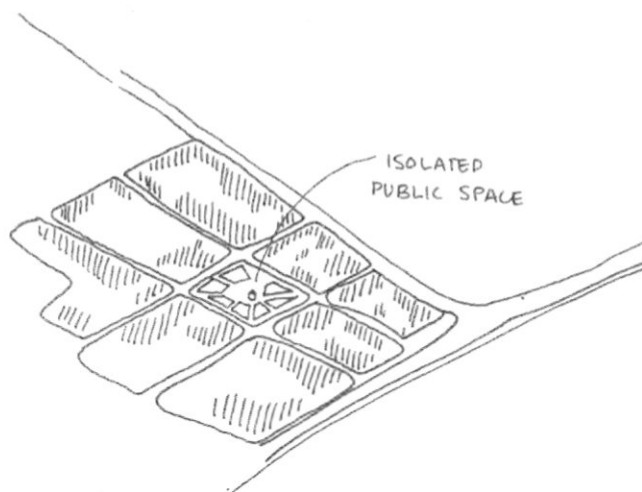




## Main Square

The main square is hidden in the northern part of town. It encompasses a whole block that can be accessed through paved walkways that lead to a big circular plaza bound by a concrete wall with seating elements. In the middle, there is a small circular roof construction, the corners surrounding the plaza have been left unpaved where wildlife can grow.

Within the margins of how a main public square looks like in bigger cities, the place was designed to copy and fulfill the same function of being the main meeting place. Failing to understand and address its current conditions, it is separated from its surroundings and only functions as a principal place within itself. It is neither a plaza nor a main square nor a park. The lack of public engagement shows how neglected the town's public needs are.





## Waterfront

Overall, the only side of the lake that has been addressed is the one on the edge of the main street. The remaining shores have been evolving in an informal way limiting interactions with the water. One road caught my attention, as it has been used in the past years as an informal parking area for collective vans, taxis, and buses.

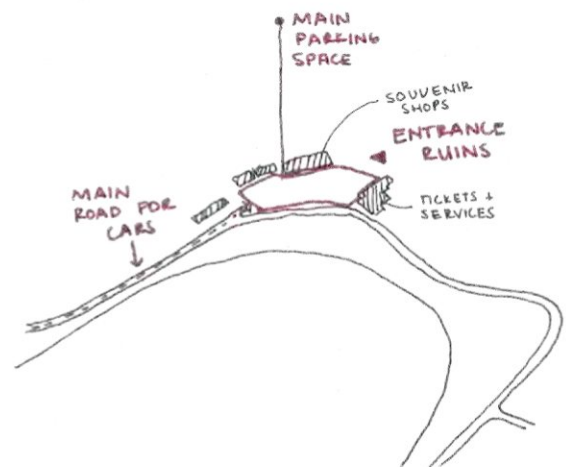
This unpaved road is an extension of the main street in Cuba, and it leads to one of the main hotels in town, which incidentally mirrors the hotel from the previous example. On one side a wild vegetation layer separates the street from the lake abruptly merging with the sand and dust road beside it. The green boundary is sometimes crossed and used as a parking space thus disrupting the natural areas. On the other side of the road, we find some restaurants for tourist consumption, another new hotel, and additional tourism-oriented services. Since this area is where most visitors will stay overnight, it is constantly in use. Like most places in town, it has been transformed by the user leading to an informal, multi-purposed space without an established order.



## Entrance Ruins

The main parking lot and entrance to the ruins remain as one of the central spaces in Coba. It receives thousands of visitors every day and its dynamism merges it into a central public space where most interactions between locals and visitors happen. Being the foyer of the archaeological site has made it the heart of the town and a core space for the locals.

Around the lot are multiple businesses selling traditional Mayan goods and souvenirs, a community-owned restaurant, ticket offices, and public services for the archaeological site.



Like most places in Coba, the evolution of this plot has been user-defined. The space has developed to accommodate the needs of visiting tourists hand in hand with income possibilities for locals sourced from the same tourism. The space works in a purely functional manner while it does not live up to its potential of becoming a defining space for interactions, exchange, and community.

# The Rise of Social Spaces

## State development for public architecture

<sup>1</sup> Redacción El Economista, 2023

During the current government administration, the Ministry of Agrarian, Territorial and Urban Development (SEDATU) has managed to implement an Urban Improvement Program with a Budget of more than 40 billion pesos (Approx. 2300 million USD) from 2019 to 2022.<sup>1</sup> The program focuses on reaching marginalized areas throughout the Mexican Republic, some of its undertakings include urban and metropolitan planning, land use planning, and community works. The main addressed typologies are community centers, markets, sports venues, and public plazas. Both initiatives have set out to improve the living conditions of the population, addressing neighborhoods with a high level of marginalization and violence by encouraging recreational activities.

Some of the realized projects during the past two years have reached international recognition and won numerous prizes, drawing a lot of attention to the emerging social infrastructure in Mexico. Many of the built structures have been carried out by prominent Mexican architecture firms that already address inequality, poverty, and social stagnation in their work. Besides, there is an incessant collaboration among young architects and collectives who are being allowed to redefine the existing conditions of public spaces through public programs. These changes in Mexican policies have created a vein of opportunity for a social sector that has been long overseen. The next pages show a few projects that have been carried out in the past few years.







## Tepetzinan Puebla

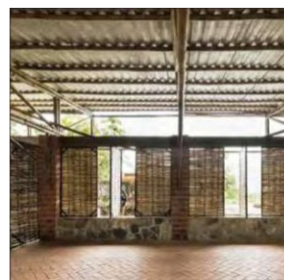
Productive Rural School  
Comunal Taller in cooperation with  
Bachillerato Rural Digital No.186

The philosophy of Comunal Taller lies in the engagement with the people through participatory processes. Their work aims to raise awareness in pressing matters such as social inequality and environmental issues.



Initiative from young students to design and self-build their educative spaces.

Participation in technical building workshops



Actors: families, professors, educative comitee and the community



Materials: bambú, earth, stone

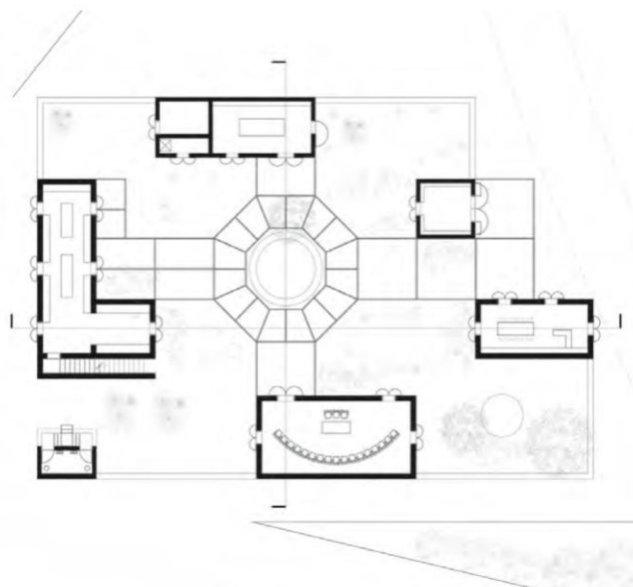
Construction Plot:  
Donated by the community



## Las Margaritas San Luis Potosi

Social Center  
Dellekamp + TOA +  
Comunidad de Aprendizaje

Collaborative project  
with the local community  
through workshops



Use of local and tradi-  
tional materials and  
building techniques

The inhabitants set the  
programme: commu-  
nity room, shop, internet  
center and library, work-  
shop rooms, garden.



## Dzan Yucatan

Science Park Pavillion  
LAAR

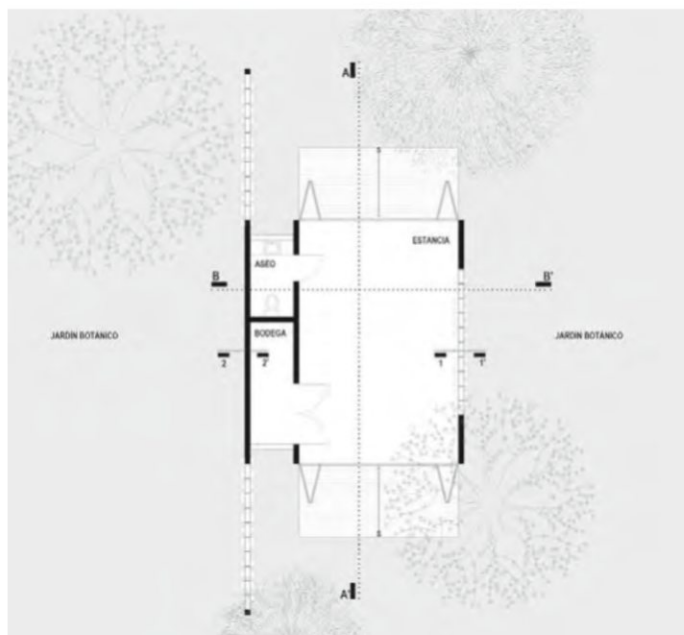
Rural community of  
Dzan: youth, farmers and  
Mayan families.

Plot donated by  
authorities

Involves dialogue,  
music, art and design as  
drivers for community  
empowerment



Use of locally available  
materials, environmentally  
conscious and impactful







## Teotitlán del Valle Oaxaca

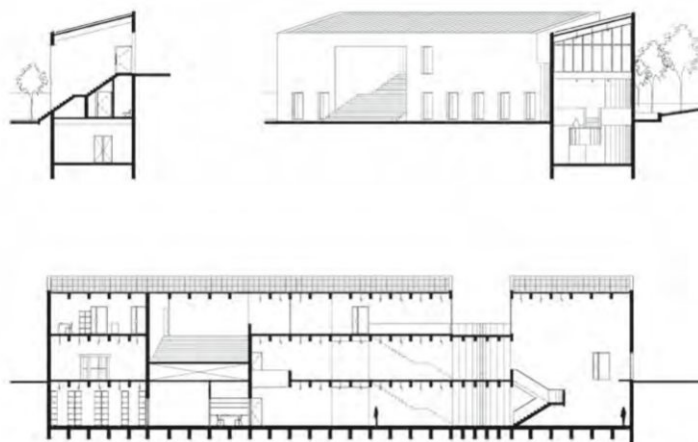
Community Cultural Center  
Productora

Community Cultural Center to exhibit the archeological and textile wealth of Teotitlán del Valle



Project for the Local Municipality.

Town near archaeological site Dainzu





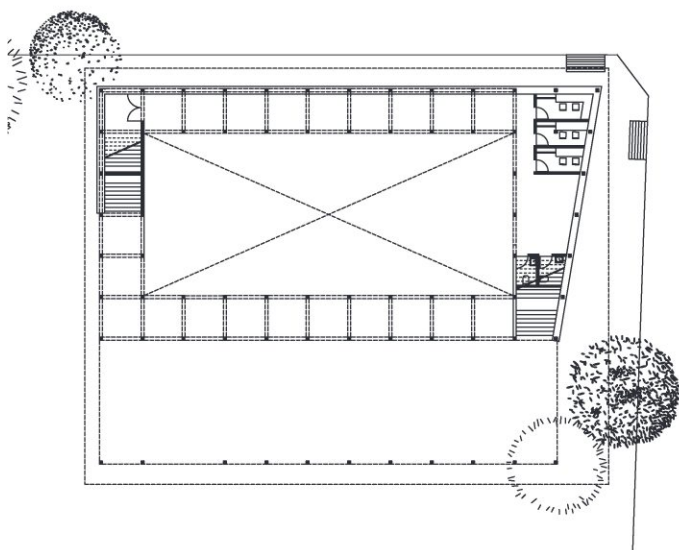
## Felipe Carrillo Puerto Quintana Roo

Theatre  
ASPJ

Initiative from national institution SEDATU to provide and renew educative spaces in town

Local intervention in wood sourcing and construction

Actors: architects, state representatives, NOH-BEC ejido / community



Surrounding landscape intervention

Materials: locally sourced-wood, steel, concrete



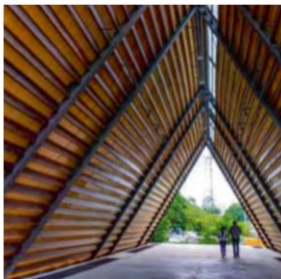
## Xpujil Campeche

Interactive Library  
Colectivo C733

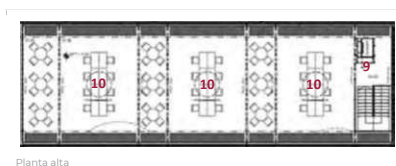
National Programme for complementary works in communities where the Mayan Train will operate

Actors: architects, state representatives

Town near prominent archaeological site Calakmul



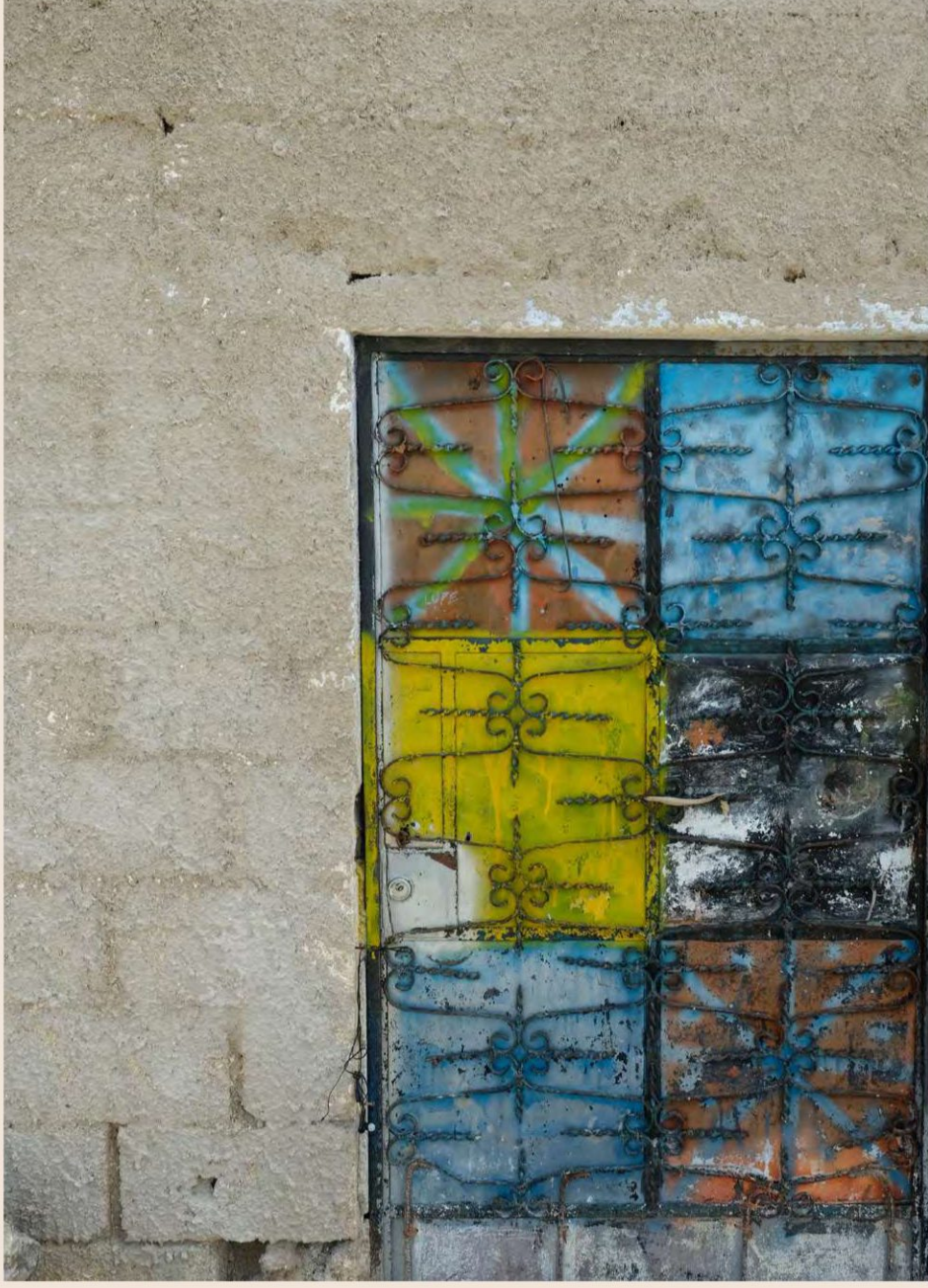
Materials: local wood, steel roof structure, local limestone

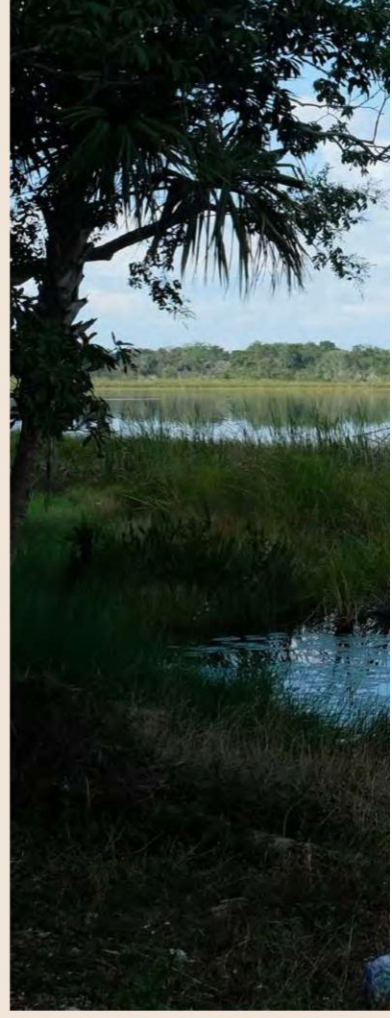




# Photo Studies









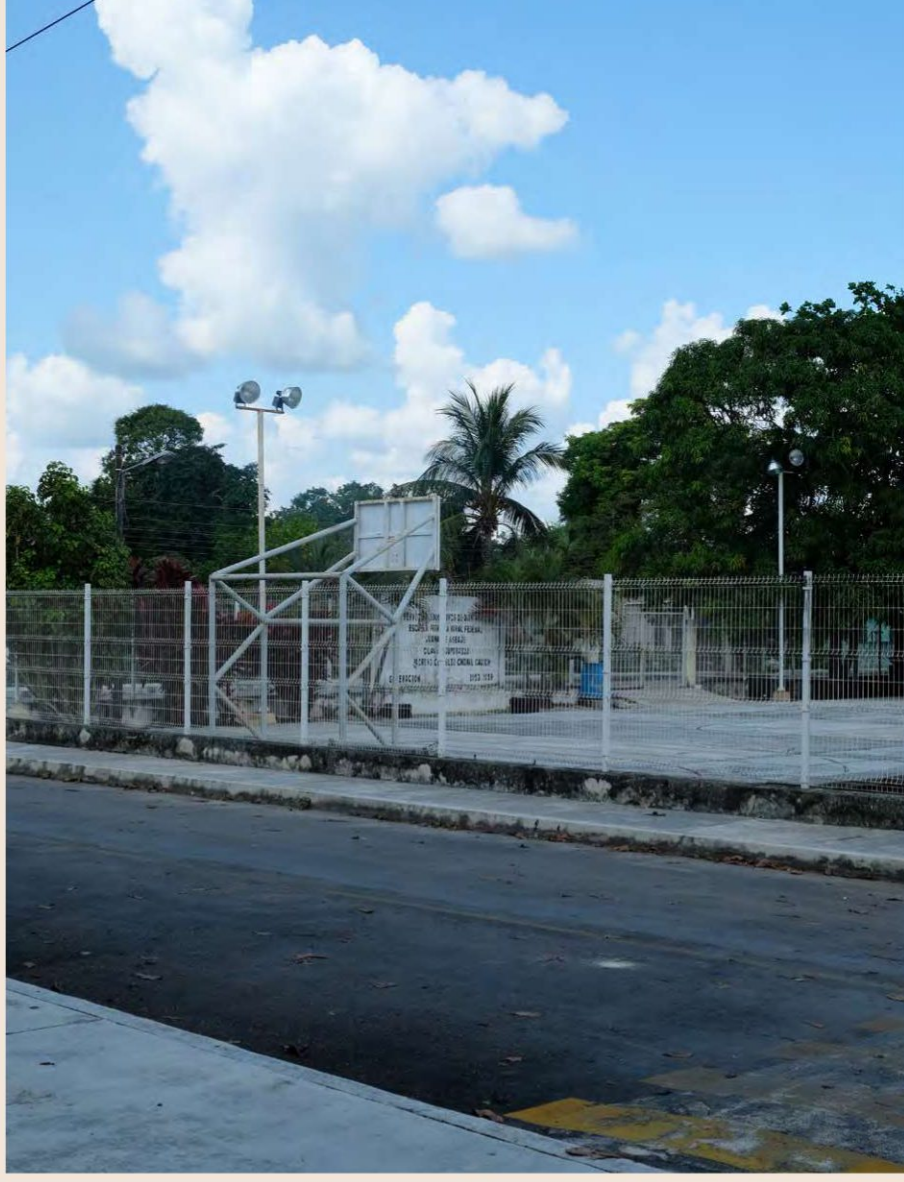














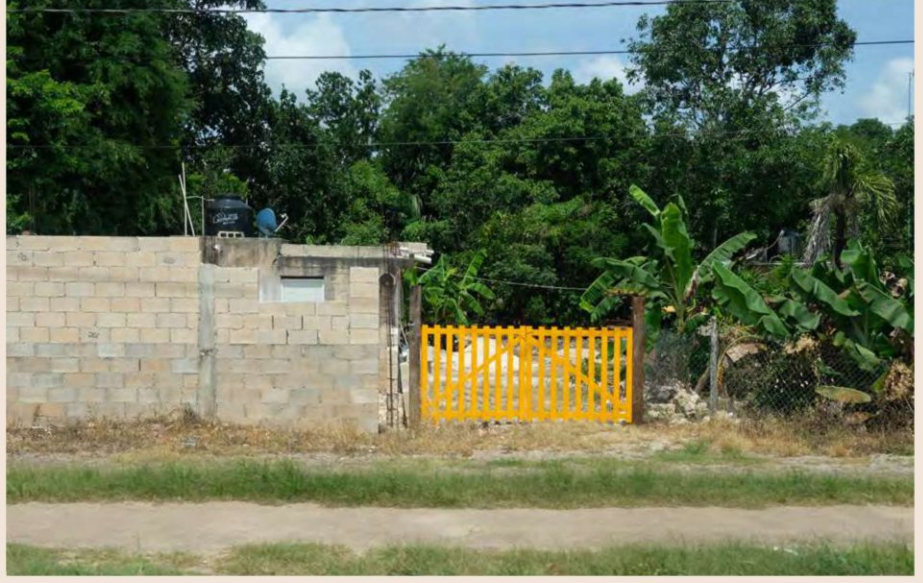








































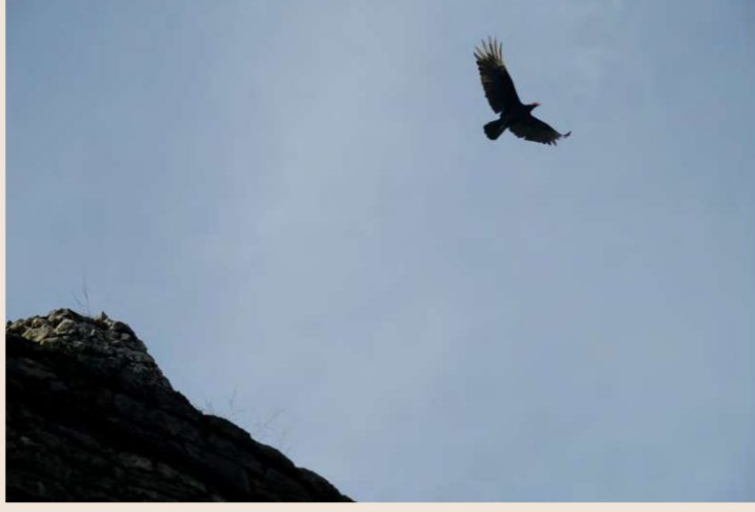
















# III. DESIGN

“Architecture can become a platform for each person to enhance their lives and inspire them. I think that we should try to understand the people that are going to inhabit a project to translate their own ideas and possibilities into the spaces.”

\_Tatiana Bilbao

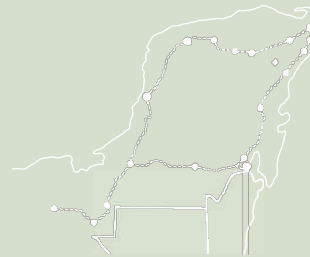
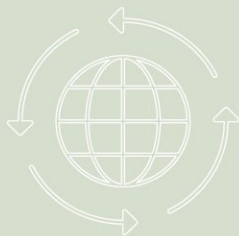
*Tatiana Bilbao, Mexican Architect, (2019) Tatiana Bilbao Estudio, Louisiana Museum of Modern Art*



115 Mangroves, Isla Blanca

# Connecting the Dots

An overview of the problematic



## 1

### FAULTY TOURISM MODEL

- Growing **INEQUALITY** between indigenous and non indigenous population, between men and women and between rural and urban zones
- Economic **DEPENDANCE** on touristic sector
- Social **INSTABILITY** with increasing poor quality of life, wellbeing and security among natives
- Gradual environmental **DEGRADATION** from excessive touristic and urban expansion

## 2

### FURTHER DEVELOPMENT

- **MAYAN TRAIN (2020-24)**
  - 1500 Km Railroad/ Tourism + Cargo
  - 5 States / Peninsular 3
  - 21 Stations + 14 Stops
- + other **INFRASTRUCTURE MEGAPROJECTS**
- Program to develop and **MODERNIZE** Archaeological Sites: COBA included
- **2030 Masterplan** Quintana Roo for tourism development
- Expected rise in Tourism by 2025 of 17%

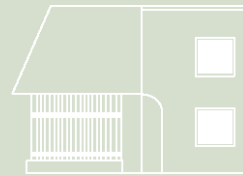




3

### GRADUAL LOSS OF HERITAGE

- Modernity vs. Tradition:  
Mayan language,  
Generational Know-How,  
community value
- Changes in diet,  
environment, work and  
lifestyle
- Heavy **MIGRATION** for  
employment to urban  
centers
- Commercialization of  
Mayan culture



4

### SEGMENTATION THROUGH ARCHITECTURE

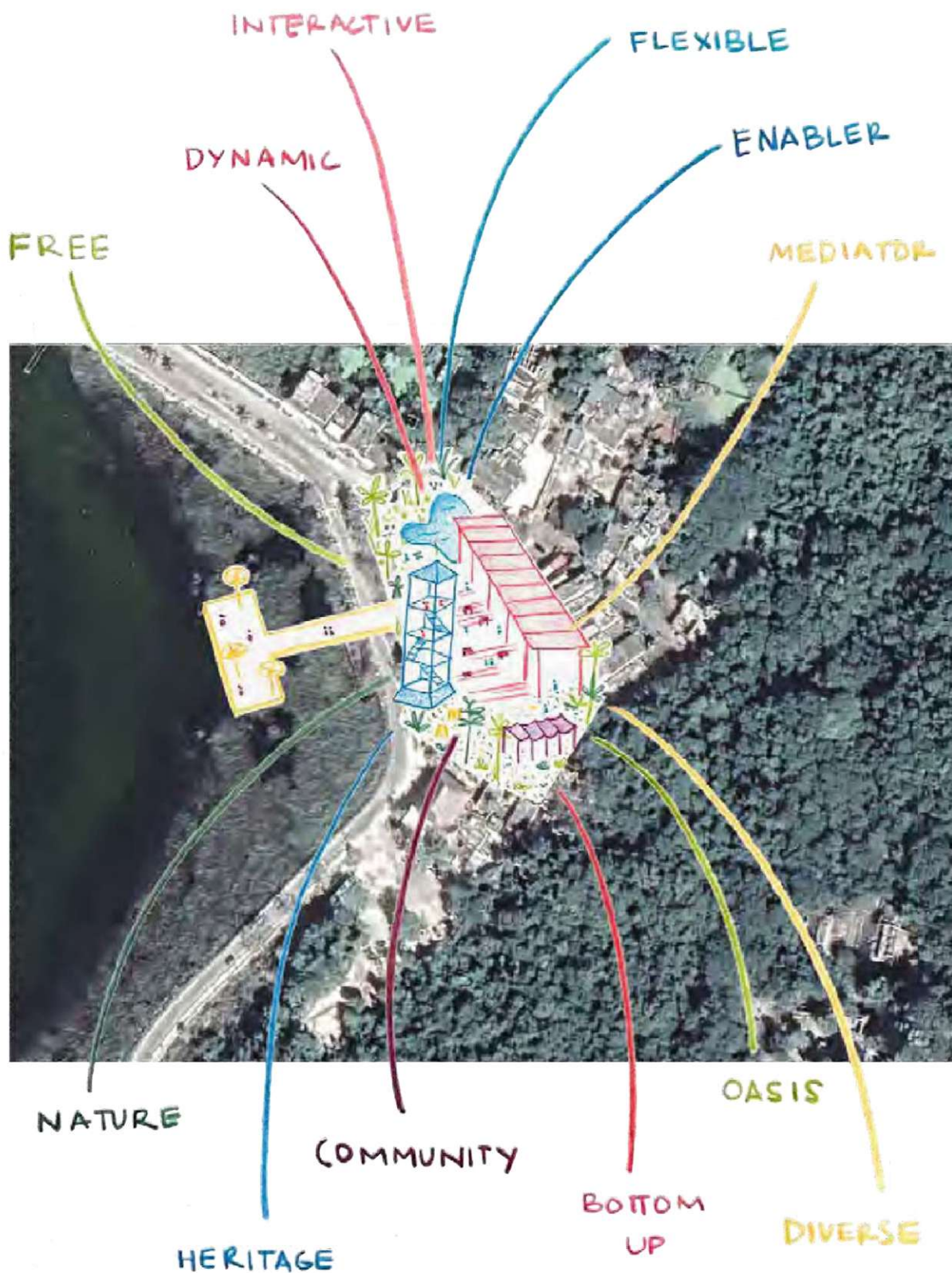
- Development through local  
government models creates  
**GENERIC** public architecture
  - Public schools
  - Parks & town squares
  - Social Housing
  - Public buildings
- Prominent architecture usually  
intended for tourism:  
**ELITIST** accessibility
- urban sprawl, migration,  
growth

## 04. Rethinking Coba

The archaeological site of Coba awaits change. The expected growth in number of visitors to the peninsula, the expansion of nearby urban centers, as well as the growth of Coba itself as a touristic reference once the Mayan Train is complete, demands new systems that though linked to the broader touristic infrastructure network will ensure that small rural settlements remain autonomous.

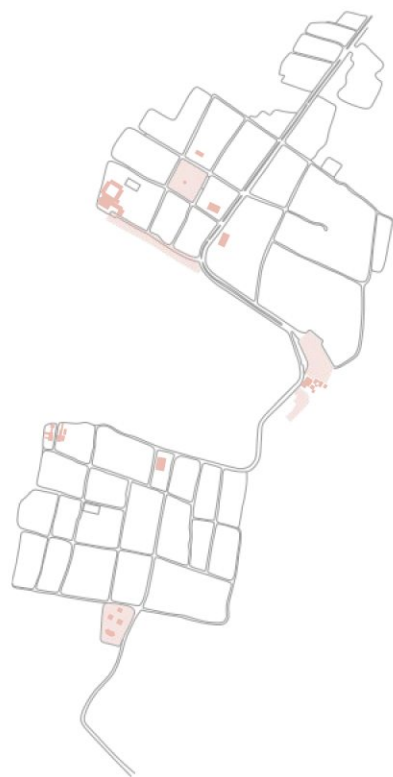
To achieve this, I wish to provide a framework that supports the social fabric in day-to-day life yet is willing to adapt to changing needs. By understanding today's problematic and questioning the current model we can start designing for a long-term change that will support the wellbeing of the community. This is not about designing conventional spaces, but rather about offering platforms that facilitate communication, interaction, and participation thus creating changes at a micro-level for social, economic, and environmental problems from a bottom-up perspective.

There is no wellbeing without a sense of belonging and exchange withing the community, the goal is to provide spaces that allow and emphasize human behaviour in the context of community; spaces that potentiate the transmission of ideas and where people can come together to celebrate their coexistence as a powerful vehicle of exchange and construction of cultural identity.



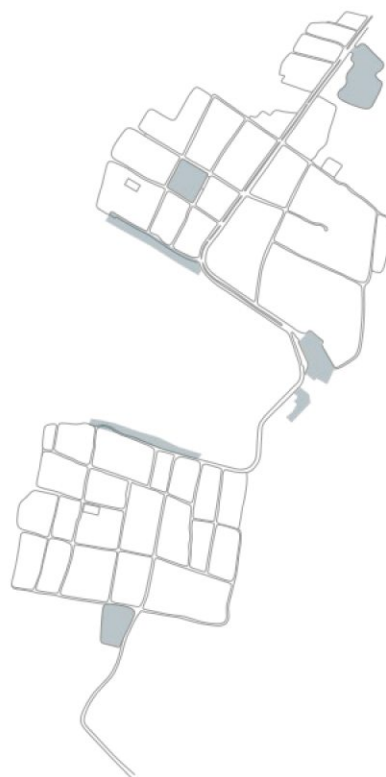
# Strategy

## Urban Analysis & Site Development



### 1. CASE STUDIES

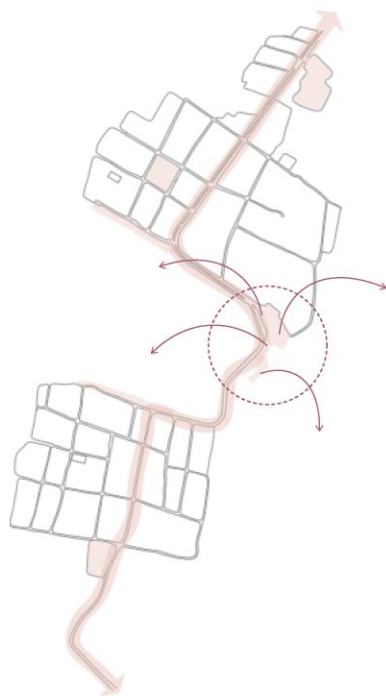
Pinpoint systematic issues  
Diagnosis of existing public program



### 2. WEAK LINKS

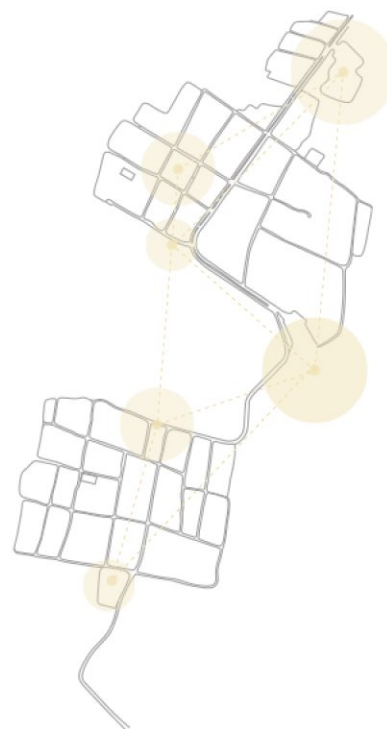
Locate possible sites of intervention  
Potential of studied spaces





### 3. ADDRESSING MOBILITY

Promote integration through local connectivity



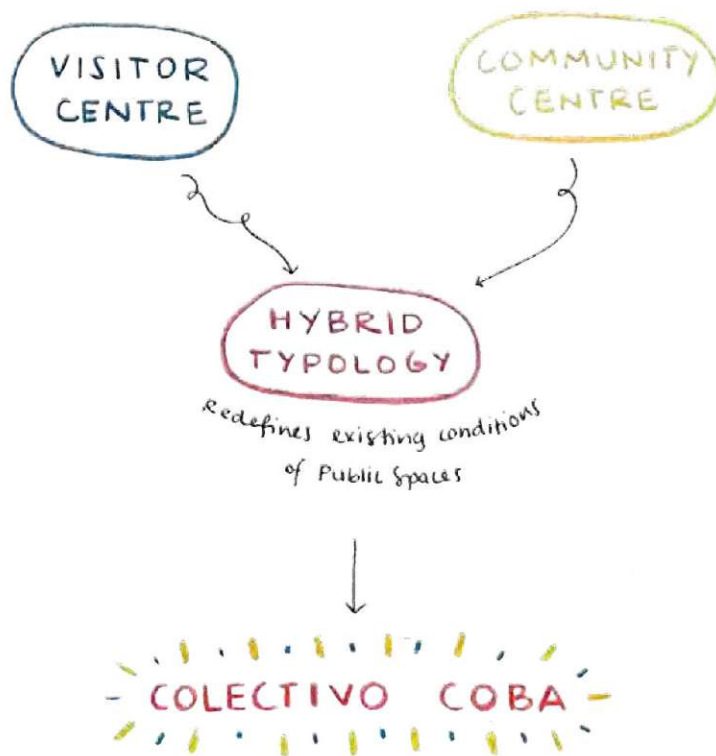
### 4. PUNCTUAL INTERVENTION

Revival through site intervention  
Highlight existing public activities

# A New Typology

## Participatory Public Platforms

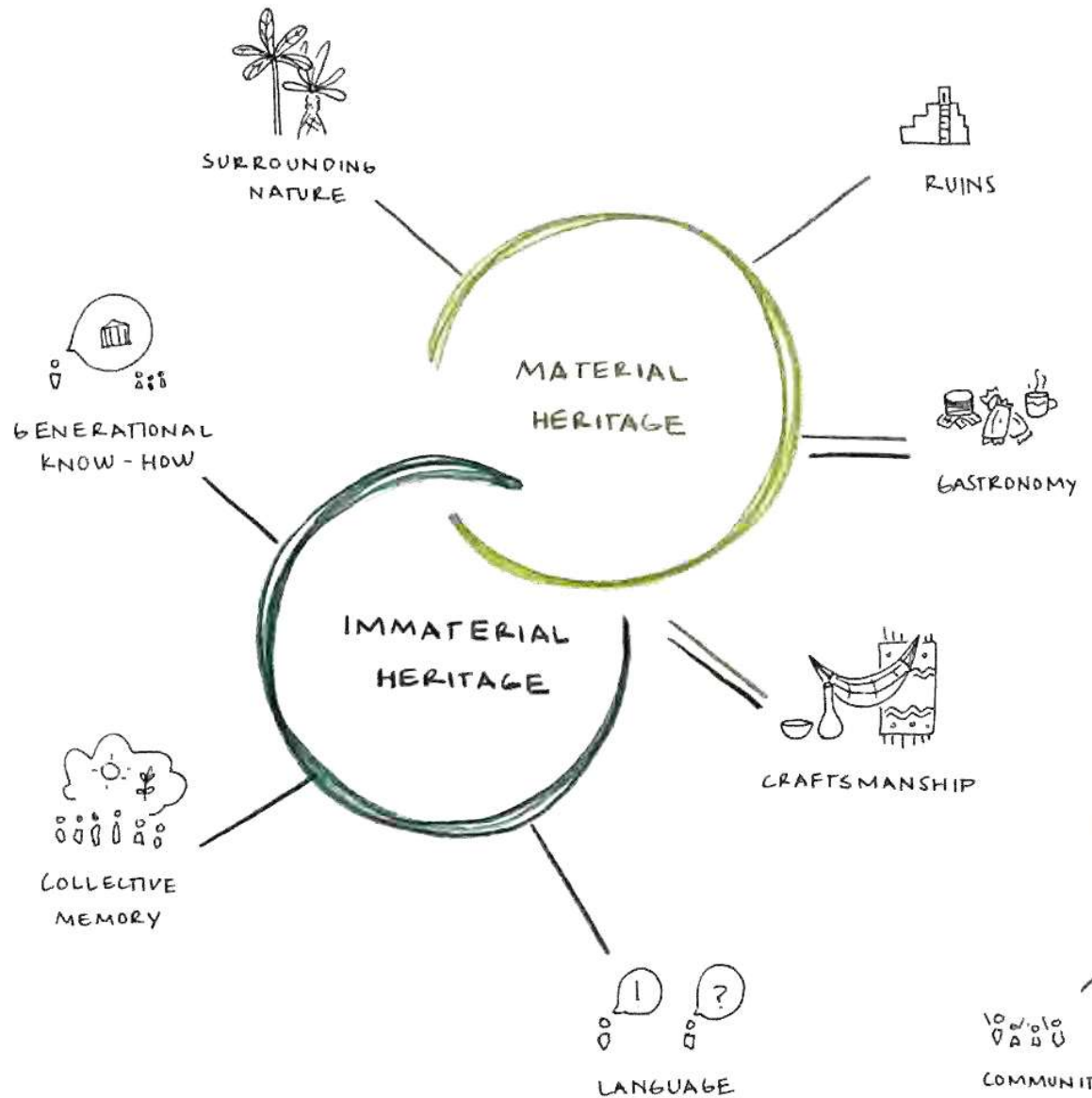




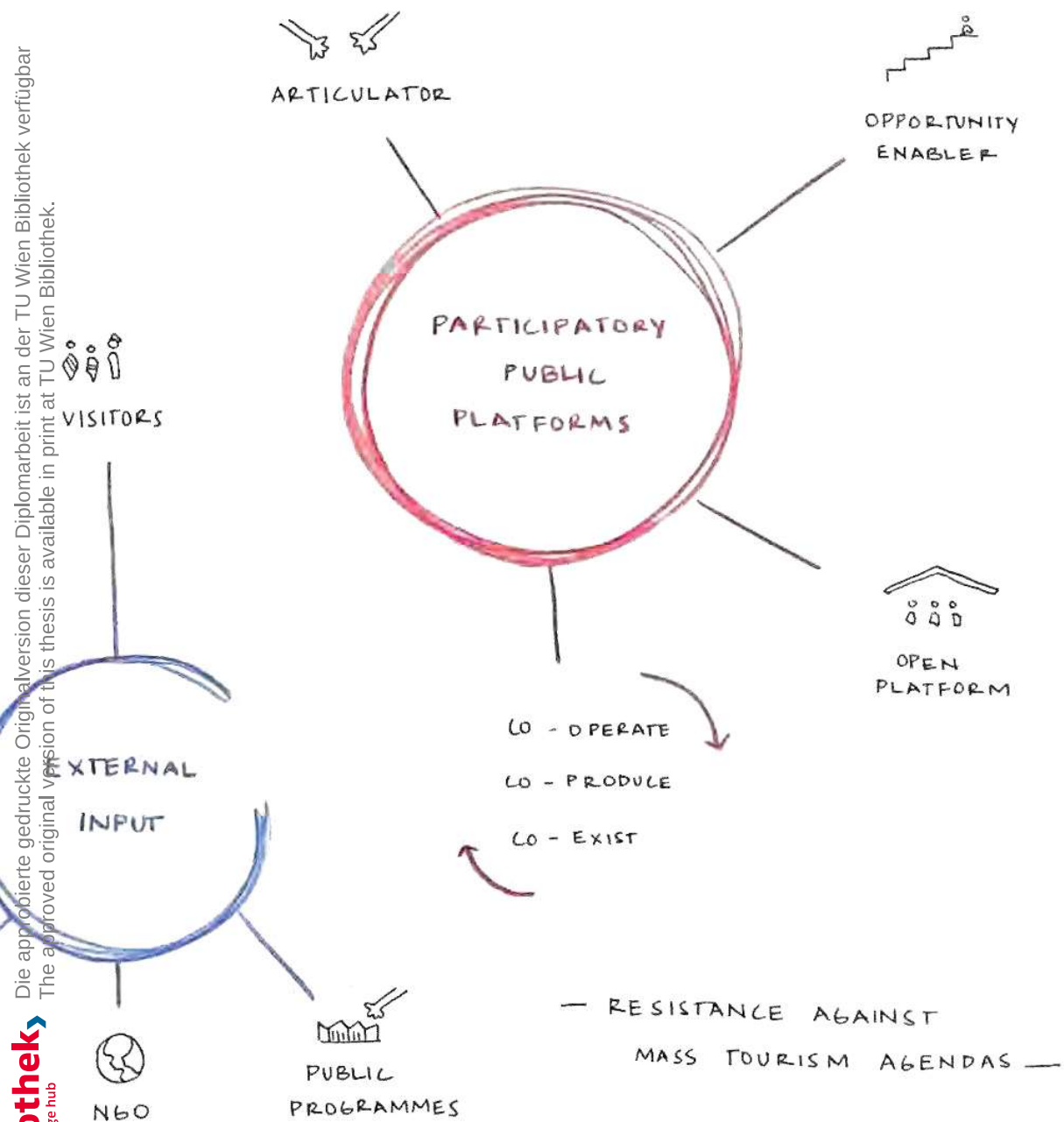
MAIN FOCUSES	ACTORS	APPROACH
+ HERITAGE	+ COBA COMMUNITY	+ RESPOND TO IMMEDIATE NEEDS
+ DIGNITY + AUTONOMY	+ VISITORS	+ TOTAL ACCESSION
+ LEARNING / EDUCATION	+ NATIONAL / LOCAL PUBLIC INSTITUTIONS	+ IN ALLIANCE WITH THE LOCAL
+ NATURAL ENVIRONMENT	○ NGO'S / INDEPENDENT ORGANIZATIONS	○ FLEXIBLE PLATFORM FOR FUTURE DREAMS

# HOW?

— (RE) IMAGINE POSSIBILITIES WITHIN THE EXISTING —







# Spatial Program

## Intervention Proposal

### I. CONNECTING SPACE

Proper Infrastructure

Mobility

Connectivity

- Arrival / Departure
- Redefine township mobility structure in the long term
- Provide spaces for local transportation services
- Improve connectivity with extended surroundings

Bus Drop Off As mobility alternative to private vehicles

Bus station for regional and local transportation

Bike station Rental of bikes and taxi services

Minimal parking for specific purposes

### III. ACTIVE SPACE

Identity

Community

Autonomy

Tourism

Culture

Education

Exchange

- Enhance symbolic value as cultural/historical site
- Encourage fluid interactions among diverse users (local/visitor)
- Local management of site
- Integration/preservation through common care

Visitor centre tourism services for the Archaeological Site

Community centre learning rooms, workshops, kitchen, garden

Organization & Management meeting rooms and working spaces

## II. COMMON SPACE

Landscape

Wellbeing

Exchange

- Reinforce local systems and values through community spaces
- Reactivate water-front as walkways and observatories
- Set structures that can be further adapted by the users

Oasis Green space for myriad interactions  
-market  
-township gatherings & festivities  
-performances

Community Milpa Open Garden for local Plants and food growth

## IV. RECREATIONAL SPACE

Play

Curiosity

Creativity

- Adress programs for health, movement and recreation
- Encourage interactions with the surrounding landscape

Tower Panorama point to engage with surrounding landscape and ruins

Playground Recreational structures for children

Observatory Lake walkway for wildlife observation

# Ideas & Inspirations



128 Mask of Calakmul,  
Ancient Jade



129 Mosaic Mayan Calendar  
Anthropology Museum  
Collection

Keywords to this project are NATURE, HISTORY and HUMAN. I want to highlight following artistic works that convey these themes and have had a significant impact in the making of this project. Carefully curated, they allow to see multiple realities about Mexico: The territory and the history it carries, the people that inhabit the land and the defining culture that is true to its traditions. A culture so diverse it needs to be seen and experienced through different bodies. Colors, faces, spaces, smells and tastes through the perspectives of artists that have created in different space-time frames, different contexts, different Mexicos.





130 Green Island, Oil on Canvas  
Roger von Gunten



131 Flora and Fauna from the Miocene Cenozoic Period,  
Evolution of continental life on earth



132 - Detail of Teotihuacán Pyramid

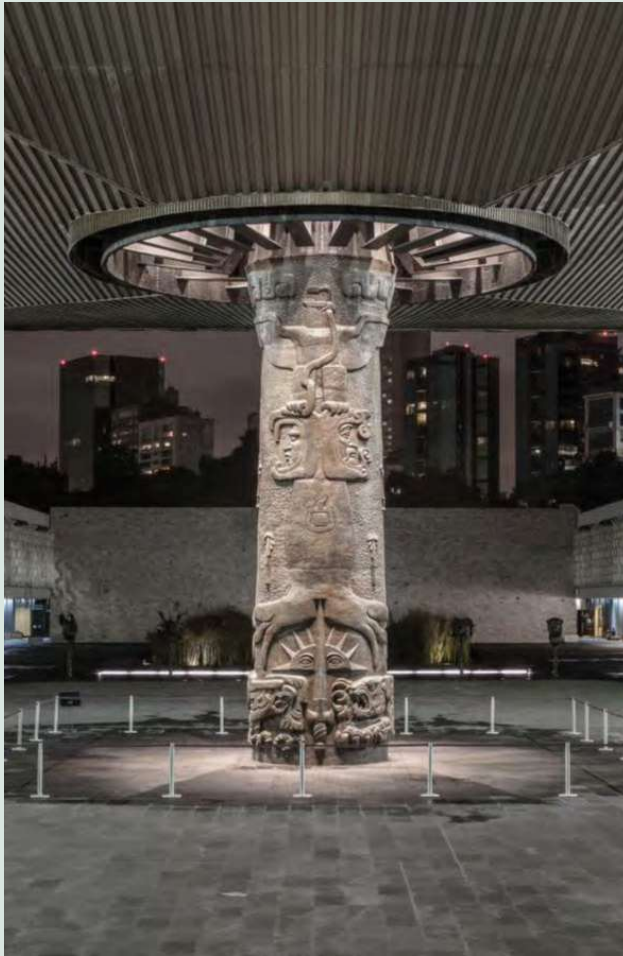


133 Vendedora de Zacate, Graciela Iturbide

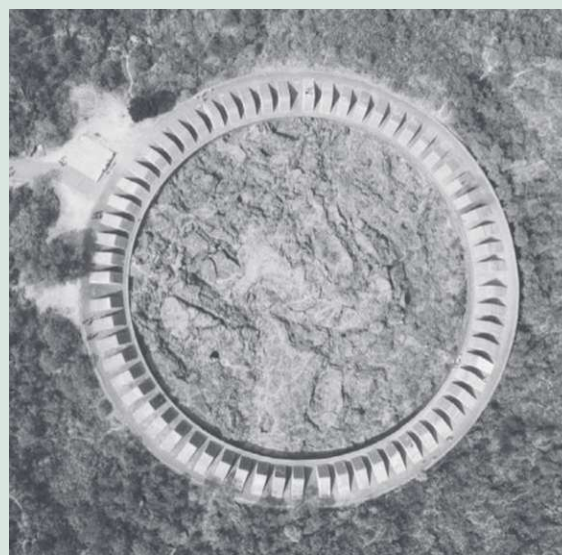




134 Vendedora de Zacate, Graciela Iturbide



135 Museo Nacional de Antropología, Mexico City,  
Pedro Ramirez Vazquez



136 - Espacio Escultórico, UNAM, Mexico City



137 - Ampliación Museo Anahuacalli, Mexico City  
Mauricio Rocha

## 05. The Site

The chosen Site is in the center of Coba and is used today as the main Parking Lot for visitors to the Archaeological Site. It lies at the intersection between north and south Coba and between Coba Lake and Macanxoc Lake. It separates the town from the ruins, and the jungle from the urban fabric. Its prominent location makes it a space in which both locals and visitors naturally revolve. Previously analyzed this site has been chosen for its strategic location, hoping to uncover its great potential and create better conditions that will positively impact the community.

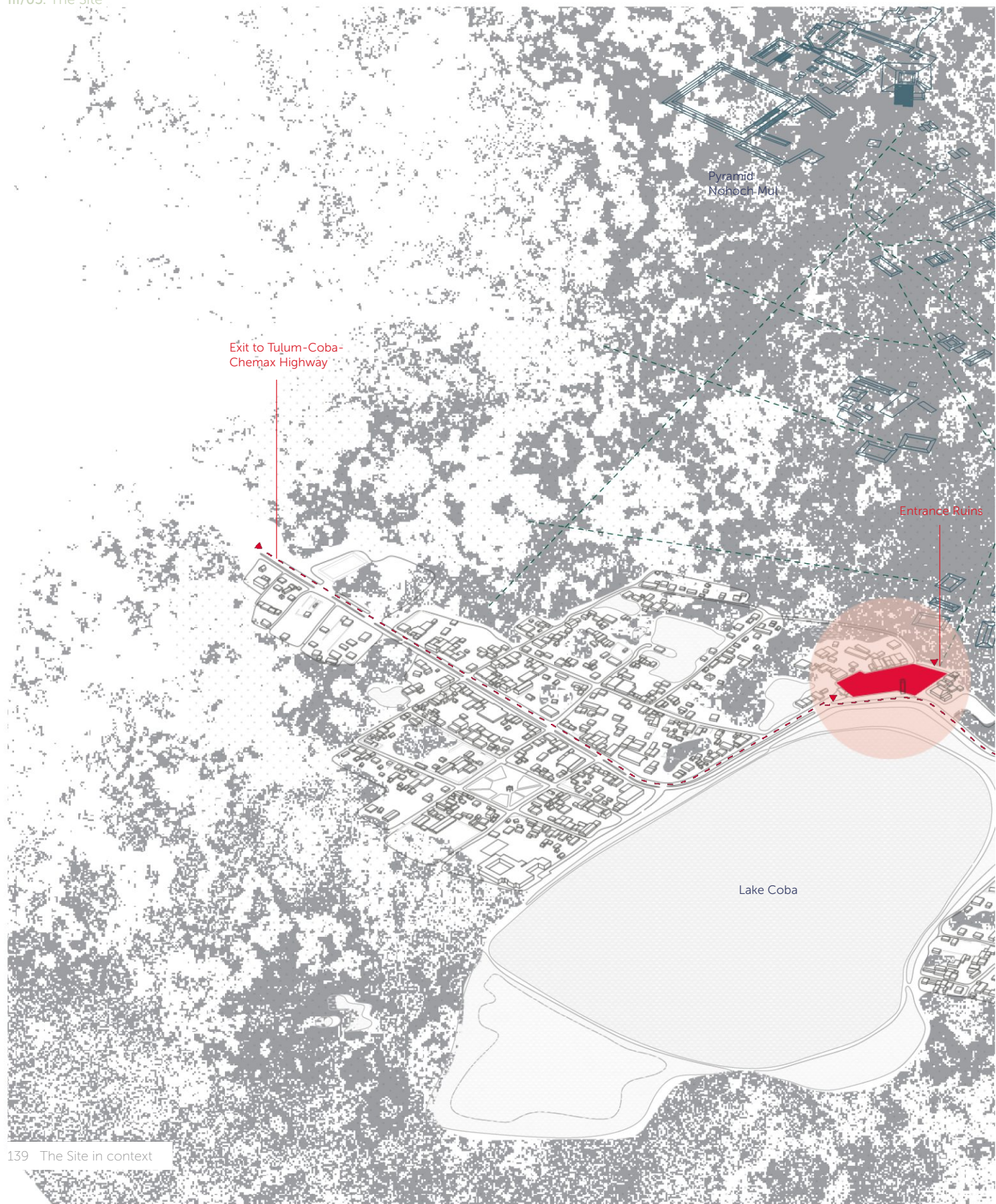
The Parking space is enclosed on its right side by a front of multiple businesses and commercial spaces owned by locals. On the left side, there are a couple of additional convenience and souvenir shops, a small ticketing area for the ruins, toilet services, and a community restaurant under a big Palapa roof. The south perimeter of the site is delineated by a dense Jungle where the entrance to the Ruins can be accessed through a couple of small wooden constructions. The only access from the main avenue is through a vehicle control stall into the Parking space. For pedestrians, there is no visible designated path as sidewalks stop at the peripheries of the lot. Mainly it is used by private vehicles and small tourist vans.





138 The Site





139 The Site in context





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The depicted original version of this thesis is available online at TU Wien Bibliothek.





140 The site, satellite





141 The site, situation



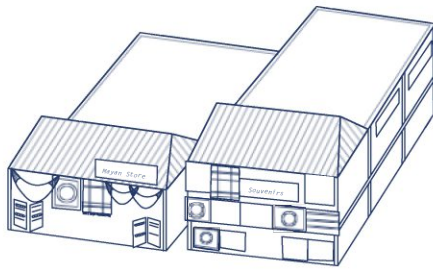
\_Context Buildings



\_Connectivity



\_Landscape



#### Parking Entrance

Thatched roof structure as main entrance for vehicles

#### Souvenir Shops & Small convenience stores

Multiple local businesses for visitors

#### Tickets & Services

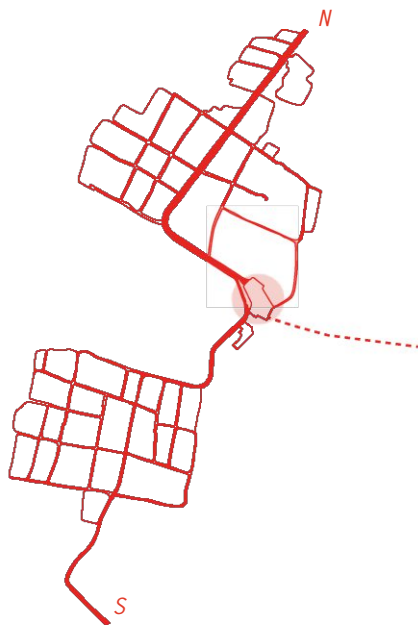
Small ticket shop & toilets

#### Community Restaurant

Big Palapa structure. Joint services with the archaeological site

#### Zip-Line Tower

Tower structure overlooking the surroundings



#### Main highway

Quintana Roo Nuevo Durango-Coba  
Crosses Coba from N to S

#### Side road

Limits the archaeological site from town buildings

#### Sacbe

Pathway through the archaeological site



#### Lake Coba

Biggest of four Lakes in Coba (only one with public access)

#### Jungle

Natural barrier between the town and the archaeological site

#### Wetlands

Found between built areas. They sustain a variety of wildlife

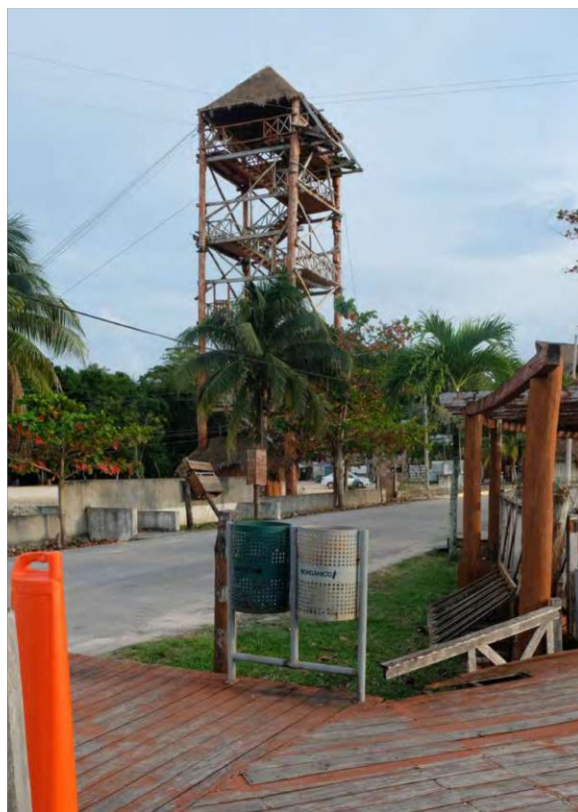




142 The Site, overview



143 The Site, commercial



144 The Site, tower





145 The Site, border to main street



146 The Site, parking



147 The Site, access ruins

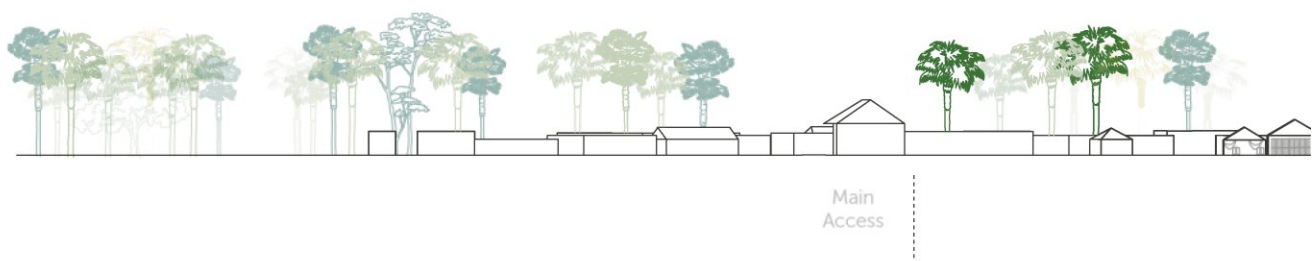
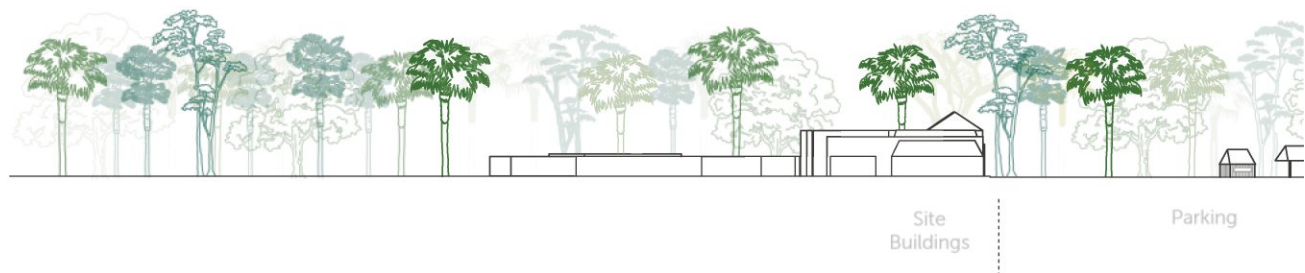




148 Site Situation, Site Plan 1:1000

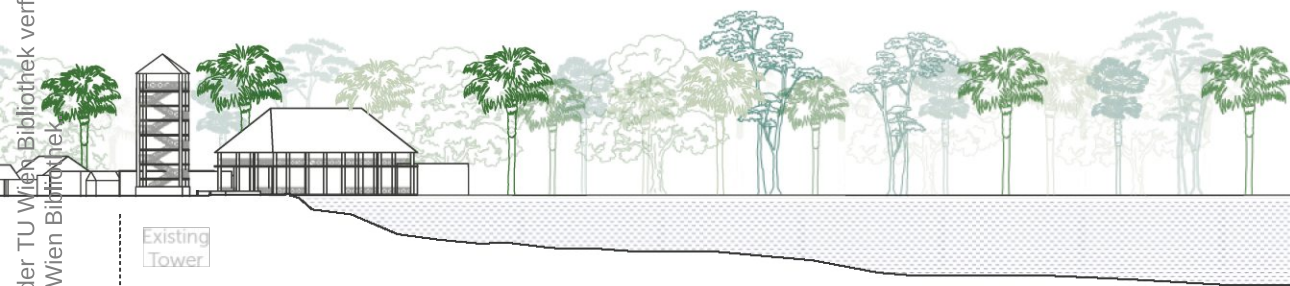






149 Site situation, Sections AA + BB 1:1000





A-A



B-B

20 m

## 06. Colectivo Coba

### An integrative platform for collective development

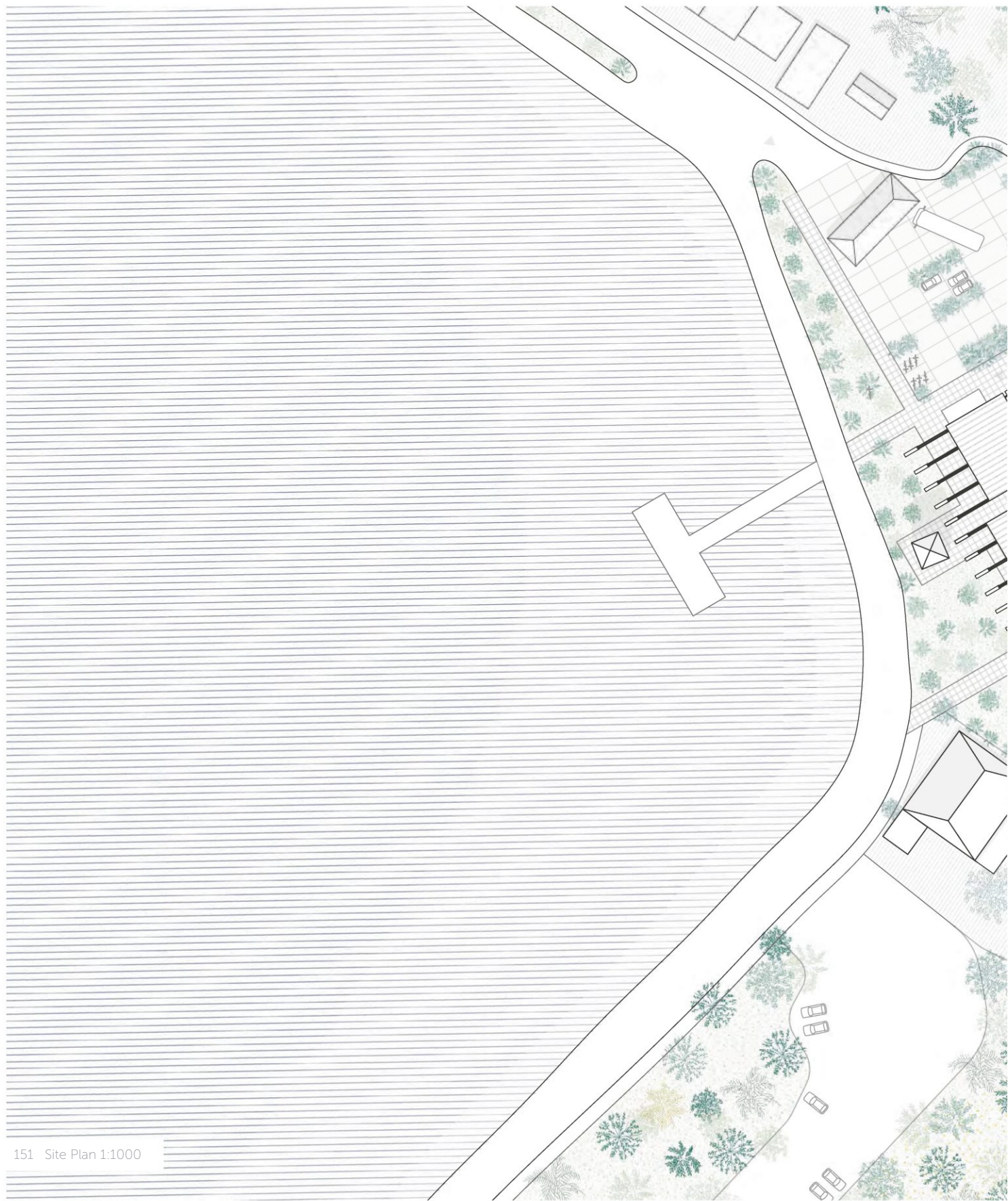
The proposal works towards a shift in the paradigm of public architecture. First by addressing today's needs to reinforce the values of community behind touristic infrastructure, and then by creating a healthier atmosphere away from the current concrete block solutions based on generic answers to complex matters. The site is given back to the locals by providing a public platform in the heart of Coba. The chosen typology is a hybrid between a community and a visitor centre. Both uses are conceived as complementary to one another where locals and tourists can engage within the same space, enabling dialogue and creating room for cooperation. The space is designed to create flexible spaces that in time can be appropriated and defined by its users.

The creation of paths, plazas, and landscapes, establish a new terrain for movement. The site surroundings are addressed and supported by the main structure adding value to the existing complex. The building inserts itself in the community and supports local activities without influencing them. Besides acting as a bridge between the physical surroundings, the building also works as a learning environment for visitors, encouraging immersive experiences with the local culture. By breaking the threshold between visitors and community members the tourist-local relationship can be redefined and a much stronger and more inclusive collective development can begin to arise.

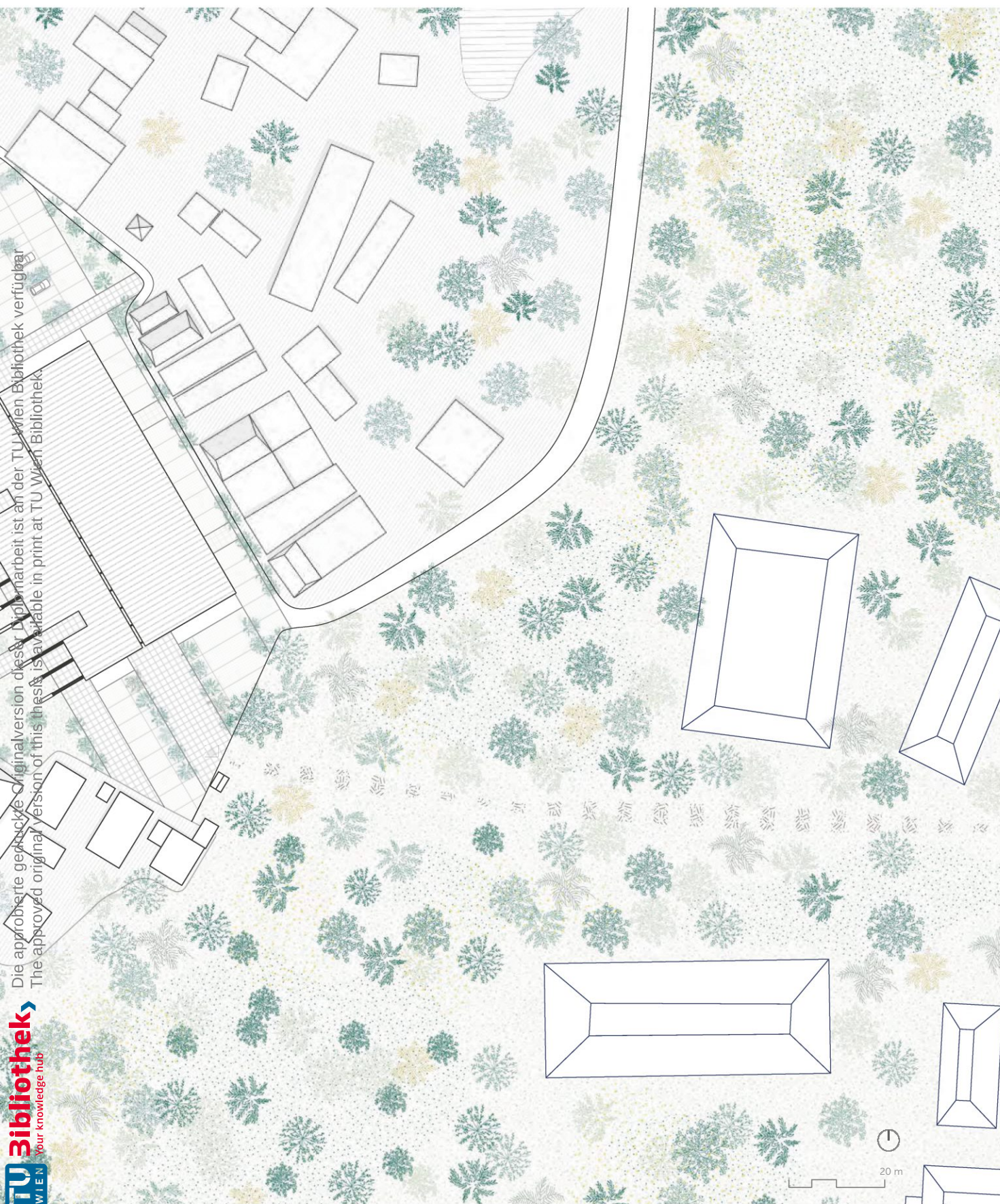




151 Site Plan 1:1000











152 Collage, The roof as central element







The Roof is conceived as an independent structure made out of locally sourced timber, and a traditional palm thatch cover. As the central element of the project, it is designed to provide shelter from Cuba's tropical weather conditions. Beyond its main covering purpose, the structure acts as an urban articulator that connects major points in town and creates new relationships between them. A framework for an infinite number of uses is made available. In time the users will appropriate and and redefine the space uncovering an endless potential within.





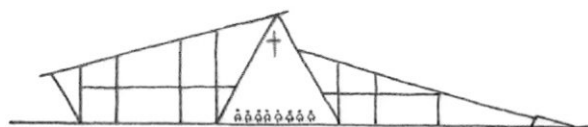
TOWN FESTIVITIES



OASIS



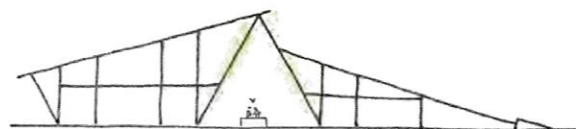
ALOPEA



CHURCH



PLAYGROUND



WEDDINGS

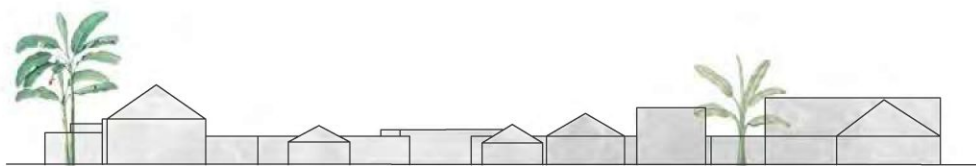


MARKET

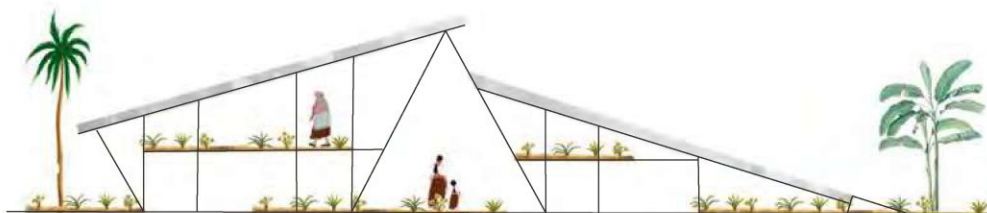








Town

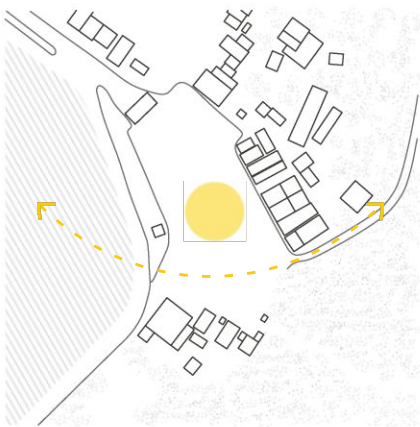


Connector

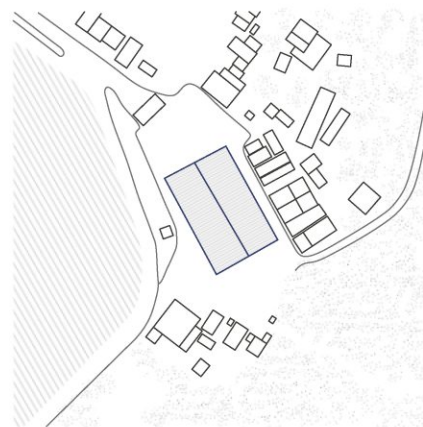


Jungle I Ruins

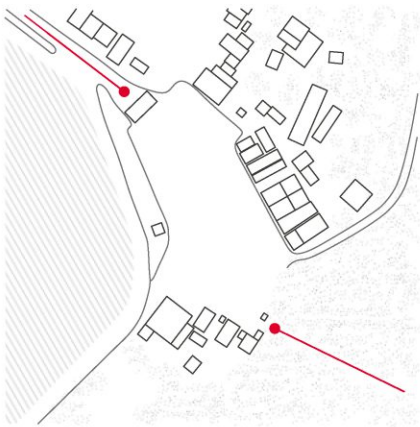




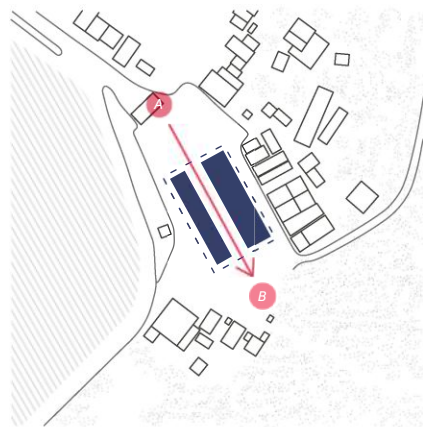
Solar Path | Orientation



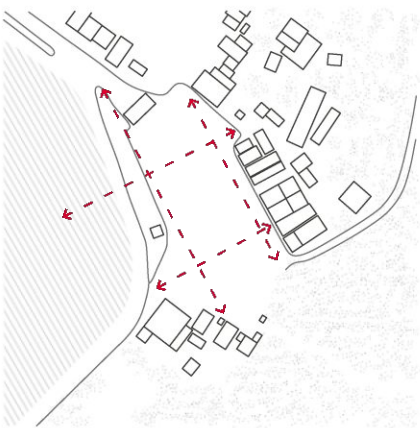
Roof | Shadow | Shelter



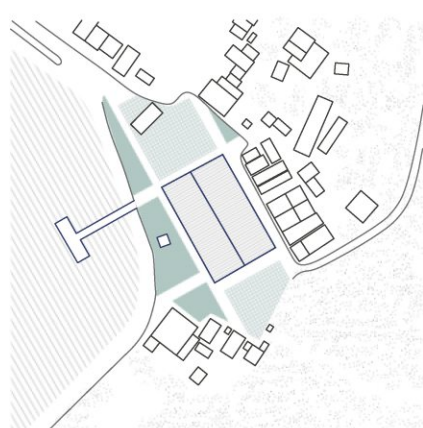
Existing key points of access



A Site | Connected through Roof | B Ruins



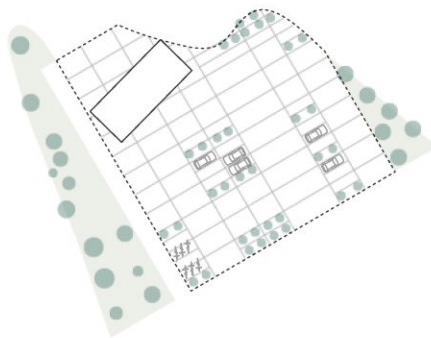
Division of the site through pathways



Zoning | Landscape | Additional Structures

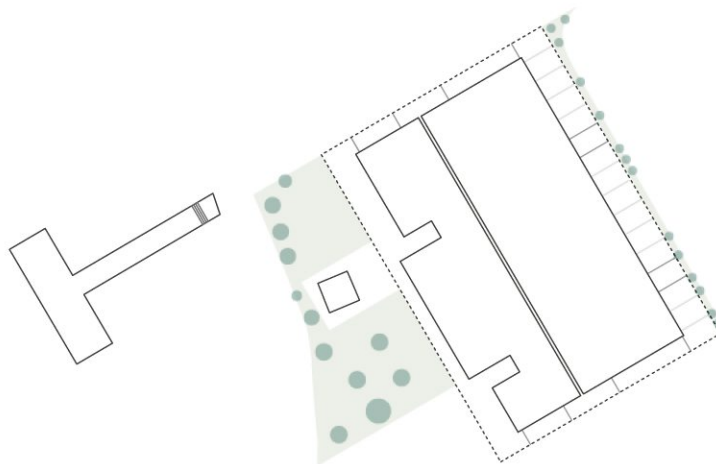
## ARRIVAL

This area is dedicated to the arrival of visitors. There is a parking space for small vehicles and a drop off / pick up area for buses along the main pathway. Carefully placed trees and small green areas divide the driving and parking space and provide natural shade. Permeable pavement blocks allow partial greenery and help with the infiltration of rainwater.



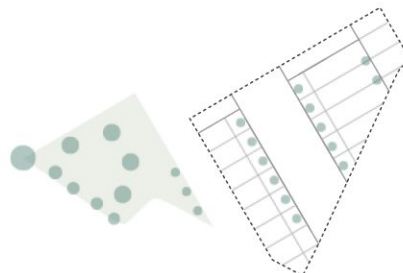
## MAIN

Three structures are united through the main pathway and an extended green area that divides the street from the site. A new pier connects the site with the water. The existing tower is renovated and embraced by the new structures providing a panorama view of the surroundings. The Roof is the main structure and anchors everything together.



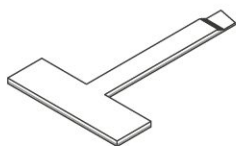
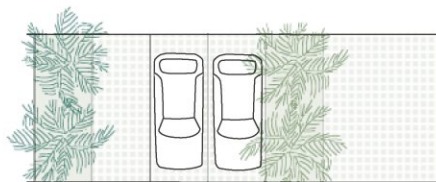
## SQUARE

The extended pathway alongside the greenery following the arrival and main areas opens up into a small square. With careful placement of greenery and seating elements, this space embraces the existing site buildings and transforms into a foyer to the archaeological site.

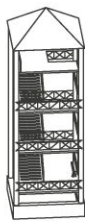




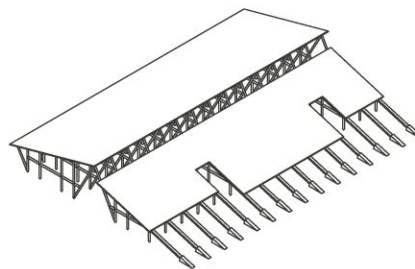
Permeable Pavement + Partial Vegetation



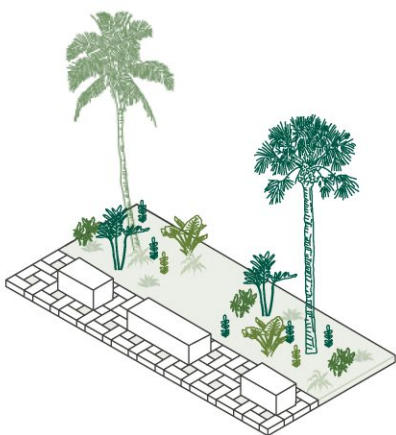
Pier Walkway  
 Connection to Waterfront



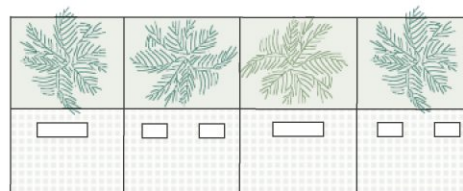
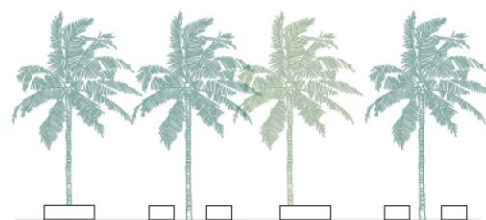
Observation Tower  
 Connection to Coba  
 Surroundings



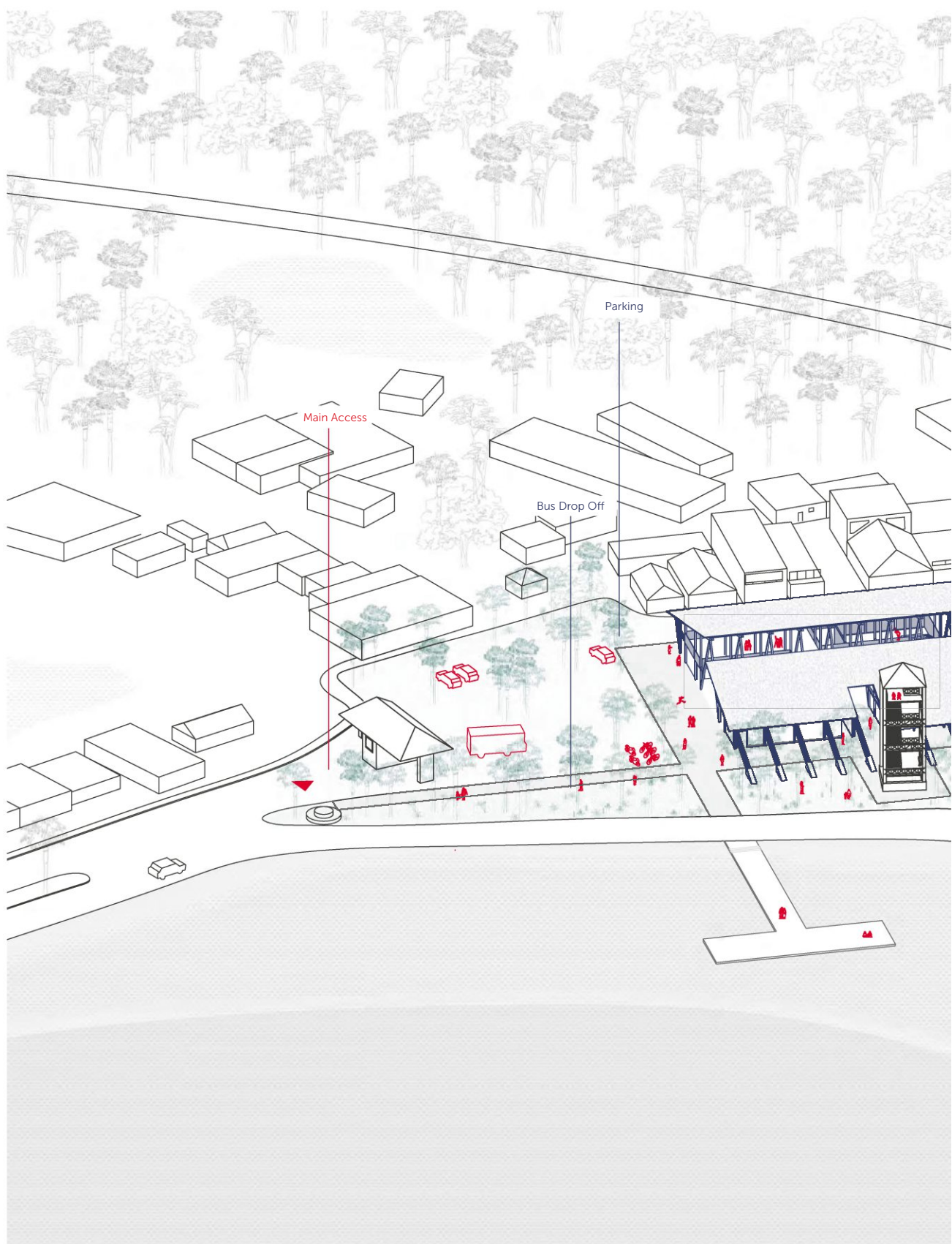
New Roof Structure  
 COLECTIVO COBA

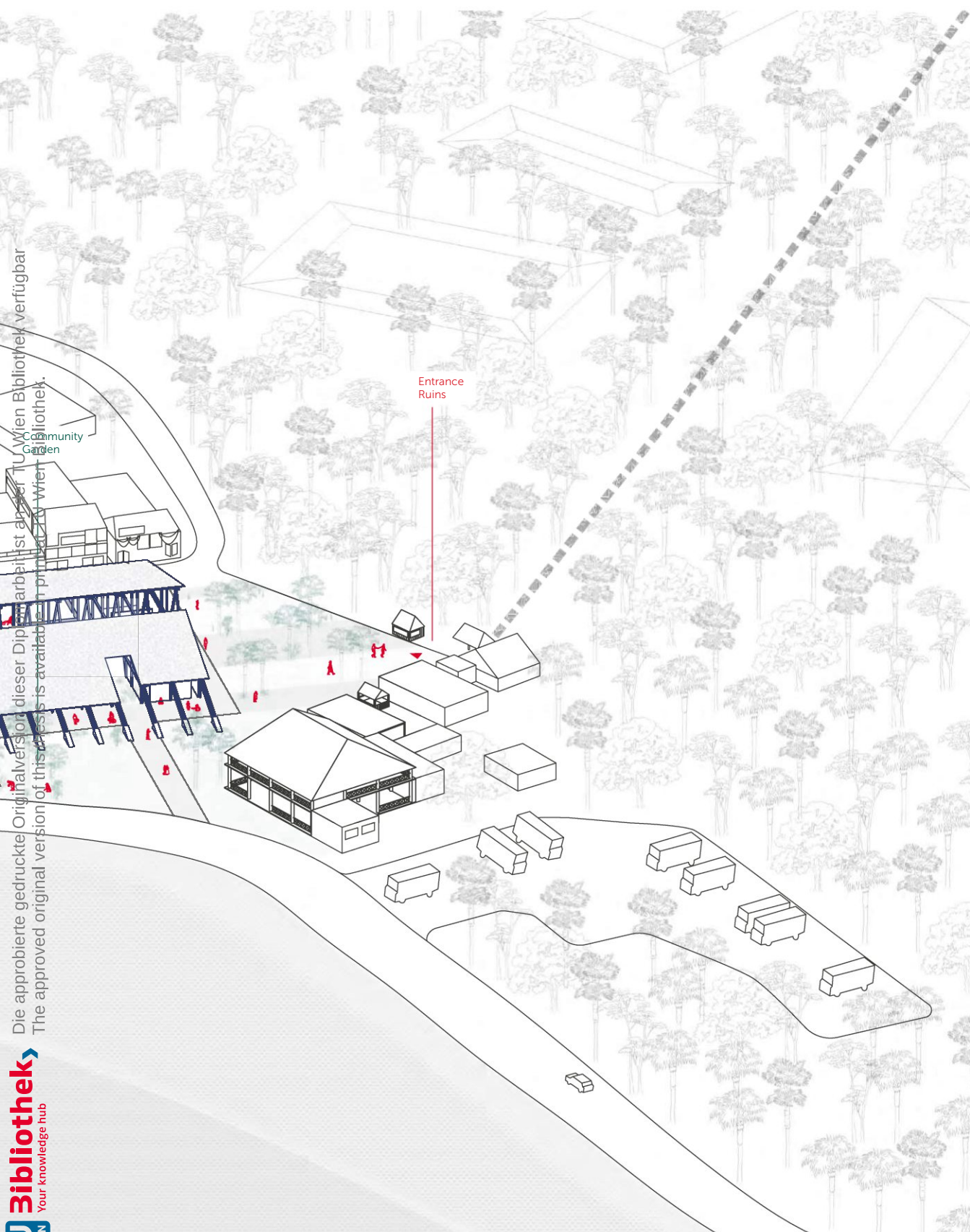


Permeable Pavement + Active  
 Green Spaces + Seating Elements









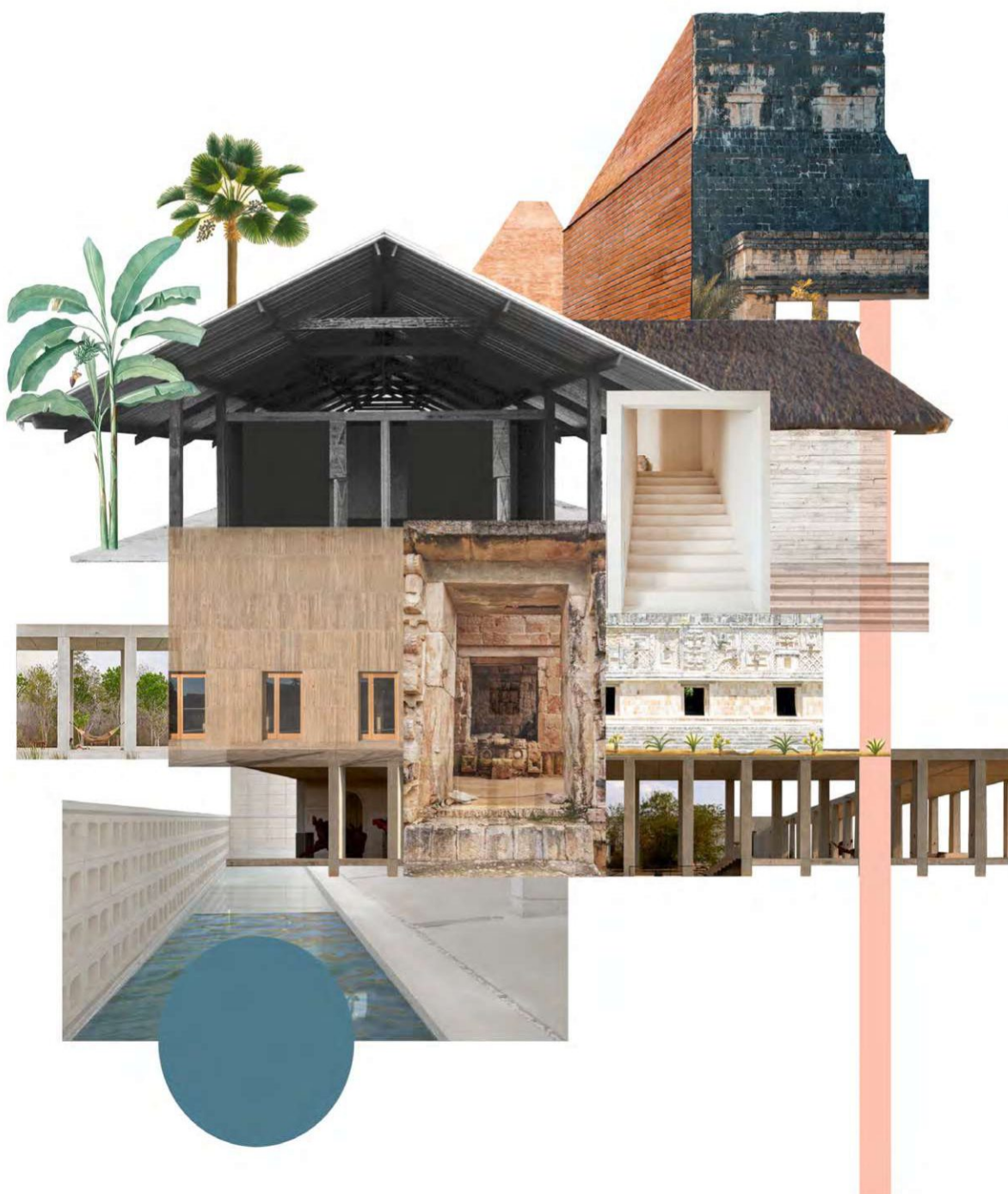
# Materiality

## Embracing modernity, respecting heritage

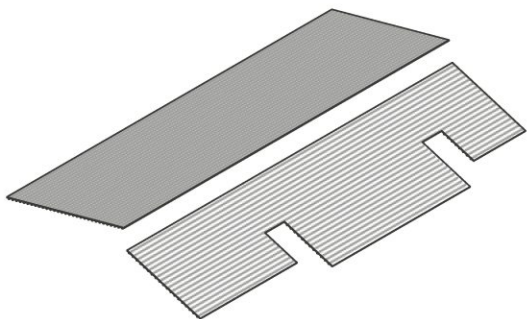
The use of vernacular techniques and the integration of traditional materials in a contemporary building aims to reinforce sustainability and honour the material heritage of the region. The architectural intervention is designed to merge and adapt with the surroundings without being invasive. The proposed materials are locally sourced aiming for a minimal impact on an already pressured natural environment.

The bridge between vernacular architecture and a new building typology not only supports but also encourages the community to come together as the building is assembled to assist and actively participate in the project. The expertise of local craftsmanship and generational know-how merged with modern day building technology will ensure a robust and lasting framework for generations to come. Active participation is crucial to this project as one of the main objectives is to create a public platform that helps develop a stronger sense of belonging within the community. Through open dialogue and reflection with the locals, they can contribute to the creation of their own space in a collaborative environment that fuels empowerment and autonomy.



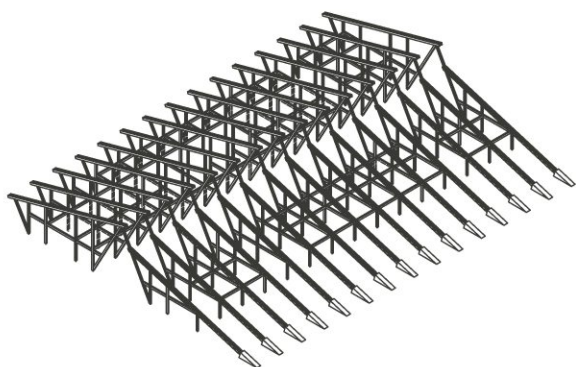


155 Collage, materiality



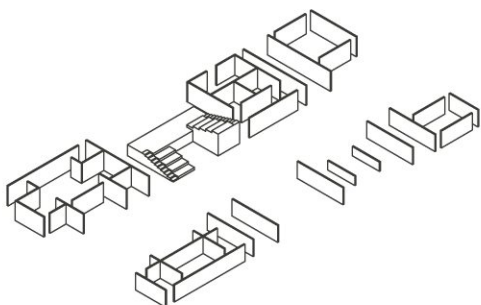
## ROOF

The roof structure is based on the traditional Palapa roof typology. This ancient palm weaving technique is used as a way to honour the building heritage of the region. Members of the community will not only be able to assist with the construction process, but will also be able to share their expertise with future generations.



## STRUCTURE

The main structure is made out of local hardwoods. These are used for structural purposes, as they are best able to withstand the challenging climatic conditions and all sorts of plagues. In the peninsular region there are more than 300 species of hardwoods.



## WALLS

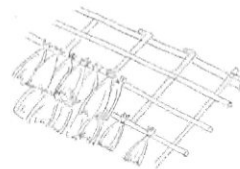
As a more sustainable alternative to concrete blocks, walls are made out of locally produced clay bricks. The brick-making-process is used as a way to bring the community together in a participative process by integrating and reviving local craftsmanship.



PALM LEAVES

*Palma de Guano, Peninsular*  
 Species:

*Sabal Mexicana*  
*Sabal yapa*  
*Sabal Mauritiiformis*



THATCH



HARDWOOD

*Cedro / Cedrela Odorata*  
*Caoba / Swietenia Macrophylla*  
*Ciricote / Cordia Dodecandra*  
*Tzalam / Lysiloma Bahamaensis*  
*Chechen / Metopium Brownei*



SKELETON FRAME



CONCRETE  
 BLOCKS

*Prefabricated*

*Concrete*  
*+Additives*



CLAY  
 BRICKS

*Local Clay made from karstic soil*

*White Limestone*  
*Red Limestone*  
*+other soil resources*



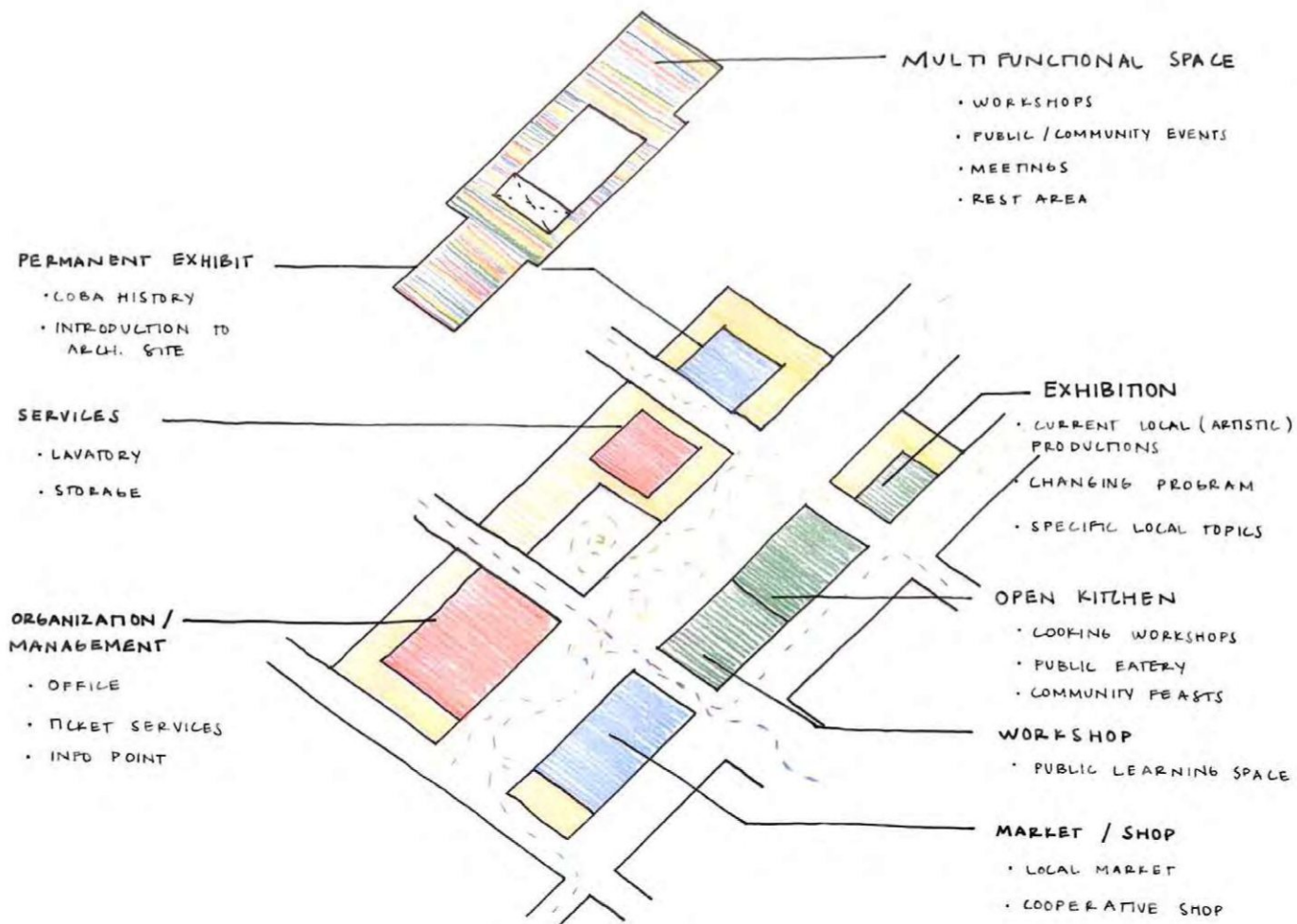
COMMUNITY  
 BUILDING



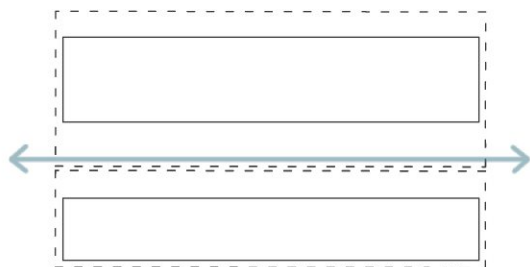


156 Colectivo Coba

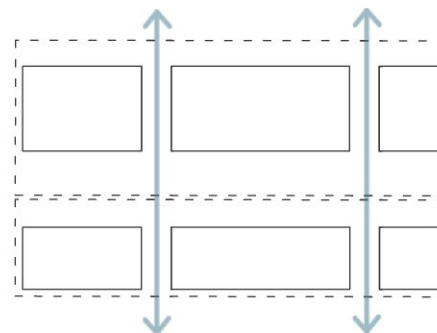




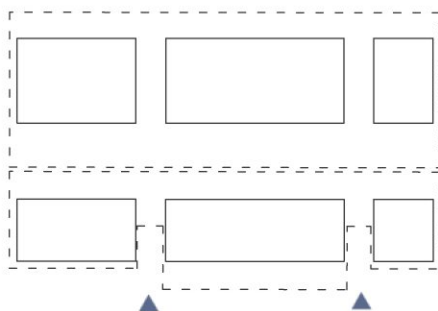




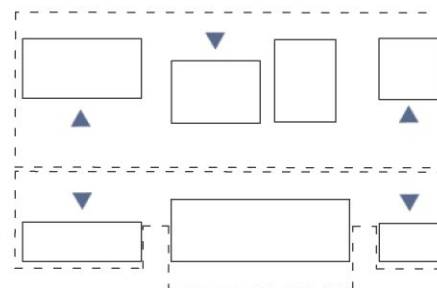
An independent roof structure shelters two main volumes, building a central corridor in between that connects everything together.



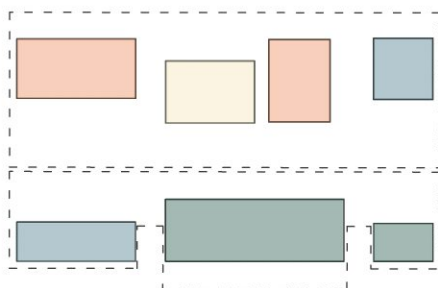
Crossways allow further movement through the building and divide the floor plan.



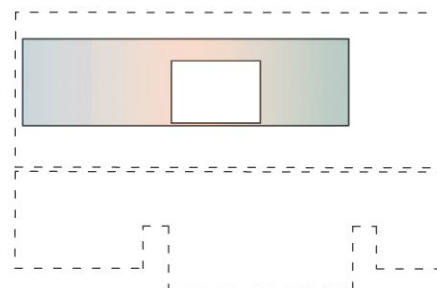
The jumping roof overhang creates interactions between interior and exterior spaces.



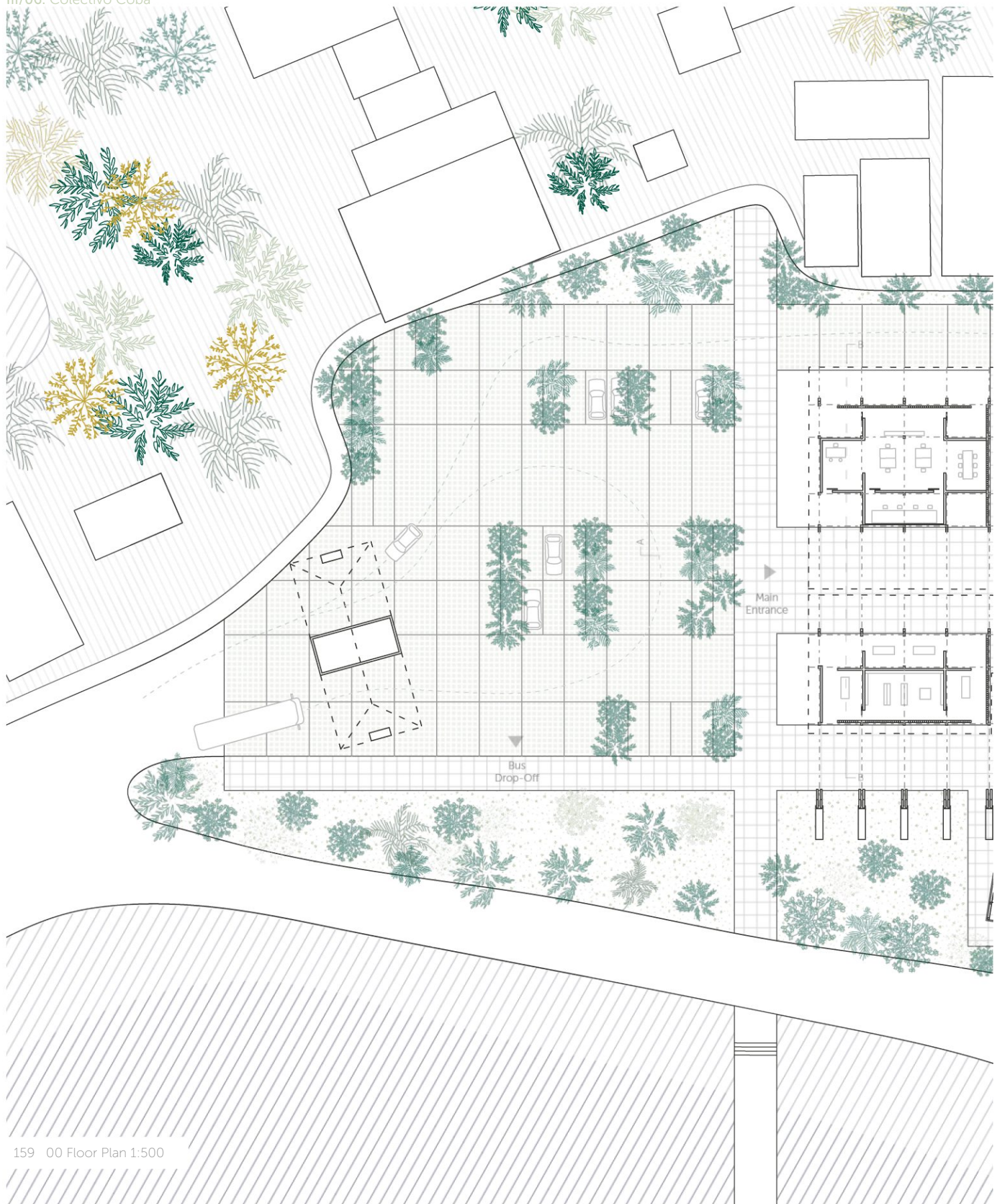
The volumes adapt in size and form according to the building use. Intermediate spaces provide complementary semi-private areas.



The building use is divided in A Organization/ Services, B Heritage and C Productive/Learning



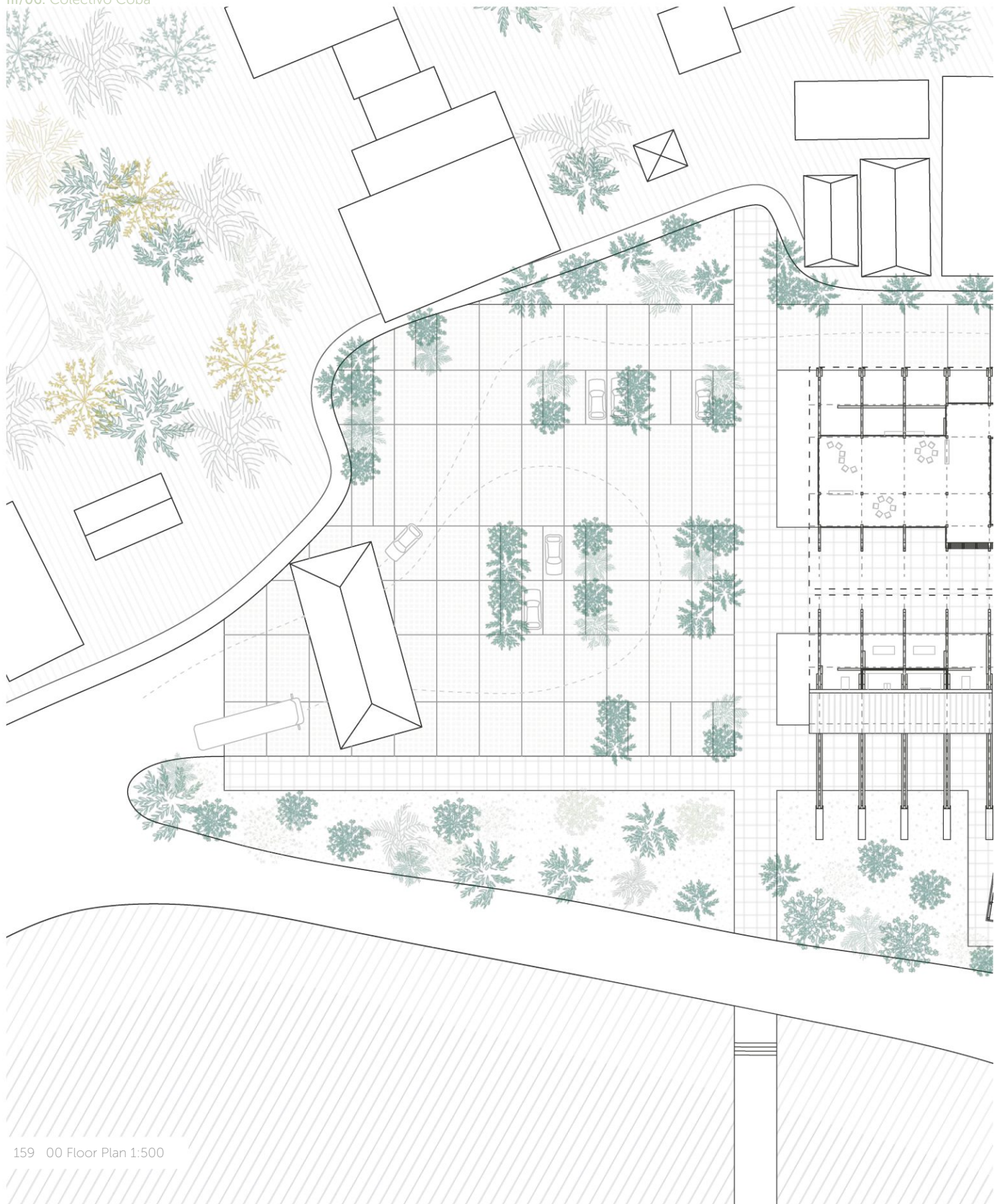
The balcony is a multifunctional space. The staircase steps can be used as a seating area.



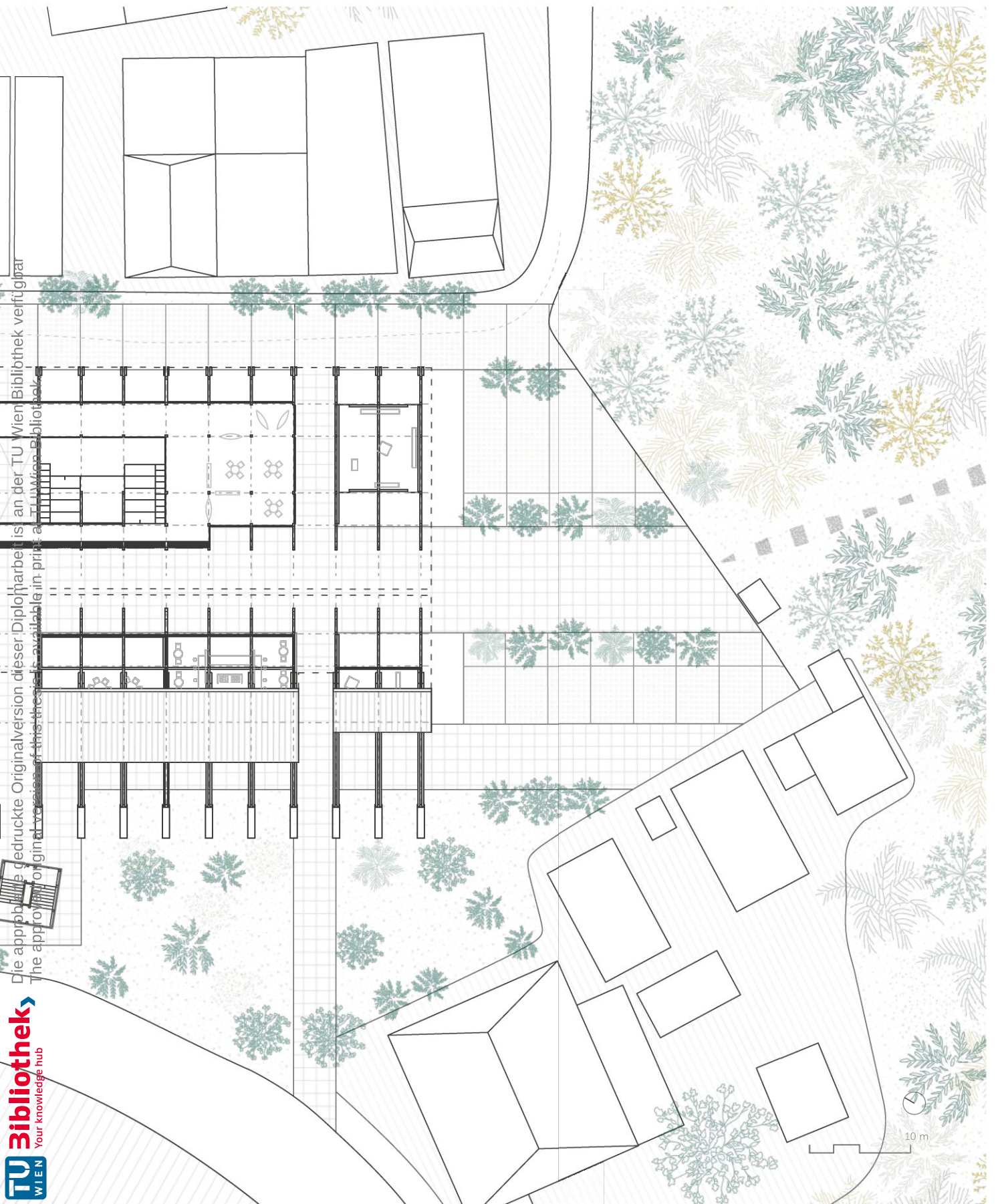










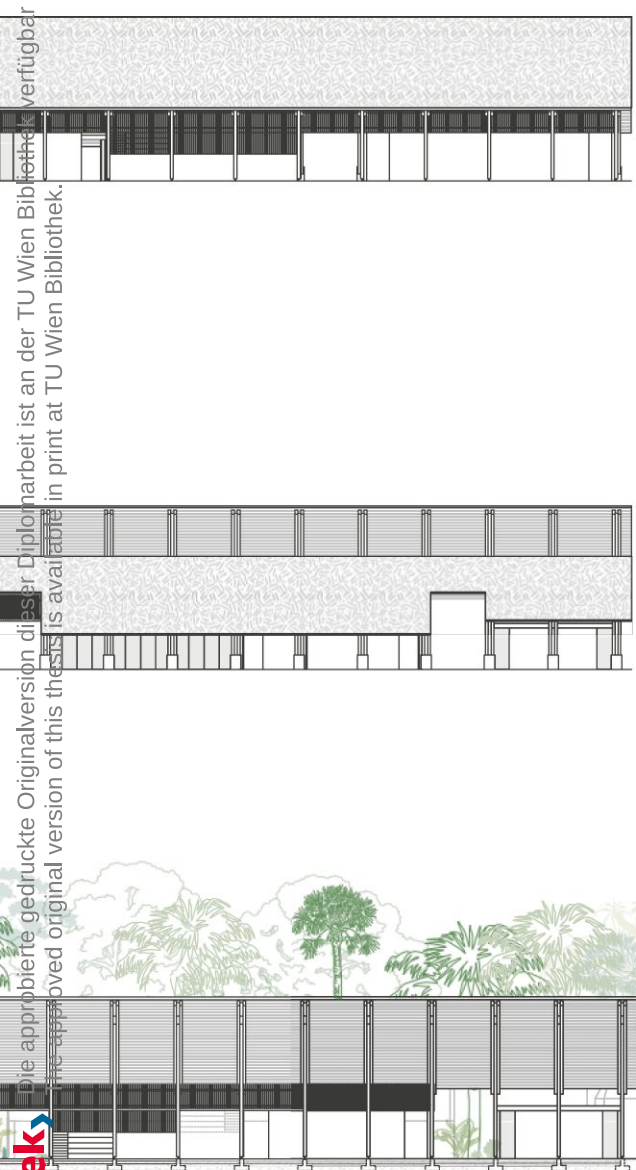




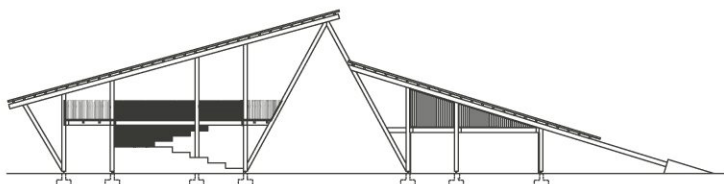
From bottom up

161 Section AA, SW Elevation, NE Elevation 1:500



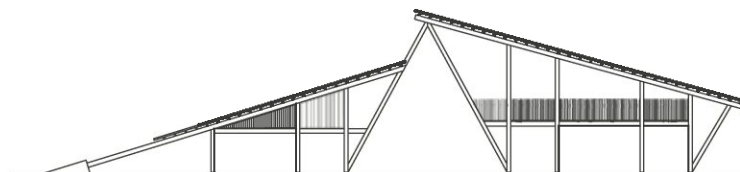


10 m

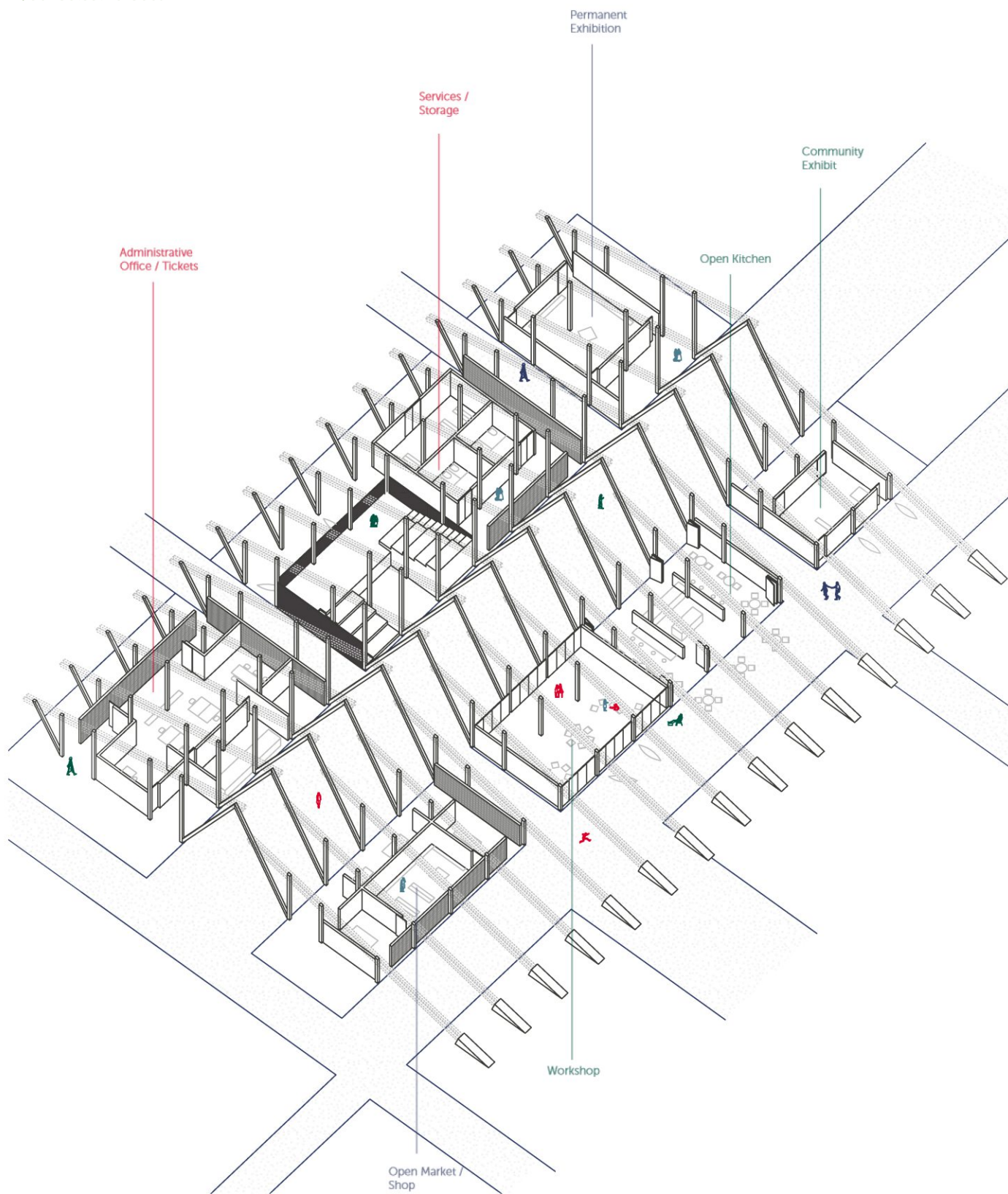


*From bottom up*

162 Section BB, Section CC, SE Elevation 1:500



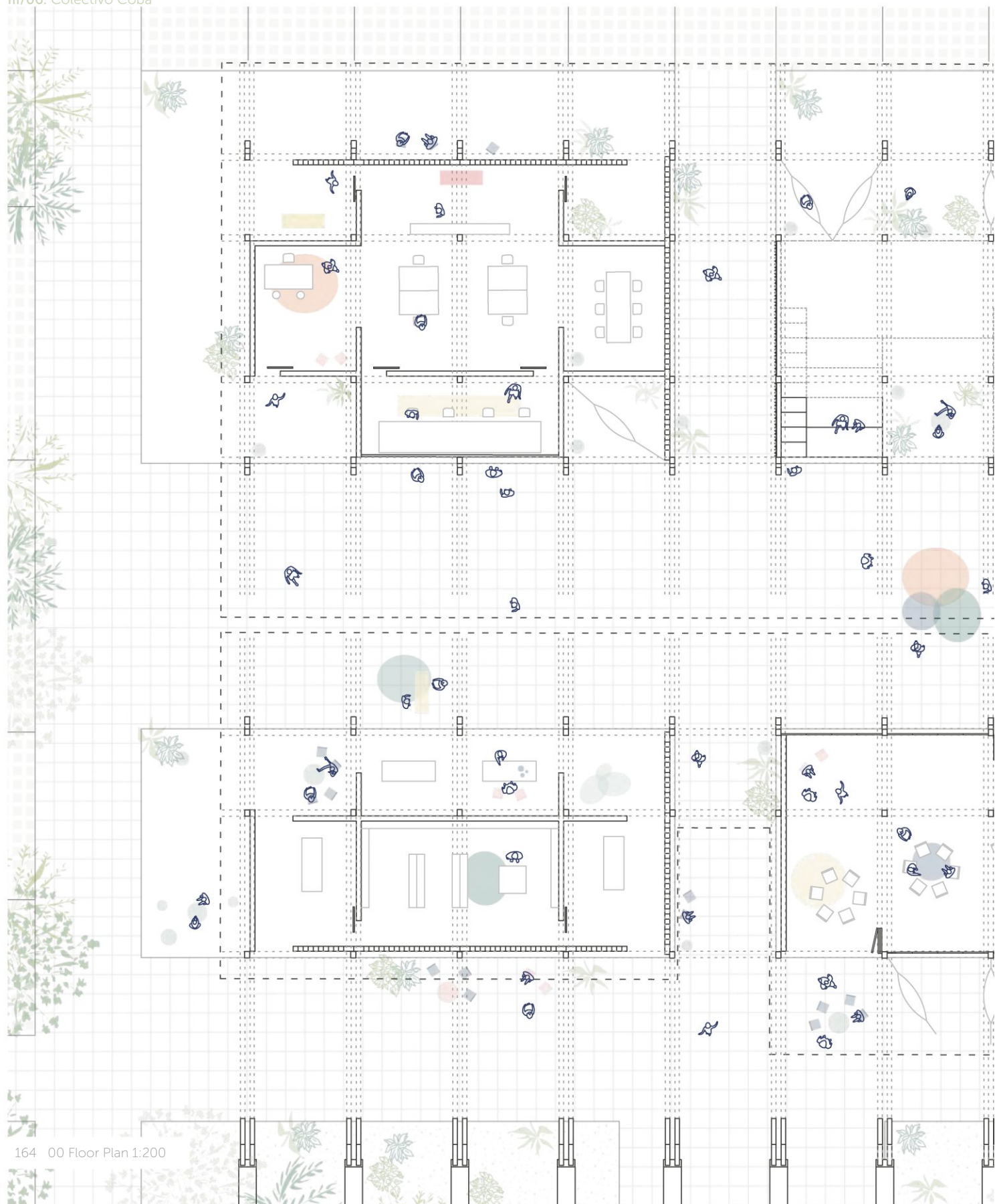




163 Ground level Isometric

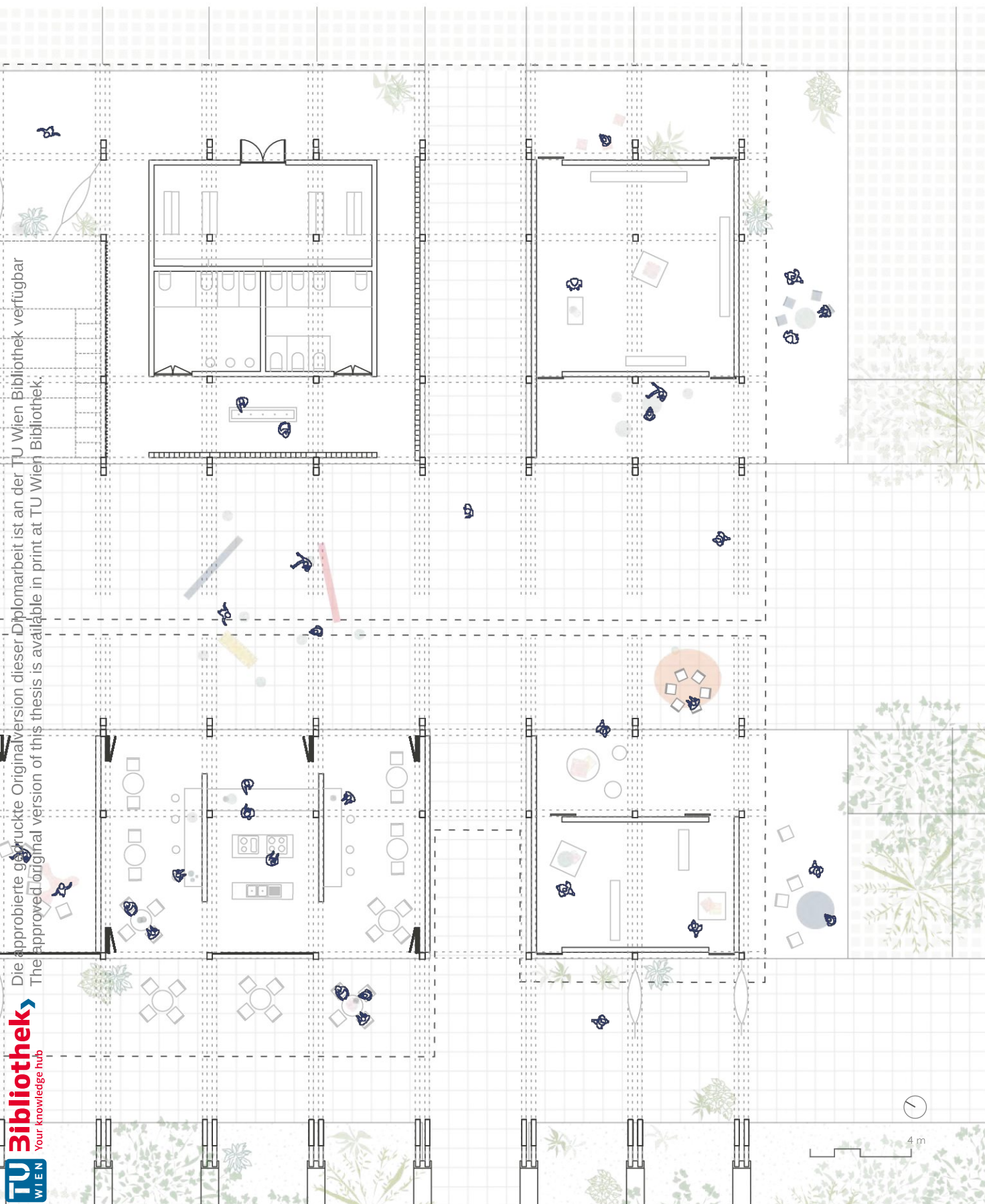
The building is divided by a central corridor resulting in two naves. The complex is then organized in six volumes separated by open air corridors blurring the threshold between inner and outer space. The grid imposed by the main structure establishes an order which delimitates the positioning of the walls. These intersecting clay brick walls provide versatility and adaptability by creating niches between the closed spaces and the main public circulation.

III/06. Colectivo Coba



164 00 Floor Plan 1:200

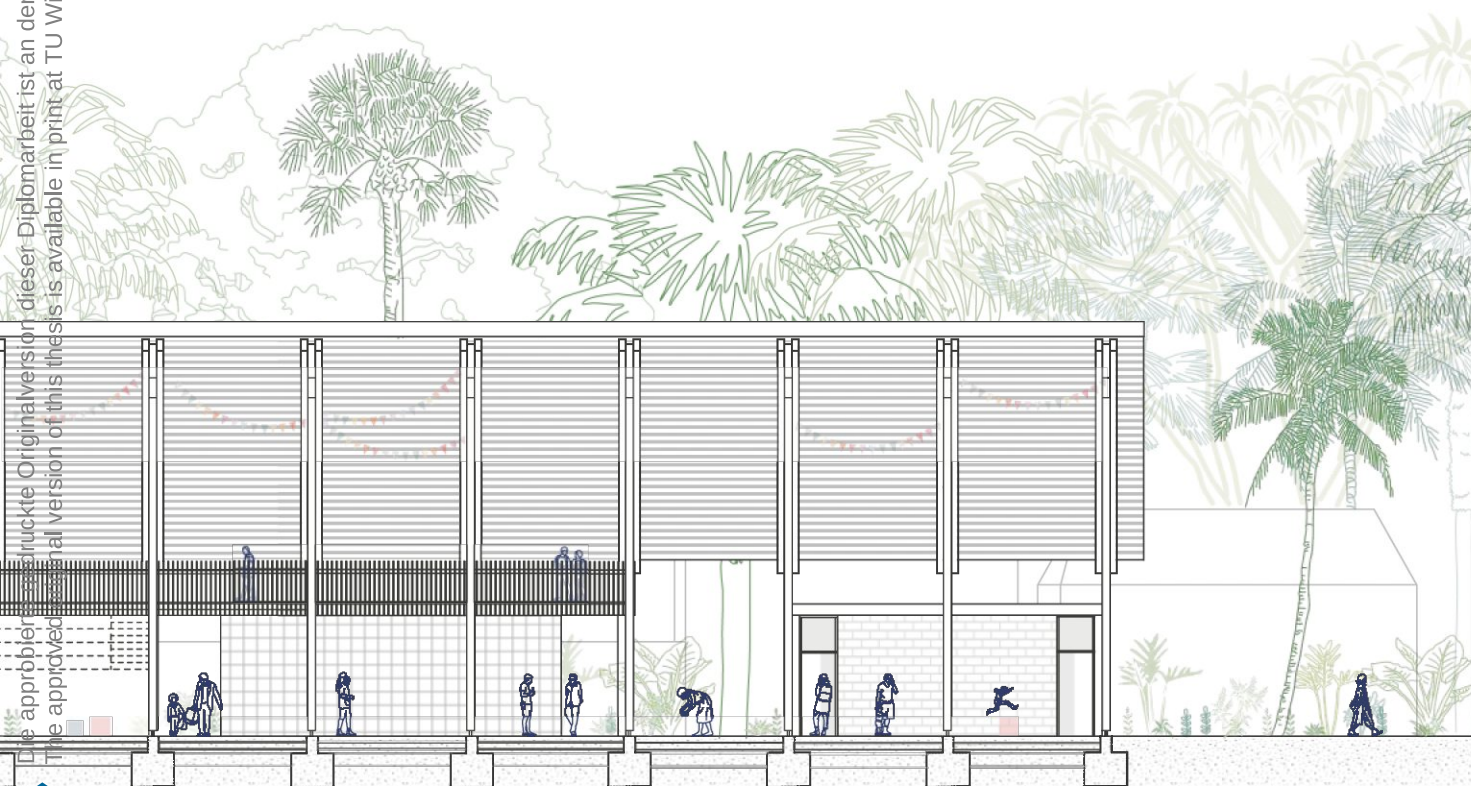






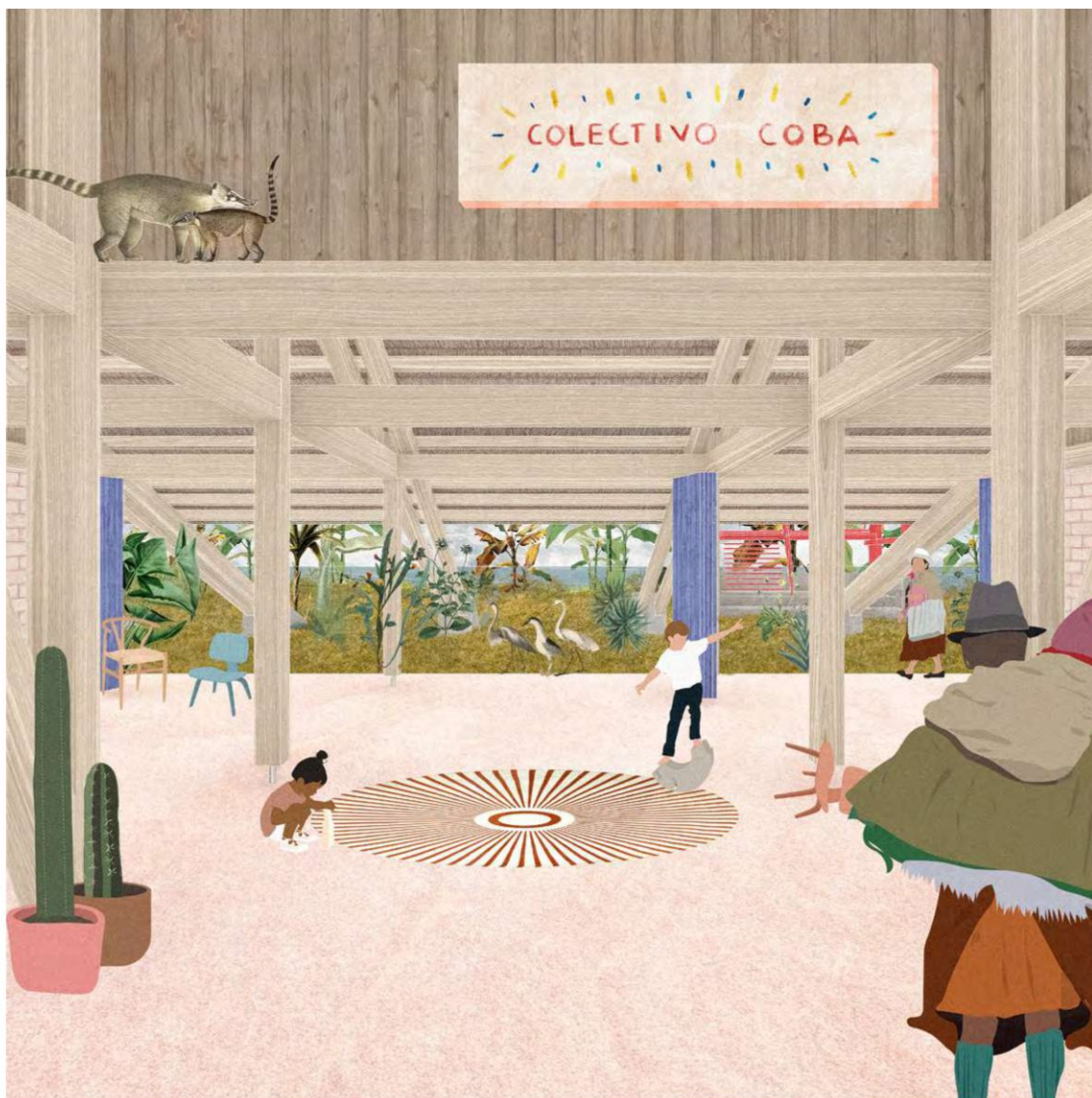
165 Section AA 1:200



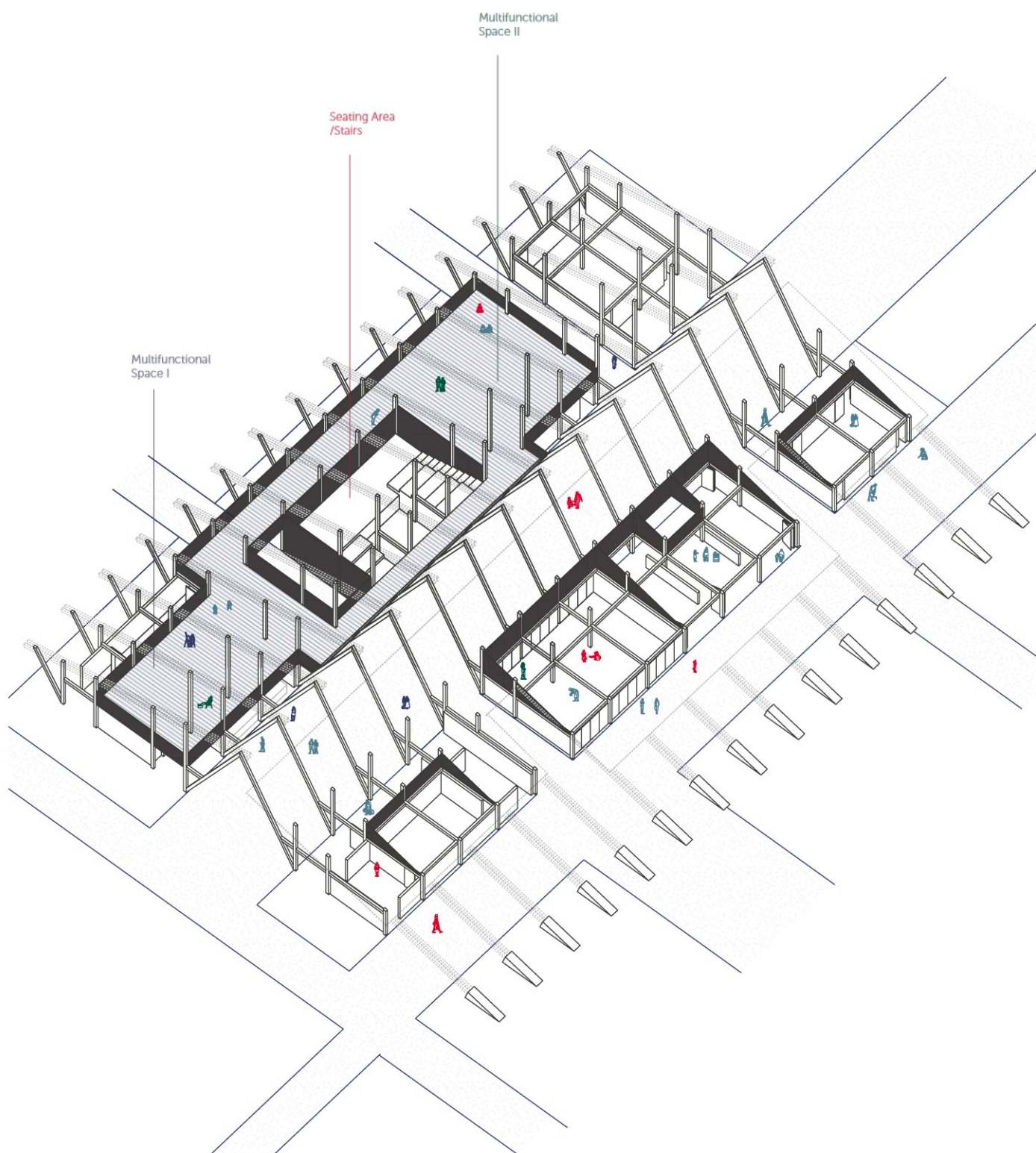








166 Workshop, Collage

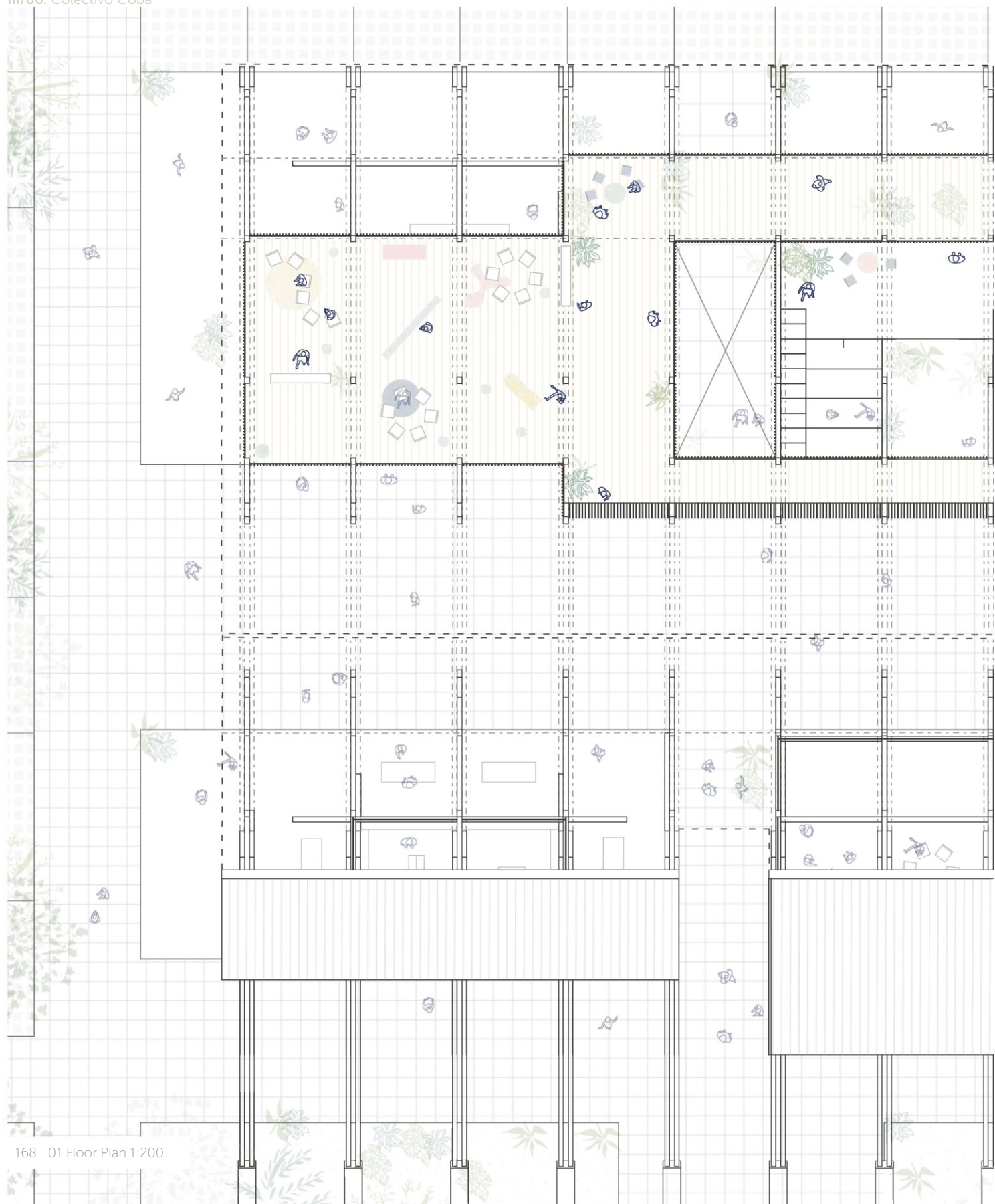


167 First level Isometric

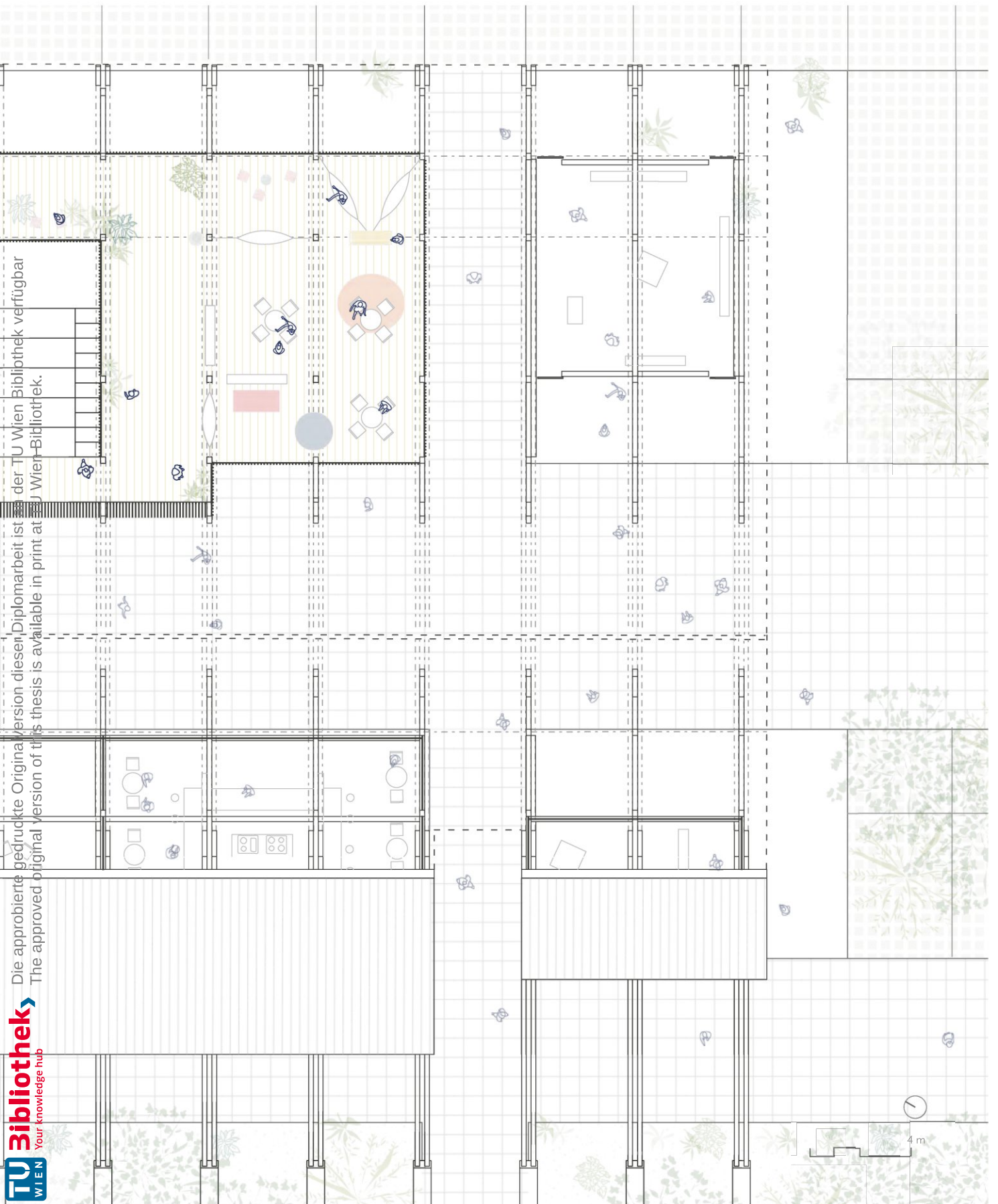


An upper level can be accessed through a monolithic concrete staircase which doubles as a seating element. The open structure provides an open multifunctional space that can be adapted by the users at will. The wood materiality of the main structure extends to the upper platform creating a cohesive atmosphere throughout the building. The narrow wooden elements of the railing create a subtle barrier between the balcony and the outer spaces, framing views from the green natural surroundings

III/06. Colectivo Coba



168 01 Floor Plan 1:200







169 Section CC 1:200



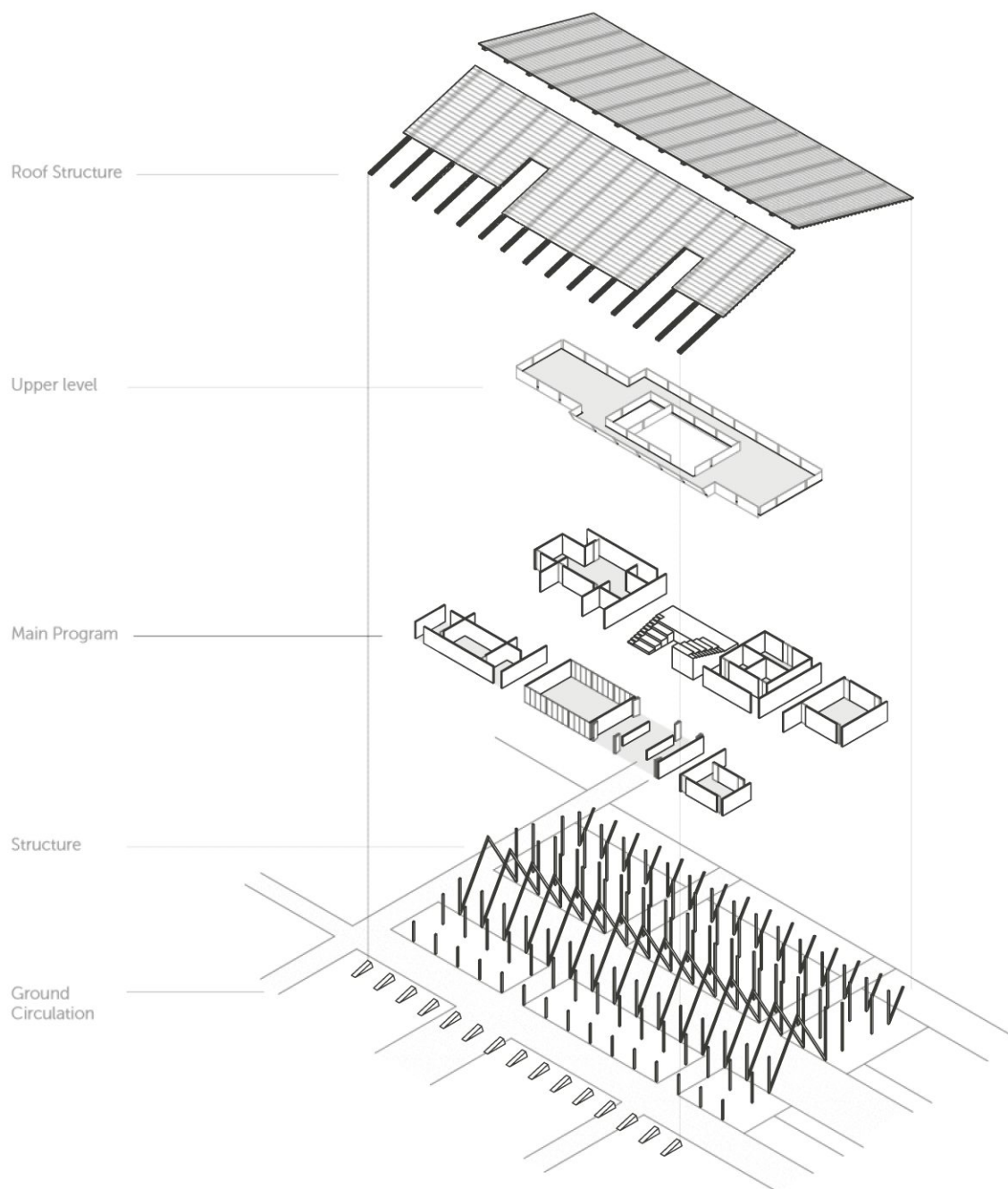




170 Balcony, Collage

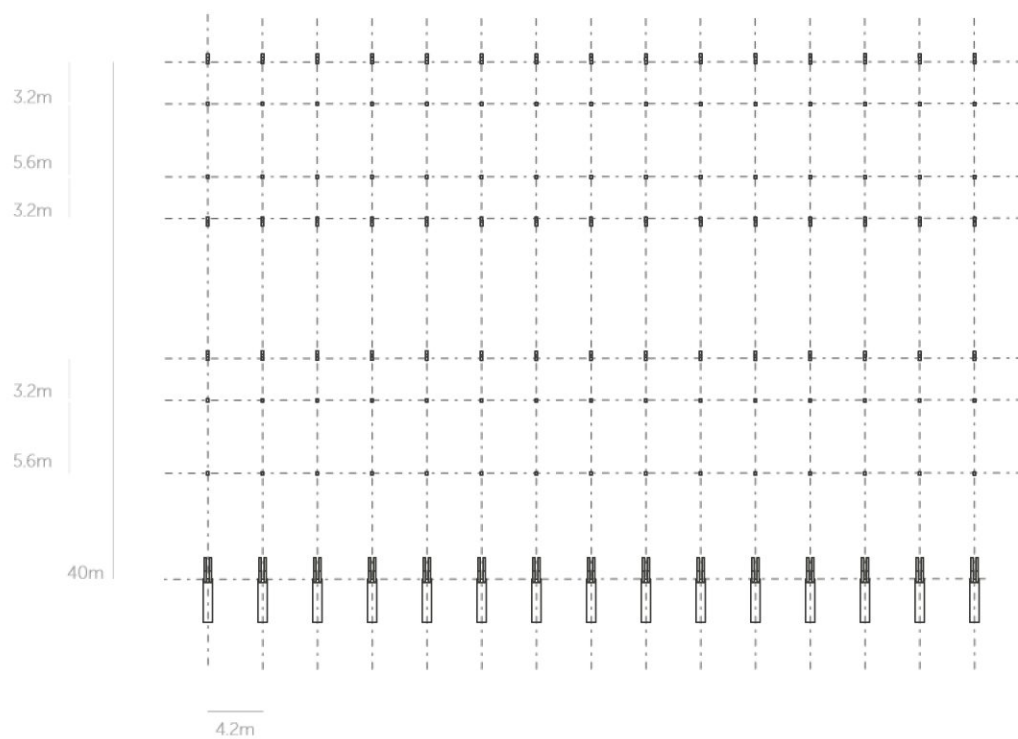




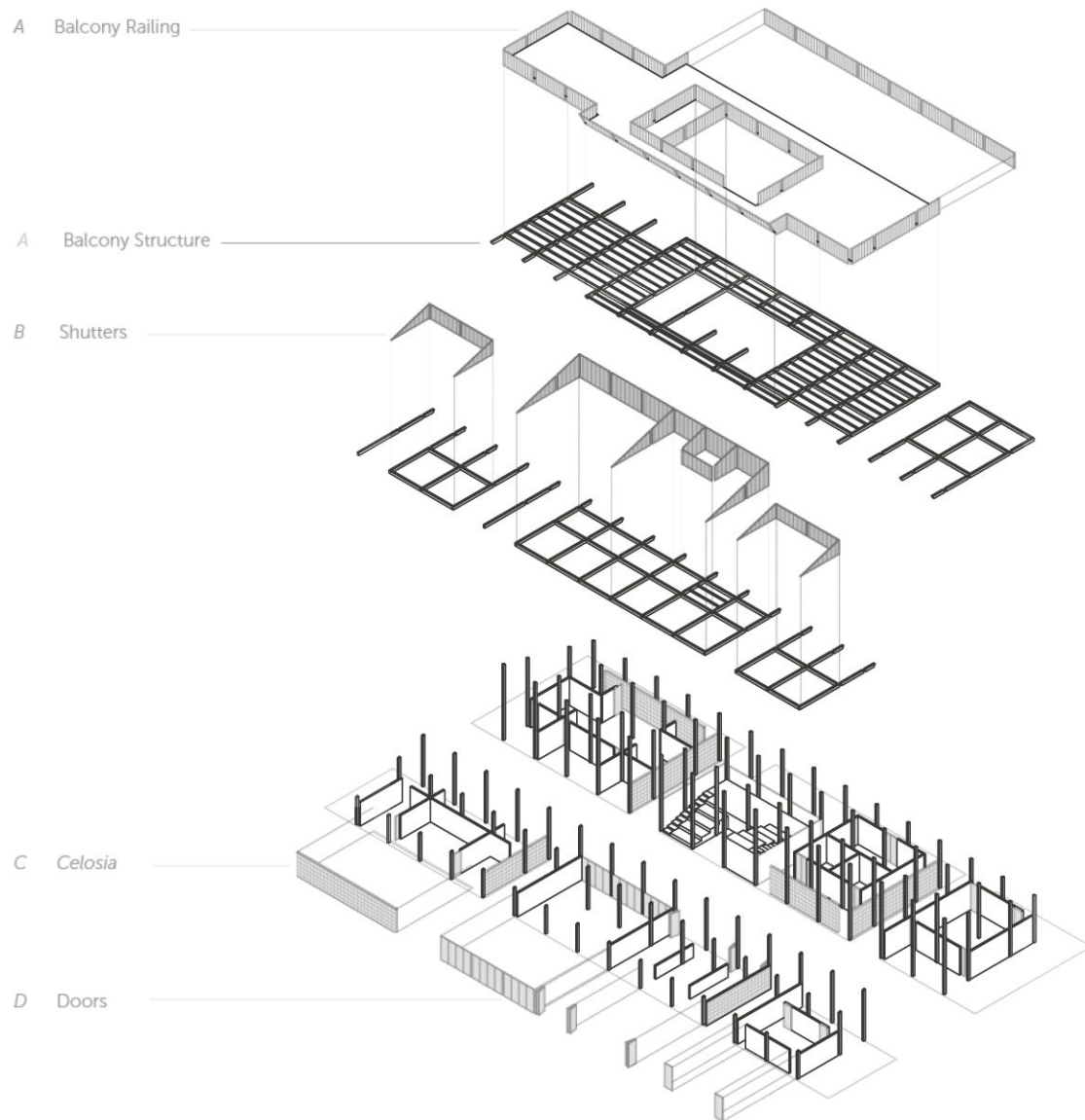


171 Building layers

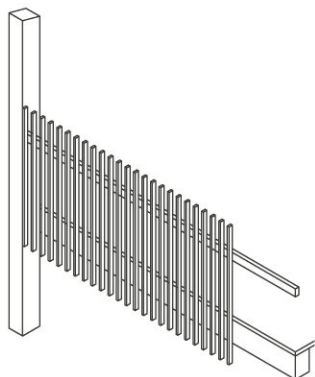
## 172 Structure Grid





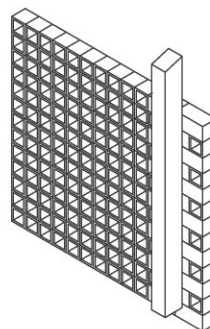


173 Building elements



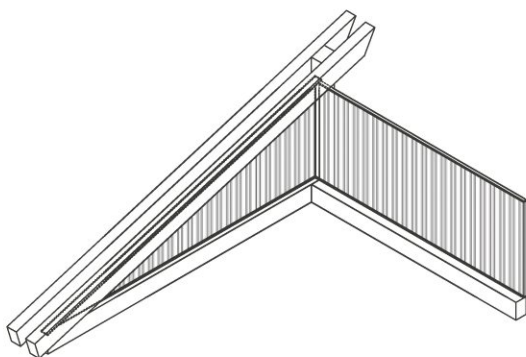
A Balcony Railing

Wooden profiles 05 x 03 attached to the balcony supporting structure. Joined together between the building columns by a 10 x 03 profile.



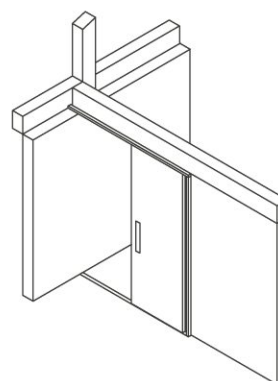
C Celosia

Perforated Walls made from locally produced Clay tiles 20 x 20 x 20



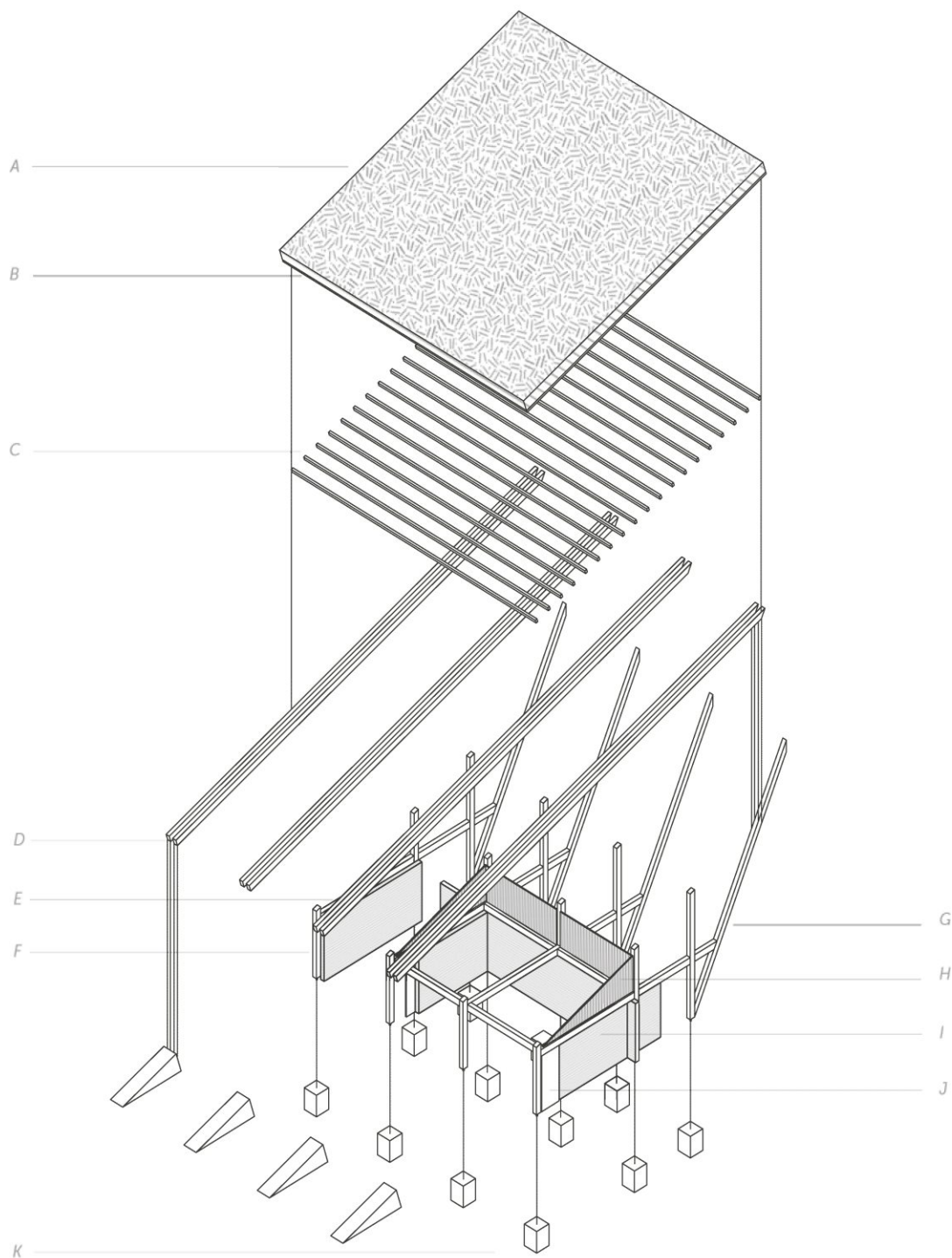
B Wooden Shutter Panels

Thin wooden profiles held between a 05 x 03 wooden frame. Panels attached to the main building structure.

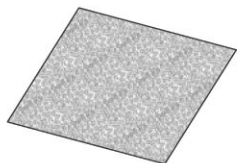


D Sliding Doors

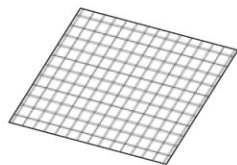
Laminated veneer doors made with repurposed wood from the construction. Sliding door frame attached to the main construction







A Palm Thatch cover



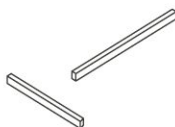
B Reed/Straw fibers  
for Palm Thatch weaving



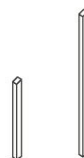
C Wood Beams, roof cover  
*10 x 05*



D Double Wood Beams, roof support  
*18 x 30*



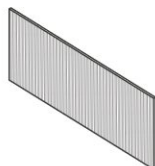
E Wood Beams, structure support  
*20 x 30*



F Wood Columns  
*20 x 25*



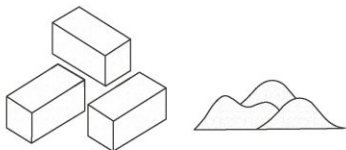
G Wood Beams, roof support  
*20 x 25*



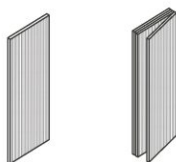
H Shutter Panels from  
local wood



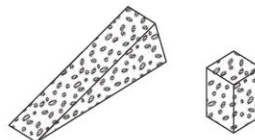
Metal Joinery



I Walls: Clay Bricks from local  
soil + additives  
*made with the community*



J Wooden sliding/folding  
doors



K Stone & Concrete  
Foundation

1. Palm Thatch Cover  
Traditional woven technique  
Dried Palma de Guano & Reed Fibers

2. Beam in a secondary structure  
From local Hardwoods  
10x05cm

3. Glued-laminated beam  
From local Hardwoods  
Pincer construction  
20x30cm

4. Glued-laminated beam  
From local Hardwoods  
20x25cm

5. Glued-laminated beam  
From local Hardwoods  
20x30cm

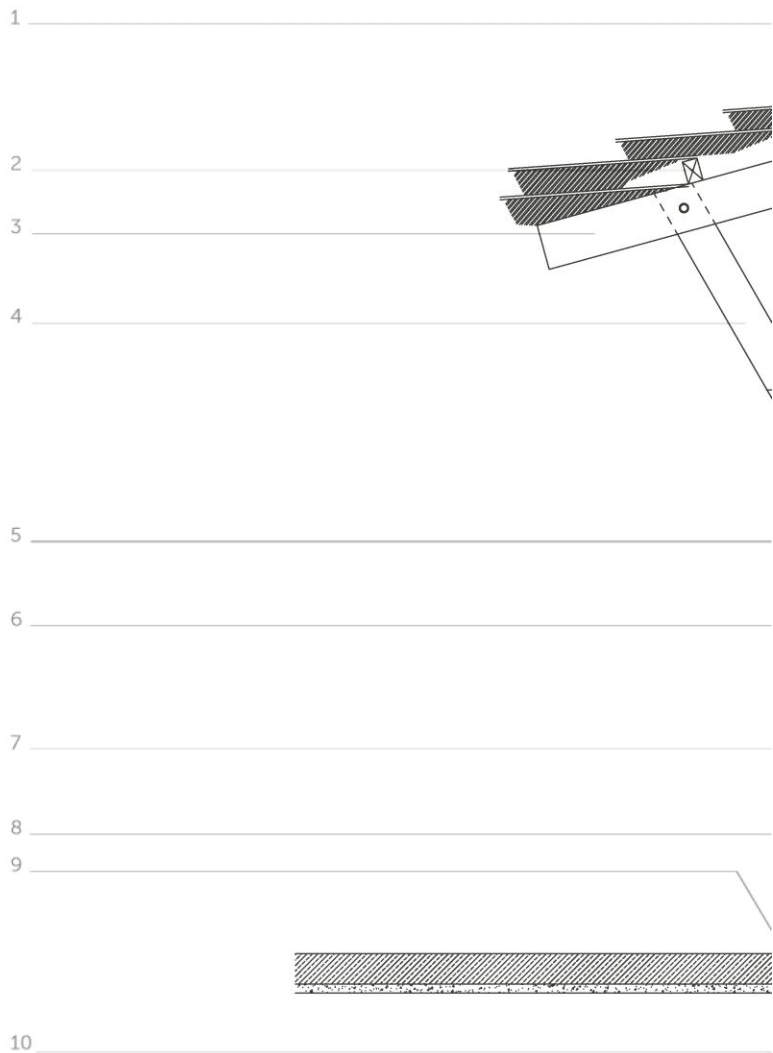
6. Wood column  
From local Hardwoods  
20x25

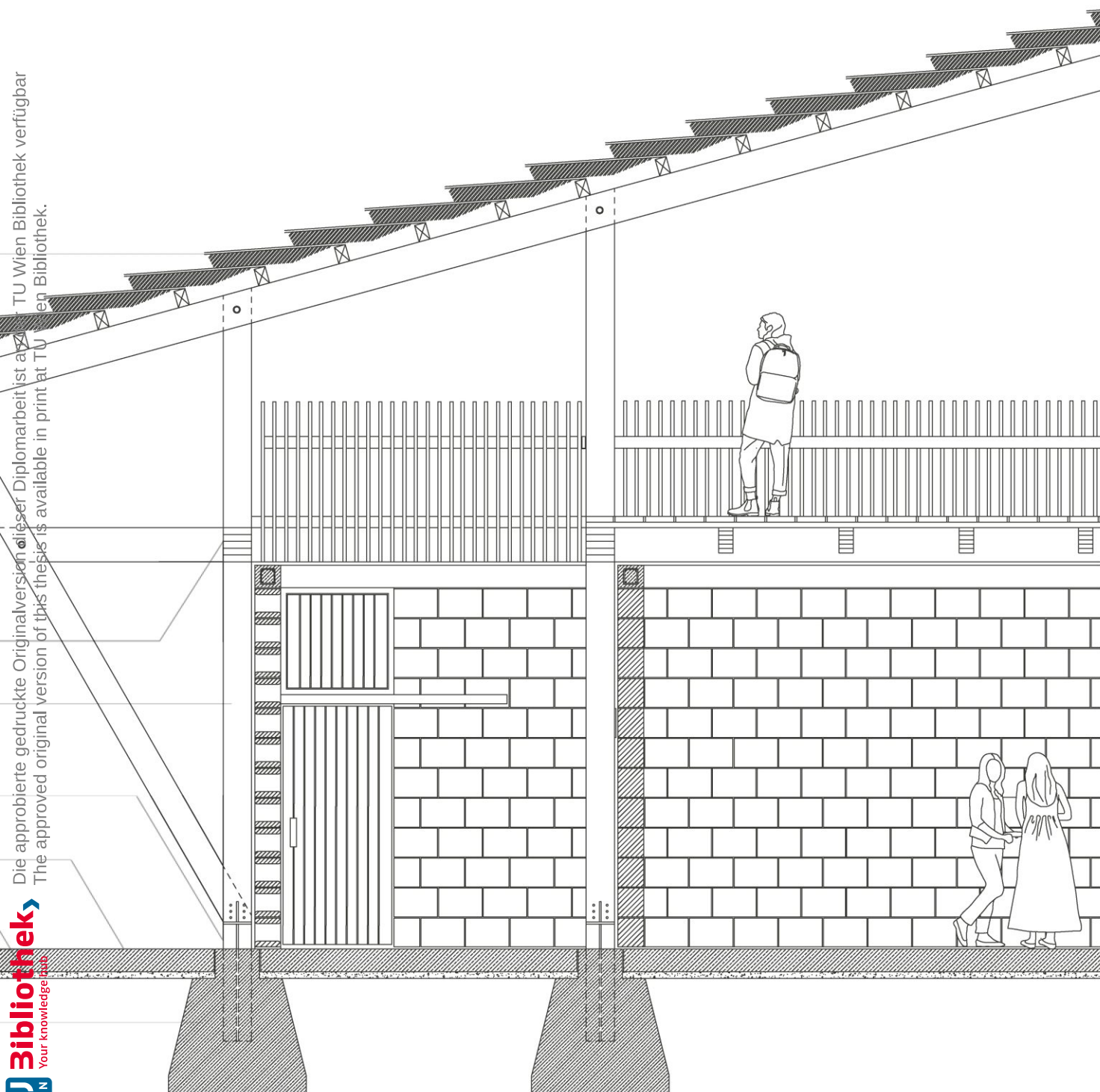
7. Steel post support  
20x25

8. Reinforced concrete floor  
h=20cm

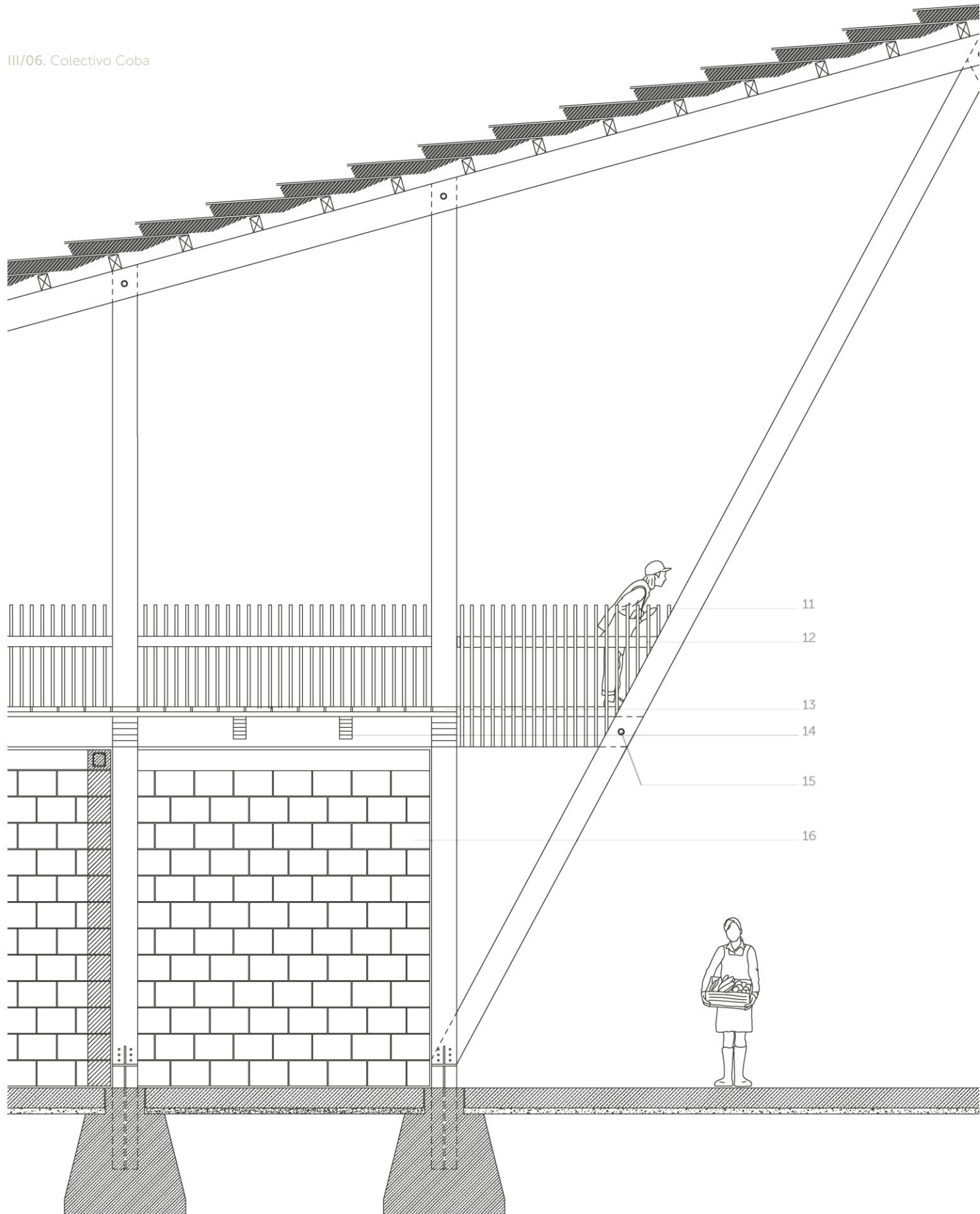
9. Compacted gravel  
h=05cm

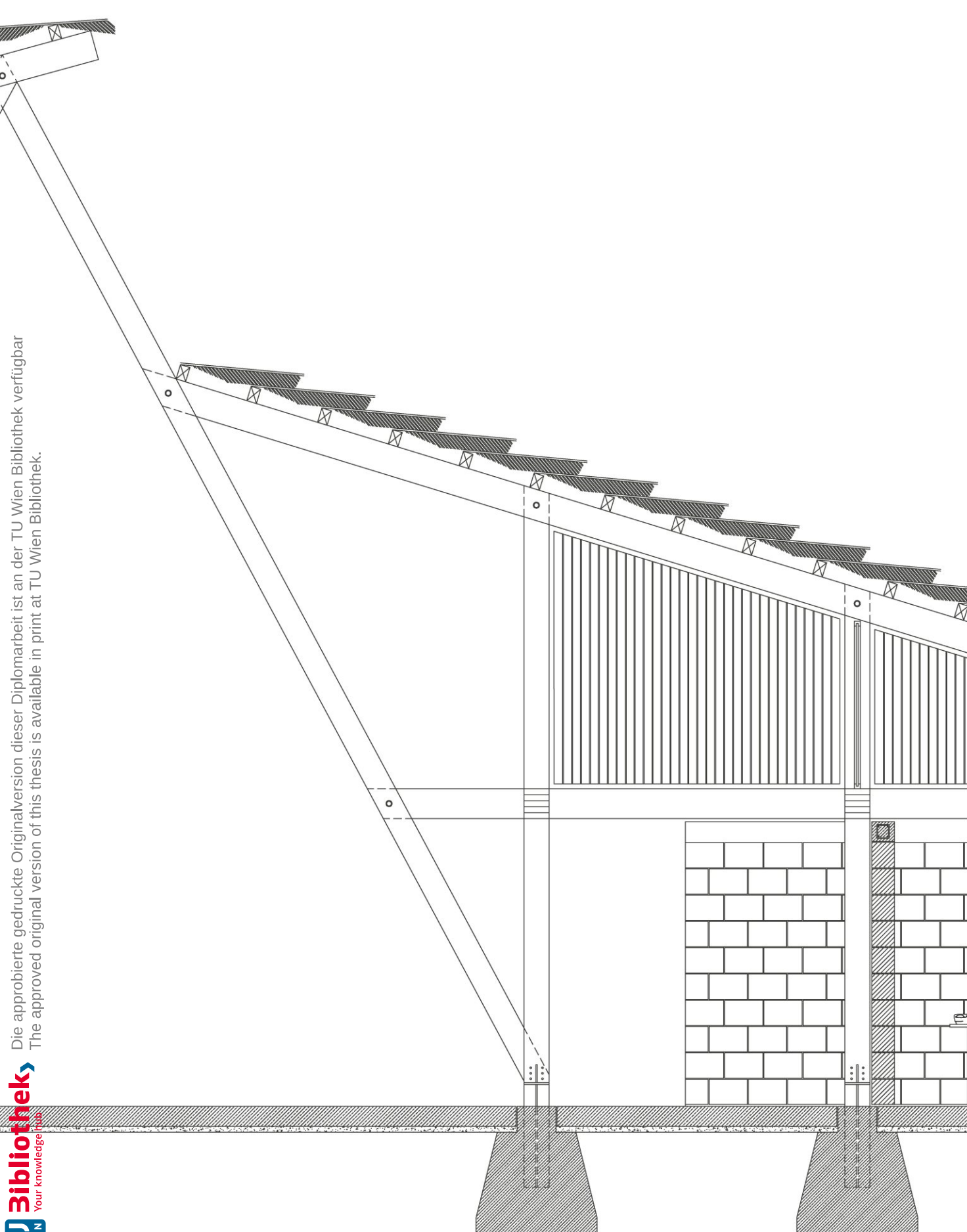
10. Reinforced concrete foundation  
h=100cm

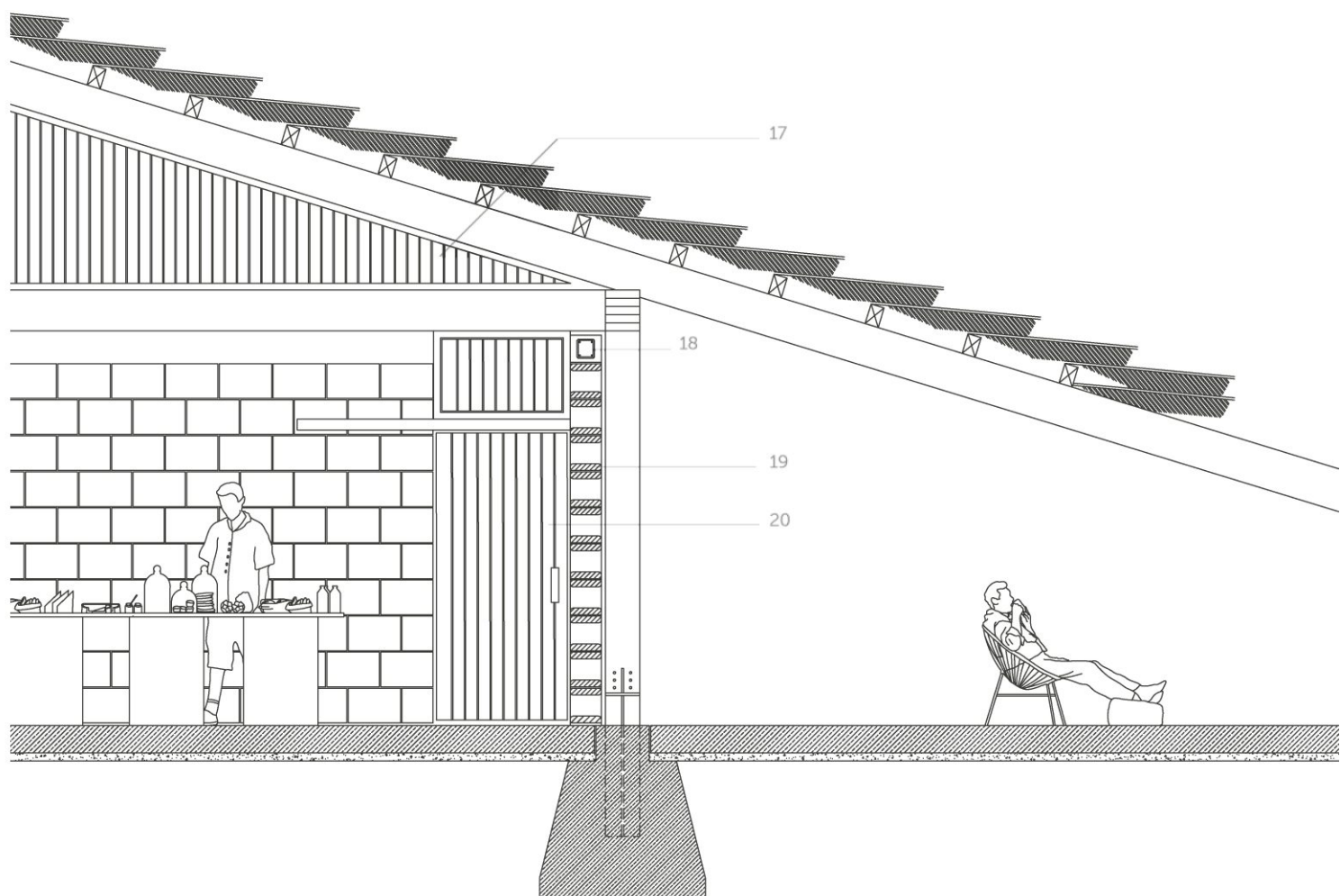




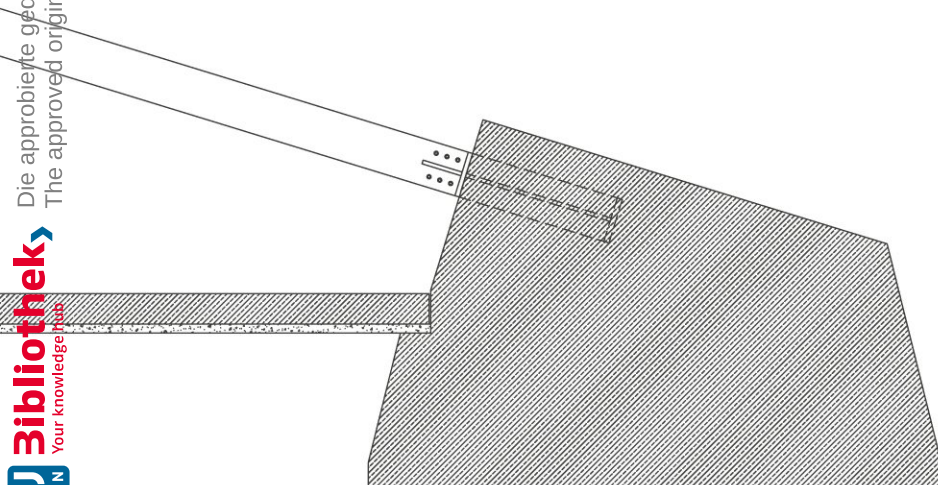












11. Railings  
*Repurposed local hardwood*  
05x02cm

12. Railing support beam  
*Repurposed local hardwood*  
05x02cm

13. Hardwood floor  
*h=04cm*

14. Glued-laminated beam ceiling  
*From local Hardwoods*  
08x12

15. Timber bolt  
*Steel galvanized*

16. Clay brick walls  
*compressed earth blocks locally produced*  
*with local raw material*  
40x25x20

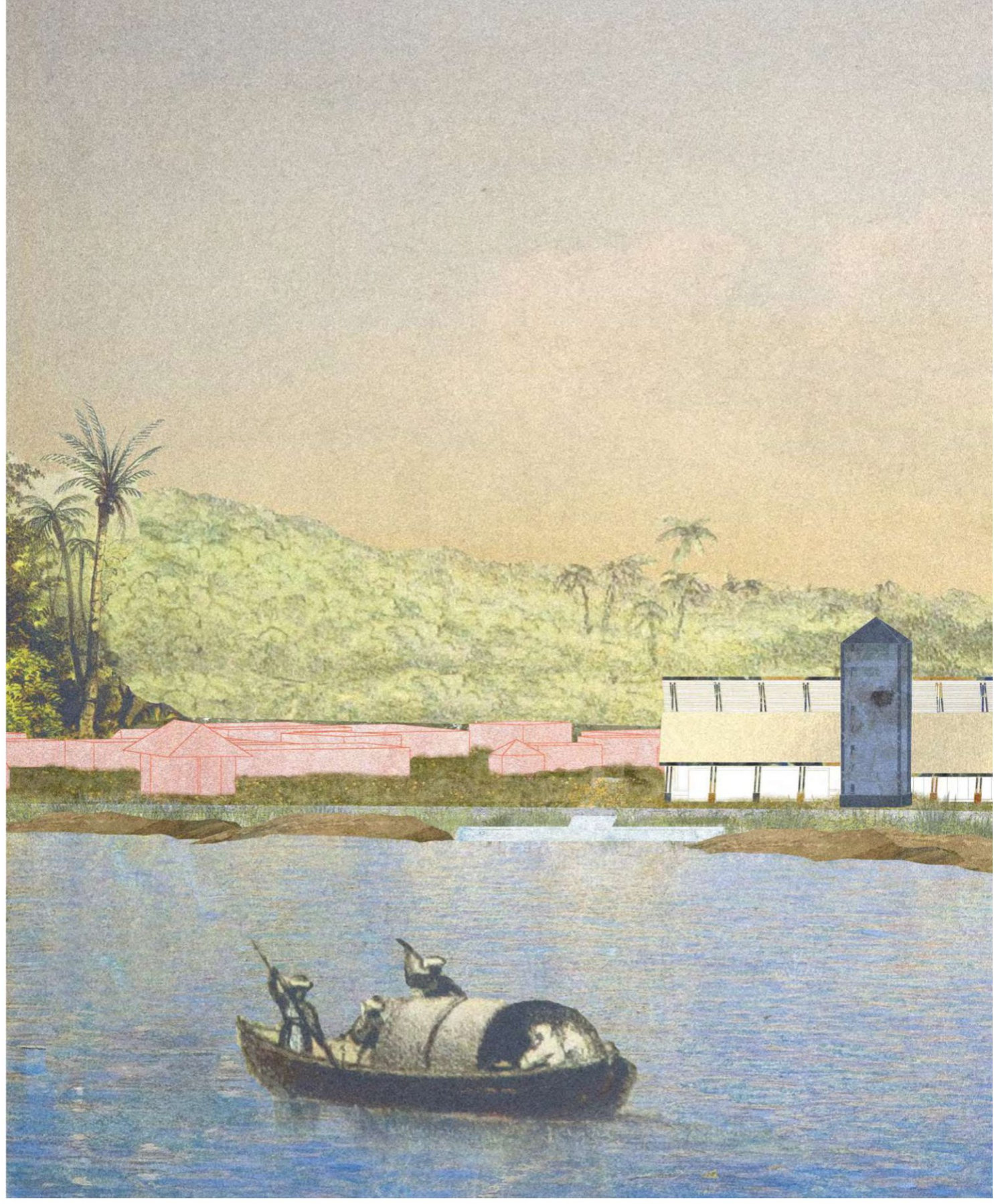
17. Panel shutters  
*Repurposed local hardwood*  
04cm

18. Ring beam  
25x20

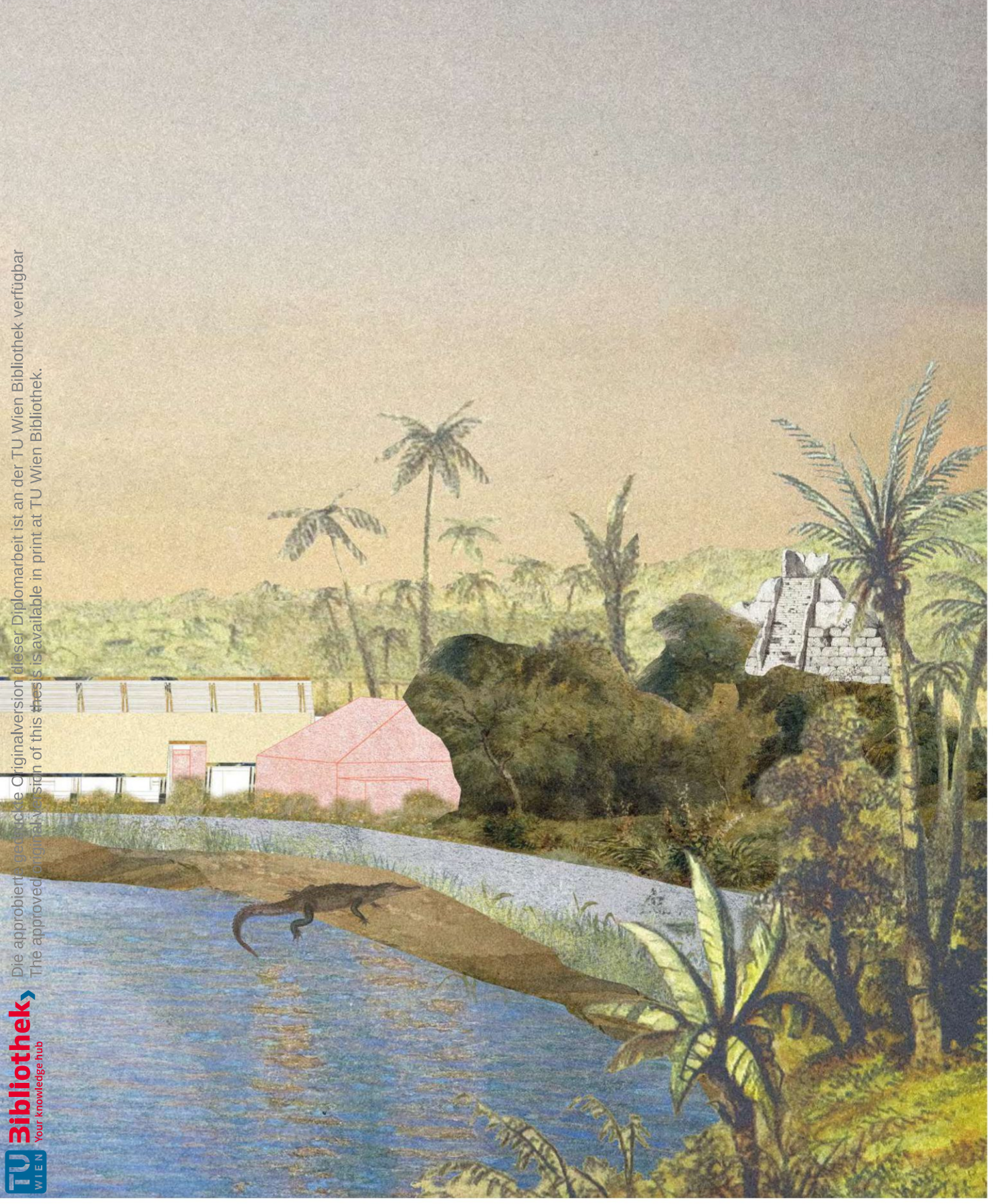
19. Perforated Brick Walls  
15x15x20cm

20. Sliding Door  
*Repurposed local hardwood*









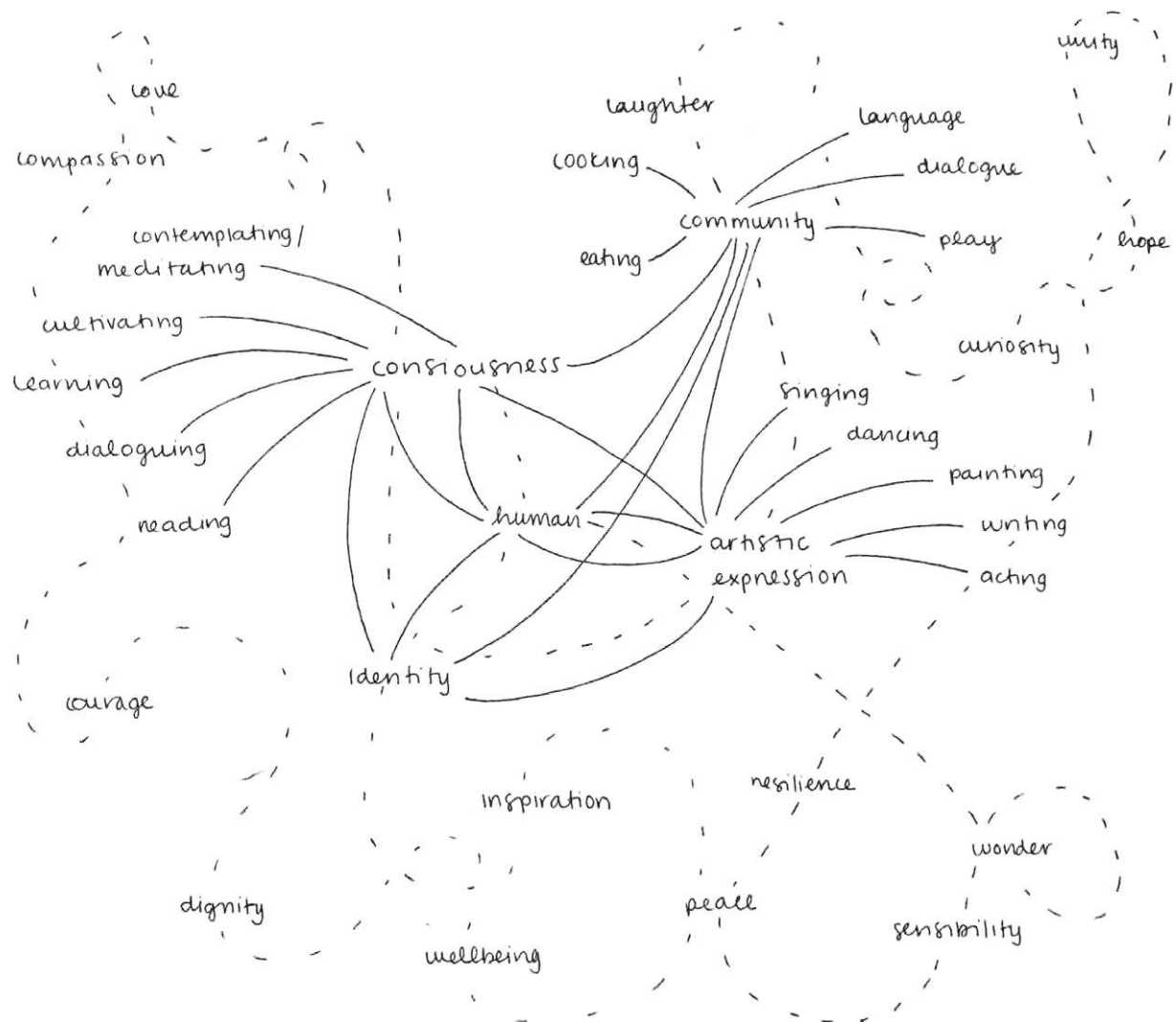


## 07. Conclusion

The Mayan culture has been a source of admiration and mysticism throughout history. The motivation for this architectural project is a profound fascination with the rich culture of my native land, and the frustration with an ongoing modernization trend fueled by capitalistic-driven mass tourism that seems to absorb small communities and rural settlements that carry an immense historic and cultural value to the peninsular Region. This project puts forward a sustainable, fair and, above all, socially responsible proposal as an alternative to conventional tourism. Aiming to open a dialogue between visitors and the local community and create alliances for a bottom-up collective development.

Coba is strongly influenced by Mayan culture and history as it is built on the edge of one of the greatest ancient Maya States. As a response to the growing number of visitors and the increasing economic dependence on tourism, a visitor/community center emerges: a public space between visitors and inhabitants; jungle and water; the ruins and the urban fabric. A platform that enables active participation and engagement with the local communities, strengthens, restores, and perhaps even redefines the weakened cultural self-esteem of the individual and the collective identity.

The globalized world in which we live is characterized by the standardization of ways of life, and the loss of values, traditions, uses, and customs, so that the identity elements such as the secular and rich history of our peoples and communities, are now more than ever a valuable and irreplaceable point of reference to keep alive our uniqueness.



## IV. APPENDIX

A civilization is a heritage of beliefs, customs, and knowledge slowly accumulated in the course of centuries, elements difficult at times to justify by logic, but justifying themselves as paths when they lead somewhere, since they open up for man his inner distance.

—Antoine de Saint-Exupéry





177 Moonlight swim

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The ruins

Transformations of the  
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178 Resting birds





# THE PLACE BEYOND THE RUINS

Colectivo COBA

An integrative platform for  
collective development

SOFIA RAMOS MARIN