

TYRE

Archerology, Culture, and Heritage

POLITECNICO DI TORINO

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Msc. in ARCHITECTURE AND CONSTRUCTION CITY

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Figure 1: Perspective from the inside of the historic Roman highway



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Abstract

A treasure mine of historical and cultural value remains hidden and underappreciated in Tyre, an ancient Phoenician city tucked away on Lebanon's shore. This thesis proposes the construction of an innovative cultural center and museum within the historic walls of Tyre in an effort to revitalize the city's fading legacy. Tyre was once a thriving maritime metropolis and a center of civilization, but its former glory has slowly vanished into oblivion, leaving behind neglected and abandoned ruins. This research aims to uncover the lost histories of the city's numerous civilizations, from the Phoenicians to the Romans and beyond, and conserve its priceless archaeological remains. The planned center will revive the history of the ancient city and shed light on its crucial role in influencing Mediterranean art, trade, and culture through cutting-edge interactive exhibitions, fascinating displays, and enriching educational programs. But this project aims to go beyond the confines of conventional museum settings. It seeks to embrace Tyre's dynamic cultural character and ingratiate itself with the soul of the city's present-day residents. The center will promote a strong sense of ownership and pride in Tyre's unique heritage by developing symbiotic relationships with local communities, craftspeople, and archaeologists. This project promises economic growth in addition to cultural revival. Tourism is expected to soar as Tyre's historical prominence is revived, boosting the regional economy and presenting long-term potential for the neighborhood. This continual advantage will improve Tyre's quality of life while also drawing attention to this unique historical treasure on a worldwide scale.

KEYWORDS: Cultural identity, Historical Heritage, Cultural revitalization, Cultural Center, Memory and Identity.



Figure 2. Ruins present in Tyre, South Lebanon

INTRODUCTION

Localization



Figure 3. Aerial picture of the city of Tyre.



Lebanon is a little nation in the Middle East, situated eastern shore of the Mediterranean Sea. It's history has been significantly shaped by its hilly geography, closeness to the sea, and important placement at a global crossroads. Trade influenced the nation's position in the area and the wider world. Lebanon acts as a bridge between the Mediterranean region and East Asia and India. Through the port cities, the region's traders sold oil, grain, textiles, metalwork, and ceramics to markets in the West.



TURKEY

CYPRUS

LEBANON

SYRIA

JORDAN

Figure 4. Map showing the location of Lebanon

Since ancient Phoenician times, Tyre, also known as Sour in Arabic, has been a coastal city widely known for its economic activity (Worldwide Trading) throughout the Mediterranean. Tyre is regarded as Lebanon's fourth largest coastal city and is distinguished by its abundance of sites of archaeological and natural significance. It is situated in the South Governorate of Lebanon, 83 kilometers south of the country's capital Beirut and 26 kilometers north of the country's southern border.



TYRE

Beirut

LEBANON

Figure 5. Map showing the location of Tyre in Lebanon

ETYMOLOGY

Early monikers for Tyre include Hebrew Tzór, Phoenician Sûr, and Akkadian Surru. The city's name, which derives from the rocky structure upon which the town was first established, is translated as "rock" in Semitic languages.

Tyros (Τύρο), which was originally used in Herodotus' writings but may have been adopted much earlier, was the most common form in Classical Greek. It gave birth to the Latin word Tyrus, which made its way into Middle English as Tyre. Tyrians are the locals, and Tyrian is the demonym for Tyre.

EARLY SETTLERS

Tyre, which is situated both on an island and on the neighboring mainland, was probably first established as a Sidon colony. Numerous civilizations have resided in Tyre throughout the course of history, leaving behind various layers of physical and cultural legacy.



TYRE

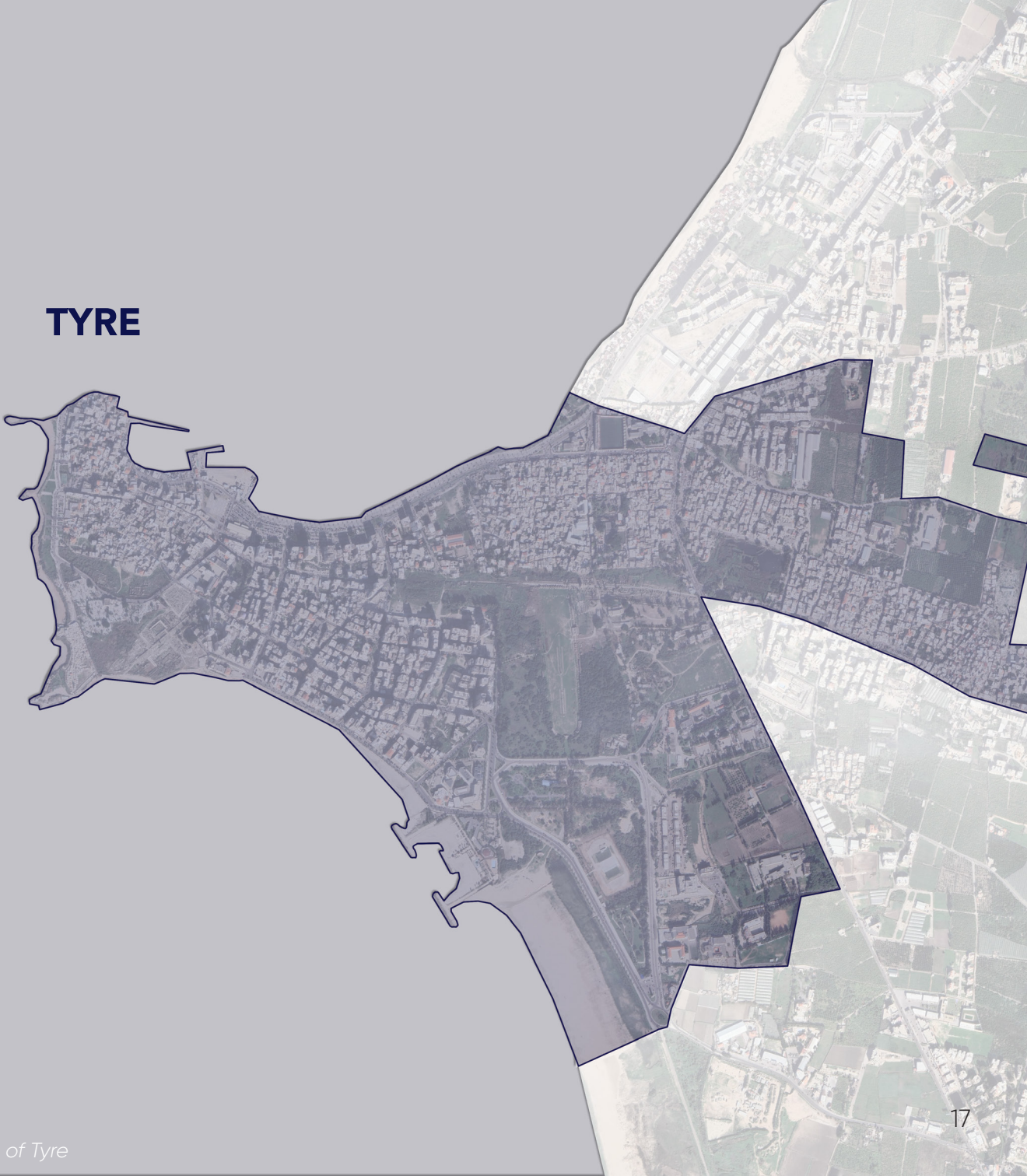


Figure 6. Map of Tyre

1. Background Analysis

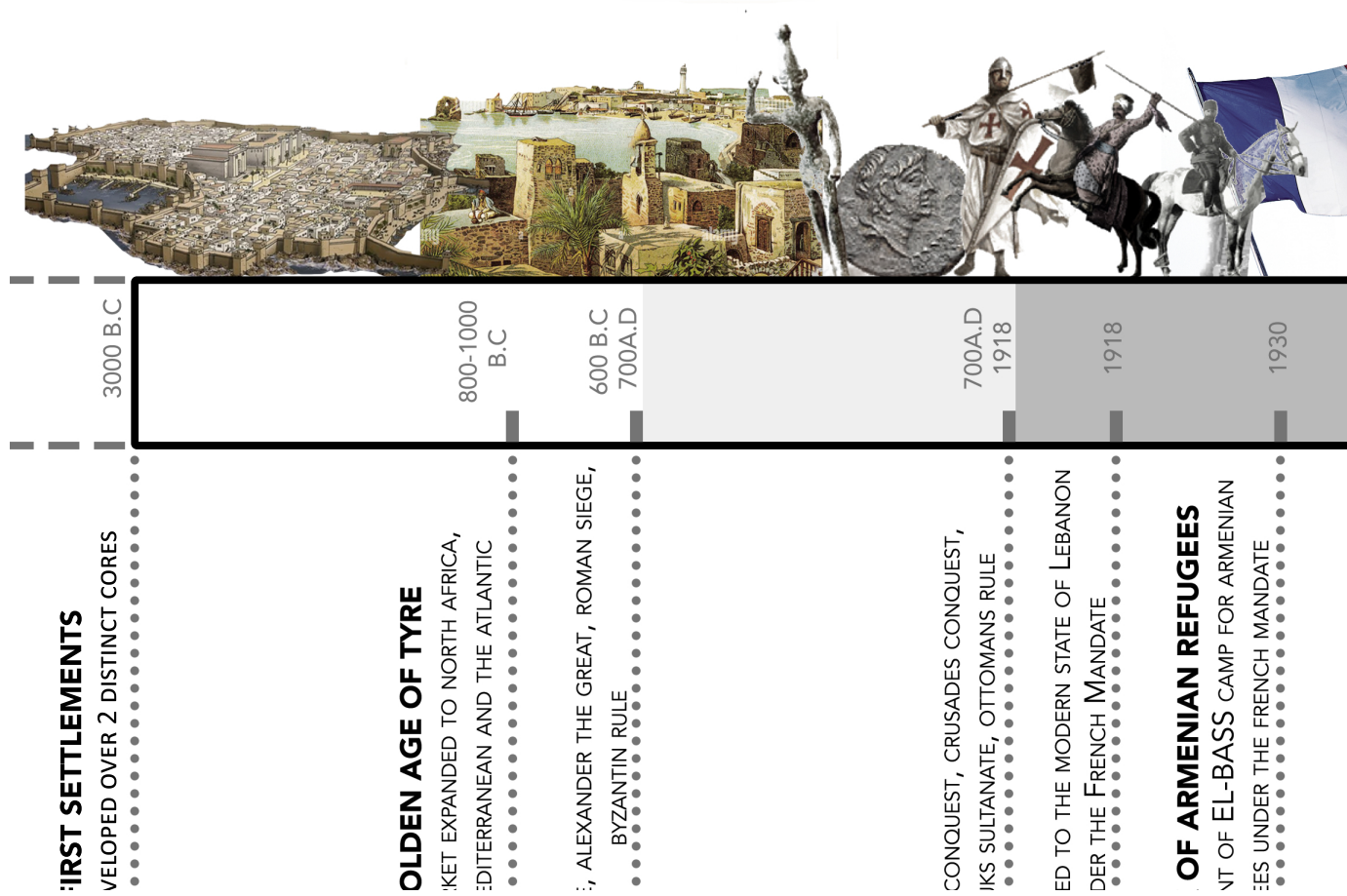
on Tyre

Tyre, lying tucked away on Lebanon's alluring coastline, stands out as a timeless eyewitness to the tides of time. This portion takes us on a magical journey into the center of this old Phoenician city, where legends of former grandeur and cultural glory lie dormant and awaiting reawakening. Tyre's essence connects the threads of time like an elaborate tapestry, tying a rich past to a lively present. Tyre's trip leads us on a pilgrimage through the history books as it traces its origins, following in the steps of illustrious civilizations. The city's historical significance is a tribute to the myriad lives that formerly impacted its destiny, from the thriving Phoenician period to the enduring Roman influence, and beyond. Tyre's attraction goes beyond its historical tales since its landscape and topography are integral to its identity. Tyre has a unique personality that speaks to both the past and the present thanks to the interaction between land and sea, the rocky shoreline, and the encompassing terrain. Tyre's inhabitants, both past and present, hold the keys to the city's living history among the stone remains of antiquity. The urban morphology and typologies that have built Tyre's urban fabric are revealed as we delve deeper into this area, uncovering a city that proudly displays its past on its cobblestone streets. Furthermore, Tyre's efforts to maintain its historical charm while embracing modernity reflect the delicate dance of time, as does the interaction between heritage preservation and contemporary development.



Figure 7. Perspective of the Roman arcade and the aqueduct base

1.1 Insights into Tyre's Historical Foundations



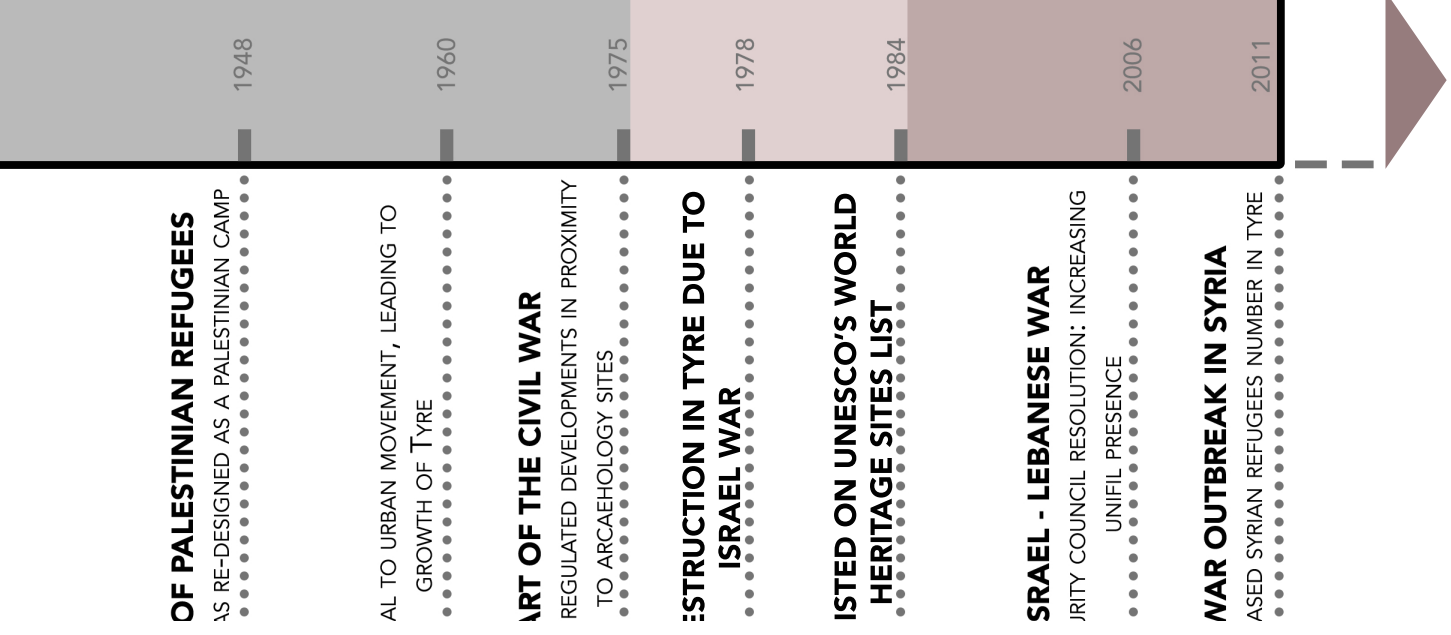


Figure 8. Tyre's historical timeline and foundations

History

Civilizations

On the modern-day Lebanese country's southern shore is the city of Tyre. In terms of archeological, historical, and cultural characteristics, the city is a symbol of wealth. According to the ancient historian Renan, Tyre is "a city of ruins, constructed of ruins." As a result of the city's strategic location, Tyre has been ruled over by several civilizations over the years. They start with the Ancient Egyptians and the Romans and go all the way to the French Mandate. This fact, along with a number of others, adds to the intricate makeup of Tyre's archaeological excavations.

The Al-Bass necropolis was excavated in 1997, seven years after the civil war, with assistance from Francisco J. Nez and Laura Trelliso and under the direction of Maria Eugenia Aubet (Aubet, 2010, 2016). After finding allegedly stolen Phoenician pottery in the market that was supposed to have been taken from that location, the project's major goal was to study the Roman Necropolis.

With its simplicity, the iron age necropolis distinguishes itself from nearby Phoenician necropolises of a similar age. This simplicity makes it possible to identify compositional patterns, comprehend local funerary customs, and identify the stages and additions that occurred along the way (Nez 2011; 2014). Nunez claims that the pottery he discovered in the cemetery is proof that wine was consumed there, which allowed him to reconstruct the order of the burial meal (Nunez 2011; 2014).



Figure 9. By Louis Haghe after David Roberts, The Port at Ancient Tyre was depicted in a colored lithograph in 1843.

History

The City

The creation of Tyre by the gods has long been reported by historians. A very well-known legend tells of a dispute between two brothers named Shamenrum and Ushu who both lived in what is now known as modern-day Lebanon. The two brothers were completely different from one another; Ushu was a hunter who dressed animals. Shamenrum was a farmer. After failing to break up the conflict, Ushu boards a raft and arrives on a different island, where he builds a temple that he names Tyre (Ancient Tyre).

It is believed that the name Tyre was derived from the name of the mermaid (Tyros) who assisted Ushu in reaching the island. Another explanation for the island's beginning is that Heracles founded it (The greek name for Melgart, Not the son of Zeus). The Greek historian Herodotus made reference to this claim when he wrote about his journey to Tyre, saying: "I talked to the priests of the god there and asked them how long ago the sanctuary was founded and according to them, the sanctuary of the god was founded at the same time as Tyre, which was 2,300 years ago". Tyre was an island in antiquity, thus it was surrounded by water. This resulted in immense agricultural success, and Tyre was in fact a draw for many civilisations. According to archaeological evidence, Tyre's early traces of human habitation date back to between 2900 and 2750 BCE. The city was formed in the twenty-eighth century. Archaeological discoveries on the Al Ma'shook hill, which are considerably older, mostly validate this.



Figure 10. Roman ruins in Tyre, Sour.

The city was under Egyptian control between 1700 and 1200 BCE, and it is referenced on a stone pillar at Tyre. However, the Egyptians scarcely touched the region, and they write in their records that afterwards the "Sea People" arrived. Tyre overtook Sidon as the region's most significant city between 120 and 868 BCE, and under the first monarch, King Hiram, he oversaw the most significant commerce hub at the period. The Phoenicians had two harbors: the "Saidon," which is still in use today, and the Egyptian harbor, which was abandoned under Byzantine authority. They were renowned as excellent sailors and traders.

According to certain Greek texts, the Phoenicians were also known as "the purple People" because they developed the fabled purple dye. According to the legend, the deity Melqart was traveling with the mermaid Tyros when they came upon a large stain that had been Melqart's gift to the Tyrians. The Phoenicians greatly benefited from Hiram the First's excellent marital contacts with Israelite rulers like Solomon and King David. The Phoenicians were renowned for their brilliance, and Tyre was a desirable city to rule due to its commerce, boats, geography, and alphabet. The Assyrians invaded all Phoenician cities about 884 BCE, hoping to take advantage of their commercial ports, therefore this splendor didn't continue for very long. Additionally, the Persians took control of the Babylonian kingdom in 589 BCE, and they subsequently engaged in a conflict with the Egyptians and then with Alexander.

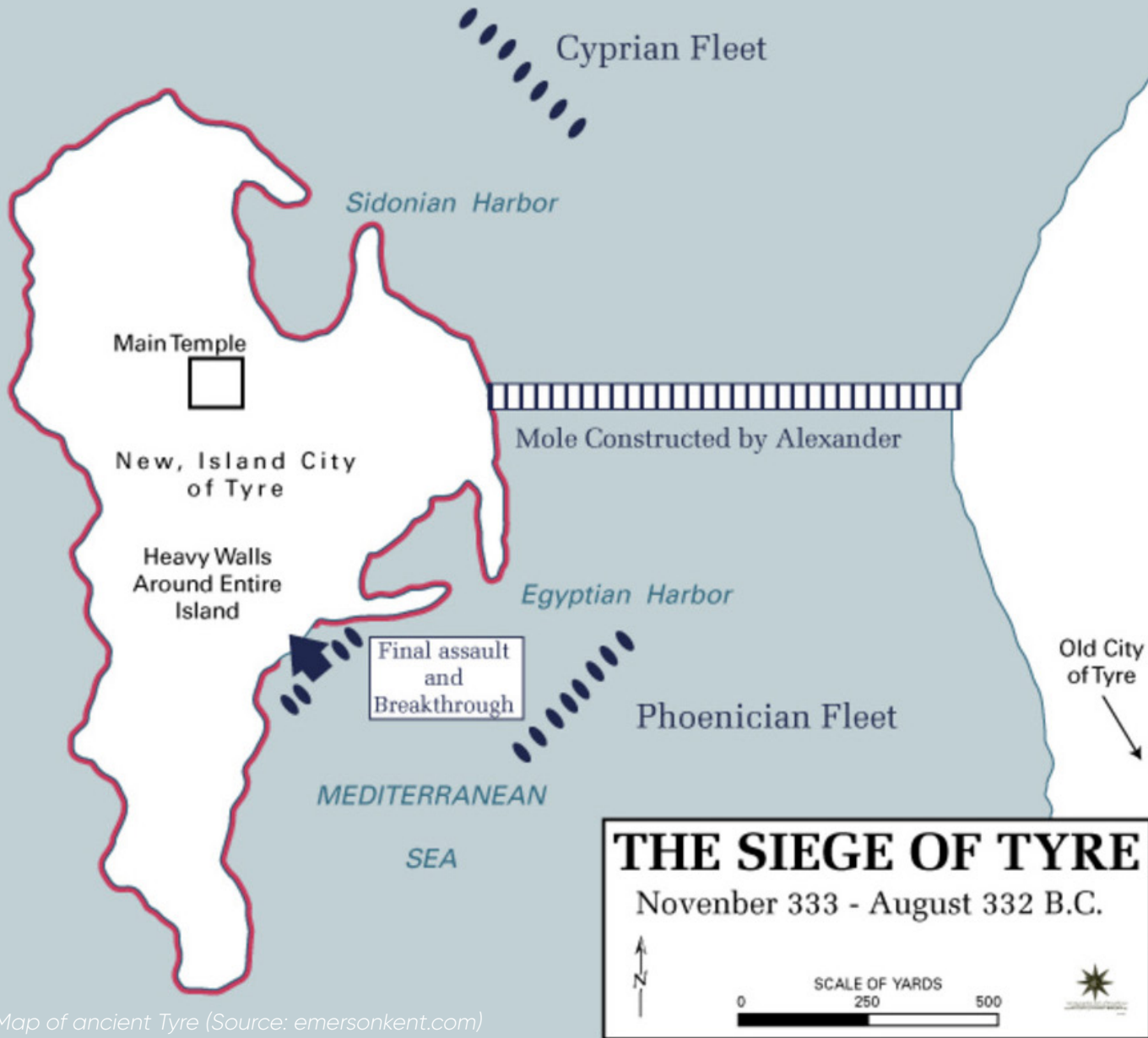


Figure 11. Map of ancient Tyre (Source: emersonkent.com)



Figure 12. Map of Tyre, Sour, in 1862. Source: Arthur Lukis Mansell (1815-1890)

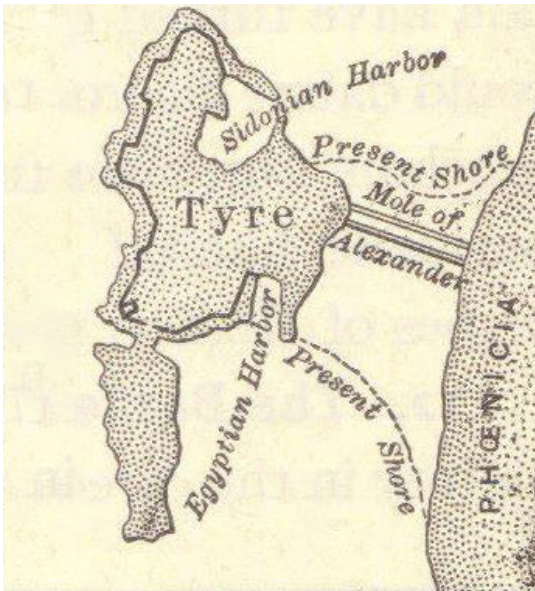


Figure 13. Map of the Siege of Tyre, 332 B.C.E. Map, Bible mapping, Ancient Troy

Beginning in 814 BCE, the Persians had already lost the fight to Macedonia's King Alexander, who then ordered his army to advance to the east. The majority of the Phoenician cities under occupation submitted to Alexander, but the Tyrian people refused to bow down to him. Many explanations were put up as to why the Tyrians rejected Alexander. In the first, it was said that Alexander rejected the Melqart faith; in the second, Persians were supposed to have been cordial toward Tyrians.

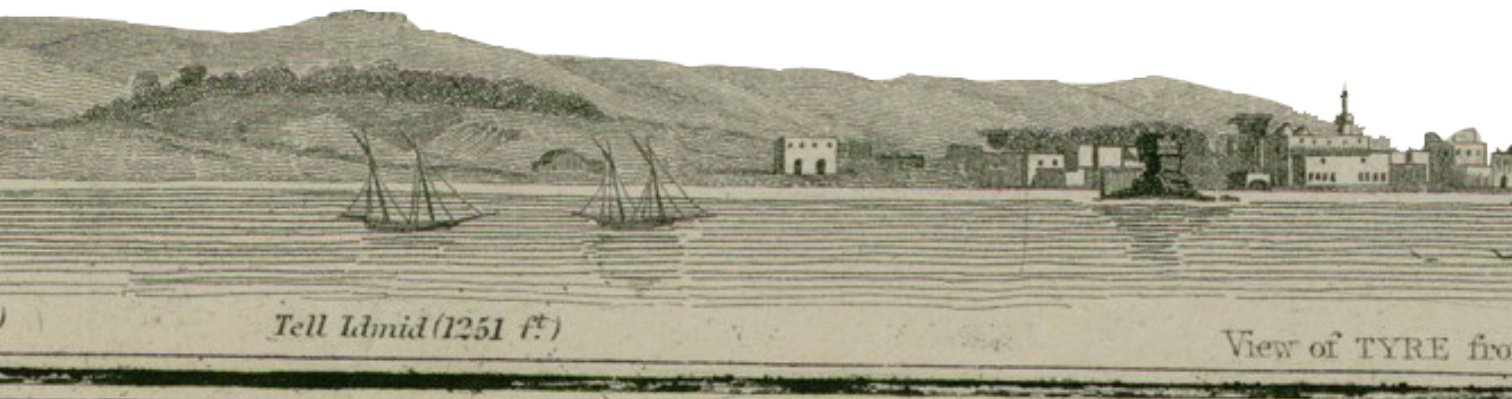
Tyre was still an island during the time, therefore the Tyrians constructed a massive wall defense system. They constructed enormous fortifications that encircled the entire island. Alexander devised a sophisticated plan to circumvent the fortifications; he began constructing a mole constructed of landfills that connected the mainland to the island of Tyre. The first mole wasn't supported well and failed, so he constructed another that more oblique and more powerful.



Figure 14. Balage Balogh's Tyre Phoenicia: Biblical Illustrations

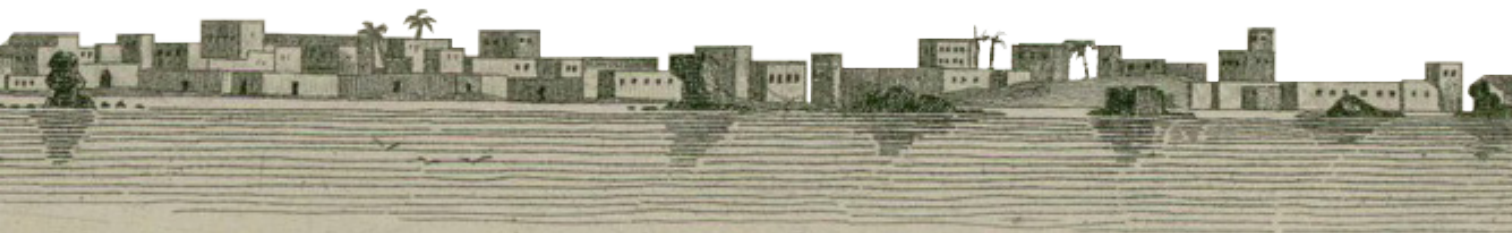
From Sidon Harbour, Egyptian Harbour, and Cyprus, the Macedonians launched three simultaneous attacks. Seven months of sieging ended with Alexander's final conquest of Tyre. According to Livius, the fighting in the streets after the Seige resulted in the deaths of some 6,000 Tyrians. 4,000 Macedonians were hurt, and probably 500 people lost their lives. Alexander indulged in his rage by ordering the crucification of 2,000 Tyrians on the beach. Following this, landfills continued to adhere to the mole, and over time, the island changed into a pennisula that helped to create the Tyre we know today. Around 64 BCE, the Romans appeared on the scene and conquered Tyre. Under Roman authority, Tyre developed, several structures were constructed, new roads were erected, and the vast "Al Bass" cemetery was constructed.

Figure 15



London. Published at the Admiralty 25th Ap^l 1862 under the supervision of J.D. Potter Agent for the Admiralty.

Tyre also continued to grow under the Crusaders and Mamluks' dominion from 1124 to 1516, with new structures and streets that are still in existence today. Later, for 400 years, the Ottoman Empire governed Lebanon, establishing new city centers, enforcing new laws, and changing Tyre's language, traditions, and religion. Following the Ottoman Empire, a French mandate was established in 1920, and subsequently, in 1943, Lebanon gained its independence. Tyre was once located on the peninsula on the southern coast of Lebanon. It's important to remember that the 551 massive earthquakes that struck modern-day Lebanon destroyed numerous structures and archaeological artifacts dating to Roman and Byzantine eras.



in the anchorage

Superintendence of Rear Admiral Washington, F.R.S. Hydrographer.
Charts, 145 Minorities.

Large corrections 31

History

"Al-Bass" Necropolis

The Roman era saw a slow but substantial transformation of the province of Syria's urban and rural environments (approximately contemporary Lebanon and Syria). Cities and towns began to grow in size starting in the early centuries B.C.E. and C.E., and their centers crowded with public structures for recreation, commerce, and religious activity. Survey data shows a comparable uptick in activity outside of metropolitan areas, including in the rural steppe, river valleys, and even the desert near Palmyra.

The necropolis and individual tombs that still dot the landscape of Lebanon and Syria are maybe less well recognized but no less significant. From the time when Rome ruled, thousands of burials still exist. These graves are a striking reminder of the enormous amount of construction work that the inhabitants of the province undertook. They are frequently gigantic, aboveground structures that are located along the main thoroughfares to the ancient cities.

Travelers and archaeologists observed this abundance of funerary remains in the 19th century, but regrettably, many tombs and cemeteries are only known through their descriptions. Few burials have been unearthed, and very few entire necropoleis have been documented. Because of this, studies of Syria as a whole or examinations of burial customs during the Roman era seldom include the tombs, with the possible exception of Palmyra's conspicuous funerary towers.

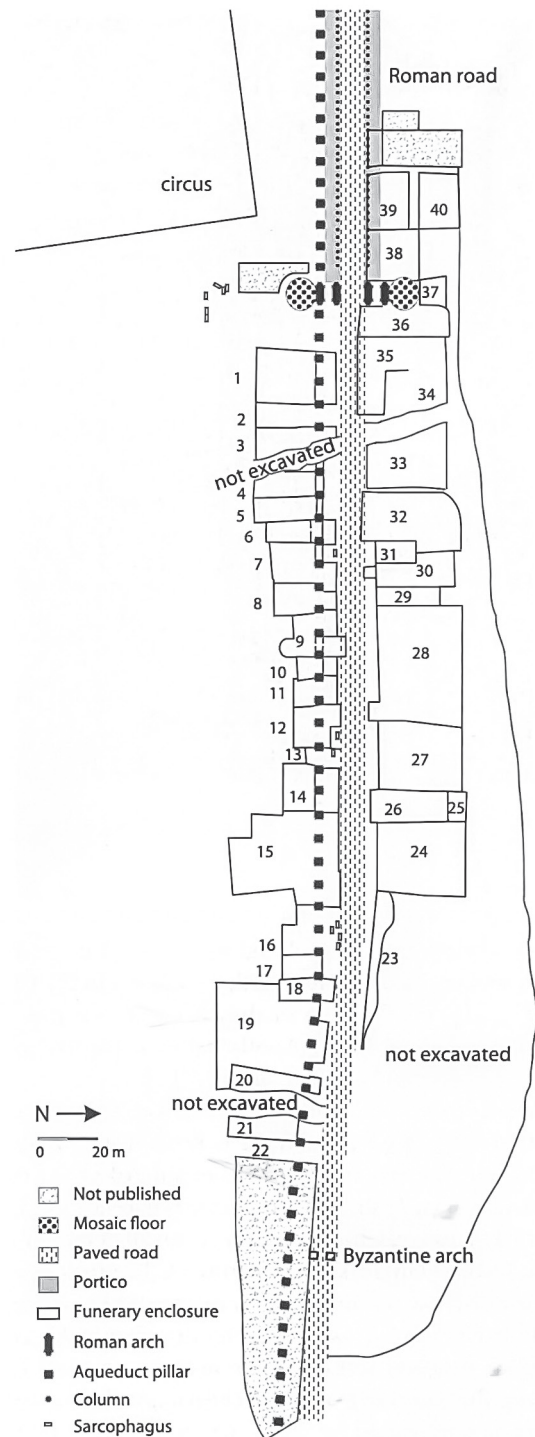


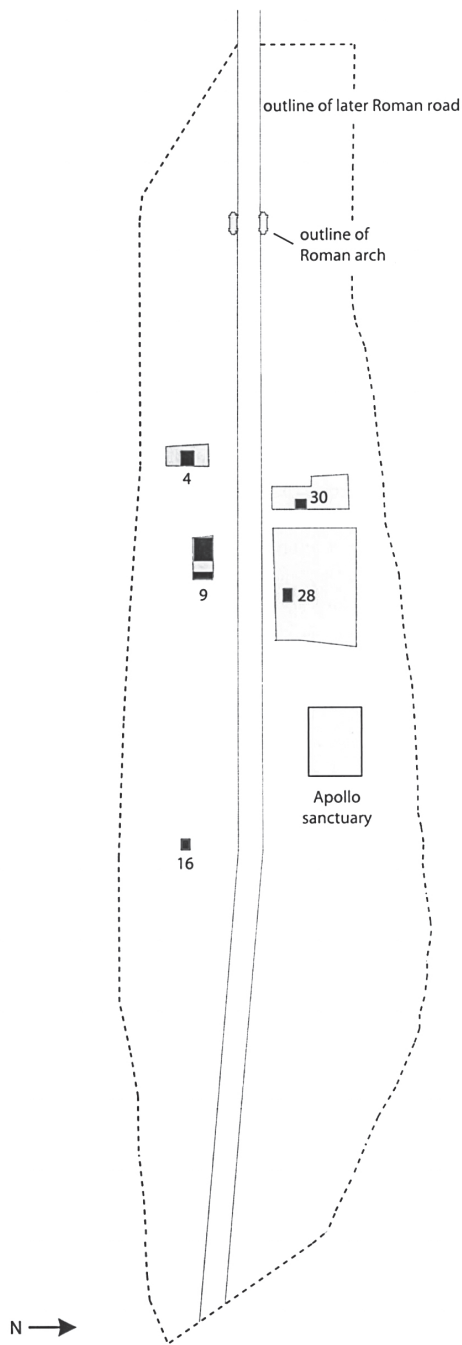
Figure 16. The al-Bass Archeological Site

Alexander's Causeway and the area to its immediate east on the original mainland were the subject of a second area of inquiry. Here, a broad road (7.80 m) curved away from the city and up towards the hills. Although this route was probably built over an earlier exit from the city, it was paved in the second century C.E.

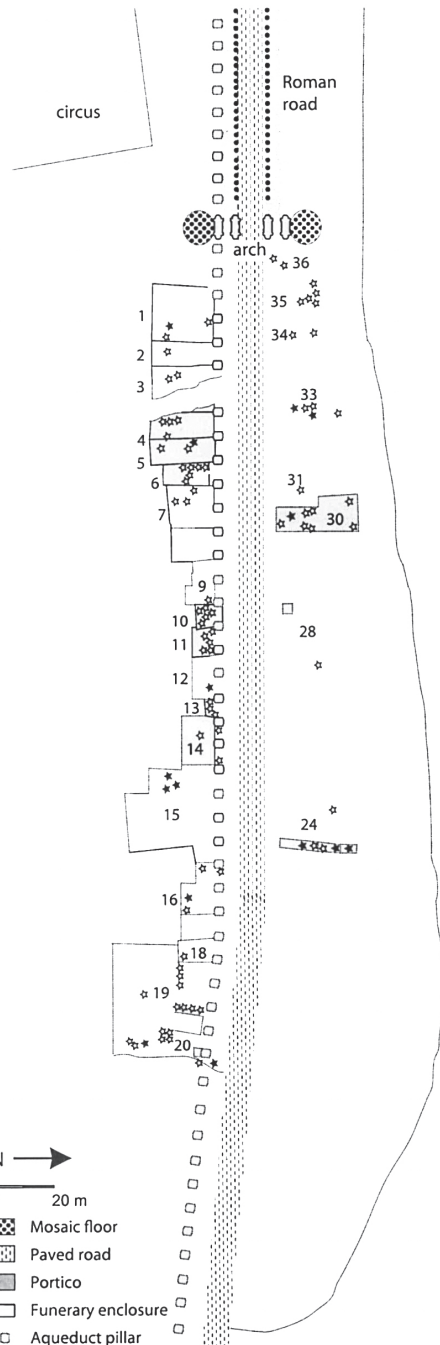
The route to the city was followed by an aqueduct that was constructed between 100 and 154 CE and came from a spring located 6 km south of Tyre at Ras al-'Ayn. More than 4 m tall pillars that supported the water canal flanked the road on its south side. Near the location where the causeway connected the ancient island to the mainland, a massive arch with three gates from the second century CE marked the road. The region immediately to the north and south of the arch was occupied by two substantial, paved circular structures of uncertain significance, one with mosaic pavement.

During the Byzantine era, a new, much smaller road (5.07 m) was built on top of the earlier one, and a smaller arch appeared approximately 315 m to the east. To the south of the road, a circus that extended for over 500 meters and was most likely constructed in the second century C.E.





- Outline of cemetery area
- Possible first-century C.E. tombs



- ▣ Mosaic floor
- ▣ Paved road
- ▣ Portico
- ▣ Funery enclosure
- Aqueduct pillar
- Column
- * Location of (multiple) second-century C.E. graves
- * Location of (multiple) second-third-century C.E. graves

Low partition walls separated the interior into several spaces, which were frequently tiled with limestone or sandstone slabs. Different burial styles coexisted inside the en closures, most frequently in the form of loculus burials and sarcophagi. Rows of open spaces (loculi) for burial were housed in rectangular buildings or platforms made of coarsely hewn and squared limestone and sandstone stones. The ceilings of these structures might be flat or vaulted. Seven of the funeral platforms featured tiled roofs that were rounded or gable-shaped. The loculi were open on the short side and were closed with a single stone slab.

Between 1 to 12 loculi were distributed across single, double, or, in two instances triple rows of the loculi, with an average of 3 loculi per funeral platform. Sometimes coffins made of limestone, lead, or terracotta were inserted into the loculi; in one instance, two lead sarcophagi filled a bigger coffin made of limestone. Although comparable terracotta sarcophagi in Beirut have undergone ceramic examination to determine their provenance, no such study has been done on the Tyrian specimens. It's possible that lead coffins were made in Tyre or perhaps locally in Syria.

I am unaware of the whereabouts of the lead and terracotta sarcophagi from Tyre, which are only mentioned in the excavation report and not further disclosed. The last form of cemetery inside the funerary enclosures, aside from the sarcophagi and loculi, is represented by a limited number of subterranean pit graves that have been excavated into the earth, covered with stone slabs, and in one instance, included a lead sarcophagus.

Figure 18. A multitude of burial complexes, most of which are owned by the same family, make up the Necropolis.



History

Excavations

Archaeological digs have reached levels going back to the third millennium BCE, yet Roman and medieval ruins are still discernible throughout the present city. Even though official structures from that time period have yet to be uncovered by the few soundings that have reached the ancient Phoenician levels (12th–4th century BCE), the discoveries provide insights into the culture, everyday life, and growth of the Phoenician mercantile power.

The city was well-known for producing purple pigment in antiquity (purpura from the Murex sea snail). According to legend, it was here that Tyrian princess Elissar/Dido began her voyage, which would eventually lead to the founding of Carthage, and that King Hiram, who had supplied materials and workers to Solomon for the construction of the temple in Jerusalem, called home. Tyre was formerly an island close to the coast, thus its Phoenician name Sor, which means “rock” in English. It was an island up until 332 BCE, when Alexander the Great besieged it and built an isthmus or causeway to join it to the mainland (Katzenstein 1973). Tyre became the peninsula it is today as a result of the mole silting in and accumulating sand over time.

Since the 18th century, there have been two primary regions where archaeological work has been concentrated: in the east, the al-Bass neighborhood with its necropolis and hippodrome, and in the west, on the original island, where the Crusader cathedral and Roman baths are located. Under the direction of Emir Maurice Chéhab, extensive excavations began in 1946. Chéhab discovered the majority of the remains in the two zones, leading to the formation of sizable archaeological parks (Bikai 1992). Sector 7A, which can be found in the southern portion of the island site, was the scene of an excavation by the AUB Museum.



Seals from the largest **Iron Age II** necropolis in **Phoenicia**

A cemetery with cremation burials dating from the late 10th to the late 7th century BCE has been discovered at al-Bass since 1997 by a Spanish archaeological team from the Pompeu Fabra University of Barcelona, led by Maria Eugenia Aubet. This is the greatest Iron Age II necropolis found so far in Phoenicia and the primary urban necropolis of the city, with more than 300 cinerary urns now known to be there. It was founded on a beach on the mainland across from the island city, more than 3 m below current metropolitan ground levels. When a considerable quantity of Phoenician artifacts unexpectedly began to surface on the local antiquities market in the 1990s, the cemetery was first discovered. Soon after, excavations began, and numerous scarabs have already been found. An amulet in the form of a scarab, famed for its protective power, is found in around 20% of the tombs in al-Bass. They are discovered high inside the cinerary urns; some were placed there after the cremation, while others contain burn marks, proving that they were with the corpse on the funeral pyre. The scarabs and other Egyptian and egyptianizing stamp seals have been studied and sealings from excavation efforts since 2002. Scarabs made in the Levant (of Canaanite or Phoenician provenance) and seal-amulets imported from Egypt appear to be imported in roughly similar amounts.



Figure 20. Scarabs found in the cemetery of Tyre al-Bass
Source: (Boschloos 2015a: fig. 5.14, 5.16)

Large populations were discovered at Kition, Tyre, and Akhziv. It was believed that one or more production centers or workshops were likely to have existed in the area because Tyre and Akhziv also produced the earliest stratified specimens. The general historical background indicates that Tyre was one of the major cities on the Phoenician coast already at the end of the Iron Age I. Its sphere of influence included nearby coastal settlements in southern Lebanon and northern Israel, such as Achziv, and in the Iron Age II, Kition was also closely associated with Tyre (Katzenstein 1973). The sources of several ornamental engravings on the bases of the scarabs are the subject of further study.

Archeology in Tyre

The city's archaeological investigations produced valuable information that helped reconstruct its history. The region is extremely abundant in archaeology from several civilizations. First, in sector 7, the majority of the artifacts are Roman and Byzantine, ranging from Roman palaestra.

A Roman Bath, Cisterns, a Roman rectangular structure that may have been a hall or an arena, the final remains of the Phoenician wall, evidence of old glass, and Byzantine Mozaic tiles may all be found there. The Roman Hippodrome, the largest and best-preserved hippodrome in the world, is located in Al-Bass Cemetery, a Roman cemetery that is home to a great number of stone tombs. It also has the famed Arch of Hadrian entrance and the Byzantine Arch entrance. Thirdly, the recently found underwater arches on the Egyptian Harbour, followed by the recently discovered ruins of a Roman temple. These fresh digs are taking place in the location where it was once an old island, where they are looking for the remaining remnants of Alexander's mole. The Tyre-related artifacts are divided among three major museums: the Louvre in Paris, the Rijksmuseum van Oudheden in Leiden, and the national museum in Beirut (Livius 2013).



Archeological Research

Al-Bass Necropolis

An excavation of the region known as the Al-Bass cemetery in Tyre, Lebanon, was the goal of a cooperative effort launched in 1997 under the direction of Spanish archaeologist Maria Eugine Aubet. Al-Bass is situated near to an archaeological park and a Palestinian refugee camp on the mainland, about 2 kilometres from the historic island of Tyre (figure 4). The Spanish Ministry of Culture and the Barcelona-based Palarq Foundation provided funding for the project, which was authorized by the DGA (General Directorate of Antiquities) of Lebanon. The project's primary goal was to increase our knowledge of the Phoenicians, particularly the characteristics of their culture, economy, social life, and religion that may be understood from it. However, this knowledge will help us comprehend not only Lebanon and its surroundings but also the whole Mediterranean region, where the Phoenicians lived.

The primary burial site for the city, which was dated to between the tenth and seventh centuries BCE, was found as a consequence of excavations at Tyre's Iron Age cemetery. Recently, several Phoenician necropolises, including those in Al Ahkziv, Akka, Motya, and Cyprus, were found. The finds revealed at Al-Bass, however, give the densest and most consistent data on graves to date in terms of forms, typology, funerary procedures, and the morphology of grave items, according to Aubet (M.Aubet, 2010). With the help of what has been found, archaeologists have been able to grasp the social aspects of the Tyrians in addition to connecting the dots and formulating the sequence of the burial site, which is meant to help the departed move from this world to the next.

Figure 22. The Monumental Arch, constructed in the second century AD during the reign of Hadrian and reached along the Byzantine Road.



The Project

Al-Bass Necropolis

Since little is known about the Phoenicians and they are only mentioned by Greek historians, evidence relating to them has been and continues to be a very important study topic for many archaeologists. They were present in the Mediterranean before the Greeks and the Romans. The city-state of Tyre, which is now in modern-day Lebanon, served as the center of the Phoenician realm. According to Aubet, a Phoenician cemetery existed in Tyre after the discovery of the necropolis and the discovery of jugs and urns there in Al Achziv between the 1964 and 1965 excavations. The site was later verified when a number of ceramic and pottery utensils as well as an engraved stone Stela that were said to have come from that area were found in an antiques market (Seeden, 1991; Sader, 1991, M. Aubet, 2016). The cemetery was situated on a beach facing the Mediterranean Sea, but over time, the beach was covered by sizable clay and sand sediments that had accumulated due to the formation of the isthmus, which also caused Tyre's ancient island to become a peninsula during the Hellenistic and Roman periods (M. Aubet, 2016). As a result, the Phoenician remains were discovered 3.5 meters below the current cemetery's ground level, which also houses the best-preserved Roman Hippodrome and a number of Roman Sarcophagi. The area was also found to be a formation of hills and valleys, which makes it the ideal place to become a hinterland for communication and fertility after being studied by Paleobotanical and faunal analyses of the sand sediment in the area. Additionally, it was discovered that there was a lake during the ninth and eighth centuries BCE. Tyre's location on an island and on the mainland, where there is a tremendous amount of water, was thus incredibly strategic, especially as it is close to the Ras-El-Aayen river.

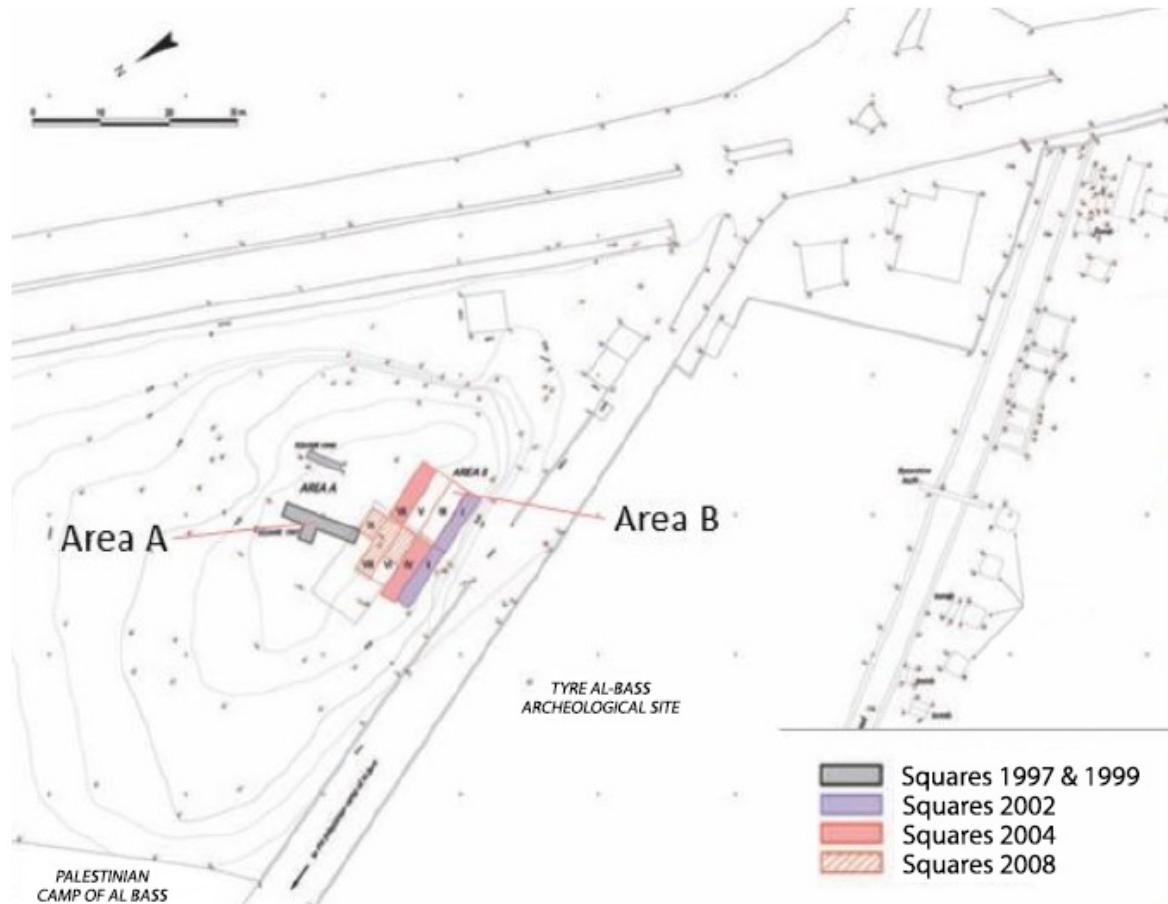


Figure 23. The Excavations Map in Al-Bass, Al-Bass's location in Tyre
 Source: Aubet's 2016

There were three steps to the excavation techniques. The Roman necropolis was being restored and saved by a succession of complementing measures, which were mostly carried out by the DGA of Lebanon.

The restoration and saving phase was first, followed by excavations in area A in 1997. Then, in 1999, a number of geomorphological soundings were carried out in region A. Roman inhumations and a few cremations were discovered because to the stratigraphic work done in Area A. (M.Aubet, 2016). The second operation, the soundings, provided precise knowledge about the site's geomorphology.

conducted in region B between 2002 and 2004. The long-term project's goal was to create a thorough archeological record of the whole region by applying a long-term stratigraphic record of the site, particularly with regard to the portion closest to the Palestinian refugee camp. A detailed inventory and study of the funerary record were completed, and the new sector, designated Area B (figure 6), could likewise be precisely associated with Area A (Aubet, Nez, and Trellisó 2014; M. Aubet, 2016). The most significant phase of the excavation, the enlargement of Area B, involved further stratigraphic soundings that led to the finding of period-relevant urns from the Phoenician cemetery. The Al-Bass cemetery now holds the distinction of being the largest Phoenician necropolis in the eastern Mediterranean thanks to this enlargement, which resulted in the recovery of 290 cremation urns).



Figure 24. The al-Bass Necropolis. Source: Google maps, 2022

Stratigraphy

Results

The archaeological stratigraphy reveals around seven layers at a height of 3.75 meters lying on a base of Kurkar (a kind of rock common in the Mediterranean region) and sand rocks. The first layer is a thin coating of sand that dates to the twentieth century or later in modern times. Second, a brownish sandy deposit layer with an average thickness of 1.30 meters that is mostly made up of Roman and Byzantine artifacts, including coins and some pottery, occurs. Third, a thin layer of clay-colored sand particles measuring 0.20 to 0.40 meters thick and representing the end of the last beach to have been in that location. This layer contained a number of records, some Roman bones and corpse remnants, pits connected to agricultural activities carried out in this region that were inferred through analysis to be olive tree plantations dating to Roman-Byzantine time, and on the surface, the Phoenician urns started to appear. Fourth, a further sandy layer that housed the Phoenician tombs was seen directly beneath the first layer of sand. The highest surface of the layer, which is around 2.20 meters above sea level, constitutes a dramatic break in the sedimentation of the location, according to the records in Aubet's report. It corresponds to the previous sand bar near to the lagoon's ancient beach or coastal dunes. Its homogenous composition has an average thickness between 1.10 and 1.20 meters.

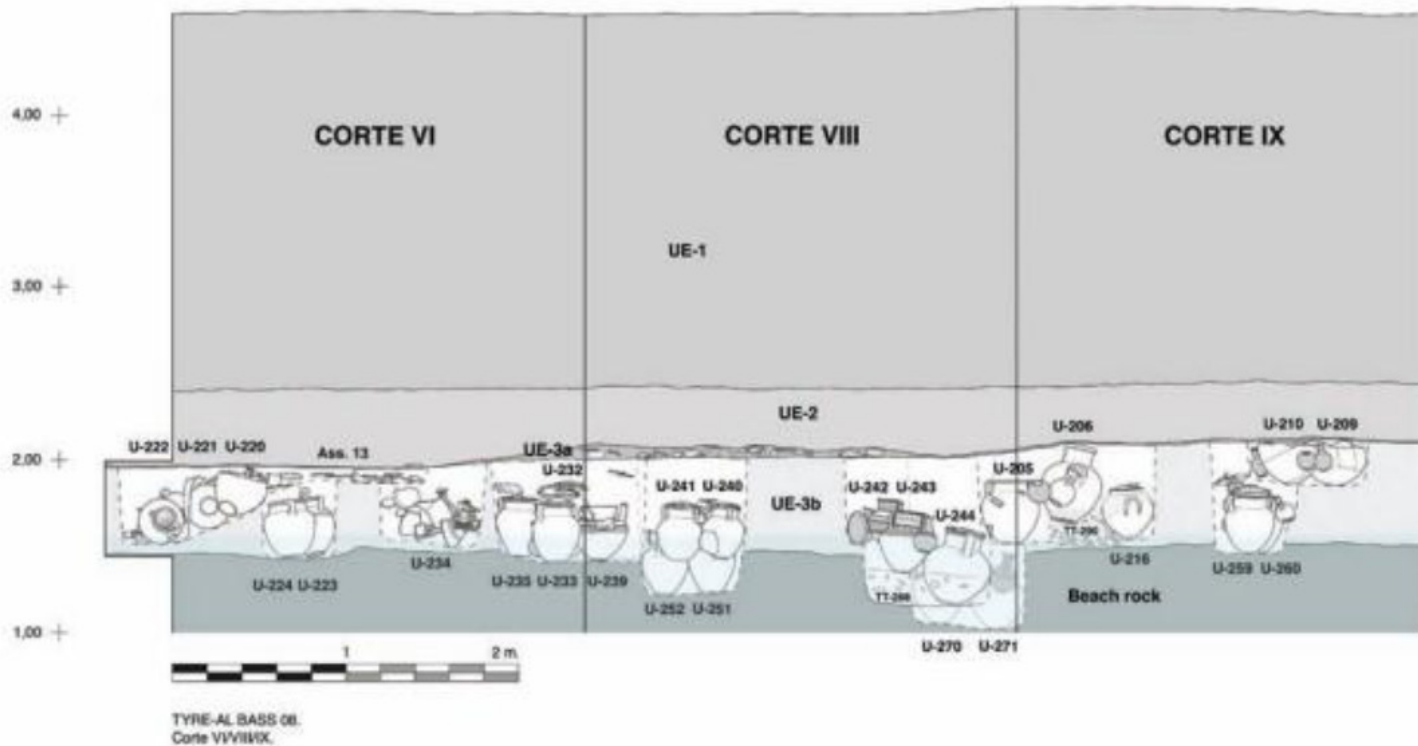


Figure 25. Area B's stratigraphy at Al-Bass Cemetery.
Source: Aubet's 2016 Report

1.2 Geomorphology

It is crucial to comprehend Tyre's geomorphology and other environmental factors in order to fully appreciate the city's historical significance and cultural history. Tyre, with its island-city and mainland components, is ideally located along the Mediterranean coast. Tyre's location influenced its connections with other civilizations and its rise as a thriving maritime commerce hub in antiquity. Understanding the city's physical characteristics allows historians and archaeologists to decipher the remains of old structures and fortifications that add to its fascinating historical story and identity. This knowledge is useful for understanding the city's urban planning, infrastructure, and cultural activities. Furthermore, understanding Tyre's climate, terrain, and environmental adaptations provides a crucial background for comprehending how its ancestors overcame difficulties with regard to agriculture, water availability, and land use. The use of this knowledge extends beyond the field of history and includes modern urban planning, tourism management, and conservation initiatives. As a result, Tyre's priceless historical landmarks are preserved while encouraging an awareness of its ongoing legacy.



1.2.1 Geographical Setting & Territorial Limits

Tyre's strategic location, which puts it within the UNIFIL operational zone in Lebanon, attests to its geopolitical importance. The city's 16.7km² urban area is the result of contributions from four municipalities, each of which added unique features to Tyre's continuously developed environment.

The city's geography is still flat, with a height of no more than 50 meters above sea level, despite its location on a lush coastal plain. This geographic characteristic has historically supported Tyre's capacity for agriculture, a key component of its economy.

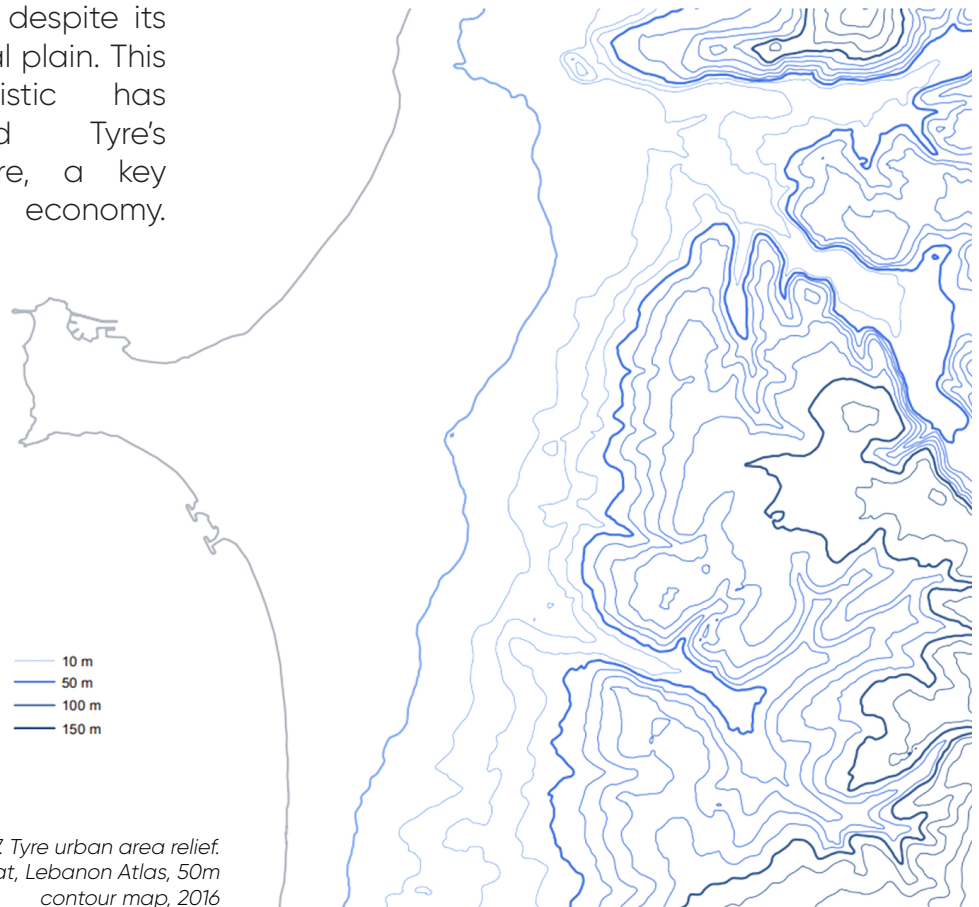


Figure 27. Tyre urban area relief.
Source: UN-Habitat, Lebanon Atlas, 50m contour map, 2016



Figure 28. Tyre's governate boundaries and districts

There are 2610 districts in Lebanon, which is geographically organized into eight “muhafazah” or governorates, including Beirut. The Tyre district, which consists of 60 municipalities, includes the urban region of Tyre under this administrative structure. The South Lebanon Governorates, which also comprise the districts of Tyre, Saida, and Jezzine, are a component of this district. The administrative hub for the Sour district is one of these, the municipality of Sour. Tyre’s position and authority within the South Lebanon Governorates’ administrative limits, along with other notable districts, are clearly established in this context. The division of Lebanon’s numerous regions into governorates and districts makes for effective governance and streamlines a number of administrative procedures, including those in Tyre and the surrounding territories.

As seen in this table, various municipalities have contributed to the spatial makeup of Tyre’s urban area. Burj El-Chamali and Tyre stand out among these municipalities as the key elements, contributing 6.8km² and 5.4km² to the whole urban landscape, respectively. The significance of the presence and development inside these larger areas is shown by their limits.

Smaller municipalities like Aabbassiyet-Sour and Ain Baal, which each contribute 3.3km² and 1.3km², respectively, are also included in the urban area. Despite being smaller, these municipalities contribute significantly to the urban fabric and add distinctive qualities and features to Tyre’s varied urban landscape.

Municipality	Area within Tyre urban boundary
Sour	5.4
Aabbassiyet Sour	3.3
Burj El-Chamali	6.7
Aain Baal	1.3
Tyre Urban Area	16.7

Table 1. Areas of Tyre’s municipalities by km²
Source: UN-Habitat, 2016

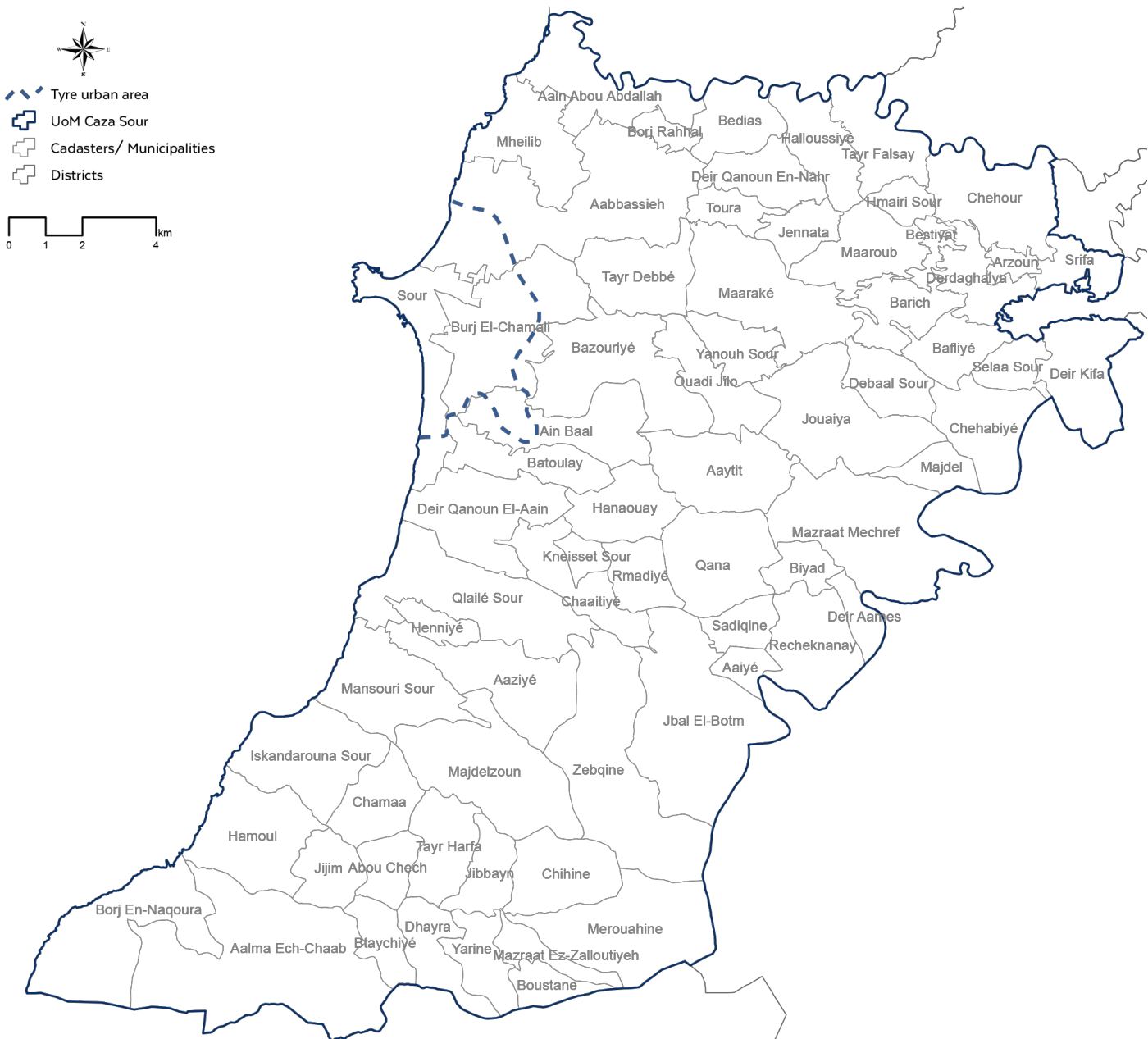
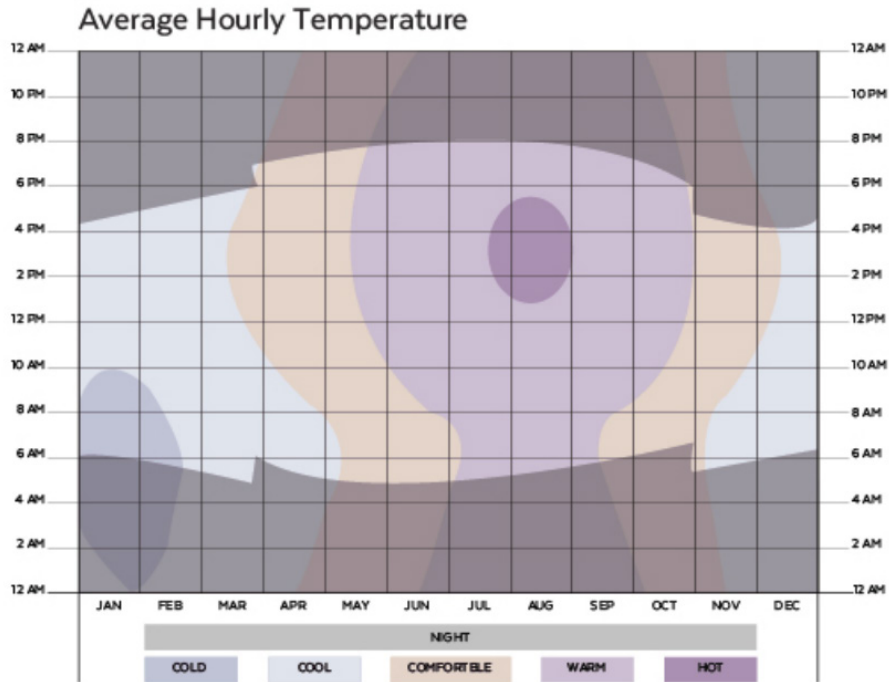


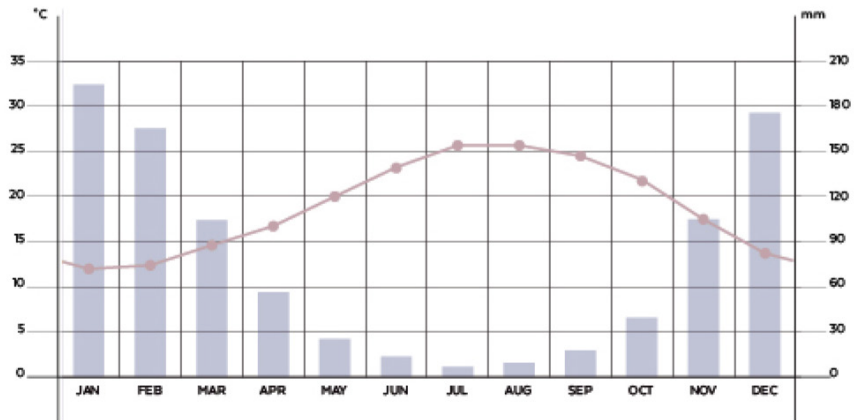
Figure 29. Tyre urban area municipalities
Source: UN-Habitat, 2016

1.2.2 Climate Factors

Tyre has a Mediterranean climate with cool, rainy winters and warm, dry summers. The Mediterranean Sea has a big impact on how the city is influenced by its coastal location, which helps to moderate temperatures all year long. Tyre's winters, which last from December to February, are comparatively moderate, with daily highs and lows between 12°C and 17°C (54°F and 63°F). Rainfall is more frequent during this time of year, which adds to the region's lush vegetation and supports its agricultural activities. The summer months of June through September are hot and dry, with temperatures frequently exceeding the typical range of 25°C to 30°C (77°F to 86°F). Even while the sea wind helps to moderate the heat during the day, evenings can still be warm. The transitional seasons of spring (March to May) and fall (October to November) are characterized by temperate temperatures that are conducive to outdoor activities. Weather patterns gradually change during these seasons, bringing milder temperatures and sporadic rainfall. It is vital to remember that regional weather patterns and climate change, which may bring about fluctuations in temperature and precipitation, might affect Tyre's climate. For a variety of industries, including agriculture, tourism, and urban planning, having a thorough understanding of Tyre's climate is essential. This will allow for effective management and adaptation methods that will maximize the city's potential and resilience in the face of changing climatic circumstances.



Graph 1. The average of the hourly temperature in Tyre.
Source: Weatherspark



Graph 2. Tyre's climate graph.
Source: Weatherspark

1.2.3 Disaster risk mitigation

A variety of natural and man-made dangers can affect Lebanon, but an earthquake and/or a related tsunami pose the greatest risk. Floods, forest fires, land slides, and drought are some of the smaller-scale disasters the nation has to deal with. Accordingly, a project document on “Strengthening Disaster Risk Management Capacities in Lebanon” was signed by UNDP and the Lebanese Government in May 2009. The project’s goal was to assist the government in creating a strategy for disaster management and associated risk reduction (UNDP & Swiss Confederation, 2014). In 2013, the National Response Plan was completed.

In this regard, the creation of a crisis operations room, also known as the DRM unit, made the Union of Tyre Municipalities one of the project’s initial local beneficiaries (UNDP & Swiss Confederation, 2014) tasks and responsibilities in the case of a disaster, as well as the organizational structure of the DRM unit, were established in 2014. As a result, the coordinators from each municipality were assigned to cover the entire tire district, while the DRM unit reported administratively to the union president. Furthermore, the second phase, begun in 2014, is continuing active. It tries to acquire tools necessary for the unit’s efficient operation, like ambulances.

The Union of Tyre Municipalities' Disaster Risk Management unit served as the inspiration for the maps that UN-Habitat created below. The first map shows that Tyre's entire urban area is vulnerable to coastal flooding, but due to their proximity to the sea, Sour and Borj El-Chemali towns are at a larger risk than others in the union.

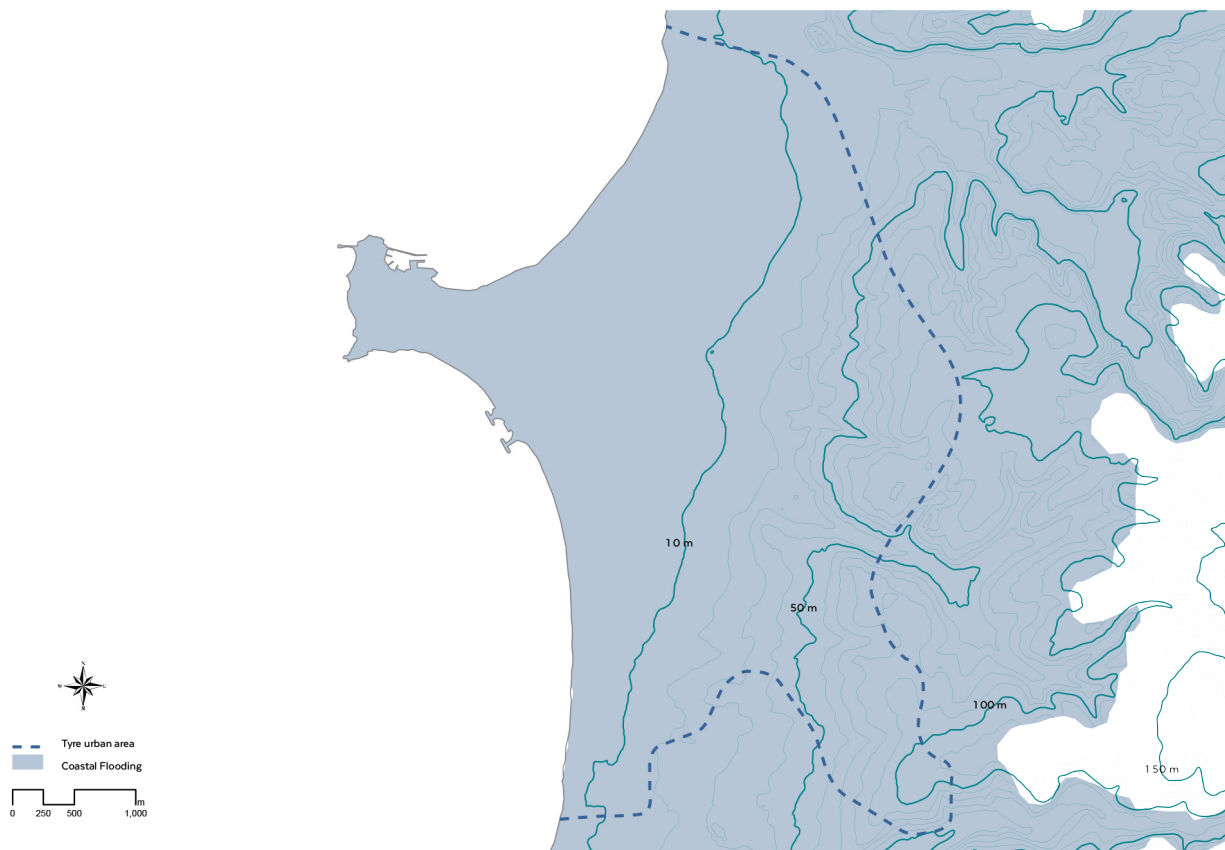


Figure 30. Flooding along the coast: Tyre's urban area
Source: (UN-Habitat 2017) adapted from: DRR unit, UoTM

The emergency response risk map demonstrates that there is not a significant risk of earthquakes throughout Tyre caza; instead, much of the region is at low risk and part is at moderate risk. Only Sour and small portions of Borj El-Chemali and Abbassiyeh are at risk throughout the urban area; the rest of these municipalities are at minimal risk.

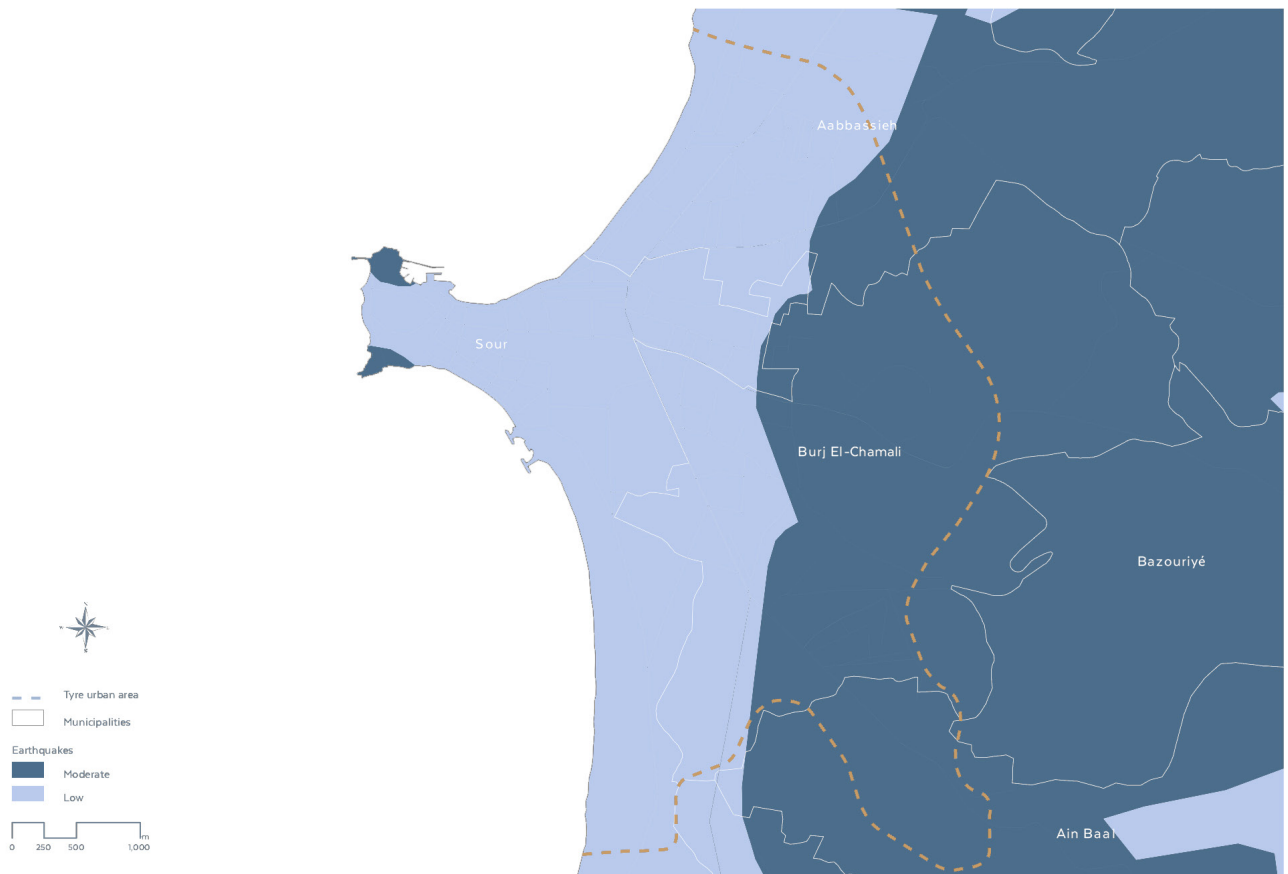


Figure 31. Earthquakes - Tyre's urban area
Source: (UN-Habitat 2017) adapted from: DRR unit, UoTM

According to the map below, a tsunami is the main natural hazard that threatens Tyre Cassa, followed by landslides and floods. Tsunamis and floods are two big threats in the city of Tyre.

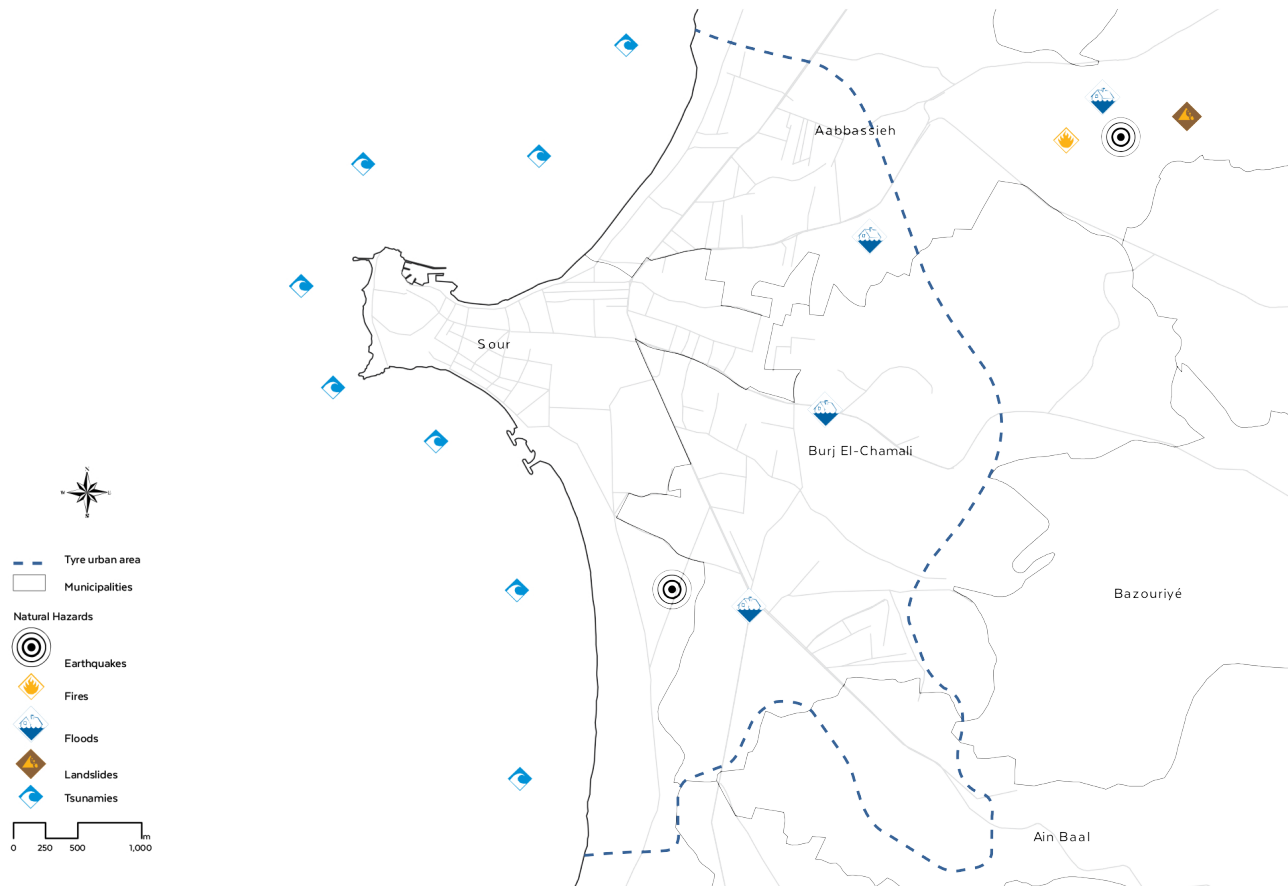


Figure 32. Natural Hazards - Tyre's urban area
Source: (UN-Habitat 2017) adapted from: DRR unit, UoTM

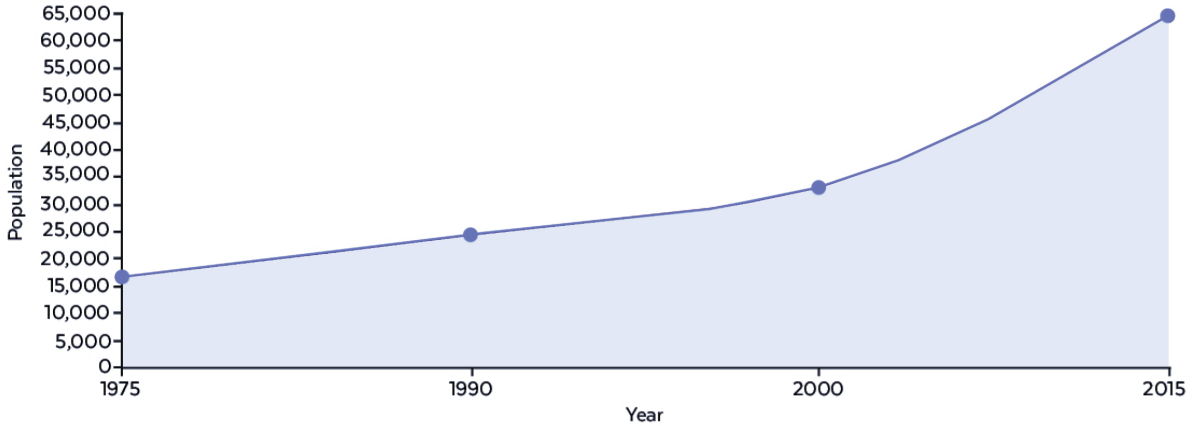
1.3 Socio-demographic profile

Population of South Lebanon

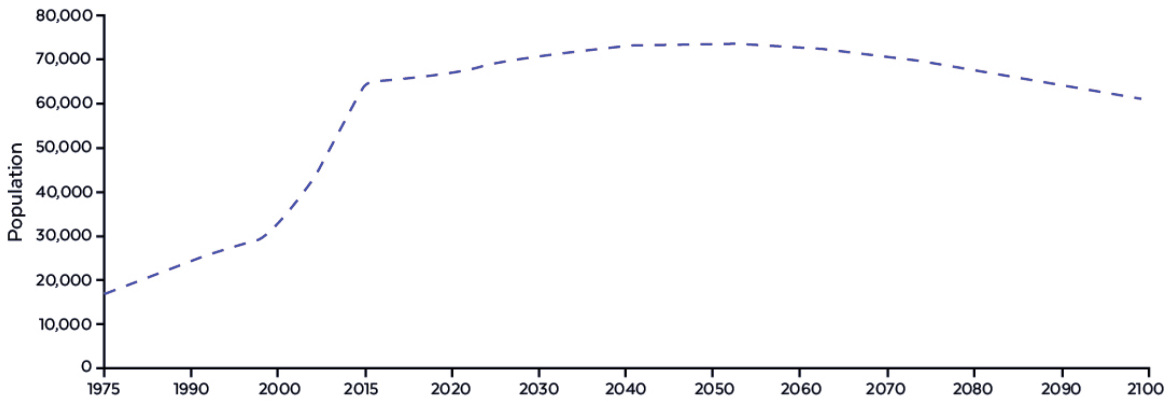
In order to accommodate their urban expansion by 2030, Lebanon's major agglomerations are expected to need an extra area of between 6,000 and 10,000 hectares each, according to the NPMPLT (National Physical Master Plan for the Lebanese Territory). The NPMPLT recognizes three major agglomerations for the South, of which Tyre is one. Together, these account for around 44% of the two governorates in the South's population⁵⁸. By 2030, the NPMPLT predicts an increase of up to 48% from the baseline year of 2001 because of industrialization and other factors.

Population of Tyre District

Based on registered population with the 'da'irat al noufous' office within the governorate, the population of the district of Tyre, one of the three districts of the South Governorate, was estimated at 260,000 in 2010, up from 200,000 in 1997 (Ministry of Interior and Municipalities). Notably, the registration does not always represent the real population because Lebanese citizens are registered in the region of their ancestors rather than their current residence. The Council for Development and Reconstruction (CDR) estimates that these numbers point to an average yearly population growth rate of 2%, which is higher than the 1% growth rate for the entire country.



Graph 3. Count of the population between 1975 and 2015
Source: City Facts



Graph 4. Population growth projections from 1975 to 2015
Source: City Facts

Particularly in and around its metropolitan centre, the district of Tyre demonstrates a notable concentration of vulnerabilities. This figure shows that the entire urban area, as defined by UN-Habitat, is among the 251 cadastres that are considered to be the most vulnerable in the country. This concentration of vulnerability emphasizes how critical it is to prioritize treatments and deal with the unique problems metropolitan centres face. But it's important to understand that vulnerabilities go beyond the limits of the urban boundaries. The continuum of vulnerabilities throughout the metropolitan area emphasizes the necessity for an integrated strategy that views cities as essential parts of their larger regional contexts. This area-based approach ensures a comprehensive and inclusive plan to address vulnerabilities and enhance resilience by acknowledging the interdependence and interconnectedness between metropolitan regions and their surrounding environments. Effective disaster risk management methods may be created and put into practice by recognising the complex dynamics and interrelationships that exist within and outside urban centres, promoting holistic and sustainable development throughout Tyre district.

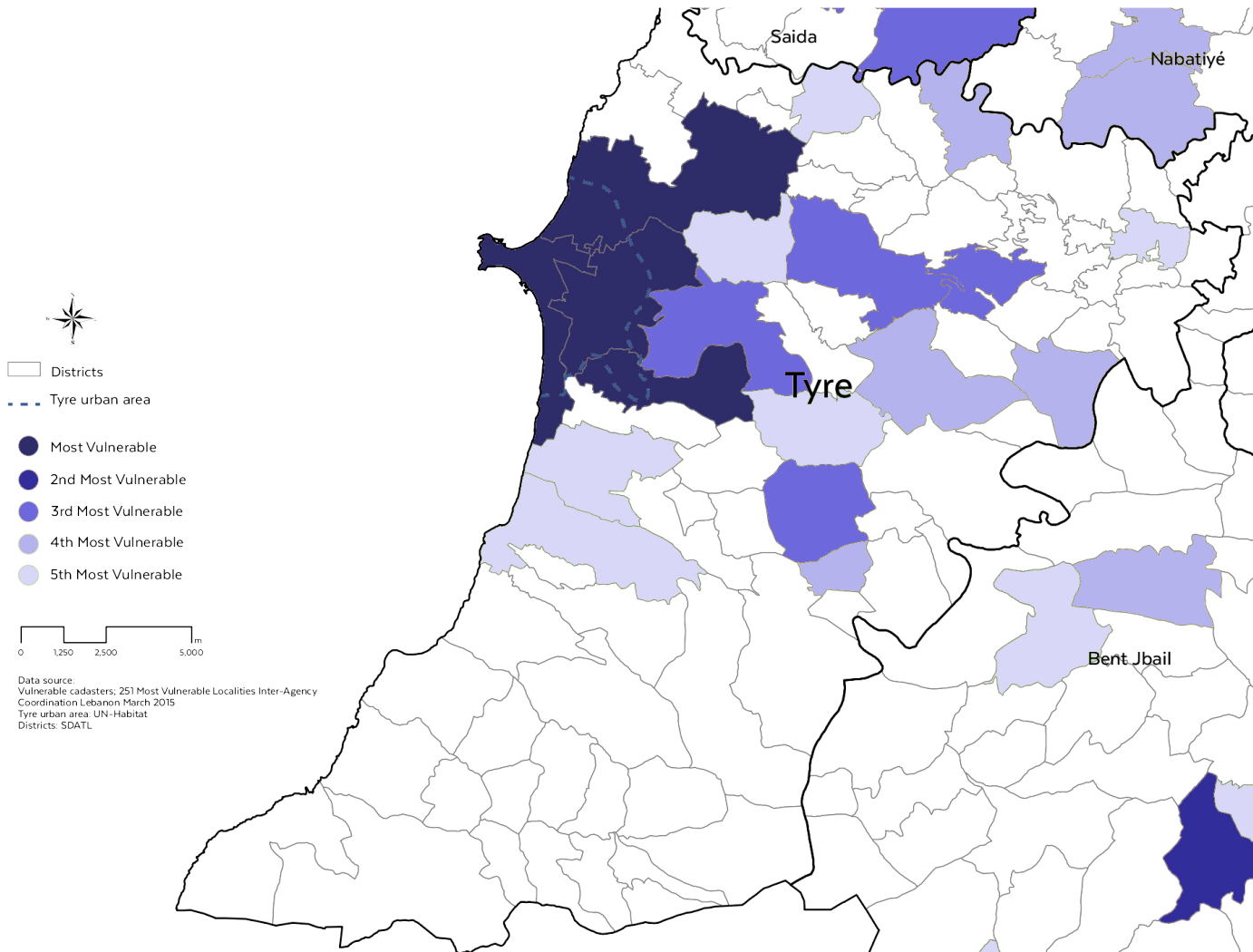
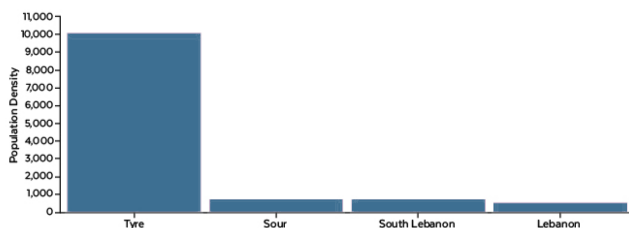


Figure 33. Adapted from the 251 places that are most susceptible
 Source: Inter-Agency Coordination Lebanon, 2015

Population Density

For the provision of urban services and infrastructure, density is a crucial factor. Particularly in impoverished and/or unorganized urban areas, high population density is connected with excessive housing density and crowding, inadequate service delivery, environmental issues, and other adverse effects of congestion, such as high housing costs.

Despite the limitations indicated there, using UN-Habitat population data yields a Tyre urban area population density of 11977 people/km². The Sour cadastre, the center of the city, has by far the highest density of the cadastral parts. It is also clear that refugees significantly contributed to that density, which increased from 12,960 Lebanese/km² to 23,392 total persons/km². If all else is equal, the data point to a clear argument for giving Tyre in the Sour municipality priority when it comes to investments in collective urban infrastructure, services, and resources.



Location	Population	Area	Population Density
Tyre	64,348	6.4 km ²	10,093 / km ²
Sour	305,427	407.6 km ²	749.3 / km ²
South Lebanon	725,340	929.1 km ²	780.7 / km ²
Lebanon	5.7 million	10,216.1 km ²	561.9 / km ²

Table 2. Density of the population
Source: City Facts



Figure 34. View from the rooftops of the buildings in Tyre.

1.3.1 Refugee Population

There are around 122,260 refugees in the Tyre urban area. This accounts for 60% of the population in urban areas. Regarding the population of refugees who have registered:

- In Lebanon, there are 106,426 Palestinian refugees (PRL)
- 4,2 percent of refugees (7,189) are Palestinians fleeing Syria
- 10,645 (8.7%) of the refugees are Syrians

There are three UNWRA refugee camps in the Tyre urban area, with a combined camp population of 69,724 people. This is equal to 34.6% of the entire population of the Tyre urban area. Concentrating on the Palestinian cohorts:

- 66% of the PRL
- 73% of the PRS in the Tyre urban area reside inside of a camp, respectively.

	Abbassiyeh		Ain Baal		Borj-el Chemali		Sour		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%
PRL	no data		0		24173	23%	68500	64%	106426	100%
SR	0		0		2498	23%	8147	77%	10645	100%
PRS	Not data		0		2416	47%	2636	51%	5189	100%
Total					29087	24%	79283	65%	122260	100%

Table 3. Per cadastre, the refugee cohorts in the Tyre urban area
Source: UN-Habitat, 2017

	In camps		Out of camps		Total	
	Count	%	Count	%	Count	%
PRL	69724	66%	36702	34%	106426	100%
PRS	3791	73%	1398	27%	5189	100%
SYR	834	8%	9811	92%	10645	100%
Total	74349	61%	47911	39%	122260	100%

Table 4. Cohorts of refugees inside and outside of camps
Source: UN-Habitat, 2017

The following map displays the spatial distribution of refugee groups within the urban region by registration locale against a background of Lebanese population density by cadastre. Mapped locations of Palestinian camps provide context.

Several issues are raised:

- Data on intra-urban host population density have a coarse level of granularity. But as compared to the other three municipalities, Sour, which comprises the urban core, has a relatively high concentration.
- Increasing the demographic strain on Sour municipality is the fact that most of the refugees in the Tyre urban area are registered to Sour, which is where the urban centre is located, compared to the other three municipalities.

1. Sour, encompassing the three Palestinian refugee camps, accounts for 65% of all registered refugees in the urban region.

2. There are 8 areas in Tyre where PRS have been registered, with Tyre and Burj El-Chamali having the highest concentration.

3. Of the seven UNHCR sites where Syrian refugees are registered, six are in Sour⁷¹. In fact, Burj El Chamali is home to 23% of the 10,645 Syrian refugees registered to Sour. The SR locales imply that SR are also present inside or close to the camps.

- In general, it is accurate to say that the distribution of registered refugees is driven by the location of the Palestinian camps (Burj El-Chamali, Rashidieh, and Al Buss).

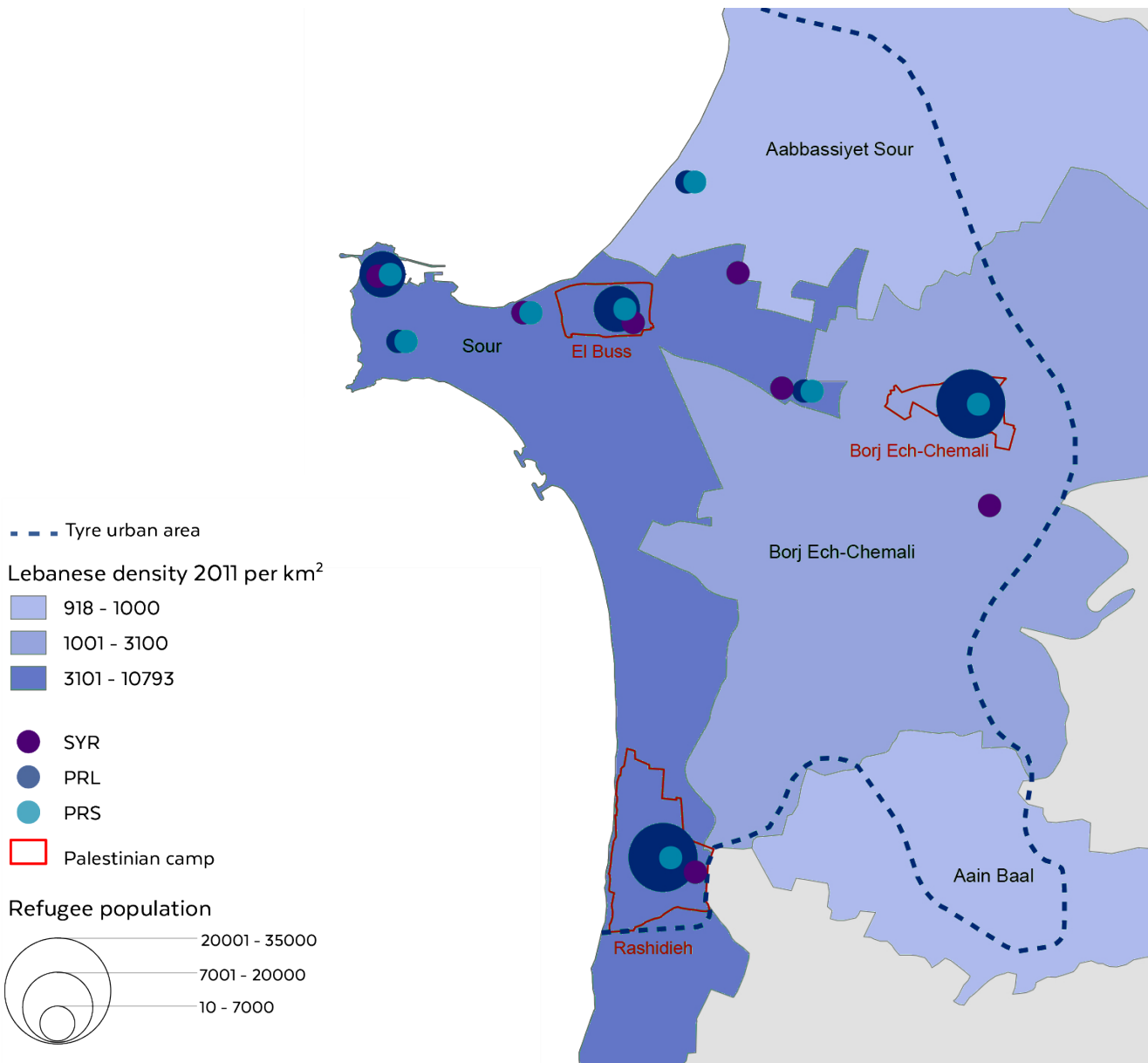


Figure 35. Refugee distribution both inside and outside of recognized camps
Source: UN-Habitat, 2017 73

1.4 Mapping out Tyre

Building Density

Urban infrastructure and service provision are greatly influenced by density. Numerous issues develop when population density is high, especially in disadvantaged and slum areas of cities. Overcrowding and excessive housing concentration become common, putting strain on infrastructure and service delivery. As a result of the strain placed on vital services like water, sanitation, electricity, and transportation by the limited resource availability and the population's rapid increase, their quality and accessibility have been degraded.

High-density neighborhoods also frequently experience environmental difficulties. People living in close quarters can result in higher pollution levels, poor waste management, and a strain on natural resources. These environmental problems, such as water and air pollution, can have a severe effect on people's health and well-being, escalating already-existing socio-economic inequality.



Figure 36. Map showing the buildings' density in Tyre

High population density in metropolitan areas can have negative implications beyond than service and environmental difficulties. Because of the competition for scarce housing resources, it is challenging for low-income individuals and families to find affordable homes. By contributing to the growth of informal settlements and perpetuating social inequality, this can make urban development and resilience even more challenging.

Integrated urban planning and development strategies are necessary to address the issues brought on by high population density. The negative effects of density can be reduced via actions to upgrade infrastructure, provide better services, and encourage sustainable urban design. Urban settings can be made healthier, more livable, and inclusive by promoting affordable housing options, investing in effective transit networks, and putting in place suitable waste management plans.

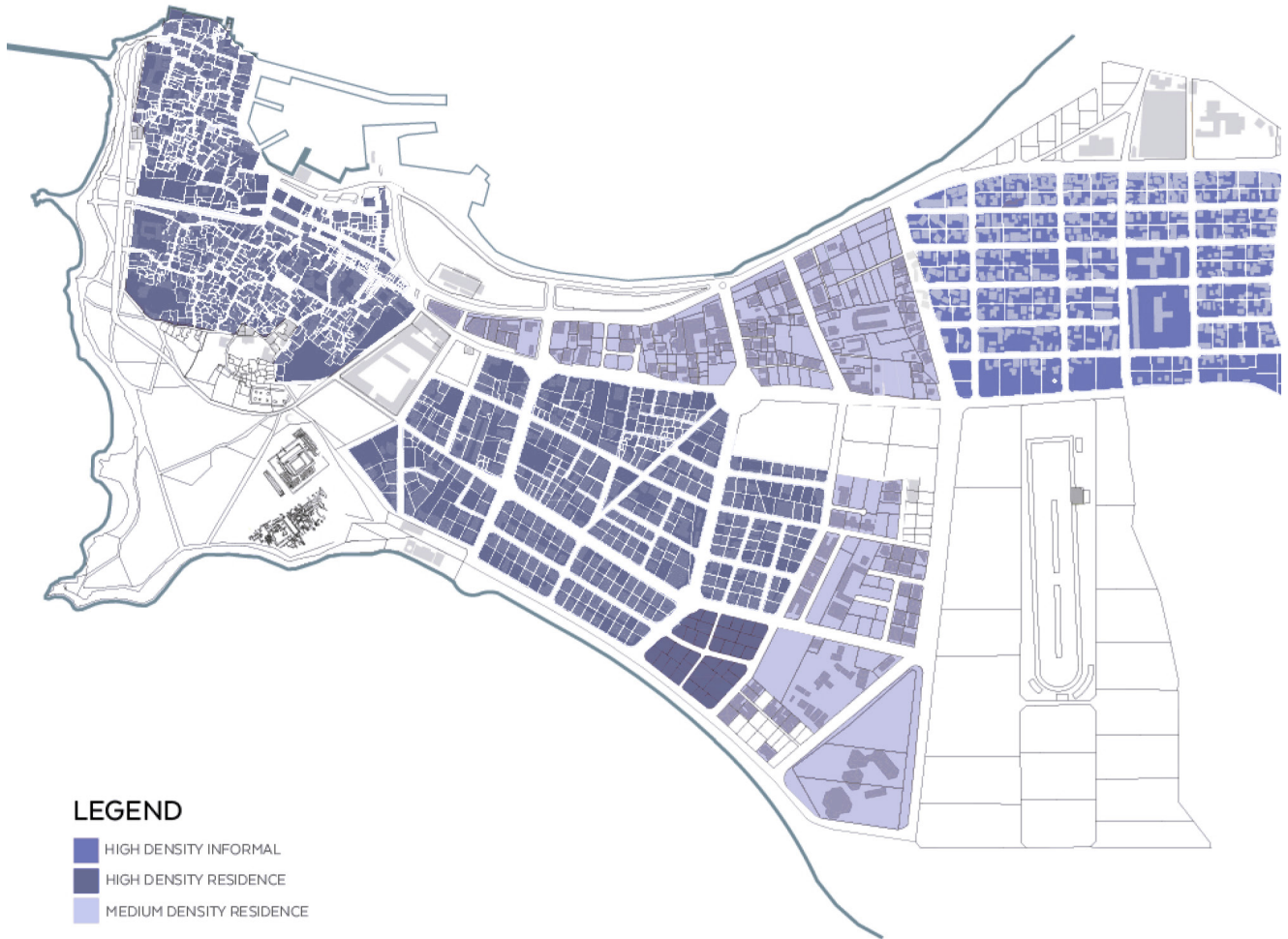


Figure 37. Map showing the density of the areas in Tyre (Source: UN-Habitat)





Figure 38. Aerial image showing the buildings density in Tyre

1.4.1 Administrative framework

1.4.1.1 *State Entity*

The Tyre Union of Municipalities, which includes Sour, Bourj El-Chemali, Aabbassiet-Sour, and Ain Baal, is a group of four municipalities that make up the Tyre urban area. Every four years, the municipality's mayor and council are chosen. The municipal council of Sour presently has 24 members: 18 mokhtars, 16 of whom are men, and 21 men.

The municipality is in charge of overseeing projects that fall under its purview, but the union demands cooperation from a minimum of three municipalities in order to carry out initiatives. By transferring 10% of its income to the union, the municipality helps the union financially so that it can operate.

While irregular meetings with other towns within the union are not regarded necessary, interactions with nearby municipalities like Aabbassiet-Sour and Bourj El-Chemali happen on occasion. The municipalities and the union both have a finite number of personnel and financial resources and must contend with formidable obstacles. In areas like master planning, the ability to levy taxes, and the execution of services and projects, the devolution of authority from the federal government is severely constrained. Municipalities are in a difficult position as a result of this pressing issue since they are legally required to carry out a wide range of duties yet lack the resources to do so successfully.



Figure 39. Map showing the public institutions in Tyre

1.4.1.2 *Economic zones*

Numerous important industries from a wide range of sectors support Urban Tyre's economy. A key role is played by the tourism industry, which draws tourists to the 500,000 square meters of amazing archaeological sites. These attractions are made much more alluring by the city's alluring selection of eateries, lodging options, and immaculate beaches. Notably, Sour emerges as a center for job prospects in the trade and services sectors, while a sizeable section of the workforce finds employment in the industrial sector. The fact that the city's economy is primarily dependent on tourism makes it imperative to look into ways to protect and utilize its distinctive underwater ruins for deep-sea tourism ventures, thereby unleashing hidden potential.

Around 60% of enterprises in Tyre's economy are engaged in trade, making it an important economic sector. It is crucial to remember that these trading activities frequently include low-value commodities and call for less skilled personnel. The financial assistance from Tyrians living in West Africa also gives the local economy a boost, demonstrating the importance and influence of the expatriate community's contributions.

The interaction of these numerous industries in Tyre's economy results in a dynamic business environment. For the city and its citizens, sustainable economic growth, the creation of jobs, and general prosperity can be achieved through maximizing the potential of tourism, boosting the value of trade operations, and establishing relationships with the diaspora population.



Figure 40. Ancient archeological site of Tyros, Tyre, Sour, Unesco World Heritage Site, Lebanon

It is important to consider Tyre's tourism's seasonality. The peak season normally lasts from May 15 to October 15, with visitor activity drastically declining throughout the winter months. Despite its historical significance, Tyre's harbor—while the smallest in Lebanon—remains essential for recreational activities like fishing. It is possible to diversify and sustain Tyre's tourism sector all year long by ensuring the preservation and proper use of the city's natural and cultural resources, including its underwater remains.

Tyre's fishing business is significant because 20% of the city's 2000 citizens work in the sector in the ancient city center. The industry's economic expansion has, however, encountered challenges. The 22-year Israeli occupation, frequent military assaults, marine blockades, and a lack of effective regulation of environmentally harmful practices have hampered the growth of the sector. Due to security and safety concerns, fisherman in the southern zone are limited to staying within 6 nautical miles of the shore. This restriction prevents deep-sea fishing and puts a lot of strain on coastal fishing grounds, which causes overfishing and a concentration of fishing activity near fish nurseries and breeding sites.



Figure 41. Map showing the major commercial areas in Tyre

Tyre's history of shipbuilding has continued in the harbor region, largely thanks to the Barbour family. Tyre is one of the only places in the Mediterranean to have kept this ancient craft alive, as they continue to build wooden boats. However, maintaining operations has proven challenging for the Barbour company. Over 600 fishermen in Tyre were already having trouble making a living in 2004.

Geopolitical factors, environmental issues, and economic limits, among other obstacles facing the fishing sector, underline the need for sustainable methods, efficient regulation, and assistance with the preservation of traditional crafts. By addressing these problems, the fishing industry in Tyre may be strengthened and become more resilient, creating job opportunities for the neighborhood and assuring the long-term sustainability of maritime resources.



Figure 42. Ancient old harbor of port of Tyre, Sour in South Lebanon

1.4.1.3 Health and education

Medical facilities

Three minor hospitals located in Tyre provide medical services for the local populace. These hospitals, whose names are not given, are crucial to the delivery of healthcare in the area. A further indication of the dedication to ensuring vulnerable groups have access to healthcare is the fact that one of these hospitals has a special emphasis on supporting the residents of the Albus Camp.

Along Abou Deib Street, in addition to the hospitals, there are a number of “Mostawsif” medical facilities. These clinics provide services at prices that are less expensive than those charged by hospitals, making them a viable alternative for many Tyre residents. The clinics play a significant role in the healthcare system by meeting a variety of medical requirements in the neighborhood.

The fact that Tyre has both hospitals and clinics is evidence of the accessibility of necessary healthcare services. The fact that these healthcare facilities exist indicates the efforts made to guarantee that locals have access to medical care and treatment, even though more detailed information regarding the facilities and services supplied is not given.

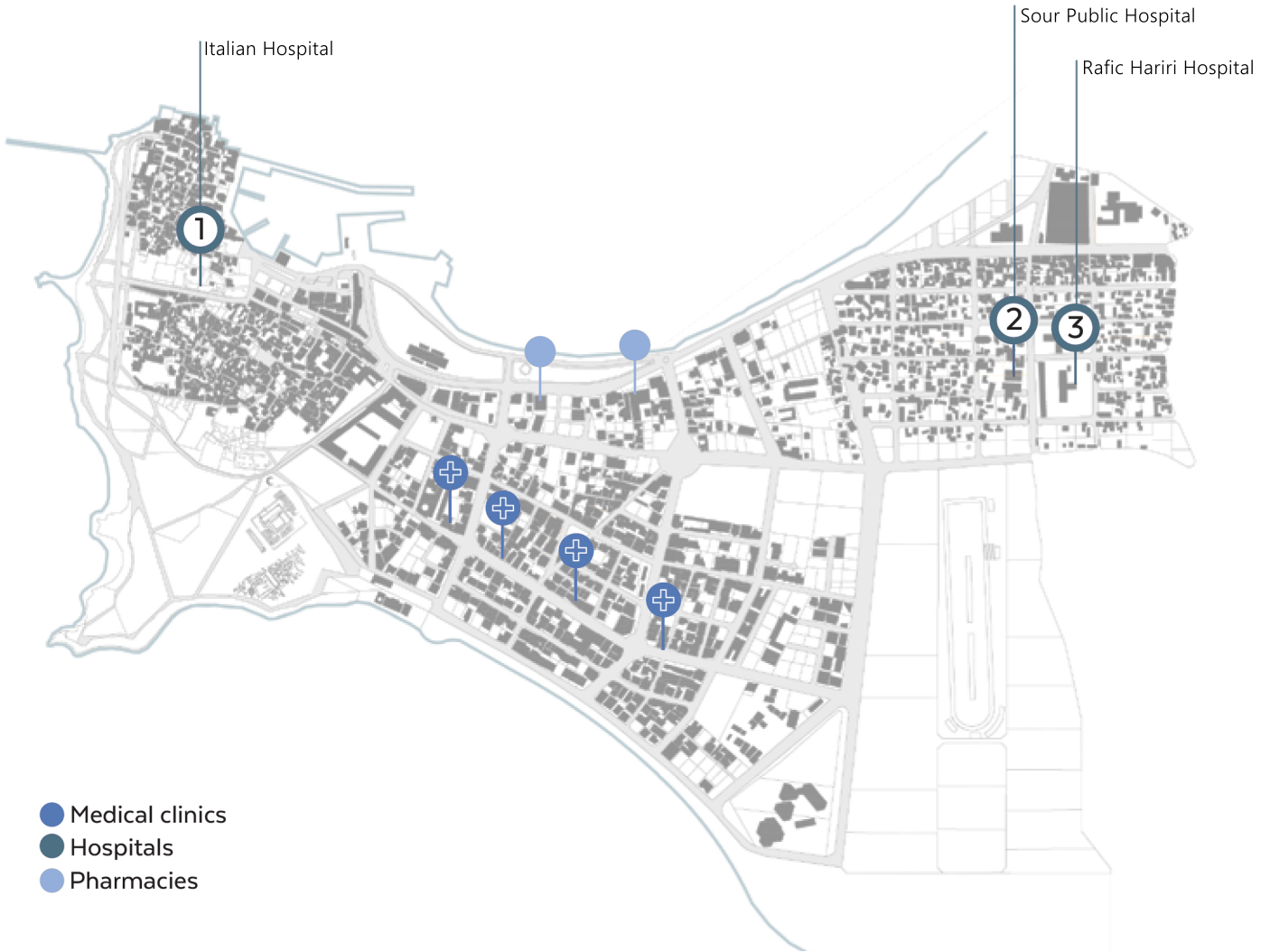


Figure 43. Map showing the medical facilities in Tyre

Schools & Universities

Public and private schools are the two primary categories of educational institutions in Sour. On closer inspection, it becomes clear that there are more public schools than private schools. This demonstrates the important role that the public education system has in ensuring that the local populace has access to a quality education. The charity foundation of the deceased Imam Musa Sadr also has a significant impact on the Tyrian educational landscape by supporting and funding a large number of educational institutions there.

The Islamic University of Lebanon (IUL) is the only university offering higher education in Tyre. The IUL was founded in 1996 and has been given permission to function as a higher education institution. Although the university's facilities and curriculum are not specifically described, its location in Tyre makes opportunities for local students to pursue higher education more accessible.

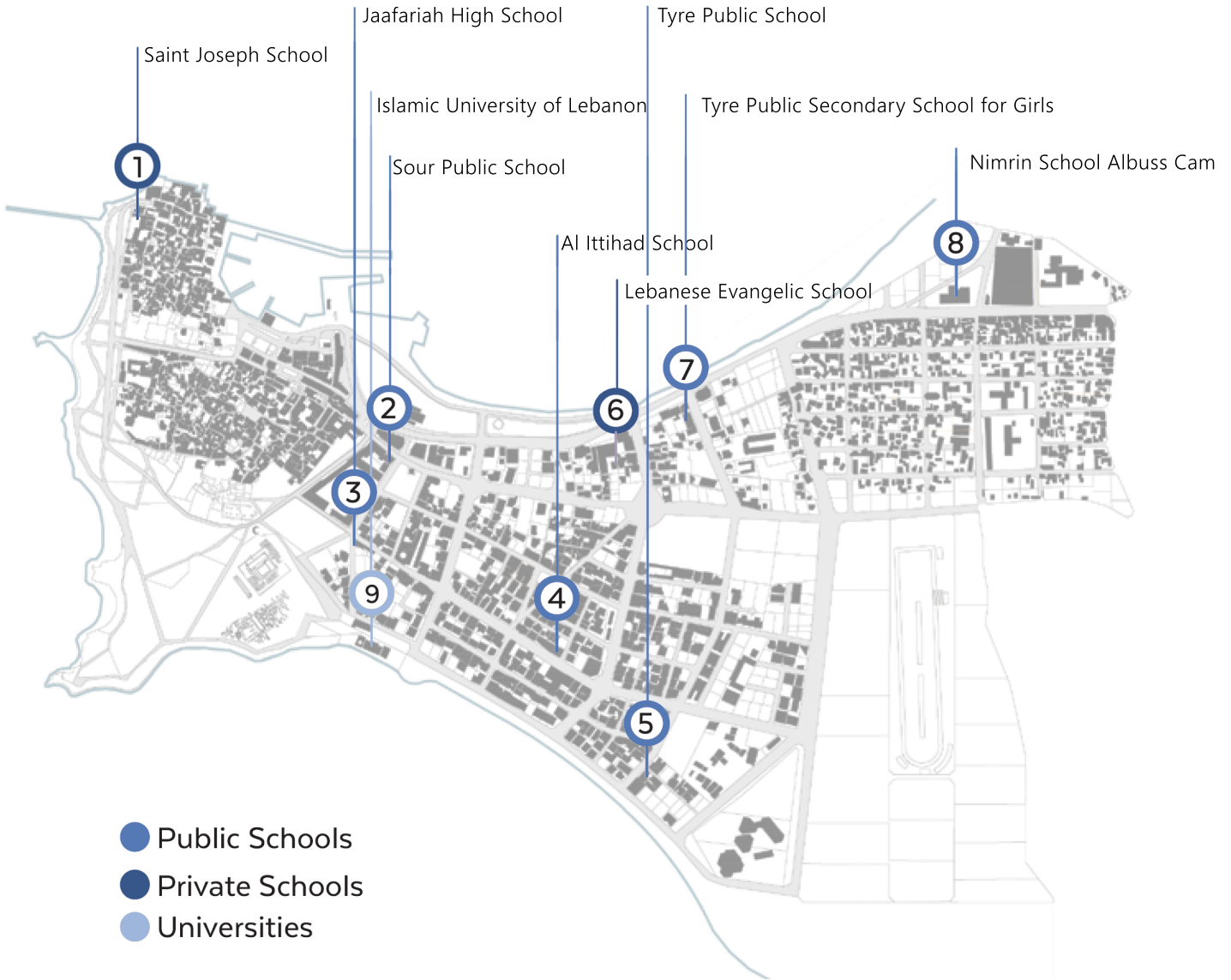


Figure 44. Map showing the educational facilities in Tyre

Cultural institutions & knowledge hubs

Religious education classes, scouting activities, exhibitions, and seminars are just a few of the varied events that take place at Sour's cultural centers. These facilities offer a venue for the neighborhood's residents to participate in religious and cultural rituals, developing a sense of identity and a sense of community. Individuals have the chance to enhance their spirituality and gain a deeper understanding of their religion through religious education classes.

Scouting activities provide a platform for youth engagement and personal development, playing a key role in the cultural centers. Scouting programs frequently place a strong emphasis on establishing principles, developing leadership abilities, and encouraging community service among the participants.

These cultural facilities also act as locations for seminars and exhibitions. These gatherings offer chances to share knowledge, encourage cultural exchange, and showcase local talent. Exhibitions may include works of art, handicrafts, or antiques that honor the culture and creativity of the neighborhood. Seminars offer a forum for scholarly discussion, informative talks, and panel discussions on a range of interesting subjects.

It is important to keep in mind that cultural facilities might vary in size, offers, and focus even when particular information on individual cultural centers in Sour is not given. Cultural centers can offer access to libraries or archives where people can learn about literature, history, or other subjects of interest, while others may hold performances, workshops, or cultural festivals. By developing a sense of pride and admiration for the arts and traditions within the community, these cultural institutions help to enrich and preserve the local cultural legacy.

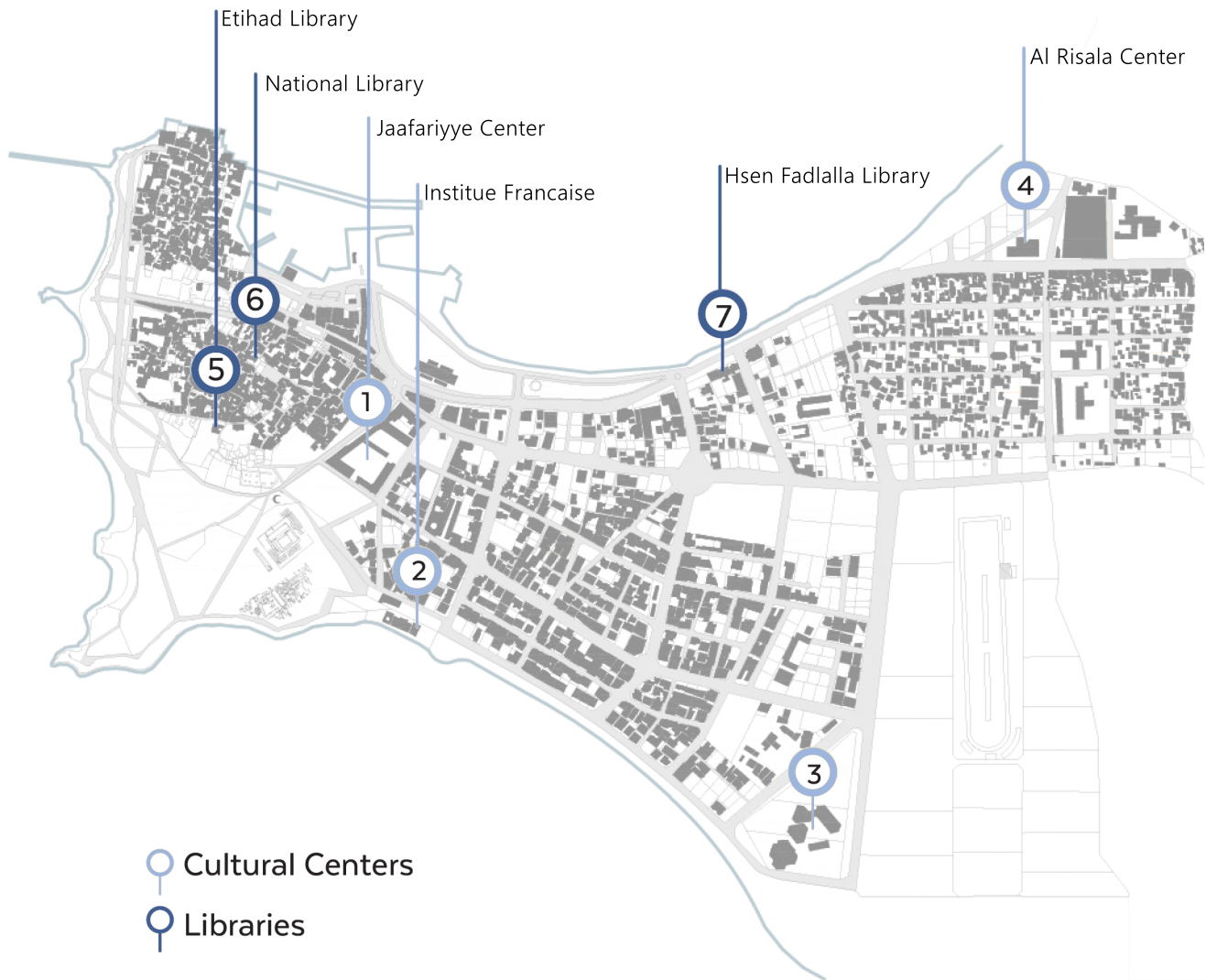


Figure 45. Map showing the cultural facilities in Tyre

1.4.1.4 Community areas & Shared spaces

Tyre's vibrant and integrated community is greatly influenced by the communal places and facilities that are available to everyone. These areas, such parks, squares, and promenades, act as gathering places for locals, providing chances for friendship-building, leisure time, and cross-cultural interchange. They are crucial for fostering a feeling of community, raising people's quality of life, and boosting their general wellbeing in Tyre. These shared areas' accessibility and availability give locals a platform to interact, engage with one another, and form bonds across social and cultural divides. Additionally, community spaces operate as venues for parties, events, and cultural activities, enabling the promotion and preservation of the city's rich history. Tyre can build inclusive, lively, and cohesive communities that inspire a strong sense of belonging and pride among its citizens by realizing the importance of community places and investing in their development and preservation.



Communal areas

Tyre's surrounding open spaces are home to a diversity of landscapes that add to its appeal and allure. These areas are influenced by the presence of historic sites, large cemeteries, town squares, and the scenic coastline. The historical significance of the ruins adds to their mystery while also offering large spaces for exploration and reflection. The remains of ancient civilizations allow visitors to fully immerse themselves while admiring the architectural wonders and discovering the hidden mysteries.

City courts and squares are lively public areas that operate as hubs for social interactions. They are humming with markets, street sellers, and gatherings of locals and tourists. These areas serve as venues for neighborhood festivities, activities, and cultural festivals that highlight Tyre's character and variety.

Tyre's surrounding shoreline is extremely alluring, drawing both locals and tourists on a regular basis. The gorgeous waterfront provides chances for leisurely walks, fun activities, and priceless family time in addition to breath-taking views and cooling sea breezes. The coastline offers recreation and renewal for the community, whether it is wandering along the sandy beaches, taking part in water sports, or just relaxing by the waves.

Tyre's numerous green spaces, which include cemeteries, city squares, and the scenic shoreline, add to the city's charm and provide a variety of experiences for locals and guests alike. They enrich the urban landscape of Tyre and encourage a sense of connection to its past, present, and surrounding environment by offering possibilities for exploration, reflection, social interaction, and relaxation.

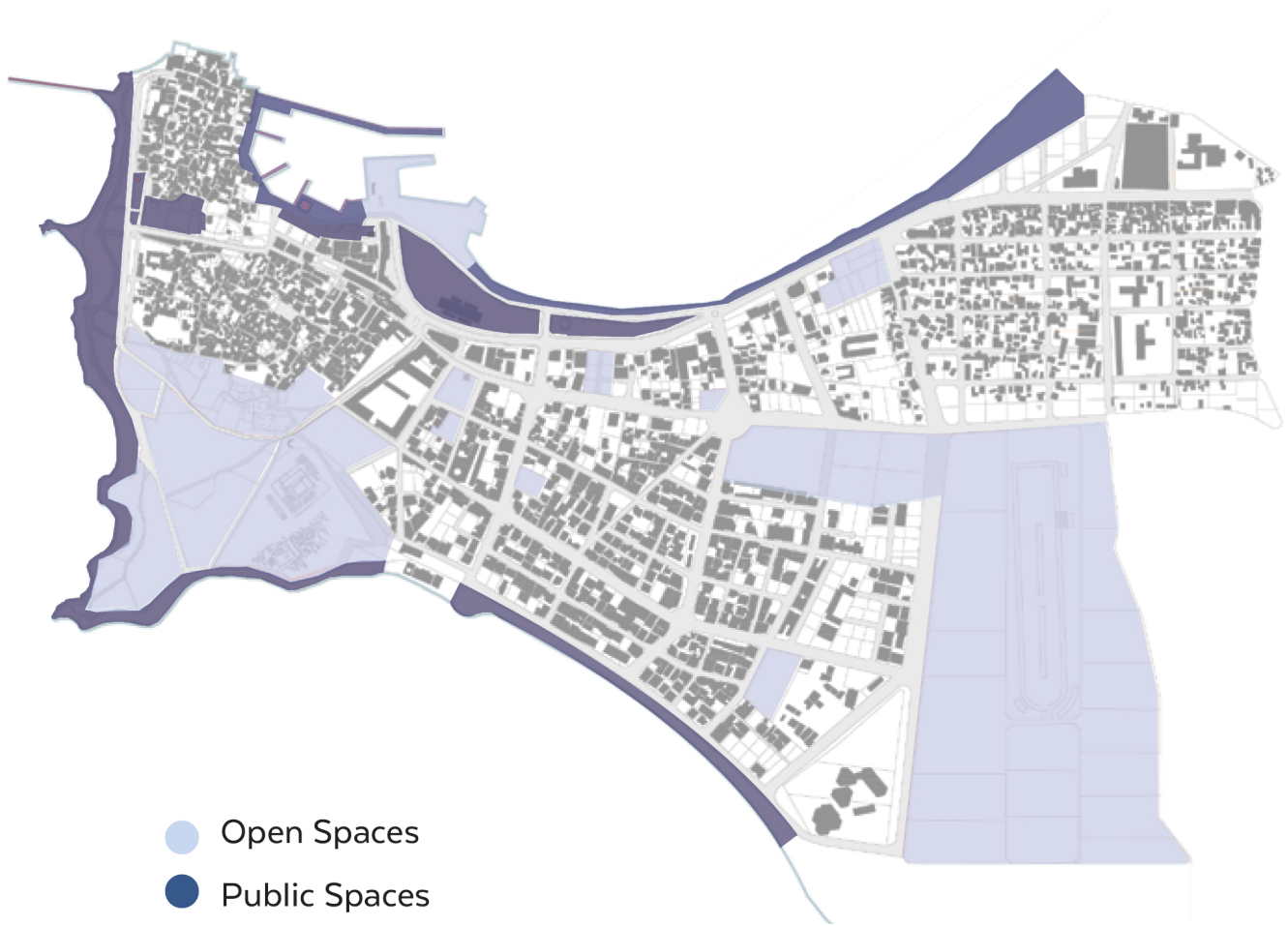


Figure 47. Map showing the ratio of the open and public spaces

Market districts

The distinct functions and contributions each market area makes to the neighborhood economy define the market areas in Sour. The Vegetable Market, the Local Market, and the Fish Market are the three primary marketplaces that service the city. Each market is essential for meeting inhabitants' needs and adding to the city's commercial landscape's overall liveliness.



- The Vegetable Market acts as a central hub for sourcing fresh produce, serving as a primary destination for residents to purchase fruits, vegetables, and other agricultural products. This market serves the entire city, ensuring a steady supply of essential food items to meet the needs of the community. It serves as a bustling center of activity, with vendors showcasing their goods and customers engaging in lively exchanges.

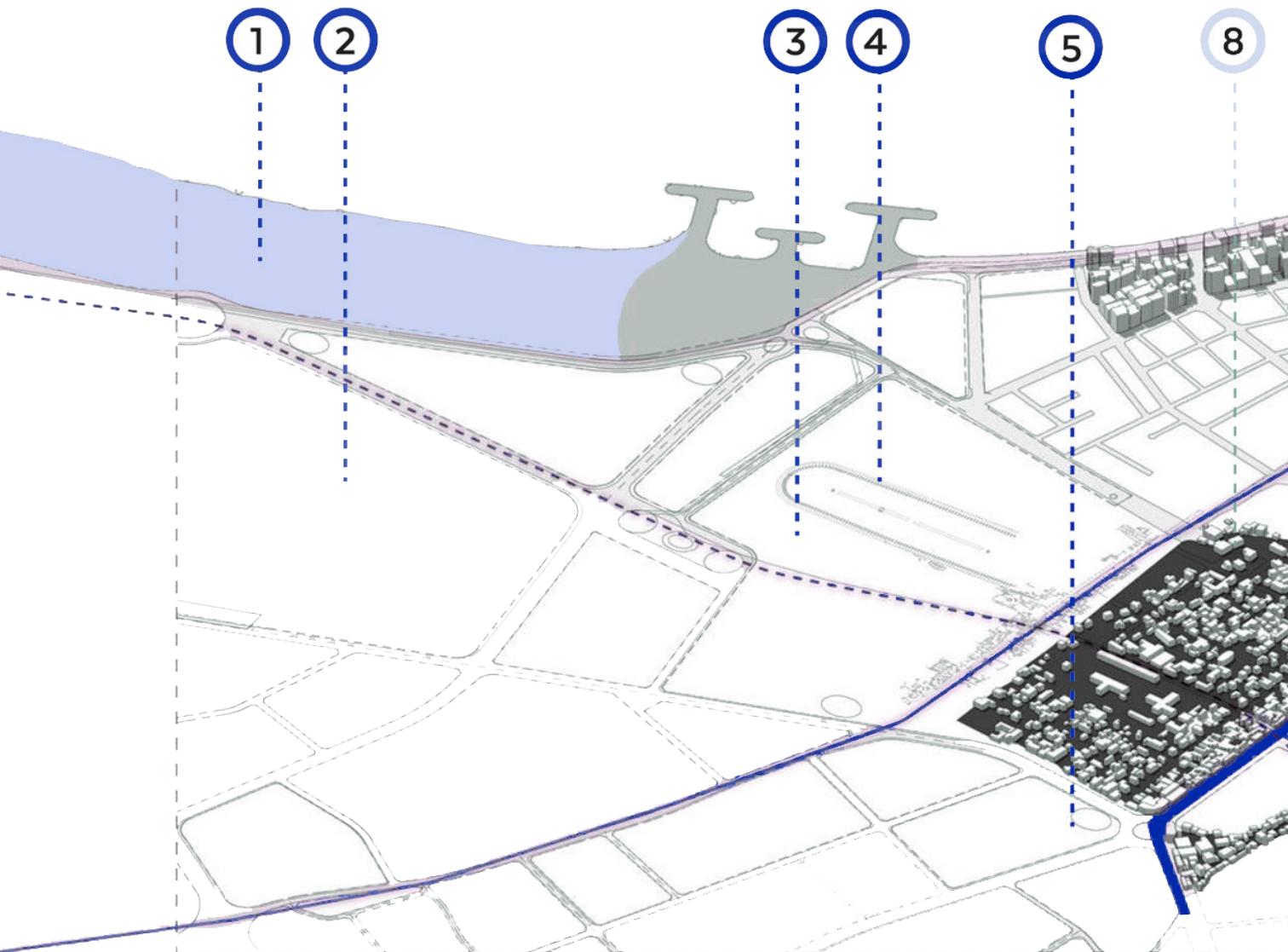
- The Local Market, which consists of a row of historic structures, is a crucial component of Sour's history. There are numerous modest enterprises there that have been run by local families for many generations. Small shops, restaurants, and artisan stores are just a few of the products and services that are provided by these businesses. The Local Market offers a distinctive shopping experience for locals and visitors who value its charming ambiance and personalized touch. It does this by upholding a feeling of tradition and authenticity.

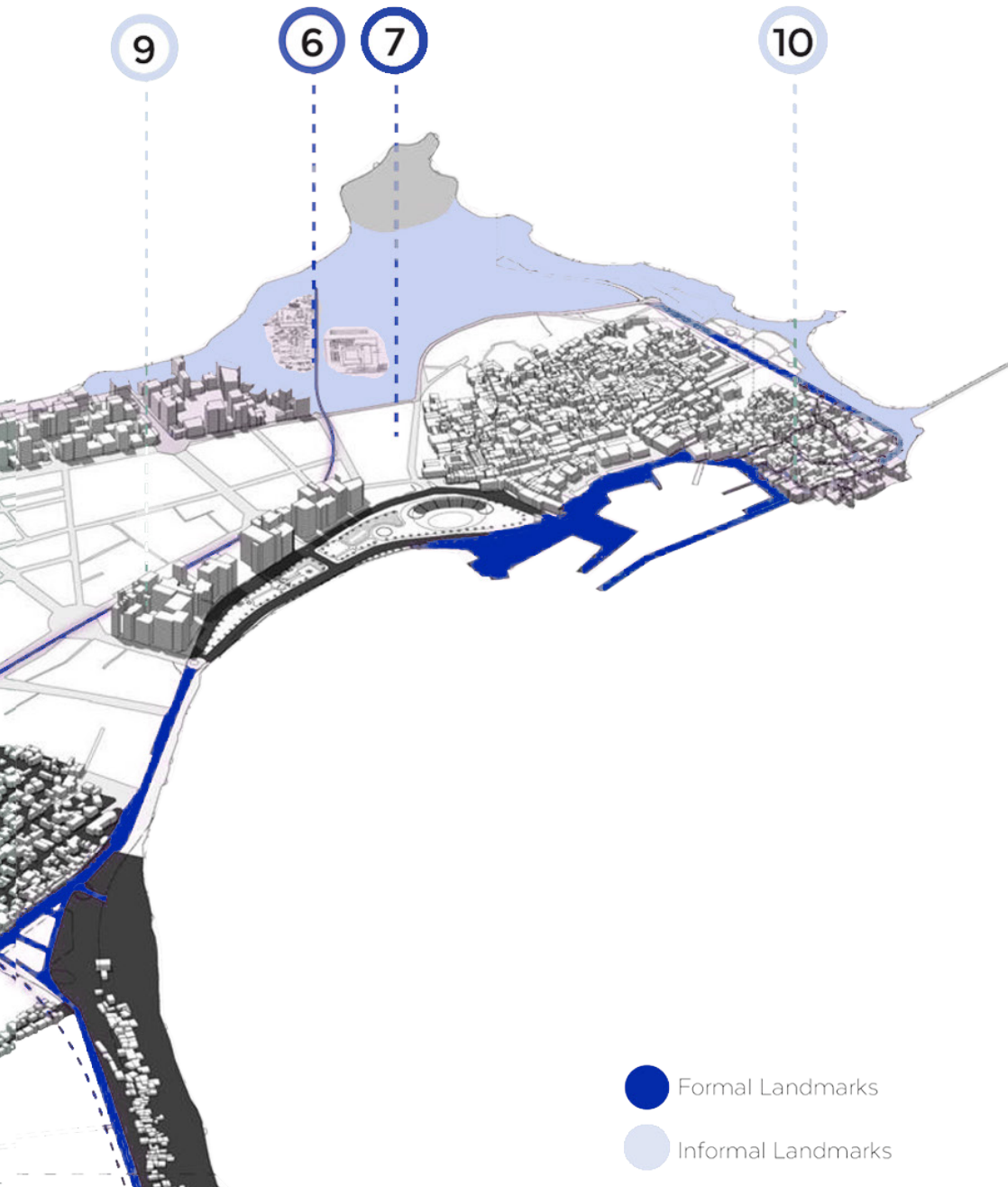
- Given that many of Sour's residents are fishermen, the Fish Market is of utmost importance. It is a significant source of revenue for those that go fishing in the area. The Fish Market draws customers from nearby places as well as the local populace due to its wide assortment of recently caught seafood.



Figure 49. Map showing the market areas in Tyre

1.4.2 Notable Landmarks





- Formal Landmarks
- Informal Landmarks

Official Landmarks

This map shows the locations of Tyre's official landmarks, which are significant in terms of history, culture, and architecture. These locations are described to as "formal" landmarks since both Sour residents and tourists are familiar with them. Numerous of these famous sites are old ruins, highlighting Tyre's rich legacy and offering a window into its illustrious past.

Tyre is notable for having a profusion of ruins that are dispersed throughout considerable portions of the city. These artifacts from the past are proof of the city's ancient civilizations' architectural prowess. Archaeological sites, historic buildings, and works of art architecture are all included in the list of official landmarks. They are priceless artifacts that shed light on Tyre's historical growth and serve as a tangible link to the past.

Visitors can immerse themselves in Tyre's fascinating past and see the ruins of once-grand monuments by exploring these official landmarks. Every ruin tells a different tale that reflects the various civilizations that previously flourished in the area. These official landmarks, which include towering city walls, magnificent temples, dexterous mosaics, and historic harbors, vividly depict Tyre's illustrious past.

Tyre Public Beach	01
Tyre Public Garden	02
Tyre Hippodrome	03
Tyre Ruins: Necropolis	04
Tyre Municipal Stadium	05
Tyre Ruins: Roman Bath	06
Sehet el Kasam Square	07

01



05



02



06



03



07



04



Unofficial Landmarks

Informal landmarks in Tyre are notable objects or locations in the city that have special significance primarily for the local populace. These landmarks are valued by the town and play a significant role in the collective memory of Sour's residents, while not being widely known to outsiders. These unofficial landmarks, which frequently consist of little stores or eateries that have become significant over time, are displayed on the map.

These unofficial landmarks provide as distinctive reference points for locals, assisting them in navigating and recognizing particular sections of the city. They might be well-known gathering places, local landmarks, or locations connected to priceless moments and common experiences. Even while they might not be as magnificent or as historically significant as official landmarks, the local community places a great deal of sentimental importance on them.

Pikasso gift shop	08
Al Bohsali sweets	09
Le Phenicien Seafood	10

08



09



10



These areas serve as gathering spots, social hubs, or restaurants and have integrated themselves into Tyre's daily life. They frequently evoke feelings of familiarity and nostalgia because over the years, residents have formed deep bonds with these businesses. These unofficial landmarks' importance stems from the relationships they build among the locals, as they provide them a feeling of community and shared identity.

1.4.3 Heritage Sites

Tyre is home to two outstanding archaeological sites, each with unique architectural marvels and historical value. The first is the Necropolis, a sizable location that provides a window into numerous historical eras. You may explore relics like the Byzantine road, a triumphal arch from the second century, and a Roman road with an aqueduct inside the Necropolis. The ruins of a massive Roman hippodrome, which formerly stretched an astonishing 480 meters and could seat up to 20,000 people who anxiously watched spectacular chariot races, are one of the Necropolis' most notable features.

The Roman Baths are Tyre's second archaeological site. These baths, which are part of the Al Mina ruins complex, were built in the second or third century AD. The Roman Baths are evidence of the Roman Empire's superior engineering and architectural skills. These baths were not only used for bathing, but also as social gathering areas where people could unwind, indulge in hobbies, and have conversations. The remnants of Tyre's Roman Baths provide a look into the lavish way of life that its early residents enjoyed.

The Roman Baths and the Necropolis both serve as examples of Tyre's extensive historical and cultural legacy. Visitors can experience the magnificence of ancient civilizations, marvel at architectural wonders, and learn about the habits and daily lives of the people who once lived in this thriving city by exploring these archaeological sites. These locations serve as priceless portals into the intriguing world of antiquity as well as physical memories of Tyre's illustrious past.



Figure 51. Map showing the historical and heritage sites in Tyre

01



Triumphal Arch

02



Hippodrome

03



Aqueducts

04



Tombs

05



Roman baths

06



Water cisterns

07



Mosaic road

08



Square building

1.5 Infrastructure

Sour's distinctive geographic location is enhanced by the fact that the city is surrounded by water on three sides. The city's unique attractiveness is enhanced by the presence of water, which also provides possibilities for a variety of water-related activities like fishing, boating, and taking in picturesque coastal vistas. The stunning beaches in Sour and the relaxing atmosphere the neighboring water creates draw tourists and visitors to this coastal area.

Tyre Caza faces difficulties with communication and transportation due to the dispersed nature of its settlements and the absence of crossroads. The inefficiency of transportation and integration across Tyre Caza's various neighborhoods is a result of the lack of well-connected road networks. As a result, the main axis, particularly the coastline route that runs through the city's center, is subject to heavy traffic, especially from regional traffic. Traffic congestion can make it difficult for commuters, tourists, and locals to move through urban areas without incident.

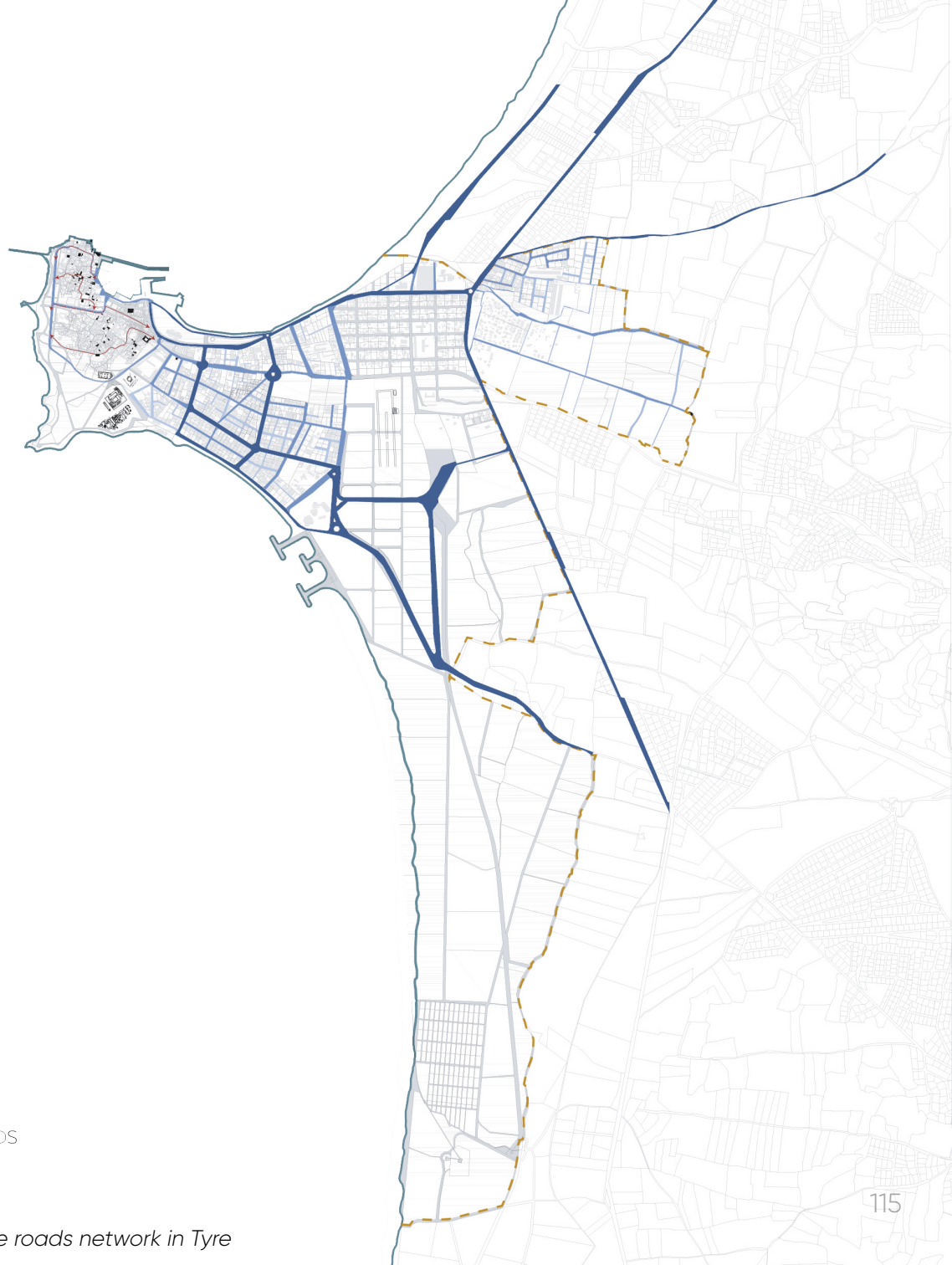
The union and municipalities in the Tyre urban area have limited financial resources, which creates barriers to developing and maintaining the road infrastructure. Lack of finance limits the ability to carry out extensive road development projects and put necessary changes into place to reduce traffic congestion and improve connectivity. In order to overcome these difficulties and upgrade the transportation system in Tyre, it is crucial to address these budgetary limitations and secure sufficient resources.



There are maintenance and capacity issues with the secondary and tertiary road network in Tyre. These roadways, which are essential connections inside the urban region, frequently experience poor maintenance and are unable to handle the rising number of cars. Congestion and traffic-related problems follow, which have an effect on Tyre's general mobility. Unfortunately, there is a shortage of infrastructure for non-motorized transportation, such as bicycle and pedestrian pathways, which makes it challenging for locals to choose other forms of transportation.

The daily regional commute between Tyre and Beirut via Saida, especially during the workweek, is a prominent mobility pattern in Tyre. The heavy traffic on the roadways bridging these cities is a result of the established commuter pattern. Because of the inadequate infrastructure needed to facilitate this journey, there are bottlenecks and delays during peak hours. To ensure smoother regional mobility and reduce congestion, it is clear that upgraded road infrastructure, including bigger lanes, better traffic management systems, and effective public transportation options, is required.

Agriculture, education, and inhabitants are the three main areas that come to light when mobility trends within Tyre are examined. In order to carry items like crops and cattle to and from the city, the agricultural industry depends on transportation. Tyre's educational institutions draw employees and students, which causes major commuting patterns associated to academic pursuits. Last but not least, inhabitants' mobility includes traveling to and from work, shopping, using city services, and enjoying leisure activities on a regular basis.



LEGEND


-  PRIMARY ROADS
-  SECONDARY ROADS
-  TERTIARY ROADS

Figure 53. Map of the roads network in Tyre

1.5.1 Local & Public Transportation

Local Transport

Due to their congested streets and dense homes, some Tyre areas, such as Haret el Masihiyeh (the Christian quarter) and Haret el Jalaji' (the Muslim quarter), have restricted vehicular access. These districts prioritize foot traffic and are distinguished by densely packed housing and a lack of parking. Residents and visitors must therefore rely on walking or other forms of transportation, such as motorcycles, to get about these energetic neighborhoods. This neighborhood's emphasis on pedestrians encourages social contact, community involvement, and the preservation of its unique character.

Public Transport

Tyre's neighborhood street network is mostly designed for automobiles, while the unofficial public transportation networks are disorganized and unstructured. This restricts the range of viable alternatives to private automobiles. Despite the availability of informal transportation choices like mini vans, some locals find it difficult to rely on these services due to the high cost of access. In Tyre, efforts to lessen vehicle dependence and improve sustainable mobility are hampered by the lack of dependable and affordable public transportation.

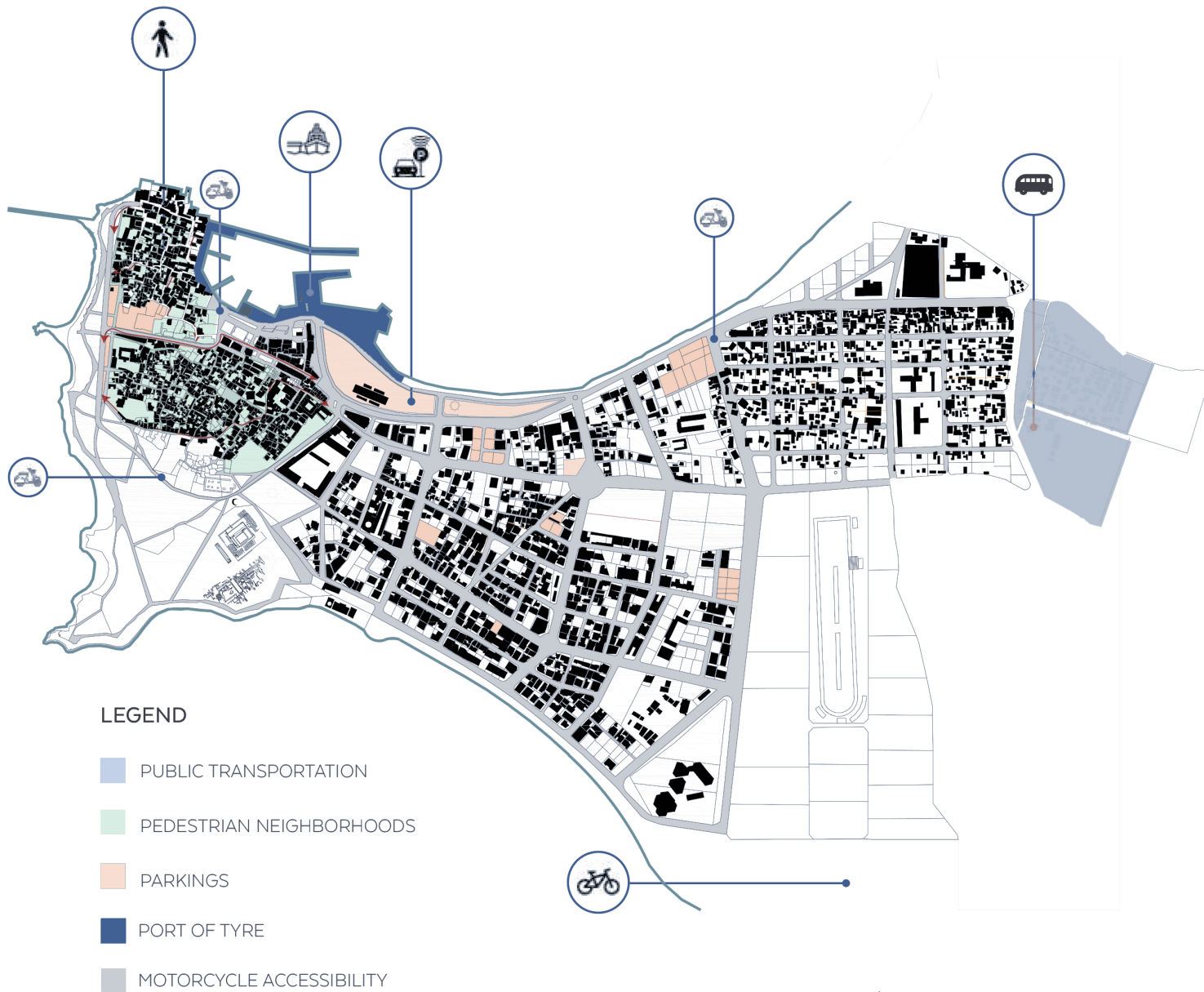


Figure 53. Map of the public transportation in Tyre

Tyre city's compact size has the benefit of being easily accessible, with most amenities and landmarks being conveniently close by on foot. The city's walkable layout makes it possible for people to go around without a car in many situations. This neighborhood's emphasis on walking fosters a sense of community and supports active travel.

In Tyre, people frequently use motorcycles in addition to walking as a form of transportation. For shorter distances or while traversing through crowded regions, they provide an affordable and practical way to get around the city. Residents who commute each day on motorbikes benefit from the flexibility and convenience of being able to maneuver through congested streets and get where they need to go quickly.

Additionally, Tyre provides the option of hiring bicycles, providing a leisurely and environmentally beneficial method to explore the city. Cycling offers a different kind of transportation that encourages physical activity while lowering carbon emissions. Both locals and visitors may explore Tyre's attractiveness at a leisurely pace while riding bicycles, taking in the picturesque coastline areas and finding hidden jewels within the city.

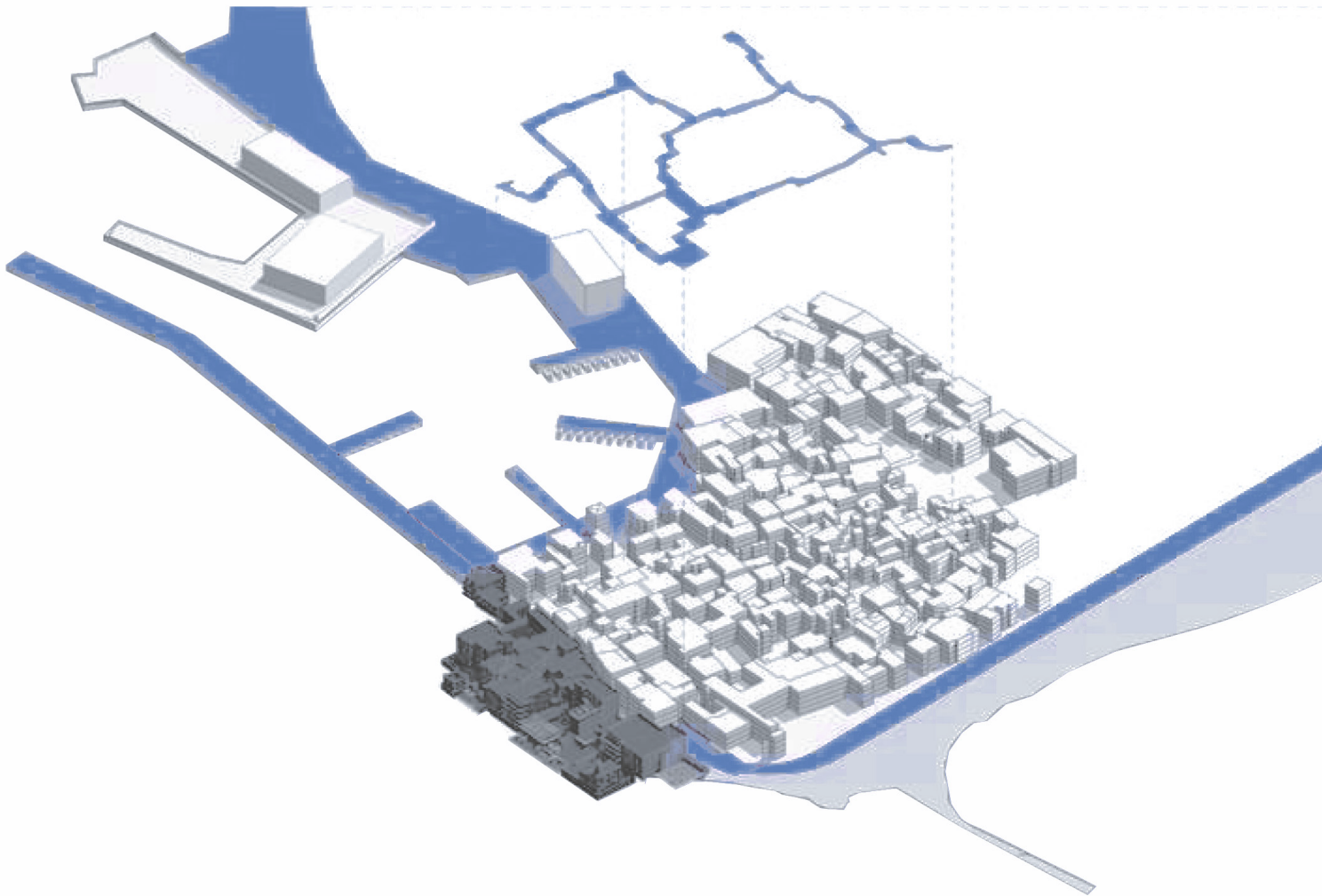


Figure 54. Diagram of the pedestrian access in the Old City

1.5.2 Traffic Congestion

- The dynamics of Tyre's transportation system are significantly influenced by the agricultural industry. Farmers and suppliers ship their agricultural goods to Tyre's wholesale markets and occasionally to Beirut in the early morning hours, when traffic is generally light. The distribution of fresh product is made easier and faster access to markets is made possible by this timing, which also supports the regional agricultural economy and provides for more efficient transportation and access to markets.
- For a variety of reasons, the people of Tyre and the adjacent villages rely on commuting to the city center. They commute into the city for employment, using the transportation systems to go to their places of employment and support the regional economy. To meet their daily necessities, locals also go to the souk (marketplace), central market, and neighborhood stores, which generates a constant flow of movement around the city. This frequent travel demonstrates the intimate relationships that exist between Tyre and the local areas.
- The primary cause of the traffic jams in and around Tyre's urban core during rush hour is the reliance of locals on private vehicles to obtain social services, particularly education. When there is a high volume of traffic, it is caused by students and their families traveling to schools, colleges, and institutions. The problem of congestion is exacerbated by the reliance on private vehicles for educational reasons, highlighting the demand for alternate transportation options and infrastructure upgrades to reduce traffic demands and improve mobility options.

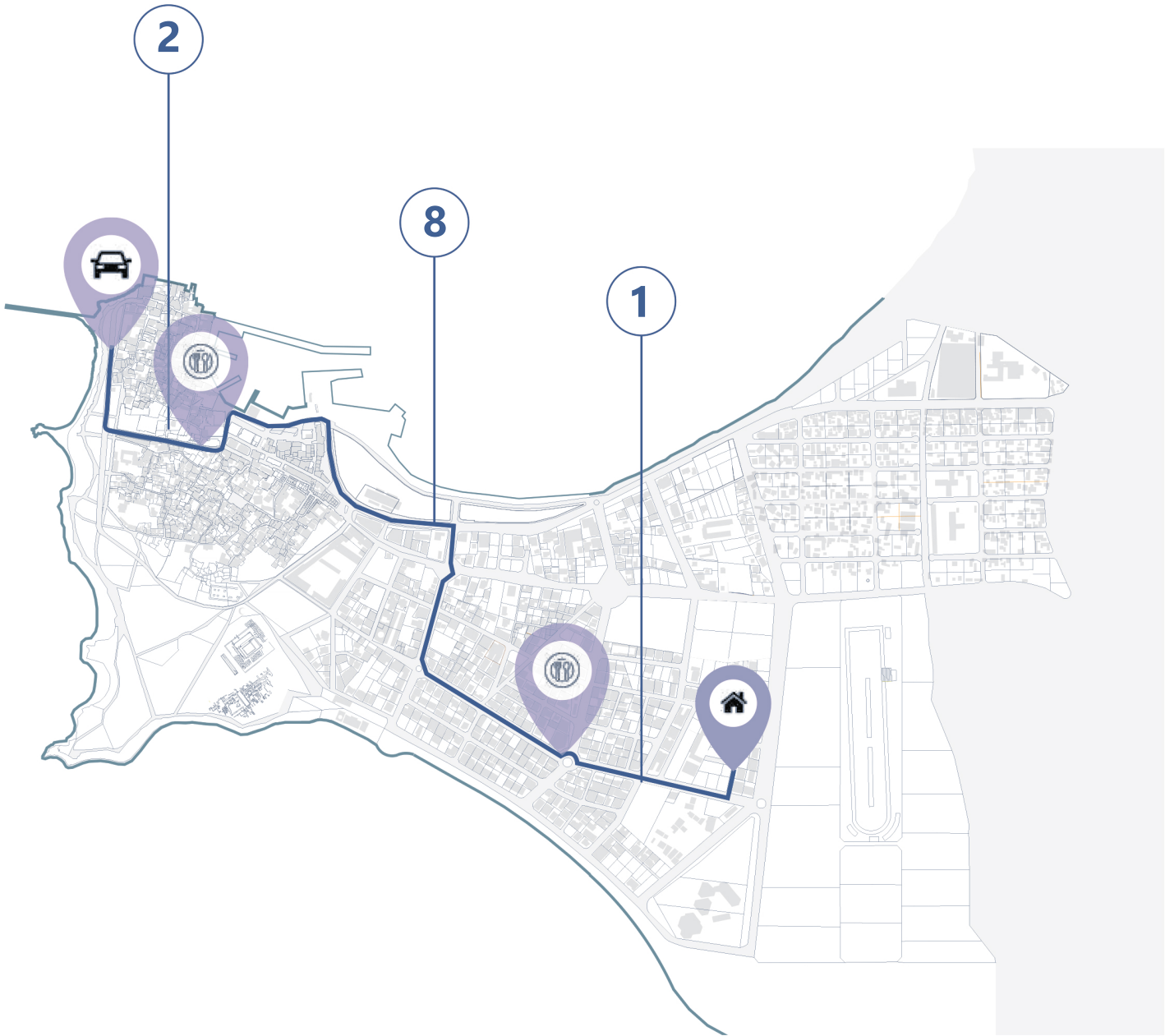


Figure 54. Time taken from one stop to the other at 2pm (in minutes)

1.6 Urban Planning & Development

Tyre's physical and social fabric has been significantly shaped over time by the city's urban planning and development. Tyre, a historically significant city in Lebanon, has a diverse urban environment and a rich cultural legacy. The city's livability, sustainability, and resilience have been improved while keeping its distinctive identity through the application of urban design principles.

Land use planning, infrastructure construction, the creation of transit systems, and the design of public areas are all included in Tyre's urban planning process. It strives to develop well-planned, useful urban places that meet the requirements of locals and visitors while fostering social cohesion, economic development, and a good standard of living.

The principles of sustainability serve as a guide for the city's urban planning initiatives, which strike a balance between the preservation of Tyre's historical past and the demands of a contemporary, vibrant urban environment. A monument to the city's dedication to upholding its cultural character while embracing progress is the incorporation of historical landmarks, archaeological sites, and cultural assets into the urban fabric.

Furthermore, environmental concerns are intimately related to urban development in Tyre. Due to the city's proximity to the Mediterranean Sea and its natural environs, it is essential to adopt sustainable methods that balance meeting the requirements of an expanding population with safeguarding the fragile coastal habitat.



1.6.1 History of growth

We want to comprehend the underlying forces that drove Tyre's expansion, the role of trade and commerce in forming its urban layout, and the socio-cultural dynamics that have contributed to its distinctive heritage through a thorough research of the city's historical growth patterns. We may learn a lot about the chances and difficulties that will face Tyre's urban development and the preservation of its historical legacy by exploring the city's past.

Tyre's historical urban expansion is a tribute to the city's colorful history. Tyre, a city with origins that go back thousands of years, has experienced the rise and fall of empires, the thriving of trade and culture, as well as the evolution of its urban environment. By examining Tyre's historical urban development, one can gain insights into the city's evolution and the factors that molded its urban fabric and discover the layers of history buried beneath the city's streets, structures, and archaeological sites.

Tyre's historical urban expansion reflects its importance as a center of trade, culture, and civilization, from its beginnings as a Phoenician town in the third millennium BC to its reputation as a significant maritime trading hub in the ancient world. Due to the city's advantageous Mediterranean Sea location, numerous civilizations, including the Phoenicians, Romans, Byzantines, Arabs, Crusaders, and Ottomans, have settled there and left their distinct imprints on the city's urban environment.

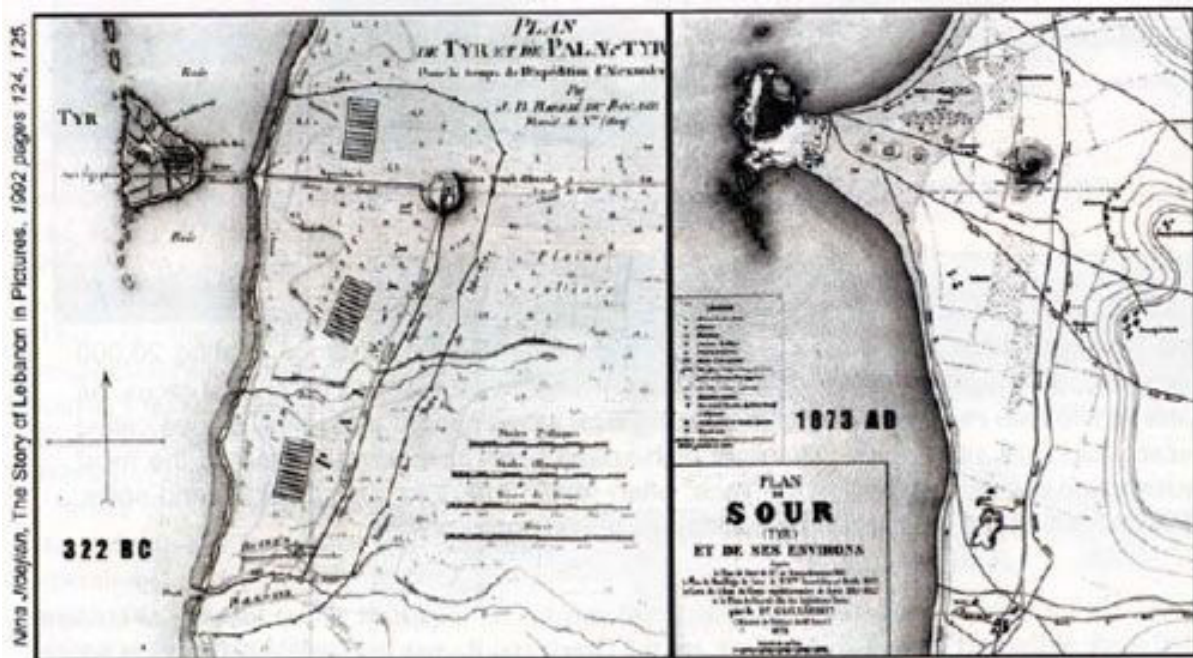
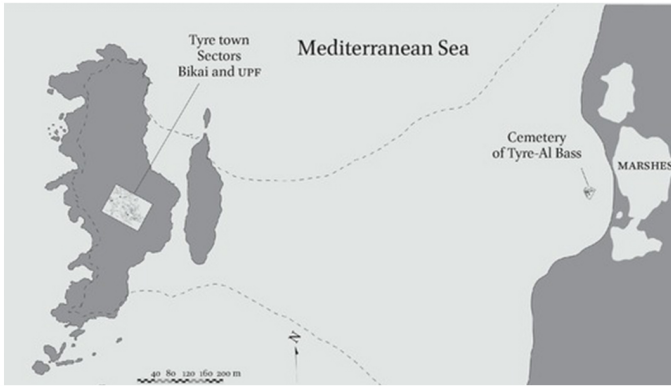


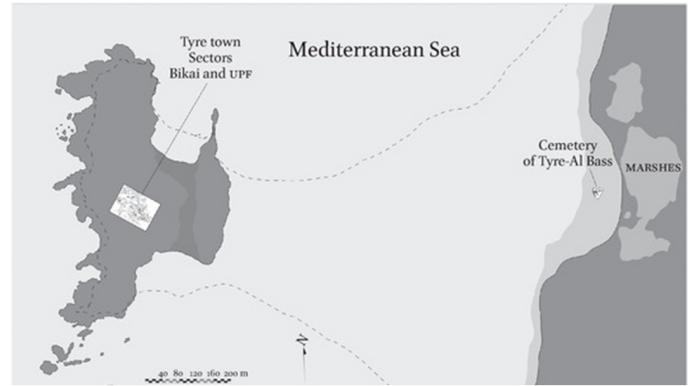
Figure 56. Ancient maps of Tyre dating back to 322 BC and 1872 AB
 Source: Bible & Spade, Fall Issue 2002

Originally an island, Tyre was subsequently connected to the mainland by a causeway built by Alexander the Great. Over time, sand and debris deposits swept up by waves increased the size of the causeway. Tyre is depicted on this 1873 map both as it existed in 322 BC and as a peninsula that extended into the Mediterranean Sea. The north and south sides of the peninsula still bear witness to the remains of Tyre's former harbors.



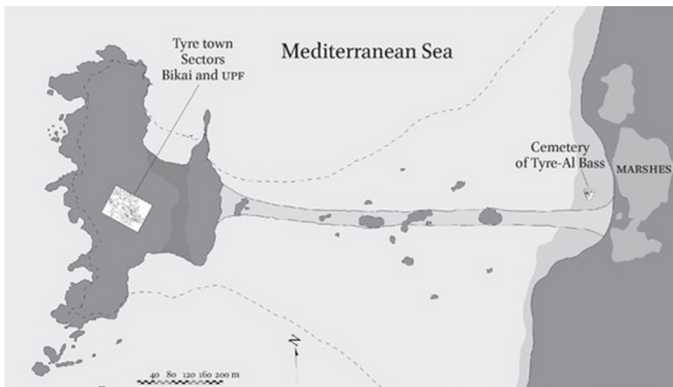
A

Reconstructed island size and maximum coastal ingression approximately **6000 BP**. The bathymetry was estimated using a 2 m eustasy and a 3 m tectonic subsidence model.



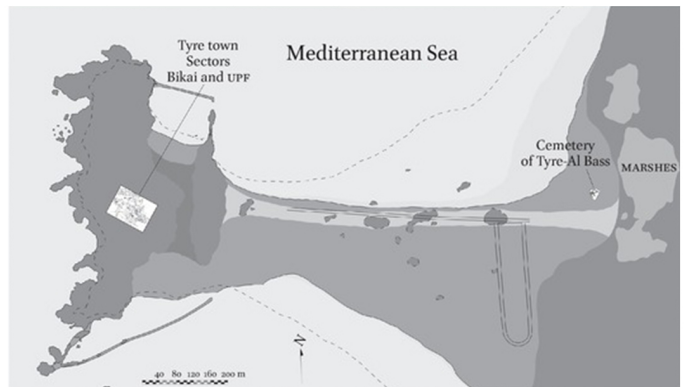
B

Reconstructed island size and maximum coastal ingression approximately **4000 BP**. The bathymetry was computed using 1.5 meters of eustasy and 3 meters of tectonic subsidence.



C

Reconstructed island size and maximum coastal ingression approximately **3000 BP**. The bathymetry was computed using 1 meters of eustasy and 3 meters of tectonic subsidence.



D

Reconstructed island size and maximum coastal ingression approximately **330 BP**. On the basis of 3 m of tectonic subsidence, the bathymetry has been estimated.

Figure 57. Ancient maps of the development of Tyre into a peninsula – Source: *Tyre before Tyre: The Early Bronze Age Foundation*, 14–30

In Tyre's history, Alexander the Great's siege of the city is a noteworthy event that highlights both the strategic importance of the city and the severe obstacles the conqueror had to overcome. The building of a causeway connecting the mainland to Tyre's island demonstrated Alexander's inventiveness and resolve to get beyond the city's fortifications. This stone causeway was a key development in siege warfare by enabling his cannon to approach the city walls.

The 50-meter-tall siege towers used by Alexander, which were armed with ballistas and catapults, were an example of cutting-edge warfare at the time. These towers were a strong force against the city's defenses and were covered with rawhide to protect them from fire arrows. The clever Tyrians, however, planned a counterattack using a ship loaded with flammable goods and set it afire, seriously damaging the siege machinery and forcing the Macedonian forces to flee.

Alexander gathered the fleets of the Phoenician city-states he had conquered and received assistance from the ruler of Cyprus after realizing the necessity of a navy in taking Tyre. He deployed battering ram-equipped galleys and blockaded the city's ports with his superb fleet of 223 galleys. Alexander's forces persisted in trying to penetrate the city's fortifications despite encountering challenges including underwater stone blocks and Tyrians sabotaging anchor cables.

The Tyrians launched a daring counterattack, focusing on Alexander's causeway engineers and constructors. The unexpected attack caught the Macedonians off guard at first, leading to significant casualties. By departing from his customary course of action, Alexander managed to capture the attackers who were fleeing the city and reverse the tide in his favor.

The siege of Tyre serves as a showcase for Alexander the Great's impressive military tactics and the ingenuity of the Tyrians in defending their city. It serves as a reminder of the value of naval power and the difficulties involved in besieging a heavily fortified coastal bastion. The circumstances surrounding Tyre's siege are of immense historical significance because they show the city's fortitude and the part it played in influencing ancient history.



Figure 58. Tyre & environs antique town city plan. Sour. Rachidiyeh. Lebanon 1912 old map - Source: Wagner & Debes



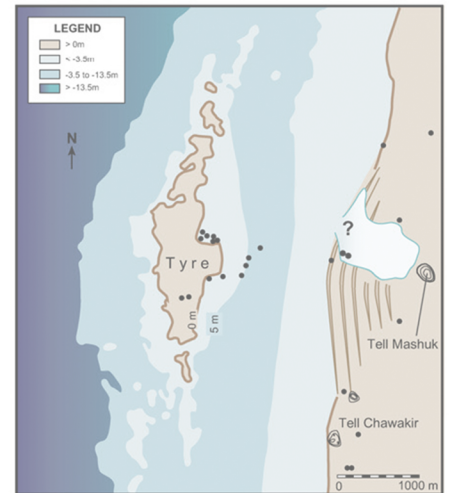
1

Island size as reconstructed about **8000 BP**. The bathymetry was estimated using a 5 m eustasy, 3 m tectonic subsidence, and 1 m sediment accretion offset.



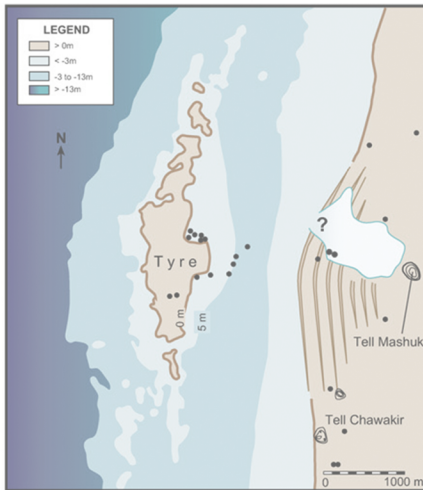
2

Reconstructed island size and maximum coastal ingress ion approximately **6000 BP**. The bathymetry was estimated using a 2 m eustasy and a 3 m tectonic subsidence model.



3

Reconstructed island size and maximum coastal ingress ion approximately **4000 BP**. The bathymetry was computed using 1.5 meters of eustasy and 3 meters of tectonic subsidence.



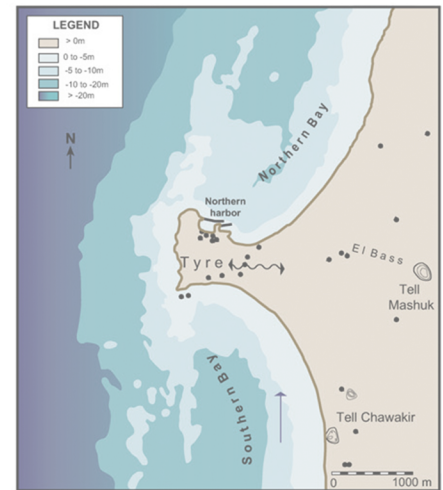
4

Reconstructed island size and maximum coastal ingression approximately **3000 BP**. The bathymetry was computed using 1 meters of eustasy and 3 meters of tectonic subsidence.



5

Reconstructed island size and maximum coastal ingression approximately **330 BP**. On the basis of 3 m of tectonic subsidence, the bathymetry has been estimated.



6

Coastal morphology and bathymetry **today**

Figure 59. Ancient Tyre and its harbor, 5000 years of interactions
 Source: *Journal of Archaeological Science*, Volume 35, Issue 5,
 May 2008, Pages 1281-1310

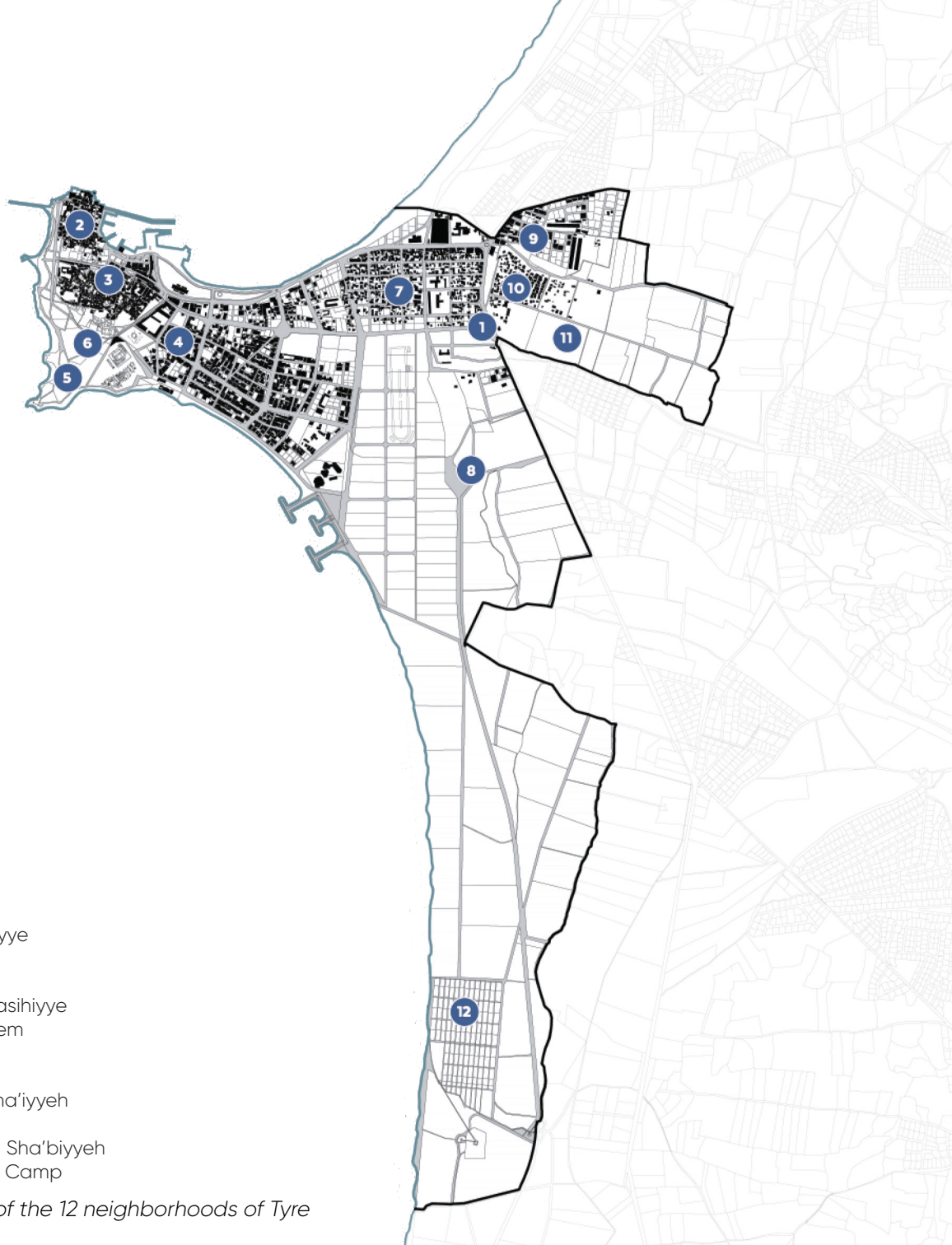
Neighborhoods

It is essential to comprehend a few fundamental ideas if you want to fully appreciate Tyre's communities. To begin with, Tyre is divided into twelve distinct neighborhoods, each of which has a distinct personality and historical significance. These areas, including Haret El Bab, Haret El Jalaji, and Haret El Masihiyeh, are representative of the city's varied social and cultural fabric. A variety of populations, including Christians, Muslims, and other ethnic groups call them home, adding to Tyre's heritage's complex tapestry.

Second, Tyre's communities exhibit a fusion of traditional customs and modern lifestyles. They show off how historical sites like old ruins and traditional homes coexist peacefully with modern buildings and conveniences. Visitors can delve into the city's past while taking in its dynamic present by exploring these areas.

Every neighborhood also has its own distinctive characteristics, from hopping markets and active business districts to peaceful residential lanes and cultural organizations. Due to its diversity, the urban environment is dynamic and meets the needs and interests of both locals and tourists. The Tyrean neighborhoods serves as hubs for social gatherings, festivals, and civic activities, establishing a feeling of community and shared identity.

In general, Tyre's neighborhoods capture the historical, cultural, and social facets of the city. They give an insight into locals' daily lives, highlight how tradition and modernity coexist, and serve as a colorful background for the city's continual growth and development. The holistic experience of exploring these districts enables one to fully understand Tyre's distinctive charm and character.



1. Al Maachouq
2. Haret El Masihiyye
3. Haret El Islem
4. Hay El Ramel
5. Makbarat El Masihiyye
6. Makbareh El Islem
7. El Buss Camp
8. Hay El Hisbeh
9. Al Madina El Sina'iyyeh
10. Hay El Zira'a
11. Al Massaken El Sha'biyyeh
12. El Rashidiyyeh Camp

Figure 60. Map of the 12 neighborhoods of Tyre

1.6.2 **Urban Morphology**

Old Core, New City, Camp

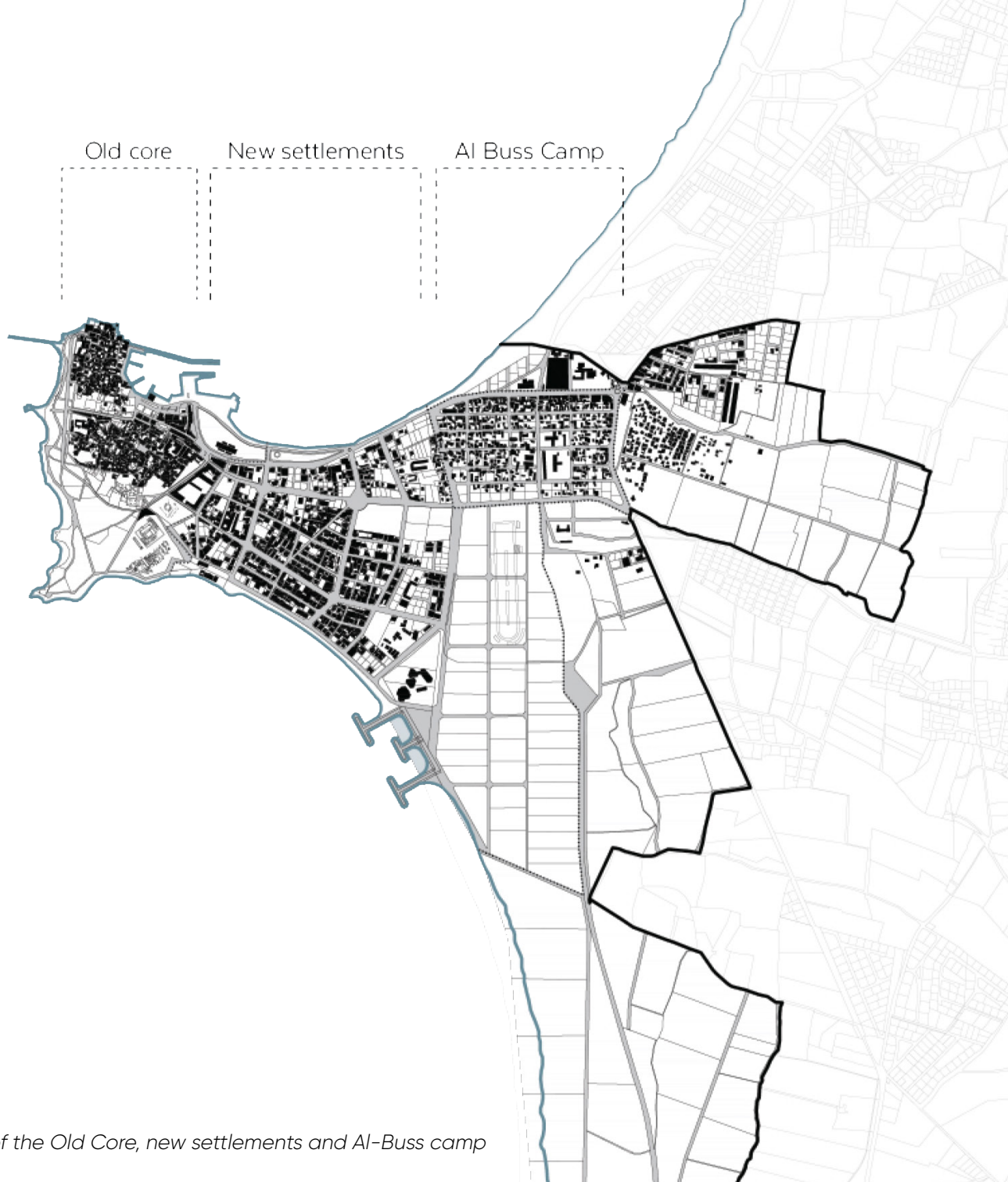


Figure 61. Map of the Old Core, new settlements and Al-Buss camp of Tyre

1.6.2.1 *Old City*

Tyre's ancient city center is very important both historically and culturally. It was Tyre's first settlement, dating back to antiquity, and it served as the center of the growth of the city. The small, meandering alleyways, classic architecture, and ruins of historic buildings make up this area's historic centre.

Tyre's historic center displays a diverse patchwork of former regional cultures. It displays the lively past of the city by displaying Phoenician, Roman, Byzantine, and Arab influences. Visitors can explore archeological sites inside its boundaries, including historic Roman hippodromes, amphitheatres, and ancient temples.

Additionally, Tyre's historic district is renowned for its bustling souks (markets), where locals and guests can take in the vivid atmosphere, find local goods, and savor cuisine. Hidden treasures like historic sites, adorable courtyards, and classic homes with elaborate embellishments can be found along the maze-like streets.

It is crucial to safeguard Tyre's cultural legacy and advance sustainable tourism by preserving and reviving the historic city center. The historic structures are being restored and preserved, the pedestrian infrastructure is being improved, and areas for cultural events and activities are being created. Tyre's historic center serves as a living reminder of its long history and a gateway for tourists to delve further into Tyre's illustrious past.



Figure 62. Map of Old City of Tyre, Zone A

M3

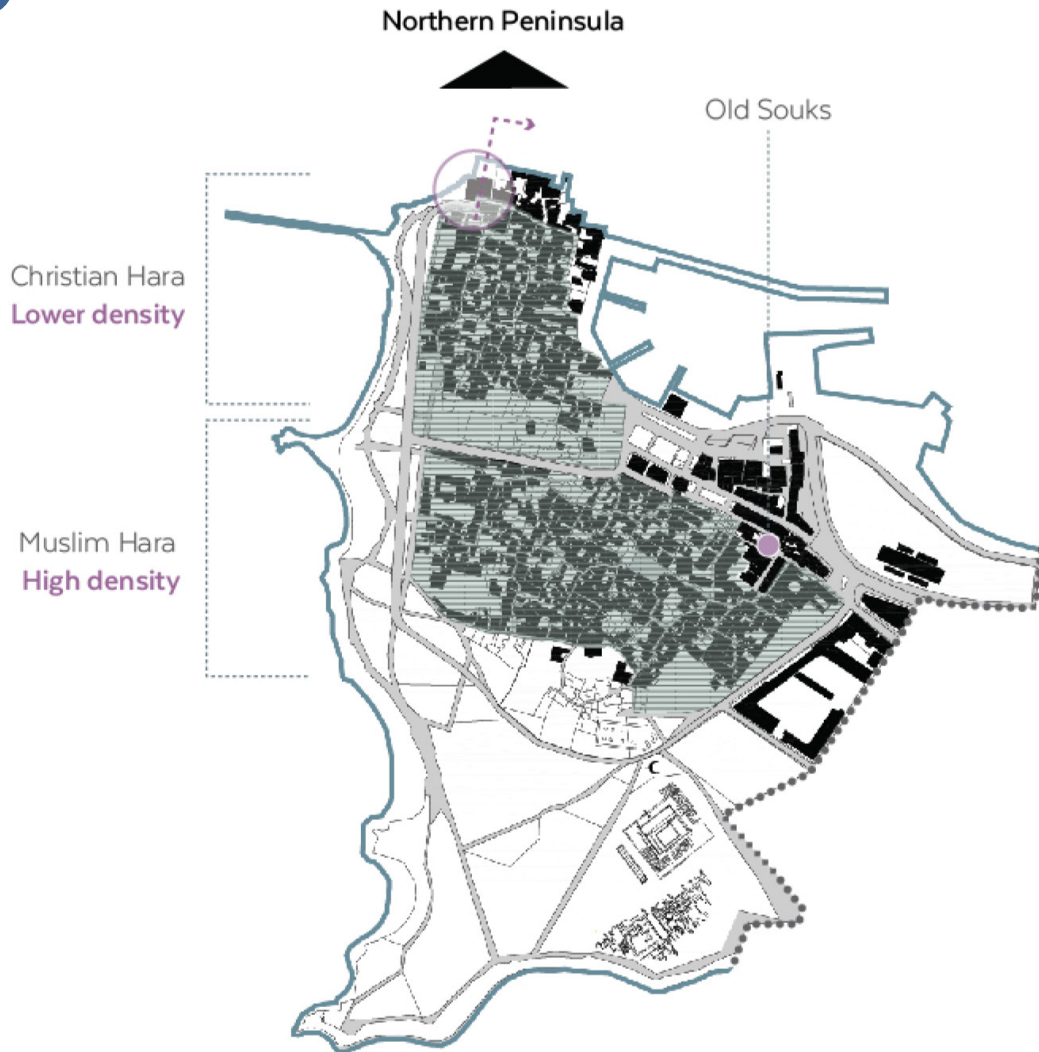


Figure 63. Map of the two quarters of the Old City

Sheikh Mohamad El Nassar decided in the 1980s that the Christian Hara would be given the coastline region, while the Muslim Hara, being more of a conservative nature, would be on the inside.

In addition to the growth of several new recreational investments on the shore, it has been highlighted that residents of the Christian hara have improved access to education and livelihoods.

The old core, however, continues to serve as Tyre's primary administrative center. It houses important governmental and public structures like the Serial, the municipality, the local police force, the prison, the tribunal, and the technical office for urbanism, in addition to regional markets and souks for fresh produce, meat, and fish.

It's crucial to remember that Tyre's Christian Hara (quarter) is distinguished from its bustling beachfront area in addition to the divide between the Muslim and Christian neighborhoods. The rise of tourism and leisure activities in this region has been facilitated by the development of recreational investments along the shore. Residents that live close to the seaside have quick access to the beach, waterfront promenades, and a variety of other attractions for both tourists and locals.

The Muslim Hara, which is considered to be more conservative, is located further inland. Although specifics may vary, this region frequently maintains its historic atmosphere and cultural practices. Mosques, community centers, and local markets that serve the needs of the community's members may be some of the distinctive characteristics of the Muslim Hara.



SECTION A-A

It is important to note that Tyre's historical center continues to serve as the city's major administrative center, notwithstanding religious divisions. Tyre's distinctive cultural fabric and way of life are influenced by the interactions between the Christian and Muslim districts as well as the presence of administrative buildings in the historic city center. Understanding the diversity and harmony of the city requires appreciating and understanding these unique sections.

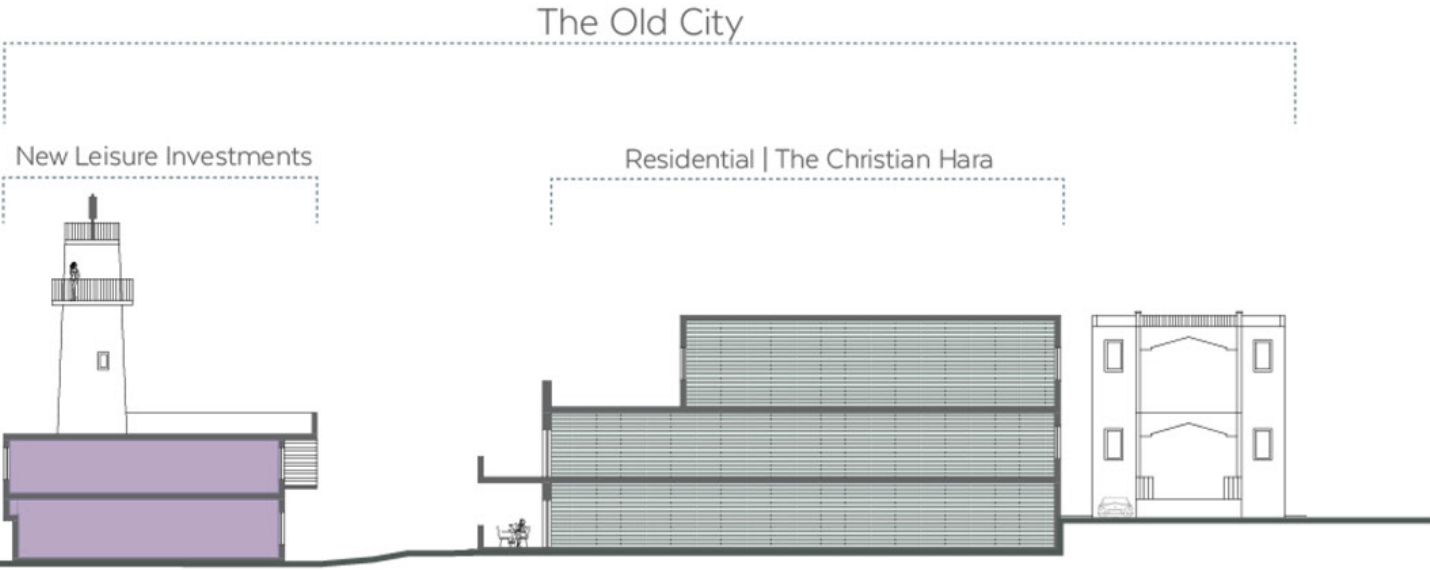


Figure 64. Transversal section through the Christian Hara

1.6.2.2 New City

A suburb in Tyre called Hay el Ramel was built on top of ruins and represents a time when homes were moved from the Harat to the sandy, uninhabited areas. As a result of this development, Hay el Ramel began to emerge as the city's commercial center, where local enterprises flourished.

The area has a distinctive personality and historical significance as a result of its unusual beginnings on top of ancient ruins. Commercial activity in this area increased quickly as a result of the combination of modern infrastructure and residential construction. As a thriving commercial hub that catered to the requirements of both locals and tourists, Hay el Ramel attracted a wide variety of small companies.

Hay el Ramel in Tyre developed into a thriving commercial area thanks to its advantageous location and vibrant ambiance. The area is home to numerous stores, marketplaces, restaurants, and other businesses that provide a wide range of services and goods. It has developed into a bustling location where people congregate to explore the neighborhood market, conduct business, and take in the lively energy of the city.

The expansion and vibrancy of Tyre's economy as a whole have been facilitated by the success of firms in Hay el Ramel. Its commercial district acts as a crucial economic engine, generating jobs and bolstering the regional economy. Additionally, the neighborhood's mix of contemporary construction and ancient ruinous sites produces a distinctive atmosphere that heightens Tyre's beauty and allure.

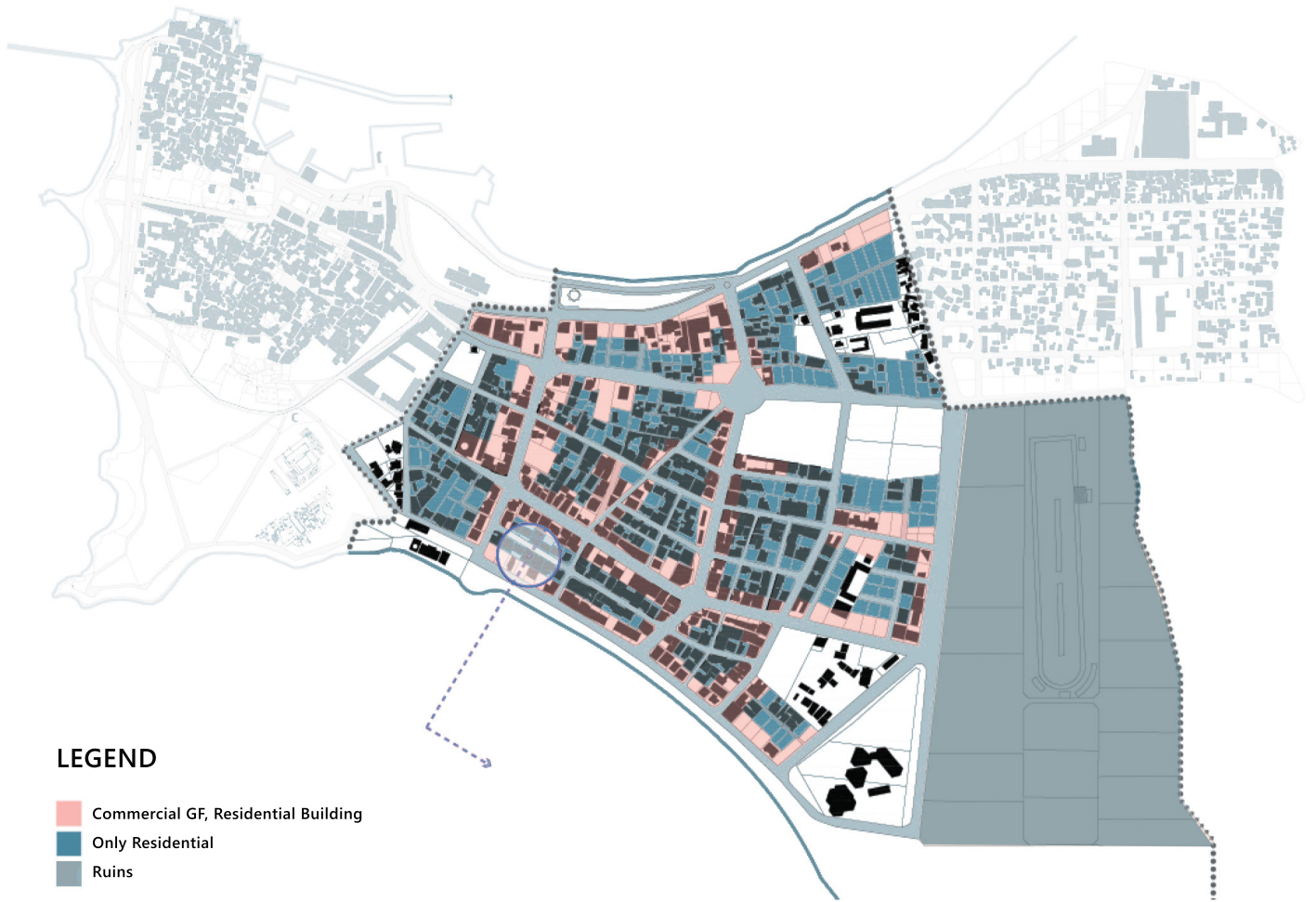


Figure 65. Map of the New Settlements, Zone B

The charming Nabih Berri Avenue in Tyre serves as a mesmerizing representation of the urban dynamics and evolution of the city, which are carefully intertwined into its rich historical fabric. This busy road was created as a result of Tyre's growing urban footprint along the scenic coastline, and it has seen an amazing transformation, transcending its original residential nature to become a vibrant hub of commercial and recreational activity.

The city's deliberate growth in the direction of the coastline is where the makeover of Nabih Berri Avenue first began. This daring enlargement opened up new opportunities and allowed for the creation of the avant-garde architectural forms that currently adorn the road. A remarkable synergy has resulted from the blending of urban planning and natural topography, providing a seamless connection between the constructed environment and the tranquil beauty of the Mediterranean Sea. The result has been the growth of a magnetic corridor that not only links locals but also welcomes an influx of interested tourists looking to find Tyre's undiscovered gems.

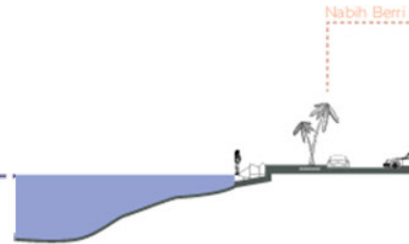
Nabih Berri Avenue, which was formerly predominately made up of residential buildings, has gracefully changed with time to meet the diverse demands of the city and its tourists. Its ground floors have been given new life by the growth of tourism and leisure-related businesses, transforming them into an eclectic nexus of various activities. A colorful tapestry of cafes, stores, diners, and alluring boutiques has sprouted among the attractive residential homes, each adding to the avenue's palpable vibrancy. Through its busy hallways, a symphony of colors, noises, and scents reverberates, capturing Tyre's modern energy.

Nabih Berri Avenue has undergone more than just physical change; it now serves as a metaphor for Tyre's evolving identity. The city's capacity to welcome change while remaining firmly rooted in its historical past is demonstrated by this living artery.



The appeal of Nabih Berri Avenue is not only due to its thriving commercial district, but also to the fact that it serves as a gathering place for Tyre's diverse population. The attractiveness of the road extends beyond its facades, encouraging a sense of belonging and connection among its visitors. Locals and guests mix here while exchanging tales, jokes, and reflective moments. An atmosphere that celebrates Tyre's unity in diversity is created by the sunlight terraces overlooking the sea, the perfume of freshly brewed coffee, and the tapestry of languages spoken there.

SECTION B-B



Nabih Berri Avenue, which represents the city's adaptation and tenacity, essentially captures Tyre's transition from antiquity to modernity. It is a tangible example of Tyre's constant dedication to embracing advancement while preserving its cultural heritage. This boulevard, which serves as the heart of the city, extends a warm invitation to everyone who wish to explore and take part in the fusion of heritage and innovation that characterizes Tyre's modern tale.

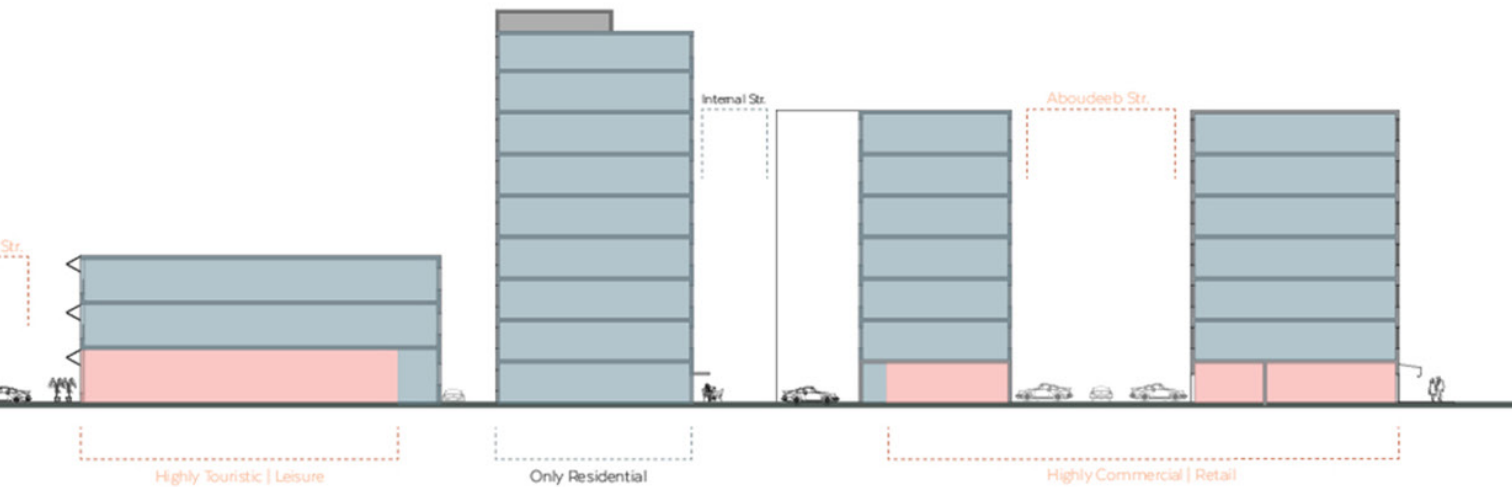


Figure 67. Transversal section through the new city

Parcels

The older parts of Tyre's centre have an organic urban morphology, although the more recent settlements have a different style of growth. These more recent areas are distinguished by the parcels' more regular and geometric layout, which follows a predetermined grid pattern in their division.

The parcel division in the newer towns is planned and organized, reflecting a systematic approach to urban planning and land use. A grid system, with its clearly defined plots and regular street layouts, enables a more effective distribution of space. The area feels more orderly and makes travel easier thanks to the parcels' well-organized structure.

The regularity of parcel division has benefits for infrastructure planning and development as well. It is easier to install utility networks, road networks, and other critical amenities due to the uniform parcel shapes and sizes. The newer communities' streamlined approach to urban planning allows for greater resource coordination and optimisation.

The shift from the haphazard layout of the old core to the more organized parcel division in the newer townships illustrates how Tyre's urban development has changed through time. While the city's historical charm and natural expansion are embodied in the ancient core, the city's newer neighborhoods adopt a more methodical approach that adheres to modern urban planning concepts.

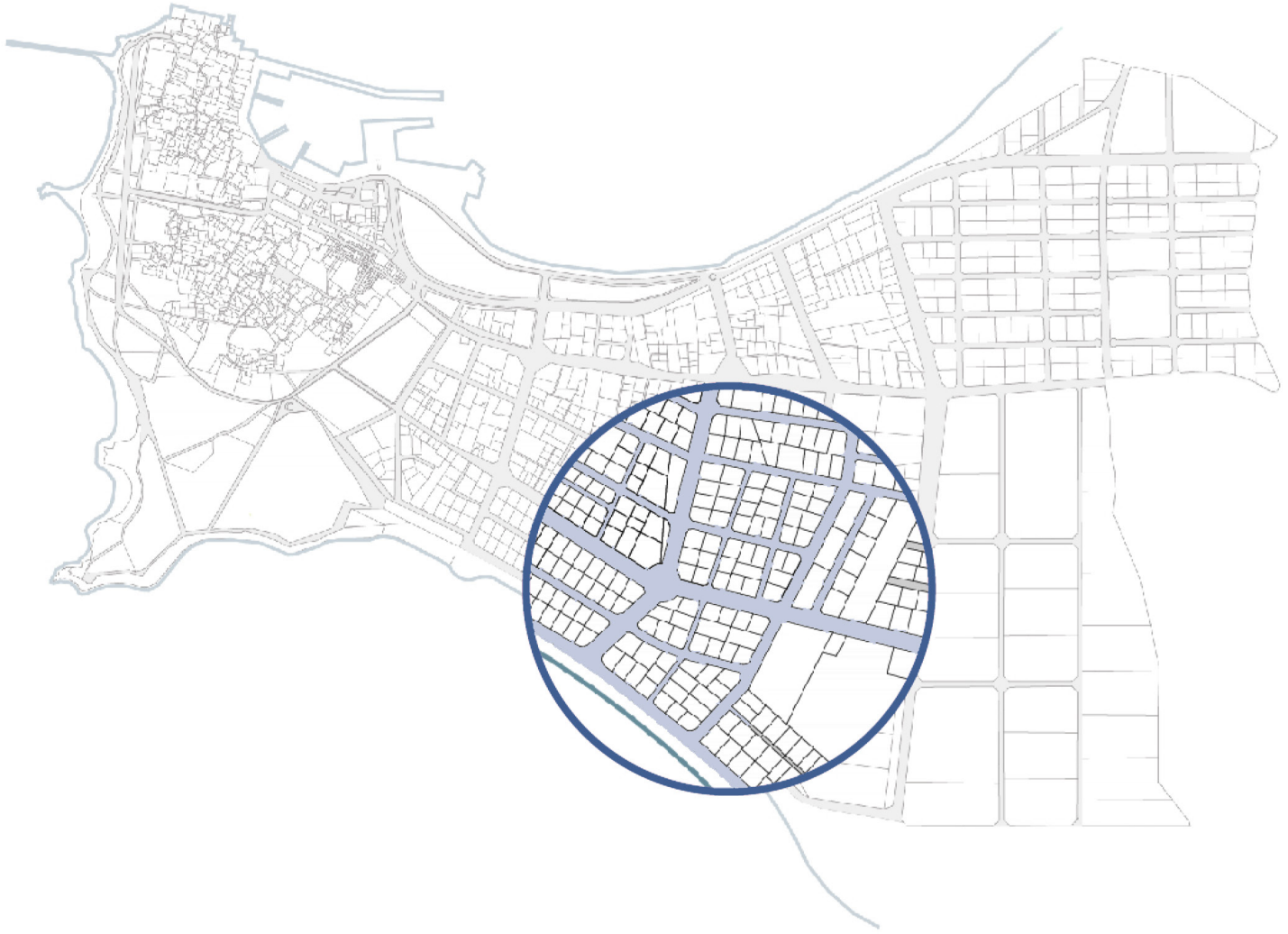


Figure 68. Parcels of the new settlement zone

The irregular shapes of the parcels in Tyre's historic center and their seamless blending with the existing buildings are a reflection of the organic nature of the city's early urban morphology. This trait contributes to the region's high urban density. It is crucial to remember that there were no clearly defined or strictly implemented rules for urban planning at the time this area was founded as a city, allowing for an uncontrolled pattern of development.

Both the Muslim and Christian districts' alleys are primarily used by pedestrians. They have a layout that is frequently maze-like, narrow, and complicated. These lanes connect to the neighborhood's residential structure to form a complicated network. Alleys serve as extensions of homes in these areas that are exclusively residential, offering room for children to play, drying clothes, and hosting weekend barbecues, among other uses.

The historical history and cultural significance of Tyre are highlighted by its distinctive urban fabric in the city's historic district. A sense of community and a unique way of life are fostered by the complex lanes and intimate residential areas. By fostering a warm and lively atmosphere in the area, they add to the old core's charm and character.



Figure 69. Parcels of the old core zone



Figure 70. View from the narrow streets of the old city - A



Figure 71. View from the narrow streets of the old city - B

1.6.2.3 *Al Buss Camp*

Tyre's principal Roman ruins are close by the Palestinian refugee camp known as Al Buss, which is significant historically. In the beginning, the French government built a formal hospital right in the middle of the camp. Palestinians from the Acre region took up residence in the camp after the hospital was moved to the Anjar area in the 1950s.

The refugee camp's location next to the Roman ruins presents a fascinating contrast of historical eras in the city. The hospital's move reflects the era's altering dynamics and goals as well as the camp's changing demographics. This transformation not only had an impact on the healthcare services offered to camp residents, but it also changed the demographics of the neighborhood with the entry of Palestinians from the Acre region.

The intricate interactions between urban expansion, displacement, and the preservation of cultural assets are highlighted by this historical setting. Tyre's rich history is furthered by the presence of the refugee camp next to the Roman remains, which also serves as a reminder of the socio-political realities that have molded the city over time.



Figure 72. Map highlighting the location of Al-Buss camp in Tyre



Figure 73. Ancient ruins with the modern buildings of the camp in the back



1.6.3 Zoning

The zoning of Tyre's research area is very important for urban planning and growth. To ensure effective land use and encourage balanced expansion, the city is divided into several zones, each of which is assigned to a specific function and set of activities. The majority of these zones fall under the category of neighborhoods and business districts.

The city's residents are taken care of by the residential areas, which offer places for housing and communal living. These neighborhoods frequently have a variety of housing types, from single-family homes to multi-story apartment complexes, to accommodate people from different socioeconomic backgrounds.

On the other side, the city's economic center is located in the commercial areas. They are intended for commercial uses such offices, retail stores, and service-based organizations. These areas promote trade and business, drawing both residents and visitors and boosting the city's economy.

Tyre's urban planners strive to build a well-organized city that supports convenience, accessibility, and a high standard of living for its citizens by having clearly defined residential and commercial zones. In addition to managing traffic flow and easing congestion, effective zoning also improves the urban environment.

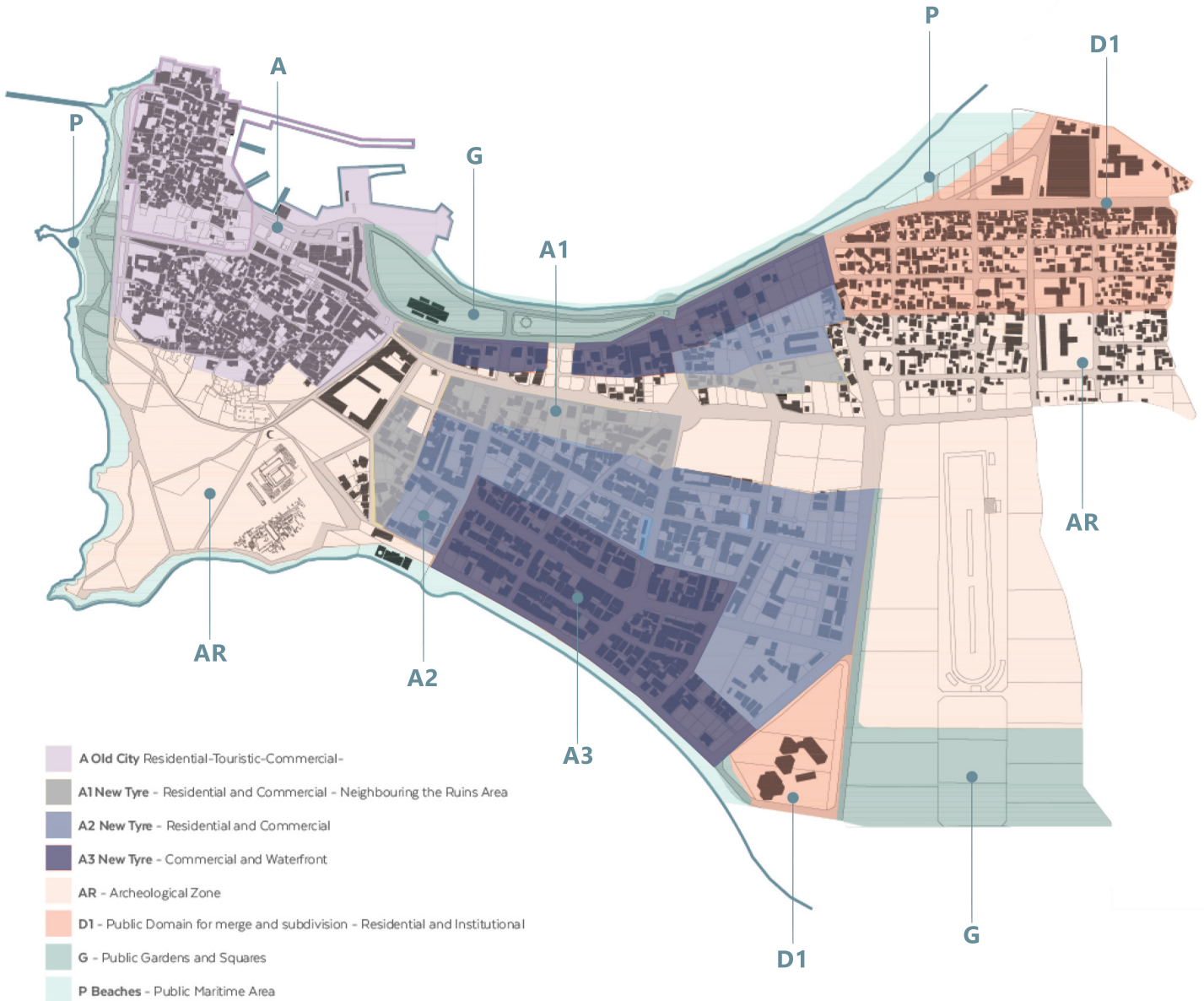


Figure 74. Map of the zoning in the city of Tyre

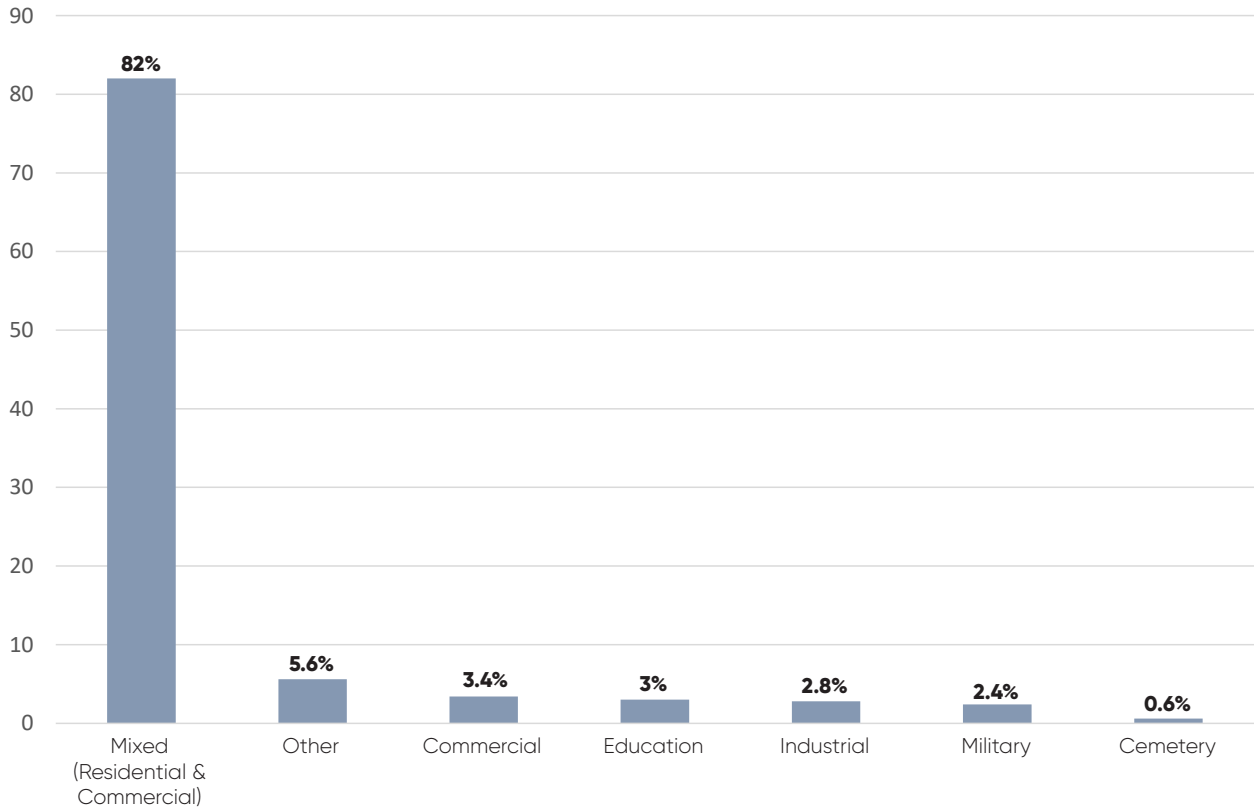
1.6.4 Land use

Tyre's municipality enjoys a special position within the city because of its active and diverse mix of land uses. The cityscape is an intriguing patchwork of different activities and amenities that meet the requirements and goals of both its citizens and visitors.

Residential areas abound in Tyre's center, providing residents with a sense of belonging and a place to call home. These regions are complemented by booming commercial districts that are teeming with stores, markets, and establishments that offer the people of the city necessary goods and services. The prosperous economy in the city as a whole is also a result of the bustling commercial sectors.

The municipality serves as a focus for residential and economic activity as well as housing important institutions such as military outposts, schools, and medical facilities. These organizations are essential to helping the city's citizens, maintaining their security and well-being, and promoting a culture of learning and development.

Tyre Land Cover



Graph 5. Percentage of the type land cover and use in Tyre

The city's green spaces, like parks and playgrounds, provide tranquil retreats for leisure and pleasure in contrast to the urban bustle. These natural areas add to the general livability of the city and offer a much-needed respite from the hustle and bustle of the city.

Additionally, agriculture still plays a crucial role in Tyre's character, and the municipality supports agricultural areas that support local agriculture and the economy. The presence of lush fields amidst the urban setting acts as a constant reminder of the area's rich agricultural background.

Cemeteries have a serious importance in the midst of urbanity, serving as a place of final rest and paying respect to the memory of the deceased. These hallowed areas provide the urban fabric depth and serve to remind people of the cycle of life and the value of cherishing their communal places.

While Tyre municipality embodies the urban area's diversity, Sour municipality plays a different role. It serves as the protector of the area's cultural and historic landmarks, safeguarding the priceless artifacts that reflect the city's famous past. These locations give visitors and locals alike an insight into earlier civilizations while also serving as reminders of the city's enduring legacy.

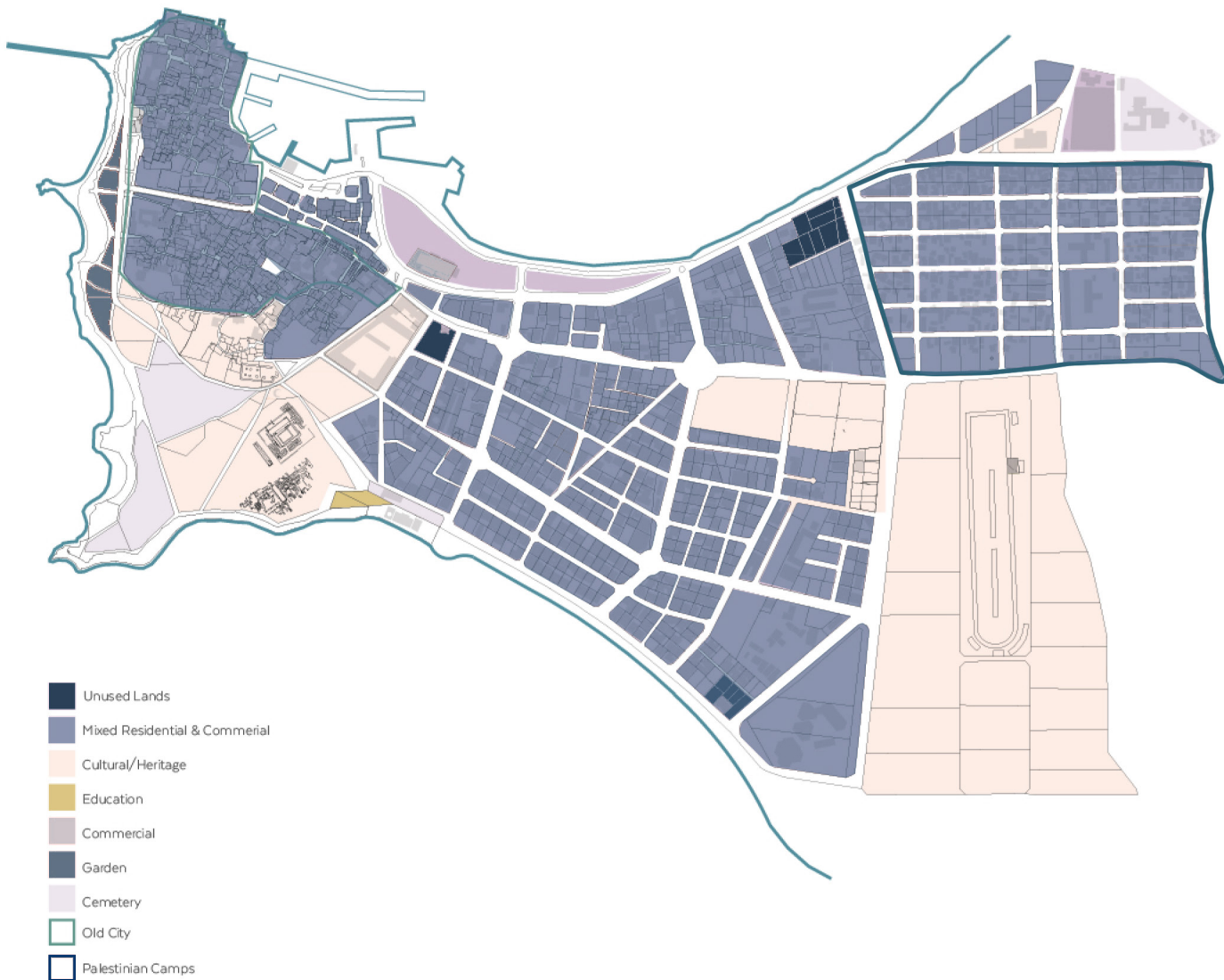


Figure 75. Map of the land use in the city of Tyre

1.6.5 Urban challenges

Tyre, a city with a long history and located along the magnificent Mediterranean coast, is currently dealing with a number of contemporary urban difficulties that call for prompt attention and creative solutions. Slums and informal settlements have proliferated as urbanization keeps growing, changing the city's landscape and creating serious social and economic problems. The difficulties Tyre's urban environment is facing have also been made worse by the influx of Palestinian and Syrian refugees looking for shelter and safety.

The city's infrastructure and public services are under a great deal of stress as a result of the dense population concentrations, which frequently occur as a result of inadequate urban planning. There is a rising need for effective transportation and mobility solutions to ensure the seamless movement of both inhabitants and visitors as streets and communities become more densely inhabited. Policymakers and city planners must now carefully balance protecting Tyre's historical legacy with providing for contemporary urban needs.

Tyre's journey to a sustainable and resilient future will require coordinated efforts from government authorities, NGOs, community leaders, and individuals alike in order to navigate these hurdles. In order to establish a vibrant and inclusive urban environment that values its historical roots while embracing the opportunities of the present, the chapter will look for potential solutions and best practices. We can work together to make Tyre into a city that thrives, ensuring a higher standard of living for all its citizens, by comprehending the urban difficulties that lie ahead.



سدویش محف

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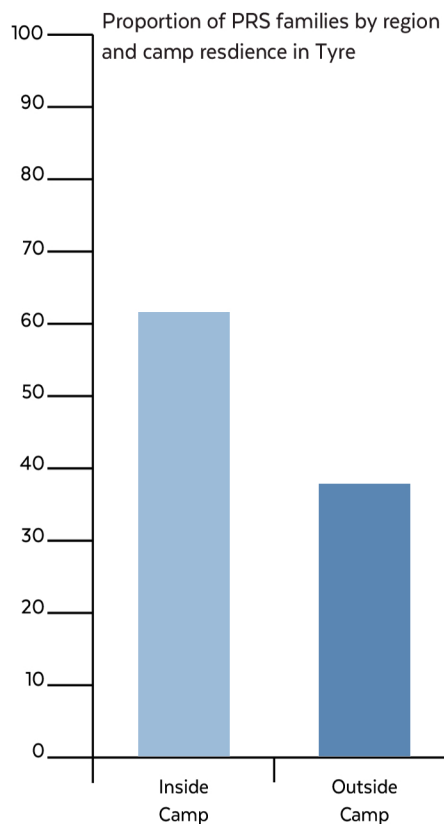
1.6.5.1 Informal settlements and shelters

The economic circumstances of the Palestinian community in Tyre closely resemble those of vulnerable Lebanese populations, which are distinguished by low-skilled people who work primarily in informal jobs. The International Labour Organization (ILO) observed that these jobs frequently require lengthy hours of work for inadequate pay in 2015. Tyre's Palestinian refugee population has one of the highest rates of poverty in the nation, with 79% of residents living in poverty and 9.5% in extreme poverty. 81% of the Palestinian refugees who live in extreme poverty are shared by Saida and Tyre.

According to ILO data from 2015, over 42% of Palestinians who are working-age are employed, with half of them working in the construction and services industries. Tyre stands out for having a greater than normal percentage of low-skilled workers (41%), compared to the national average. According to Chaaban, Ghattas, Habib, et al. in 2010, the agriculture sector in Tyre employed about 23% of Palestinian workers prior to the crisis. These figures highlight the economic hardships that the Palestinian community in Tyre is experiencing and the urgent need for specific initiatives to address poverty and concerns with subsistence in the area.

	Palestinian Refugees	Lebanese Population	Difference
<i>Poverty</i>			
North	65.1	60.5	-6%
Central Lebanon area	53.1	19.9	167%
Saida	65.2	55	16%
Tyre	79.2	46.1	72%
Bekaa	58.6	36.9	59%
Total	66.4	35.1	89%
<i>Extreme Poverty</i>			
North	3.5	7.7	-55%
Central Lebanon area	1.6	0.6	167%
Saida	9.8	1.4	600%
Tyre	9.5	1.4	579%
Bekaa	4.4	0.9	399%
Total	6.6	1.7	288%

Table 5. Comparison of Poverty Rates
Source: : (Chaaban, Ghattas, R.Habib, et al. 2010)



Graph 6. PRS families and household size inside and outside Palestinian refugee camps in Tyre
Source: UNRWA, 2015.

1.6.5.2 Clustered Communities

In the Tyre area, there are three significant Palestinian Refugee camps, but within the boundaries of the Tyre Municipality, two of these camps are included:

1. Al Bass Camp
2. Al Rashidiyeh Camp

These camps are home to a substantial number of Palestinian refugees who have been living in these areas for decades. Alongside the camps, there are also other informal settlements known as Gatherings:

1. Jal Al Baher Gathering
2. Nahr Samer Gathering

Due to their informal and ad hoc nature, the Palestinian refugee camps in Tyre, like many others in Lebanon, confront a number of difficulties. The residents in these camps face a number of serious problems, including poor living conditions, inadequate infrastructure, and restricted access to basic services. Despite the challenging conditions, these camps and gatherings have developed strong communities that have managed to maintain their cultural identity and legacy while adjusting to the difficulties they face every day.



مستشفى لطفاً الأسفان
توليد - أمراض - أمراض أطفال
وجراحات - تشخيص وإجراء
بإدارة طبيب الزنازني
أ. د. مصطفى كركنا

شبابنا الراسخون
أحمدنا الطريقة
بإدارة الأستاذ الدكتور
أحمد كركنا



Al Bass Camp, Tyre's first Palestinian refugee camp, opened at the start of a key period in the city's history. Originally built to house Palestinian refugees who fled their homes during the Arab-Israeli conflict, the camp experienced an increase in population over time, which necessitated the construction of new communities.

Al Bass Camp began to grow horizontally beyond its original bounds as its population increased, heading toward Tyre's scenic shoreline. As a result of this growth, the camp was extended toward the sea, creating the new informal community known as Jal Al Baher Gathering.

The expansion of the camp and the founding of Jal Al Baher Gathering show the difficulties Palestinian refugees experience in locating suitable housing and living quarters. These neighborhoods frequently have cramped living conditions and insufficient access to essential services and facilities due to their high population densities and lack of urban planning. The people who live in Al Bass Camp and Jal Al Baher Gathering have demonstrated incredible tenacity in the face of difficulties, forming tight-knit communities and defending their traditional traditions.

The predicament of these camps and gatherings emphasizes the significance of addressing the larger problem of Palestinian displacement as well as the requirement for thorough urban planning and development plans to improve the residents' living circumstances and possibilities. Improving the standard of living and encouraging a sense of belonging among the Palestinian refugees in Tyre requires working toward sustainable solutions that take into account the social, economic, and environmental components of these communities.

Northern Entrance

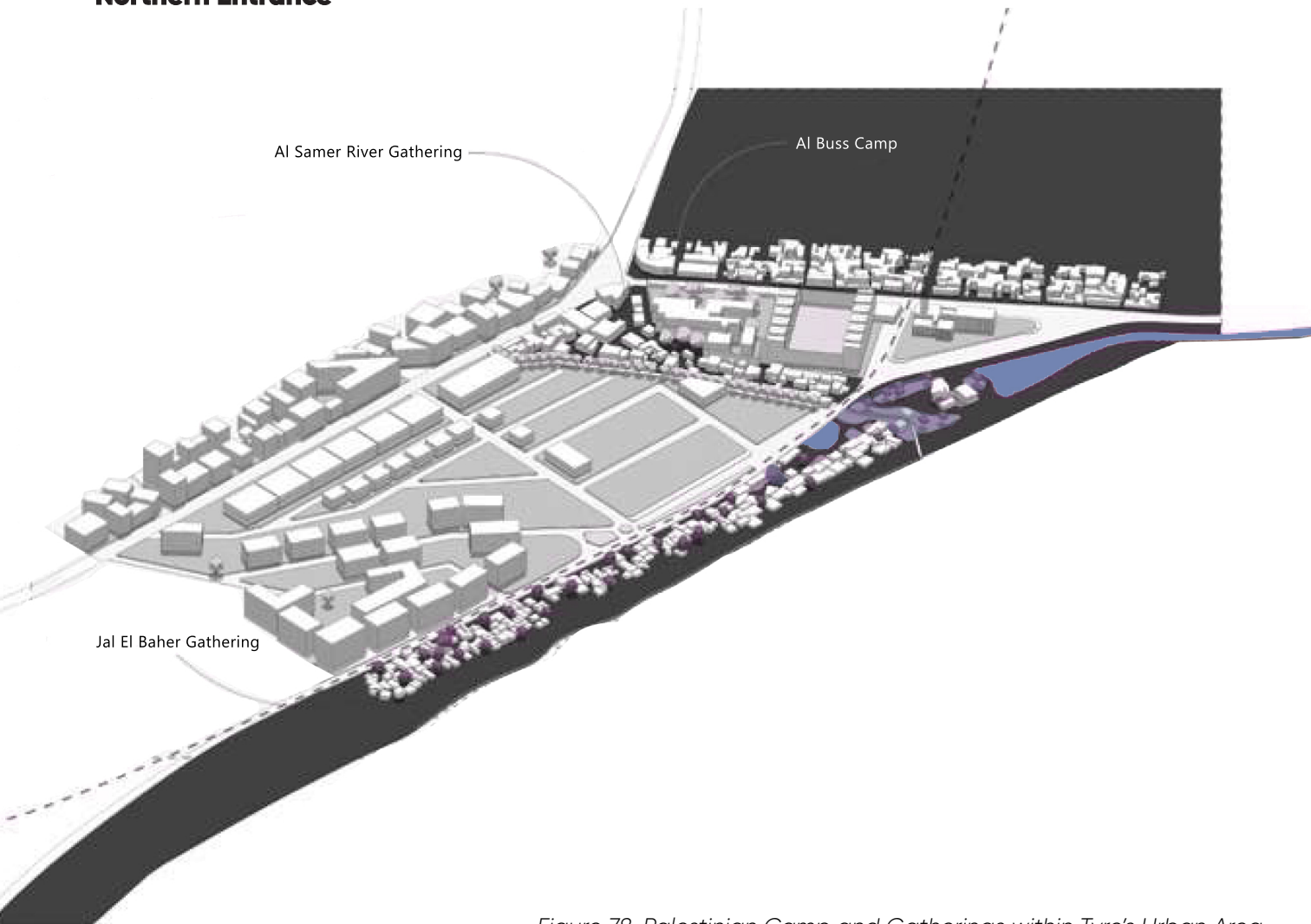


Figure 78. Palestinian Camp and Gatherings within Tyre's Urban Area

Al Bass Camp

Tyre has a total population of about 73,515 people, with Palestinian refugees making up a sizable fraction of that number. They include 69,724 Palestinian refugees from Lebanon and 3,791 Syrian refugees who are looking for protection and shelter in the city.

It's interesting to note that Al Bass Camp, the current home of many Palestinian refugees, has historical significance prior to its usage as a haven for displaced people fleeing war. The camp provided refuge for survivors of the Armenian genocide from the 1930s until the 1950s.

More Palestinian refugees moved into the camp over the years, particularly following the 1948 Arab-Israeli conflict, which resulted in a rise in population and overcrowding problems. The subsequent influx of Syrian refugees further complicated an already difficult situation.

Notably, a sizeable proportion of Palestinian refugees from Syria (PRS) now reside in Tyre, making up around 17.3% of the city's population. With an average of 7.2 household members in refugee camps and 8.53 people outside the camps, Tyre has the largest PRS households of any region in Lebanon. This emphasizes the difficulties these families confront and the significance of attending to their particular needs and situations.

As Tyre continues to house a diverse community of Palestinian refugees, attempts to ensure the well-being and stability of these communities depend on efforts to offer sufficient living conditions, access to essential services, and assistance for integration and livelihoods.

AI Buss Camp

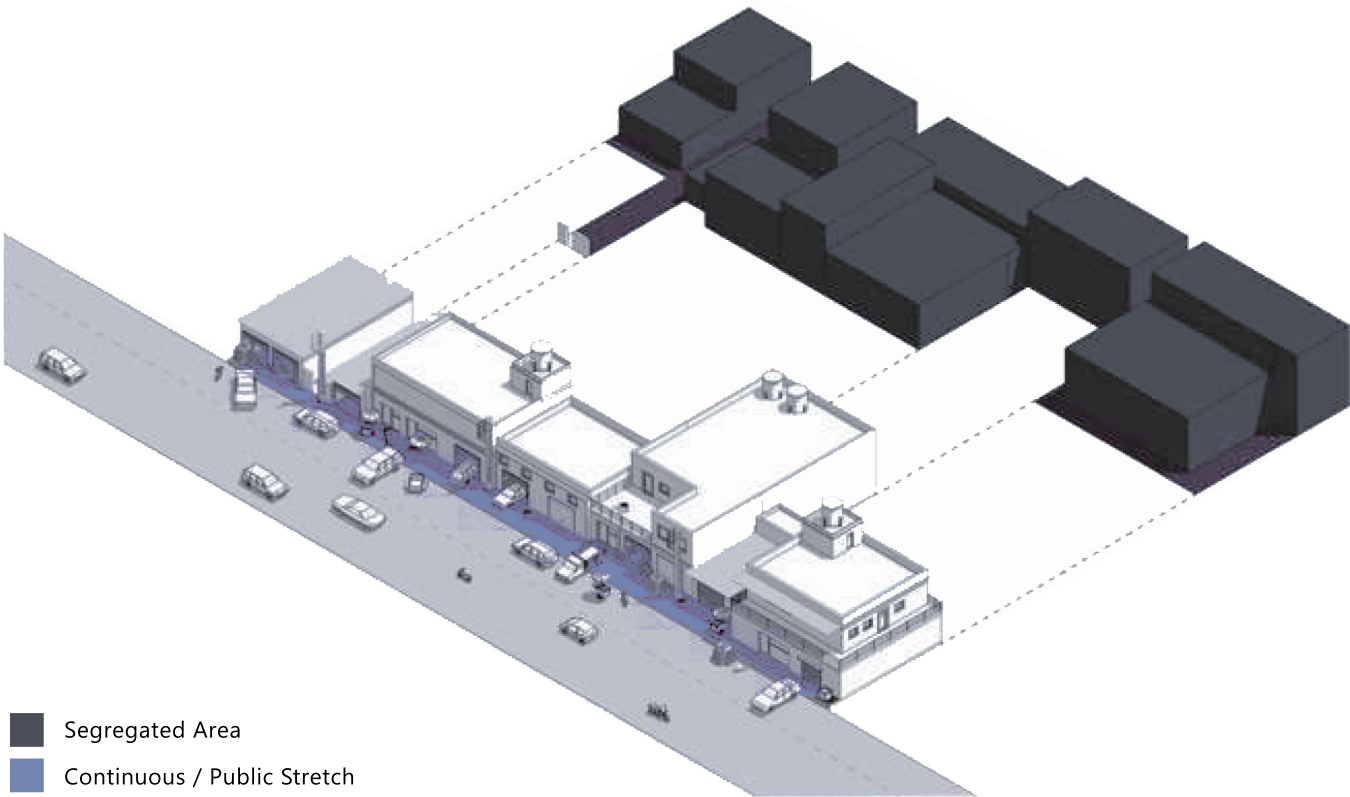


Figure 79. AI Buss Waterfront, Commercial Uses

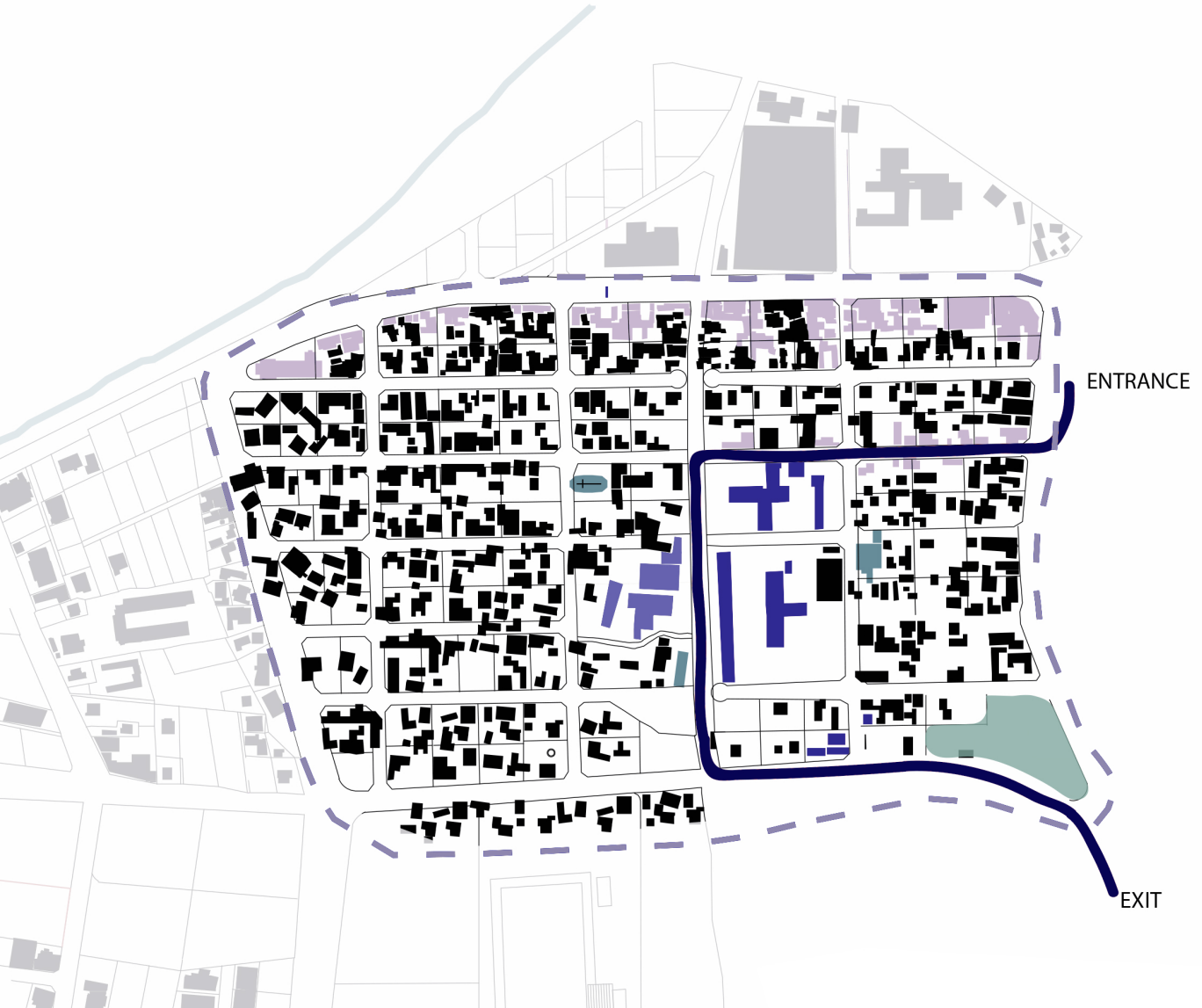
A military checkpoint you pass as you approach the camp denotes the start of a busy commercial area dotted with a variety of local businesses such as stationary libraries, tiny markets, household goods stores, pharmacies, and comfortable coffee cafes. The Tyre Public Hospital, which offers crucial healthcare services to the neighborhood and is accessible to all people, including Palestinians, Syrians, and Lebanese, is one notable characteristic of this area.

Surprisingly, the camp has a special obstacle because of its proximity to the important archaeological site of the Roman Ruins. There is an urgent need for comprehensive preservation strategies for these heritage monuments as well as a well-considered approach to spatial planning as a result of the camp and the surrounding areas experiencing unplanned extensions and urban growth.

Regulations prohibiting structures directly adjacent to the archaeological site from rising higher than one level have been put in place to protect the integrity of the ruins. However, due to the camp's disorganized expansion, it has been difficult to enforce these rules. As a result, considerable attention to urban planning is required to strike a balance between protecting the area's historical legacy and satisfying the requirements of the expanding community.

LEGEND

- SCHOOLS
- MEDICAL FACILITIES
- COMMERCIAL
- RELIGIOUS
- RESIDENTIAL
- MAIN ROAD
- CAMP BOUNDARY

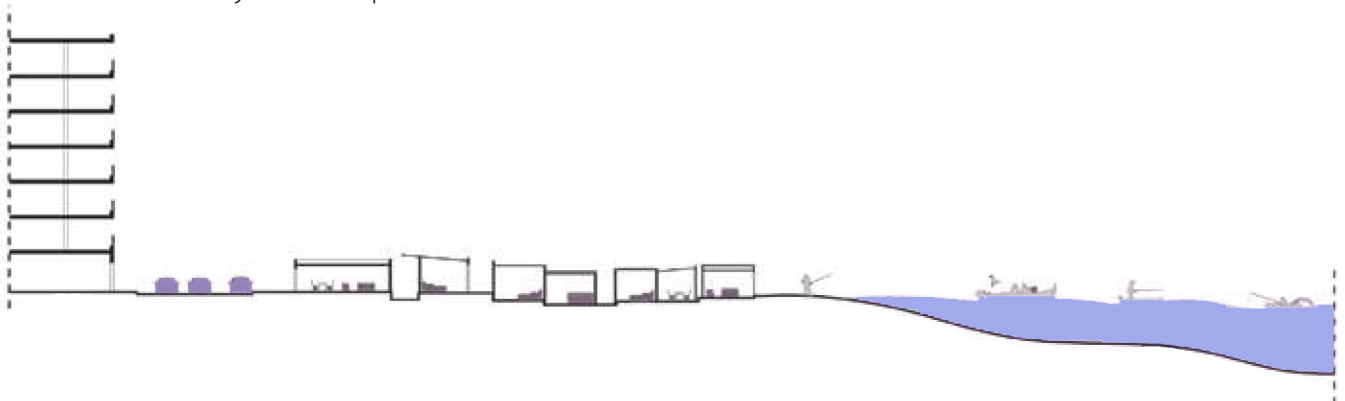


Jal El Baher Gathering

There are roughly 73,515 people living in the area in question, which is a sizable number. There are two different groups of Palestinian refugees within this population: those from Syria and those from Lebanon. The vast majority of the population, or 69,724, are Palestinian refugees who have sought asylum in Lebanon. These people were uprooted from their homes in historic Palestine and over time established themselves in the area.

There is a smaller but significant community of 3,791 Palestinian refugees who have fled the ongoing turmoil in Syria, in addition to the Palestinian refugees from Lebanon. In order to flee the unrest and violence in their own country, these people sought safety and refuge in Lebanon, notably the Tyre region.

These Palestinian refugee populations work together to provide a vital strand in the area's social fabric. Their presence has added to the region's variety and brought special cultural influences. Their status as refugees, however, also emphasizes the urgent need for humanitarian support and aid to deal with their particular demands and difficulties brought on by their displacement and their search for a safe and stable environment.



Jal El Baher

- Segregated area
- Pedestrian Connections

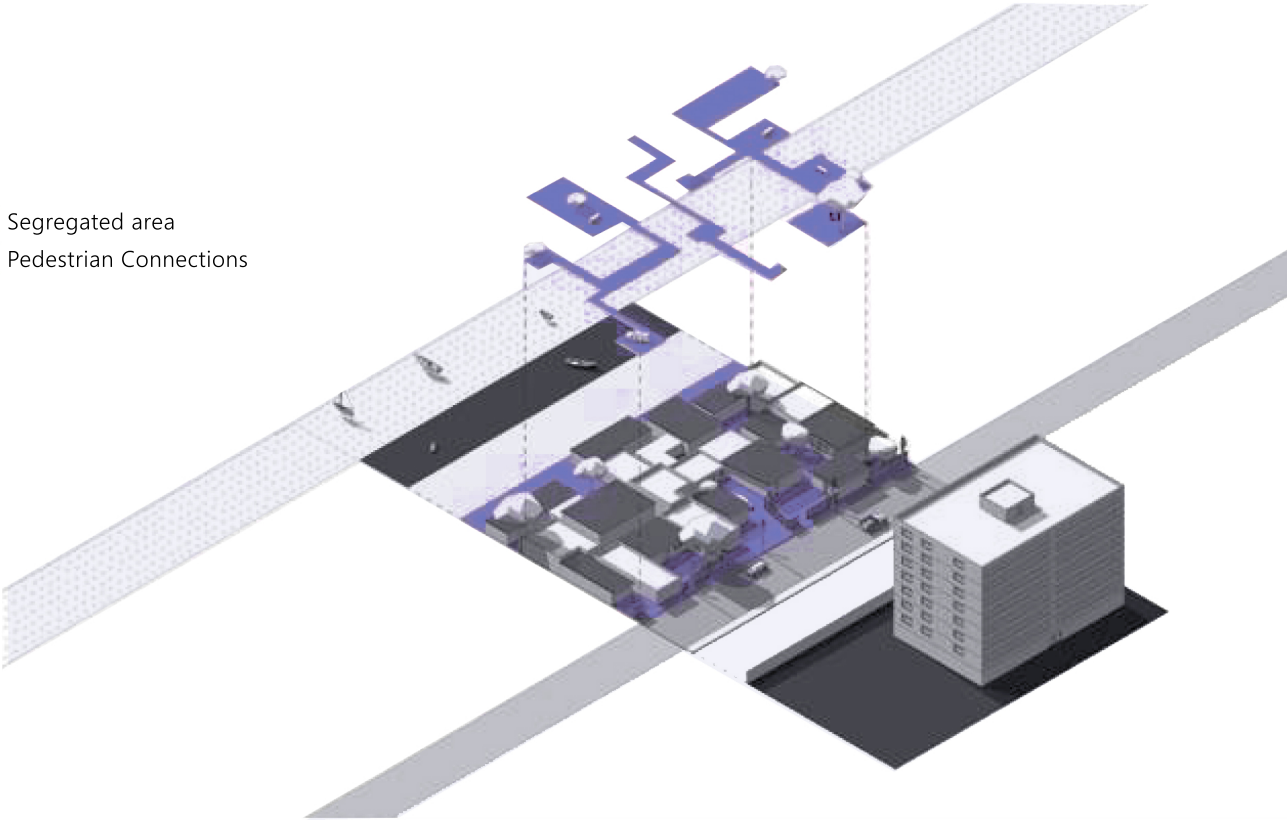


Figure 82. Jal al Baher gathering

1.7 Architecture & Building Typologies

This section explores the fascinating world of architecture and the various building types that contribute to Tyre's urban environment. Tyre, a city with a long history and significant cultural heritage, has a unique architectural fabric that combines old customs with new inspirations and creative ideas. Two parts that each explore different facets of the city's architecture make up this section.

We travel through Tyre's three distinct urban morphologies in Section I: the ancient old core, the more recent settlements, and the surroundings. Each section exhibits a unique architectural expression that has changed through time, reflecting the city's cultural legacy and urban planning evolution.

We delve into the various purposes and functions of the buildings that make up Tyre's cityscape in Section II. Each building typology reveals a tapestry of cultural, social, and economic dimensions, ranging from residential homes that reflect the local way of life to bustling commercial establishments, from institutions providing necessary services like education and healthcare to recreational spaces for leisure and rejuvenation.

This part presents a captivating narrative of Tyre's past, present, and future by showcasing the diversity of the city's architectural legacy. A dynamic urban environment is produced by the interaction of tradition and innovation, whereby the allure of the past and the aspirations of the present coexist peacefully.



1.7.1 Typologies in different zones

Tyre's architectural landscape exhibits astounding diversity, influenced by several historical eras and metropolitan expansions. Intriguingly, this thriving city's architectural typologies may be divided into three primary groups: the old city, the modern city, and the camp.

- **The Old City:** Nestled behind the medieval walls, Tyre's old city radiates an alluring charm that entices travelers to learn more about its colorful past. Here, you'll discover a labyrinth of little lanes, classic homes, and historical sites that date back over many years of fascinating history. Numerous civilizations, including the Phoenician, Roman, Byzantine, and Arab cultures, can be seen in the architectural styles. While some structures are grand and imposing, others maintain the modesty of a bygone period, resulting in a distinctive fusion of architectural wonders.
- **The New City:** As Tyre expanded and modernized, the new city emerged with a contemporary outlook. This area showcases a fusion of modern architectural styles, featuring high-rises, commercial buildings, and modern infrastructures. Characterized by geometric designs and efficient use of space, the new city exemplifies urban planning and development in the modern era. Amidst this cosmopolitan landscape, glimpses of the past often blend harmoniously with present-day structures, celebrating Tyre's rich historical heritage.

- **The Camp:** The Palestinian Refugee Camps are a distinctive feature of Tyre's urban fabric, reflecting the plight of refugees who sought refuge in the city. These settlements are distinguished by their impromptu and unplanned construction typologies, which were created out of need and confined by scarce resources. The buildings are frequently close together, which illustrates the difficulties in providing space for an expanding population.



Figure 84. Division of the three main areas in Tyre



The Old City



The New City



The Camp



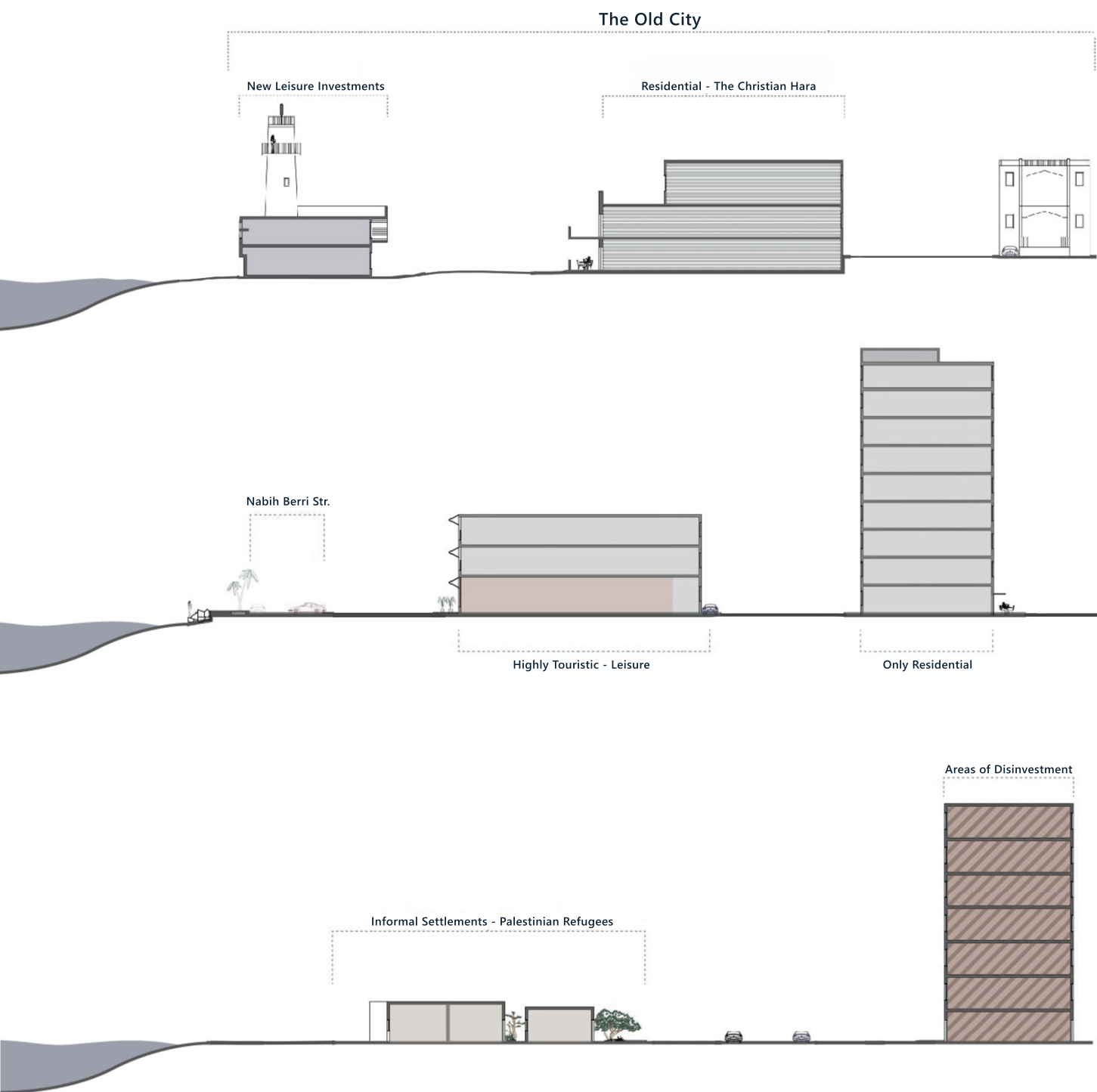


Figure 85. Transversal sections of the three areas in Tyre

When the new city of Tyre began to take shape, architectural practices underwent a metamorphosis that profoundly altered how interior spaces were divided and used. Modern urban planning theories and the changing requirements of its residents have an impact on this change in architectural ideas. As a result, significant changes were made to a number of building typologies.

First, the way that buildings were divided up changed from the traditional designs that predominated in the ancient city. Open floor layouts were adopted in modern architectural designs, resulting in more adaptable and usable rooms. To enable a smooth flow of movement and promote a feeling of openness and connectivity within structures, walls and partitions were reinvented. This change in architecture made it possible to accommodate different functions and activities with greater flexibility, which helped create a more lively and dynamic urban environment.

Second, there were notable changes in how many people a building could accommodate. With their creative designs and effective use of space, the new city's structures were able to house more people than their older counterparts. As Tyre's population increased, high-rise buildings and apartment complexes proliferated, allowing for denser urban living. This vertical growth completely altered the city's skyline and helped to create the current urban landscape.

Thirdly, interior design changed to accommodate modern living requirements. Elevators, central heating, and air conditioning systems, among other modern amenities and conveniences, were included into modern structures. The comfort and livability of these places were further improved by the incorporation of technical developments and environmentally friendly design techniques. Incorporating ventilation techniques and natural light also helped to create healthier and more ecologically friendly living spaces.

Finally, with the introduction of contemporary construction methods and materials, building heights surged to unprecedented heights. A new cityscape emerged, characterized by imposing skyscrapers that represented Tyre's growth and development. In addition to providing additional space for people, these tall buildings also provided breathtaking panoramic views of the city and its surrounds.

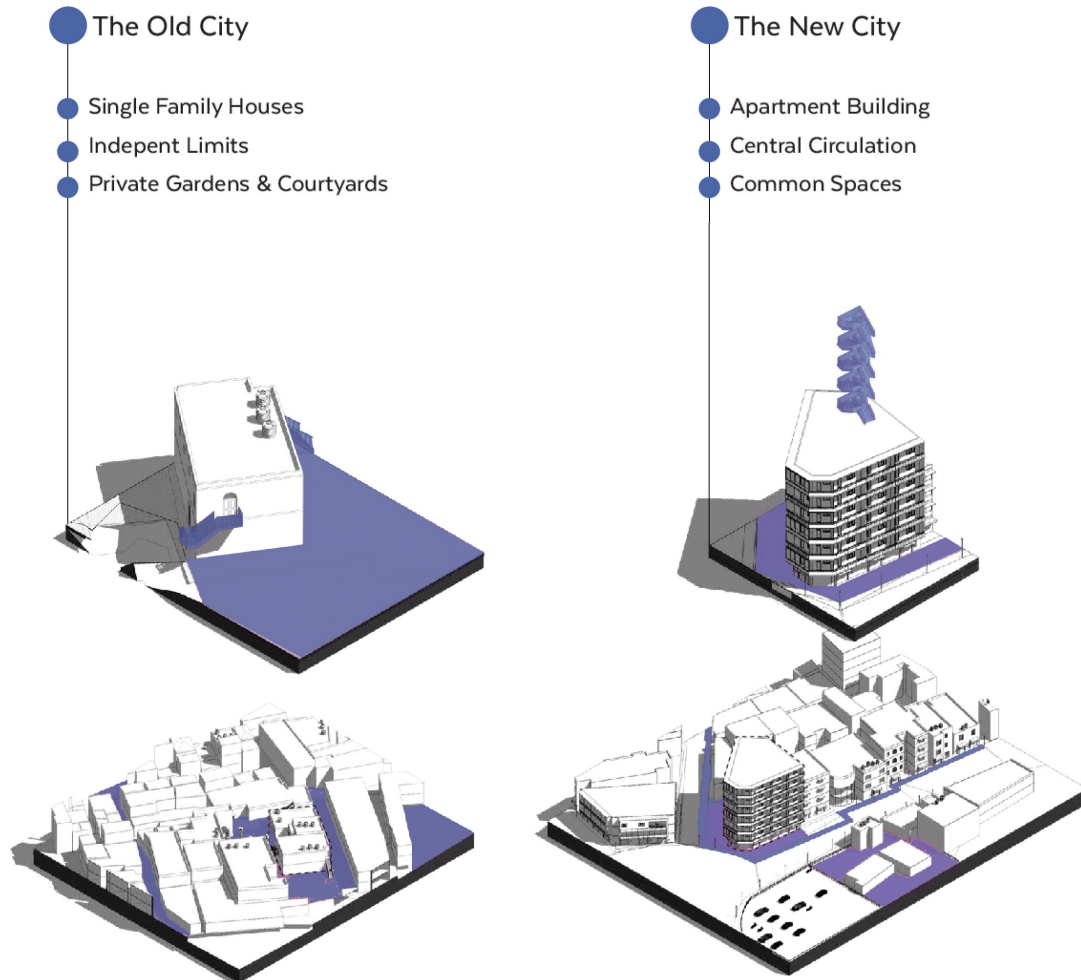


Figure 86. 3D Drawings of the buildings' typologies 185

1.7.2 Typologies for various functions

The urban topography of Tyre has given rise to a fascinating variety of architectural typologies, each of which was carefully designed to meet a variety of purposes and functions. The city's architecture reflects its diverse cultural heritage, from the peaceful homes of people that offer quiet and comfort to public areas that promote a sense of community and cooperation. While bustling commercial areas fuel the city's economic life, Tyre's spiritual sanctuaries, whether they be ancient temples or contemporary mosques, serve as a witness to the city's profound spirituality.

By embracing the complex interplay between form and function, this investigation demonstrates how Tyre's architecture incorporates both practicality and cultural importance into the fundamental structure of the city. Our voyage explores the fascinating variety of building typologies while providing insights into the many plans and designs that each one has. Through this journey, we travel the story of Tyre's urban growth, seeing how tradition and modernity converged to shape the city.



M
MUREX HOTEL

PIANO

Residential Buildings

A variety of residential typologies can be found in both the high-rise high-rises of the modern city and the maze-like lanes of the ancient city. Tyre's residential architecture reflects the wide range of lives of its residents, from the traditional courtyard homes that previously adorned the ancient heart to the modern apartment buildings that dot the newer neighborhoods.

Residential Buildings

Bitar House



1766

The floor design of the house is defined by a central functional space that most likely serves as the hub for social gatherings or group activities. The importance of ties to one's family and community is emphasized in the architectural design by this core area, which fosters a feeling of cohesion and connection within the home. While the Salha House's main function displays modular features, the entire layout adopts a distinctive and non-standard approach, highlighting the uniqueness of its design.

Salha House



1766

The interior of the Salha House typically comprises a central courtyard, surrounded by multiple rooms on the ground and upper floors. The courtyard serves as the heart of the house, allowing natural light and ventilation to permeate the living spaces. The rooms are adorned with traditional furnishings and decorated with intricate woodwork, tile mosaics, and vibrant textiles, reflecting the opulence and taste of its former occupants.

Mamlouk Palace



1800s

Although the palace may have experienced significant changes throughout the years, Mamluk architectural principles may still be seen in its basic typology. Grand halls, personal chambers, and courtyards, all embellished with fine stonework and delicate wood carvings, would have been among the interior areas. During the Mamluk era, the palace was probably utilized as a dwelling for notable individuals or as a hub of authority.

Religious Buildings

Tyre is a historically and spiritually significant city that is home to a variety of religious sites with unique architectural styles. These religious typologies, which range in age from medieval mosques and temples to more modern houses of worship, are of enormous cultural and historical value.

Religious Buildings

Greek Catholic Church

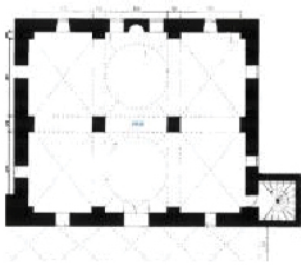


1752

The interior typology of the church has a large central nave surrounded by aisles on either side, offering plenty of space for congregational gatherings and religious rituals. The use of towering columns and lofty ceilings enhances the sacred space's majesty and sense of devotion. The church's distinctive bell tower, which may have been constructed later, also serves as an architectural focal point, combining functionality and aesthetic refinement into the entire design.

1860

Sunni Mosque



The conventional design of a mosque has a central prayer hall that is surrounded on either side by arcades that serve as places for worshipers to congregate for prayers. The prayer hall is often facing the direction of Mecca, or the qibla, and it is decorated with geometric designs and exquisite calligraphy.

The mosque's minaret, a towering tower from which the call to prayer (adhan) is customarily announced, is one of its most distinctive architectural features. The minaret is a prominent feature of Islamic architecture, and it is frequently embellished with elaborate ornamentation.

1870

Maronite Church



The conventional church layout consists of a nave and one or more side aisles, which provide areas for the community to congregate for religious rituals and services. The altar, where the Eucharistic ritual is celebrated, is often located facing Jerusalem at the eastern end of the nave. The church's interior is frequently decked with ornate decorations, religious icons, and frescoes that represent the Maronite community's rich spiritual traditions.

Communal Buildings

Any city's communal and social areas are its beating heart, serving as gathering places for neighbors to bond, exchange stories, and honor their cultural traditions. Tyre is home to a variety of communal typologies, including lively community centers, attractive parks, and bustling squares. We can learn more about how these venues promote a feeling of community and fortify the ties that tie the Tyreans together by examining their floor plans and architectural features.

Communal Buildings

Caritas



1860

A Caritas center's architectural layout frequently has an emphasis on usability, adaptability, and accessibility to support a variety of activities and users. The design is organized to encourage interactions and teamwork between employees, volunteers, and clients. The organization's ideals of compassion and solidarity may also be reflected in the external design, which would foster a welcome and inclusive environment for individuals in need of assistance.

1870

Khan Al-Rabu



Khan Rabu would have been an important hub for traders, travelers, and merchants moving through the area as a caravanserai. Its typology was probably based on the conventional layout of a khan, which was rectangular or square with a central courtyard. Stalls and storage space for commodities and merchandise delivered by caravans would have been located on the ground floor. Guest rooms on the higher floors would have provided lodging and shelter for people staying overnight.

1920

Al Jaafariya School



The school's historical connections to maritime pursuits and the impact of Tyrians who lived in Western Africa, who perhaps had connections to sailing and trading, may be indicated by the ship-like appearance. The significance of the water and Tyre's nautical legacy in Tyre's history and culture may also be attested to by this distinctive architectural element.

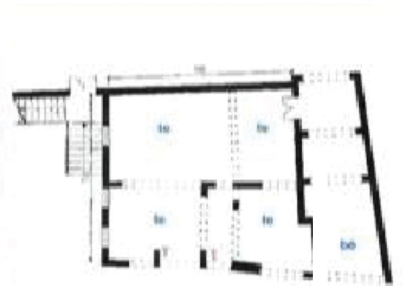
Commercial Buildings

Tyre's thriving markets and commercial districts provide as evidence of its robust economy. The commercial typologies of the city include a range of buildings, from conventional souks and bazaars that capture the spirit of the past to sophisticated shopping centers that represent contemporary materialism. We learn how these commercial spaces meet the demands of both inhabitants and visitors by examining their designs and combinations, which stimulates trade and commerce in Tyre's bustling urban environment.

Commercial Buildings

1800s

Artisanal Shops



The traditional architectural typology that predominated at that time would have been exemplified by the artisanal stores constructed in Tyre in the 1800s. These stores were probably built utilizing regional building materials and methods, which could differ according on the craftsmen and resources available.

During the 1800s, Tyre's typical typology of artisanal stores may have included: Compact and Useful Layout: Artisanal businesses were created to effectively utilize the available space. They frequently had a small footprint and a straightforward floor design to make the most of the little available area for workspace and product display.

Al Bawaba / Old Souks



Generally speaking, "souks" refer to old-fashioned markets in Middle Eastern and North African cities that are renowned for their humming business activity and diversified stores selling a wide variety of commodities and products. If Tyre's "old souks" were constructed in 2007, it shows that efforts were made to restore or reproduce the city's historical market ambience while fostering local trade and culture.

1.8 Relationship with the Port

Tyre has a sizable port, albeit one that pales in comparison to other important ports in Lebanon like Beirut, Tripoli, and Sidon (Saida). The small cargo trade at the port of Tyre has mostly revolved on the sporadically imported old cars. However, the Lebanese government strategically chose to use the Port of Tyre as a standby option for the Port of Tripoli following the terrible explosion that struck the Port of Beirut and the nation's capital on August 4, 2020.

The government looked for alternatives to continue vital trade and logistics operations for the nation after the Beirut explosion, which badly destroyed the port's operations and infrastructure. Tyre's port consequently became a practical substitute for the commercial activities and supply chain operations that were previously highly dependent on the Port of Beirut.

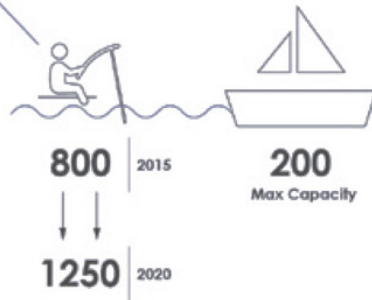
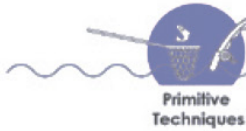
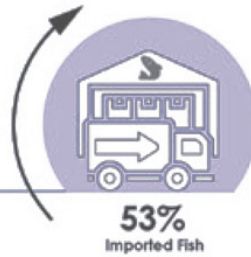
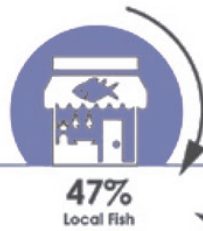
In recent years, fishing-related activities have been the main use of the Port of Tyre. Its function as a fishing port is crucial to the local economy since it helps local fishing communities support their way of life and helps supply local and regional markets with seafood.

Despite Tyre's port's lesser size compared to other ports in the country, its flexibility and strategic relevance during times of crisis indicate how important it is to Lebanon's economy and resilience in the face of difficulties confronting the country's other major ports.





4500
Imported Cars/Year



-  Vegetables Market
-  Commercial Port
-  Fishing Utilities
-  Fish Markets
-  Public Piazza
-  Old Souks
-  Under-Water Archeology

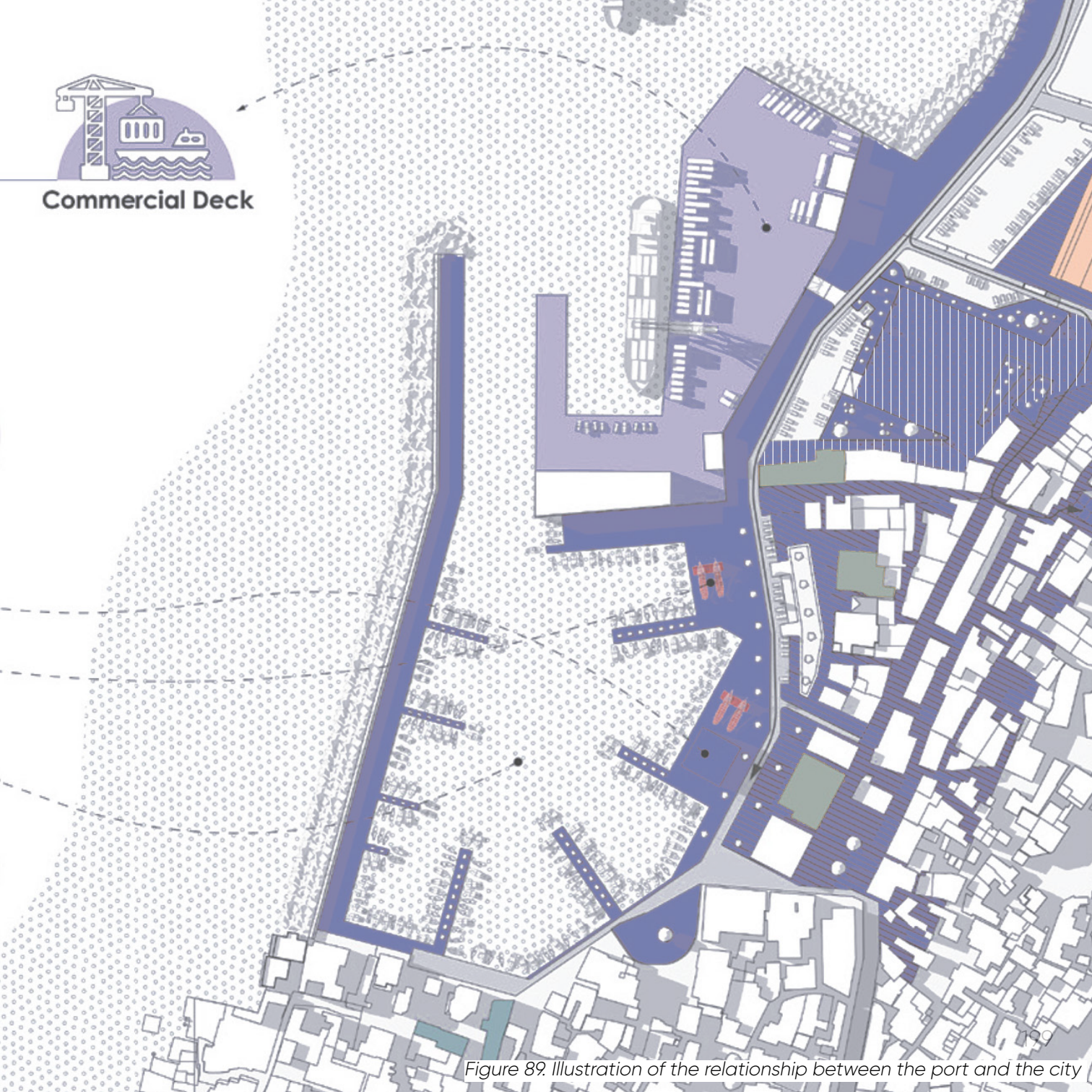


Figure 89. Illustration of the relationship between the port and the city

2. Pilot Project

By tackling major issues and raising people' general quality of life, this program seeks to make noticeable improvements to Tyre's urban environment. The pilot project envisions a transformed urban environment that strikes a balance between historical preservation, economic vibrancy, and social well-being. It does this by using a holistic approach that includes urban planning, infrastructure development, and community participation.

2.1 Project Goals



Revival of Tyre's Historical and Cultural legacy: The project's main objective is to resurrect Tyre's historical and cultural legacy. The project's goal is to preserve the city's archaeological treasures while drawing attention to its rapidly disappearing legacy by building a cutting-edge cultural center and museum.



Interactive Education and Awareness: The project aims to inform the public and raise consciousness about the historical importance of Tyre. The center aims to engage visitors and provide them insights into the city's effect on Mediterranean art, trade, and culture over the course of numerous historical periods through cutting-edge interactive exhibitions, fascinating displays, and enlightening educational activities.



Community Engagement: The initiative aims to integrate fully into the current Tyre community. The cultural center wants to encourage a strong sense of ownership, pride, and cultural connection among the city's citizens by developing symbiotic ties with locals, artisans, and archaeologists.



Tourism and Economic Growth: The initiative expects increased tourism to have a good economic impact. It is anticipated that tourism would boom as Tyre's historical relevance is resurrected and promoted through the cultural center. This predicted increase in tourism will help the local economy while also enhancing the region's long-term economic prospects.



Global Recognition: The project aims to bring Tyre's unique historical value to the notice of the world beyond its local influence. The project seeks to promote Tyre's historical importance and cultural diversity in order to increase awareness of and respect for the city's heritage on a global scale.



2.2 Site Selection Analysis

The project site, which was carefully chosen and placed next to the historic Tyre Hippodrome, will be thoroughly and insightfully explored in the section that follows. We carefully consider the site's physical characteristics, historical setting, and symbiotic interaction with the busy metropolitan environment that surrounds it as we conduct this analytical inquiry, which is an essential first step in unlocking the site's potential. We hope to gain insightful information from this thorough inquiry that will inform the careful planning and construction of the envisioned cultural center and museum. We create the foundation for a transformative project that honours Tyre's past while encouraging a peaceful fusion of the new within the old by immersing ourselves in the site's narrative and discovering its hidden prospects.

It is interesting to note that the area near the Tyre Hippodrome has historical significance that is frequently disregarded. It was once a component of the splendor that encompassed ancient Tyre, a city that thrived as an important center of trade and intercultural communication in the Mediterranean. As we examine the location, we discover traces of Tyre's illustrious past and imagine the footprints of traders, tourists, and artisans who traveled these very streets and added to the city's rich tapestry.



Figure 91. Satellite imagery highlighting the chosen site

The site's closeness to the Tyre Hippodrome offers the possibility for an engaging interaction between the old and the new. The ancient Hippodrome, famous for holding thrilling chariot races and spectacles, metaphorically throws a shadow on the selected location. This contrast encourages us to consider novel approaches to preserve the Hippodrome's past while bringing current life to it. The inspiration for building a cultural center that perfectly connects historical and modern culture came from the echo of jubilant spectators, thunderous horse hooves, and the spirit of competitiveness.

In addition to guaranteeing excellent visibility, the site's strategic placement at the intersection of busy streets highlights its potential to develop into a busy crossroads of activity. The location can act as a bustling hub, luring locals and tourists from all over Tyre. This urban intersection provides the chance to weave the threads of several stories together, creating a place where the past and present, local and international,

These obscure details offer themselves as possible sparks for our imaginative activity. We have the opportunity to uncover hidden gems that will definitely enhance the story and content of the envisioned cultural center and museum through a careful analysis of the site's historical layers and its modern surroundings. collide in a peaceful celebration of Tyre's rich heritage.

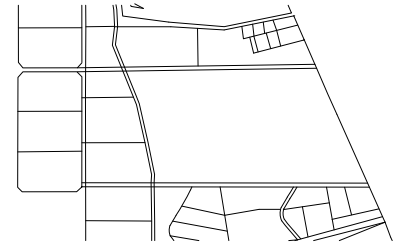
RUINS



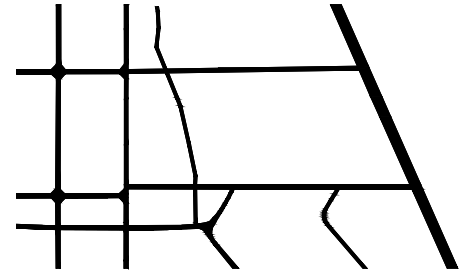
BUILDINGS



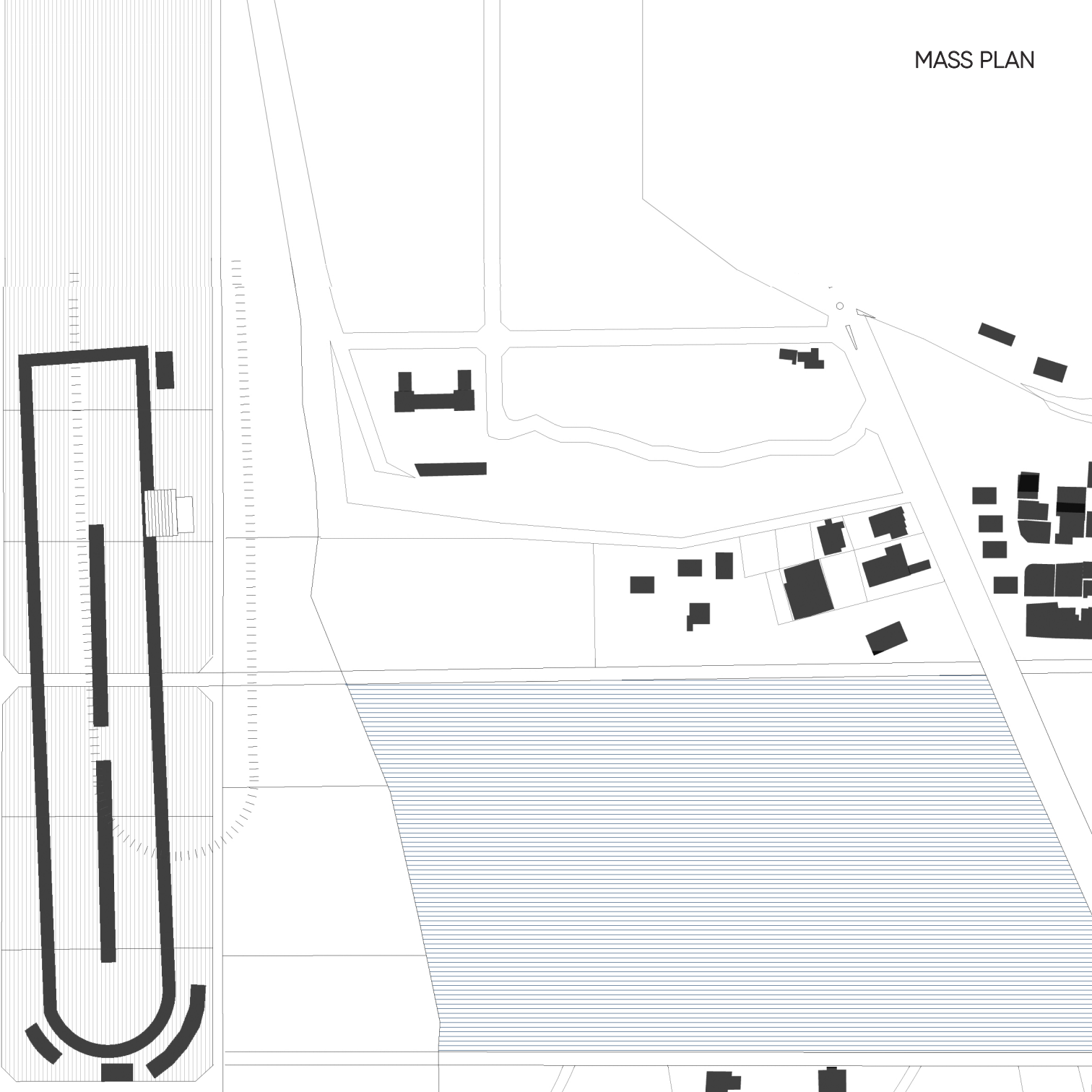
PARCELS



STREETS



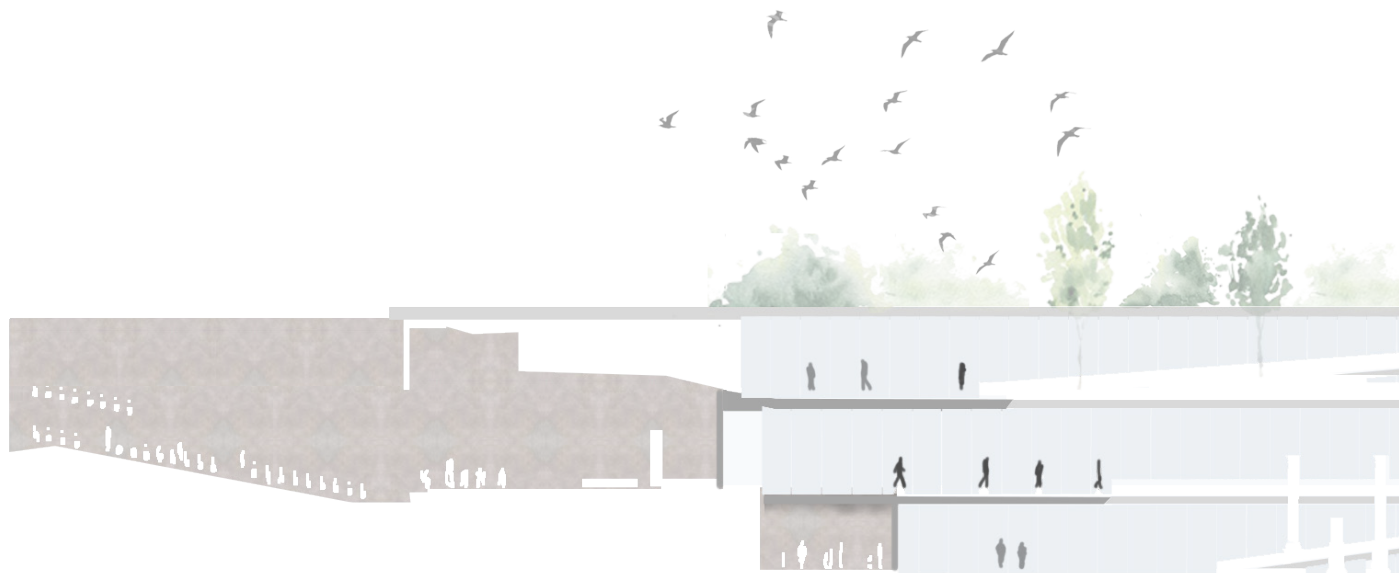
MASS PLAN



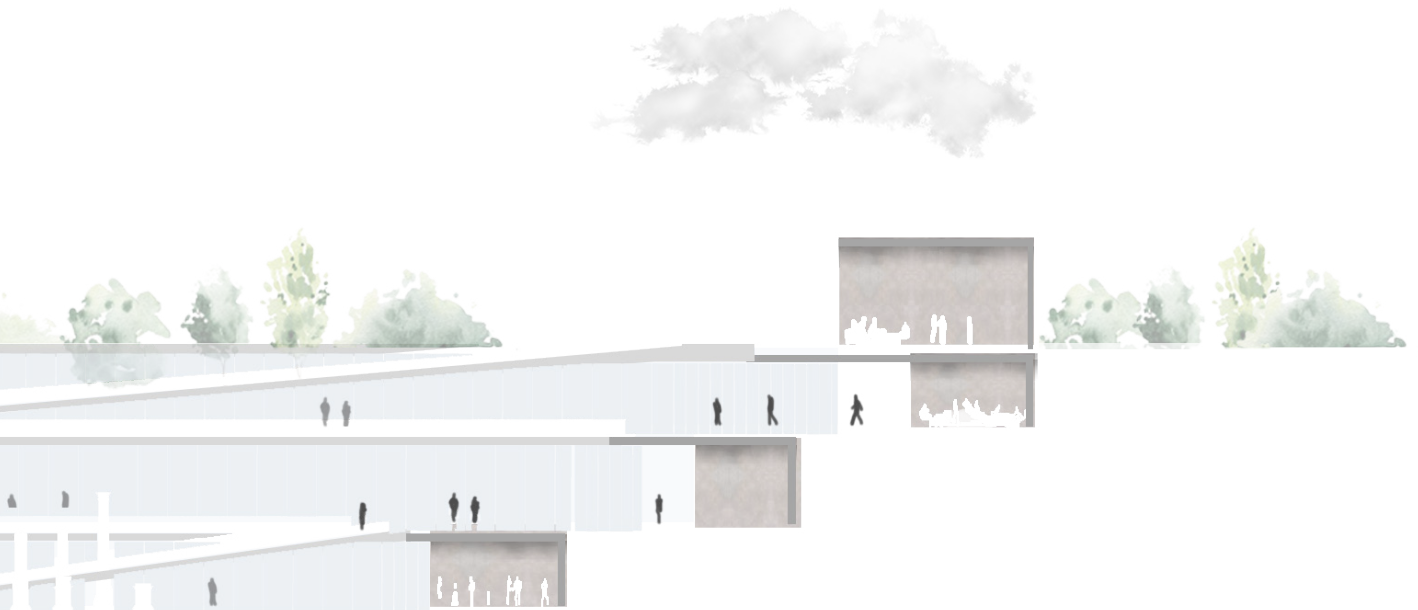
2.3

The Project

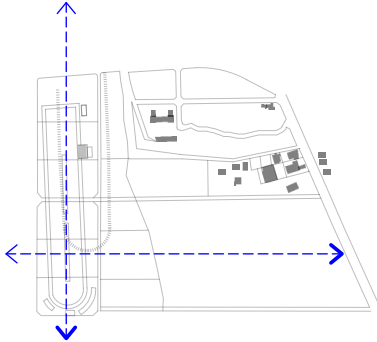
Cultural Revival Center



The proposed project blends cultural enlightenment and architectural brilliance, and it is tucked away amid Tyre's historic setting. This innovative cultural sanctuary, which is supported by an axis perpendicular to the famous Hippodrome, revitalizes the city's timeless past. This project's core consists of a diverse collection of cultural gems, including a library that reverberates with the whispers of antiquity, a theater that pulses with lively performances, dynamic workshops that create heritage copies, and a museum that reveals the mosaic of Tyre's legacy. Inspiring inquiry, discovery, and the preservation of the past within the pulse of the present, the project's underground presence emerges as a symbolic expression of its mission.



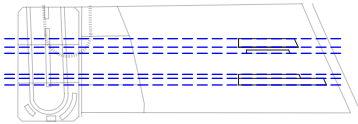
2.3.1 Conceptual Approach



1. Axis Integration

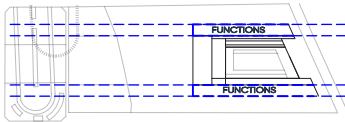
The project's conceptual foundation is supported by a purposeful architectural alignment. This alignment has the shape of an **axis that crosses the nearby Hippodrome's historically significant axis orthogonally**. This deliberate direction effectively connects Tyre's historical legacy with its contemporary objectives by acting as a conduit for the smooth transmission of cultural tales and experiences. This new axis serves as an explanatory framework for a narrative of cultural change and continuity, comparable to the Hippodrome's historical function as a hub of activity.

2. Axis-Aligned Circulation



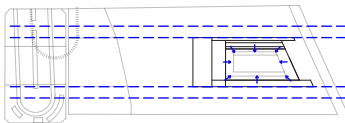
The thorough design of a circulation system that seamlessly integrates with the conceptual axis and serves as a literal and figurative link between historical heritage and contemporary expression is the project's second crucial stage. This complex system of ramps, carefully planned to line up with the established axis, not only provides a practical method of connecting but also represents the path of continuity and change.

3. Form & Function



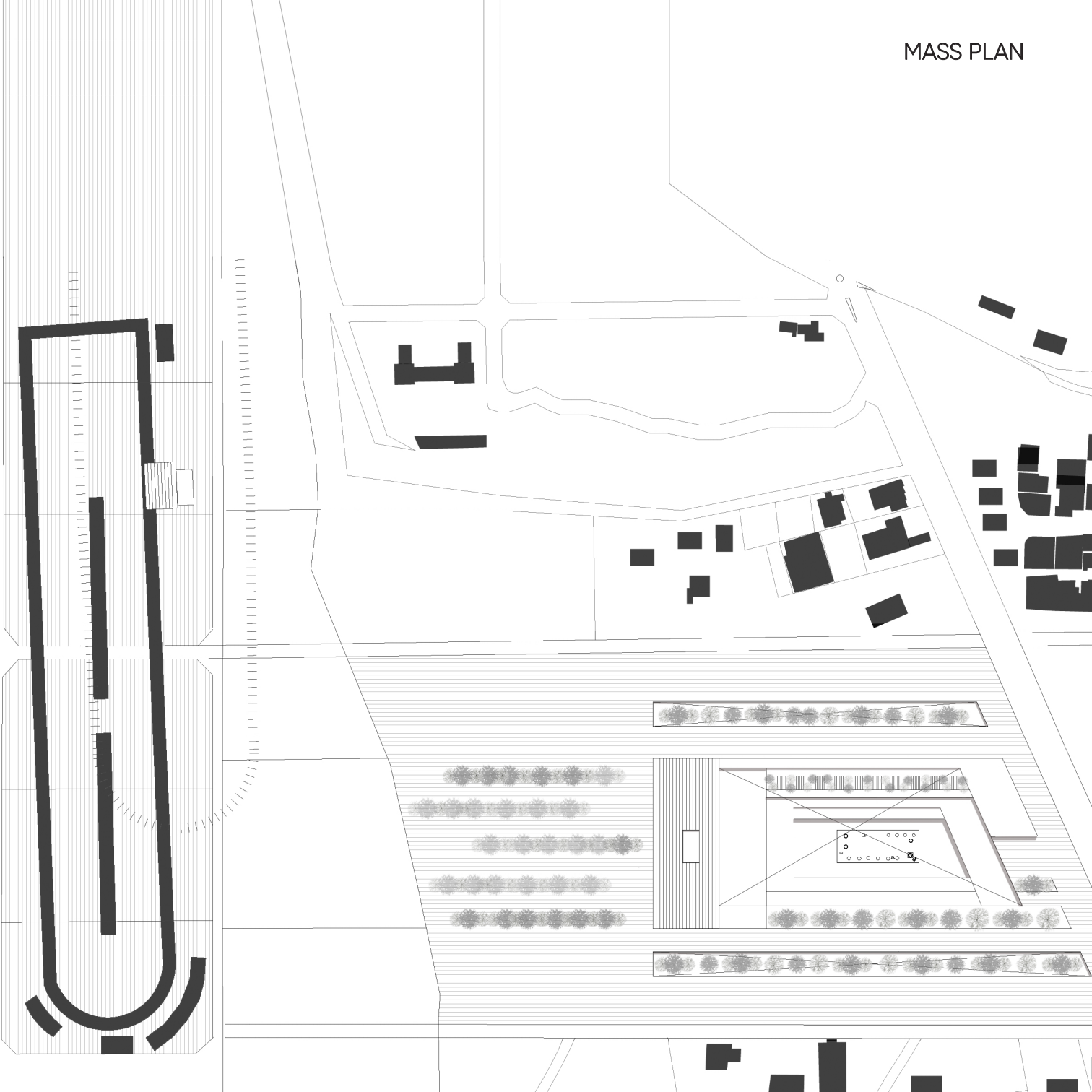
With exacting precision, the practical layout emerges. The functions of the project are carefully positioned on either side of the central circulation ramps, guided by the axis parallel to the nearby Hippodrome. The cultural center is given a sense of purposeful movement thanks to its intentional organization, which produces a perfect balance between form and function.

4. Central Void

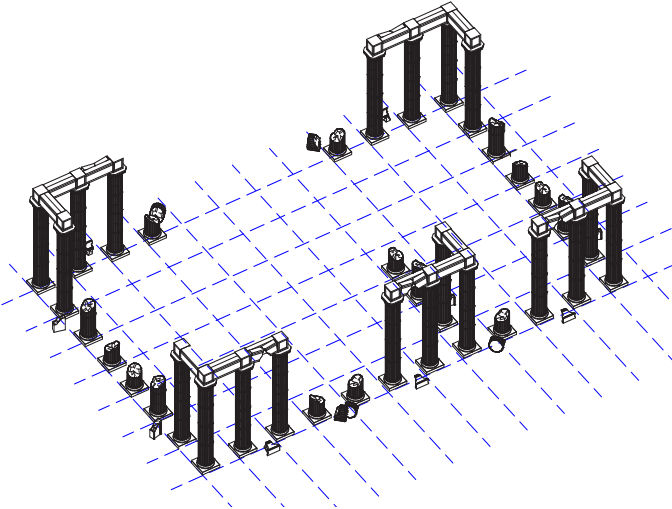


The complex interaction between ramps and functions creates a crucial core vacuum. This emptiness manifests as a dynamic spatial element that perfectly captures the project's design ethos. The central void, which is surrounded by the rhythmic arrangement of functions, acts as a multifarious core that unites and animates the whole cultural center.

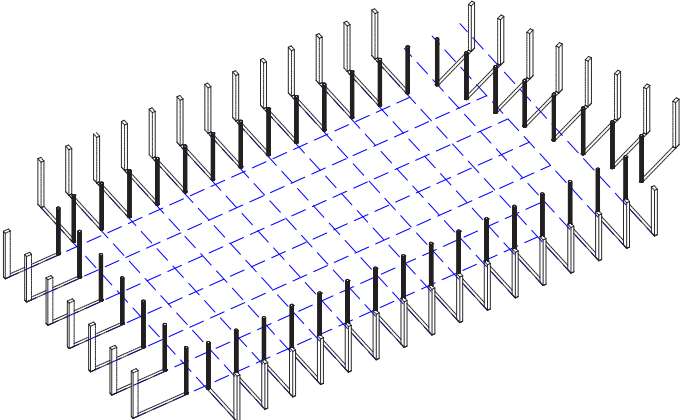
MASS PLAN



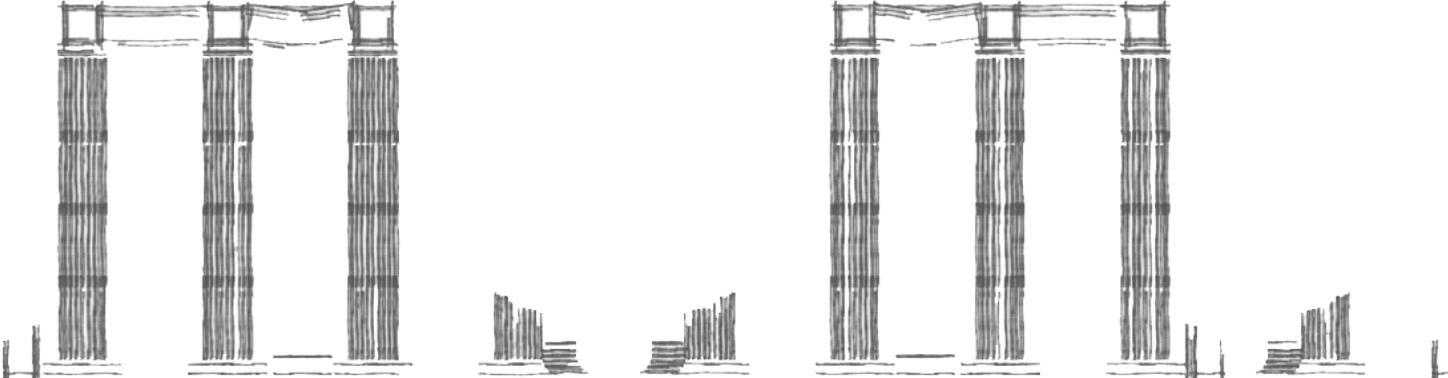
5. Structural Reference



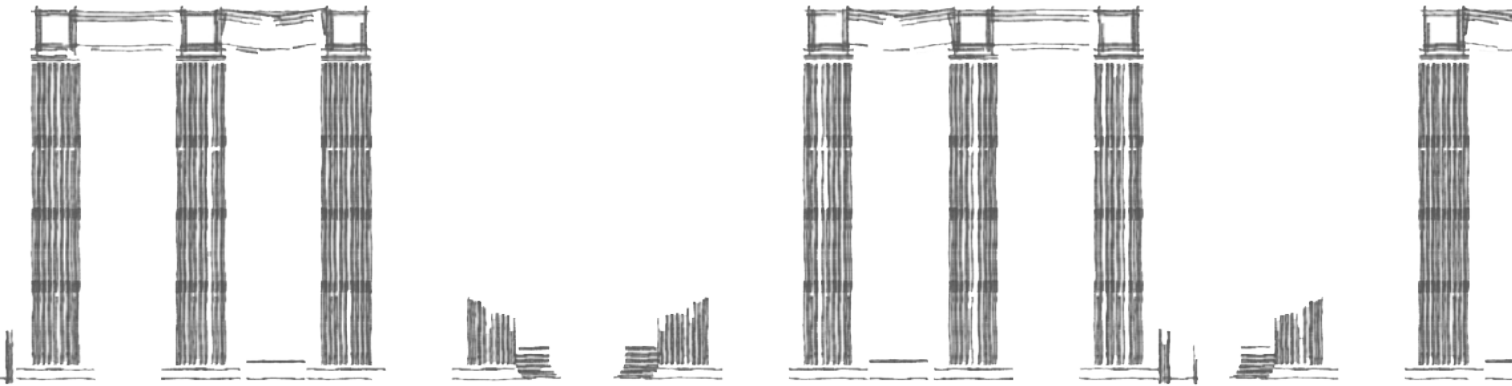
Historical Ruins



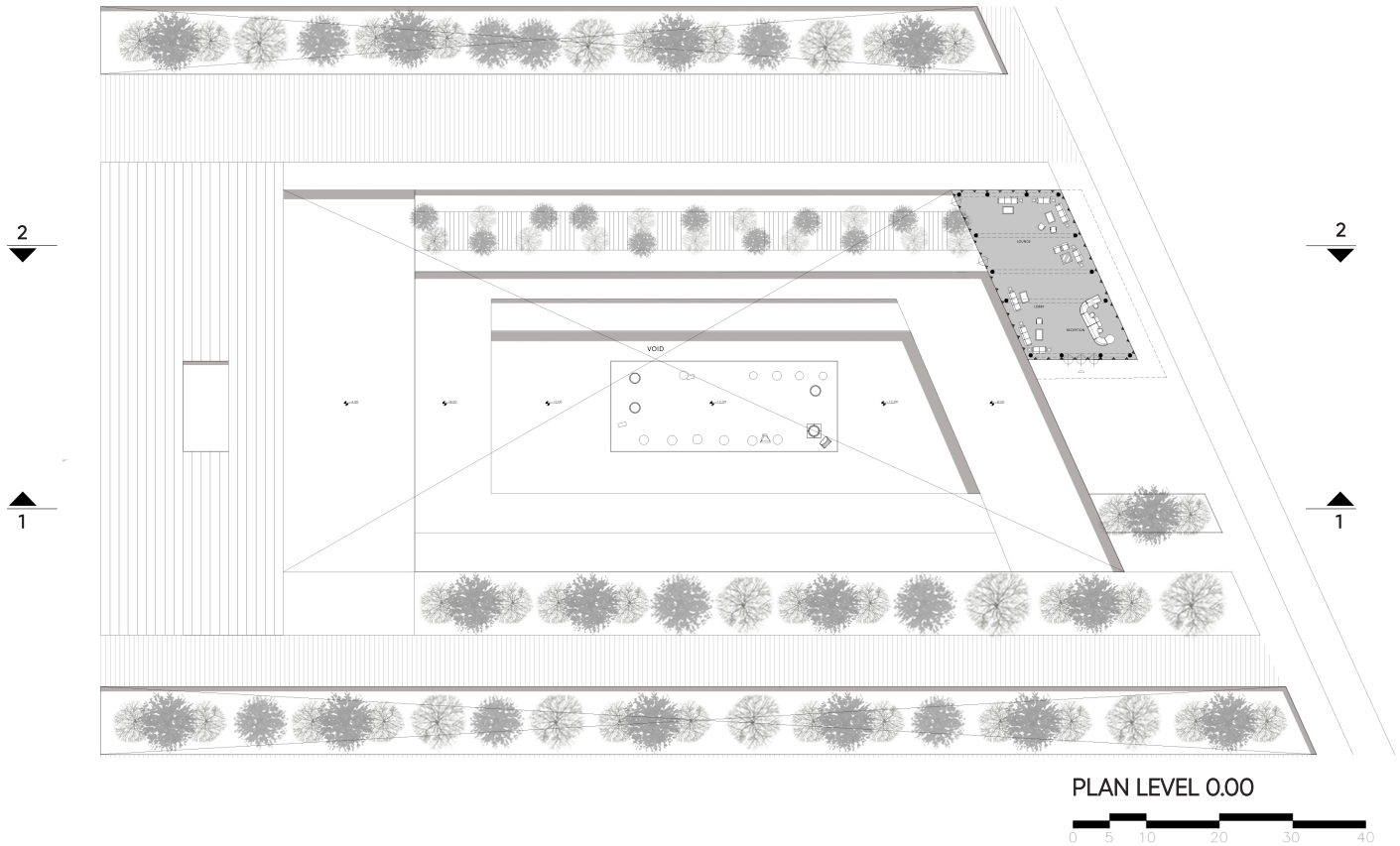
The project



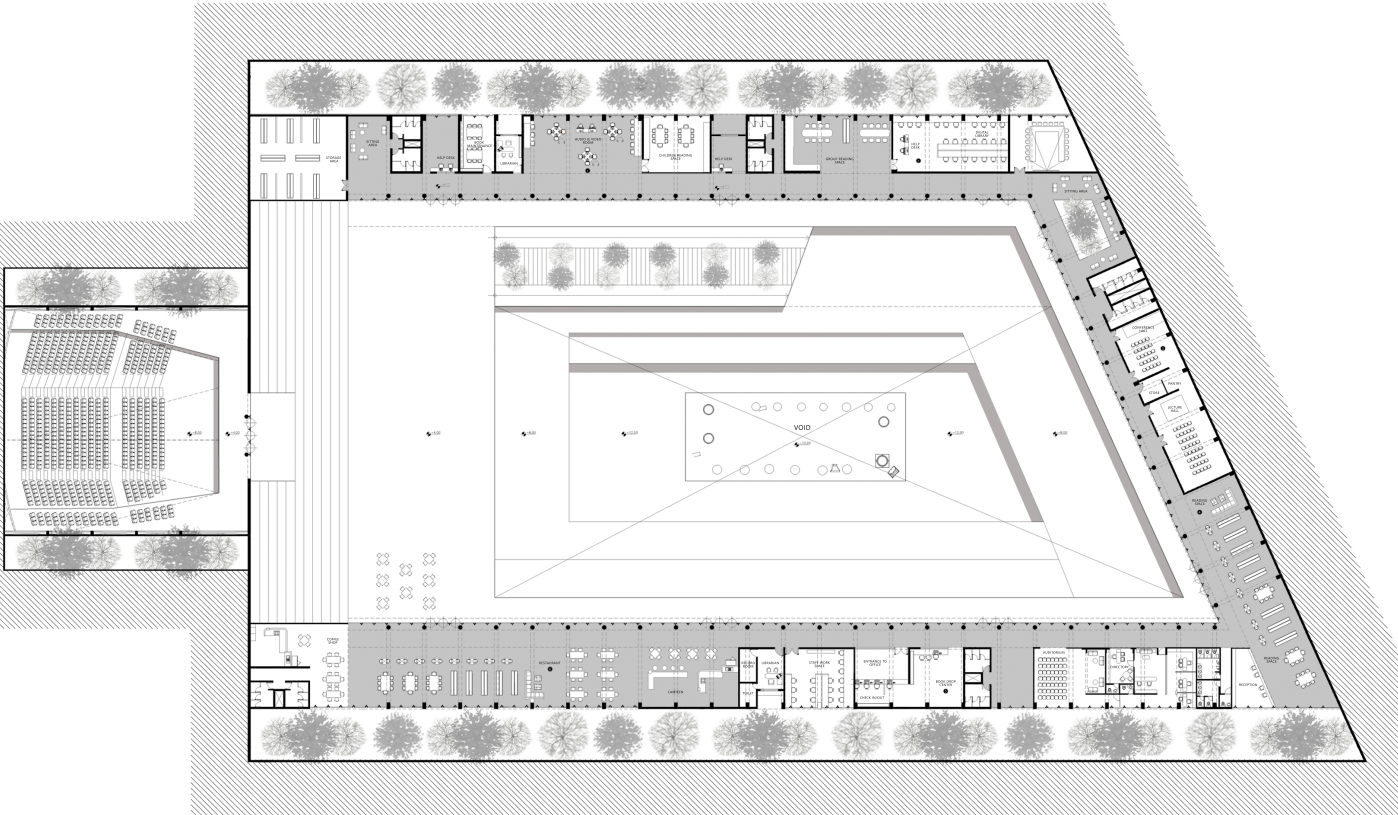
The project's structural design exhibits a purposeful rhythmic arrangement that painstakingly follows a regular grid pattern. This design strategy is inspired by the historical ruins that dot the landscape of the city and have their own unique symmetry and rhythm. The layout of the ancient ruins exudes a sense of balance and order, and the project's structure emulates this aesthetic notion by using a grid-based structure. By harmonizing past and present inside its architectural framework, the modern cultural center is connected visually and conceptually to Tyre's rich historical history. This alignment with the ruins' design language does this.



2.3.2 Technical Drawings



- 01 Audio & Video Room
- 02 Digital Library
- 03 Conference Hall
- 04 Reading Space
- 05 Book drop center
- 06 Restaurant

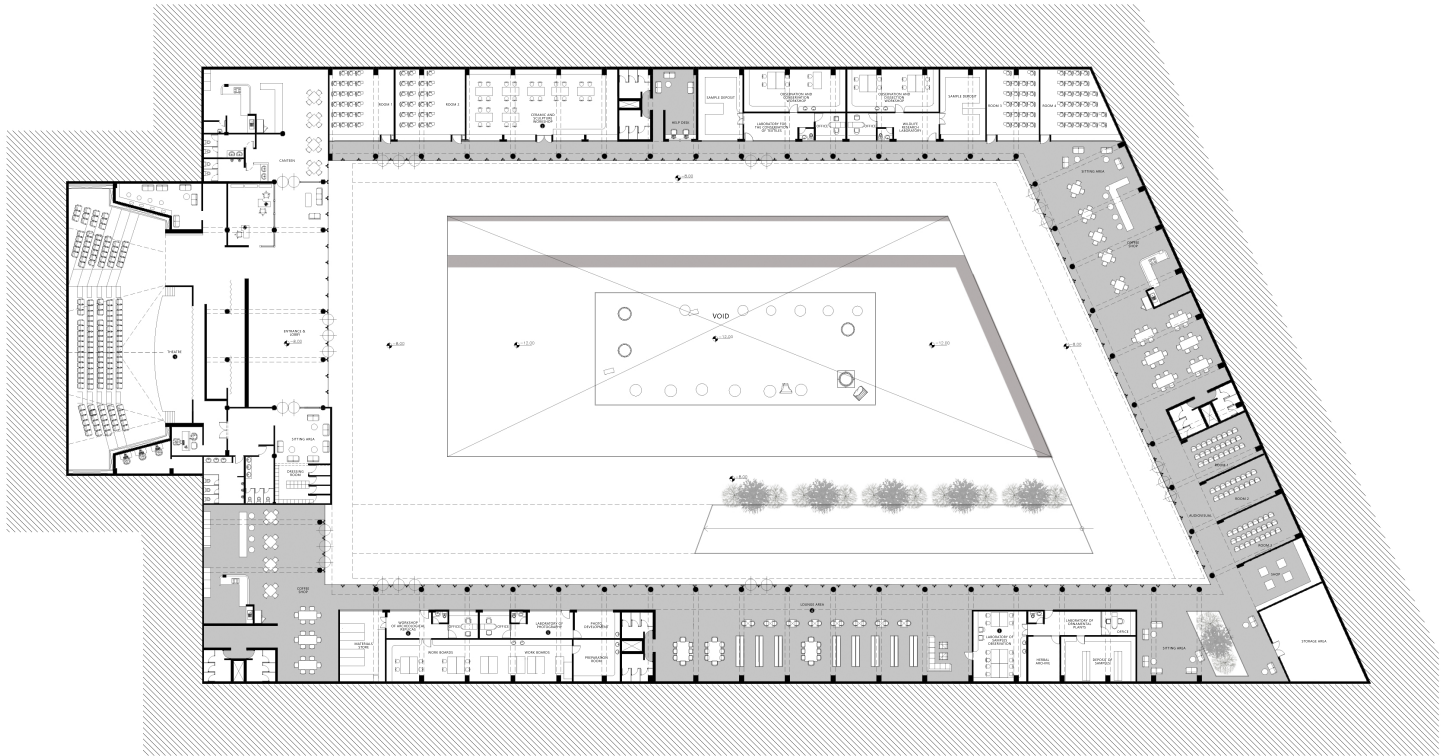


PLAN LEVEL -4.00





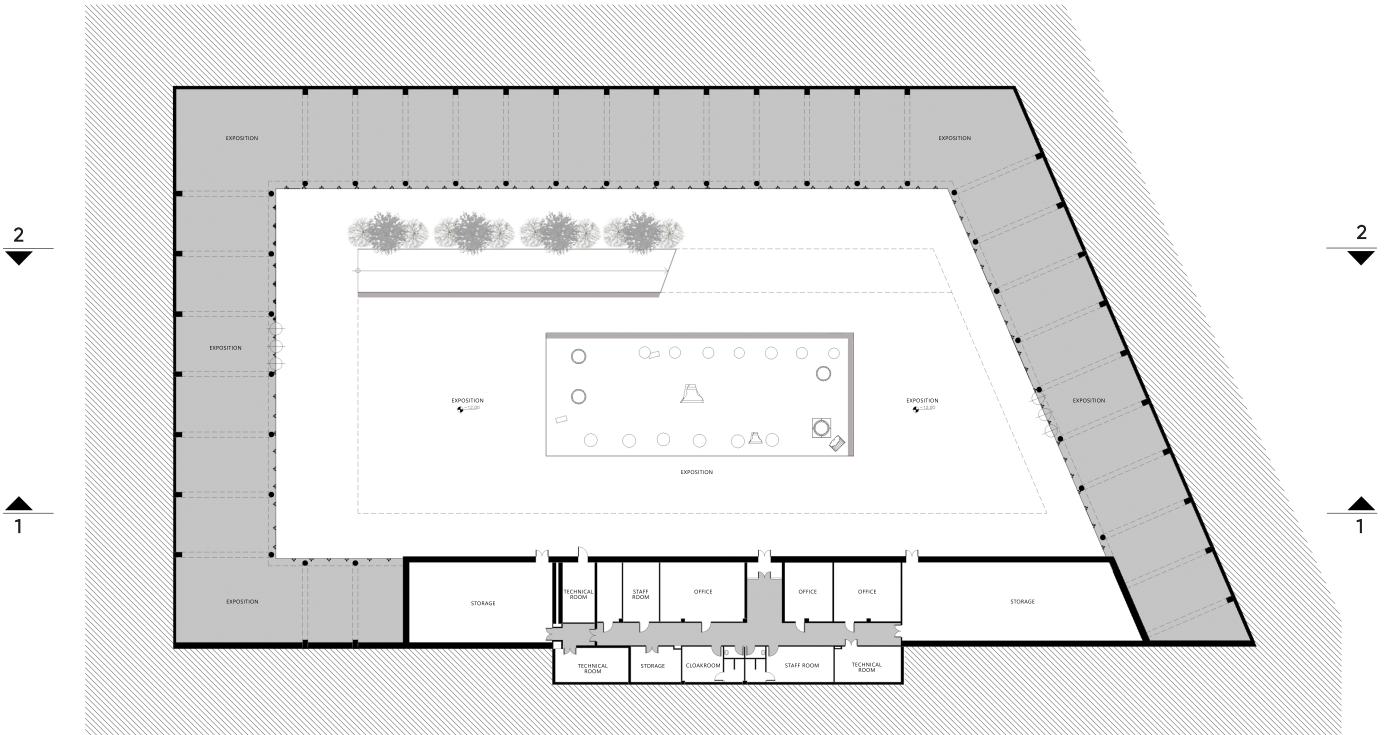
- 01 Theatre
- 02 Ceramic workshop
- 03 Laboratory of samples
- 04 Lounge area
- 05 Laboratory of photography
- 06 Workshop of archeology



PLAN LEVEL -8.00

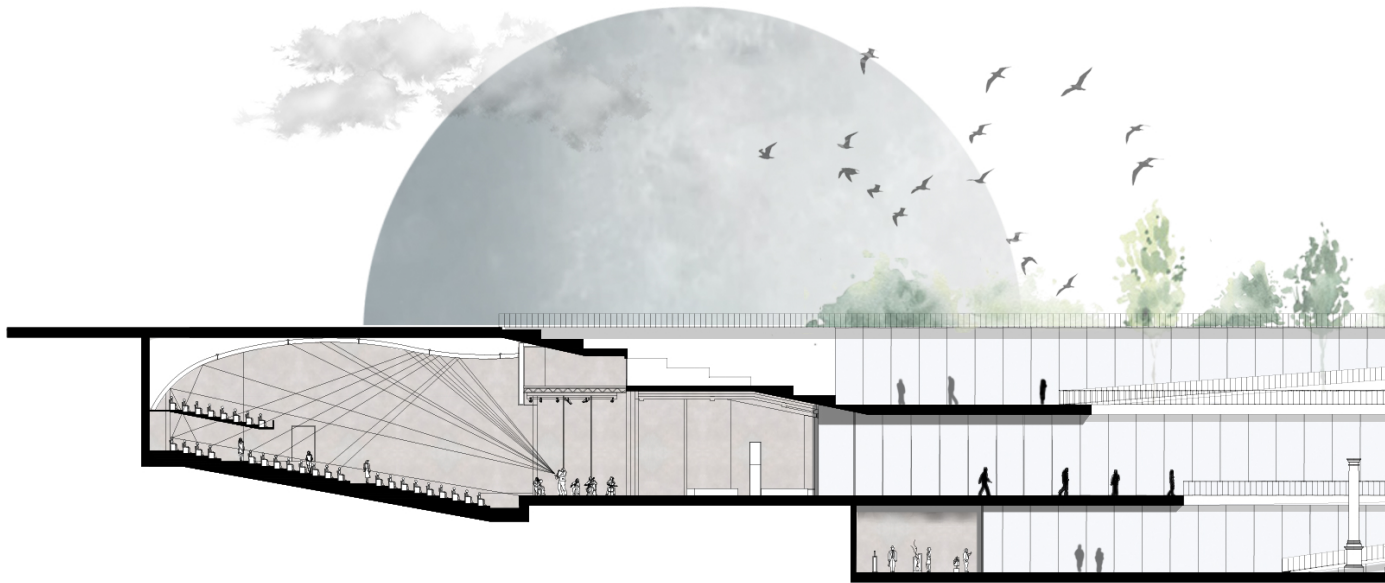


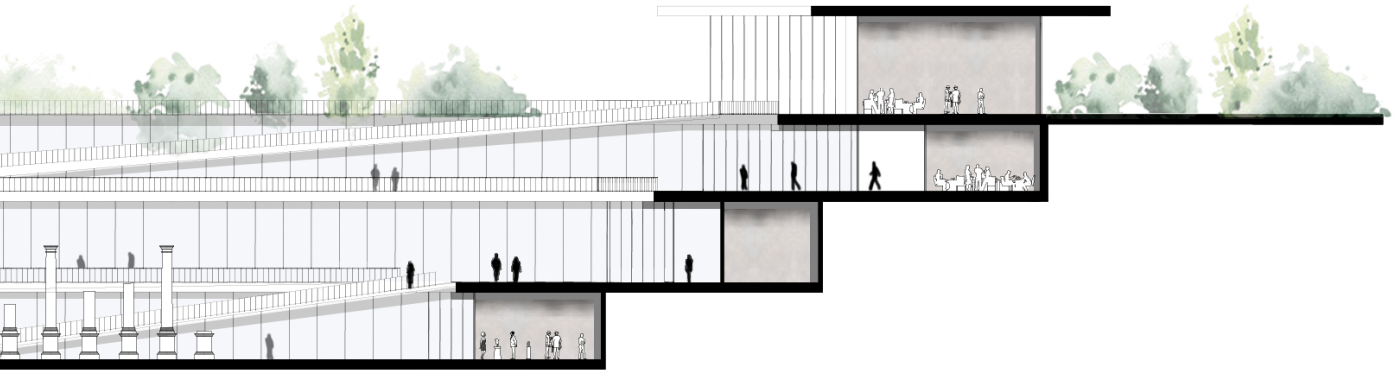
01 Exposition
02 Technical rooms



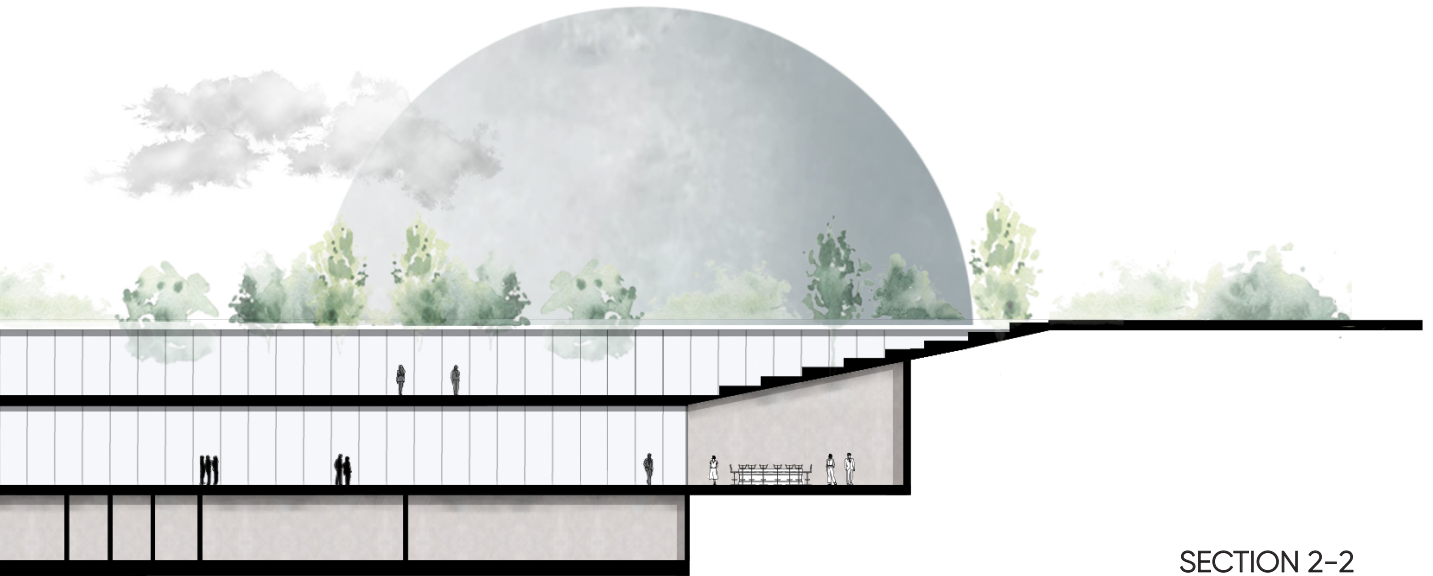
PLAN LEVEL -12.00







SECTION 1-1



SECTION 2-2



01

The project's first level is a diverse centre of activity that is made to accommodate a variety of demands and interests. While the library welcomes guests to immerse themselves in a world of knowledge, a restaurant beckons with mouthwatering fare. An inviting reading area next to the library offers a peaceful haven for anyone looking to reflect. A warm coffee shop provides a place for chats and a welcome break, while a thorough guide enables easy access to the many options on this busy floor.

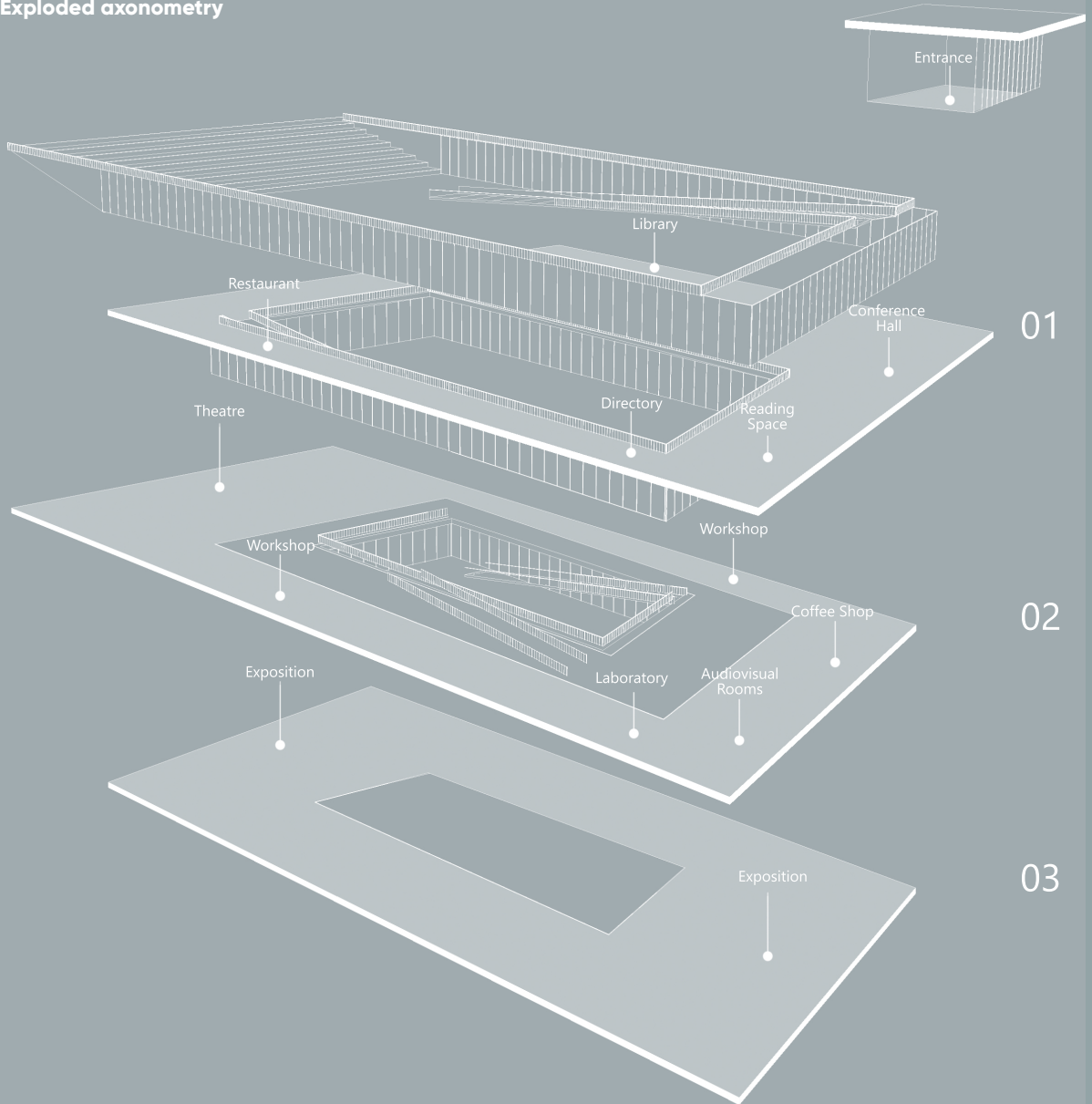
02

The project spreads its artistic and educational wings on the second floor. A well-equipped theater serves as a venue for engrossing performances and provocative productions, establishing a thriving cultural environment. Workshop areas next to the theater offer a stimulating environment for practical education and creative development. While specialized audio-visual rooms provide immersive experiences through dynamic media displays, a cutting-edge laboratory provides a platform for creative study and experimentation.

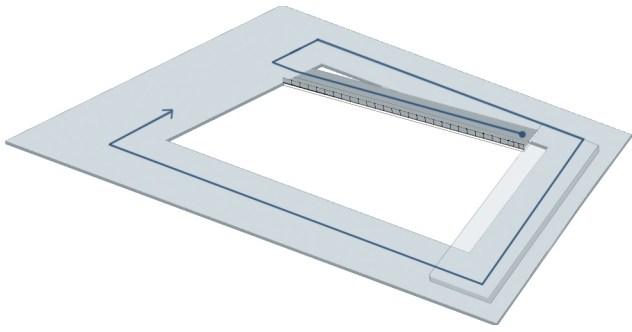
03

Visitors are welcomed by a sizable exhibition space that has been painstakingly created to encircle and honor the ancient remains uncovered within the project's scope as they descend to the third floor. This area not only displays the artifacts found during archaeological digs, but it also bears witness to the city's colorful history and ongoing importance. A riveting dialogue between the old and the new is created by the juxtaposition of contemporary design and antiquated artifacts, allowing visitors to fully immerse themselves in a visual and intellectual trip that transcends time.

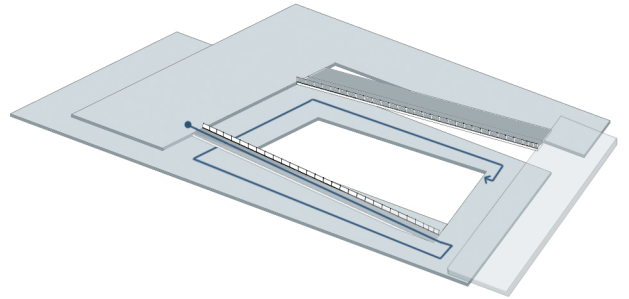
Exploded axonometry



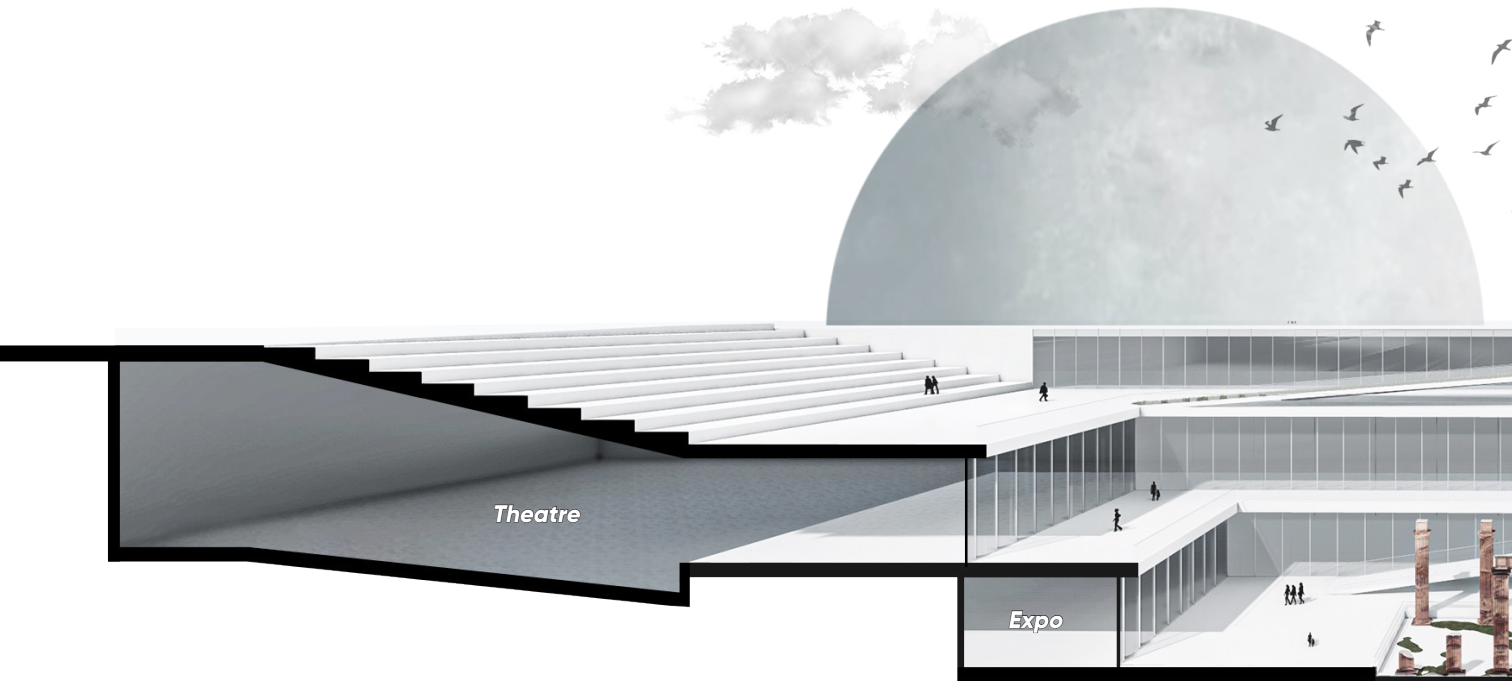
Circulation

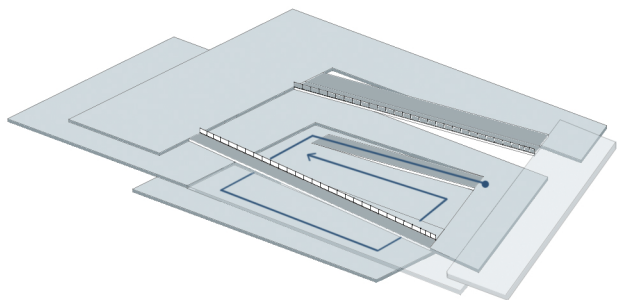


1st level

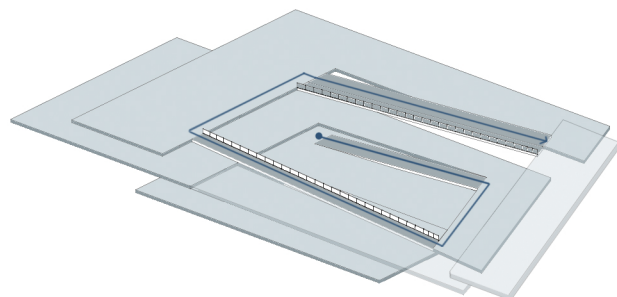


2nd level

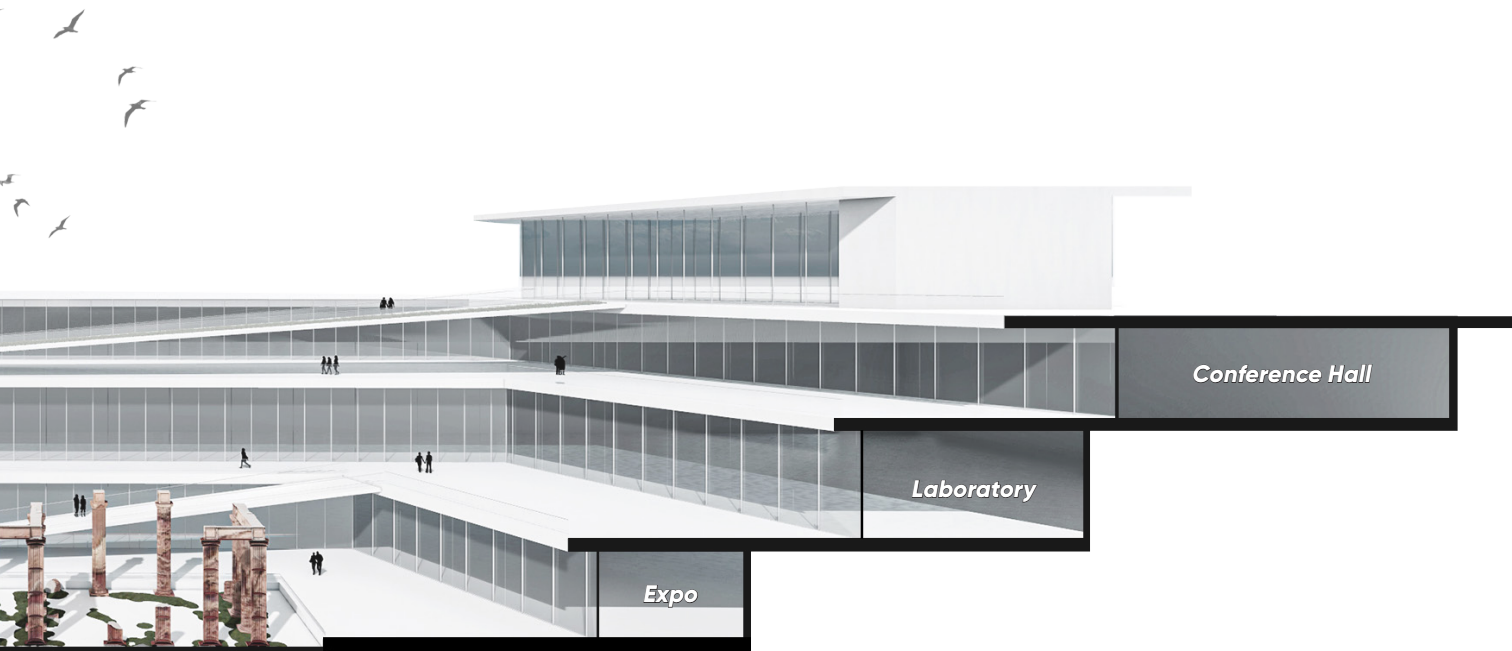




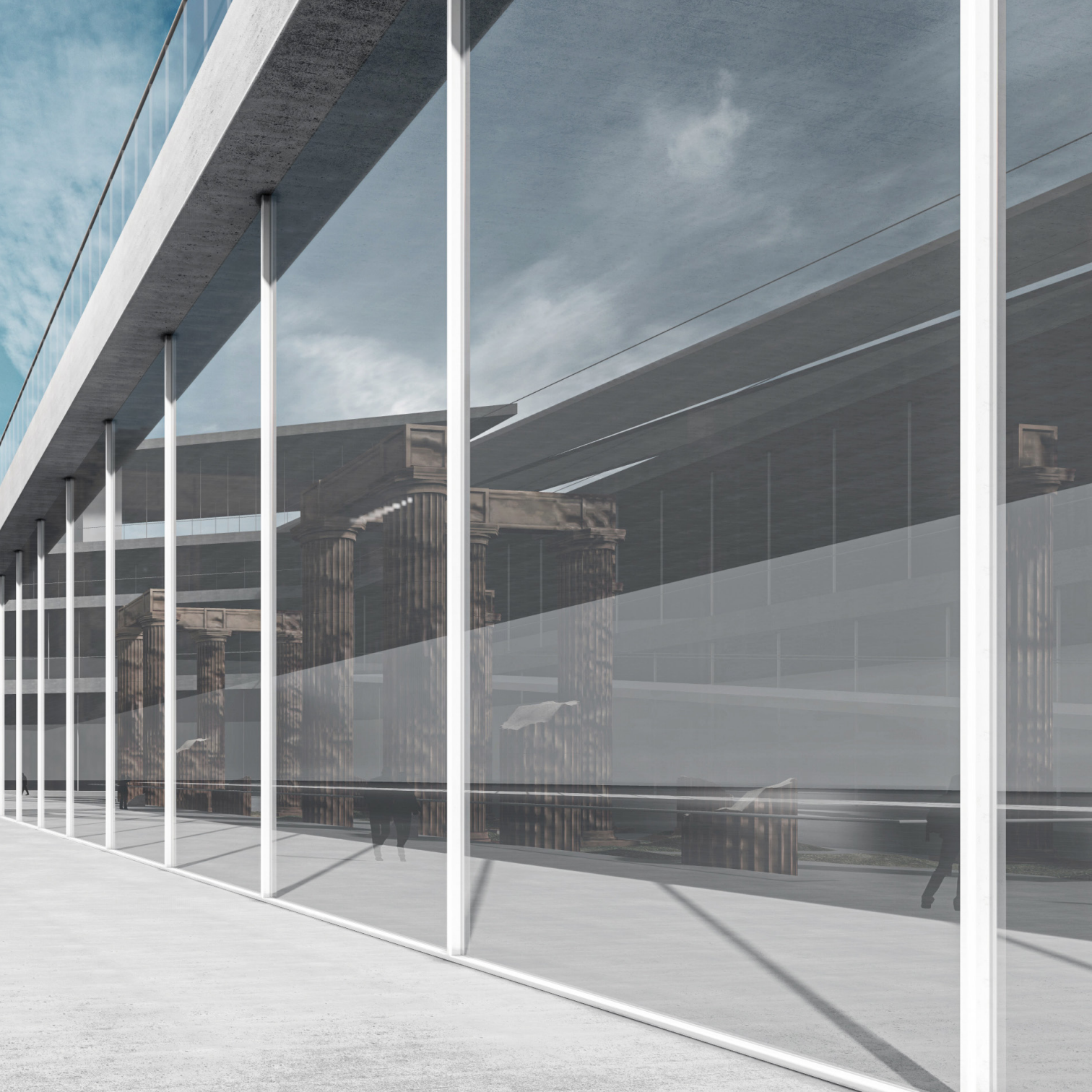
3rd level

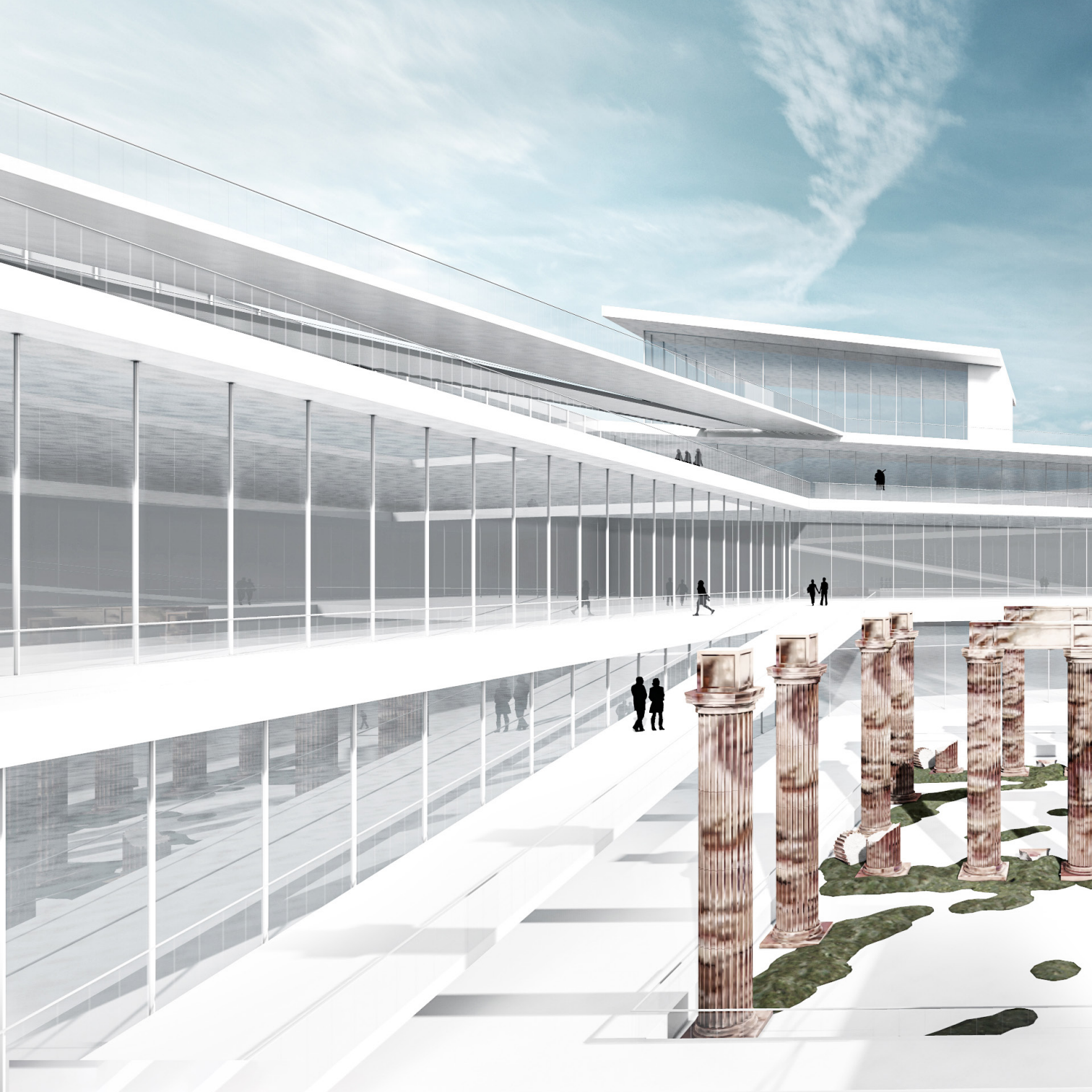


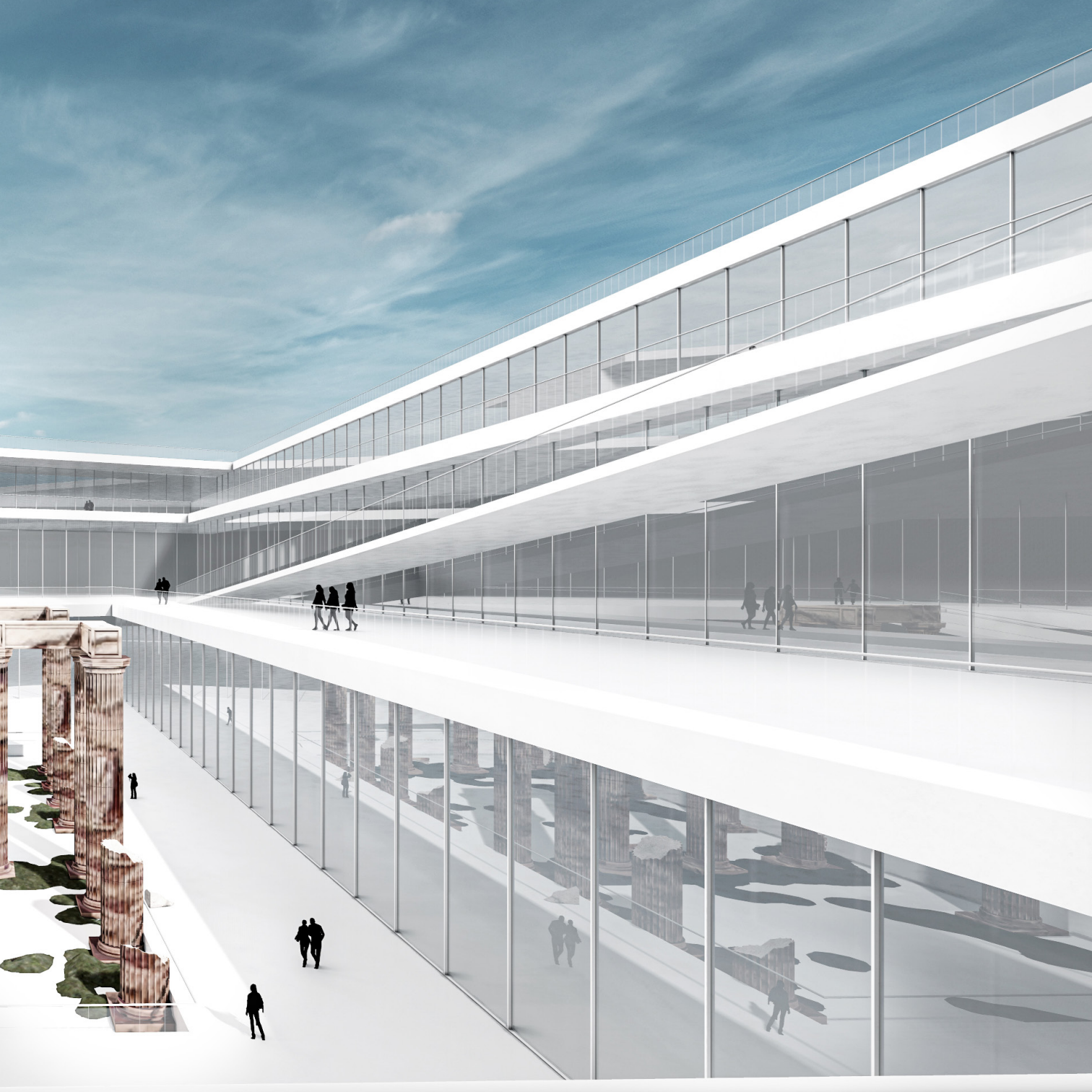
Exit route

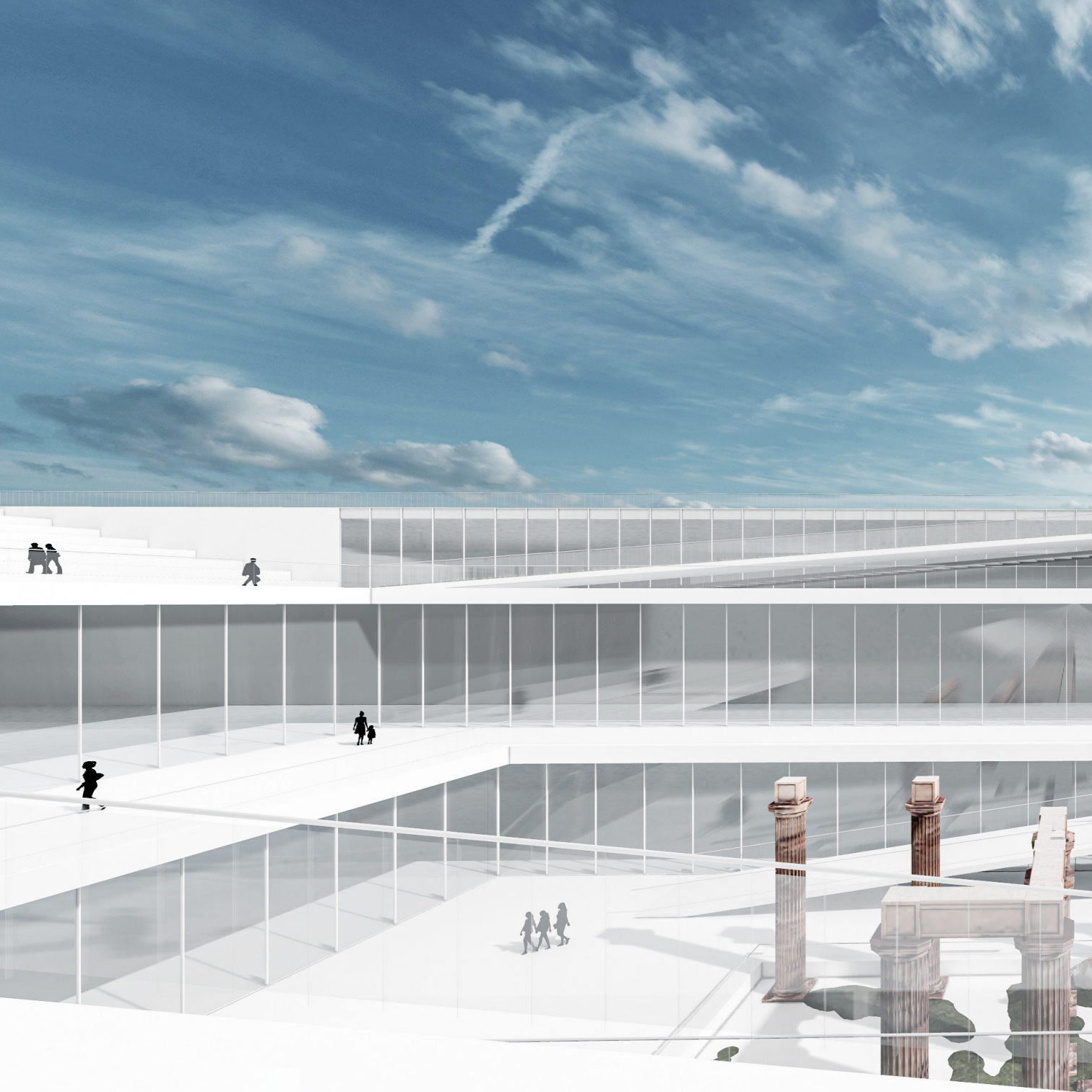


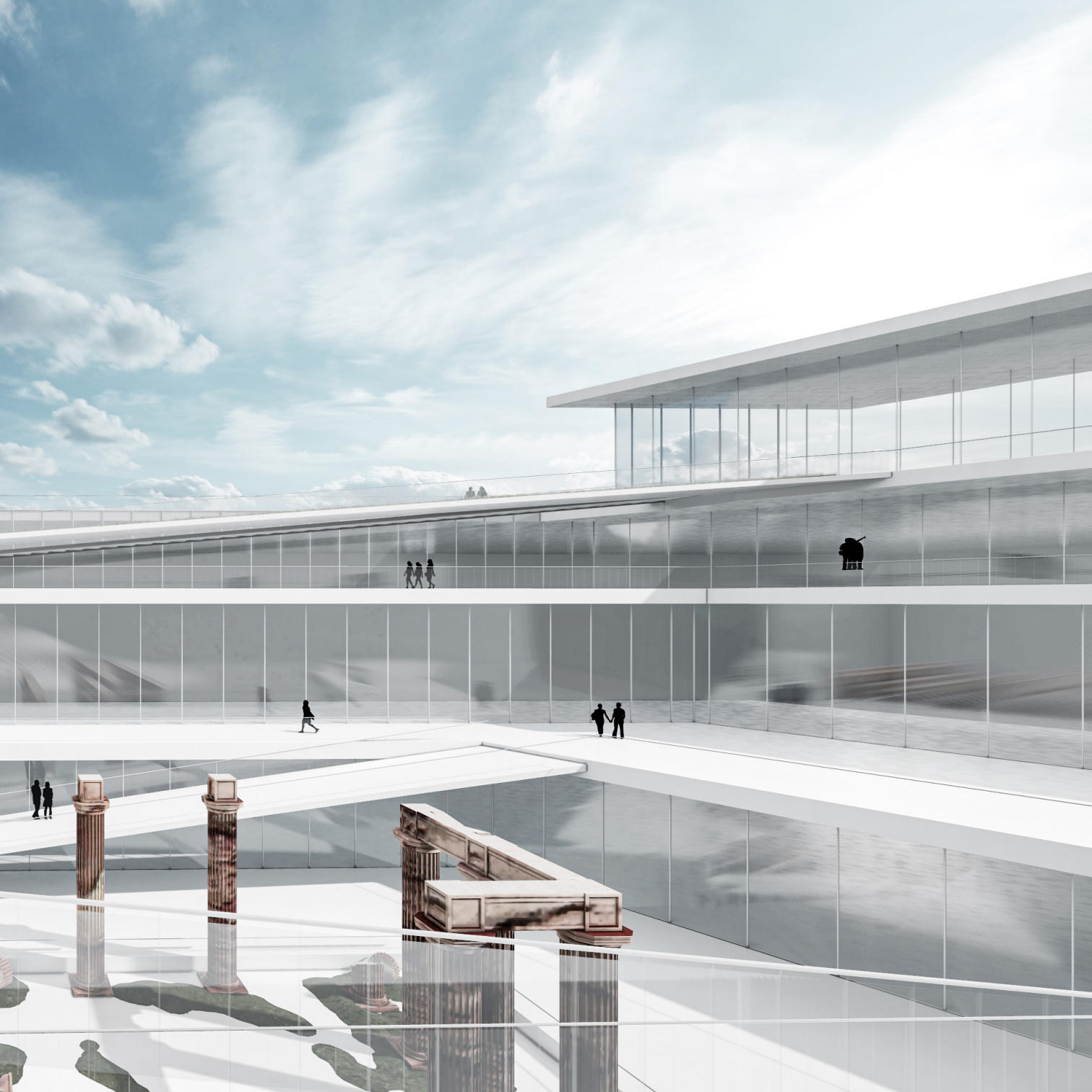












References

IRC, 2014. Emergency economies: The Impact of Cash Assistance in Lebanon. Available at: <https://www.rescue.org/sites/default/files/document/631/emergencieconomiesevaluationreport-lebanon2014.pdf>.

IRIN, 2013. 10 ways to develop southern Lebanon. Available at: <http://reliefweb.int/report/lebanon/ten-ways-developsouthern-lebanon>.

MOE and UNDP, 2014. Lebanon Environmental Assessment of the Syrian Conflict & Priority Interventions.

OCHA, 2016. Lebanon: Beirut and Mount Lebanon Governorate Profile. , (March), p.2016

Salti, N. et al., 2015. Survey on the Economic Status of Palestenine Refugees in Lebanon 2015.

SFCG, 2016. Case Study: Social Cohesion Programming in the Context of a Major Refugee Influx Crisis. Search For Common Grounds.

UNDP & CDR, 2010. Socio-Economic Rehabilitation Programme for South Lebanon phase II Project brief : UNDP / CDR in South Lebanon. , (December).

"El Buss Camp." UNRWA, <https://www.unrwa.org/where-we-work/lebanon/el-buss-camp>.

"Tyre." Tyre - Population - CityFacts, <https://www.city-facts.com/tyre>.

Porter, Lizzie. "Is Tyre the Mediterranean's Best-Kept Secret?" CNN, Cable News Network, 24 Aug. 2017
<https://edition.cnn.com/travel/article/mediterranean-tyre-lebanon/index.html>.

"Tyre City Profile: UN-Habitat." UN, <https://unhabitat.org/tyre-city-profile>.

CDR, 2016. Annual Progress Report. Available at: http://www.cdr.gov.lb/eng/progress_reports/pr102016/Esolid.pdf.

CDR, 2011. CHUD: Update of the Environmental Impact Assessment.

CDR, 2009. Cultural Heritage and Urban Development Project (CHUD).

IPTEC, MoE & UNDP, 2016. Road Transport Sector and Air Pollution: Case of Lebanon. Available at: [http://www.iptgroup.com.lb/Library/Assets/Road Transport Sector and Air Pollution- Case of Lebanon 2016-011954.pdf](http://www.iptgroup.com.lb/Library/Assets/Road%20Transport%20Sector%20and%20Air%20Pollution-%20Case%20of%20Lebanon%202016-011954.pdf).

World Bank, 2013. Lebanon: Economic and Social Impact Assessment of the Syrian Conflict.

UNRWA, 2015. Profiling the vulnerability of palestine refugees from syria living in lebanon.

UNRWA, Refugee Camps in Lebanon. Available at: www.unrwa.org.

Dionigi, F., 2013. The Syrian Refugee Crisis in Lebanon. State fragility and social resilience. LSE Middle East Centre, 15.

FAO, 2015. Food security and livelihoods assessment of lebanese host communities assessment report,