

Fortification Plan of the City of Algiers during the Ottoman Period

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Received : 23/11/2025 ; Accepted : 26/04/2026 ; Published : 27/05/2026

Abstract:

The security plan of the city of Algiers, in its general form, was established during the Ottoman period, according to the conditions set by the scholars of Islamic urban jurisprudence, which must be met in the planning of Islamic cities. They strengthened it security-wise by building walls and towers and equipping it with military gear, as well as seeking to close gaps and remedy the weak points in its security plan. They chose the city to be located on a hill, which is a natural fortification, and they surrounded it with a strong wall flanked by towers and batteries. Thus, the condition of protection and the provision of security was achieved in the city, in order to preserve the lives of the inhabitants, secure their property, and fulfill this condition, which played a fundamental role in the stability of the city and its growth in all vital fields, including the political, economic, and social fields. Thus, the city of Algiers became a city comparable to major cities, with great military power on the coast of the Mediterranean Sea.

Keywords: city; towers; Algiers; fortification; Ottoman.

Introduction:

This article addresses one of the civilizational standards that must be available in city planning and that the ruler must take into consideration, according to one of Ibn al-Rabi's conditions, namely the seventh condition, in which he said: "That he surrounds it with a wall for fear of the assassination of enemies, because it is, as a whole, one house." Thus, we took the city of Algiers during the Ottoman period as a model of a city fortified with walls and towers.

The importance of the research lies in identifying those walls and towers, as well as some of the military architectural elements built by the Ottomans, and also in identifying these towers, whose construction was not random, but rather aimed at closing the breaches and gaps through which the enemy could infiltrate. This took place through several stages, that is, whenever there was an attempt by the enemy to penetrate the city and seize it.

Because of their defensive importance, they were built on sites considered strategic for the city. Therefore, the Ottoman authority was keen for the security of the city to be of utmost importance during its rule, which lasted from the sixteenth century to the nineteenth century AD. This is considered a brilliant period in its military history, during which it enjoyed a tightly organized military system. We find that these walls and towers were equipped with deterrent and offensive defensive means, in line with the development of the war industry, which made it a defensively fortified city.

In this research, I attempt to answer the extent to which the defensive system and the construction of military installations conformed to one of the conditions of planning the city of Algiers during the Ottoman period (1514-1830 AD).

1- Security and Urban Development:

1-1 Security and Its Impact on the Development of the City:

Security is considered the fundamental value for the development and growth of the city in all areas of life, especially political and economic stability. It also played an important role in the urban development of the city. This security is embodied in the establishment of walls, fortresses, and defensive installations, as these military structures are considered the only means of warding off harm and avoiding danger.

The development of the city and its structures was reflected in the importance of fortification, which played an important role in protecting its existence, ensuring its continuity, developing its urban fabric, and stabilizing its trade. Therefore, the fortification of cities is considered one of the civilizational standards that distinguish a city.

As for the jurists of Islamic urbanism, they considered the construction of fortresses and towers and the surrounding of cities with walls as means that help preserve life, property, and honor, which are among the necessities of the objectives of Islamic Sharia. Therefore, the construction of walls, towers, and fortifications, according to the jurists of Islamic urbanism, is regarded as obligatory construction, especially if the purpose of building these defensive structures is to use them in defending the sanctities of Muslims and curbing external ambitions to plunder the country's wealth and seize its resources.

1-2 The Urban Development of the City of Algiers through the Ages:

The Casbah of Algiers, currently known as the Casbah, corresponds to the plan of the old city of Algiers, located in a temperate region on the coast of the Mediterranean Sea. It has been a UNESCO World Heritage Site since 1992 AD. Administratively, it is located within the territory of the country's capital, in the Wilaya of Algiers, municipality of the Casbah.

The city of Algiers is located at latitude 036.46 north and longitude 03.3 east of the Greenwich meridian. It was founded in ancient times, as it was a Phoenician-Roman port, then it was founded in the tenth century by the tribes of the Zirid state, and was enriched by the Andalusians. It reached its peak during the rule of the Ottoman state, when it was the seat of political, administrative, and military authority. Its name was extended to the whole country from the sixteenth century onward, since it came under the banner of the Sublime Porte.

This means that the city of Algiers passed through several stages in its urban development, according to the circumstances the city was experiencing.

1-2-1 The Phoenician Period:

The city of Algiers went through several urban plans since its emergence in ancient times. Archaeological evidence was found in the form of coins dating back to the Phoenician presence, discovered in 1940 AD in the Bab al-Jazira district. These consisted of 158 coins, minted between the second and first centuries BC. Through them, the name of the city, "IKOSIM," was identified, as it was written on one side of these coins. This is considered the first discovery of the ancient name of the city in archaeological research. This name is of Phoenician origin and was later altered into Latin during the Roman period, becoming "ICOSIUM."¹ It is also believed that it was founded many centuries before this date by the Phoenicians, who came to the coasts of Africa as sailors and merchants. They had several trading stations along the coast, from around the ninth century BC, when Carthage was founded in Tunisia. It is not unlikely that they established, on this Algerian coast, a station for their trade and settlement. They built their residential quarters close to the port so that their ships and trade would remain within their sight². Thus, this population settlement in this district, the

Lower Casbah, is considered the oldest district in the city and the first nucleus of the old city of Algiers.

1-2-2 The Roman Period:

The Roman presence in the region came after the fall of Carthage in 146 BC and the Roman settlement on the coasts of North Africa. The city of Algiers was called Icosium, a Latin name derived from the ancient Phoenician name Ikosim. It was located within the sphere of influence of the Kingdom of Mauretania Caesariensis from 25 BC to 40 AD,³ when it became a Roman city that was granted the right of social advancement. During this period, it was known for an urban plan called the chessboard plan, for which Roman cities were famous. This plan was characterized by its straight streets, whose directions followed the alignment lines, such as the *Cardo* street and the *Decumanus* street. The main street, the *Cardo*, appeared in its direction from south to north, along Bab Azzoun Street toward Bab El Oued, while the second street, the *Decumanus*, extended from east to west. Straight streets in all directions were connected to the first and second streets⁴. They also fortified it with strong walls, built towers and palaces, and made it a center for administering the country⁵. Gsell indicated in his book *The Archaeological Atlas* that the space enclosed by the old wall corresponded to the limits of the city established by the Arabs who settled in the same region. This means that the city had been fortified with a wall since ancient times.

However, the city was partially destroyed by the Vandals, who ruled from 429 AD to 534 AD, that is, for nearly a century, turning it into ruin and devastation. Their end came at the hands of the Christian Byzantines, who came to recover the colonies of their Roman ancestors. Therefore, their architecture was an extension of the remains of Roman architecture. Their presence did not last long, as it ended at the hands of the Arab Muslim conquerors in 647 AD.⁶

1-2-3 The Islamic Period:

The role of the Muslims was not limited to restoring life once again to the old city; rather, they added to it and expanded its front. They also created new values in it by choosing a new pattern of preferred sites, and they brought its size to levels that the city had not reached before. The history of the transitional period from Byzantine rule to Islamic rule remained obscure and unknown until Buluggin ibn Ziri revived the city by rebuilding it anew, by order of his father, the Emir of Ashir, around the year 339 AH / 950 AD.⁷ After that, it took the name Bani Mazghanna.

As for the Casbah of Algiers built by Buluggin ibn Ziri, it extended between a line following Bab El Oued and Bab Azzoun. The wall surrounding the city of Buluggin extended from Bab Azzoun to Bab El Oued, with some curves toward the south. Whoever follows this wall notices that it was not in one straight line, but rather a broken line resembling the sides of a triangle.⁸

1-2-4 The Ottoman Period:

During the rule of the Hafsid state in Tunisia and the Zayyanid state in Tlemcen, their conditions were unstable. The city of Algiers was independent under the leadership of a sheikh from the Tha'aliba tribe. At one period of time, the famous scholar Sidi Abd al-Rahman al-Tha'alibi assumed its leadership; however, he left leadership and devoted himself to teaching and instruction. After that, leadership passed to the sons of Salem from Bani Allan al-Hawwari, the last of whom was Salem al-Toumi.⁹ During this period, the Spanish invaders took control of the central rock in the port of Algiers and built on it their fortress known as the Peñón, 300 meters from Bab El Bahr. This took place in 1510 AD, when they spread corruption in the land and oppressed the people of the city by imposing taxes on goods entering and leaving the port.¹⁰

The people and scholars of Algiers sent a letter to Sultan Selim I, asking the Sublime State to help them and save them from the Spanish Crusader occupation.¹¹ Aruj landed in the city of Algiers after being summoned by its people and its sheikh, and he tried to eliminate the Spanish fortress, but he did not succeed in his first attempt. He then learned that there were intrigues and a conspiracy being plotted against him with the help of the sheikhdom of the country. Aruj therefore suppressed the sedition at its outset, killing Salem al-Toumi and the traitors who were with him. As the number of Turkish soldiers increased in the city of Algiers, Khayr al-Din grew stronger and devoted himself to pursuing the Spanish enemy. On the morning of Friday, May 21, 1529 AD, he besieged the fortress of the rock, and cannon shells began to destroy the fortress from that morning until noon, demolishing part of the fortress. He seized the fortress and captured all the surviving members of the Spanish garrison. He used the demolished stones¹² of the fortress to build the quay linking the four islands and the port to the city, and for this reason it was called the Quay of Khayr al-Din. Thus, the city of Algiers of Bani Mazghanna, or Algiers of the Tha'aliba, became stable under his authority. However, the Turks called this city the Algiers of the West, and sometimes the Protected Algiers and the House of Jihad. This name had meaning in the development of the city's urban structure toward defense and fortification against Christian raids. Therefore, fortifications with towers became numerous in it, walls were built, and its defensive strength was generally reinforced. The city expanded toward the heights, especially the Upper Casbah, whose construction Aruj began with the money and treasures of Bani Zayyan in Tlemcen after he eliminated their kingdom in 1815 AD. The Turks continued building the Upper Casbah from that date until 1590 AD. Because of the severe danger of Christian piracy against coastal cities, the Turks fortified the city of Algiers with unparalleled fortifications, which withstood repeated Crusader campaigns to seize the city of Algiers for three centuries. Charlier described it there as the terror of Christianity.¹³

Throughout the historical periods that the city of Algiers went through, from the time the Phoenicians laid its first foundation until the French occupation in 1830 AD, we find that the development of the city extended toward the heights, in order to provide natural fortification for the city.

2 The Defensive System of the City of Algiers:

The city of Algiers was built on the back of a hill facing east. It thus appears in the form of a pyramid ending in a summit on which the Casbah fortress stands; in the final days of Ottoman rule, it was transformed from a barracks into the seat of government. As for the geometric shape of the city as a whole, it is trapezoidal, with a long diagonal running from the Upper Casbah to the lower part of the city.¹⁴ Nevertheless, a careful examination reveals that the perimeter of the city is much closer to a trapezoid placed on one of its sides, with one of its angles containing the Casbah, while the diagonally opposite angle, extending eastward, is the starting point of the quay that connects the small islands to the mainland.¹⁵

Al-Maknasi also described this defensive system in 1785 AD during his journey to perform Hajj, stating that this city was extremely fortified and impregnable from both land and sea. It had two walls and a ditch, and beyond the ditch there was another wall.¹⁶ This means that the city was surrounded by two opposite walls with a ditch between them.

2-1 The Fortress of the Casbah:

The fortress is a type of stronghold whose use became widespread in the Middle Ages to protect cities from internal or external aggression. It served both as a residence and as a fortress. In choosing the

site of the fortress, care was taken that it should be elevated and high so as to overlook the surrounding land. The first fortress known in military architecture was the fortress built by William or Richard III (1001-1027 AD), the uncle of King William the Conqueror and Duke of Normandy. Fortresses then passed into early and medieval Islamic architecture, including the Fortress of Ayyub in al-Andalus during the 8th century AD, then the Citadel of Cairo in the 10th century AD, then the Qal'a of Bani Hammad in the Central Maghreb during the 11th century AD, and the Qal'a of Bani Abbas in Algeria during the 15th century AD.¹⁷

As for the Ottoman period, there was the Casbah fortress in the city of Algiers, which was built in the upper part that crowns the city and sits at its summit, on top of the hill. The seat of government was moved to it from the lower part of the city in 1817 AD, during the reign of Ali Khodja. With its vital military, administrative, and political facilities, it is considered a small fortified city.

The Casbah fortress played an important role in securing the city, because its location allowed it to overlook the city and monitor all the land and sea gates and towers. It monitored them from the Tower of Bab El Oued to the Tower of Bab Azzoun, and it could also monitor the eastern sea towers from Tamentfoust to the port.¹⁸

It was surrounded by a wall made of ordinary local earth, 3 to 4 feet wide or slightly more. There was also a barrier ranging in height from 1 to 3 meters, with the same width as the first wall already mentioned. It contained openings for artillery and rifles, all of which were almost of the same measurements and size.¹⁹

Its walls were reinforced with military architectural elements, including batteries, which the Turks called tabkhana or tabbana. There were 7 batteries distributed according to a precise military system. There was also a quadrilateral watchtower, with an opening on each of its sides to monitor and inspect the city by land and sea.²⁰

2-2 The Ditch or Trench:

It is a trench around the walls of cities, fortresses, and military camps to protect them and hinder their attackers. It may be empty of water or filled with it.²¹ The first trench built in Islam is considered to be the trench dug to the north of Medina by order of the Messenger, peace be upon him, to repel the attack launched by a group of Arab tribes who had agreed to invade Medina and eliminate the Muslims. The Messenger, peace be upon him, consulted his Companions about this, and he adopted the opinion of Salman al-Farisi, may Allah be pleased with him, who said: O Messenger of Allah, when we were in the land of Persia, if we were besieged, we would dig a trench around ourselves... Thus, the Messenger of Allah, peace be upon him, ordered the digging of the trench around the city from the weakest side, which was the northern side. It was a wise plan that the Arabs had not known before. He divided the Muslims into groups, each group being assigned to dig about forty cubits. Its length reached about 1200 cubits, its width ranged between 4 and 5 meters, and its depth was 3 meters. Digging the trench was a huge military architectural work, completed in a short period estimated at a maximum of twenty-four days.²² Among the most important cities where trenches were used was the city of "Baghdad," due to its proximity to Persia. A trench was dug around the city, surrounding its walls, with a depth of six meters and a similar width. It was filled with water through a canal in times of danger. In front of each of the city gates there were four bridges that enabled people to cross this trench in times of peace, and they were raised in times of war.²³

As for the city of Algiers, it was surrounded by a trench that lay between the two parallel walls. Its width sometimes reached 16 feet, while the trench of the Upper Casbah was estimated to be 20 feet

deep. The rest of the trench continued until it reached the seashore over a distance of about 450 feet. However, it was sometimes neglected, as some waste was thrown into it, which caused its depth to decrease. The exception to this was the trench surrounding the Casbah, which remained clean over time. Yet it did not remain in this state for long, until Pasha Arab Ahmed, in 1573 AD,²⁴ launched a major project aimed at cleaning and re-excavating the entire trench around the city. The care given to cleaning and re-digging the whole trench around the city was due to this major project undertaken by Pasha Arab Ahmed in 1573 AD. Its shape was almost triangular, with each side descending to the bottom of the trench to form an almost acute angle. The depth of this trench ranged between six and eight meters. This trench was surrounded by an outer wall, whose height ranged between six and eight feet. We also find that this wall was reinforced with some defensive architectural elements, such as towers and batteries attached to it, distributed along its perimeter on the three sides.

2-3 The Walls:

The wall is a huge architectural work surrounding a building to protect it. The cities founded by the Muslims at the beginning did not have walls, as there was no urgent need to build them around these first cities, especially since the motives of security and safety in the regions of the Islamic state were available, and the inhabitants of these cities were among the conquering soldiers.²⁵ Given the importance played by the wall in protecting the Islamic city, the subjects were required to preserve and restore it. The jurists had a major role in this through the fatwas presented to the public through the legal cases submitted to them.

Scholars also permitted rulers and princes of Islamic cities to expropriate properties from their owners and compensate them for their real value, in order to build walls and secure the city if the ruler feared enemy treachery from that side.

The Abbasid period in Baghdad achieved great progress in this regard, more than what the Umayyad period in Damascus achieved. Perhaps the best examples of this are the walls of Qasr al-Hayr al-Gharbi, which extended for nearly 6 kilometers, and the walls of the cities of Baghdad and Raqqa, with double walls provided with semicircular towers and four gates with bent entrances, which neither the Greeks nor the Romans had known before. The oldest walls in Egypt after the disappearance of the walls of Fustat are the walls of Fatimid Cairo, the first of which were built by Jawhar al-Siqilli in 970 AD.

As for the Islamic Maghreb, the city of "Tlemcen" had been surrounded, since the Idrisid period (Agadir), by a wall erected on all its sides. During the Almoravid period, the walls of the city of "Agadir" extended to include the city of "Takarart," founded by the Almoravid emir "Yusuf ibn Tashfin." The Almohad state also paid attention to the wall of the city of "Tlemcen," and it appears that the city remained surrounded by a strong wall until the Ottoman period.²⁶

As for the city of Algiers during the Ottoman period, it was surrounded on the landward side by a wall and a trench, then by another wall lower than it. On the seaward side, the buildings themselves delimited the city from the shore and sometimes touched the waves of the sea.²⁷

28 Whoever contemplates the shape of this wall, which tends toward a trapezoidal form, finds that one of its angles contains, at the top of the hill, the Casbah. Al-Maknasi also described it during his return journey from Hajj in 1785 AD: "This city is extremely fortified and impregnable from both land and sea. It has two walls and a trench, and beyond the trench there is another wall..."²⁹

A text also appeared in Haedo's manuscript, while describing the city, stating that the city wall resembled a war bow, whose string represented the seafront, while its curve represented the landward

front, whose distance was estimated at 1800 feet, whereas the length of the string on the seafront reached 1600 feet. Thus, the circumference of the city of Algiers reached 3400 feet. As for its heights on the landward side, starting from the sea up to the top of the hill, they reached 30 spans. The wall of the seafront, however, rested on the rocks, touched the waves of the sea, did not appear to be in one straight line, and its height reached 40 spans. The thickness of this wall ranged between 11 and 12 spans. As for the measurements of the thickness of the breaches caused by offensive projectiles in the wall, their measurements in the Bab El Oued wall were as follows: 4.56 m, 4.45 m, 6.12 m, and 6.95 m, while the measurement of the breach in the Bab Azzoun wall reached 16 m, including the trench wall.³⁰

These walls were not built in one period by one ruler; rather, each ruler endeavored to increase the fortification and defensive means whenever the need arose. Thus, we find that they were the accumulation of several projects of additions and modifications that were continuously carried out on the wall.³¹ Although the entire wall surrounding the city was interspersed with towers and batteries.³²

2-4 The Tabbanat or Tabkhanat:

Tabbana is the definition of a Turkish word, “Topkhana,” which is composed of two words: “top,” meaning cannon, and “khana,” meaning chamber or cannon chamber. It was also called the battery, a term translated from French and intended to mean the tabbana. It is a defensive architectural element with which towers and walls were reinforced, and it was located near other military facilities so that it could benefit from their services, because it lacked all vital facilities and special gunpowder stores for supplying ammunition. It was distributed around the perimeter of the wall of the city of Algiers on the three sides, as Al-Maknasi described it when he visited the city: “...and on its walls are towers and cannons facing the sea, because the Christians often head toward it with warships and large armies.”³³ It is shown in Table No. (1).³⁴ It was also found along the city’s maritime coast from the eastern side reaching Tamentfoust, and from the western side to Sidi Fredj.

Table No. (1)

Cannons	Founder	Date	Tabbana Name
Tabbanat of the Southeastern Wall			
09		16th century AD	BabEl-DjedidTabbana
09			Al-SallawiTabbana
09	Arab Ahmed	1572-1570	Al-AsalTabbana
Tabbanat of the Northeastern Wall			
04		1572-1570	Al-MaristanTabbana
04			Qa’ al-SurTabbana
36	HassanPasha		BabEl-BahrTower
04		AD 1816	Great MosqueTabbana
Tabbanat of the Northern Wall			
04		AD 1639	Saba’ TabarnTabbana
9	RamadanPasha	AD 1572-1570	Al-HammamAl-MalehTabbana
13	YahiaRais	AD 1572-1570	SidiRamadanTabbana
04		AD 1545	WindmillTabbana

2-5 The Towers:

The tower is a military structure, square or circular in shape, in which soldiers assigned to defense are stationed. Its interior cannot be reached except through combat. It is of two types: the first is a high structure connected to the city wall, and in this case it overlooked the gates, the corners of the wall, and separate parts of it. The second is an independent, self-standing structure, built in frontier areas along the routes of commercial caravans and in strategic sites overlooking the borders of the city or the state. The tower may also be built in strategic coastal areas on the shore to confront any enemy naval landing. In this case, it resembles a small fortress forming an advanced defensive line for this city.³⁵

The city of Algiers was surrounded by an arsenal of defensive towers that were separate from the city walls, some of which were located in the city's port. They extended along the maritime coast, from Tamentfoust in the east to Sidi Fredj in the west, and others were located on the landward side for its surveillance. See Table No. (2), as well as the territories of the awtan belonging to Dar al-Sultan, and on the borders adjacent to the beyliks, especially those located on the eastern side toward Constantine, as well as toward the southeast on the borders of the Beylik of Titteri.

Table No. (2)

Cannons	Founder	Date	Tower Name
Towers of the WesternSeacoast			
	YahiaAgha	AD 1724	SidiFredjTower
02	RamadanPasha	AD 1871	MarsaAl-DhubbanTower
38	HajjAliAgha	AD 1670	The EnglishTower
27	MohammedPasha	AH 975	BabEl-OuedTower
04	RamadanPasha	AD 1576	The Old New Tower
Towers of the EasternSeacoast			
20	PashaIsmail	AD 1660	TamentfoustTower
15 openings	JaafarPasha	1723/1722	El-KiffanTower
	YahiaAgha	AD 1746	Al-QantaraTower (the Agha)
27	MustafaPasha	AD 1584	BabAzzounTower
Towers of the CityPort			
55	Arab Ahmed	AD 1573	LighthouseTower
53	MohammedPasha	AD 1784	Old RasAmmarTower
30	HusseinPasha	AD 1829	New RasAmmarTower
27	MohammedPasha	AH 975	BabEl-OuedTower
04	RamadanPasha	AD 1576	The Old New Tower

2-5-1 Towers of the Awtan of Dar al-Sultan:

From a geographical point of view, the borders of the city of Algiers extended from the city of Cherchell in the west to the city of Dellys in the east, and from the seacoast in the north to the slopes of the Blidean Atlas in the south. The reason that led the Turks to establish Dar al-Sultan was the fear of the Turkish rulers in the city of Algiers of any rebellion by the beys or a coup by the army. The authority at that time also worked to secure the city of Algiers against internal revolts, especially the awtan that were directly subordinate to Dar al-Sultan. It therefore established some towers in strategic locations, either in the heart of these awtan, such as the Tower of Cherchell, which was established in the city of Cherchell on the western side of Dar al-Sultan, as well as Bordj Menaïel, Bordj Sebaou, and Bordj Boghni in the watan of Qachtoula on the eastern side of Dar al-Sultan, where it stationed garrisons of the Turkish Janissary army.

Defensive towers were also established on the borders adjacent to Dar al-Sultan, the Eastern Beylik, and the Beylik of Titteri, in order to subdue the rebellious tribes that were opposed to the ruling system, especially those living in the high mountains of Djurdjura and the Bibans, and the Qal'a of Bani Abbas, which enjoyed self-rule, and the Emirate of Kuku in Kabylia, which was ruled by the Ben al-Qadi family, who were hostile to the Turks. From the very beginning, the Turkish rulers built towers and equipped them with garrisons from the Turkish army to suppress these revolts, protect the main roads leading to Dar al-Sultan, and the secondary roads that allowed individuals to move between the awtan, which linked and ensured communication and contact between Dar al-Sultan and the beyliks. Among them was Bordj Hamza, which was established because of the revolts of the tribes of Djurdjura and the Emirate of Kuku, and to secure the sultanic road linking Dar al-Sultan with the Eastern Beylik and the Beylik of Titteri. As for Bordj Sour El Ghozlane and Bordj El Souari, they were established on the southern borders to prevent attacks by nomads.³⁶

See Table No. (3)

Table No. (3)

Founder	Date	Tower Name
Towers of the Awtan of Daral-Sultan		
MohammedBenFares	1518	CherchellTower
	1594	UmmNailTower
AliKhodja	1720	SebaouTower
	1724	BoghniTower
	1716/1715	TazerartTower
Towers of the EasternBorders of Daral-Sultan		
	Mid-16th century	Hamza Tower
	AD 1595	SourEl-GhozlaneTower
		El-SouariTower

Conclusion:

Finally, we have drawn some conclusions that confirm the keenness of the Algerian rulers during the Ottoman period to ensure the availability of one of the basic conditions in city planning, namely that

it should be surrounded by a wall for fear of enemy attacks. Thus, it was surrounded by a wall to protect it, then reinforced with military architectural elements, including batteries and towers, in all directions, both landward and seaward, on strategic sites and at carefully planned intervals according to what the military techniques of that time required for defending the city and repelling Crusader aggressive attacks coming from the seafront, as well as internal rebellions by the revolting tribes.

As a result of the above, we find that the city was fortified by four defensive plans, both landward and seaward, as follows:

- Coastal towers as advanced centers for detecting any movements or landings on the shore. They had a fundamental advantage in their strategic locations, as they allowed the monitoring of all movements of enemy ships along the seacoast and provided warnings to the naval forces to prepare to repel any possible attack. This was the role performed by the Tower of Tamentfoust in the east.
- Land towers that were established on the lands of the Fahs of the city of Algiers as a second defensive line in order to control all the access points and roads leading to the city. They also provided support to the towers located on the coastal basin of the city.
- The towers of the awtan and the towers on the borders of Dar al-Sultan and the beyliks, which served as a safety valve in establishing internal security in the awtan and rural areas, and in confronting all rebellions and revolts, such as the revolt of the tribes of Ouled Nail in 1772 AD, when they besieged the capital of the Beylik of Titteri, Medea, and attacked the Turkish garrison at Sour El Ghozlane. Were it not for the rapid interventions and reinforcements that reached the city from Algiers, the flames of the revolt would have reached the city of Algiers itself.
- Finally, the walls and the trench, which constituted the last defensive line of the city. Care was taken to maintain and restore them whenever the need arose, at the expense of the treasury of Dar al-Sultan.
- Thus, these fortifications gave the city its prestige and strengthened its power, so that it came to possess all the civilizational components necessary to become a sovereign political, economic, and military capital on the Mediterranean Sea for more than 3 centuries. It acquired all the civilizational elements that place it among the Islamic cities with a distinctive urban plan.

Footnotes:

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