

FORTIFICATIONS OF AL-ZAHIR BAYBARS IN 'AJLOUN CASTLE, AN ARCHAEOLOGICAL AND ARCHITECTURAL STUDY

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Abstract

Castles were and still symbolize strength, with the aim of controlling and defending the land, since the existence and man sought protection, hence the interest in building castles, the ancient Egyptians, Canaanites, Phoenicians, Persians, Romans and Muslims - in various ages - built forts and castles for confrontation and defense, and the Levant was the focus of conflict until the Byzantine conflict, and in the era of the Ayyubids, the architecture of building castles developed, and the previous ones were restored, and in the Mamluk era, Baybars took care of the castles and renewed them.

'Ajloun Castle is one of the castles that were destroyed and seized by the Mongols, such as Damascus, Salt, Sarkhad, Al-Sabiba, Bosra, Baalbek, Shiraz Castle, and Shememis Castles.

Al-Zahir Baybars ordered the building of these castles, carrying machines and ammunition, and what these castles needed, and he stripped them of the Mamelukes and soldiers of what they would reside in.

Since various ages, the Levant has been the focus of the ambitions of the great powers. This is due to its geographical and strategic importance, and as it is known that the Levant is Syria, Lebanon, Palestine and Jordan,

And our talk in this research talks about the 'Ajloun Castle in the Jordan region, and this research aims to show the role of Al-Zahir Baybars in fortifying the 'Ajloun Castle, and its architectural works.

The boundaries of this research include the spatial boundaries where the Jordan region is in the Levant, and the temporal boundaries from the period of establishing the fort until the era of Al-Zahir Baybars (580 AH / 676 AH / 1184-1277 AD).

The axes of this research are confined to the site of ‘Ajloun Castle, the reasons for building the castle, the description of the castle externally and internally, the analytical study and its architectural elements, and the works of Al-Zahir Baybars.

Keywords: Castles, the Levant, ‘Ajloun Castle, ‘Ajloun fortress, Al-Zahir Baybars, the Mamluk period, castles in the Jordan region.

First: Introduction

1. Location

‘Ajloun Castle (Figure 1) is located in the northwest of Jordan [1], in the city of ‘Ajloun, 4 km away [2], which is 73 km from Amman in the northwest, and 24 km from Jerash, the highest peak of Mount Bani ‘Awf, by order of Izz al-Din Osama (580 AH/ 1184 m) [3], a high mountain rising 1000 m above sea level [4].



Fig. 1. Location of ‘Ajloun Castle with Levant Castles

2. The reasons for building ‘Ajloun Castle, and its strategic importance

- Salah al-Din al-Ayyubi took several ways to save Jerusalem from the Crusader captivity, including building castles, to be a springboard for liberation; Therefore, he sought with all his might to find an Islamic fortress; To confront the fortified enemy castles in the Levant and Palestine, and to proceed through it to Jerusalem, one of his leaders was assigned to build a fortress between the Levant and[5] Palestine, the choice fell on the ‘Ajloun area,

and the castle was built on one of its mounds. The reasons that made Salah al-Din issue an order to build 'Ajloun Castle was:

- Preserving the lines of communication between Damascus and the battlefield in Jerusalem, and monitoring the movements of the Crusaders in the northern part, after they built a fortress like Kawkab al-Hawa. 'Ajloun was built to be a stubborn opponent of Kawkab al-Hawa Castle [7], opposite to the castle of Kawkab al-Hawa, which was built between Tiberias and Baysan; to enable the Crusader settlement, and the expansion of the Frankish kingdom [6].
- Protecting the southwestern flank of the Damascus region and the vital transportation route between Damascus and Cairo, called the Hajj trail, which was weak until then [1]. And the response, so he chose the 'Ajloun Mountains, and ordered his leader, Izz al-Din Osama, to build the 'Ajloun Castle; to meet the Crusader castles and confront the aggressors, the castle was on a strip line to the forts of Salt and Karak and along some of the Levantine castles [6].
- Protection and preservation of the iron mine in Palestine and Jordan (the Cave of the Rose), which is about 18 km south of the Citadel, and this is one of the important reasons for building 'Ajloun Castle [8].

Continuous control over the entire area along the Jordan River between the Seas of Tiberias and the Dead Sea, and tightening control over the series of Palestinian heights from Jerusalem to Al-Tur, Kawkab Al-Hawa, and Safed.

Monitoring all roads and paths leading to Damascus, securing transportation routes, protecting them from attacks by the Franks, thwarting any expansion of them in the area east of the northern Jordan River, whether in the Karak side in the south, or from the side of the Kingdom of Jerusalem across the Jordan River from the west, and ensuring the movement of forces Muslims are at ease [9].

- Facing internal rebellions, such as the rebellion of Bani 'Awf [10], who tried to prevent the building of the castle, so Osama bin Munqith convinced them that he was building it to protect them from the Franks. 'Ajloun Castle became an early warning station, supply and equipment, a communications center, and a link between Damascus, Palestine and Egypt [7].

3. Creator and creation date

The castle came into existence in two periods, the High Citadel [1], the first period when Sultan Salah al-Din al-Ayyubi issued his order to his worker in 'Ajloun, Prince Izz al-Din Osama bin Munqith in the construction of the castle in (580-581 AH / 1184-1185 AD)[7], and the second is the period of increase in the castle, It took place at the hands of the great Isa, and his Ustadar Izz al-Din Aybak al-Moazami, the owner of Sarkad after (611 AH / 1214 AD)[9] when the castle was besieged in (1211 AD); Because its owner, Izz al-Din Osama, refused to swear an oath to the new sultan, after the death of Salah al-Din, and it was granted to Aybak bin Abdullah, so the new owner in the year (1214-1215 AD) made extensive architectural improvements to the castle, by strengthening the southern facade, and the roof of the open courtyard [1].

4. Fortification of the castle before al-Zahir Baybars[2], [10], [11] (Fig. 1).

'Ajloun remained a fief of Prince Izz al-Din Osama until the year (608 AH / 1211 AD), when the Great King Isa took it from him, and Prince Izz al-Din Aybak al-Mu'azami [7] cut it off. It is crowned with a pointed arch [8]. This castle has been repaired and built during the years (1214-1215 AD) carried out by Izz al-Din Aybak bin Abdullah al-Moadhami, owned by the Great King Isa [12]. These increases consist of the southeastern tower located on the left of the interior of the castle, as well as the outer gate, the entrance in addition to the two towers located in the eastern front wall of the castle [9].

After the great king Jesus, the castle of Ajlun entered into the conflict that existed between King Al-Nasir Dawood (624-647 AH / 1127-1249 AD), the owner of Karak, and between the Ashraf King, the owner of Damascus, and it remained affiliated with the Kingdom of Damascus until the death of Al-Ashraf in the year 635 AH / 1237 AD, when al-Nasir regained it David.

In the year (643 AH / 1245 AD) the castle became under the control of the good king Najm al-Din Ayyub, the owner of Egypt, and after his death (648 AH / 1250 AD) it was seized by King Salah al-Din Yusuf Muhammad ibn al-Zahir Ayoub, the owner of Aleppo and Damascus, so he renovated the tower located in the northeastern corner of it. This is proven in an inscription installed in the southern facade of this tower [7].

The fortress remained in the hands of King Al-Nasir, the owner of Aleppo and Damascus, until the Tatars seized control of the country. But when he was killed, al-Malik al-Zahir Baybars took over, renewed his life, transferred the ammunition to him, and appointed Izz

al-Din Aybak al-Ala'I [13], and this is what we will mention in detail in the works of al-Zahir Baybars.

Second: Planning and general architectural description of the castle

It is a compact structure in terms of its design, the upper castle is in the form of an irregular rectangle, and it is adjoined to the north and southeast by two courtyards, but they were covered and several buildings were built over them at a later stage [1] (Fig. 2), the general plan of the castle is two adjacent rectangles supported by towers [3]

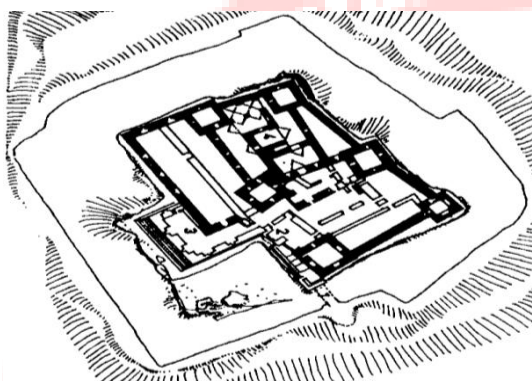
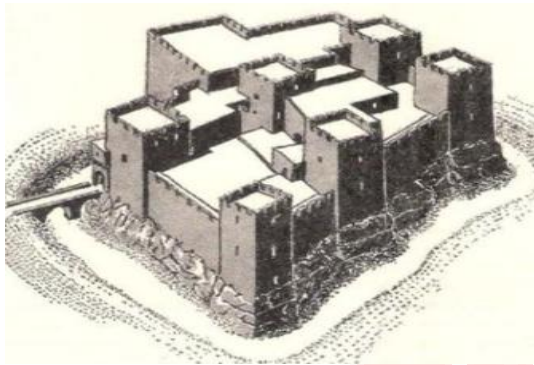


Fig. 2. The general plan of the castle

1. External description

The castle is surrounded by deep valleys, but they do not form steep cliffs, but can be reached by a plain from all sides[9], except for the southern side, where it is difficult to climb [7]. It was carved from the outside at an angle of 90, and its width from the north is 13 m, from the south is 18.7 m, from the east is 13 m, and from the west is 16.5 m, and its width in the northeastern corner between the two towers is about 20.3 m.

Its lowest width is at the entrance to the castle, reaching 10.3 m. As for the height, it is noted that the inner side is higher than the outer side in relation to the carved rock wall. From the outside, it ranges between 6-10 m, while the height from the inside is between the first course in the castle and the end of the trench from The bottom ranges between 12-15 m [2]. (Pl. 1) [8].



Pl. 1. 'Ajloun Castle layout

This trench was cut in the hard rock, as it was filled with water during times of siege to impede the advance of the enemy, and the door of the castle located in the north-eastern side is equipped with a wooden bridge moved by iron chains, and it rises over two bridges, which is raised at night and in times of danger [9].

Where there was a rocky column opposite this entrance in the trench, and between the entrance and the column this moving wooden bridge[12], and adjoining it a three-storey tower that includes openings for workshops. The walls and towers were made of pointed stone, and the walls were supported by supporting walls; To protect it from earthquakes[3], the castle walls and towers are surmounted by balconies and courses[9], and the castle from the outside is protected by six towers that include three floors [3], with many windows and arrow holes[7], [14]. (Figs. 3-4-5-6).



Fig. 3. First floor

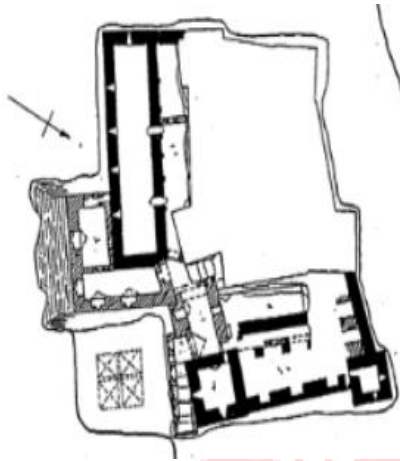


Fig. 4. The second floor

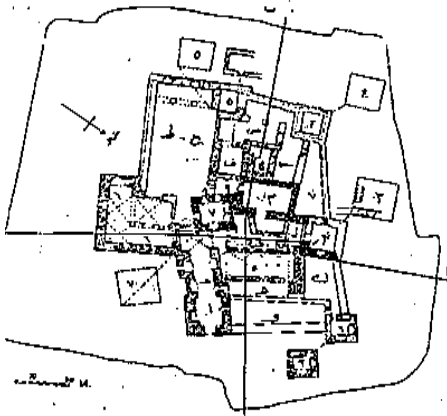


Fig. 5. The third floor

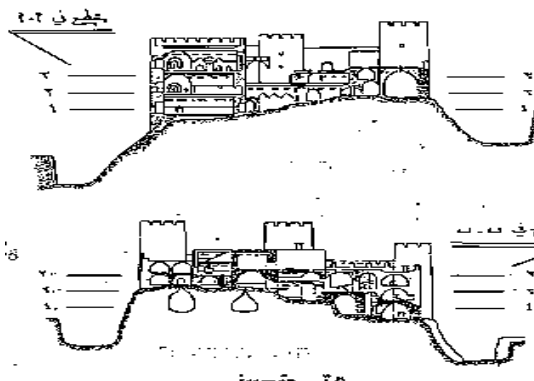


Fig. 6. Castle floors from two sides

The first tower: there is a wall to the right of the entrance in the northeastern side, the width of the northeastern wall is 13 m, and the second tower is to the right of the first in the corner to the north, and between them there is a wall, i.e. between the first and second towers on the eastern side, a wall that forms a wall for a hall located behind it, and this

wall is not aligned The wall of the two towers, rather, was pushed inward half a meter, and this tower was supported at its southeast corner by a support wall.

In this wall there are two divorces on both sides and a window in the middle, and after the second tower towards the west there is a wall or a wall of 16 m in length. In the north, then the fifth tower in the southwestern corner, and on the southern side, after a distance of 32 m from the southern wall towards the east, there is the sixth tower, whose western side is approximately 12 m long [2].

2. Internal description

The main entrance to the castle is on the northeastern side. It is linked by a bridge over the moat [3]. Above the entrance is an oil ratchet, which consists of four prominent stones (coils). Also, in the southern corner of the entrance is a balcony protruding from the wall of the facade carried on four stones, including three latches. To throw boiling oils and burning liquids, the gate is protected by two defensive towers from the east, north and south sides [8].

And the entrance to the castle coming from the bridge in a narrow corridor staircase between two thick walls [9], and this staircase of iron stairs fixed in the rock [12], and this corridor ascends a distance of 17 meters, from east to west, it narrows at its end, and the corridor consists of 21 steps, and ceilings parts of the corridor with a vault Half barrel, 6 meters long, and distributed on the outer southern wall of the corridor, four shafts to defend the southeast side, the outer citadel of the citadel, and the southern citadel trench, and a distance of 17 meters, (Fig. 8)[8].

The inside turns right into another huge gate with two pointed arches, on the right and left sides of which a picture of a falcon is engraved, perhaps the herald of one of the princes who took over the castle. External and internal, was used in the construction of this section of the castle a kind of white stones unpolished or serrated [9].

The entrance on the right side leads to the courtyard, and this entrance has an iron door whose two sides slide into two corridors to block the entrance in the face of the enemies [3], the old or final castle of the first under the protection of two towers is in the middle, and the sliding iron door on a double gate crowned with two double pointed arches, and that gate leads to a rectangular room covered with a half barrel vault, (Fig. 9) [8].

The inside of the castle is 70 m by 80 m, and the castle includes three floors, each floor includes a number of roads and halls, and its floors are not on one level, and it also includes two courtyards, around which are towers and halls [3].

The castle has a seventh tower, and it is located inside, adjacent to the entrance located on the northeastern side, and the sixth tower located in the southeastern side, as after the addition of the year (611 AH / 1214 AD) by Prince Izz al-Din Aybak al-Mo'azami, the defensive function of the seventh tower, which became among the castle buildings, was abolished. The interior, and by virtue of the distribution of the towers, the castle had two walled courtyards in the southwest, protected by the fifth, sixth and seventh towers, and to the north-east protected by the first, second, third, sixth and seventh towers [7].

The ceilings of the inner halls in the towers and the corridors are vaults, most of which are semi-cylindrical. In their construction, polished pieces of stone were used, fixed between them with a mortar of pebbles [9]. There are ten wells of different sizes, including pear and rectangular ones, to drain water and channels under the floor of the halls covered with stone slabs [15].



Fig. 8. Castle Entrance Corridor



Fig. 9. Sliding iron door opening

Third: The works of al-Zahir Baybars in the 'Ajloun Fort

‘Ajloun Castle is one of the castles destroyed by the Mongols, and its age is Al-Zahir Baybars.

This was one of the priorities of the Mamluks, as they paid attention to the reconstruction of the castles that were destroyed by the Mongols, especially in the Levant [11].

The Mamluks inherited many castles and fortresses built by the Ayyubids [16]¹, when Hulagu's Tatar forces invaded the Levant, they stormed Jordan, and reached Balqa, Amman, Zira and Salt, and destroyed its castle. So they brought him to Ajlun, so he ordered the defenders to go down, and handed it over to the Tatars, as a result, they demolished parts of it and destroyed its balconies.

However, the castle soon came under the control of the Mamluks after the Tatars suffered a crushing defeat in Ain Jalut, and the first of the Mamluk sultans to take care of it was Sultan Al-Malik Al-Zahir Baybars, who rebuilt it and built it, repaired and strengthened it and appointed Prince Izz Al-Din Aybek Al-Alai (688 AH) as governor, So he renovated some of its parts, so the castle walls and towers were surmounted by balconies and courses, and these balconies had been demolished at the hands of the Tatars, but Sultan Al-Zahir Baybars rebuilt it [9], renewed it and old and transferred ammunition to it [13], where the catapults [17] were transferred to it, and the soldiers dispersed to it [18], where it shipped with men and equipment a year 659 AH [9], and he cleaned its trench, and made it a warehouse for grain [2], and this was recorded on a stone plate [9] that was lying in the courtyard of the southern tower of the castle. (Pl. 2).

In his letter, al-Mu'mini [2] mentions that in the courtyard of the third floor, he found a stone placed in the southern part of the castle's roof, 125 cm long and 60 cm high, bearing an inscription that was protected by placing an iron grill on it, and it consisted of three lines, and the text:

Done, during the days of our master the Sultan, the king al-Zahir, the pillar of the world and religion, Baybars al-Salehi,

May God honor his supporters, in the eyes of the poor servant - seeking God's pardon and forgiveness

King of Princes Izz al-Din Aybak al-'Alalion the twentieth of Sha'ban in the year six hundred and fifty-nine[2].

عَمِلَ فِي أَيَّامِ مَوْلَانَا السُّلْطَانَ الْمَلِكِ الظَّاهِرِ رُكْنَ الدُّنْيَا وَالِدِينَ بَيْبَرَسِ بْنِ عَبْدِ اللَّهِ الصَّالِحِي

أَعَزَّ اللَّهُ أَنْصَارَهُ، بِنَظَرِ الْعَبْدِ الْفَقِيرِ - الرَّاجِي عَفْوَ اللَّهِ وَغُفْرَانِهِ

ملك الأمراء عز الدين أبيك العلاني بتاريخ العشرين من شعبان سنة تسع وخمسين وثمانمائة

The area of 'Ajloun enjoyed great luck in the Mamluk era, so they made it a viceroy belonging to the city of Damascus, and sometimes they made it an independent agency in which the appointment would be by the Sultan in Cairo. The Jordan Valley, and Sultan al-Zahir Baybars (658-676 AH / 1260-1277 AD), had commissioned the deputy of 'Ajloun to build this mausoleum, and from what was mentioned in the inscription "and that was in the view of the great emir Nasir al-Din Mankali al-Jashankir al-Zahir al-Saidi, deputy of the guarded kingdom of 'Ajloun in the month of Dhu al-Hijjah, year seventy-five hundred."

وذلك بنظر الأمير الأجل الكبير ناصر الدين منكلى الجاشنكير الظاهري السعيدي نايب مملكة عجلون المحروسة في شهر ذي الحجة سنة خمس وسبعين وثمانمائة".



Plate (2) Inscription of Al-Zahir Baybars

Here we note that Al-Zahir Baybars became the emir of 'Ajloun with the rank of Jashankir, which is one of the functions of the swordsmen, and it is assumed by Amir Moqaddam, one of the great ranks in the Mamluk state. Al-Zahir Baybars did that; Because the Mamluk state was in the process of being established, and because of the importance of the 'Ajloun region, and its proximity to Damascus, the second capital of the Mamluk state, which represented the second center after Cairo, and its representatives were always greedy for the sultanate, and in it they revolted against the state, and 'Ajloun in this case can stand in the face of any expansion of the deputy of Damascus In addition, the Frankish danger still exists in Palestine and the northern coast [20].

During the reign of Al-Zahir Baybars, the postal system was upgraded, as the post was the medium of communication between the Mamluk state in Cairo and its representative in the Levant and other regions.

The Mamluks were aware of the benefit of the post, so Sultan Al-Zahir Baybars arranged it in the year 669 AH, and established a system for it, according to which all parts of his kingdom were linked to a network of land and air post lines.

The Castle of the Mountain became a center for postal lines, to the extent that four postal routes exited from it, one of which extends to Qus, the other to Aydhab, the third to Alexandria, and the fourth to Damietta, and from there to Gaza.

From this place, the rest of the postal lines in the Levant branch [21], 'Aj'loun Prosecution was a center of communication between the Levant and Cairo, as it is part of the Damascus networks, as it is one of the airpost stations, to which news arrives or from, whether by carrier pigeon or skylight [9].

Al-Zahir Baybars personally supervised closely; To monitor his enemies from the Mongols and the Crusaders to repel them, and the references were unanimous on the interest and accuracy of the system by Al-Zahir Baybars. He received news from Al-Sham twice a week while he was residing in the Citadel of the Mountain. The Mamluks, but Sultan Baybars reformed it, and gave air post no less care than land post [22].

Where he spent a lot of money in order to reach an efficient post system, and ordered that the roads designated to speed up the transport of post, and the arrival of the latter stations for horses at organized distances, to exchange horses or postal couriers, and put the fast horses and camels always ready to go after they had enough food.

The post was transported by carrier pigeons, and signals with fire and smoke were for the sake of quick messages, and for this reason, Al-Zahir Baybars took care of constructing the skylights (towers) from which these signals originate in elevated positions, at distances that allow the signal to be seen, and the initiative to light the fire in what follows from the skylights. There was fire at night, and smoke during the day, so skylights or beacons were built on top of mountains, or on tall buildings [5].

In view of the high location of the fortress or castle, it was used throughout its history as a center for homing pigeons, and a beacon for transporting news and post from the Euphrates border to Cairo [23]. From the upper surface of the castle, torches were lit; to send signals to all parts of the country, where it used to light a fire at night, and in the day it sends smoke signals.

As for the carrier pigeons, the northeastern tower was known as the carrier pigeon tower, and it is accessed from the second gate after turning from the end of the broken corridor to the right, and it was called the carrier pigeon gate because there is a prominent image of two pigeons on the wall of the gate [8].

Fourth: Analytical study

'Aj'loun Castle is a purely Islamic castle, so the local Jordanian traditions appear in all building styles and materials used, it is an Islamic modern architecture, it was not

established on old foundations, but was established in the Ayyubid era[9], as it is one of the Arab castles [12], and 'Ajloun Castle witnessed touches of the development of the art of building during successive stages [2].

The history of the construction of the castle goes back to two successive historical periods: the first was the period of construction at the hands of Prince Izz al-Din Osama (580-608 AH / 1184-1211 AD), and the second was the period of the increase in the castle, which took place at the hands of the great Isa, and his Ustadar Izz al-Din Aybak, the owner of Sarkad a year later (611 AH / 1214 AD).

1. Evolution of castle building

The construction of the first period, and it goes back to Izz al-Din Osama

It occupies a semi-regular area, with square towers on its corners with triangular mandrels, and each of these towers has two rotations [24], linked to each other by the pedestals of the wall. With water tanks within the scope of the fence, and in this section there are windows covered with vaulted arches and narrow windows for arrows [9].

What Izz al-Din Osama did during the era of Salah al-Din al-Ayyubi is observed on the first and second floors, and this is characterized by the heaviness and the immensity of the building, and his divorces (arrow slits) were accurate in the form of a chisel, the average length of one is 80 cm and its width is 8 cm [2].

The construction of the second period, which is due to Ezzedine Ibek Al-Moazami

It consists of the southeast tower located on the left of the interior to the castle, as well as the main external gate and the entrance (which is on the right and is one of the recessed entrances), in addition to the two towers located in the eastern front wall of the current castle, in addition to the two towers located in the eastern front wall of the castle.

The style of these structures that are attributed to that period differs from the first, as it is more developed, as the arrows' outlets are surrounded from the inside by semi-circular arches that occupy a large part of the thickness of the wall [9], so the windows of this building are wider. The added walls have niches inside the entrances, and the towers are characterized by their inclination towards the inside [24].

There are two phases that are considered as renewal and restoration phases, the first: the phase of Al-Nasir Salah al-Din II, King of Aleppo, and the second: the phase of al-Zahir Baybars [8], and the development that was introduced during the reign of Salah al-Din

Yusuf (648/659 AH) became the divorcees with a length of 130 cm and 150 cm, and a width of 10 cm and 12 cm, Some of them are designed as windows [2].

As for the era of al-Zahir Baybars, he restored the parts destroyed by the Tatars, such as the northwestern tower, and storing supplies and equipment. It is considered that the castle passed through four stages, the first stage: the construction stage, and the rest of the stages constitute additions, restorations and modifications to the original building until it reached the size that it is on [8], now, Baibars built parts of the third floor in 1260 AD / 659 AH, of which part of the balconies and windows remained in the southern and eastern walls.

In the southern wall there are still remains of 21 steps ascending to the balcony of the seventh tower, and the stones of the second and third floors of the sixth southern tower appear better carved than the stones of the first floor. It dates back to the Mamluk era, and through this similarity, al-Momani mentioned that the second and third floors of this tower were built during the reign of al-Zahir Baybars [2].

Location

The site of the fortress occupies a strategic location that is difficult to climb, as it is at the top of Mount Bani 'Awf. It is one of the mountain fortresses [3], which are built on a series of mountain peaks [10]. A rocky slope occupies an honorable position that enables it to perform its defensive function from all sides that surround it, which is called the circular defense [15].

This site was cleverly chosen to establish the castle, as it not only controls all the areas along the Jordan River between the Tiberias and the Dead Sea lakes, but also goes beyond that to tightening control over the series of Palestinian heights from Jerusalem to Al-Tur, Kawkab Al-Hawa and Safed. A giant erects to watch all the paths and paths leading to Damascus, and in this way it is considered a shield for Damascus, and a frontal defensive center for it in the face of the Crusader danger coming from the Latin Kingdom of Jerusalem across the Jordan River and the northern part of the eastern Jordan region [9].

He says: The rabble is characterized by being very strong, its walls are thick and its corridors are curved, it has several wells, and it is characterized by the wide and deep trench that surrounds it, which was excavated in the rock itself with tremendous effort [25]. And the evidence of the strength and immunity of the 'Ajloun fortress, Ibn Shaddad mentions that when the Tatars descended on the fort, they disobeyed them, but it was

handed over to them, so they took over all its crops and ammunition and demolished the fences of the castle [13].

2. Architectural elements

The trench

The castle was surrounded by a moat, which gave the castle more strength [3], and since the castle was built over a rocky brook, the trench was cut in the solid rock [1], and it was carved from the outside at an angle of 90, and the dimensions and area of the trench were mentioned in the descriptive study, and it became clear that the area of the width of the trench around the citadel is not fixed along any of the facades of the citadel, and the least width of the moat at the entrance to the citadel; Because of the inclination in the inner rocky part of it.

As for the elevation, the outer part of it was lower than the level of the inner part, and the elevation points also differ, as the highest point of elevation is on the western side, then the height gradually decreases as we head towards the east and south, and the lowest points in the trench are from its southern side, and all because The slope in the plateau, so that the construction engineer replaced the excavation by building some courses of finely carved stone from the inside.

Therefore, this planning provides control for the garrison of the fortress on the perimeter of the trench from the outside, and its filling with water makes it a dam for those who tried to penetrate, and whoever is able to escape from it is forced to climb the inner part of the trench that is higher than the outer part; To be able to reach the walls of the castle, and thus the trench reduced the chances of reaching the castle and excavating its walls, so Al-Zahir Baybars ordered the cleaning of this trench [2], as the castle from three sides was easily accessible; Due to the lack of slope in the slopes around it [15].

As for the southern side, it is naturally difficult to climb, (due to the large area of the trench in terms of depth and breadth, and the straightness of the height of the outer wall around the trench at an angle of 90), there must be a movable bridge to cross, to connect the outer perimeter with the castle [7], the entrance is in the trench, on which the drawbridge is anchored [12].

Entrance

The entrance is an advanced model of the bent entrance [3]. The entrance to the castle was very difficult and full of dangers, as crossing the trench on a drawbridge is raised at risk,

then entering a corridor by iron stairs fixed in the rock, and then heading right through a gate in a double wall with a door on it. A railing slides into the space between the two walls [12].

It is noted that the entrance hole or the outer node of the double gate is smaller than the opening of the inner node, in order to monitor the entrance, pour boiling liquids from the space between the gate [8], and the inner gate room [1]. Following the sliding entrances was a corridor covered with a vault, and openings were opened at the top to dump hot liquids [26].

It was also a means of communication and communication between the upper and lower floors, with the throwing of incendiary liquids[8], as mentioned in the descriptive study. The broken entrance was used for the purpose of impeding the attackers, and the impossibility of demolishing the gates, and preventing the use of other siege tools and others. The city of Baghdad had four of these broken entrances, Bent entrances were found in the architecture of ancient Egypt, such as the fortress of al-Kum al-Ahmar, as well as in Assyria, and in the Ishtar Gate in Babylon [27].

The towers

The towers of 'Ajloun Castle are square, and the style is influenced by the Byzantine style [26], and these towers and walls are supported by retaining walls to protect them from earthquakes [3]. The height of the towers is noted, and this is due to the fact that 'Ajloun Fort represents a strong guard point, controlling and monitoring a large area overlooking it, and therefore it was necessary to be at this height, as it represents a vertical expansion, as the area of the fort on the top of the mountain is limited [28].

In view of the high location of 'Ajloun Castle, it used throughout its history as a center for homing pigeons, and a beacon for transmitting news and the post from the Euphrates border to Cairo [23], during the days of the rule of al-Zahir Baybars, the post served military purposes above all [5], and it is noted that the seven towers in the castle, some of them are three stories high, according to the nature of the land and its slope, in the south, southeast and west, it rises three floors, while in the north it rises two floors [8].

Divorces, arrows or spindles

It is an opening in the city wall, castle, fortress, tower, or gate from which spears, arrows and other projectiles are fired at the attackers. It is also used at the same time as an outlet for ventilation, lighting, and observation. The shafts were narrow on the outside and wide

on the inside; to enable the person in charge of guarding it to throw his spears and arrows at the attackers with ease and ease in terms of freedom of movement in defense without giving the attackers an opportunity; To aim their weapons at the defenders behind them [27].

In the 'Ajloun Castle in Jordan, there are arrow slits that are wide from the inside and narrow from the outside, and with incomes or arches [26], and this feature allows the stationing of more than one fighter inside, without impeding the movement of the soldiers in the corridors, and helps the shooter through its deviation angles from the best view of the farthest possible range, and these agitators They appear as narrow longitudinal slits from the outside, which secures the protection and general safety of the defenders, the arches of the shafts are crowned by pointed arches, and decorated with oyster decoration with relief engraving [8].

It is clear during the era of Al-Zahir Baybars that the talaqa or arrow slits became its arches bearing some artistic decorations, and the process of placing stones inside the windows was introduced, so the window became in the form of a talaqa, from within; To anchor the arches that hold the vaults.

The floors of the rooms were raised from the floors of the halls in which they are located to be at the level of the divorces, in order to provide protection for those on the floor of the hall, so that they would not be hit by arrows if they entered from the divorces, and this is evident in the floors of the sixth south tower [2].

It is noted that 'Ajloun Fort had a staircase that could be stood at different levels through arrow slits scattered on all levels, and this stair could be climbed through it to the top of the castle for observation and shooting [28], and the traditional form of triangular-planned arrow slits continued [24].

Stones

The stones with which the castle was built were from the mountains of the surrounding area, with a distinction between two types of stones [28], one of which is carved finely, and the other is carved so that a prominent part of it appears outward in the middle of the stone. One type is yellow limestone [2]. It is a type of unpolished or serrated stone. These stones were also applied in the towers and walls of the Al-Jabal Castle in Cairo, which dates back to the Ayyubid period [9], its stones are rough [10].

The stones in the 'Ajloun fortress for the foundations were of large sizes, which overlapped with the rocks on which the fortress was built, the size of the stones decreases as the building rises. To relieve pressure on the building [28], which the architect worked to reconcile with the slope of the rock, the rock is not on one level.

Al-Zahir Baybars inscription

It was found during the restoration and cleaning operations of the Department of Antiquities, and this inscription gives evidence that Al-Zahir Baybars paid attention to the castle, and built parts of the third floor in 659 AH / 1261 AD, of which part of the balconies and windows in the southern and eastern walls remain. It was inside the castle in the inner part of the southern tower, and perhaps it was fixed to one of the walls of this tower and then fell inside [2].

In 1927, an earthquake struck the area, which led to the collapse of the southwestern part of 'Ajloun Castle, and this piece was found in 1967, when the General Antiquities Department restored this part of the castle, and cleaned the trench surrounding the castle. These works are on this inscription, which is an inscription engraved on a limestone preserved in the 'Ajloun Antiquities Museum. The inscription consists of three lines written in Naskh script [19].

Al-Zahir Baybars realized the importance of the city of 'Ajloun and its strategic fortress, so he wanted it to be a strong military center, and a fortified base against the Franks who were and are still present in the coasts of the Levant [29], and for its strong military position. When he went to her, he came down on her and took her from the Franks[13].

Al-Zahir Baybars was interested in the existing fortifications in Egypt and the Levant, and installed the catapult on them. The ancient origins of these fortifications were used. The study of the planning of the Mamluk fortifications in the outskirts indicates that a shift occurred in the lightly fortified offensive bases to the well-fortified defensive strongholds since the middle of the 13th century AD. There has always been a tendency to enhance the defensive capabilities of individual castles, and interest in curtain walls has increased¹.

Conclusions

¹[24] pp. 365-367.

- Many factors contributed and influenced the building of castles, including: the religious factor that urges and is keen to preserve and defend oneself and the homeland, and natural factors such as: the climate, which affected the form of building castles in terms of the thickness of the walls, fences and ceilings with the shape of cellars; to drain water and geological or topographical factors at the construction site and its construction materials.
- The natural and topographical conditions of this strategic location helped the strength and durability of the fortress and prove the good choice of this site.
- This affected, as we mentioned in the descriptive study, the dimensions of the carved trench in width and height, as they were not of equal size.
- Al-Zahir Baybars fortified, restored and renovated the 'Ajloun fortress, which the Tatars had seized, and they had vandalized and demolished many of its architectural and defensive elements; whether merlons or towers.
- 'Ajloun Castle is a purely Islamic castle, where local traditions appeared in all building styles and materials used, but it was established in the Ayyubid era.
- The date of the construction of the castle goes back to Prince Izz al-Din Osama (580-608 AH / 1184-1211 AD), and the period of the increase in the castle took place at the hands of the great Isa, and his Ustadar Izz al-Din Aybak, the owner of Sarkhad, a year later (611 AH / 1214 AD). Al-Zahir Baybars built parts of the second and third floors (659AH/1260AD).
- Baibars' works included two types of works, works that he added and considered not present in the fortress before that, and they are considered a development such as adding decorations around the shafts, and the stones that are placed in the windows to keep windows in peacetime and in the time of war, and works in which no change occurred, that is, as they were before The recovery of this fortress from the Tatars, such as the forms of turrets and porches, and this was the aim of the research, as it clarified the works of Al-Zahir Baybars, and the characteristics of his works.

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