

MUTTRAH CASTLE IN MUSCAT, SULTANATE OF OMAN, AN ARCHAEOLOGICAL AND ARCHITECTURAL STUDY

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Abstract

This study deals with the famous fortress of Muttrah, which is located in the Governorate of Muscat in the State of the Sultanate of Oman.

It represents a model for military fortifications in the Arabian Gulf region. The research reviews the Muttrah Castle in terms of its architectural details, by shedding light on all the different components of the castle in terms of its architectural planning and defensive elements, with the aim of highlighting the value of this castle and showing its vital role on the shores of the Sea of Oman in the Wilayat of Muttrah.

The research deals with clarifying the architectural plan of Muttrah Castle, in an attempt to prove the correctness of the origin of its architectural planning, and to return its architectural identity to its Arab origins, which actually reflect the experience and effectiveness of the Omani man in preserving his capabilities and strengthening his internal front in the face of tyrants. The castle was a security guard at times Important in Omani history, which is full of changes and important historical events.

The research deals with three axes, including: the architectural description of the castle, the defensive architectural elements, and the architectural planning of the castle and its architectural roots.

Keywords: Oman, Muscat, Muttrah Castle, military fortifications, the Arabian Gulf.

First: Architectural description of the castle

1. Location

Muttrah Castle is located in the Wilayat of Muttrah¹ on the top of a large, irregularly shaped rock mass surrounded by rocky heights in the southeastern part. It is bordered on the west by the famous MuttrahSouq, while on the north it is bordered by the coastal strip of the Sea of Oman. The height of the rock on which the castle is built is more than (40 meters). Its circumference is approximately 391 meters (Figure 1). The castle is about 3 km away from the old Muscat area and the Al-Jalali and Al Mirani castles in the Wilayat of Muscat, while it is far from the Bait Al Falaj neighborhood where the Sultan's Armed Forces Museum (Bait Al Falaj Fort) is located, at a distance of about 2,500 km.

¹The Wilayat of Muttrah is one of the most important ancient cities dating back to the third millennium BC. The state is located in the northeastern part of the Sultanate of Oman. It also overlooks the shore of the Sea of Oman, which is also historically and geographically linked to India, China, Iran, East Africa and Bahrain, which made it a commercial area. Important throughout history, as it has the most important ports, which is the port of Sultan Qaboos, which is bustling with the movement of transport and export of goods of various kinds. The famous Muttrah market is the oldest market in the Sultanate, as it is more than two hundred years old and is very similar to the ancient heritage markets in Iran, Morocco and Turkey. The market has various types of goods and merchandise. For more see https://www.maref.org/





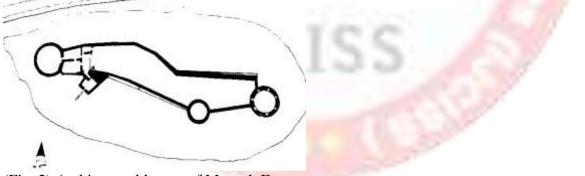
(Fig. 1) The location of Muttrah Castle on top of the rocky hill (Google Earth)

Muttrah Castle, which was known in the past as "Matara", was built by order of the Portuguese Major General "Roy Freire" when he was in charge of the military command in Muscat and Muttrah, on an irregularly shaped rocky hill, which is about 3 km away from the old Muscat area to the west. The aim of this matter was to facilitate the traffic of trade coming from the Arabs of the mountains and supplying it to Muscat[1]. The fortress overlooked a narrow rocky path that is the only passage between Muttrah and Muscat[2].

2.Architectural description

The general architectural planning of Muttrah Castle² consists of an irregularly shaped architectural space due to the irregularity of the rocky mass on which the castle is built (Fig. 2), which led to the irregular planning of it architecturally, and the irregularity of the longitude of the walls erected on both the northern and southern sides and their connection to the defensive towers in the east and west.

The castle consists of three defensive towers on the east, west and southeast sides. The three towers are interspersed with a group of defensive walls of irregular thickness and height. The castle extends a longitudinal distance from the azimuth of the eastern tower wall, which reaches a height of (11 meters) to the azimuth of the destroyed western tower wall to approximately (69.50 meters in length), with an average width of the castle (10.50 meters), and it is built on an irregular area above the rocky massif, its circumference is approximately (188 meters).



(Fig. 2) Architectural layout of Muttrah Fort

The entrance block is located in the southwestern part of the castle, consisting of the

 $^{^{2}}$ The researcher was able to visit the Muttrah Castle in the Sultanate of Oman, and he faced several difficulties in entering this castle as it was in a state of restoration at the time of the visit to it, but after several endeavors and with the grace of God Almighty, he was able to enter this castle and raise the architectural spaces and the general architectural description of it in the condition that was On it the castle at that time, and photographing the castle in its condition during the restoration process.



entrance, the dracaena, followed by the broken entrance, followed by the second door that precedes the rectangular room that follows the second entrance directly, There are more than fifty steps of stairs irregularly across the rocky slope.

The irregularly shaped southern staircase that infiltrates upwards eventually leads to the entrance block (Figure 3), in the center of which is a door opening overlooking the west, its dimensions (2.70 meters high x 1.95 meters wide) closed on this opening by two strong teak wood, up to the dimensions of the right shutter (2.45 m in height x 1.10 m in width), while the dimensions of the left shutter are (2.45 m in height x 0.63 m in width) topped by a straight arch (Fig. 4).



(Fig. 3) The staircase ascending the rocky slope on which the castle is built, and at its upper end the entrance block (photograph by the researcher)



(Fig. 4) The first main entrance located on the southwestern side from the outside (Photo by the researcher)



Immediately following the entrance opening is the "borderline", whose architectural layout consists of a letter (L). The entrance slab is characterized by its irregular planning, which helped to achieve the required refraction, which is called architecturally the bent iterance³ [3], where the one coming from the entrance deliberately to turn left and ascend six steps of the ladder to the west and incline again to the north, to find the second entrance with a pointed arch on the upper body, which follows the aforementioned main entrance, immediately following the second entrance to the castle, a rectangular room, consisting of two floors, its layout consists of A rectangular area (5.50 m x 4.30 m).

The castle consists internally of the northern wall with a wide base on the east and gradual in height from the azimuth of the western tower to the eastern tower, some parts of which are topped by semi-circular balconies, opposite to that on the south side is the southern wall, which continues its extension from the eastern tower through the southeastern tower until the entrance block on the southwestern side and then connected to the western tower.

It also represents the defense system located in the castle, consisting of three towers on the east, west and south sides, interspersed with a group of thick-walled walls, with a number of sheds topped with merlons, through which the castle was able to tighten complete control over all axes in both the four surrounding directions, as well as its distinguished strategic location. In fact, it is the highest rocky hill that is very high, which gave the castle the ease of monitoring and monitoring the movements of ships from long distances. It also made it difficult for the enemy to easily infiltrate the castle or stalk it.

Second: defensive architectural elements

1. The northern wall

The northern wall of Muttrah Castle extends from the azimuth of the wall of the eastern tower to the maximum azimuth of the wall of the western tower in an irregular shape. It continues to advance again towards the west at a gradually lower level according to the gradient of the level of the castle and its decrease from east to west until the wall of the western tower reached a total length of more than (64.50 meters) in length [3] (Fig. 5-6).



³The bent entrance constitutes an important military element within the peculiarities of Islamic military architecture throughout the ages, because it achieves an important military function because it exposes the right side of the attacker, so it has space to hit the attacking machine holding it, due to the broken entrance to the left, within the military castles and fortresses, but in civil facilities. Use without restriction to a specific direction of its planning in order to prevent the eyes of pedestrians on the streets on the women in the courtyard.





(Fig. 5) The northern wall of the citadel and its gradation from east to west (photoby the researcher)



(Fig. 6) The northern wall of the castle and its gradation from east to west (photo by researcher)

2. The southern wall

The southern wall extends from the azimuth of the wall of the eastern tower in a straight shape until it connects with the southern tower through a group of slots topped by balconies, then continues its progress towards the west with a level deeper in the thickness of its walls than the previous level, gradual in height from east to west, until it connects to the rectangular room that follows the entrance Directly, also in connection with the western tower.

The wall starts from east to west by connecting its first parts between the eastern and southeastern towers in a straight shape for a longitudinal distance ranging (14.50 meters) (Fig. 7) while its height reaches from the floor level from inside the castle to the bottom of the level of its balconies (3 meters), while the thickness of its walls reaches (0.95 meters) from the bottom and lower from the top, and the southern wall adjoins the southeastern tower and heads towards the west in a straight line for a longitudinal distance of up to (13.70 m), while its height exceeds three meters from the level of the rock on which it is built.

This part is characterized by having a thick base with walls from the bottom, which



decreases as the wall rises to the top, then the wall decreases from the previous level and heads towards the west in a gradual level until the end of its connection with the rectangular room that follows the entrance (Fig. 8).



(Fig. 7) The distance between the two towers in the southern wall from the inside (Photo by the researcher)



(Fig. 8) shows the extension of the longitude of the southern wall from the southeast tower until its connection with the entrance block, far southwest (photo by researcher)

3. Eastern Tower

This tower is located on the easternmost side of the castle walls, and represents the main axis of the end of the longitude of the southern and northern walls to the east, tightening the defense and insurance process on the northeastern sector.

The general architectural planning of this tower consists of two floors, the first solid and the second being the actual floor in use, with a set of observation slots, topped by an exposed circular fence topped by semi-circular balconies, this tower is approximately eleven meters high from its floor level to the top.





(Fig. 9) the general shape of the eastern tower and its components from the inside (photo by the researcher)

The first floor consists of a circular space with a deep diameter from the bottom, lowered from the top, built by pieces of stone. This floor does not have any openings for grooves or wall cavities, with a height of approximately (4.10 meters).

Above this is the second floor, through which, on the west side, an entrance with a straight arch was opened. It was entered through demolished and reconstructed steps, while the lower part of the walls of the floor is surrounded by six sheds distributed over the circular sector of the walls of the tower; the upper part of the second floor is also surrounded by seven small niches with a refractory arch. The height of this floor is about (5 meters), while on top of that is a circular stone fence with a height of approximately (1.90 meters) with a number of slots openings and rectangular windows, this is topped with semi-circular merlons.



(Fig. 10) The general shape of the east and southeast towers from outside the castle (Photo by the researcher)

4. Southeast Tower

The southeast tower is located to the west of the east tower and is separated by a distance of walls topped with merlons (Fig. 10). The south tower was built and inserted to tightly defend the south side of the castle and the entrance block.



Its architectural plan consists of a solid three-quarters of a circle with a diameter of (9.8 meters), while its height from the inside of the castle is about (4 meters), while its height from the outside from the level of the rock on which it is built to the bottom of the level of the porches is about (7 meters). It is accessed by a set of stairs in the middle of the corridor located at the top of the castle, consisting of 18 steps, through which you ascend towards the west to the top of the tower, reaching the length of the stair (1.60 meters).

5. Western Tower

Along the same line as the eastern tower's longitude to the west is the western tower, which is one of the largest towers of the citadel at the time of its construction, and this is evidenced by the thickness and strength of the foundations of its remaining walls until now (Fig. 11), as well as its wide base, which was built of stones and Omani sarooj⁴ [3] Topped by the walls of the tower, which wrap in a circular shape, the architectural planning of this tower consists of a circular space with a diameter of about 16 meters. Only some parts of its first floor remain, represented by the entrance hole and some small openings above the base.



(Fig. 11) Remains of the western tower and its entrance in Muttrah Citadel (Photo by researcher)

6. Cannon slots

This is evident in the Muttrah Fort and its containment of these openings that permeate the southern walls and parts of the northern wall with rectangular openings, while the eastern tower contained some niches with circular openings, which may have been specially prepared to contain the cannon nozzles because they are wide from the outside and taper from the inside, while the space permeates Between them is a rectangular opening of the first type (Fig. 12).

⁴The Omani sarooj is defined as a type of clay burnt at a certain temperature, in order to be used in building and construction works and spreads a mortar such as cement or plaster such as plaster. Rogan Castle, which was established in Jabal Al-Akhdar since the Sassanid era. Al-Sarooj has taken a prominent place among the building materials in Omani architecture and this is evident in mosques, old houses, castles and forts, which still preserve its structure despite the passage of hundreds of years since its establishment, and the authorities responsible for the buildings maintain The archaeological site focused on the use of Al-Sarooj in restoring Omani architectural facilities based on Al-Sarooj at the time of its construction. Therefore, the Omani Al-Sarooj has been one of the main materials used in the restoration of ancient castles, forts and mosques in the Sultanate until now.







(Fig. 12) cannon slots and merlons at Muttrah Castle (Photo by researcher)

7. Jagged porches

The general shape of the military balconies in Muttrah Fort consists of an architectural body that represents a semi-circular shape that is slightly stretched upwards in a distinctive way, embodied in most of the castles and forts built in Oman (fig. 13-14). (0.45 or 0.43 meters) in width from the bottom (0.40 meters). The merlons appeared in Muttrah Castle, crowning the southern walls and parts of the northern wall. They were also found in the upper part of the stone fence surrounding both the eastern and southeastern towers, and perhaps they were also above the now destroyed western tower.



(Fig. 13) The architectural form of Muttrah Castle as drawn by De Risendein 1635 AD, it is square in shape





(Fig. 14) shows the exterior shape of Muttrah fort

8. Secret Passage

It can be perceived after passing the entrance hall and entering from the second door of the rectangular room, whose western side is in the middle of the first floor, the secret corridor, it is made of wood, the dimensions of one door are $(0.45 \times 1.10 \text{ meters})$, this entrance leads to the corridor branching to the east and west.

9.Building material

The castle was built by small and medium-sized sandstone blocks, these pieces were collected and worked without preparing their shape or refining them, the castle also used sarooj to paint the castle walls, as well as the use of wood in the doors and contracts above the doors and ceilings.

Third: Architectural planning of the castle and its architectural rooting

Archaeologically, Muttrah Castle is a distinctive architectural model in purely defensive architectural design, which is embodied in its architectural planning located on a very high rocky hill on the shore of the Sea of Oman, and in its architectural elements embodied in its defensive walls in the north and south and in its war towers in the east and west in order to The provisions for the well-defended fortress, in its distinctive merlons crowning the upper parts of its towers and ramparts, and in its cannon slots designed to strike the enemy out of its perimeter, as well as its thick doors.

The purpose of building Muttrah Castle was to facilitate the movement of trade traffic coming from the Arabs of the mountains and supplying it to Muscat[1], where the fortress overlooked a narrow rocky path during the Portuguese invasion of Oman, and it was the only passage between Muttrah and Muscat[2], to The aspect of protecting these convoys from enemies coming from the sea or from the interior, and some sources suggest that the Muttrah Fort was built in an advanced period in front of the year (986 AH 1578 AD), and thus preceded the fortress of Al Jalali and Al Mirani in Muscat [4].

Here, we ask, since when was the Muttrah castle so important? And that the entry of the Portuguese originally to Oman was the beginning of Qurayyat, then Muscat, then Sohar and others. Besides, none of the sources or maps ever mentioned the importance of the city of Muttrah is stronger compared to Muscat to build its castle first before the two Jalali castles. and Al Mirani, but if this indicates that, it may indicate its vital strategic center in which the castle precedes the city of Muscat, as it controlled the aforementioned rocky strait leading to it. De Resende⁵ [1] within the joint work that he supported with the

⁵Pedro Barreto de Resende, one of the most famous Portuguese painters, and secretary to Viceroy Philip III during the period of the occupation of the Portuguese invasion of the Omani coast, where he was in charge of the affairs of the treasury at that time and was responsible for financing many of the castles built in Oman



architectural description in it "Antonio Bocaro".

Where it was shown from the incoming drawings that Muttrah Castle consisted of a square architectural space built of stone surrounded by four bastions in the four corners (Fig. 13). Each bastion has an external stone staircase connected to the courtyard of the castle, and in each bastion there are also two canopies to protect against the sun's rays. They are umbrellas with small sloping roofs covered with thatch, each of them is based on four thin columns, and it has an entrance in the middle of the eastern side, and there are no openings for cannons or guns, and there are no housing or residence facilities, which indicates that it was used only when needed [5].

It is worth noting that when the Arabs imposed a siege on the important strategic sites and the hills surrounding the Gulf of Mukalla, Muscat and Muttrah, after inflicting great losses on the enemy in October (1058 AH / 1648 AD), the Portuguese agreed to all the conditions set by the Ya`rubi leadership, among which was That the Portuguese demolish all the castles and military fortifications they owned in Muttrah so that they would be leveled with land, and that Muttrah be a neutral area for both sides completely free of military fortifications[6]. Under this condition, the castle of Muttrah was destroyed, as mentioned in the drawings of "De Risende" (1045 AH / 1635 AD), and nothing remains of it.

After the Ya'ariba were victorious from the Portuguese and were able to drive them out of the country under the wise leadership of Sultan bin Saif Al Yarubi in the year (1057 AH/1650 AD) and his father before, the repair and renewal operations of the ancient walls of Muscat and the castles of Al Jalali and Al Mirani, the researcher believes that during that period Sultan bin Saif issued He ordered the rebuilding of Muttrah Castle, believing in the value of its strategic and vital role that the castle plays in the primacy of the city of Muscat to the west. 1042 AH / 1635 AD) (Fig. 13).

As for the current castle in Muttrah (Fig. 2-14), its current architectural planning consists of an irregularly shaped architectural space due to the irregularity of the rocky mass on which the castle is built, which led to the irregularity of the longitude of the walls erected on both the northern and southern sides and their connection to the defensive towers in the east and west. The castle consists of three defensive towers on the east, west and southeast sides. The three towers are surrounded by a group of defensive walls of irregular thickness and height.

The castle is also distinguished by its internal planning, with an ascending level from west to east, and the castle walls were provided with cannon slots topped by semi-circular balconies, while it contained two pivotal entrances. A high-rise staircase below, while the other entrance is located in the northeastern part through an opening in the walls, preceded by steps. The castle also contained a secret passage following the entrance block on the western side⁶.

When the researcher studied this castle, he saw the old foundations of some of the defensive towers below the current castle on the northern side of the middle of the castle. Perhaps these old foundations are all that remains of the Old Portuguese fort, and that the castle that was built above it and which is now in the city of Muttrah and bears the same name is a castle Arabic in style with pure Omani style.

After studying the current castle and its architectural components, we see that it was built

during the period of the Portuguese invasion, where He collected a lot of information about castles, and he was entrusted with the task of drawing castles and fortresses by "Antonio Bocaro" to send it to King Philip III, King of Portugal at that time.

⁶Architectural description of the current castle as seen by the researcher during his visit to this castle and raising the architectural spaces of the walls, towers and all the facilities of the castle.



during the period in which the old area of Muscat was renewed under the rule of Imam "Sultan bin Saif Al Yarubi", and this is evidenced by the general pattern that was formed within the planning and architectural elements of the castle and is very similar to what came in the two castles of Jalali. And Al Mirani, which was confirmed by So'ad Maher[7], who was found in the same previous period, adopting the Arab-Omani methods in the ancient castles, the quality of their style of planning and architectural elements, which were designed on the model of the present Muttrah castle.

Conclusion

- The importance of this research lies in shedding light clearly on one of the most important fortresses of a purely defensive nature, which is the Muttrah Castle in the Governorate of Muscat in the Sultanate of Oman.
- Presenting an archaeological field study on a castle about Muttrah Castle by the researcher: where he was able to raise the architectural measurements and clarify the comprehensive architectural description of all parts and components of the castle, in order to clarify its architectural planning and all its defensive architectural elements.
- Emphasis on replying to the origin of the architectural planning of Muttrah Castle and proving the correctness of the origin of its architectural planning, which the researcher confirms that it is of an Arab style of Omani origin, and there is no truth in what is rumored about it being a Portuguese castle, planning and elements. 1635 AD, and the texts of the treaty that took place at the house of the Portuguese and the commander of the army of Nasser bin Murshid al-Ya'rubi, and through the report of the field visit of the researcher, we confirm that it is an Arab castle of Omani origin and has nothing to do with the Portuguese except in the name and location on which the current Muttrah Fort was built.

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