

Renewal of the memory of Pharos

(The ancient lighthouse of Alexandria)

Abir Abd-El Mohsen Kassem.

Assistant Professor, Graeco & Roman Archaeology Department
Faculty of Arts, Damanshour University, Egypt

Abstract. The ancient lighthouse of Alexandria was not only a simple lighthouse helping ships to enter safely into the harbor of Alexandria; it was one of the seven miracles in the ancient world as identified by the Greek poet Antipater of Sidon. This monument has its influence on all lighthouses built after it; as if Pharos of Alexandria was a “model” for other buildings with the same job. It was reflected also in different kind of arts like painting, reliefs, mosaics and coins... Unfortunately, the lighthouse of Alexandria isn't here today, also it didn't obtain the publicity it really deserved in tourism fields. Consequently, the aim of this paper is to demonstrate the importance of such building in tourism's field, using different methods such as describing the ancient building then explaining how to benefit from it. The result of the paper will be emphasizing the how great is to renew the memory of Pharos lighthouse.

Keywords: lighthouse, tourism, harbour, tower building, coin, ships, monument, Poseidon, influence, mosaic, Pharos.

1. Introduction

The object of this paper is to provide a short study concerned the lighthouse location, history, architecture and its reflection on other kind of arts too. It has the aim of reviving the memory of that great monument and to encourage the idea of re-building a copy of it, as well as creating a new kind of Tourism, specially dedicated to ((Pharos of Alexandria)) , and that also by making small souvenirs and samples of that monument in different way ; in order to keep it an immortal edifice and to benefit with its history and style to the prosperity and development of the city of Alexandria. The idea of building another lighthouse in Alexandria with the same shape of the ancient one as an hotel, will provide an excellent opportunity for tourists from the whole world to live couple of days in the past , particularly in one of the seven wonders of the ancient world. By executing this idea, we will have a remarkable place, because it won't be a simple hotel but it will provides also a unique platform for those who adore the past in a modern way. Not only that, but there are many other methods to celebrate this important monument and to propose a new ideas of tourism in Egypt. Maybe one day, there will be something called “*Pharos-mania*” meaning a sort of interest and love specially for the ancient lighthouse of Alexandria “Pharos”, then inventing a new place for tourism in Egypt.

2. History of the monument

2.1. Pharos of Alexandria through ancient writers

Speaking of the ancient lighthouse of Alexandria according to ancient writers, the poet **Lucan**, (39 AD – 65 AD) in his *Pharsalia*, asserts that the lighthouse has indicated to Julius Caesar his approach to Egypt on the seventh night after he sailed from Troy; and he makes use of the significant expression 'lampada,' which could hardly be applied, even poetically, to an open fire. After that, **Pliny** (23 AD – 79 AD), mentioned that

its light was seen at a distance up to 465 kilometers , and had the appearance of flames, and could be mistaken for a star. ⁱ (Fig. 1)

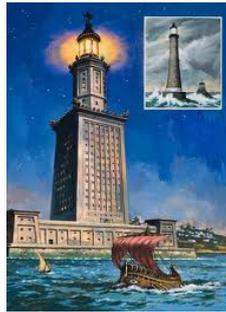


Fig. 1: Ancient lighthouse of Alexandria.

Ancient records such as those written by **Strabo** (63 BC- 23 AD) give us a brief description of the "tower" and the magnificent white marble cover. He told us how the mysterious mirror could reflect the light tens of kilometers away. Legend says that the mirror was also used to detect and burn enemy ships before they could reach the shore. It is said that the light from the top could be seen from 30 to 300 miles away! ⁱⁱ

Statius (40 - 96 AD) describes that the light of the Pharos in the night is like that of the Moon. **Epiphanius** writes that the tower was 560 meters. The idea of the lighthouse was adopted after that by the Romans who constructed many other lighthousesⁱⁱⁱ

2.2. Location of the Pharos

After that Alexander the Great choose a location for his new city of Alexandria in Egypt, he gave his instructions to build the city on the Mediterranean's shore , and decided to make a sort of bridge between the city's coast and a small island there in front of it called "Pharos". The island was connected to the mainland by means of a dike – the Heptastadion – which gave the city a double harbor. After the foundation of the city, his successor Ptolemy I named after that , "Soter" saw a variation of importance concerning Pharaoh's Island, consequently, because of the dangerous sailing conditions and also the flat coastline in the region, the construction of a lighthouse there was indeed very necessary. The Pharos Lighthouse stood on the eastern point of Pharos island, some distance from the city's centre of Alexandria. ^{iv} (Fig. 2-3)

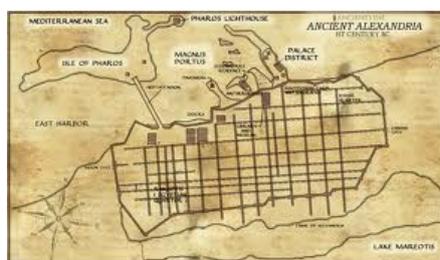


Fig. 2: Ancient map of Pharos & Alexandria.



Fig. 3: Modern map of harbour of Alexandria.

2.3. History of the Building

The construction of the ancient lighthouse started in 299 B.C. by king Ptolemy I (367-283/2) BC. The building was finished in 279 B.C, when Ptolemy II "Philadelphus" was on the throne. The monument was often called Pharos, because of the island on which it was erected.

There is another opinion mentioning that , the Pharos was as an idea of Ptolemy I Soter , but it was build only after his death during the reign of Ptolemy II Philadelphus in the period (284 BC-246 BC).

It was designed by the Greek architect Sostratos of Cnidus (Σώστρατος), a contemporary of Euclid. The architect Sostratos, was a Greek man from the Asia Minor, city of Cnidus, whose name also appears on the sanctuary of Appolo at Delphi and on Delos. Though only the king's name was allowed on buildings erected during their reigns in the period, Sostratos got around this by also carving his own with a dedication, which was then covered with plaster. The consecration in honour of Ptolemy was then carved into the plaster, which over time peeled away leaving only Sostratos dedication, which provides, "Sostratos of Cnidus, son of Dexiphanes, to the savior gods, for sailors". ^v

The detailed calculations for the structure, and its accessories were carried out at the Alexandria Library “Mouseion”. The costs for the Pharos were about 800 Talents. The monument was dedicated to the Savior Gods: Ptolemy Soter and his wife Berenice. The lighthouse was still functioning when the Arabs conquered Alexandria in AD 642, but an earthquake damaged the lantern about 50 years later. Then, Pharos was hit by earthquakes in 1303 and 1323. In 1349 it was in ruins as the Arab traveller Ibn Battuta describes it when he visited Pharos and found it "in such a state of ruin that was impossible to enter". In 1480, the Egyptian Mamluke Sultan Ashraf Qaitbay built a fort on the site. Certain parts were recuperated and integrated with the fort. But there was little interest, until recently, in knowing more about the main building and the statuary which lay underwater.

According to the Archaeologist H. Thiersch: in his book “ Pharos, Antike Islam und Occident – Ein Beitrag zur Architekturgeschichte ”; and B. G. Teubner, Leipzig und Berlin 1909, in his German book about the Pharos of Alexandria describing the possibility that it was also used as a telescope. Ibn Khordadbeh writes in the 9th century AD that one could see even people in Constantinople looking from the telescope of the Pharos. ^{vi} (Fig. 4)

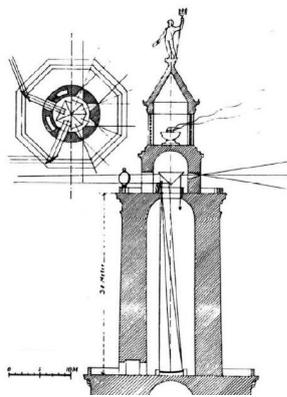


Fig. 4: Ancient lighthouse of Alexandria as a telescope.

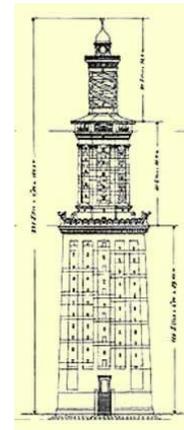


Fig.5: Architecture of the building.

2.4. Architecture of the Building

The structure of the monument consisted of three main parts:

- The first one was a square base with 60 meters high.
- The second was in the middle, an octagonal with 30 meters high.
- The third part was a circular top round 30 meters. So the total was about 120 meters.

Although it was a high tower that made the port of Alexandria visible from far away, at some time in the first century B.C., it was converted into a real lighthouse, so that sailors could benefit from it by night as well. , it has a mysterious mirror that fascinated the ancients most... The mirror’s reflection could be seen more than 50 km off-shore. The sequence (square, octagonal, circular) has inspired other towers. (Fig. 5)

The light at the top of the tower was produced by a fire, made of such combustibles as would emit the brightest flame. This fire burned slowly through the day, and then was kindled up a new when the sun went down, and was continually replenished through the night with fresh supplies of fuel. The glory of erecting such an edifice as the Pharos of Alexandria, and of maintaining it in the performance of its functions, was very great; the question might, however, very naturally arise whether this glory was justly due to the architect Sostratos through whose scientific skill the work was actually accomplished, or to the monarch Ptolemy Philadelphos by whose power and resources the architect was sustained.

There was an apparently large spiral ramp led to some fifty service rooms and also allowed pack animals to bring firewood up to the third tier to feed the fire that acted as the light source. According to the Moorish travellers, the building was 300 cubits high. Because the cubit measurement varied from one place to another, this could mean that Pharos stood anywhere from 450 to 600 feet in height, although the lower figure is more likely. Some modern interpretations of these measurements provide that the lowest square, measured about 55.9 m (183.4 ft) high with a cylindrical core; the middle octagonal with a side length of 18.30 m (60.0 ft)

and a height of 27.45 m (90.1 ft); and the third circular 7.30 m (24.0 ft) high. The total height of the building including the foundation base was about 117 m (384 ft), equivalent to a 40-story modern building.

Approaching to the top, a copula supported on columns, then there was a statue surmounting the lighthouse. We knew from a poet named Poseidippos of Pella, who lived in Alexandria during the third century BC, we learn that this statue depicted Zeus the Savior, though he may have been accompanied by Poseidon, the lord of the waves. However, others have suggested that two statues depicted the Dioscuri, who were the twin sons of Zeus and Leda and protectors of seafarers. In fact, a gem which has recently been examined suggests that in fact the beacon on the lighthouse may have been open and the statue, or perhaps a number of statues may not have surmounted the building but stood on a lower level. ^{vii} (Fig. 6)



Fig.6: The Lighthouse of Pharos.



Fig. 7 : Coin of Antoninus Pius.

2.5. The reflection of Pharos on other kinds of Arts

The lighthouse of Alexandria was reflected on several kind of arts such as pottery, samples of building , sometimes tombs , mural wall paintings , coins , mosaics ...etc. One of these coins belongs to the Roman Emperor Antoninus Pius , where it depicts on its Obverse , Antoninus Pius inscribed ((AVT K T AIL AΔP ANTΩNINOC C(E)BVCE)). On the Reverse, there was the goddess Isis sailing towards the Pharos lighthouse of Alexandria. (Fig. 7)



Fig. 8 : Tower of Abou-sir.



Fig. 9 : Tower of Hercules.

There is also a well-preserved ancient tomb in the town of Abusir, 48 kilometres southwest of Alexandria, and it is thought to be a scaled-down model of the Alexandrian Pharos. The Pharos of Abusir, the Abusir funerary monument at Burg al-Arab (Arab's Tower) –consists of a 3-story tower, approximately 20 metres in height, with a square base, an octagonal midsection and cylindrical upper section, like the building upon which it was apparently modelled. It dates to the reign of Ptolemy II (285–246 BC), and is therefore likely to have been built at about the same time as the Alexandria Pharos. ^{viii} (Fig. 8)

Another example came from Spain; it was named the Tower of Hercules. It was a roman lighthouse, built in the north-west of Spain under the reign of Trajan, and known by ((Farum Brigantium)) till it changed to Tower of Hercules. This name was derived from the Greek word (Pharos) meaning the Lighthouse of Alexandria.(Fig. 9).

3. Conclusion

After introducing these information about the ancient lighthouse of Alexandria, we arrive now to some suggestions concerning the development of a new tourism specially dedicated for this monument.

The first thing, is building an hotel with same shape of the ancient lighthouse and a big bridge or a street where the tourists can walk along it. This hotel could have a transparent lift to take a look all along the sea shore. In this building the history will be mixed with the modern type; the ancient time in its external shape and the modern type in internal one through facilities and equipments. It must be noticed that there is a Replica constructed in 2005 at the Window of the World Cultural Park, in the Chinese cities of Changsha and Shenzhen but it wasn't hotel, it had just the shape of ancient Pharos and a walk to it. So executing such an idea will be a very remarkable monument helping the development of tourism in the city of Alexandria as it will contain rooms, restaurants, conference halls... The second thing, is creating small souvenirs and it could be by making a new line of products of souvenirs to be sold around the building taking his shape like photos, T-shirts, plates, samples from pottery or painted on glasses, candles, and so on, and this is something will have economic influences. The third idea is making films and cartoon for kids as adventures in that amazing edifice, as well as making computer games and puzzles too. This way, the building will always be in the mind of kids as well as youth and adults. **(Fig. 10-11)**

All of these are ideas which have the aim of renewal the ancient lighthouse of Alexandria and inventing a new kind of tourism named Pharosmania.



Fig 10: A 3D Reconstruction of the Pharos.



Fig 11: Replica in the Chinese cities of Changsha and Shenzhen

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