ARAŞTIRMA VE İNCELEME RESEARCH

From the Ribats to the Fortresses, the Fāṭimid Period of Transition in Muslim Military Architecture

Ribâtlardan Hisarlara, Müslüman Askeri Mimarisinde Fâtımîler Dönemi Dönüşümü

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ABSTRACT This article focuses on the origins and the similarities between the Aghlabid, Fāṭimid and Spanish Umayyad military architectures from the 9th to the early 11th century. The main characteristic of these early Islamic fortifications was the use of small square counterforts or plain buttresses towers built close together and forming a line of defence very similar to those used during the late Antiquity in North Africa. We will try to explain the origins and the similarities between the Aghlabid, Fāṭimid and Umayyad military architectures in Ifriqiyya. These observations lead us to other questions; what differentiates the Egyptian military architecture from the Tunisian ribats in the scholarly literature? Our predecessors have interpreted the Aghlabid ribat according to the historical sources, where the words "ribat and murabitun" frequently appeared. Researchers first focused on the religious meaning instead of looking at the secular function. Other than the role of garrison forts, these buildings served as stations and stopover points for travelers, merchants and pilgrims. In Persia, the caravanserais or khans were also called ribats. They were fortified stopovers for caravans isolated in remote areas. In Central Asia, the cities on the Silk Road were called ribats. In fact, the Tunisians ribats were simply forts and caravanserais used to protect the port cities and the coast.

Keywords: Fortification; Ribat; Fatimid; Aghlabid; Umayyad

ÖZ Bu çalışma, 9. yüzyıldan 11. yüzyılın başlarına kadar Ağlebî, Fâtımî ve İspanyol Emevîleri askerî mimarisinin kökenine ve aralarındaki benzerliklere odaklanmaktadır. Erken dönem İslâmî surların genel karakteristik özelliği, yapımında küçük kare kontrforların ya da birbirlerine yakın inşa edilen payandaların kullanılmasıdır ki bunlar Kuzey Afrika'da Geç Antik Çağ'da kullanılanlara çok benzer olarak bir savunma hattı oluşturmuşlardır. İfrikiye'de tahakküm kuran Ağlebî, Fâtımî ve Emevîlerin askeri mimarilerinin kökenini ve aralarındaki benzerlikleri açıklamaya çalışacağız. Bu gözlemler bizi başka sorulara yönlendirmektedir; bilimsel literatürde Mısır askeri mimarisini Tunus ribatlarından ayıran şey nedir? Seleflerimiz ribât ve muratibun kelimelerinin sıklıkla ortaya çıktığı tarihi kaynakları Ağlebî ribâtları olarak yorumlamışlardır. Araştırmacılar, dindışı işlevine bakmak yerine ilk önce dini manasına odaklanmışlardır. Garnizon kalelerinin dışında bu yapılar seyyahlar, tüccarlar ve hacılar için durak ve mola noktaları olarak hizmet etmiştir. İran'da kervansaraylara ve hanlara ribât denmekteydi. Bunlar müstahkem mevkilerden izole edilmiş karavanlar için sapa yerdeydiler. Orta Asya'da İpek yolu üzerinde bulunan şehirlere de ribât denmekteydi. Oysa Tunus ribâtları, liman şehirlerini ve kıyılarını korumak için kullanılan kale ve kervansaraylardır.

Anahtar Kelimeler: Tahkimat, Ribât, Fâtımîler, Ağlebîler, Emevîler

This article focuses on the origins and the similarities between the Aghlabid, Fāṭimid and Spanish Umayyad military architectures from the 9th to the early 11th century. Our recent archaeological

researches in Cairo allow rediscovering and highlighting the unknown Fāṭimid military architecture. Excavations have shown thatthe Fāṭimid architecture wasmuch more complex than it was described in the literature previously.

First, we will present the new results that we collected through archaeological investigations in Fāṭimid Cairo since the last seventeen years. The main characteristic of these early Islamic fortifications was the use of small square counterforts or plain buttresses towers built close together and forming a line of defence very similar to those used during the late Antiquity in North Africa. According to our excavations in Cairo, this type of military architecture only changed at the end of the 11th century, with the influence of Badr al-Ǧamālī and Armenian builders. The introduction of new techniques and plans, which emanated from northern Syria, was carried out until the end of the 12th century with Salāḥ al-Dīn.

In the second part, our results will be placed in perspective to compare Muslim military architectures in North Africa and Middle East from the 9th to the early 11th century (Figure 1). We will try to explain the origins and the similarities between the Aghlabid, Fāṭimid and Umayyad military architectures in Ifriqiyya. These observations lead us to other questions; what differentiates the Egyptian military architecture from the Tunisian ribats in the scholarly literature? Our predecessors have interpreted the Aghlabid ribat according to the historical sources, where the words "ribat and murabitun" frequently appeared. Researchers first focused on the religious meaning instead of looking at the secular function. Other than the role of garrison forts, these buildings served as stations and stopover points for travelers, merchants and pilgrims. In Persia, the caravanserais or khans were also called ribats. They were fortified stopovers for caravans isolated in remote areas. In Central Asia, the cities on the Silk Road were called ribats. In fact, the Tunisians ribats were simply forts and caravanserais used to protect the port cities and the coast.

FIGURE 1: Map of the sites mentioned
Credits: Pradines

THE EARLY FĀTIMID FORTIFICATIONS OF AL- QĀHIRA

When General Ǧawhar al-Ṣiqillī (known as al-Saqlabī) conquered Egypt in 358/969, Prince Al-Mu'izz ordered him to construct a princely City: al- Qāhira, 'the Victorious'. The princely city was designed almost square in shape, measuring 1080m from the north to south and 1100m from east to west (Figure 2).[1] The city was established parallel to the Trajan canal (Khalīğ) which was on a north-south axis and separated the city from the swamps and flood-prone areas on the edge of the Nile. The main focus of the City plan was both the *cardo* (north-south axis) and the *decumanus* (east-west axis) of the ancient cities and which are still represented nowadays by the Fūtūh, Zuwayla and Tawfīq gates.The FāṭimidBāb al-Tawfīq and later the large Ayubbid gate-tower of Bāb al-Barqiyya are witnesses to this east-west axis, which is still visible on the map of the '*Description de l'Egypte*'.[2] The originalal-Qāhiraplan wasinfluenced by Samarraandalso on the city ofMadinatal-Zahra in Andalusi.[3] The Fāṭimid princely foundations of al-Manṣūriya have also inherited characteristics of the Abbasidurbanism unlike the Egyptian capital cities of al-Askar in 132/ 750 and of al-Qatāi in 254/868.

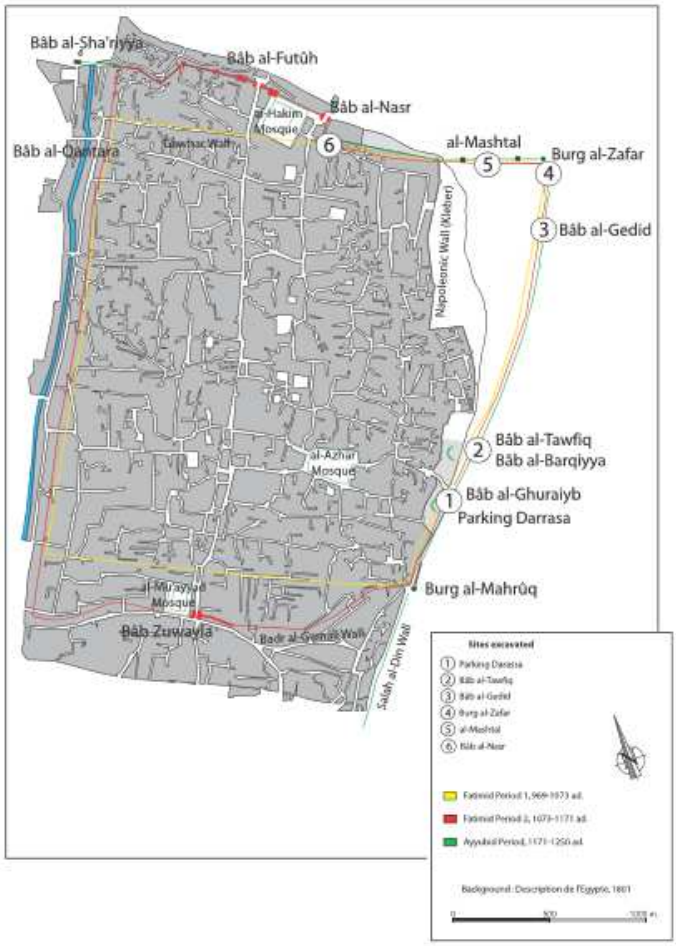

FIGURE 2: Location of the sites excavated (2001-2015)
Credits: Pradines

[1] Ayman Fouad Sayyid, *La capitale de l'Egypte jusqu'à l'époque fatimide, al-Qâhira et al-Fustât. Essai de reconstitution topographique*, Franz Steiner, Beyrouth, 1998, p.141-171.
[2] Stéphane Pradines - Johannes Den Heijer, "Bâb al-Tawfiq : une porte du Caire fatimide oubliée par l'histoire", *Le Muséon,* 2008, Vol. 121, Peeters, Louvain, 2008, p. 143-170.
[3] Alastair Northedge, *The Historical Topography of Samarra*, British school of archaeology in Iraq, Foundation Max van Berchem, 2007, p. 247-259.

The first City of al-Qāhira was protected by a city wall with eight gates, some of which, for example the gates of BābZuwayla and Bāb al-Futūḥ, retained the names of the city of al-Manṣūriya. To the north of the city wall, Ǧawhar dug a large ditch *(khandāq)* to ensure protection against the attacks from the Qarāmatīs perpetrated in 971 and in 974. The ditch ran from Muqaṭṭam to Munyat al-Asbagh.[4] The first BābZuwayla, which was named in honour of the Zuwayla tribe, is a double entrance which incorporated two juxtaposed arches, and was an imitation of the gate which bore the same name at Sabra al-Manṣūriya. Today, the Ǧawhar city wall is no longer visible and has been completely covered by the present-day city. In fact, from 437-40/1046-49, Nāsir-iKhusraw stated that the old city walls disappeared due to urbanisation.[5] According to Nassir i-Khosrau, who visited Cairo in about 1049, there were no more traces of the first Fāṭimid city wall. Cairo was an open city. Only some of the streets have retained the imprint of the city wall in the urban fabric.[6]

Few authors have worked on the Cairo city wall, with the most important works still being those of Casanova and Creswell.[7] These studies were based on written sources, most often on those of Maqrīzī, so we know the difficulty of using historical material to reconstruct sites that have disappeared. Archaeology often presents very different evidences from the stories provided by written sources. It is this new 'material history' that we are expounding in this chapter. Since the year 2000, the French Institute of Oriental Archaeology (IFAO) and the Aga Khan Trust for Culture (AKTC) have launched a programme of study, excavation and conservation of the medieval city walls of Cairo with the institutional and administrative support of the Supreme Council of Egyptian Antiquities (SCA). Our digs have been concentrated on five sites: the Darassa Car Park (2001-2009), Bāb al-Tawfiq (2004-2005), Burg al-Zafar (2007-2016), Bāb al-Nasr (2012-2014) and al-Mashtal (2016) (Figure 2).[8]

A Large 10th-Century Rammed-earth Wall and the Berbers

In 2011, we made a major discovery in the excavation of the Burg-al-Zafar site, which turned out to be a wall that was parallel to two well-known fortifications, one of Badr al-Ǧamālī wall (1087-1092) and the other of Saladin's city wall (1169-1178).[9] It extends a few metres to the south of the Ayyubid city wall and forms an east-west axis (Figure 3). The rammed-earth wall, which is approximately 30 metres long, is massive and composed of successive clay beds. Measuring an average of 1.80 metres wide, it has preserved a maximum elevation of 1.20 metres.

A wall built using the rammed-earth (*tabiyy*a) technique is very rare, if not nearly non-existent, in Egypt and very unique for this period. It is very tempting to say that the rammed-earth wall that we found was built by the Berber component of the Fāṭimid army, maybe the famous Barqiyya tribe but unfortunately we don't have any historical evidence to prove that they were active during the construction of the Fāṭimid capital… We cannot be certain about the exact origin of the builders, but we are almost sure of the origin of this technique and it should be from the Maghreb. According to Georges Marçais,

[4] Taqi al-Dīn Aḥmad Ibn ʿAlī,al-Maqrīzī, *Al-Mawāʿiẓ wa-al-iʿtibār fī dhikr al-khiṭaṭ wa-al-athār,* (ed. Ayman Fu'ad Sayyid), al-Furqān Islamic Heritage Foundation, London 2002-2004, p. 582.

[5] Paul Casanova, "Histoire et description de la citadelle du Caire", *Mémoires de la Mission Archéologique Française du Caire VI*, Leroux, Paris 1897, p. 525.

[6] Mohammed Abul Amayem, *"Les murailles du Caire: The Gawhar city wall (year A.H. 358/A.D. 969) [in Arabic]", Annales islamologiques,* No. 36, 2002, p. 23-93.

[7] Casanova, op. cit, p. 509-781; Creswell, 1952, p. 23-33.

[8] Part of these discoveries were presented in honor to his Highness the Aga Khan for his diamond jubilee in Stéphane Pradines, "Discovering the Fatimid Walls", *Cairo: Renewing The Historic City,* (ed. Philip Jodidio), Prestel, Munich 2018, p.112-125.

[9] Stéphane Pradines, "Identity and Architecture: The Fāṭimid walls in Cairo" *Earthen Architecture in Muslim Cultures: Historical and Anthropological Perspectives,* Brill, Leiden, 2018, p. 106.

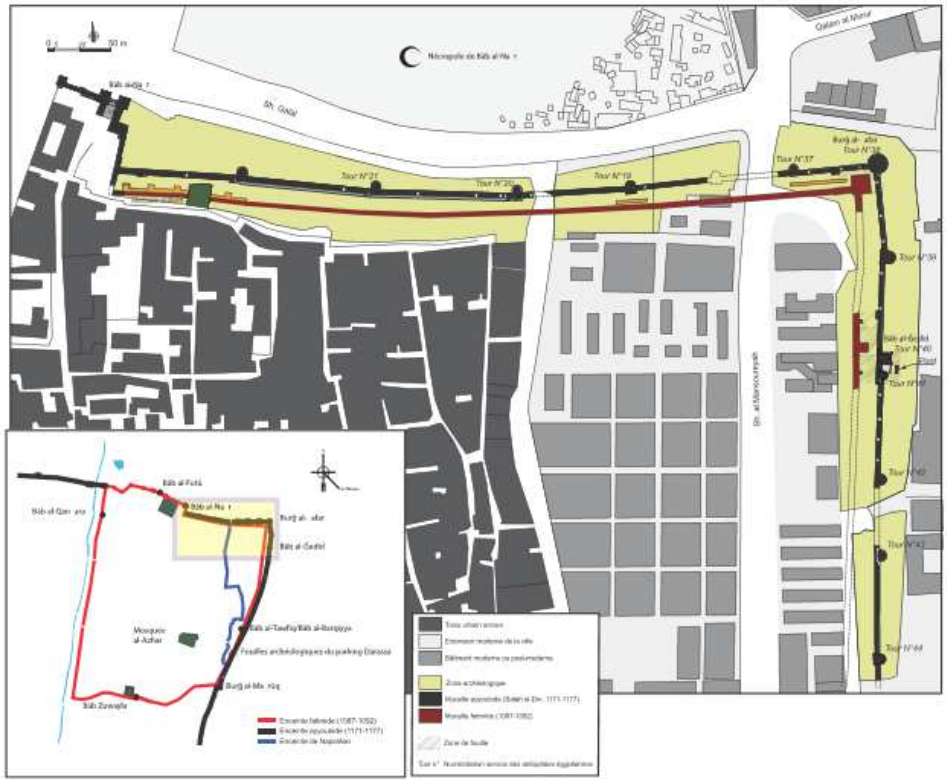

FIGURE 3: The sites of Bab al-Nasr and Burg al-Zafar, the first Fatimid Walls
Credits: Pradines

rammed-earth construction appears very often in all of the Land of the Berbers and is not unique to the Aghlabid dynasty of Tunisia, as it dates back to, at least, the Umayyad period. Muslims also built city walls using rammed earth and mud brick in al-Andalus[10] and in the Maghreb and this practice continued until the 10th and 11th centuries.[11] The Umayyad fortifications of *Banos de la Encina*, dated 967-8 as per an inscription, marks an important milestone in this evolution in Al-Andalus.Burg al-imar castle at Baños de la Encina was a fortress built by the caliph al-Hakam II.[12] According to al-Bekri the original wall of Kairouan was built using mud bricks with a rammed-earth base in 144/761. Thereafter, the Aghlabids were to build Raqada with walls in mud brick and rammed earth. The wall and its '*ex-nihilo*' installation fuels speculation that the rammed-earth wall constitutes a section of the first Cairo city wall, founded by Ǧawhar. The width and length of the structure excludes the function of a dwelling.

In 2016, our observations were confirmed by our latest excavations on al-Mashtal, a site located between the sites of Bāb al-Naṣr and Burǧaẓ-Ẓafar. The same rammed earth wall was found in between the two walls, in front of the Badr al-Ǧamālī city wall and behind the Salāḥ al-Dīn city wall, one dating from the end of the 11th century and the other from the end of the 12th century (Figure 4). According to our stratigraphy on both sites, the rammed earth wall was definitively identified as the first Fāṭimid city wall of Cairo: that of Ǧawhar. It would, thus, have been dated between 969-971.

[10] Jean-Pierre Van Staëvel, "Réflexions à propos de la nomenclature médiévale de l'architecture de terre en Occident musulman : l'exemple du tâbiya*", L'architecture de terre en Méditerranée : Histoire et perspectives,* (ed. Mohmmed Hammam), Publications de la Fakulté des Lettres et des Sciences Humaines, Rabat 1999, p. 102.

[11] George Marçais, *L'architecture musulmane d'Occident*, Arts et métiers graphiques, Paris 1954, p. 39.

[12] Ignacio Javier Gil-Crespo, "Islamic fortifications in Spain built with rammed earth" *International Journal of the Construction History Society*, 2016, Vol. 31-2, p. 1-22; Heribert J. Leonardy - Hendrik Kersten, *Burgen in Spanien: eine Reise ins spanische Mittelalter*, Theiss, Darmstadt, 2002, p. 47-48.

FIGURE 4: Photography of al-Mashtal site
with the Fatimid mud bricks wall in the background (1087-1092 AD.)
and the Fatimid rammed earth wall in the foreground (969-971 AD.)
(cut in the middle by a late Mamluk circular pit latrines).
Credits: Pradines

Bāb al-Naṣr, from Ǧawhar (969-971) to al-Ḥākim (1002-1013)

From 2012 to 2014, we carried out three missions on the Bāb al-Naṣr site. The excavated site is located to the south-east of the monumental gate of Bāb al-Nasr, and is surrounded by al-UtufStrret and the al-Bakri Mosque (Figure 5). Several enclosure walls on this site were never been studied. First of all, a north-south wall which adjoins the monumental Bāb al-Naṣr gate and which dates from the Badr al-Ǧamālī era. Then, an Ayyūbid wall backs onto the Badr al-Ǧamālī city wall and running west to east in direction of Burǧaẓ-Ẓafar. Then, an east-west wall made up of a huge limestone blocks identical to that of the north-south wall of al-Ǧamālī. This wall is connected to a mud-brick wall identical to the one that we discovered on the Burǧaẓ-Ẓafar, Bāb al-Tawfiq and Darrāsa sites.[13] This mud-brick city wall is built against a first east-west stone wall located between the Badr city wall and the Salāḥ al-Dīn city wall. This wall is flanked by small quadrangular towers, except for the one furthest to the west, which is semi-circular in plan. The stone wall, hitherto undiscovered, measures a total length of 90m and 2.2m thick.The wall is flanked by small towers, interspersed at 15m intervals. Four towers are visible on the site, three to the west of the al-BakrīMosque and one to the east. All the towers measure 4.8m wide and all, except the one on the far west of the site, are quadrangular in shape. These towers are very close together, which is not a characteristic that we have ever seen on the Badr al-Ǧamālī or the Salāḥ al-Dīncity walls.

[13] Stéphane Pradines - Osama Talaat, "Les fortifications Fatimides du Caire : Bâb al-Tawfiq et l'enceinte en briques crues de Badr al-Gamâlî ", *Annales Islamologiques,* 2007, Vol. 41, p. 229-275.

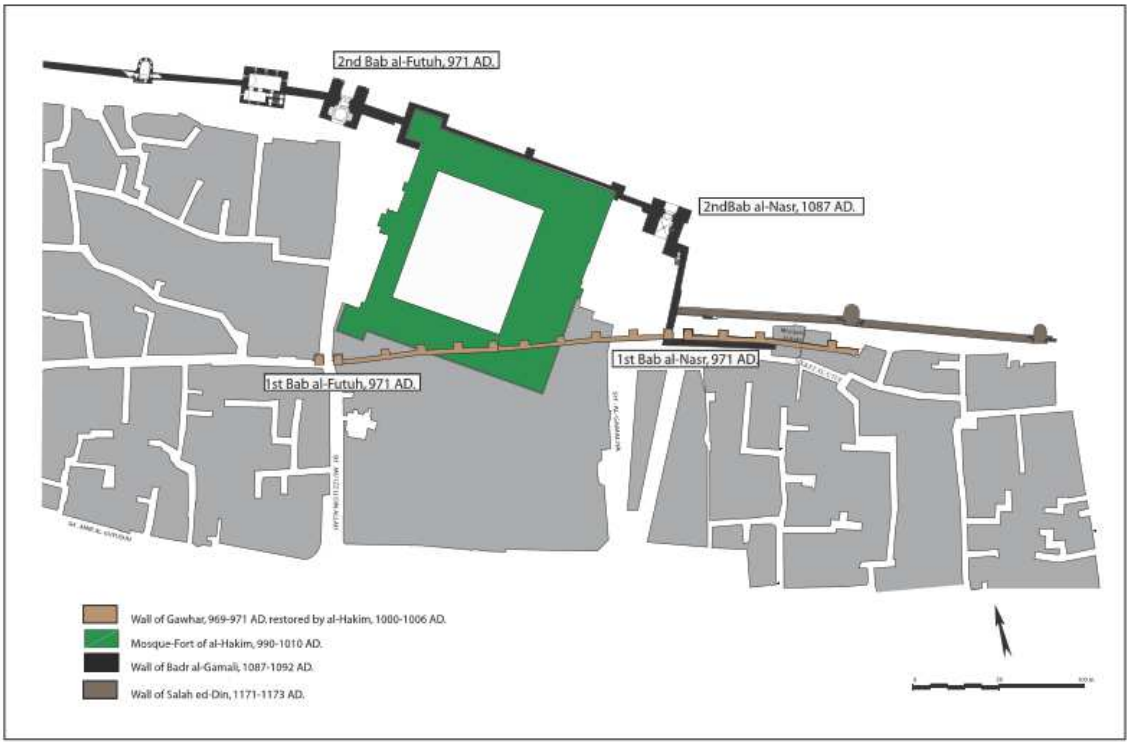

FIGURE 5:
Restitution of Gawhar and al-Hakim walls
Credits: Pradines

As I mentioned with al-Mahdiyya, Fāṭimid fortifications usedsmall-scale, almost buttress-like, flanking quadrangular towers. Later, theFāṭimid city wall of Badr al-Ǧamālībuilt in 1087-1092 was also flanked by quadrangular towers, whether at the corners of the City as is the case at Burǧaẓ-Ẓafar or at the gates such as Bāb al-Naṣr and Bāb al-Tawfīq. It is only the gates of Bāb al-Futūḥ (1087) and BābZuwayla (1092) that do not follow this rule and are flanked by semi-circular oblong-shaped twin towers on a rectangular base and with a moulded façade. This is why the single semi-circular tower present on the site captured our attention (Figure 6).This tower (Tower B) rests on a square base and has a moulded salient on its eastern side, identical to that of the Bāb al-Futūḥgate. The similarity between Tower B and the mighty Fāṭimid gates of Badr al-Ǧamālī leads us to think that this tower is in fact linked to a gate. The same plan was used for the twin towers that encircle the entrance which dominates the Bāb al-Qanṭara gate. Although this gate has now disappeared, it was published by Creswell.[14] Added to that is the fact that the passageway from the probable door is blocked by a totally different wall with a huge facing, identical to that found on the Badr al-Ǧamālī city wall. The courses of this wall measure 50cm high and alternate on average from tiles of 70cm and headers of 25cm wide. We noticed that the foundations of the 1087-1092 wall were much deeper than those of the tower B. However, it is in fact the huge wall that post-dates the tower, as revealed during the excavations. The facing of the large wall is carved in such a way that it backs onto and interlocks with the facing of Tower B as shown in figure 19. The foundations of the huge wall are deeper because they follow the construction level of the Badr al-Ǧamālī curtain wall that adjoins the Bāb al-Naṣr gate.

[14] Keppel Archibald C. Creswell, *Muslim Architecture of Egypt*, Vol. 1, Clarendon Press, Oxford 1952, p. 25.

FIGURE 6:
Photography of the semi-circular tower at Bab al-Nasr
Credits: Pradines

The foundation ledge of the undated enclosure wall is higher than that of the Badr al-Ǧamālī city wall. In fact, during the digs, we noted how very deep the trench was that was dug of the foundation of the Badr al-Ǧamālī enclosure wall. It was almost 3m56. This digging exposed the fondations of the earlier structures including the previous Fāṭimid fortifications. This earlier city wall was, undoubtedly, built before the end of the 11th century (1087). It is very difficult to consider that the undated wall may be contemporaneous with the Badr city wall, the construction techniques of which are very different, whether it was built two techniques, mud bricks or large dressed stones. Consequently, the city wall of might has been engirdled by al-Ḥākim during the construction of his Mosque which straddled the original city wall. The metrology of the small blocks of the al-Ḥākim Mosque supports this interpretation.

The results of our excavations seem to indicate four distinct defensive networks. First of all, a wall, namely the fortifications of Ǧawhar, dated from 969 to 971. This wall was made of mud bricks on rammed-earth foundations. A few years later, this wall was renovated, probably during the construction of the al-Ḥākim Mosque.During this second phase, a stone wall was built against the northern façade of the old wall. This fortification is made of small square limestone blocksand flanked by narrow quadrangular towers. These are positioned very close together and one part of the wall is decorated with header columns, which create a geometrical motif.The last tower to the west is not square but semi-circular. The semi-circular tower would have been the twin tower of the original Bāb al-Naṣr renovated by al-Ḥākim around 1010. This semi-circular tower might have been linked to an entrance, the first Bāb al-Naṣr that may has been blocked later by the construction of the Badr al-Ǧamālī city wall.Thirdly, the

Badr al-Ǧamālī city wall and the gate of Bāb al-Naṣr date from 1087. This wall starts at Bāb al-Naṣr towards the south and makes a sharp bend towards the east and seems to block the ancient gate. The composition of the Badr al-Ǧamālī city wall switches from large limestone-work to a mud-brick work. This wall backs onto a much older wall and is twice as thick as that previous one. Finally, Salāḥ al-Dīn built a new city wall in front of the Fāṭimid fortifications.The wall was built later than the Burǧaẓ-Ẓafar Tower (dated from 1169 to 1171), but which possesses unusual and archaic characteristics which likely date from 1171 to 1173 and which indicates that this section of the wall pre-dates the eastern city wall of Salāḥ al-Dīn, from Bāb al-Ǧadīd up to the Burg al-Mahruq (1173/74 to 1177/78).[15]

The presence of several city walls to the south of Bāb al-Naṣr confirms the hypothesis that Creswell suspected,[16] namely that Badr al-Ǧamālī sought to connect his fortifications to the primary boundaries of the city established by Ǧawhar in 969. Our findings will, undoubtedly, have a major impact on our understanding of Fāṭimid Cairo boundaries and its urban history for two main reasons. First, we were able to locate the first Fāṭimid city wall and the first Bāb al-Naṣr. Second because al-Hâkim Mosque was built over both sides of the Ǧawhar city wall (Figure 5). In fact, even if this wall had a south-west orientation, the Mosque must have sat right on top of a section of the wall and not completely *extra-muros* as all the historians said previously.[17] Moreover, it is important to note that if the al-Ḥākim Mosque was built over both sides of the city wall, 80% of the building remains outside the city walls and therefore, as far as the medieval chroniclers are concerned, this was a mosque that was outside the walls! No doubt that the huge towers of al-Ḥākim mosque reinforce our archaeological interpretation.The Aghlabid Mosques of Kairouan and Sousse were also used for military purposes. Later the Fāṭimid mosques of Mahdiyya and al-Ḥākim share certain common characteristics: They straddle the city wall and are flanked by heavily-buttressed towers.

THE EARLY MUSLIM MILITARY ARCHITECTURE

The Legacy of the Late Antiquity

To understand the early Fāṭimid military architecture, it is necessary to come back first to the pre-Islamic and Umayyad periods. Recent research on the Umayyad castles, such as Denis Genequand, demonstrated the high permeability of Late Antiquity and Islamic cultures.[18] Roman and Byzantine forms were directly used by the Muslim conquerors and reinterpreted by them. For years researchers have divided and still divide the oldest Islamic fortifications into two categories, on one side of the Umayyad palaces influenced by Roman and Byzantine fortifications, and on the other side, the Abbasid fortifications influenced by Mesopotamian and Sassanid traditions (Figure 1). In fact, things are much more complicated than that. First because of conflicts between the 4th and 6th centuries AD., Byzantines and Sassanians have shared a lot, especially in war equipment and military architecture. Later, the Umayyad princes introduce Mesopotamian elements in their palaces, so-called desert castles.[19] Thus the Mshatta

[15] Stéphane Pradines et. al, "Excavations of the Archaeological Triangle. 10 years of Archaeological excavations in Fatimid Cairo (2000 to 2009)", *Mishkah,* 2009, Vol. 4, p. 177-219; Stéphane Pradines, "Burg al-Zafar, architecture de passage des Fatimides aux Ayyoubides", *Egypt and Syria in the Fatimid, Ayyubid and Mamluk Eras VIII*, Peeters, Leuven, 2016, p. 51-119.

[16] Creswell, op. cit, p. 161-176.

[17] Andre Raymond, *Le Caire*, Fayard, Paris 1993, p. 38-85.

[18] Denis Genequand, *Les établissements des élites omeyyades en Palmyrène et au Proche-Orient*, Presses de l'Ifpo, Beyrouth 2012, p. 199-249.

[19] Henri Stern, "Notes sur l'architecture des châteaux omeyyades", *Ars Islamica,* 1946, Vol. 11/12, p. 72-79; Felix Arnold, *Islamic palace architecture in the Western Mediterranean*, Oxford University Press, 2017, p. 36-52 and Donald Whitcomb - Hamdan Taha, "Khirbat al-Mafjar and Its Place in the Archaeological Heritage of Palestine", *Journal of Eastern Mediterranean archaeology and heritage studies*, 2013, Vol. 1, No.1, p. 54-65.

throne room is quite comparable to the Sassanians models. For Stern, Ukhaidir palace and Qasr al-Ashiq in Samarra derived from Mshatta plans with rectangular enclosures flanked by rounded towers and buttresses.[20]

The Umayyad palaces were a mixture of Eastern and Western styles, and cannot be completely dissociated from the Abbasid architecture. It's extremely difficult to differentiate the Byzantine influence coming from the East or the West.This point is very important to understand military architecture in al-Andalus and Egypt. In Theveste (Algerian-Tunisian border), the gate of Salomon (gate c)[21] is very similar to second Bāb al-Nasr in Cairo (1087). The Byzantines fortifications of the 6th century were present in North Africa and the Northern Syria. So despite the fact that the Armenian origins of the Fāṭimid gates in Cairo are not contested, one should take into consideration the strong Roman influence on the Fāṭimid architecture in North Africa.

At the end of the 9th century, al-Ya'qubi said that from Sfax to Bizerte there were castles built very close to each other where pious people lived.[22] In fact, the foundations of the ribats of Sousse, Monastir, Yunga and Rades predate the Aghlabids.[23] Since the end of the 8th century, the Emirs focused their defenses on the coast with new urban town walls and ribats / forts construction. Concerning the plan and the shape of Tunisian ribats, two schools of thought are facing each other: on one hand, the advocates of Eastern and exogenous influences; on the other hand, the supporters of regional and vernacular origins. According to Creswell and Stern, the plans of the Tunisian ribats would present analogies with the Umayyad castles.[24] For Lézine, the ribats of Sousse and Monastir owe nothing to Byzantine forts in North Africa.[25] These ribats should be copies of the Syro-Mesopotamian prototypes. Creswell and Hillenbrand also found their plans very close to Mesopotamian khans.[26] Supporters of Eastern influence see many similarities with Mesopotamian architecture and Ukhaidir in Iraq (778 AD), this palace had large walls with long front blind niches in façade that would be comparable to the vaults in the Sousse town wall. For these authors, architectural models developed in Tunisia came from the East and would have no connection with the late antiquity in North Africa.

For Marçais and Pringle, the local architecture was strongly influenced by the African byzantine traditions. These authors mention many reuses Byzantine and Roman forts by the Muslims.[27] There would be many points of resemblance between the Aghlabid ribats and Byzantine forts in North Africa. Pringle said that Sousse's ribat main entrance was protected by a portcullis and a wing-door like the Byzantine defenses. Pringle and Djelloul also said that the Sousse town wall used curtains with vaults supporting the walkway as the wall of Theveste built in the 6th century and the Byzantine fortress of Haïdra.[28] All these authors were right, but they were wrong to be too categorical. For example, according to Creswell, there is no Roman or Byzantine bent entrance in North Africa.[29] According to him, the bent entrance was an Eastern tradition that began in Iraq with the four gates of the city of al-Mansur

[20] Stern, op. cit, p. 90-95.
[21] Denys Pringle, 1981 [2001], p. 160-161 & p. 585 and figs. XLVb et XLVIa.
[22] Marçais, op. cit., p. 29-30.
[23] Néji Djelloul, *Les fortifications en Tunisie*, Ministère de la culture APPC, 1999, p. 38-39.
[24] Stern, op. cit., p. 96-97.
[25] Alexandre Lézine, *Architecture de l'Ifriqiya : Recherches sur les monuments aghlabides,* Klincksieck Press, 1966, p. 137-139.
[26] Robert Hillenbrand, *Islamic architecture*, Columbia University Press, New York 1994, p. 331-336.
[27] Marçais, op. cit, 35 ; D. Pringle, *The Defence of Byzantine Africa from Justinian to the Arab Conquest: An Account of the Military History and Archaeology of the African Provinces in the Sixth and Seventh Centuries*, 2 vols. British Archaeological Reports, Oxford, 1981, p. 168.
[28] Pringle, op. cit., p. 168; Djelloul, op. cit., p. 31-32.
[29] Keppel Archibald C. Creswell, *Fortification in Islam before A.D. 1250*, Geoffrey Cumberlege, 1952, p. 105.

and started in North Africa with the Fāṭimids. Pringle moderated this statement by explaining that there were at least two Byzantine bent entrances prototypes known in Ifriqiyya, this system was not common, but it was known.[30] In the hinterland the Aghlabids just reused Greek and Byzantine fortifications.[31] After the fall of Byzantium in North Africa in 698 AD., the population began to build new Ksour in the hinterland. However, the construction techniques became very simple. Earth mortar was used instead of lime mortar and the inner facades were made of an *opus africanum* instead of ashlars.

The Byzantine building traditions resisted better on the coast. These military architectures were mostly composed of limestone or fossil sandstone. Aghlabids built new fortifications against the Byzantines.[32] The city walls of Sousse and Sfax were based completely on regional ancient traditions. Nevertheless, the fort-ribats were inspired by Umayyads and Abbasids. The confusion in determining the architectural origins of the Tunisian ribat is that the Umayyads used also the Roman repertoire and incorporated Byzantine architectural forms in their architectural lexicon. In Tunisia, some architectural elements known as local or Byzantine may actually be Eastern models connected to the Middle East Late Antiquity. A final issue concerns the function of these fortifications. Fortifications are intertwined as places of expression of power. In reality very few fortifications were used for war, most of these buildings were first places of prestige and acted as governor mansion. It was exactly the same with the city walls. The walls represented the city and urban values, just as a simple symbol between nature and culture, between civilization and barbarism.

In the hinterland, the princely Aghlabid cities followed fully the Abbasid urban traditions, either with the Aghlabid capitals of Abbassiya and Raqqada. These new models copied the cities of Baghdad and Samarra with large mud-brick palaces. But if we look more closely, there were also architectural elements that can help us understand the military coastal architecture. In Raqqada, to the west of the great pool called *al-Bahr*, dated from 903 AD., stands a small pavilion or gazebo measuring 16m x9m side, flanked by semicircular buttresses made of limestone and mortar (Figure 7).[33] The same kind of gazebo was built next to the large pools in Kairouan. Although they weren't military architecture, these buildings were built on the same model as the coastal ribats, such as a square enclosure flanked of semicircular protruding buttresses with stone masonry. Some research should be undertaken to understand better the function and the origins of these pavilions that could explain the architectural repertoires in the hinterland influenced by the coastal models, the late Antique models and also monumental architecture from the East.

The Fāṭimid Fortifications in Ifrīqiyya

From the beginning of their dynasty, the Fāṭimids built their first capital, al-Mahdīyya, in 914 using limestone, following the Byzantine and Aghlabid coastal models.[34] In 909, Fāṭimid prince 'UbaydAllāh al-Mahdī (909-34) was proclaimed caliph with the support of the Kutāma tribes; he entered victorious in Raqqāda, the Aghlabid capital of the Banū al-Aghlab; Then moved to Kairouan. From this city, Fāṭimid architecture preserves the use of reinforcement towers in corners and quadrangular buttresses visible in the Aghlabid mosque of the 9th century.[35] After conquering part of the Maghreb, the Fāṭimid Caliph

[30] Pringle, op. cit., p. 170.
[31] Pringle, op. cit., p.167.
[32] Djelloul, op. cit., p. 38-41.
[33] Marçais, op. cit., p. 26-28.
[34] Djelloul, op. cit., p. 54-60.
[35] Marçais, op.cit., p. 17.

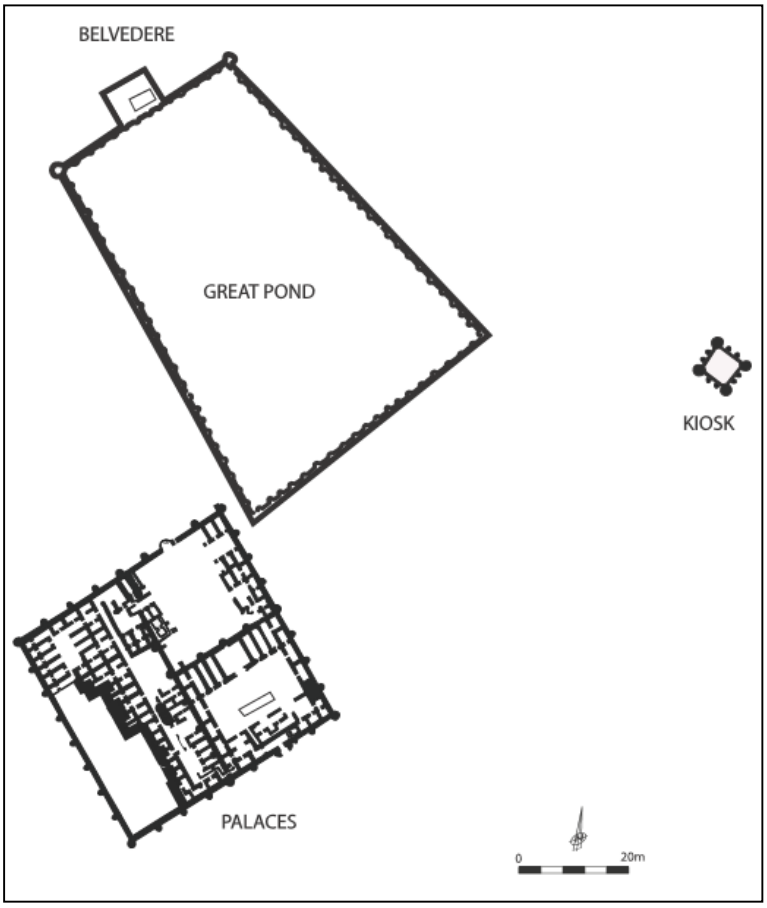

FIGURE 7:
Plan of Raqqada's palace and pool
Credits: Pradines

decided to create his own capital: al-Mahdiyya. Founded in 914, the Caliph officially settled in the city in 920. The construction of the rampart was completed some years before in 917. The city was settled on a fortified peninsula. The choice of geographical location was linked to the context, it was necessary to protect the Fāṭimid family from the insecurity linked to the Berber movements and a Sunni opposition. The foundation of al-Mahdiyya also shows a willingness to detach from the orbit of Kairouan which remains the metropolis of the Eastern Maghreb. The entrance of the city, the weak point of the Isthmus, is totally magnified. The western front is monumental and massive, with circular round towers, a door in the center and small square towers flanking the north and south curtains. The main gate of Saqifa al-Kahla is protected by a long vestibule, and the entrance is surrounded by two semicircular towers halfway in the masonry of the curtain walls (Figure 8).[36] The Fāṭimid military architecture consists always of straight entrances, protected by semi-circular or square towers, unlike Jordanian and Syrian fortifications from the Umayyad and Abbassid periods like Mshatta and Raqqa. Al-Mahdiyya's enclosure was preceded by a first external enclosure with a bent-entrance. There is therefore a double line of walls closing the access to the Isthmus. On the sea side, the harbor and the arsenal were defended by an enclosure of 2.4m wide with 110 square or quadrangular towers spaced on average every 20m. These towers are very small in size; they are plain with no firing chambers and more like buttresses.

[36] Marçais, op. cit., p. 90-91.

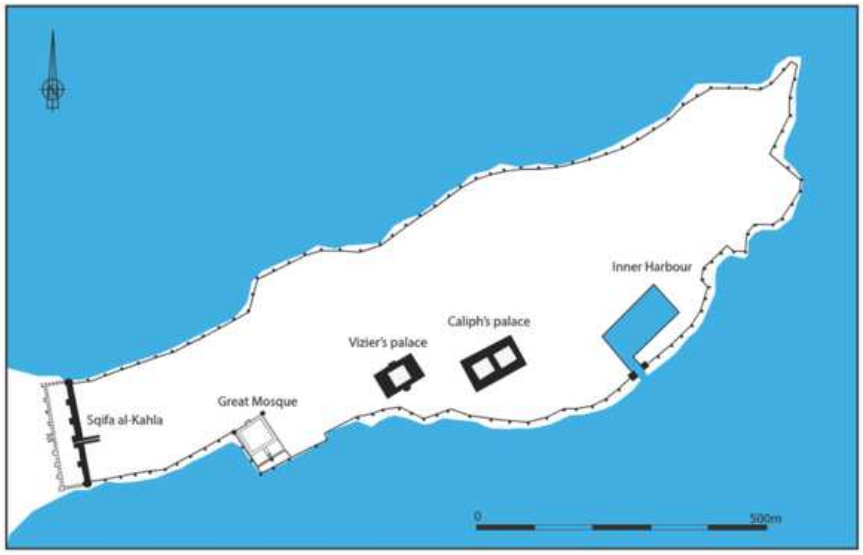

FIGURE 8:
Plan of the fortified city of Mahdia
Credits: Pradinesfrom an original drawing of Lézine, 1965

Mahdiyya is, with Cairo, one of the best representations of Fāṭimid military architecture. Mahdiyya is an innovative urban project, with a new ideology, but also anchored in the country's ancient traditions, from Antiquity to the Aghlabids.Like the Aghlabids, the Fāṭimids use their mosque in their military architecture such as the great mosque of Mahdiya, built along the wall and that could have been used as a fort. Later in Cairo, al-Ḥākimbuilt a mosque with two huge defensive towers around the minarets. The mosque was built over the town wall of Gawhar and was most probably used as a part of the defense of the city.[37]

In 946-47, the caliph Abu Tahir Ismail al-ManṣūrBillāh decided to build a new palatial city in the south west of the city of Kairouan. This second capital, called Ṣabra al-Manṣūriyya, was protected by a circular brick enclosure, 750m in diameter, with five doors and a palace placed in the center as in al-Mansūr's Bagdad in 144-49/762-67. The city was made of mud brick and red brick buildings, influenced by Mesopotamian architecture and the 'Abbāsid cities of Baghdad and Samarra. Of these five city gates, two entrances are of particular importance. They are BābZuwayla and Bāb al-Futūh whose names are to be found in the walls of Cairo.[38] Mansūriyya was not a fortified city like Mahdiyya, but a place of pleasure and relaxation. The capital was reserved for the royal family, the nobles and the elite corps. From 337/949 to 362/973, the caliphs al-Mansūr and al-Mu'izz (341-65 / 952-75) will make this city a splendor influenced by the Mesopotamian architectureof the Abbasids and their palaces inSāmarrā.[39] There is no significant difference between the princely cities of the hinterland whether Raqqada or Sabra al-Mansouriyya and the same Abbasid planning principles that were followed up to Medinat al-Zahra (936-976) built by the caliph Abd al-Rahman III in Spain. And the Fāṭimids continued the same urban and architectural traditions in Egypt.[40]

[37] Stéphane Pradines, "Identity and Architecture: The Fāṭimid walls in Cairo" *Earthen Architecture in Muslim Cultures: Historical and Anthropological Perspectives,* Brill, Leiden, 2018, p. 118-130.
[38] Sayyid, op. cit, p. 103.
[39]Alastair, Northedge, *The Historical Topography of Samarra*, British school of archaeology in Iraq, Foundation Max van Berchem, 2007, p. 247-259.
[40]Stéphane Pradines, "Les fortifications fatimides, Xe- XIIe siècle (Ifriqiyya, Misr et Bilâd al-Šam)", *Historiographie de la guerre dans le Proche-Orient médiéval (xe-xve siècle).* Co-édition Ifao-Ifpo, Le Caire / Damas, 2015, p. 252.

The Coastal Ribats from Ifrīqiyya to al-Andalus

The forts or ribats were built on maritime borders and frontier areas. The ribat was sometimes a simple watchtower. The Mahres or isolated Aghlabids towers had generally a cylindrical plan[41]. Watchtowers were also built in ribats that were used to monitor and secure trade and exchange. These towers could have been used in communications such as light signals and allowed guards to give the alarm in case of necessity. It was possible to communicate from Alexandria to Ceuta with a light chain from ribat to ribat. This strongholds network provided protection and safety to the coastal populations. As a Sunni religious institution, the ribat, was supposed to spread orthodox Islam. The ribat does not correspond to a specific building. A whole city could be the home of devotees or Murabitun and therefore could be called ribat. Some little forts called ribats were in fact Qasr or residence for the chief of the ascetic community. Besides the role of garrison forts, these buildings also served as stations and stopover points for travelers, merchants and pilgrims.

One of the oldestIfriqyian ribat was founded in Monastir by the Abbasid governor Harthama ibn Ayun in 180/796 AD.[42] Only a small part is still visible and datesfrom the Abbasid period (Figure 9). The first ribat was a square building of 32.8m sides, flanked by three round towers at the corners except to the southeast where a circular watchtower stood. The monument was enlarged in the 9th century by the Aghlabids with the addition of two barracks to the south and east. The Citadel took its final form between the 10th and 11th centuries when it was enveloped by a new and high curtain wall flanked by square towers.[43] The ribat has a single entrance overlooking a central courtyard surrounded by two to three storey cells. On the upper floor, the entire southern part was reserved for a mosque with a large prayer hall.

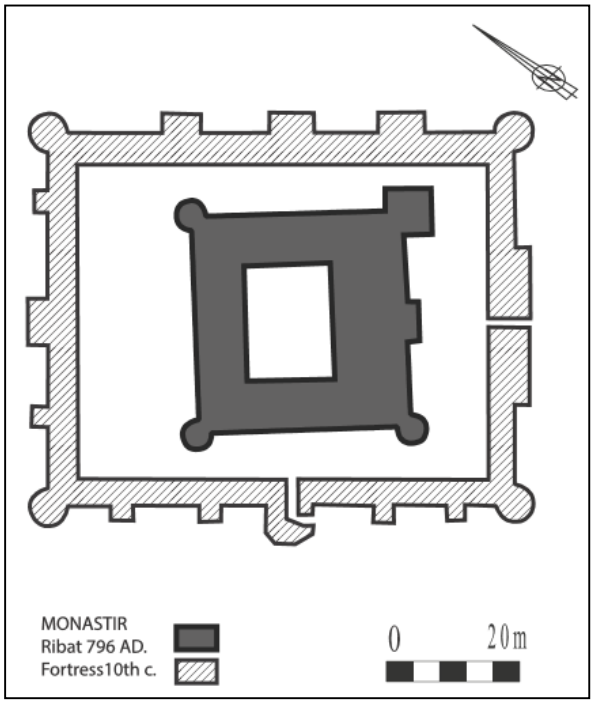

FIGURE 9:
Plan of Monastir'sRibat
Credits: Pradinesfrom an original drawing ofLézine, 1966

[41] Marçais, op. cit., p. 32.
[42] Marçais, op cit., p. 30-31.
[43] Lézine, *Architecture de l'Ifriqiya : recherches sur les monuments aghlabides*, p. 122-126.

As the first built, the great ribat of Monastir, or al-Qasr al-Qabir, served as a model for other coastal ribats.[44] Qasr Sidi Dhouib, another ribat located in Monastir suburbs, is very well preserved, with a quadrangular enclosure, flanked by semicircular towers on the sides and circular towers in the corners.[45] In Sfax, the town wall is also dated from the 9th century. The first Aghlabid's wall made of adobe was then replaced by an ashlar stone wall with rectangular oblong towers resting on a stepped base of four to five rows.[46] The enclosure also includes a few polygonal towers. In Sfax, the town wall is similar, in several points, to those of Sousse, the Aghlabid great city with walls from the same era.

Sousse is the best example of Aghlabid military architecture because the remains from this period are well preserved and were not too modified later. Another very important point, Sousse is a catalog of defensive buildings from the 9th century. The city has a fort-ribat, a citadel-qasba, two watchtowers, a fortified mosque and a huge city wall (Figure 10). These fortifications are easily explained as Sousse was

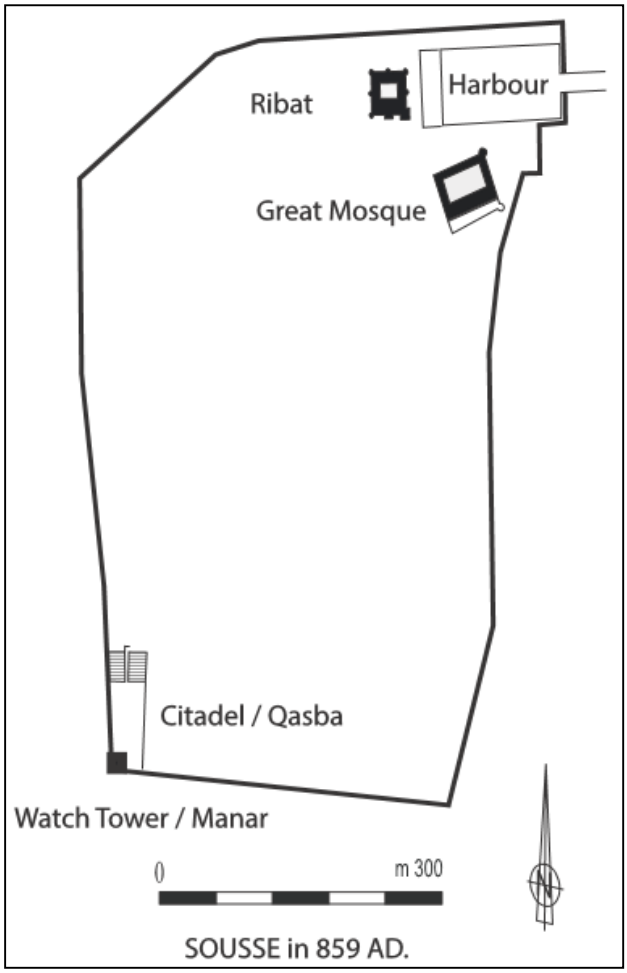

FIGURE 10:
Plan of Sousse's city
Credits: Pradinesfrom an original drawing of Lézine, 1966

[44] Djelloul, op cit., p. 48-51.
[45] Djelloul, op cit., p. 51.
[46] Marçais, op cit., p. 36.

the largest naval base in the region during the Aghlabid period and the city was equipped with an arsenal and an indoor harbor[47]. The ribat of Sousse was founded in 770-796 AD. by the Abbasid governor Yazid ibn Hatim al-Muhallabi. The fortification was the residence of the ruler of the town and was used for the defense of the arsenal. In 821 AD., an Aghlabid emir rebuilt the ribat just before the construction of the city walls. The ribat has a square plan of 38m side, with three circular corner towers and a square salient in the southeast corner, which is the base for a watchtower (Figure 11)[48]. This tower was added

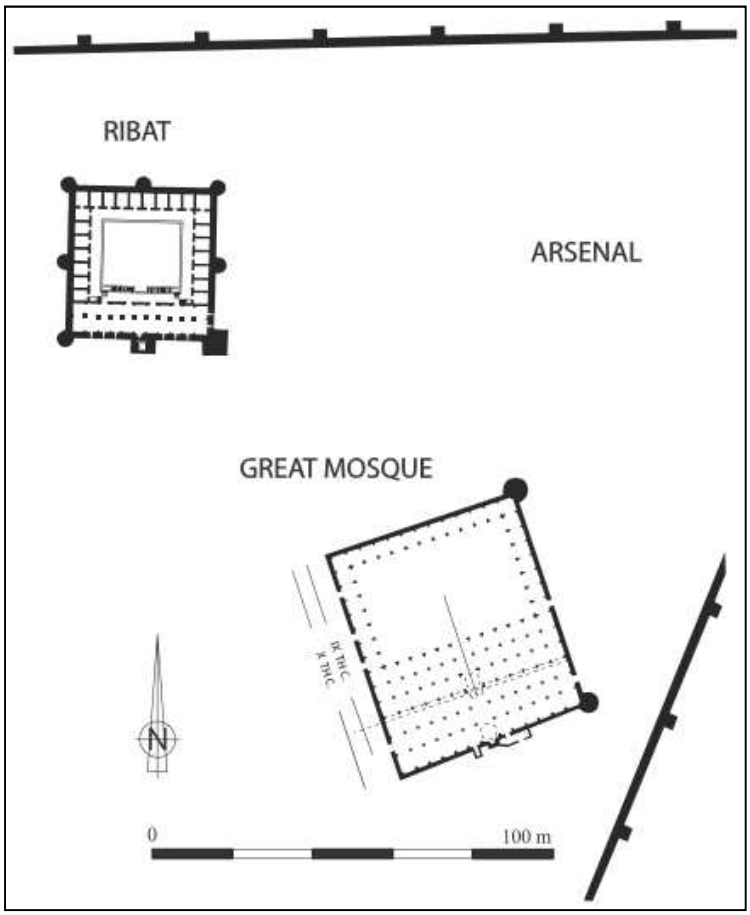

FIGURE 11:
Plan of Sousse's ribat
Credits: Pradines from an original drawing of Marçais, 1954

to the original building in 821 AD. It measures 15m high and was also used as a minaret. The sides of the building are protected in the middle by semi-circular towers, three towers in total. The southern facade is pierced in the middle by a single entrance, a projecting quadrangular defended by a stunner. The entrance of the Ribat consists of a gatehouse of 7m wide and extruding 4m outside the curtain wall. The entry forms a narrow passage of 2m wide, with assommoir/stunners in the barrel vault. The ground floor consists of a central courtyard surrounded by barrel-vaulted porticoes on two levels with cells to store goods behind. These storerooms had no windows. The first floor consists of three wings with dormito-

[47] Djelloul, op cit., p. 42-47.
[48] Creswell, op. cit, p. 167-170.

ries and a fourth wing which houses a mosque oratory. A small mihrab in the prayer hall is surmounted by a dome on squinches. The city walls of Sousse were built after the ribat, around 821-827 AD. They are contemporary of the reconstruction of the ribat. An inscription mentions the completion of the work or renovations in 859 AD. "*by the hands of the governor Fatata, in the year 245 H.*" This kufic inscription is located on the south wall[49]. The walls of Sousse are the best preserved in Tunisia. They stretch along 2,3 km and protect the entire city except the sea side. The enclosure is constructed of fossil sandstone ashlars. The curtains measure 10m high and 2,30 m wide. The walkway is protected by a parapet topped with merlons. The enclosure is protected by round towers in the main angles. The straight portions of the wall are flanked by quadrangular projecting towers (Figure 12).[50] These square

FIGURE 12:
Photograph of the town walls of Sousse
Credits: Pradines

towers are 4m wide and follow the Byzantine tradition. This Ifriqiyan military architecture was also largely inspired by Byzantine citadels such as KsarLamsa, in the region of Kairouan, and the citadel of Haïdra and characterized themselves by the use of square and round towers. The enclosure of Sousse has eight doors. The walls on the side of the Bāb el-Bahr have on their upper parts two sets of superimposed vaulted arcades facing the inside of the city and extending over 20 meters long. The walkway rests on these two rows or voutainsof blind arches open to the city. This antique architectural tradition against the vibrations of the projectiles throw by balistes and catapultes is visible in the Punic walls of Carthage and the Byzantine fort of Haïdra. At the southwest corner of the city stands the Qasaba or citadel built by the Aghlabid Prince Abu al-Abbas Muhammad in 851 AD. The citadel has evolved greatly over the centuries. Only the watchtower or Borj Khalaf is dated from the Aghlabid era. This tower is named Khalaf al-Fata who was in charge of the work dated by an inscription from 859 AD. The manar or Agh-

[49] Marçais, op cit., p. 35-36.
[50] Djelloul, op cit., p. 42-47.

labideburj (tower) dominates the town of Sousse and rises to 77m above sea level. The tower was positioned on the hilltop overlooking the bay and was visible from afar. The building has two floors and is 30m high. The tower rests on a square base of 8m side and becomes narrower to 5m wide at the top. Borj Khalaf was built as part of a citadel program to upgrade the defenses of the city of Sousse. The ribat and the ancient tower were too vulnerable from the port. Borj Khalaf replaced the tower of the old ribat to ensure a better control of the land and the west side of the coastal zone, with a sight of up to 13 km.

Almost opposite the ribat is the large walled mosque of Sousse founded in 866 AD. The building is flanked by large circular towers in the eastern corners on the sea side. The military aspect[51] of the Sousse mosque is reinforced by the huge 7m diameter towers. The mosque is topped with rounded crenellation including shooting embrasures. The mosque is located near the arsenal and the inner harbor of Sousse dug by Aghlabides. The tops of the towers are not headed by domes but remains flat to install war machines such as little trebuchets or balistes. The mosque was probably used to defend the inner harbor.[52] This use also supports the religious interpretation of the whole city of Sousse used as a ribat and not only the small fort mentioned above.

One of the first scholars to address the military role of Ifriqiyan mosques was Lézine.[53] According to this author, the mosque of Kairouan has served as refuge and fort like our fortified medieval churches during the European Middle Ages. The mosque was renovated two times by the Aghlabids in 836 and 863 AD. Some square towers of the mosque are more than simple buttresses and they seem to correspond to defensive architecture (Figure 13).[54] The minaret could also serve as a watchtower and for communication. Kairouan was an open city without walls from 825 to1053 AD.and a fortified mosque makes sense. The Fāṭimids use the same model when they built their mosque in Mahdia against the town walls. The building could be used as defensive position (Figure 14). The same model was still present in Cairo with the mosque of al-Ḥākimbuilt astride the first enclosure of Gawhar and protected by two powerful square towers.[55]

Two traditions confront and crossbreed, on one hand the Umayyad and Abbasid Eastern traditions, on the other hand, a strong local Roman and Byzantine Western traditions. There is also a significant geographical difference between the architecture and urbanism of the hinterland cities and the Mediterranean coastal cities. The port cities willingly employed stone masonry. The city walls follow Byzantine traditionsuntil the foundation of the Fāṭimid town, Mahdiyya, in 917 AD.[56] The forts or ribats were more influenced by the East with Umayyad-Abbasid shapes and traditions. However, these coastal ribats also use some features of the Byzantine military architecture, but it is unclear whether these influences were local or imported from the Middle-East. In the hinterland, the princely urbanism follows the oriental models: Abbasiya and Raqqada under the Aghlabids and Sabra al-Mansuriyya under the Fāṭimids. The mud bricks and fire bricks were generally used as main building materials. There is a strong Abbasid architectural influence in Tunisia and Egypt. The foundations of the Caliphal cities of Baghdad and Samarra will be very influencial on the Muslim town planning from Middle East up to Spain.

[51] Lézine, *Architecture de l'Ifriqiya : Recherches sur les monuments aghlabides*, p. 99-104.
[52] Lézine, op. cit., p. 111-115.
[53] Lézine, op. cit., p. 51-52.
[54]Stéphane Pradines, "Les fortifications fatimides, Xe- XIIe siècle (Ifriqiyya, Misr et Bilâd al-Šam)", *Historiographie de la guerre dans le Proche-Orient médiéval (xe-xve siècle)*. Co-éditionIfao-Ifpo, Le Caire / Damas, 2015, 201 & note 2, p. 252.
[55]Stéphane Pradines, "Identity and Architecture: The Fāṭimid walls in Cairo", *Earthen Architecture in Muslim Cultures: Historical and Anthropological Perspectives,* Brill, Leiden, 2018, p. 118-130.
[56]Stéphane Pradines, "Les fortifications fatimides, Xe- XIIe siècle (Ifriqiyya, Misr et Bilâd al-Šam)", in *Historiographie de la guerre dans le Proche-Orient médiéval (xe-xve siècle)*. Co-édition Ifao-Ifpo, Le Caire / Damas, 2015, p. 232-233.

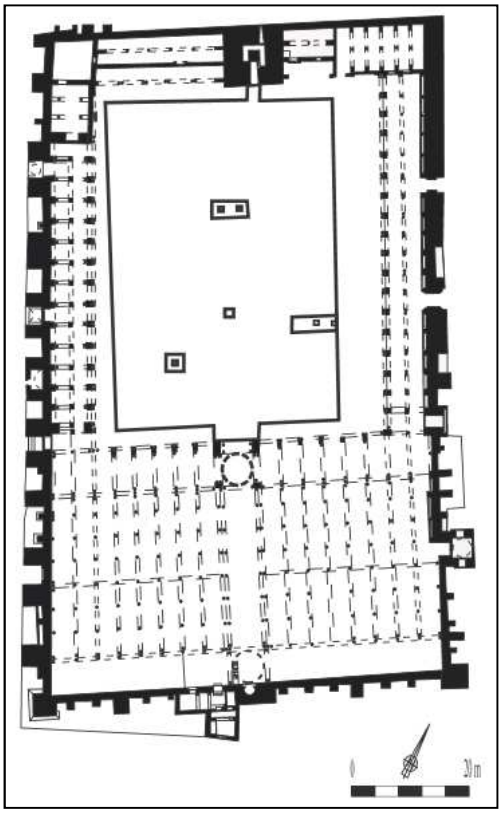

FIGURE 13:
Plan of the great of Mosque of Kairouan
Credits: Pradines from an original drawing of Marçais, 1954

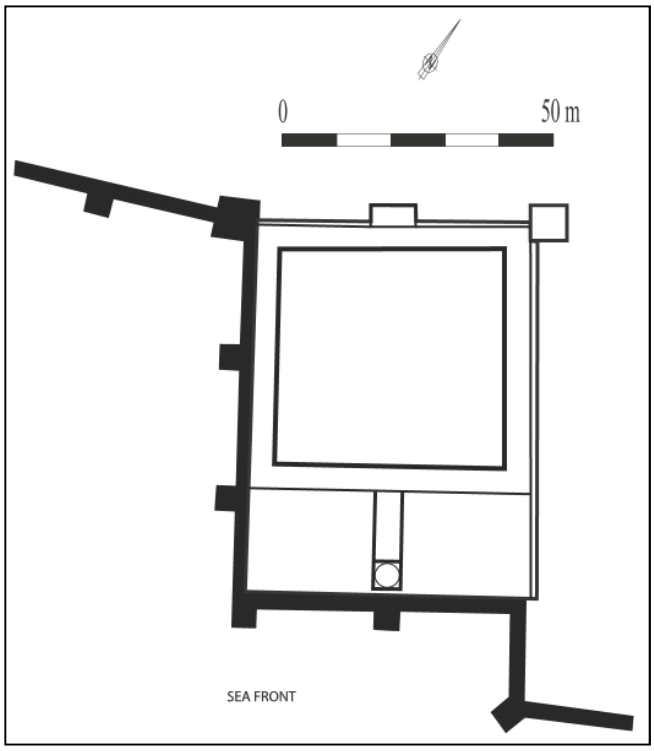

FIGURE 14:
Plan of the great of Mosque of Mahdia
Credits: Pradinesfrom an original drawing of Lézine, 1965

The "Golden Age" of ribats would have been the 9th century and Tunisian ribats would be the purest representatives of this military-religious architecture. Do we really have architecture typical to the ribat as it is always mentioned in literature? The answer is no. First it will be too easy to reduce the ribats to simple convents. For example, Burg of Tarifa was a coastal fortification built in 960 AD. to control Gibraltar and to protect the coast from the Fāṭimids (Figure 15).[57] Second, the ribats were attributed wrongly to the Aghlabids since they were founded mostly under the Abbasid period. And a lot of ribats were built in the hinterland to the northern border with Christian states before and during the Umayyad caliphate of Spain[58]. The castle of Gormaz was built in 756 by the Emir Abd ar-Rahman I and it had 31 buttresses towers (only 28 survived until our days).[59] The Alcazaba of Mérida was built in 835 at the border, it has a a mosque, small quadrangular towers and a watchtower very similar to the Tunisian ribat

[57]The author would like to thank Rafael Blanco for his references on Umayyad Spain. Maria Valor Piechotta, "La fortification d'al-Andalus pendant le haut Moyen Age", *Actes du IIIe Colloque Européen des Professeurs d'Archéologie Médiévale*, CRAM, Université de Caen, 1999, p. 189-191; P. Gurriaran Daza, "Architectura y tecnicasconstructivas califales en el Castillo de Tarifa", *Almoraima,* 2001, No. 25, p. 159-180; Raquel M. Utrera Burgal, Miguel Ángel Tabales Rodríguez, Pedro Gurriarán, "Últimas actuaciones arqueológicas en el castillo de Guzmán el Bueno (Tarifa, Cádiz) : Resultado de la investigación " *al-Qantir,* 2014, No. 16, p. 69-91.

[58] Gil-Crespo, op. cit., p. 4-10; F. Villada Paredes - P. Gurriaran Daza, "Recientes investigaciones sobre las fortificaciones del Califato Omeya en el estrecho de Gibraltar (Tarifa, Algeciras, Tánger, Ceuta)", *Fortificações e território na Península Ibérica e no Magreb (séculos VI a XVI),* Vol. 1, II Simpósio Internacional sobre Castelos, Lisboa, 2013, p. 51-62.

[59] Leonardy - Kersten, op. cit., p. 44-46.

in Sousse (Figure 16).[60] Finally the Alcazaba in Grenada was built in 889 and it has the same polygonal plan with small plain quadrangular buttresses.[61]

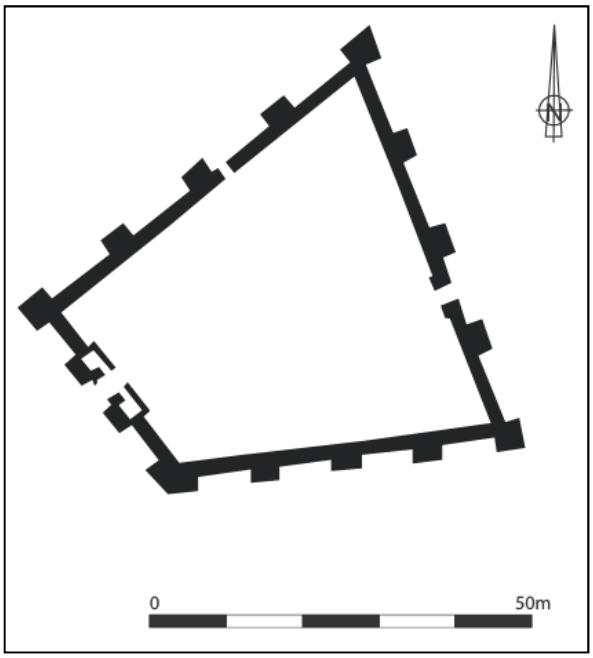

FIGURE 15:
Plan of the Tarifaa
Credits: Pradinesfrom an original drawing of Alba Calzado, 2005

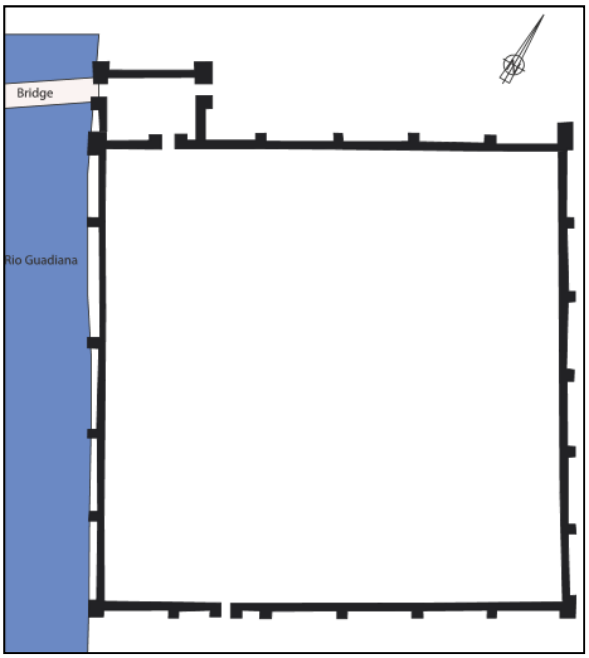

FIGURE 16:
Plan of the fortress of Merida
Credits: Pradines from an original drawing of Gurriaran Daza 2001

These observations bring us to our second question, what differentiates the African military architecture from its Spanish neighbors in the scholarly literature? What is a ribat? The difference made to distinguish a “Ribat" is primarily a matter of vocabulary used. Both terms appear in medieval sources "hisn” and “ribat", the castle and the religious stronghold for faith fighters. Later, at the end of the 12th century, Arab writers used more easily the terms "qala” and “khanqah", the fortress and the monastery. From the 13th century, the Sufi Khanqah were specific places for faith fighters.[62] The mujahid (pl. Mudjâhidûn) does a collective effort for the defense of Islam and therefore the jihad or Holy war. The Murabitun or faith fighters were doing the jihad or ribat to protect the border of Muslim territories.[63]

The word "ribat" has been used since the 7th century and had its origins in the tribal wars of the Arabian Peninsula. This term means to tie together a group of horses in preparation for battle.[64] After the Arab conquest, the word changes of meaning. At the beginning of the Abbasid period, a ribat was a fortified building, a tower or a fort. These strongholds were used as barracks for garrisons and stables for cavalry. In Persia, the caravanserais or khans were called ribats. These ribats were fortified stopovers for caravans isolated in remote areas. In Central Asia, the cities on the Silk Road were called ribats. In fact, it seems that the ribat in its architectural form was simply a fortified place.

[60] R. Azuar Ruiz, “ Las técnicas constructivas en al-Andalus. El origen de la silleria y delhormigon de tapial”, *Las técnicas constructivas en Al-Andalus*, 1995, p. 127-128; Miguel A. Alba Calzado - Santiago Feijoo Martínez, “El sentido de la Alcazaba emiral de Mérida: su aljibe, mezquita y torre de señales”, *Mérida, excavaciones arqueológicas,* 2002, Vol. 8, p. 565-586.
[61] J. García Granados, “La primera cercamedieval de Granada. Análisishistoriográfico”, *Arqueologia y Territorio Medieval*, 1996, Vol. 3, p. 107.
[62] Stéphane Pradines, “A Late Military Use of the Sphero-conical in the 19th Century Sudan”, *Journal of Islamic Archaeology,* 2017, Vol. 3. No. 2, p. 233-242.
[63] Jacqueline Chabbi - Nasser Rabbat, “Ribat”, *Encyclopaedia of Islam,* Vol. 8, Leiden, Brill, 1995, p. 497.
[64] Ibid, p. 493-506.

This is a lexical problem: researchers have focused on a word and applied a religious meaning on an architectural model instead of focusing on the secular function.[65] Our predecessors have interpreted Aghlabid material culture with a vocabulary and knowledge present in historical sources, where the words "ribat and murabitun" appeared frequently.[66] A kind of colonial and postcolonial romance has made these fortified places, monuments devoted to the holy war. Yes, there were forts with fighters of the faith, ready to defend the territories of Islam. No, there is no specific architecture that we can attribute to these fortifications, which may resemble to Byzantine, Umayyad or Abbasid buildings. Concerns about the Tunisian ribats were probably more materialistic than spiritual; they were built to protect the cities and their inhabitants, ports and their goods.[67] It is important to remember that the function of a building is not unique and all these functions are not mentioned in historical sources. A fortification can be used for domestic or palatial purposes. For example, the ribat of Sousse was also the home of the governor. A religious building may have a defensive function as we have seen with the mosques of Kairouan, Sousse and later Mahdiyya. Fortification may have a commercial role, such as Sousse and Monastir ribats used as warehouses and caravanserais to protect cargo and travelers. The presence of a mosque is common in almost all caravanserais that have a small prayer room. The Tunisians ribats were simply forts and caravanserais used to protect the port cities and the coast.[68]

CONCLUSION

The Fāṭimid military architecture can be divided in two main periods. First from the 9th to early 11th century, this architecture was not different from those of the Umayyads al-Andalus and the Aghlabids in Ifriqiyya. The mosques of Kairouan, Sousse, Mahdiyya and al-Ḥākim were used in the defence: they straddled the city wall and were flanked by heavily-buttressed towers. The so-called coastal ribats were built not against the enemies of Islam but against any threat coming from the sea. Their main characteristic was the use of small counterforts or plain buttresses towers built close together and forming a line of defence very similar to those used during the late Antiquity in North Africa and Spain. To the opposite the urbanisation and the civilian architecture were very much influenced by eastern models from the Abbasid and Mesopotamian traditions. Fāṭimid military architecture changed at the end of the 11th century, with the influence of Badr al-Ǧamālī and the Armenian builders. The introduction of new techniques and plans, which emanated from northern Syria,was to be carried on until the end of the 12th century with Salāḥ al-Dīn. If the first Fāṭimid architecture was very much connected to the late Antiquity and the first Islamic dynasties, the Fāṭimid and the Ayyubid architectures of the 12th century were the foundations of the classical medieval architecture of the Mamluks. Therefore the 12th century should be considered as an extremely important period far from the classical divisions between dynasties but more as a period of deep structural changes in the Muslim societies, between an early Islam with the rule of a religious aristocracy, the Caliphs and a middle Age with the rule of a military aristocracy, the Sultans. The military architecture is a perfect mirror of these influences, evolutions and changes.

[65] Alejandro García Sanjuán, "Rabitas y ribats en el Mi'yar de al-Wansarisi [m. 914/1508]", *La Rábita en el Islam : estudios interdisciplinares,* Congressos internacionals de Sant Carles de la Ràpita, 2004, p. 85-87.

[66] Hugh Kennedy, "The Ribat in the Early Islamic World", *Western Monasticism Ante Litteram,* (eds. H. Day - E. Fentress), Brepols Press, Turnhout, 2011, p. 161-175.

[67] Hillenbrand, op. cit., p. 331-334.

[68] Stéphane Pradines, *Ports and Fortifications in the Muslim World: Coastal Military Architecture from the Arab Conquest to the Ottoman Period,* Institut Français d'Archéologie Orientale - IFAO, Cairo 2020.

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