THE *RIBÂT* SYSTEM AND ITS ROLE IN COASTAL NAVIGATION

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Abstract

The article deals with the role of the coastal defense system, called *ribât* in medieval Islam, in coastal navigation. The issues emerge through this discussion are the distance between each one of the watching points along the coastal frontiers, inhabitants of the *ribats*, and the civil functions of the *ribâts*. The article proves that these fortresses located along the Islamic coastal frontiers along the Mediterranean as well as the Indian Ocean functioned as a refuge for attacked Muslim merchant ships by foreign powers and pirates. Our evidence came from written sources and archeological finds.

Making no distinction between defensive and offensive purposes, the Qur'ân states: "Prepare ye against them what force and companies of horse ye can [*wa-a'iddû lahum mâ-astata'tum min quwwa wa-min ribât al-khayl . . .*]."[1]) Literally, the *ribât* means the place where the horses were kept ready (lit. "tied up") to be mounted for an expedition. *Ribât*, in the abstract, was the safeguarding of frontiers of the *dâr al-Islâm* by stationing forces in the harbors and the frontier towns [*thughûr*] for defense purposes. This type of *jihâd*, although based on a Qur'ânic injunction, developed at a time when the Islamic state was on the defensive.[2]) Aside from the Qur'ânic injunction, Muslim scholars and specialists in the *hadîth* literature (Prophetic tradition) explained the religious significance of residing in *ribâts*. Many Islamic traditions praise and encourage those who volunteer to garrison in the coastal areas against enemy raids from the sea.[3]) In

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1) *Qur'ân*, 8:60. In *sûra* 4, verse 200, the *Qur'ân* states: "O ye who believe! persevere in patience and constancy, vie in such perseverance, strengthen each other, and fear Allâh; that ye may prosper [*Yâ ayyuhâ al-ladhîna âmanû usbirû wa-sâbirû wa-râbitû wa-ittaqû Allâha la'allakum tuflihûn*]."

2) Balba' 1968, pp. 27-29; Khaddûrî 1973, pp. 114-115; Marçais 1936, pp. 1150-1151.

3) Bashear 1991, pp. 193-198. According to the Prophetic traditions guarding the coasts in general, making *takbîr*, or even just sitting or moving about there and watching the sea was considered a holy duty. Some of them stated: "Standing [*mawqif*] for one hour in the way of God [*fî sabîl Allâh*] is better than standing in prayer [*qiyâm*] near the Black Stone on the night of *al-Qadr* [the night when the Prophet Muhammad was ascended to heaven]." "A sum of three days for a minimal *ribât* and forty days for a full one [*wa-man râbata*

principle, the institution of the *ribât* was connected with the duty of the holy-war [*jihâd*]. Together with the soldiers and garrisons which were changed periodically, the *ribâts* were also inhabited by pious Muslims who came there for religious salvation. They were border cities on the frontiers of Islam, to be defended by the servants of Allâh.[4]) Architecturally, the structure of the *ribât* consisted of a fortified surrounding wall with an entrance, living rooms, magazines of arms, cisterns, storehouses for provisions, a tower for signaling, and, in the case of large-sized fortresses, a mosque. Customarily, each *ribât* also had four to eight towers—projecting circular towers at each corner and semicircular towers in the center of each side (Figures 1 & 2).[5])

The *ribâts* and *mihrâses* (watchtowers)[6]) served as an alarm system when the Islamic coastal frontiers were exposed to enemy attacks. This defense system was fully described by al-Muqaddasî who provides us with an interesting account of the warning and signaling system in Palestine, used here for the ransoming of captives:

> Along the seacoast of the capital [Ramle] are watch-stations [*ribâtât*], from which the summons to arms is given. The warships and the galleys [*shalandiyyât* and *shawânî*] of the Greeks come into these ports, bringing aboard them the captives taken from the Muslims; these they offer for ransom—three for the hundred *dînârs*. And in each of these stations there are men who know the Greek tongue, for they have missions to the Greeks, and trade with them in provisions of all kinds. At the stations, whenever a Greek vessel appears, they give the alarm by lighting a beacon on the tower of the station if it be night, or, if it be day, by making a great smoke. From every watch-station on the coast up to the capital [Ramle] are built, at intervals, high towers, in each of which is stationed a company of men. As soon as they perceive the beacon on the tower of the coast station, the men of the next tower above it kindle their own, and then on, one after another; so that hardly is an hour elapsed before the trumpets are sounding in the capital, and drums are beating from the city tower, calling the people down to that watch-station by the sea; and they hurry out in force, with their arms, and the young men of the villages gather together. Then the ransoming begins. One prisoner will be given in exchange for another, or money and jewels will be offered; until at length all the prisoners who are in the Greek ships have been set free. And the *ribâts* [watch-stations] of this District where this ransoming of captives takes place

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thalâthat ayyâm fî sabîl Allâh fa-qad râbata, wa-man râbata arba'în yawman fa-qad istak-mala al-ribât].” “A *ribât* of one night near the sea from behind an exposed point [*'awra*] of the Muslim is better for me than spending the night in one of the two mosques, the Ka'ba and Medîna.” Lastly, “whoever fears hell-fire for himself should do *ribât* on the coast for forty days [*man khâf 'alâ nafsihi al-nâr fa-l-yurâbit 'alâ al-sâhil arba'în yawm*].”

4) El'ad 1982, p. 157.

5) Creswell 1989, pp. 286-289.

6) The difference between *ribât* and *mihrâs* is in the physical size of the structure and in the number of warriors who stationed there. *Mihrâs* simply means a fortified area containing a small garrison and a watchtower. The *ribât*, on the other hand, is several times bigger than the *mihrâs*.

are: Gaza, Mîmâs [Maiuma of Gaza], 'Ascalân [Ascalon], Mâhûz,[7]) [the port of] Azdûd, [the port of] Yubnâ, Yâfâ [Jaffa], and Arsûf.[8])

It is evident that the *ribât* functioned, first and foremost, as a coastal warning system. Whenever enemy ships were sighted, the *murabitûn* (the *ribât's* occupants) alerted the inhabitants of nearby regions by kindling a beacon, if it was night, and making smoke in the day. In this manner signals could be transmitted from one watch-station to another in a very short time. A message sent from Ceuta (Sabta), Morocco, could reach Alexandria within one night, though the distance between the two cities was that of a journey of several months duration.[9]) The purpose of the system was to track the movements of the enemy or even pirate ships and to provide warning of their military intentions. There was also an agreed system of signals (fire and smoke) which was used to send governmental messages between the districts. Watchmen were equipped with optical devices, and stationed in high places.[10]) Secondly, al-Muqaddasî showed that ransoming of captives was taking place in the coastal frontiers. It was reported that during the time of the 'Abbâsîd caliph Hârûn al-Rashîd (170-193/786-809), Lamas a city on the Mediterranean coast thirty-five miles west of Tarsûs, was chosen as a place for ransoming Muslim and Byzantine captives. More than twelve such events occurred there during the ninth century C.E.[11])

In a letter written in late June or early July of the 1060s the consignor wrote:

> From these letters which I have received and from the passengers on the barge [that has just arrived], it has been confirmed that the following ships have safely moved farther from the coast: Ibn al-Iskander, Ibn Labad, al-Qâdî Bû Tâlib, al-Mufaddal, the vessel of Ibn Madhkûr, the vessel of al-Tarâjima and that of al-Jiljilânî; . . . the barge of al-Ghazzâl was sighted at Suhat Barqa; at Hirâsat al-Qâdî, the ships of Sadaqa b. al-Safrawî, Ibn Rahmân and Ibn al-'Ûdî [were sighted] at Ra's al-Tîn, the ships of Sabi b. Shiblûn and al-Zaffât were sighted. At Shaqqât al-Wa'r, to the west of Tobruk, the ships of al-Lakkî, al-Mursî and Ibn Shabih [were sighted]. The second ship of Ibn Madhkûr and those of Ibn al-Shubnî and 'Abbâs Ashnas, and the vessel of Amîr and of Ibn Abî Qashsh were sighted at Milha.[12])

Undoubtedly, sailing in sight of the coast was of great importance in particular when enemy and pirate vessels were cruising at sea. Under adverse situations, merchant vessels could seek shelter from threatening elements and find protec-

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7) *Mâhûz* is an Aramaic word signifying "port," like "*Majuma*," *portus* or *navale*.
8) Muqaddasî 1897, p. 291.
9) Maqrîzî, *Al-Khitat*, vol. 1, p. 324; Qalqashandî, *Subh al-A'shâ*, vol. 5, p. 121; ibid., vol. 14, pp. 398-400.
10) Darâdkeh 1991, p. 200.
11) El'ad 1982, p. 160.
12) Udovitch 1978, pp. 542-543; Goitein 1973, pp. 319-322; *idem* 1967a, vol. 1, pp. 319-320, 330; *idem* 1967b, p. 395.

tion from potential attackers at a coastal fortification.[13]) And in the case of necessity, a vessel could stop there for rest, for minor repairs, or to take on basic supplies such as food and water.[14]) Documents from the Cairo Geniza published thus far provide us with little information concerning the features and functions of the *observation points* located along the coastal frontiers of Islamic Mediterranean. My assumption is that the *observation points* to which Goitein and Udovitch refer are, in fact, an array of *ribâts* and *mihrâses*, and that they played an integral role in coastal navigation in the classical period.

In order to draw a complete picture of the actual functions of these *observation points*, it is necessary to examine their topographical settings and the distances between fortresses to determine who their occupants were and to uncover the governmental role in maintaining these way stations. An interdisciplinary discussion involving archeological remains, and historical and jurisprudential evidence, where it is available, will significantly contribute to a reconstruction of the actual functions of the *ribât* system. Above all, two questions should be answered: Who was most concerned about securing the coastal lanes, and why?

Dispersed over a narrow strip of one hundred and fifty miles, the twenty coastal watch-stations, *ribâts* and *mihrâses* of Palestine are located on small hills near the sea (Figure 3).[15]) Some watch-stations were built near natural or artificial anchorages, and estuaries, such as the *mihrâses* at Mînat Abû Zabbûra (Tel Mikhmoret), located 6 miles south of Caesarea, and Tel Qantûr (Tel Michal), located 2.25 miles south of the Islamic port city of Arsûf (modern Herzliya). Chronologically, these *mihrâses* dated from the early Islamic period (13/634-493/1099). Archeological excavations at both sites discovered that the *mihrâs* was a square building with one preserved floor strengthened by eight buttresses, two in each corner. According to the archeological reports, the general dimensions of the interior was 18.3 by 18.3 feet, and each of the walls measured 22.5 by 3.66 feet (Figures 4 and 5).[16]) Although archeological evidence is necessarily

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13) Cahen 1978, pp. 307-308.

14) Udovitch 1978, p. 541.

15) A simple calculation shows that the *ribâts* and *mihrâses* along the Palestinian coast were built at set distances. The average distance between each watch-station was roughly 7.5 miles. A combination of the archeological evidence and the Geniza documents would help us to conceive the role of watch-stations in protecting ships sailing along the coast. Based on the Geniza papers, Goitein calculated that the duration of a maritime voyage from Acre to Jaffa was on average five days. Between these two port cities, there were only two major ports, Caesarea and Arsûf, which could be reached by a commercial vessel in few days, and seven watch-stations. However, in case of unexpected enemy or pirate attack, commercial ships must have found shelter in the closest port or *ribât* anchorage. Likewise, these anchorages also functioned as stationary points at night. For further details about the duration of sea voyages, see Goitein 1967a, vol. 1, pp. 325-326; Udovitch 1978, pp. 511-513.

16) Herzog, et al. 1977, pp. 99-108; *idem*, 1989, pp. 5-7; Purath, et al., 1985), pp. 126-135.

silent about a tower's height, written sources report that the *mihrâs* reached as high as 75 feet.[17]

Two *ribâts* still stand in reasonably good condition on the coast of Palestine, Kefer Lâm (ha-Bonîm) and Azdûd (Ashdod). The geographical location and the dimensions of these two *ribâts* differ from each other. The former, situated ten miles north of Caesarea, three miles north of Tantûra (Dor), and six miles south of ʿAthlît, was built on a high hill (90 feet above sea level), a half mile from the sea. The *ribât* (159 by 102 feet) has four projecting circular towers at the corners and two semicircular towers flanking the entrance in the southern side, in addition to sixteen buttresses supporting the eastern, western, and northern walls (Figure 6). As usual, it includes a cistern, storehouses for provisions, magazines for arms, and a tower for signaling.[18] Despite its proximity to the sea, the *ribât* was built in close vicinity to a natural anchorage in which, presumably, a few ships could find shelter from maritime raids or inclement weather.

Situated on the Mediterranean shore ten miles north of ʿAscalân (Ascalon), the watch-station at Azdûd (180 by 135 feet) is slightly larger than the fortress at Kefer Lâm (Figure 7). The external appearance of the *ribât*, particularly its west wall, facing the sea, raises the question of the civilian function of the coastal fortifications. This wall contains of two three-quarter towers in the north-western and southwestern corners, and two semicircular towers alongside the pier overlooking the sea. The fortress's north, east, and south walls are supported by buttresses built at measured distances, with two projecting square towers in the northeastern and southeastern corners, and two semicircular towers flanking the main entrance in the eastern facade. As in other Islamic *ribâts*, the archeologists excavated a residential unit, stable, magazines, and storehouses.[19]

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17) Balbaʿ 1968, p. 51.

18) *Hadashot Archeologiot* 17 (1966), p. 17; *Hadashot Archeologiot* 33 (1970), p. 11; Benvenisti 1984, pp. 219-221. He contends that this fortress was founded by a French noble family during the early years of the Crusaders in the Levant. His assumption must be incorrect since similar architectural designs and plans are found in Qasr al-Mushattâ (Jordan), the *ribâts* of Sûsa and Monastîr (Tunisia), and the *ribât* of Azdûd (Palestine), all of which are mentioned by al-Muqaddasî in the tenth century C.E. More interestingly, medieval sources from the early Islamic period provide more details regarding the history of the site and indicate that the Umayyad caliph Hishâm Ibn ʿAbd al-Malik established the settlement of Kefer Lâm. For further historical details, see Yâqût, *Muʿjam al-Buldân*, vol. 4, p. 470; Samʿânî, *Al-Ansâb*, vol. 5, p. 671; Marmardji 1951, p. 175.

19) Balbaʿ 1968, p. 54. In days of peace and political tranquility the *ribâts* functioned as caravansaries [*khâns*], so it is not surprising to discover that each watch-station includes of large number of roomy magazines and storehouses, and it is reported that some *ribâts*, such as the Moroccan *ribât* of Qûz (Jûz), on the Atlantic Ocean, had become commercial centers.

According to the archeological reports, the pier was built to facilitate access to the *murâbitûn* who periodically patrolled the coasts.[20]) Since the watch-station at Azdûd was established in an intermediary port, it is possible that the pier was also intended to provide assistance and shelter to commercial ships sailing along the coast in the event of hostile attacks.[21])

Historical accounts and jurisprudential inquiries substantiate the hypothesis that garrisons at the *ribâts* and *mihrâses* were obligated to provide assistance to commercial ships confronted by hostile attacks.[22]) At present there are three known references dealing exclusively with the role of the *ribât* institution in providing assistance and refuge to seacrafts. Muhammad Ibn 'Alî al-Mâzarî writes:

> A merchant gave a sailor Almoravid *dînârs* in the form of a *qirâd* (commenda) to travel to Sicily. The capitalist (*i.e.*, the merchant) went away and, upon his return, called the sailor to account. The sailor declared having borrowed a light boat [*qârib latîf*] other than the one usually took for his journeys between Sicily and Ifrîqiyya. The passengers had been warned of the proximity of the enemy by the occupants of a citadel [*hisn*] named al-Rukâm and the sailor had abandoned ship, taking all his belongings, more particularly the merchandise bought with the capitalist's *dînârs* and had entrusted the commanding officer [*qâ'id*] of the place in question with them. . . . .[23])

Additional documentary evidence that substantiates this argument is found in the commercial privileges granted by the Mamlûk *sultân* Qâitbây (872-901/ 1468-1496) to the Republic of Florence in 1497 C.E. Article twenty-four of the treaty states:

> XXIV. The aforesaid envoy has asked that when one of the ships of the aforesaid florentines enters one of the *fortresses* of our noble *station* and treachery has befallen the aforesaid ship, it should be favored with what it needs for repulsion of the enemy. So let his honorable Excellency promulgate his exalted command that when one of the

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20) Conder and Kitchner 1882, vol. 2, pp. 422, 426-427; Le Strange 1965, p. 405; Benvenisti 1984, pp. 219-220; *Hadashot Archeologiot* 33 (1970) pp. 26-27; Kloner and Birman 1973/4, pp. 21-24; Peiphano 1986, pp. 23-24.

Although typically stationed in major strategic ports, the fleet with its galleys and warships was under certain circumstances concentrated in the *ribâts'* anchorages. In 585/1189 when the European fleets blockaded Acre, the navy of Saladin which was stationed in the *ribât* of al-Zîb (Akhzîv), ten miles north of Acre, was able to break through the European naval blockade and supply the city by sea. The intermediary stations [*ribâts*] of Haifa and al-Zîb played an essential role in defending the coastal frontiers and providing immediate assistance to the Palestinian port cities during the early Crusades. Abû Shâma *Al-Rawdatayn*, vol. 2, pp. 181-184; 'Abbâdy and Sâlem 1981, pp. 284-285; Ehrenkreutz 1955, pp. 112-113.

21) Balba' 1968, p. 39.

22) Maqqarî *Nafh al-Tîb*, vol. 9, pp. 109-110; Sâlem and 'Abbâdy 1969, p. 305.

23) Idris 1961, p. 234; *idem.* 1992, vol. 2, p. 284. An identical fatwâ is mentioned by al-Wansharîsî, *Al-Mi'yâr*, vol. 8, pp. 207-208.

> florentines' ships enters one of the *fortresses* of Islam and treachery from enemies has
> befallen it, it shall be favored with what it needs for repulsion of the enemy, the cost
> and expense falling to the ship's master.[24])

The commander of the fortress was held responsible for storing and protect-
ing the cargo and properties of Muslim and non-Muslim merchants sailing in
Islamic vessels. He was not entitled to be remunerated for assistance provided
to the passengers and merchants aboard the vessel. In principle, the act of assis-
tance as reflected by Islamic law must be considered as a religious duty.[25])
Nonetheless, when Muslim governments suffered financial crises, the ship's
master was charged for the protection of the ship and its contents.

While the biographies of Muslim scholars shed little light on the identity of
the proprietors of seagoing vessels, the Geniza papers report that these vessels
were owned by persons connected with government: the *sultân* himself, mem-
bers of the royal household, governors [*qâ'ids* and *amîrs*], military commanders,
viziers, and Muslim judges, in addition to well-to-do Muslims and Jews. The
shipping business was regarded as one of the most profitable investments.[26])
Therefore, the government took on the responsibility to physically maintain the
coastal defense system and to secure the navigational lanes by providing naval
escorts as a protection against pirate and enemy attacks and by stationing arma-
das and garrisons along the coastal routes.[27]) As Ibn Mammâtî (544-606/ 1149-
1209), the Ayyûbîd vizier, writes:

> In the month of *Barmahât*[28]) . . . which coincides with the beginning of the spring,
> commercial ships head for the Mediterranean Sea from the Egyptian districts, the Maghrib,
> and Byzantium. During this month [the government] looks after concentrating the garisons
> in the protected frontiers, and preparing the victorious battleships to defend them.[29])

While our sources give mainly religious motivations for fortifying the coasts
and securing the maritime lanes, the government's concern was certainly eco-
nomic. The fact that warships [*harbîs*] served, apparently on a fairly regular
basis, as commercial carriers confirms the government's interest and involve-
ment in the shipping business. Securing the maritime lanes must have created
favorable conditions to expand the overseas trade, thereby increasing the tax

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24) Wansbrough 1965, p. 519; for the Arabic text see pp. 504-505.
25) Wansharîsî, *Al-Mi'yâr*, vol. 8, pp. 302-304; Ibn Rushd, *Al-Bayân wal-Tahsîl*, vol. 3,
pp. 61-62.
26) Goitein 1967a, vol. 1, pp. 309-313; Udovitch 1978, pp. 519-521.
27) Balba' 1968, p. 34.
28) *Barmahât* is the seventh month of the Coptic calender corresponding to March/April.
29) Ibn Mammâtî, *Qawânîn al-Dawâwîn*, pp. 247-248: "*Baramhât . . . wa-huwa ibtidâ' fasl
al-rabî', wa-fîhi jarayân al-marâkib al-safariyya fî al-bahr al-mâlih min al-a'amâl al-
Misriyya wal-Gharbiyya wal-Rûmiyya, wa-fîhi al-'ihtimâm bi-tarkîz al-ajnâd bil-thughûr al-
mahrûsa wa-marâkib al-asâtîl al-mansûra li-hifzihâ.*"

revenues and the income of the proprietors of commercial vessels, which were largely owned by persons associated with the government.

The establishment of watchtowers along the coastal lanes extended beyond the Mediterranean region. The 'Abbâsîd caliphate in the East erected watchtowers and lighthouses along the shores as guides for coasting pilots and to secure the maritime routes.[30]) Nâsîr-î Khosraw (395-481/1004-1088) vividly described the watchtowers situated between Basra and 'Abbâdân, stating:

> At dawn something like a small bird could be seen on the sea. The closer we approached, the larger it appeared. When it was about one parasang to our left, an adverse wind came up so they dropped anchor and took down the sail. I asked what that thing was and was told that it was called a "*khashshâb*." It consisted of four enormous wooden posts made of teak and was shaped something like a war machine, squarish, wide at the base and narrow at the top. It was about forty ells above the surface of the water and had tile and stone on top held together by wood so as to form a kind of ceiling. On top of that were four arched openings where a sentinel could be stationed. Some said this *khashshâb* had been constructed by a rich merchant, others that a king had it made. It served two functions: first, that area was being silted and the sea consequently becoming shallow so that if a large ship chanced to pass, it would strike the bottom. At night lamps encased in glass (so that the wind would not blow them out) were lit for people to see from afar and take precaution, since there was no possibility of rescue. Second, one could know the extent of the land and, if there were thieves, steer a ship away. When the *khashshâb* was no longer visible, another one of the same shape came into view; but this one did not have the watchtower on top, as though it had not been finished.[31])

The *ribât* institution functioned as *observation points* for ships sailing along the coasts. The choice of their topographical locations was not accidental. Most *ribâts* and *mihrâses* were built in measured distances, situated in close vicinity to natural or artificial anchorages, and on small hills. Functioning as precautionary guides for pilots sailing along the coast, the lighthouses were erected near shallow waters and coral reefs. These establishments were placed at military strongholds in order to protect the coastal frontiers and commercial vessels from hostile raids. The architectural plan of the *ribât*, which consists of living quarters, storage facilities for arms and food, and magazines, substantiates the idea that this institution may have provided assistance to commercial ships when needed. Like affluent merchants, members of governmental circles, owing to their involvement in the shipping business, were concerned to secure the maritime lanes and protect commercial ships from enemy or pirate attacks.

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30) Nâjî 1988, p. 177; Barrâwî 1948, pp. 295-297.
31) Nâsîr-î Khosraw, *Book of Travels* (*Safarnâma*), p. 96. Describing the stockades [*khashabât*] near the port city of Basrah, 'Irâq, al-Muqaddasî reported: "This is by far the greatest evil, a strait and a shallow combined. Here small huts have been erected on palm trunks set in the sea, and people stationed therein to keep a fine lighted at night, as a warning to ships to steer clear of this shallow place." Al-Muqaddasî 1906, p. 12.

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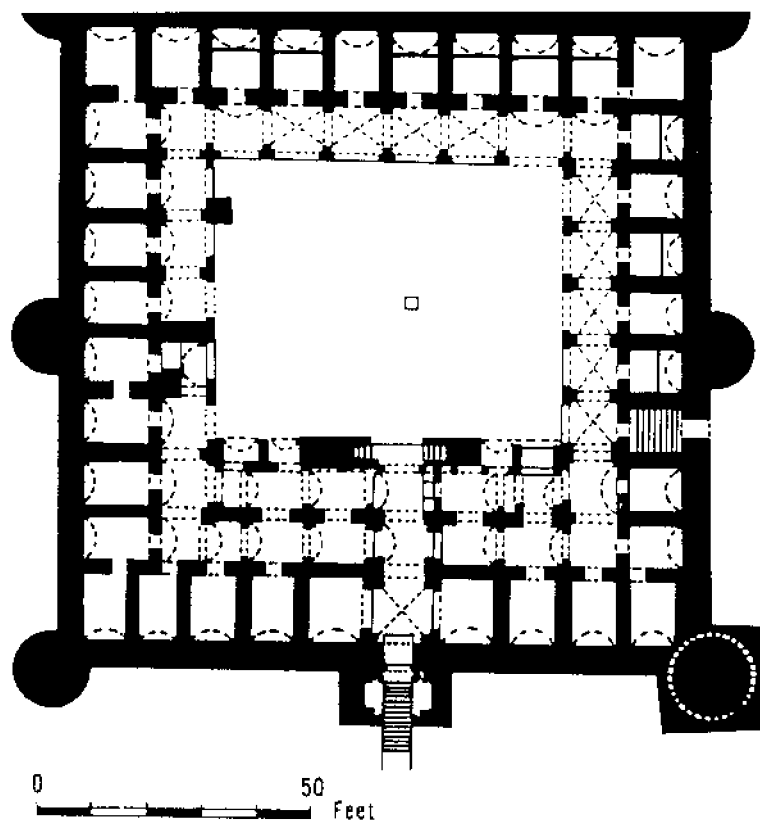
Figure 1: Reconstructed ground plan of the *ribâṭ* at Sûsa, Tunisia.
Source: K.A. Creswell, *A Short Account of Early Muslim Architecture.*
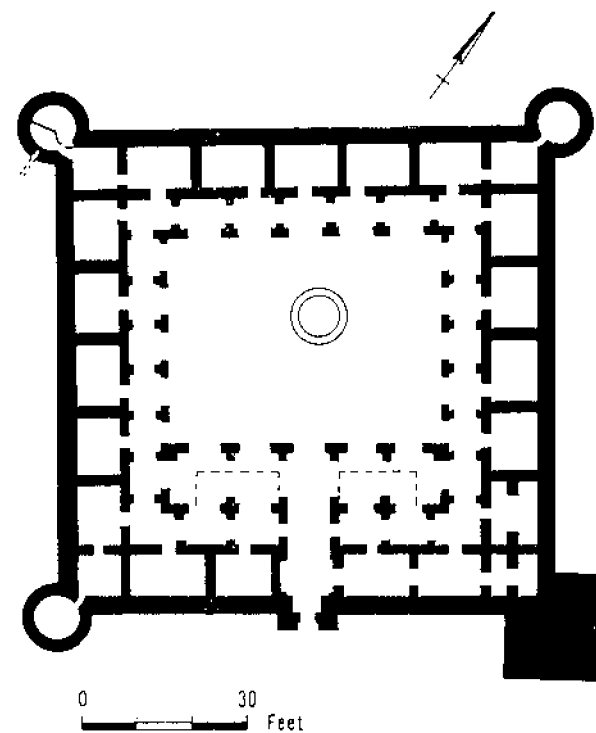
Figure 2: Reconstructed ground plan of the *ribâṭ* at Monastîr, Tunisia.
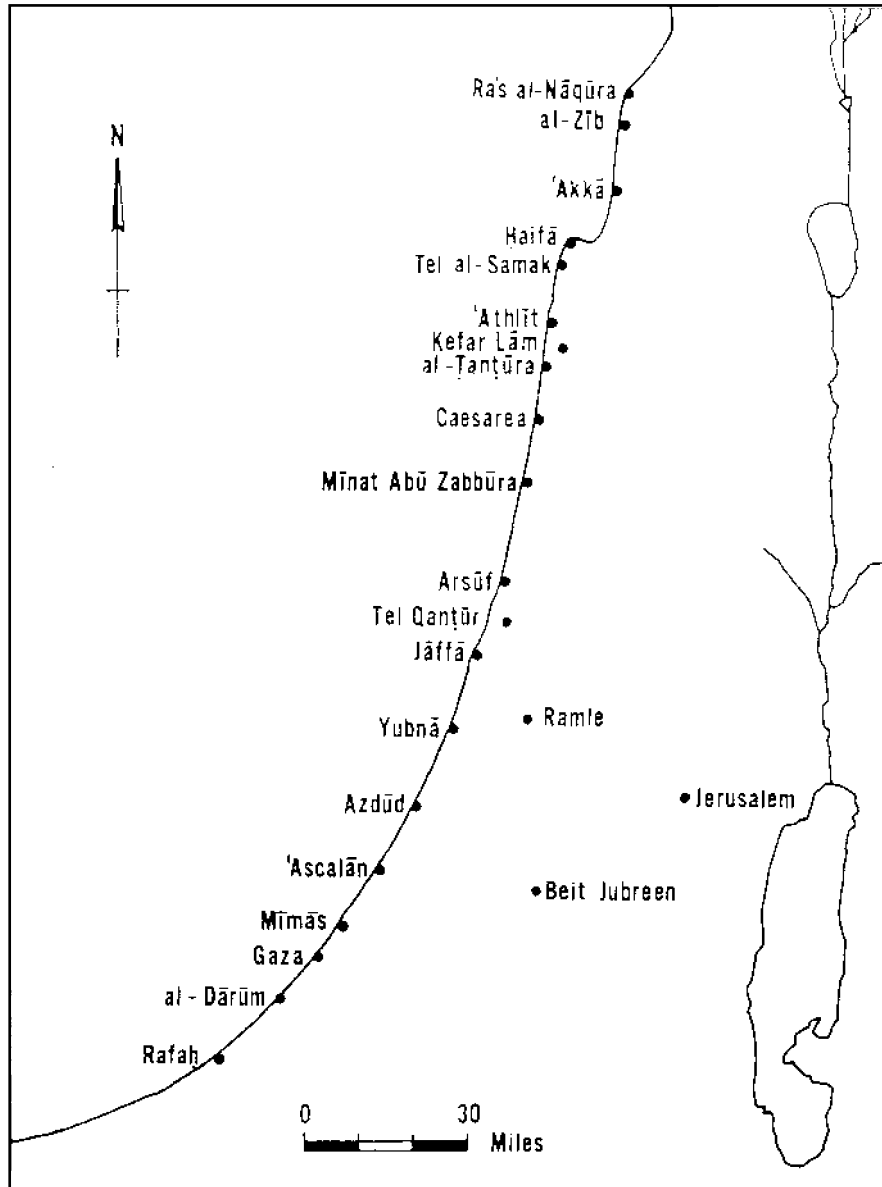Source: K.A. Creswell, *A Short Account of Early Muslim Architecture.*

Figure 3: Geographical location of *ribâṭs* and *miḥrâses* along the coastal frontiers of Palestine during the early and classical Islamic periods.
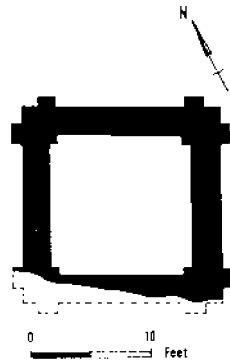
Figure 4: Archeological remains of the *miḥrâs* at Mînat Abû Zabbûra. Source: Y. Purath, *Qadmoniot ʿEmeq Ḥefer.*
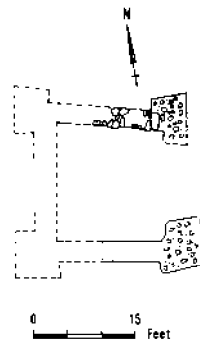
Figure 5: Archeological remains of the *miḥrâs* at Tel Qanṭûr. Source: Z. Herzog, *Excavation at Tel Michal.*
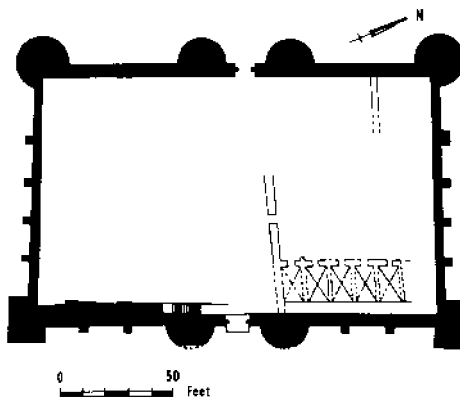
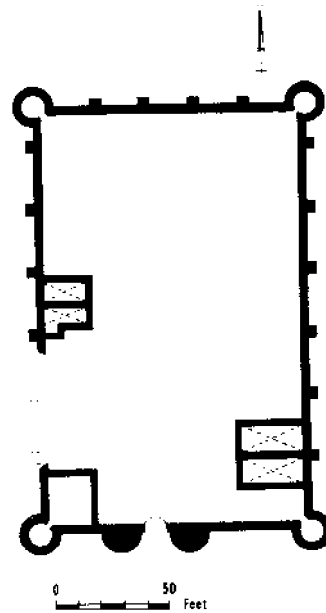Figure 7: Architectural plan of the *ribâṭ* at Azdûd. Source: A. Kloner and A. Berman, *Toldoteha shel Ashdod Yam.*

Figure 6: Architectural plan of the *ribâṭ* at Kefer Lâm.