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# POTTERY FROM CRUSADER ACRE AS EVIDENCE OF CORRELATION BETWEEN POTTERY DISTRIBUTION AND MIEVEAL MEDITERRANEAN TRADE ROUTES



The Mediterranean city of Acre ('Akko) was one of the main ports of the Crusader Kingdom of Jerusalem (1099–1291) and evolved into a thriving maritime commercial center, playing an important role in the trade between Europe, the Crusader Principalities in the East, the Byzantine Empire, and the Moslem states.

Crusader-period pottery was revealed in the large-scale excavations carried out by the Israel Antiquities Authority in Acre since the early 1990s. Most of the pottery imported to Acre consisted of various types of mainly glazed plates and bowls dating to the 12<sup>th</sup> and 13<sup>th</sup> centuries. Provenience analyses of the finds from Acre show that ceramics were imported from throughout the Mediterranean: Lebanon, Syria, Asia Minor, Cyprus, Greece, northern and southern Italy, Sicily, southern France, Catalonia in Spain, North Africa and China.

Categorizing the ceramics found in the excavations at Acre by origin assists in focusing on provenience and seeking a correlation with maritime trade routes. Since similar pottery types as those found in Acre are also found in the main Mediterranean ports, as well as in Mediterranean and Black sea shipwrecks containing homogeneous types of pottery as cargoes, it is assumed that the pottery served for the most part as 'salable space fillers' or 'salable ballast', and its sale could have provided extra income along the route for the ship master or sailors. It was transported, and occasionally distributed, by ships involved in short- and long-distance trade to and among the main port cities as a secondary item and as a consequence of trade of more valuable goods.

The origin of the ceramics and the areas to where they were redistributed was found to reflect the Mediterranean maritime trade routes and major ports of the 12<sup>th</sup> to 13<sup>th</sup> centuries.

**Key words:** Crusader Kingdom of Jerusalem, Mediterranean, maritime trade, pottery, 'salable ballast'

The Mediterranean port of Acre ('Akko, 'Akka) evolved into a thriving commercial center after the Crusader conquest of the Holy Land in 1104. With the fall of Jerusalem in 1187 it became the capital of the Crusader Kingdom of Jerusalem and its principal harbor. In the 13<sup>th</sup> century, Acre's port was one of the busiest in the Frankish East, playing an important role in the maritime trade with Europe, the Muslim states, and the Byzantine Empire, as well as serving as a gateway for pilgrims. This lasted until the fall of the Crusader Kingdom in 1291 [8, p. 32-34; 58].

Archaeological excavations have been conducted by the Israel Antiquities Authority since 1990, partly commissioned for the promotion of tourism, and partly as salvage excavations due to the growth and development of the modern town and the Old City. These archaeological excavations have revealed different parts of Crusader-period Acre. The two main excavations, those conducted at the Hospitaller compound [54; 55] and the ones at the Knights Hotel [60], yielded the pottery that will be presented in this study. These excavations and numerous other smaller excavations underscore the centrality of Crusader Acre by illuminating its densely populated nature and the variety of its public and domestic buildings, shops, streets and material culture remains. Many types of imported ceramics were unearthed in all the excavations and they reflect the types in use by a cross-section of the population of Acre during this period.

The pottery assemblage found in Crusader Acre is diverse. Alongside simple, unglazed wares and glazed cooking and table wares produced locally in Acre and Beirut [57; 59, p. 168-171, 173-175, 178, figs. 2, 3, 5], imports from various regions throughout the Mediterranean were found. The wide range of imported pottery found in Acre is the focus of this study, mainly because it is a phenomenon unique to this time period – when Acre was in the hands of the Crusaders. Such a large scale importation of ceramics to this region did not exist during the previous Fatimid period nor in the subsequent Mamluk period.

Consequently, this study attempts to answer questions that arose during the study of the Crusader-period pottery from Acre. The main question was why such large quantities of ceramics were imported to Acre from such a wide range of proveniences? The secondary questions were how these ceramics were imported; by whom and via which trade networks? In addition, it was desired to study this phenomenon in the wider context of trade and distribution of ceramics in the Mediterranean during the 12<sup>th</sup> and 13<sup>th</sup> centuries.

As noted, a large quantity of pottery imported from many different regions throughout the Mediterranean were found in Acre. Because of this, and because most of them were previously unknown in the Levant, a new system of type-abbreviations that was found suitable for the finds from Acre and for examining the subject of importation of ceramic wares was used [56; 57]. The finds were categorized according to production regions and arranged in geographical order (Table 1). This is different from the traditional way of presenting pottery according to shape, fabric and decoration. The main subjects that were examined in the study of the imported pottery were typology, chronology, production sites, and petrographic and chemical analyses [53; 59, p. 173-178; 67; 68] which

help identify vessels' provenience. Categorizing the ceramics by origin and labeling them accordingly in a new way assisted in focusing on provenience and seeking a correlation with trade routes as will be shown below.

**Table 1. Pottery Types found in Acre according to production regions**

<b>Production region</b>	<b>Type-abbreviation</b>	<b>Type-name</b>	<b>Selected references</b> (please see the References list)
Central Syria	SY.GL	Soft-Paste Wares	[3, p. 25-33]
Northern Syria	NSY.GL	Port Saint Symeon Ware	[3, p. 52-56; 31]
Cyprus	CY.PL	Cypriot Handmade Jug	[21]
	CY.CW	Cypriot Handmade Cooking-pot	[3, p. 94; 21]
	CY.GL	Paphos-Lemba Wares	[3, p. 57-62; 42]
Greece and Aegean Sea	GR.GL	Fine Byzantine Wares and Aegean Wares	[3, p. 40-47; 40; 41]
Turkey and/or Greece	TUR/GR.PL	Imported Amphorae (Günsenin types 3, 4, Hayes type 61-63, 65)	[3 p. 105; 24; 25; 26]
	TU/GR.GL	Zeuxippus Ware	[3, p. 48-52; 37]
Southern Italy and Sicily	SIT.GL	Proto-maiolica	[3, p. 63-69; 69]
Northern Italy	NIT.GL	Spirale-Cerchio and Roulette Ware	[3, p. 70-71; 49]
Southern France	SFR.PL SFR.CW SFR.GL	Type Uzège and Grey Ware	[34, p. 76,79]
Catalonia	CA.GL	Catalonian Glazed Wares	[3, p. 77-78; 34, p. 86]
Tunis	TU.GL	North African Blue and Brown Ware	[3, p. 76; 14, p. 106-107,144]
China	CH.GL	Southern Song or Longquan Ware	[3, p. 78; 36, p. 145-146]

Quantitative analysis was used in order to gain additional insight into this pottery assemblage. It showed that the largest quantities of vessels were imported from nearby regions including the eastern Mediterranean (44.5%; Cyprus, Greece and Turkey), and, to a lesser degree, the Levantine coast (27.7%; the Lebanese and Syrian coast), and Italy (22.7%). Smaller quantities (3.3%) were imported from the western Mediterranean including southern France, Catalonia and Tunis. Even smaller quantities were imported from sites further from Acre and the Mediterranean (1.8%). These are the soft-paste wares from central Syria and the celadon wares from China, brought overland to the ports and then redistributed by sea.

Comparison of relative quantities of different forms of imported wares showed that the main forms of vessels that were imported to Acre in the Crusader period are glazed table wares, mainly plates and bowls (84.7%); cooking vessels arrived in smaller amounts (11.1%); imported in even smaller numbers were vessels that served as containers – mainly amphorae (4.2%).

Ceramics of types similar to those unearthed in Crusader Acre were found in various comparable contemporary sites throughout the Mediterranean [16; 45]. They include local pottery transported from nearby sites, as well as pottery coming from distant sites – western Mediterranean ceramics were found in eastern Mediterranean sites and *vice versa*. This clearly demonstrates the distribution of ceramics by sea. These comparable sites are mostly main port cities, which were excavated and the ceramic finds of which were extensively published. These ports were active in the international maritime trade of the 12<sup>th</sup> to 13<sup>th</sup> centuries, including the ports of call of the main ruling powers of the time. They include al-Mina [31; 65, p. 118-127] and Kinet [5; 48] both situated on the northern part of the Levantine coast and the Iskanderun Bay in Turkey, and were quite significant ports, engaged in international maritime trade. According to the ceramic finds it appears that Paphos was also a common port of call for ships that came to Cyprus [38; 39; 40; 64]. Corinth, although not a major trade center, was, according to the ceramic finds, a center of international maritime trade [41; 52; 70; 71]. Venice [50; 51] and Genoa [9; 10] two of the major Italian maritime powers yielded imported ceramics of various types, as anticipated. Marseilles which was an important port in the western Mediterranean, and also the port of call of Provençal merchants who traded with the Levant from the end of the 12<sup>th</sup> to the 13<sup>th</sup> centuries can also be added to this list [34; 62]. Finally, Alexandria which was one of the three main ports of Egypt through which much of the international trade and merchandise coming from the Red Sea passed [17].

In an attempt to understand the phenomena of the large scale medieval trade and distribution of pottery as demonstrated by the finds from Acre and other major Mediterranean ports, a number of issues important to the theoretical framework for this study were taken into consideration and will be discussed shortly.

The first are the historic and economic issues. Considered are both those of the Mediterranean regions from which the pottery was exported, focusing on the hubs of maritime trade during the Crusader period, and more general ones regarding trade [56, p. 75-90]. It is well known that the opening of trade routes between Western Europe and the Levant in the 12<sup>th</sup> and 13<sup>th</sup> centuries had great consequences for the Western economy. This period has been described by some scholars as an age of 'commercial revolution.' Latin merchants became more daring in their commercial ventures and developed more sophisticated business techniques, allowing the Italian maritime cities, mainly the Venetians, Genoese and Pisans, to dominate maritime transportation in the Mediterranean. In the eastern Mediterranean, the Levantine trade during this period was very active on two levels: maritime and overland. These two categories were sub-divided into long-distance, mid-distance, and local trade. Long-distance maritime trade between the Levant and Europe had existed before the Crusades, but increased its volume thereafter. Mid-distance maritime trade connected the Levant, Egypt and the Byzantine Empire. Local maritime trade was characterized by ships plying the length of the Levantine coast from Asia Minor to Egypt, buying and selling merchandise in various ports along the way [1, p. 5-6; 30; 56, p. 72-74].

A second issue is the study of medieval pottery elsewhere in the Levant and at various sites around the Mediterranean basin [56, p. 25-33; for examples see also 3; 26; 34; 42; 66]. This has flourished in recent years, in particular since the 1980s, and many studies on this subject have been published. In addition, a number of analytical studies devoted to medieval pottery found at various sites around the Mediterranean have been conducted. These studies indicate that pottery was widely distributed throughout the Mediterranean, and assist in the identification of possible production centers of these pottery types [56, p. 33-40].

The third and fourth issues include Mediterranean shipwrecks dating to the 12<sup>th</sup> and 13<sup>th</sup> centuries that contained pottery cargoes of the same types that were imported to Acre, and contemporary written sources on maritime ceramic trade. Shipwrecks contain artifacts that comprise a contemporaneous group of materials not usually mixed with residual material, and thus reflect the situation of a sailing ship that carried ceramics in its cargo. Studying shipwrecks that contained pottery types similar to those found in Acre, has shown that each ship carried quantities of homogeneous types of pottery, usually amphora or glazed bowls. In addition it was observed that one ship could carry a cargo of ceramics from different manufacturing centers [56, p. 40-47; and for example see also 2; 25; 43, nos. 117, 211, 361, 538, 663, 796, 883, 1062, 1099, 1110, 1111, 1136, 1161, 1191; 63; 72]. With regard to written sources, it should be noted that on the rare occasions when pottery is mentioned, it is usually referred to incidentally in discussions of more expensive or important goods, or is mentioned in lists of merchandise. In fact, these sources on their own would indicate that ceramics were not one of the main commodities traded in this period. Despite – or perhaps because of – the paucity of references to pottery in these sources, they are an invaluable theoretical springboard in this study [56, p. 47-54].

The fifth issue deals with the various opinions regarding maritime trade in ceramics from the Hellenistic and Roman periods in order to compare theoretical ideas on the maritime trade of pottery from preceding periods. In the past, scholars have suggested that Hellenistic and Roman pottery, in addition to its function as a container for export goods such as wine or oil, was exported by sea because of its high value [7]. Currently, however, more scholars prefer to see pottery as a low-value product, exported by sea along with other, more valuable

commodities, and possibly serving as 'space fillers' or 'profitable/salable ballast' [18; 19; 20; 22; 23; 56, p. 55-57; 61, p. 143, note 13, p. 144-148].

Some ethnographic studies of the Early Modern period are the sixth issue worth discussing. They show that all forms of ceramics were redistributed by sea to destinations both far and near. These studies also reveal that ceramics were transported as a consequence of consumer demand as well as an exchange commodity or even as a money-making venture by ship masters or crew [6; 11; 12; 28, p. 370-371; 29; 56, p. 57-60; 66, p. 273-275].

Last but not least, the seventh issue includes various topics in maritime transportation in the Crusader period: the ships themselves, the sailing routes, navigation, and ballast. These are essential topics of study, since pottery arrived to Acre primarily by sea. The ships in use during this period were bigger and better than the ones from the previous period [4, p. 131-135; 46, p. 26-32; 47]. This and the improved Mediterranean sailing routes, the technological leaps in navigation, including the invention of the mariner's compass, and more sophisticated nautical charts, tables, and maps, resulted in reduced shipping costs and led to an increase in the number of ships sailing from Europe to the eastern Mediterranean [4, p. 131, 134; 32, p. 332-337, 341].

The sailing routes in the Mediterranean in the 12<sup>th</sup> and 13<sup>th</sup> centuries originated from, or passed through, the ports of call of the main maritime forces. They also more or less hugged the coast. Although there were ships that could cross the sea at this period, merchant and passenger ships preferred the littoral route in order to trade in the different ports, to restock food and water, and also very important, to break the monotony of the long, slow voyages. The main commercial trunk routes developed along the chain of islands in the northern part of the Mediterranean for this reason, and also to overcome the prevailing winds in the east-west voyage, since ships at this time were generally powered by wind. Sea routes changed slightly from time to time due to the political situation in the different ports of call along the way. Therefore the force dominating the various islands or the main ports, whether Muslim or Christian, Genoese or Venetian, also dominated the sailing routes. For those sailing from the extreme western sites, that is from Catalonia (Barcelona), Languedoc and Provence (Marseilles) to the Levant or to Tunisia, the best route was an ancient one known as '*route des îles*' that went from the Gulf of Lion in southern France down the west coasts of Corsica and Sardinia and from there directly to the Sicilian Channel. An alternative followed the coast of the Maghreb to Cape Bon, however the fact that this area was in Muslim hands, in addition to difficult navigation conditions, made it unpopular. The maritime journey from Liguria (Genoa) and Tuscany (Pisa) down to the Straits of Messina was a relatively easy one, hugging the coast and utilizing the land and sea breezes. Once the ships passed Sicily they could chose either to cross the Ionian Sea directly to the Peloponnesus and Crete, or to follow the coasts of Sicily, Calabria and Apulia and then cross to the Balkan coast and sail to the Peloponnesus. Ship traffic to and from the Veneto (Venice) usually took the eastern coast, unless the ships had business in one of the Italian ports. From the area of Modon in the Peloponnesus, ships also had options: they could pass Crete from the north or from the south, or sail through the Cycladic Islands. After passing Crete, the route turned northeast to Rhodes, from there to the Bay of Attalya. From there they sailed south east to Cyprus. From Cyprus, the ships then crossed to the Levantine coast to Tripoli or Beirut, and then keeping to the coast, south to Acre. Because of the good navigation conditions along the coast, ships returning from Egypt (Alexandria) to the west would ply the coast and then cross back to Cyprus via Tripoli, or further north from Latakiah to Cape Andreas in Cyprus. Another possibility was to continue north until Antioch, and then turn west along the Cilician and Lycian coast to Rhodes [46, p. 91-101; 47, p. 74].

Ballast is a collection of heavy objects that provided ships with greater stability and better maneuverability. The antiquity of this practice is attested to by ancient Mediterranean shipwrecks from the Late Bronze period onwards. Eventually it was realized that if a ship was able to take on goods that were heavy and did not take up much space, such as metal ingots, marble, or millstones, it could achieve two goals at once: a well-ballasted ship and a profit from selling the goods serving as ballast. This type of cargo can be defined as 'salable ballast' [35, p. 357; 44, p. 91-92]. Written sources from the medieval period address this issue. Venetian lists of maritime freight charges and Genoese marine contracts classified cargo into light and heavy goods. The latter were called *merces de savurra*, which literally means ballast [15, p. 56-59]. Another example of salable goods used as ballast comes from Marco Polo's description of trade in the Indian Ocean. He mentions that ships that came to the kingdom of Malabar to buy spices and other luxury goods 'loaded their ships with brass, which they used as ballast...' on the journey [33, p. 290]. An example from the Chinese 18<sup>th</sup> - century maritime trade can be used to illustrate the use of bulky salable goods as ballast. At that time, China exported tea and silk, which are light cargo. To the ships exporting these goods, porcelain, mercury, and various minerals were loaded and these served as 'saleable ballast'. Of the porcelain, mainly plates and cups were exported, because these vessels had shapes that could be easily stacked, and, once packed densely, were quite heavy [13, p. 53; 27, p. 107-108].

Contemporary written sources on maritime ceramic trade show that ceramics were not one of the main commodities traded in this period and that they were distributed mainly as a luxury item. However, since they

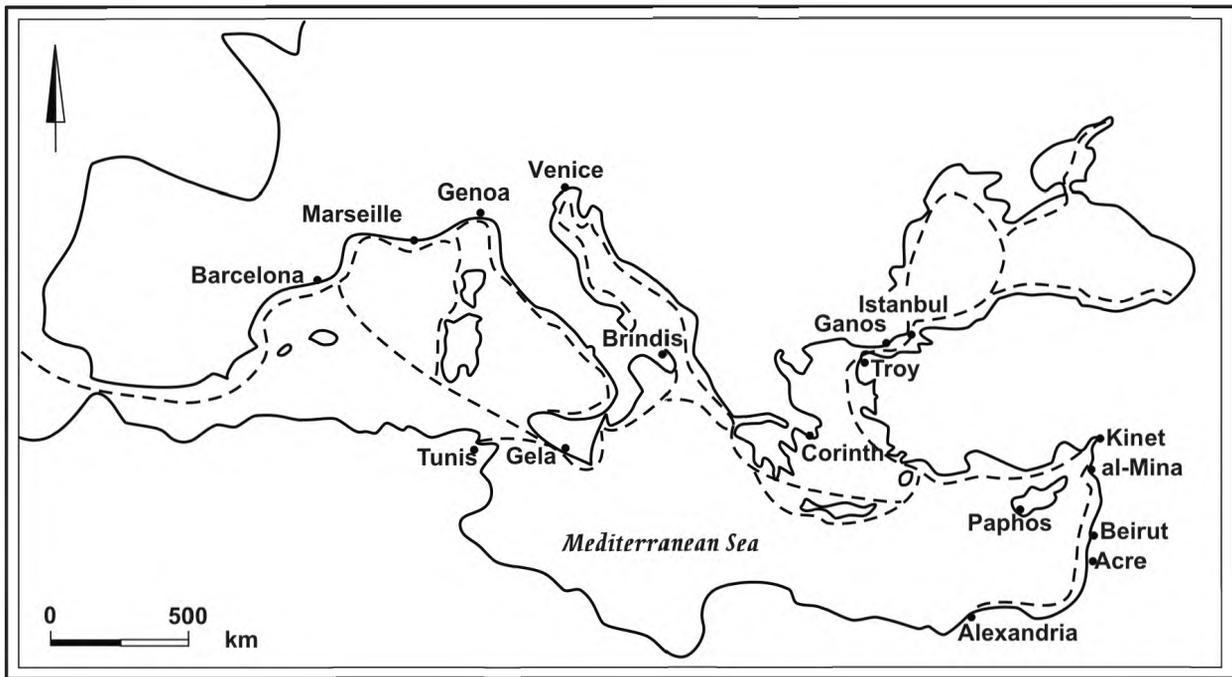


Fig. 1. Map of the Mediterranean with the ceramic production regions and the main sailing routes.

are found in large quantities in excavations in Acre and in other major port cities around the Mediterranean, it was theorized that **other** reasons could account for the presence of the large quantities of glazed bowls from varied regions, and for the similarity of these assemblages.

Categorizing the ceramics found in Acre by origin assisted in focusing on provenience and subsequently seeking a correlation with maritime trade routes. In Fig.1, the production regions and the main sailing routes were joined. From this it is clear that there is indeed a correlation between the main sailing routes in the 13<sup>th</sup> century Mediterranean and the production regions that exported pottery to the Crusader kingdom.

Therefore, it is suggested that the sailing routes are one of the most important factors that influenced the distribution of pottery throughout the Mediterranean. This is predominantly because most of the pottery imported to Acre consisted of glazed table wares, mainly plates and bowls that were traded in large quantities and must have served for the most part as salable ballast or space fillers. Its sale could have also provided extra income along the route for the merchants, ship master or sailors. The origin of the ceramics and the areas to where they were redistributed was found to reflect the Mediterranean maritime trade routes of the 12<sup>th</sup> to 13<sup>th</sup> centuries and major ports.

With the establishment of the Latin states in the eastern Mediterranean, a new maritime trade pattern developed between the Frankish ports in the eastern and western Mediterranean, and greater numbers of ships sailed between these ports, and along the coasts of these regions. It has been demonstrated with a high degree of certainty that pottery that arrived at Acre and other Mediterranean sites was not brought because of its intrinsic value and had no correlation, for instance, with the origin of the Frankish settlers in the Crusader Kingdom of Jerusalem. Rather it was transported and distributed by ships involved in short- and long-distance trade to and among the main port cities along with other items as a consequence of that trade.

The geographical origins of the ceramic wares are silent testimony to the wide range and the character of the maritime commercial activity in the Crusader period, and the great quantities of imported ceramics reflect the numerous ships that sailed the Mediterranean in the 12<sup>th</sup>, and mainly the 13<sup>th</sup> centuries.

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#### ПОСУДА АКРЫ ПЕРИОДА КРЕСТОВЫХ ПОХОДОВ КАК ФАКТ ВЗАИМОСВЯЗИ МЕЖДУ РАСПРОСТРАНЕНИЕМ КЕРАМИКИ И СРЕДИЗЕМНОМОРСКИМИ ТОРГОВЫМИ ПУТЯМИ

Средиземноморский город Акра – один из главных портов Иерусалимского королевства периода крестовых походов превратившийся в процветающий центр морской торговли, играл важную роль в торговле между Европой и государствами крестоносцев на Востоке, между Византийской империей и мусульманскими государствами.

Керамический материал периода крестовых походов был открыт во время крупномасштабных раскопок, проводимых Израильским управлением древностей в Акре с начала девяностых годов XX века. Большая часть керамики, импортированной в Акру, представлена различными типами, в основном, поливными тарелками и кубками XII–XIII веков. Анализ происхождения находок из Акры показывает, что керамика импортировалась со всего Средиземноморья, в частности, из Ливана, Сирии, Малой Азии, Кипра, Греции, Северной и Южной Италии, Сицилии, Южной Франции, Каталонии (Испания), Северной Африки и Китая.

Классификация по происхождению керамики, найденной в Акре, поможет в поиске и обнаружении исходных пунктов их распространения и их корреляции с морскими торговыми маршрутами. Поскольку подобные типы посуды были найдены в Акре, в основных средиземноморских портах, а также на средиземноморских и черноморских кораблекрушениях, содержащих груз однородной посуды, можно сделать предположение, что эта посуда служила, главным образом, как «пользующийся спросом или хорошо продаваемый товар, применяемый для заполнения пустот на судне» или же «пользующийся спросом балласт», сбыт которого, возможно, обеспечивал дополнительный доход для владельца судна или моряков в пути по маршруту.

Керамика перевозилась и периодически распространялась судами, занимающимися как ближней, так и дальней торговлей между основными портовыми городами и как второстепенный товар, и как результат торговли более ценным товаром.

Происхождение керамики и регионы, куда она была перераспределена, находят свое отражение в средиземноморских морских маршрутах и большинстве портов XII–XIII веков.

**Ключевые слова:** Иерусалимское королевство крестоносцев, Средиземноморский регион, морская торговля, керамика, «пользующийся спросом балласт».