Maritime commerce in the Mediterranean in the 10th–13th centuries, a meeting place between cultures

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Abstract

The 12th century brought an intensification of maritime commerce between Italy, Spain and the Muslim world. Participation of Jewish traders captured the attention of many scholars, some claiming that these merchants served as a kind of middlemen between the Muslims and the Christians, an argument with no profound basis. Merchants in Italy, Egypt, Tunisia and other Muslim countries traded regularly without the need for a go-between. The importance of Jewish traders as a source to understand and follow the “International Maritime Trade” lay in the phenomena that Jews have laid aside papers bearing Hebrew characters. Many synagogues contained a chamber for disposal of such papers, called Beth Genize (shortened to Genize), literally meaning the House of Concealment, a very large example of which was found in the synagogue of Fustat, south of Cairo. Hebrew scripts had been found there, throwing light on the life of Jews, Arabs and Christians in many aspects of their day-to-day living. These documents were discovered in the later years of the 19th century and were brought to European and American university libraries. These writings served as an inexhaustible source of study material of Jewish–Arab symbiosis, and in our case as a means to understand the maritime trade in the Mediterranean. According to Prof. S.D. Goitein, an important Genize researcher, Jews, Arabs and Christians sent joint cargos and were partners in business ventures. The contracts among the traders illustrate outstanding cooperation in many ways such as sharing cargo spaces in vessels, loans, credit letters and arbitration. Arbitrations took place before Rabbinical Courts, in Muslim courts before a kadi according to Muslim Shari’a, or before European Christian courts, with all courts recognizing verdicts of the others. Some contracts were written in Arabic with paragraphs in Hebrew side by side. Marine trade around the 12th century was carried out with harmony and co-operation despite the religious and cultural differences of the people involved.

Keywords: Geniza papers of Cairo, maritime commerce 10th–13th centuries, Mediterranean, S.D. Goitein.
1 Introduction

The 12th century brought along an increase of marine trade between Italian cities and the Muslim world, due to several reasons, of which the main ones were as follows:

A combination of cash money and letters of credit, which had turned into common means of payment, improved skills of European seamen, vast use of Portolan maps – which made navigation more accurate, and the introduction of the hourglass - the “time keeper” of those days – as a common navigational instrument.

The Muslims, on their part, were in desperate need of two major goods: Timber and Iron. South European merchants were keen to trade with Muslim countries, despite prohibitions following the crusades. Muslim merchants also found great interest in the trade of spices.

That mutual interest made both parties continue the trade, even in times of war.

Jewish participation in international trade has engaged many researchers, some of whom even claimed Jews to play the role of middle-men between the Muslim and Christian world, due to the gap between them, which prevented any contact without third party mediation [1]. Still, it seems this concept lacks any true basis. Both Italian and Egyptian merchants, together with wealthy merchants of the Persian Gulf had been maintaining a close commercial system during the 11th and 12th centuries.

 Scripts found in the Jewish archives, in Cairo, (the Geniza), shed some light on the situation of trade in the Mediterranean, and the Jewish merchants’ part in it.

Merchants used to stay away from home for long months, sometimes up to a year for those who traded with India. Their letters and contracts they signed illustrate their personal affaires, thus making a good origin from which we may study the social and cultural circumstances in the above mentioned centuries.

2 Infrastructure

The following story was brought on behalf of the well-known Arab historian Muqaddasi:

“One day I was walking along the bank of the river (Nile), wondering at the large number of vessels anchoring or sailing. A man approached me and said, ‘What is your origin?’ I told him I came from the Holy City and he said, ‘It is indeed a large city, but let me tell you, my friend, that the vessels along this shore, and those which left for other cities are so many in number that they could carry all the citizens and stones of your city’” [2]. There were numerous marine centers in Egypt, and already in the 8th and 9th centuries, centers - such as Rosetta, Damiet and Alexandria - were known.

Alexandria has always been the largest port, from which vessels sailed up the Nile. It also connected the sea with the river. It had been a commercial center
during the Byzantine period, and continued to be such in the early Muslim period.

Fahmy describes several origins he calls “Greco/Roman Papyri, of the year 710, indicating an event in which an urgent demand was made by the Muslim ruler of Alexandria (name unknown) for experienced sailors and ship-builders: “In the name of Allah … upon receipt of this letter, send me as soon as possible the required from those under your authority, before the water in Alexandria canal becomes shallow, or otherwise bear the responsibility to pay for the transportation of goods” (by land). This letter was sent from Qurra in Egypt to Alexandria, where the Kopt Archbishop was required to supply experienced seamen [3]. In another document, coming from the same origin (Papyrus 1449, as per Fahmy) commodities were required for the navy, such as flour, salt and oil.

The need to maintain a navy is described by Tabari, in his description of the Byzantine raid on Caliph Mutwakkil’s fortress in 853, on the northern Egyptian shores.

The Tuluns and the Ikhshidids too maintained naval forces and used them. Ibn Tulun, who detached from the Central government of Iraq in 868 [4], during his struggle against the Abbasids, was forced to build his own navy – counting up to a hundred vessels.

The historian Madyani describes a document, in which the manager of Ibn Tulun’s shipyards orders a ship: “Therefore you should be very active in one thing only – shipbuilding. By showing diligence and extreme capacity you will, with Allah’s help, be safe from perils”.

Ibn Tulun’s preparations stopped after the retreat of Musa b. Bua, Ibn al Mufak’s commander, and the removal of the threat.

Muqaddasi describes Acre and its fortifications during the era of Ibn Tulun, as well as the actions of his grandfather, who was an architect and built the harbor: “Acre was a fortified city on the sea. It was fortified by Ibn Tulun following his visit there (probably in 878) … he wished to fortify it as in Tzor”, (he follows with a description of the engineers’ work).

“No one knew how to lay the foundations under water. Someone mentioned my grandfather (says Muqaddasi) Abu Bakr the architect, who was the only one capable of doing it (immersing a pier in the water). Ibn Tulun ordered his representative in Jerusalem to bring my grandfather over”. Here, Muqaddasi continues to describe the methods of construction and laying the stones in the water [5].

Muqaddasi further describes the manner in which the Muslims defended the shores of the Land of Israel: “ When a Greek ship approaches, the Muslims sound the horn. At night a blazing torch is lit on top of the tower, and at daytime, smoke is blown on the beach. The signal is then transmitted from one tower to another, drums are beaten and horns sounded, and all the citizens rush out …” Among the cities in which this method of defense was used, Muqaddasi points out Gaza, Ashkelon and Jaffa [6].

From all the above mentioned, we can realize the importance of ports and vessels in the struggle of Muslims among themselves and against the Byzantines.
3 Transportation by sea

The turn of the 11th century was a turning point in the social, economic and political history of the Mediterranean peoples. The extensive Islamic westward movement stopped and the Fatimid occupation of Egypt in the year 969 brought along western population.

The commercial revolution started in the Muslim world together with the prosperity of the Italian trade cities, which began to acquire their place as mediators between Europe and the Muslim East.

A free traffic of merchants among Mediterranean ports, increased Christian pilgrimage and significant development in the use of maritime transportation, enhanced the process and laid the foundations for the late 11th century crusades. The Mediterranean basin was divided, at the time, into four main centers: Egypt, North Africa (with Tunisia being a commercial, economic and cultural center), Sicily as a mediator between medieval Europe and the Muslim world, and Spain – which will not be discussed in this study.

The Fatimids treated their Dhimmis subjects with tolerance; Jews enjoyed free religious rituals and economic prosperity (except for a short period during the reign of the Fatimid Chaliph Al Hakim, who persecuted both Jews and Christians) [7].

In the 10th century, Tunisia became an economic center, and the Muslim naval dominance along its shores enabled free commerce with Sicily, Egypt and the Maghrib countries.

The Macedonian dynasty, which ruled the Byzantine Empire (867-1081), brought economic prosperity and progress in the 11th century. Its military power reached a peak under the rule of three capable rulers – Nicephorus (963-969), John Tzimisces (969-976) and Basil the II (976-1025). With these renewed forces, Byzantium began to establish its place in the Mediterranean.

The struggle for the dominance in the Mediterranean continued for about 400 years (650-1050), reaching its peak in the 11th century.

Another process taking place in the maritime scene during that century was the increasing power of the Italian trade cities. These cities traded with Egypt, the shores of the Levant, Cyprus, Sicily, Tunisia and other Maghrib trade cities. From that time onward, the Europeans have never lost their superior naval hegemony in the Mediterranean, having better, more sophisticated vessels. Furthermore, They did not settle for naval control in the Mediterranean only, and following the crusades they penetrated the Red Sea and the Indian Ocean. Muslim trade ships continued to trade with Tunisia, Libya and the Levant, despite the increasing European competition.

In the year 1100, Europe’s dominance of the west and mid Mediterranean was, in fact, complete [8].

3.1 Maritime transportation

During the medieval period marine transportation was more important than land transportation. In most cases, traveling by sea was faster and safer, and economically it was cheaper.
Merchants and passengers preferred to wait for the weather to improve, in order to sail, rather than travel by land.

Short voyages in Palestine and Egypt were done by sea, and we have evidence of voyages from Acre to Ramla, via Jaffa, or from Tzor to Tripoli in Lebanon - relatively short distances, of less than 100 nautical miles. In the Cairo Geniza we can find documentation of general preference of travel by sea to that by land.

The mild weather of the Mediterranean also contributed to increased travel by sea. The long summer and relatively few conditions of rough sea allow travelling by sea during most months of the year. In winter, when sea travel ceased temporarily, the importance of land caravans increased. Such caravans took place in summer too, in the time gap between sea voyages, and will be discussed later. The duration of land caravans was longer than sea voyage. A voyage from Libya to Alexandria, through the Western Desert Oasis, could take up to six months, whereas by sea it lasted a mere month. The Cairo Geniza produces an abundance of information about marine transportation and commerce. Sixteen types of ships are mentioned, 110 names of vessels, 36 types of packing types to transport goods, and 150 types of merchandise, transported by sea. Also, information about ship owners, reports of their whereabouts, loss, piracy and ransom paid.

We have a letter sent in the year 1015 from Tunisia by Ben Brachya to the famous merchant Joseph b. Awkal, in Egypt (TS 13 J 36, f.1), illustrating the fact that passengers preferred to sail, rather than fare by land: “… we have already sent to you a letter, by our brother Avi Amran b. Almaghani, God save him, that the answers to our questions were lost while being sent through Almeria, and he will have them copied and resent soon, and I hope it will be with God’s grace and blessing “[10].

Goitein observes that the M in Almeria is written in an unusual manner, as if corrected, and it is rather strange that a letter from Alexandria to Tunisia was transferred via the Spanish port of Almeria. But there were situations in which, due to pirates and in-land hazards the only passage possible was by large vessels. Thus we can accept that for his own safety the passenger had indeed traveled by roundabout ways to reach his destination.

It is also told about an extreme case of an Italian Jewish merchant, who on the year 1140 wanted to go from Tripoli in Libya to Gabes. His friends advised him to sail on a large ship going to Seville in Spain, and from there to Al Mahdiyya – Tunisia’s largest port – in order to reach his destination. Goitein appreciates that in the Geniza, sea and land voyage are mentioned in a 50:1 ratio, which calls for some explanation:

a. Many of the Geniza documents originate from the mid 11th century, when travelling by land was difficult because of North Africa Bedouins (Banu Hilal and Sulaym) raiding the caravans.

b. Most of the Geniza documents were written by Jews who refrained from travelling on a Sabbath. A voyage of more than 6 days was a problem for the Jewish traveler, who had to stay behind or anticipate the caravan, which cost a lot of money.
Hence, we can see that Jewish merchants preferred to travel by sea, rather than by land.

3.2 Dates and duration of sailing voyages in the Mediterranean

Between the months of November and March maritime transportation in the Mediterranean stopped altogether. Even short voyages, such as along the shores of Palestine stopped during that period. In Egypt it was the time when ships were hauled to land for repairs.

The Geniza indicates the month of Nissan (ca. April) as the month, in which sea travel was renewed. Vessels leaving the West Mediterranean to Egypt left on September. Thus, the Geniza contains many scripts mentioning the Hebrew month of Elul (late summer).

A similar sailing regime existed between the ports of Italy and North Africa. Most voyages took place between March and October, whereas in the winter months the merchants stayed in the Levant or in Africa, selling their merchandise or buying new products [11].

During their months of absence, Italian merchants used to let their land – a phenomenon unique for them, and not observed among Jewish or Muslim merchants.

For shorter voyages, merchants used to leave their home in the spring or summer and return in the autumn. We have in our possession one notary contract, of 1191, according to which merchants sailed east from Italy in the summer, and returned in the fall.

Merchants, who sailed for the long autumn voyage and could not return to Italy in winter, remained in Africa or in the Levant, which had social and cultural effects – to be discussed further. These merchants returned to Genoa and other cities in the following spring.

Between the years 1155 and 1164 seven short summer voyages were done from Italy – in 1156, 1157, 1158, 1160, 1161, 1163, and 1164 – to destinations in the Western Mediterranean, Algeria, Morocco and Eastern Tunisia, as well as to Gabes and Tripoli in Libya.

The merchants of Genoa left for their trips between the last week of April, and to the first week of May, and the voyages lasted for about 3-4 weeks. Between the years 1197-1200 (1184, 1191, 1192, 1200) summer voyages left from Genoa several weeks later than the previous period, returning to Italy on September, or in few cases on October.

Winter voyages, which were longer and lasted ca. 7 months, including staying in the Levant or Africa, took place between October and June. Since they started their trip in winter, one can conclude that the ships then were sturdy enough, and the sailors well experienced to sail the sea in October, or even December. Later, according to contracts signed in Genoa, ships started their trips even closer to winter. At the end of the 12th century the quality of European vessels allowed sailing in winter, so that Italian merchants sailed to the Levant and continued straight to African shores, without returning to their ports of origin.

Some of the contracts include limitations originating from political reasons, wars or other commercial restrictions. For example, one merchant was allowed
to sail in 1160 to all Levant ports, excluding Constantinople, Alexandria and Syria.

Sailing routes between Genoa and Tunisia passed east of Corsica and Sardinia, and the voyage lasted about a fortnight. From Tunisia they continued toward Gabes and Tripoli.

Contrary to what we know about marine transportation in Medieval Europe, which used to “hop” from one port to another, the scripts in the Geniza indicate rather lengthy voyages. The reason for that was mainly the wish to avoid paying repeated taxes by skipping unnecessary ports and entering only the larger ones.

How long was a trip? What was the average speed of the vessels? We have abundant data regarding the duration of voyages and times on which merchants left and arrived in their destinations. Calculations we did show that the average speed of vessels in that time was rather low – between 1 – 2.5 knots, which could reach 6 – 9 knots with the aid of winds.

To verify the issue of speed, a different origin, not relying on the Geniza, was examined. It is Bruce E. Elsinger’s essay about a traveler from Iceland, who sailed the Mediterranean in the 12th century and visited the Holy Land.

Here, too, we came to the same conclusions. This man, traveling on a Venetian boat, did so at a speed similar to that described in the Geniza scripts.

Another examination was done by Hourani’s book “Arab Seafaring”, dealing with sailing in the Indian Ocean. There, too, we found that speeds calculated were similar to those in the Mediterranean [12]. A distance of 1450 nautical miles, from the Arab peninsula to India was passed in 29 days, at an average speed of 2.5 knots. Here, too, we did not find any speed exceeding 6 knots, and if so – only for about one day.

4 The Geniza archives

Researchers of Medieval maritime trade are often faced with the scarcity of data of non-European origin. Thus, the Cairo Geniza is a most valuable origin of information about trade in general and maritime trade in particular.

Dealing with the Geniza scripts, one should take into consideration the fact that it is an archive of a Jewish community, thus the material in it – despite its being abundant – is unique for this Egyptian community and its affairs. Any broader implication or intended generalization should be done carefully.

The Geniza includes many real items about marine trade in the 11th and 12th centuries. The earliest, most interesting group, is from the private archive of Joseph b. Awkal – a wealthy merchant of considerable achievement, who resided in Fustat – Egypt’s trade capital.

Ben Awkal conducted his commercial ties from Fustat with merchants in Sicily, Tunisia, Morocco and Spain. The extensive correspondence indicates that he himself had never left Egypt, and all his commercial activity was done from two centers – Alexandria and Quayrawan in Tunisia. He traded in a variety of merchandise, and the scope of business indicates that he was probably very wealthy.
Another well-off merchant, according to correspondence, was Nahoray Ben Nissim of Quayrawan, who was extensively active in Egypt between the years 1045-1096.

Such Jewish commercial activities have origins in the 9th and 10th centuries. Lopez and Raymond [13] described vast commercial activity of Jewish merchants, “…these merchants (Jewish) speak Arabic, Persian, Latin, French, Spanish, as well as Slavic. They travel from east to west and back by land and sea…(description of a variety of goods). Sometimes they leave from France in the Western Sea and sail to Antiochia. From there they go to Al-Gabiya” (Possibly Al-Hanya on river Euphrates).

The documents in the Geniza mention 16 types of vessels, and 110 specific names of ships. They also mention 36 types of packaging of goods and 150 types of goods. The documents deal also with loss of ships due to piracy and ransom payments.

Other documents found in the Geniza are from the Fatimid archives, usually applications to rulers, which found their way to the Geniza by the Jewish officials dealing with them. From these documents we can learn about Fatimid diplomatic and commercial contacts with Europe.

S.M. Stern found one example for such correspondence, regarding Italian merchants transporting a load of logs to Egypt [14]. This documents sheds light on commercial ties with Italy. It mentions five merchants, some of whom can be identified by their names and towns of origin – Amalfi and Genoa. The document itself is a report to the Caliph Al Amir (1101-1030) with regard to the arrival of Italian merchants with a load of timber.

The first Italian merchants to set up commerce with Egypt were from Amalfi, and they were followed by merchants from Genoa and Pisa.

As of the 12th century, we can find documents from Italian trade cities, mentioning Alexandria as the port of destination. Between 1154 –1164 it was the destination of 66 commercial voyages from Italy.

The main cargo imported to Egypt was timber and metals it lacked. Later, in the years 1179, 1215 and 1245, we can find limitations imposed on Italian trade cities in trading with Egypt, when materials considered “war materials” were banned.

4.1 Conditions of the marine trade

In the year 1870, a scientist by the name of Moise Schwab, found in the Bibliotheque Nationale some Hebrew scripts describing a voyage from Venice to Cyprus in 1563. He translated the document and published it in the Revue de Geographique, dirigee par M. Ludvid Gropeyron, V, Juillet 1879. It is a letter, written by an Italian Jew, from Famagusta in Cyprus to his brother in Italy, who intended to follow him, advising him with regard to the voyage.

The merchant, Slia Pesaro, sailed from Venice to Famagusta. His letter includes descriptions of the structure of the ship, crewmembers on it and the voyage routine. His descriptions very much resemble other descriptions, known from the Geniza, despite 400 years between the first and the latter.
The ship, according to the description, was larger than medieval ships, and carried large quantities of cargo, including livestock to feed the crew and passengers. The description tells about the facilities and handling of cargo, which were better organized than those described in the medieval scripts of the Geniza. Similarly to the Middle Ages, water was distributed by the crew, whereas food was brought along by the passengers, especially Jewish, who required kosher food.

Elias recommends his brother to take provisions, such as food, cooking oil, candles, cooking utensils, bread, biscuits, wine, vinegar, smoked meat, eggs, dried vegetables, onion and garlic. The main issue dealt with in the letter is customs arrangements, registration of the goods and taxes.

The Egyptian authorities used to collect taxes, including the Gisia, (poll tax), from passengers on the Nile. This rather easy supervision allowed them full control of the passengers and goods.

The Gisia tax annoyed the Jewish merchants very much, as can be seen in Israel ben Natan’s letter from his temporary stay in Tzor, to the well known Jewish merchant Nahoray b. Nissim in Fustat, “…and regards to my lord and anyone else asking about me. My lord Abu Said sends his regards to you and asks you to buy him a sack of wheat and keep it with you. He also asks, and even swears you in that when he arrives in Fustat his balance shall be cleared …” (written in 1061).

In most cases the goods were accompanied by the merchants themselves, or by their trustees. The merchants used to board the ship on the night prior to setting sail, called “the night before”, and spend the night in prayer, and in writing private and business letters. In some cases, merchants and passengers had to wait on board for the fair weather and good winds in order to sail.

Vessels were small and lacked any facilities. The merchants had to live and sleep on their goods. Passengers had to take care for their own bedding, dishes and food.

4.2 “Sea Loan”

The advantage of the “sea Loan” (sea credit) was that the receiver of the loan undertook to repay the sum only if the voyage was completed successfully.

It seems the rules regarding this loan – a basic principle in marine trade – were similar in Europe, Egypt and other Mediterranean countries.

In his book, Prof. Shraga Abramson brings evidence in the form of a letter, written by Abu Bashar ben Jacob ben Awkal, a well-known Egyptian merchant (the manuscript is to be found in the Adler collection at the Rabbinical College). It records a loan given by the merchant Ben Awkal to a person travelling overseas, from Fustat to Qayrawan, who had to repay the loan after having sold the goods in the city he went to.

In another contract in the Geniza, it says specifically that payment should be made one month after the receiver of the loan has reached his destination.

In other trade cities in Italy, at the time, we found similar rules regarding loans. Sea Loan, called in Latin ‘Vendition’, was accompanied by a premium to
be paid if the merchant faced any risks on his voyage on sea. The church permitted the premium, not by interest but rather by taking risks.

Modern researchers compare the premium of the Sea Loan to some sort of insurance, in today’s terms.

Goitein indicates that in a contract drawn in the year 1158 between an Egyptian Jew and another Jew from a small town in Sicily, European influence could be found. These contracts very much reflect a uniformity of rules and customs existing in marine trade in the Mediterranean, between Egypt and Europe.

4.3 Legal and financial aspects

In a number of contracts made between merchants, and written in Arabic, paragraphs in Hebrew can be found, the reason for that being that the merchants (whether both, or one party being Jewish) meant that any arbitration – if needed – would be done according to the Jewish law. This, despite the fact that Muslim law dealt with these issues as well.

There is no certainty about it, and it is difficult to determine which law did in fact prevail – Muslim or Jewish – in matters of contracts, and as seen previously in the “merchants’ law”, in most cases arbitration was determined according to custom. Both the Muslim, as well as the Jewish law, left much freedom of action in economic issues.

From the manuscripts in the Geniza we can learn that ten conditions had to be included and fulfilled, in order that a contract be of value:

a. The number of partners.
b. The purpose of the contract.
c. The limits of the contract, its terms and each party’s contribution.
d. Each party’s share in loss and profit.
e. Living and faring expenses.
f. Conflict of interests and other partnerships.
g. Is a partner eligible for testimony, or should he be sworn in.
h. Duration of the contract’s validity.
i. Time limits for clearance of balance.
j. Special terms.

A substantial part of the Geniza scripts contains letters of legal nature, with regard to trading with India. From these letters we can learn about legal relations between the Jewish merchants.

A merchant returning from his trip used to report in detail to the local Rabbinical Court of Law. This report included financial account and a report about his voyage. It was signed before two witnesses. The report was sent to Cairo, to the central “Clearing” Court. Any differences of opinion between the merchants or their customers were discussed before Rabbinical Courts, in which the judges were all well acquainted with commercial issues. Again, with no written law, custom dictated the decisions.
4.4 The great merchants

A substantial part of commerce in the 10th – 13th centuries was in the hands of several big merchants. The most famous of all was the Jewish merchant Joseph ben Awkal, who was active in Egypt. From the headquarters of his business in Fustat he managed his business, which stretched up to Sicily, Tunisia and Spain. The main goods he exported, as other Egyptian merchants, were Egyptian flax, of which 22 types were traded in Europe.

Their capability to deal with different types of trade was one of the basic elements of these merchants’ success. Both large and small merchants dealt with a variety of goods [15]. As far as we know, Ben Awkal’s business dealt with ca. 80 types of goods.

The process of buying the flax, processing, and sending it to Fustat and from there to Europe by ship, was very complex and required many hands. On one year, a shipment of 54 tons of flax was shipped to Tunisia alone. Its value was about 44860 Dinars = about 486,000 dollars, and it was only part of the goods dealt with by this warehouse.

Another important item of commerce were spices, black pepper being the main one, for which Egypt was a transit point between the East and Europe. One shipment of Pepper could have been of about 130,000 dollars’ worth. Other spices traded with were cinnamon and sugar.

Ibn Awkal employed Muslim agents in his business, besides working intensively with other Muslim colleagues.

Most ship-owners were undoubtedly Muslim, with only a small number of Jewish ship-owners in the Mediterranean. One famous Muslim merchant, whose name appears in the Geniza several times, was Ramishat, during the first half of the 12th century (he died in 1140). He traded in the Indian Ocean and had extensive ties with Jewish merchants.

References

Correspondence of the House of Ibn Awkal, University of Pensilvania, p. 3, 1970.


