CHINESE-EAST AFRICAN TRADE BEFORE THE 16TH CENTURY

by

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The existence of direct trade between China and Africa before the 19th century has been neither categorically asserted nor dismissed by scholars. Rather, they cling to the most easily available information and state that trading in the T'ang (618-905) and Sung (993-1278) dynasties existed only with the Arabs. The usually thorough Chinese court records are vague on this subject. No accurate 10th or 11th century Chinese maps have yet been discovered portraying East Africa, or the Arabian peninsula. There exist few written accounts of Africa; the earliest is in the *T'ang Shu* (ch. 221, p. 19).[a] Other small pieces of information were catalogued by both Chinese and Arab writers. There are records of animals unique to Africa being presented as gifts to the emperor. Commodities such as ivory, gold, rhinoceros horn, and ambergris filled the Chinese royal store houses in the 12th century. There are a few unexplained accounts of foreign animals during the Han dynasty (206 BC - 23 AD). On the East African coast, the supportive evidence of direct trade is scarcer. Of the peoples in the west, only the Arabs kept written records.[1] Those few western scholars who have tried to deal with this subject have, in the main, concentrated on only one source and added a great deal of interpretation. It will be sufficient if it can be demonstrated that there *could have been* direct contact with Africa. For now, one can safely assert that the intercourse was very limited. The object of this inquiry is merely to reopen deaf ears to a debate which has not been resolved by available evidence, but rather by the reiteration of contention.

The Earliest Accounts

> *On autumnal beach the tapestried ostrich, rare in heaven as earth*
> *The mountain bird is shy before the limpid water, he dares not look at his feathery coat.*[2]

There existed in Peking a Han Dynasty tomb brick tile, the surface of which is embossed with an unmistakable image of an ostrich drawing a chariot.[3] O. H. Bedford in "The Ostrich in China", quotes from the *Kuang chih*[a] that the ostrich[b] was called *ta chueh*[c] and stood eight or nine *ch'ih'* (8+) feet tall. Its diet was grain.[d] The *Han shu* says that the ostrich existed in the kingdom of *Fan-tou*[e] and was

presented to the court by the king of *An'hsi* (Parthia). The king of Parthia is supposed to have sent ostrich eggs to Emperor Wu Ti[f] of China (140-87 B.C.). The ostrich is recorded to have made its first appearance in the Han court in the 2nd century A.D. Bedford therefore, assigns 220 A.D. to the tomb brick tile with the ostrich motif (see Illustration I, p. 130).

It would not be entirely incorrect to argue that the ostrich is a native of China. There have been discoveries of fossil ostrich bones in China; however, by the Pleistoscene, the ostrich had become extinct in China. It was extant in Persia, Iran, parts of Saudi Arabia, and Africa. Those species of non-African ostrich rarely are taller than five feet, usually smaller. Only the African ostrich *(struthiones)* is seven feet tall. Two species of East African ostrich, *somali camelus molybdones* and *struthio camelus massaicus* both fit the description of the Han tomb tile. They range from the Kilimanjaro area, north to Somali. They eat grain and small animals.[4] The explanation that ostriches and their eggs were tribute from the king of Parthia to China, is not altogether satisfactory. One would have to trans-ship the birds from Africa into China either through the desert Kang-su corridor or over the mountainous border of northern India. In either journey the birds would have been carried a minimum of 8,000 miles which would take at least a year, if the birds could withstand such an arduous trip. It is equally improbable that fertile eggs could be hatched in China due to climate and temperature differences encountered in the trip. The appearance of the living African specimens in China invites speculation about a sea journey whose route can be confined by the spread of crop pests and pathogen and vectors.

Nautics from the 1st to 13th Century

There had been a steady development of Chinese nautical technology since the Han Dynasty. The size and boldness of water journeys increased. The Chinese exclusively were using steering oars and sweeps to control the boat right up to Sung time. According to Joseph Needham, Noettes* claims that because of the weakness of the steering oar, a cardinal limiting factor to nautical development existed before the 13th century. The capacity of the ships was limited to about 50 tons. Lack of maneuverability and slowness marked these boats. Further, Noettes says they handled very poorly in rough seas and thus were restricted to coastering. There is another school of thought which claims that the stern post rudder has no advantages over the steering-oar.[5] On the very point of a ship's ability to traverse the Indian Ocean to East Africa, there is so much dissension among scholars that one cannot rule out its existence. E.H.L. Schwarz contends that expeditions to the shores of Africa were organized into capital and tender ships. The longer

* A French nautical historian of great repute.

ships contained 1,000 men and the smaller, 600 men. He bases his argument on Iban Batuta. His argument is not documented, but nonetheless is worth repeating:

> *The fleet would contain 250 big ships and 750 smaller ones, with a total complement of a quarter of a million souls. Allowing one pound of rice per head per day, this meant a daily consumption of 125 tons or 90,000 tons in two years; distributed over 750 smaller ships. The last figure gives them a carrying capacity of 120 tons on the average which seems on the right order of magnitude. We have to reckon that many ships were lost on the way, but this would be offset by purchases in India. We are driven to find somewhere where the Chinese could raise 90,000 tons of rice in Africa for the return journey.*[6]

He goes on to state that in Rhodesia there exists such an area. the theory is commendable, but if this be the case, the connection has yet to be established.

Oceanic voyages do not presuppose the voyagers had at their disposal all the sophisticated tools of navigation. Often mariners followed the coast, or negotiated open areas by taking a fix on the stars. The invention of the compass made possible the transnavigation across vast stretches of open water. Direction could be maintained throughout all inclemencies. The Chinese made use of the compass from very early times. Taoist geomancers discovered that the qualities of lodestone could be transferred by rubbing the stone onto a needle of iron. The discovery that when suspended, the needle would point south occurred sometime between the 1st and the 6th century.[7] The first description of a floating compass suitable for marine use dates from 1044. Thin metal cut into the shape of a fish was floated upon the water. Needham suspects that the floating compass was first used on a ship sometime in the 9th century. It could have been used earlier, but there is no supportive evidence. There does exist a possibility of marine trade as early as the Eastern Han, but the chances are extremely slim. The mariner's compass most likely accompanied the trans-Indian Ocean voyages -- whose extent will be discussed later at length.

The method of propulsion is crucial to any trans-oceanic voyage. Without an efficient method of moving a boat over a great distance there can be no trade; thus the development of the sail is crucial. According to Needham, there is no date on the development of the lug sail in China. Inferentially we know that it was quite early. By Han times we know that the sail itself was made of bamboo mat,

and by the Later Han (A.D. 25-220), cloth was also used as sail material. By the third century in Canton or Annan, ships with four obliquely set masts were employed. The advantage of raking was that no one sail would completely becalm the other. By 1124, Chinese sail technology was quite advanced:

> *When the ship makes land and enters a harbour she usually does so on the flood tide. And then all the sailors row, singing to keep the time. Those using poles also jump and shout and exert themselves to the utmost, but the ship cannot move nearly so fast as when sailing with a good wind. The main mast is 100 feet high, and the foremast is 80 feet high. When the wind blows most favorably they hoist the cloth sails (for running fast) made of fifty strips. But when the wind blows from the sides, they use the advantageous mat sails, set to the left or right according to the direction of the wind. At the top of the main mast they add a small sail, made of ten strips of cloth. This is called the wild fox sail and is used in light airs, when there is almost no wind. Of all eight quarters whence the wind might blow, there is only one, the dead ahead quarter, which cannot be used to make the ship sail. The sailors attach some birds' feathers to the top of an upright pole as a weather cock; this is called the five ounces. To get a favorable wind is not easy, so that the great cloth sails are as useful as the mat sails, which, when skillfully employed, will carry men wheresoever they may wish to go.*[8]

No discussion of nautics would be complete without taking into consideration the winds and currents of the Indian Ocean. It would be highly unlikely that there could have existed any early sail commerce had either the currents or the winds been unfavorable. During the winter months there blows a hard monsoon wind out of the north of China. This wind blankets the whole Asiatic land mass, skirting the eastern shores of Africa. The winds blow in a generally south-west direction. Thus a lug-sailed junk could run before the wind to the southern tip of Malaysia, then beat before the wind the short distance required to clear the southern archiapelago. Needham points out that a Chinese junk equipped with lanteen, lug, sprit, or gaff could sail as high to the wind as a near reach.[9] It could thence run before the wind (broad reach) all the way to Somalia, thence down the coast to Madagascar. A ship which arrived in Africa in good condition could return to China on the summer monsoons which blow in a north-easterly direction. The technology of sail craft could thus accommodate such a voyage.

The oceanic currents also play an important role in the accommodation of long distance voyages. The Indian Ocean has several current systems which cross it, and lap the East African shores. The north equatorial current starts off Burma and flows westward, skirting Ceylon and southern India; then, on reaching Africa, it bends southward at Somalia. The eastward counter-current begins just below the equator in the general vicinity of Kenya (home of *struthio camelus massacicus*) and terminates around Sumatra. Thus the natural conditions would make it possible for mariners to cross the Indian Ocean in both directions. The voyage would not be hampered by opposing currents of winds which the boats could not handle.

Because there existed the technology to make such voyages, their occurance can only be inferred rather than confirmed. The evidence, if anything, shows that such voyages could have taken place.

Accounts of African Countries

The writings of the T'ang Dynasty represent the first detailed accounts of African plants and animals. These accounts are most often found in works of a more general nature. Edward Shafer translated Hui-lin's[a] 8th - 9th century account of what he claims to be Black (Zangi) South Seas people.

> *They are also called Kurung. They are barbarous men of the islands, great and small of the southern seas. They are very black and expose their naked figures. They can tame and cow ferocious beasts, rhinoceros, elephants and alike. There are many races and varieties of them; thus there are the Zangi, the Tumi (?) the Kurdang (?), and the Khmer. All are simple and humble people... The languages they speak are not from the several bulwark nations. They excel when they go in the water, for they can remain there the whole day and not die.*[10]

Schafer feels that Hui-lin must be talking of the Malaysian area, that "Zangi" applies to all black people, as well as their political unit. A fundamental question then arises, which came first, the name as a country, or the name as a people? If the name were first used as a descriptive term for black people, then all the dark people of Malaysia would be called Zangi. The word "Zangi", a sound duplicated in Chinese, seems to specifically refer to the non-Arab inhabitants of Zanzibar in East Africa. It is more reasonable to assume that the name came from Africa, and was later used to describe the inhabitants as well as the geographical area. Thus the name Zangi presupposes that there was direct contact in

some form with East Africa. In 863 A.D. Tuan Ch'eng-shih wrote of the lands west of India in his book, *Yu-yang tsa tsu*:

> *The country of Po-po-la*[b] *is in the southwestern seas. The people there do not eat any of the five grains but eat only meat. They often stick a needle into the veins of cattle and draw the blood which they drink raw, mixed with milk. They wear no clothes except that they cover the parts below their loins with sheepskins. Their women are clean. The inhabitants themselves kidnap them, and they sell them to foreign merchants, they fetch several times their price. The country produces only ivory and ambergris. If Persian merchants wish to go to this country they must form parties of several thousand men, and make gifts of several strips of cloth, and everyone of them, including the men and tender youths have to draw blood and swear an oath before they dispose of their goods. From olden times they were not the subject of any foreign country. In fighting they use elephants' tusks and the ribs and horns of wild ox as lances, and they wear cuirasses and use bows and arrows. They have 20,000 foot soldiers. The Arabs make frequent raids upon them.*[11]

There can be no mistake that Africa, not Malaysia or Arabia, is being discussed. The description of a group of people who eat blood-and-milk combination applies only to a few nomadic pastoral people of East Africa. The mention of ambergris and elephants again reduces the possible peoples referred to. This passage can only be talking of the Digo, the Nyika, the Giriama, the Boni, or the Bajum along the Somali coast, who live in the range of both elephants and ambergris or the Masai of Kenya.

The taking of black slaves during the T'ang Dynasty is a seldom broached subject. Slaves were kept by a relatively small group of court Chinese and were called "Zangi" -- referring to the island of Zanzibar as well as to the east coast of Africa. It is possible that the T'ang coins found on Zanzibar and the Somali coast were brought there by Chinese merchants for the exchange of men. Again, there is an unfortunate absence of records, but in this case there is circumstantial evidence on both sides of the Indian Ocean.

Duyvendak translated a section from the *Hsin T'ang Shu*[a] which was compiled by Ou-yang-Shu[b] and completed ca. 1060. The passage shows further mention of Ma-Lin, a country whose precise geographical position is not certain:

Southwest of Fu lin (the Roman Empire), after one traverses the desert for two thousand miles is a country called Ma-lin. It is the old Po-sa. Its people are black and their nature is fierce. The land is pestilentious and has no herbs, no trees, no cerials. They feed on horses and dried fish; the people eat hu mang[c]; the hu mang is the Persian date. In the seventh moon they rest completely. They then do not send out or receive any merchandise in trade and they sit drinking all night long.[12]

By 1147 the Chinese government restricted export trade to limit the amount of copper coin leaving the country. A flood of copper coins had spread especially to Japan and Southeast Asia.[13] Chinese ships going abroad to trade, or foreign ships going home out of the ports of Kuang-tung and Fu-chien were inspected for contraband cash. For taking out two strings of cash, the punishment was one year's banishment; for more than three strings, execution; informers were rewarded. This law could not have been too effective considering the amounts of copper cash found on the beaches of East Africa. The copper coin can be explained in one or two ways: either it was directly traded into Africa, or it was traded to the Arabs who in turn traded it down the coast. It would have been much simpler for the Arabs to have made copper medallions locally rather than have imported them from China to trade among the peoples of East Africa. To the Africans of a non-cash economy, the strings of Chinese coin would have had an aesthetic rather than primary exchange value. The Arabs would not have traded their coin per se as they traded in Chinese porcelain. The Chinese had a monopoly on the technology required to produce ceramics of exquisite quality.

After the 13th century there is more information available on the African trade. The Chinese reached East Africa and wrote elaborately about certain areas in Africa. It would have been of great value had it included a bibliography of Chinese sources.

The 13th Century: Chau Ju-kua

The *Chu Fan Chi*[a] by Chau Ju-kua[b] is the most substantial work on Arab and African trade in the 12th and 13th centuries. Fredrich Hirth and W. Rockhill produced the first English translation of the *Chu Fan Chi*. Most scholars use this work to determine the earliest year and extent of western trade. There are other resources such as maps, court records, and paintings, which also help to establish the possibility of African trade in the 12th and 13th centuries.

The *Chu Fan Chi* deals specifically with three countries on the coast of East Africa: Chung-liC (Somali), Pi-pa lo (Berber coast), and T'song-pa (another representation of Zanzibar). It also deals with the commodities of ambergris, ivory and rhinoceros horn:

> *The inhabitants of Chung-li are bare headed and bare footed, they wrap themselves in cotton stuffs, but they dare not wear jackets, for wearing jackets and turbans is a privilege reserved to the ministers and King's courtiers. The king lives in a birch house covered with glazed tile, but the people live in huts made of palm leaves, and covered with grass-thatched roofs. Their daily fare consists of baked flour cakes and camel's milk, there are great numbers of cattle, sheep and camels are plentiful, and their big food (for great occasions). The country produces frankincense. Many people (are addicted) to their magic tricks: they can change their bodies into birds, beasts, or aquatic animals, and by these means keep the ignorant people in some foreign ship. If they have a quarrel, the sorcerers pronounce a spell over the ship so that it can neither move backward nor forward, they only release the ship when the dispute has been steeled. The government has strictly forbidden this.*
>
> *Every year countless numbers of birds of passage alight in the desert parts of this country. When the sun arises, they suddenly disappear without a trace. The inhabitants catch them with nets and eat them; their taste is delicious. They appear toward the end of spring, and when the summer comes they disappear until the following year when they appear again.*
>
> *The country has mountains which are continuous with Pi-pa-lo. In circumference it is about 4,000 li; for the most part it is not populated. The mountains produce dragon's blood and the waters of the sea produce ambergris and tortoise shell. It is not known where the ambergris comes from; suddenly it appears in lumps, sometines 3-5, sometimes 10 catties in weight, driven on shore by wind. The people of the country make haste to divide it up, or ships which run across it at sea pick it up.*[14]

This description suggests that Chung-li is on the African continent, most probably adjacent to the Rift in what is modern Somalia. There is also mentioned in the 13th century *Chu Fan Chi*

an area called K'un-lun Ts'eng-chi[a] which is probably in the area around Sofala, across from Madagascar:

> *K'un-lun Ts'eng-chi is in the southwestern sea. It is adjacent to a large island in the sea. There are regularly great p'eng birds. When they fly they obscure the sun for awhile. There are wild camels and if the p'eng bird meets them, they swallow them up. If one finds a feather of a p'eng bird, by cutting the quill, one can make a water jar of it. The products of the country are rhinoceros' horns. In the West, there is an island on which there are many savages. Their bodies are black lacquer and they have frizzled hair. They are enticed by food and then captured and sold as slaves to Arabic countries, where they fetch a very high price.*[15]

The P'eng bird is most likely the rukh or the dodo of Madagascar.

According to Duyvendak and Hirth, much of the *Chu Fan Chi* was taken from still an earlier work: *Ling Wai Tai Da.*[b] Duyvendak feels that this paragraph comes from the hand of Chao Ju Fei[c] (1178), rather than Chao Ju-kau in 1226:

> *The country of Pi pa-la (Berber coast) has four Chou (departmental cities) and for the rest (of the people) are settled in villages which each try to gain supremacy over the others by violence. They serve heaven and do not serve Buddha. The country produces many camels and sheep and they have camel's meat and milk as well as baked cakes as their regular food. The country produced dragons' saliva (ambergris), big elephants' tusks, big rhinoceros' horns. Some elephants' horns weigh more than 100 catty, some rhinoceros' horn more than 10 catty. There is also much putchuk, liquid storax gum, myrrh, and tortoise shell which is extremely thick, and which other countries come to buy. Among the products there is the so-called tsu-la[c], striped like a camel and in size like an ox. It is yellow in color. Its front legs are 5 feet high and its hind legs are only 3 feet. Its head is high up and turned upwards. Its skin is an inch thick. There is also a mule with red, black and white stripes wound as girdles around the body. Both are animals of the mountain wilds. There are occasional variations of the camel. The inhabitants are fond of hunting, and from time to time they catch them with poisoned arrows.*[16]

The giraffe exists solely in Africa. This animal cannot be mistaken for any other beast.

The earliest references to the African continent are limited in scope as well as in volume. The work of Chao Ju-kua also contains information on products which are not necessarily unique to Africa, but are found there:

> *Ivory (elephant teeth) come out of the Da-shih countries as well as Chung-la, and Chan-cheng. That which comes from Da-shih is the best. The ivory which comes from Chung-la and Chan-cheng is inferior. Of the Da-shih countries, elephants are most plentiful in Mo-lo-mo. Elephants live deep in the mountains, and sometimes come out and trample down things. No man dares to chase him.*[17] *With divine strength, they grab and use poisoned arrows (to kill the elephants). After the elephant goes some li, the poison kills him. The tusks are removed and stored in the earth. Upon taking ten or more, they are put on a boat and taken to Ka-shis, thence San-fo-tse and Re-lo-ting for barter. The large ones weigh from 50 to 100 catties. Those which are straight and whose color is pure, are from Da-shih. Tseng-la and Chan-chen's ivory is slightly reddish and is lighter and does not exceed 1 to 20 or 30 catties. From the tips of the tusks are made good perfume holders. It is said that the elephants are trapped by decoys, I fear that it is a tame one.* (My translation)

This paragraph from the section on trade and commodities does directly show that the items were taken from the shores of north East Africa. If one accepts the countries of Da-shih as all the lands with which the Arabs traded, then this passage does deal with the same area. By its nature one is led to believe that either it was written completely from hearsay, or that it represents a first-hand description of the usual pattern of trade. The place called Ma Lo Mo[a] on the Arabian peninsula probably applies to a trading factory or place of re-shipment.

Another passage of interest in this work is that on rhinoceros horn[b]:

> *The rhinoceros is like the domestic cow, but has only one horn. Its skin is black and its hair is scanty, and tough like a chestnut husk. Its nature is fierce. It runs very fast. It eats bamboo, wood, etc. Because his horn can pierce a man, none dare approach. Hunters use a sturdy arrow shot from afar. Then they*

remove his horn, this is called "living horn". If it is taken from a dead rhinoceros it is called "upside down mountain" horn -- it is veined like bubbles. The white ones are most plentiful, the black ones are fewer and taken to be superior.
(My translation)

This passage indirectly identifies the two types of rhinoceros: the one which feeds on bamboo most likely comes from Sumatra or Java, while the bark-eater comes from Africa where there grows little bamboo. This suggestion does not try to exclude the possibility that the African rhinoceros was completely ignored; rather it suggests that the Chinese by direct observation encountered the rhinoceros in two separate locations.

Another important commodity which came from the west was ambergris, which was used as a base for incense and perfumes. It has the property of retaining the smell of something without changing it. Ambergris accompanies whale-vomit:

In the western sea of Da-shih there are dragons in great numbers. Now, when a dragon is lying on a rock asleep, his spittle floats on the water, it collects and turns hard, and fishermen gather it as a most valuable substance. Fresh ambergris is white in color, when slightly stale it turns red, and black when it is quite old. It is neither fragrant nor bad smelling. It is like pumice stone but lighter. The statement that a special perfume is derived from ambergris, and the other statement that ambergris can bring out all other scents, are both erroneous.

Ambergris does not affect the properties of perfume in any way, either by improving or spoiling them; it merely has the power of keeping the fumes together. When a quantity of pure ambergris is mixed with incense, and is being burned, the smoke will not dissipate, and those present could not cut the column of smoke with a pair of scissors. This is occasioned by the virtue left in ambergris by which the dragon exhales cloud born buildings.[18]

The ambergris definitely was and still is collected from the Somali coast. The question is, who picked it up? One can be sure that the majority of it was passed through Arab hands; this does not preclude it from also being traded directly to the Chinese by Africans.

Tortoise shell was also a highly valued African commodity by the Chinese.

> *The tai-mei resembles the kui-yuan. Its back is covered with thirteen plates regularly marked with black and white spots and lines, their edges are jagged like a saw. It is without feet, in lieu of which it has four fins, the front fins being longer than the hind fins, and serving as paddles when moving about in the water. The fins as well as the head are marked, like the plates. The plates of old animals are thick and show the black and white parts of the pattern marked quite clearly, whereas young specimens have thinner plates with an indistinct pattern. There is no foundation to the story that these patterns are being produced by these animals being lashed to fury so as to stir up their blood. They are caught on moonlit nights during the autumn. Their flesh is edible. They come from P'o-ni, San-su, P'u-li'lu and Sho-po.*[19]

Wheatley adds that the shell was obtained from India, but the best quality came from Berber and Somali coasts.[20] The records of the royal warehouses in China show that vast amounts of these products were imported into China. They were considered to be luxury items, and taxed accordingly, 10 to 30 percent.

Maps

Chinese maps of the East African coast are extremely few, their quality less than excellent. The mongols developed a mapping system based upon grids. The characters of a location were then placed upon the grid, but no effort was made to create a pictorial representaion of land masses and relief. The maps do portray gross lake and river systems which were important to trade. Walter Fuchs has found a most interesting map of Africa which he attributes to the beginning of the 14th century (1300). The map shows that the triangular shape of Africa was recognized. The Arabic maps of the time show the top of Africa pointing eastwards. This according to Fuchs does not necessarily show that the Chinese rounded the Cape and thus schematized the land, just that they had the correct idea of its southward pointing form.[21] The center of the continent is shown to be a lake. This probably refers to the lake and river systems of the interior of Africa. The name *sang-ku-pa*[a] is probably Zanzibar and appears on the wrong side of Africa. The long river is most likely the Nile river. The island *di-pa-nu* on the east side of Africa is worth mentioning because it means "eight-slave" island. Is it possible that this could be Zanzibar, where Arabs sold slaves to the Chinese ships, and that *sang-ku-pa* is just an unknow locality?

There is another more highly schematized map which dates from a later period (around 1550), (see map #1). The map was dedicated to Cheng-ho. It was composed by Mao k'un's (1511-1601) grandson, Mao yuan-yi. This map is a mariner's chart which marks off the distances and takes note of the land all the way to Africa. This map has been squeezed out of all proportions, with East Africa in the lower right hand corner. China is in the center left hand portion of the map.

The existence of maps only indicates a possible first-hand observation. Almost anything can be written in a second-hand manner. It does not seem untenable to propose that portions of the maps were compiled from empirical observations, and that portions were drafted out of the same type of inference which allows 20th century writers to assume that there existed no direct trade from the 10th to 14th centuries.

Later Expeditions

Chinese contact with Africa did not stop after the *Chu Fan Chi* was written. Its florescence occurred in the 15th century. In the 1400's an expedition was fitted out under the command of the imperial eunuch, Cheng-ho. Cheng-ho was the Mohammedan son of Hadji-ma of Yunnan. He voyaged to the south and to the west, to publicize the virtue of the emperor, as well as to look for the emperor's deposed nephew.[21] The official records of Cheng-ho's voyages were destroyed by a rival eunuch who had been entrusted to take them to the emperor, thus the specifics of Cheng-ho's voyages are conjecture. It is widely accepted that Cheng-ho sailed to Aden and Mogadishu in the west. From the steles found we know that he led seven expeditions. The fifth (1417-1419) visited Aden and Melinda on the African coast. His sixth voyage (1421-1422) went to Brawa and Mogadisho on the African Coast.[22]

Conclusions

Direct trade between China and East Africa prior to the 19th century is at best, poorly documented. There does exist enough circumstantial evidence to suggest the possibility of direct Chinese-African trade. There can be no sound explanation for the Peking ostriches. Nautical technology was not sufficiently advanced in 220 A.D. to facilitate trans-oceanic voyages to Africa where the two largest species live. By the 11th century, Chinese nautical technology had developed sufficiently to accommodate trans-Indian Ocean voyages. The lug sail, the steering oar or stern post rudder, and the compass had been in use for a minimum of 200 years. The technology of sail craft and favorable winds and currents place a trans-Indian Ocean voyage well within the realm of possibility.

The first tangible accounts of the recognition of East Africa were 863 in *Yu-Yang Tsa Tsu* with an account of Pi-po-la. Following this account are several 10th and 11th century accounts of East African countries. Most scholars discount these passages as reiteration of second-hand Arab information. In the 13th century is a major treatise by Chau Ju-kua of the countries and products of the western and southern oceans. Some of this text appears to be founded in earlier works, yet it seems draconic to totally dismiss their value. The earliest Chinese map showing Africa dates from the 14th century. There is no contention regarding Cheng-ho's visit to Africa in +1417 and 1421 though his records of the trip are not extant. In the 16th century a more precise schematicized map of the western seas was drawn, which must have been based on empirical observation. Despite the scarcity of documents, it seems evident that there was, if only in a limited degree, direct trade with East Africa from the 9th to the 15th centuries.

Footnotes

1. There is very little Arab textual material available in English translation, and very few references to works in Arabic.

2. A poem by Li-po (D. +762)[a].

3. O.H. Bedford, "The Ostrich in China", *The China Journal*, XXIV (2 February, 1937), p. 77.

4. *Grzimek's Animal Life Encyclopedia*, "Birds" VII (New York, 1972), p. 92.

5. Joseph Needham, *Science and Civilization in China*, Vol IV:3, (Cambridge, 1971), p. 628.

6. E. H. L. Schwartz, "The Chinese connection with Africa", *The Royal Asiatic Society of Bengal*, IV (1938), p. 197.

7. Needham, p. 563.

8. Needham, p. 602.

9. Needham, p. 594 ff.

10. Edward H. Schafer, *The Golden Peaches of Samarkand*, (Los Angeles, 1963), p. 46.

11. Fredrich Hirth, "Early Chinese notices of the East African territories", *Journal of the American Oriental Society*, XXX (December 1909), p. 48.

12. J. J. L. Duyvendak, *China's Discovery of Africa*, (London, 1949), p. 15.

13. Mark Elvin, *The Pattern of the Chinese Past*, (Stanford University, 1973), p. 149.

14. F. Hirth and W. W. Rockhill, *Chao Ju-kua on Chinese Arab Trade in the Twelfth and Thirteenth Century*, (St. Petersburg, 1911), p. 102.

15. J. J. L. Duyvendak, p. 15.

16. Hirth takes ^{b} to be "come near".

17. F. Hirth and W. W. Rockhill, p. 273.

18. F. Hirth and W. W. Rockhill, p. 238.

19. Paul Wheatley, "Geographical notes on Some Commodities involved in Sung Maritime Trade", *Journal of the Malayan Branch of the Royal Asiatic Society*, XXXII (June 1952), p. 83.

20. Walter Fuchs, *The "Mongol Atlas" of China*, (Peking, 1946), p. 14.

21. J. J. L. Duyvendak, p. 27.

22. J. J. L. Duyvendak, p. 30.

Chinese Characters

1 a.唐書

2 a.魏志 b.駝鳥 c.大賓 d.大秦 e.杏仡 f.武帝

7 a.慧琳 (一切經音義)

8 a.桑給 c.柯爾斯 b.彌邑呾羅

9 a.新唐書 b.歐陽修 c.宋祁

11 a.諸蕃志 b.趙汝适 c.中理

13 a.崑崙層期 b.嶺外代答 c.周去非 d.徂蠟

14 a.麻離拔 b.層角

17 a.桑骨几 c.桑給巴俾

22 a.秋浦錦駝鳥。 b.人莫敢近,獨畜時飛
人間天上稀。
山雞羞淥水。
不敢照毛衣。

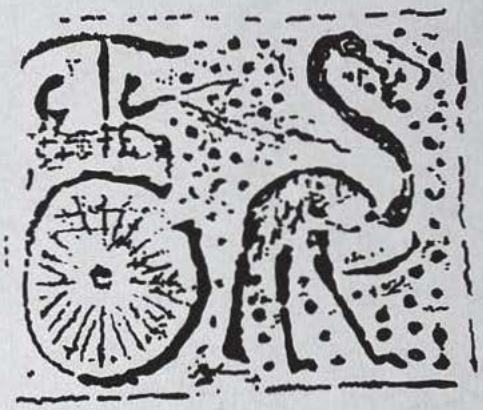
MAP #1

24- 麻林地 *Ma-lin-ti.* Melinda on the East African Coast.
29- 慢八撒 *Man-pa-sa.* Mombaz, East Coast of Africa.
38- 卜剌哇 *Pu-la-wa.* Brava on the East Coast of Africa.
39- 木骨都束 *Mu-ku-tou-su.* Magadoxa, East African Coast.
43- 黑兒 *Hei-erh.* The Blacks. Sofala

Source: *Journal of the Royal Asiatic Society of Northern China*, Vol. XX, 1885.

ILLUSTRATION I

AN EAST-AFRICAN OSTRICH?



Source: O.H. Bedford, "The Ostrich in China", *The China Journal*, XXIV (2 February, 1937), p. 77.

Annotated Bibliography

Bedford, O.H. "The Ostrich in China", *The China Journal*, XXVI XXVI (2 February, 1937), pp. 77, 78.
This article is very short and brings to light some very important and interesting information about the earliest record of the ostrich in China. The article can offer no information, but leaves that for the later readers; includes photos and characters.

Chang, Hsing-lang, "Importation of Negro Slaves to China under the T'and Dynasty", *Catholic University of Peking Bulletin*, VII (December 1930), pp. 37-59.
Very interesting article about the slaves (K'un-lun) in T'and and Sung China. He translates literary accounts citing sources. He talks of Malaysian as well as African slaves. The text has no characters which would greatly add to understanding. It is not possible to compare places with other texts for lack of characters.

Duyvendak, J.J.L., *China's Discovery of Africa*, London: University of London, 1949.
This work is extremely scholarly and well thought out. His argument states that China did not trade directly with the west. Duyvendak corrects many of the translation errors of Hirth and Rockhill. The work contains maps as well as character notation to avoid confusion. The style is modern and this work represents one of the finest attempts to deal with this subject.

Elvin, Mark, *The Pattern of the Chinese Past*, London: Stanford University Press, 1973.
This work is very limited on the African question. It indirectly touches upon the African question. It does contain an interesting section on coinage which is relevant. It has no characters, and offers only a cursory view.

Fage, J.D., *Atlas of African History*, Suffolk: Richard Clay, 1958.
Map #19 contains information on 12th to 17th century migration, place names and social groups.

Feng, *Chung-Kuo Nan-Yang Chiao-T'ung shih*, Taiwan: Commercial Press, 1937.
This work deals principally with the islands of the southern archipelago, and deals with Ibn Battua's identifications of East African territories. Text is in Chinese.

Freeman-Grenville, G., *The African Coast: Select Documents from the First to the Early Nineteenth Century*, Oxford: Calredon, 1962.
This is a very good source. It presents chronologically ordered translations with notes by the author. It is sad that there were not more of these Arab and Chinese documents.

Fuchs, Walter, *The "Mongol Atlas" of China*, Peking: Fu Ren University, 1946.
This book contains commentary on one of the earliest available world maps. It contains photo reproductions and commentary; very important.

Giles, Lionel, "A Chinese Geographical text of the 9th century", The school of Oriental and African Studies. Bulletin of VI (1932), pp. 825-850.
This work does not deal with external geography.

Grizmeks Animal Life Encyclopedia, "Birds" VII, New York: Nostrand, 1972.
Important source in locating the range of the ostrich; the writing is very interesting and clear.

Hirth, Fredrich, "Early Chinese notices of the East African Territories", *Journal of the American Oriental Society*, XXX (December 1909), pp. 45-57.
This is a clearly written work which offers an overview. He incorporates work from several other texts. Chinese characters are included. Companion work to the *Chau ju-kua*.

Hirth, F. and W.W. Rockhill, *Chao Ju-kua on Chinese Arab Trade in the Twelfth and Thirteenth Century*, St. Petersburg: Imperial Academy of Sciences, 1911.
This is the primary source in English of Chao Ku-kua. All other authors dealing with this subject quote from this source. The translation is now flawless. The text includes characters, commentary, and an index of unusual names.

Hsi Yang Fan Guo Chih (A Record of Western Barbarian Tribute)
There is no English translation for this work. It is important and moderately difficult to translate because of all the animal and country names.

Huffman, Thomas, "The Linguistic Affinities of the Iron Age in Southern Africa", paper given at U.C.L.A., 1974.
It shows no link between the early Iron Age Africans and the Chinese. There is no cultural evidence. The article calls for a rapid southward migration of Iron Age peoples. It mentions pottery styles.

Ingham, Kenneth, *A History of East Africa,* New York: Praeger, 1962.
In the first few pages is offered an interesting overview of East African social groups.

Jones, A.M., *Africa and Indonesia: Evidences of the Xylophone and Other Musical and Cultural Factors,* Leiden: Brill, 1964.
This is the first source which deals with the musical evidence. Jones has demonstrated a link between Indonesia and Madagascar as well as the Nigerian areas of West Africa. More attention should be paid to this work.

Keller, C., *Madagascar and Mauritius and other East African Islands,* London: Swan Sonnensehein, 1901.
It lacks documentation, and not very good.

Li-po
A poem on an osterich (political allegory).

Mammals of the World, Vol. ii. Baltimore: Johnshopkins, 1968.
Good for locating the extent and range of animals.

Mirsky, Jeannette, *The Great Chinese Travelers,* New York: Random House, 1964.
She acts as a collector of works and slightly interprets the information. The frontpiece has an excellent map. The text has no characters.

Needham, Joseph, *Science and Civilization in China,* Vol. IV:3, and IV. Cambridge: University of Cambridge, 1971.
This work, like all of Needham's, is excellent. His bibliography is thorough. His books contain sections on nautics, geography, as well as history. His works are essential to this topic. There is no praise high enough for him.

Phillips, George, "The Sea Ports of India and Ceylon, Described by Chinese Voyagers of the 15th Century, Together with an Account of Chinese Navigation", *Journal of the China Branch of the Royal Asiatic Society,* XX (1885), pp. 209-218.
Contains a very important 16th century map of the world. East African, Indian, and Malaysian countries are located with character notation. Total map length is three feet.

Schafer, H. Edward, *The Golden Peaches of Samarkand,* Los Angeles: University of California, 1963.
Very good text; it offers translations, and poses questions. The book is divided up into different items of tribute. His work is sound, and offers a thorough bibliography.

Schwarz, E.H.L., "The Chinese Connection with Africa", *The Royal Society of Bengal*, Vol. IV (1938), p. 175-190.
Schwarz offers no footnotes or bibliography.

Wheatley, Paul, "Geographical Notes on some Commodities Involved in Sung Maritime Trade", *Journal of the Malayan Branch of the Royal Asiatic Society*, XXXII (June 1952), p. 2.
This offers a restatement of the Hirth and Rockhill work with more commentary and maps. It should be considered a very important work -- offers characters.

Wilson, Monica, *The Oxford History of South Africa*, New York: Oxford University Press, 1969.
She has a small section on early Chinese-African contact.

Yamada, Kendito, *(A History of East and West Perfumes)*
The text is in Japanese and deals with Chinese-African trade in ambergris. The English translation is not in the holdings of the University of California.

Zhang, *(A History of Chinese-African trade from Beginning to End)*, Hong Kong: Xin chr san guan shu-dian, 1973.
The book is all in Chinese and contains passages about Chinese - African trade. It is well footnoted and contains work from the Southern Sung (+1068) to the Ching (+1862) on trade. This work deserves much attention.

Sources which repeated primary English sources, and therefore offered nothing new are not included.

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