

PETRA, THE PERIPLUS AND ANCIENT INDO-ARABIAN MARITIME TRADE

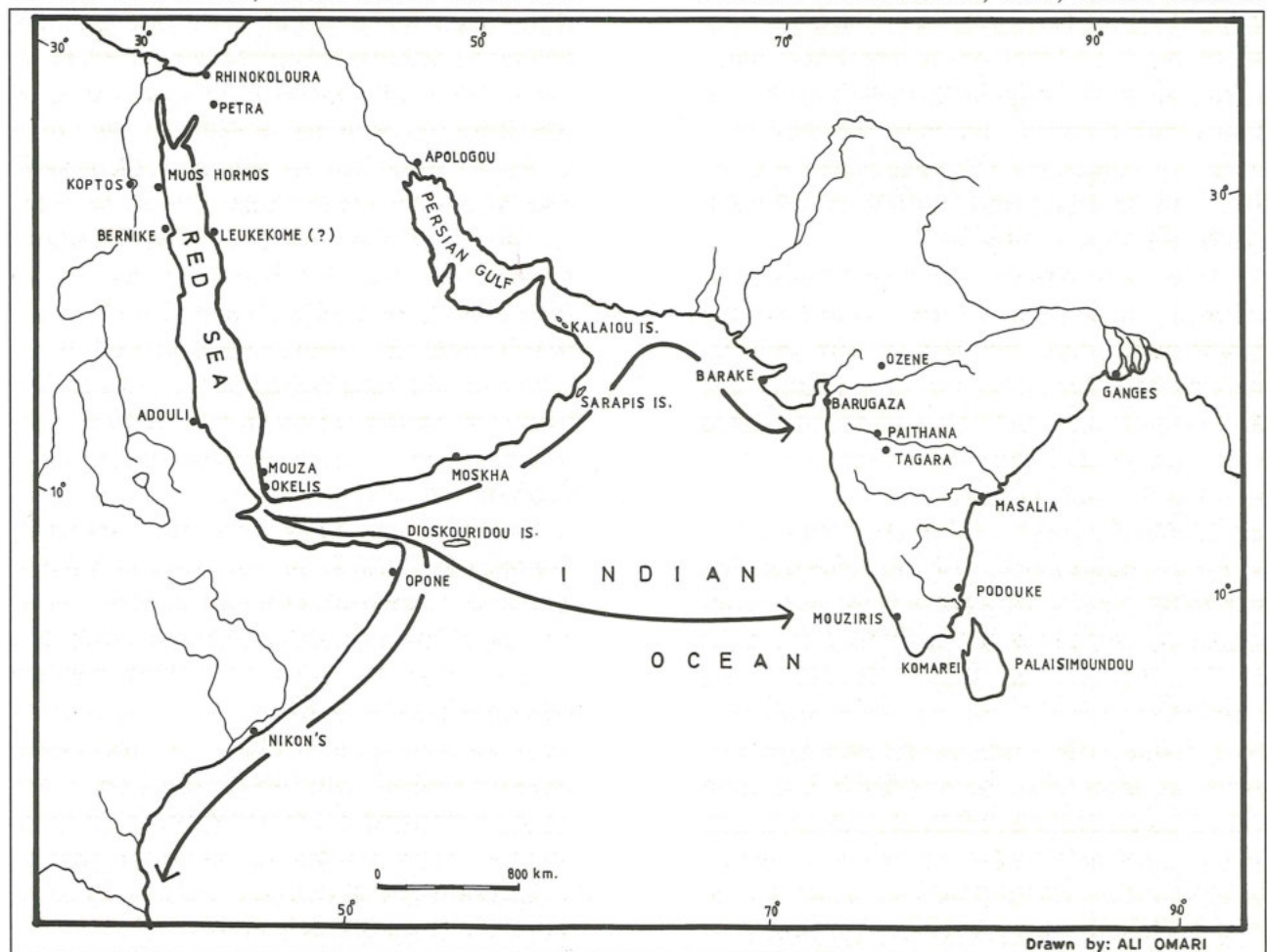
by
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Introduction

One of the oldest authentic references to the Nabataean capital, Petra, occurs in the *Periplus of Erythraen Sea* in the context of maritime trade. This handbook was written in the first century AD by an unknown Greek merchant (Huntingford 1980:7). The author of this handbook was either a trader or shipmaster who gives a first-hand account of the sea routes starting from the Red Sea towards India and up to China. Besides the sea route to India along the coasts of Yemen and Oman, he mentions direct sea

routes to Western and Southern India giving information about the ports, harbours, roadsteads and marts together with the items of imports and exports at various places (Fig.1). Navigational aids such as how to enter difficult harbours and how to recognize the signs of coming storms and approach of land are also described. In fact, Huntingford (1980:8) puts it as an early example of a combined trade directory and an Admiralty handbook.

After the description of ports at Myos Hormos and Berenike, both, on the coast of



1. Major sea-routes and some of the ancient sites mentioned in the *Periplus of Erythraen Sea* in the context of maritime trade during the first century AD.

Egypt, the reference of Petra comes in Chapter 19 of the *Periplus* as follows: "on the left from Bernike, two or three days run from Muos Hormos eastwards, crossing the gulf which lies alongside, there is another harbour with a fort, called Leuke Kome from which there is <a route inland> to Petra, to Malikhas king of the Nabataioi. It has some reputation for the ships, though <they are> not large ones, <which come> loaded from Arabia. For this reason a collector of a tax of a quarter on imported merchandise is posted there, and for security a centurion with a garrison." (Huntingford 1980:31).

This is followed by a detailed account of the Arabian coast and then Mouza (a coastal site in Yemen). "After these <regions>, in the furthest bay on the left hand of this sea is Mouza, an established mart beside the sea, distant from Berenike, for those sailing south, at least 12,000 stads. The whole place is full of Arabs, shipmasters and sailors, and hums with business; for they use their own ships for commerce with the opposite coast and with Barugaza (modern Broach / Baruch on the west coast of India)."

As we know today, the Nabataeans were dynamic Arab traders who controlled the major trade routes between Arabia and Damascus at least during the first century BC and first century AD. It is widely believed that they traded not only with the Mediterranean countries but also with India, China and the Far East. Although, frankincense was their major trade item, they also handled materials such as animals, spices, iron, copper, gold, fabrics, sugar, medicines and ivory. The *Periplus*, in mainly chapter 6 and elsewhere, gives a list of items imported from India to the ports on the Red Sea. The items are iron, steel, the broader Indian cloth called monakhe, cloth called segmatogenai, belts, garments called gaunakai, mallow cloth, muslin, coloured lac and sugar. As the trader's handbook contains an unmistakable reference to Petra as the capital of Malikhas king of the Nabataeans, it may be safely as-

sumed that some of the above mentioned trade items coming from India were traded by the Nabataeans. Although, we understand from the *Periplus* that Arabs, Greeks and Indians participated in the Oceanic trade to and from India, it is difficult to know if the Nabataeans actually took part in the voyages across the Arabian Sea.

Discussion

In spite of these references, no serious attempt has been made in the archaeological context to evaluate both spatially and temporally the trade of the Nabataeans with India. Considering the perishable nature of the trade items imported from India, the study of pottery appears to be a logical step in this direction. Barring exceptional deluxe, varieties pottery was not really an item of trade in ancient times. It was mainly used as containers for carrying goods required for travelers. A careful re-examination of the excavated pottery from major inland Nabataean sites such as Petra, Wādī Rumm, Khirbat adh-Dhariḥ and the coastal site at 'Aqaba would be helpful in identifying the Indian contribution. Particularly, two distinguishing fine wares from India, one, the Red Polished Ware (RPW) and the other, the Rouletted Ware (RW) should be searched in the pottery collection from the above sites as they are associated with the maritime trade of the Nabataean period.

Sherds of the RPW have been found at Sohar, the coastal site in Oman (Monik Kervran, personal communication). Mineralogical analysis of these sherds conducted by the author showed that the RPW was not mineralogically matching with the local clays or pottery from Oman but they were indeed identical with those from sites in the region in western India which has been identified as Ariake in the *Periplus*. The RPW is a fine pottery with uniform texture similar to the Nabataean fine red pottery. It is, therefore, likely that some of the RPW sherds found on the Nabataean sites could have

been mistaken for local pottery. Occurrence of this ware on these sites in Jordan would confirm the Nabataean trade with Barugaza, in particular, and western India in general.

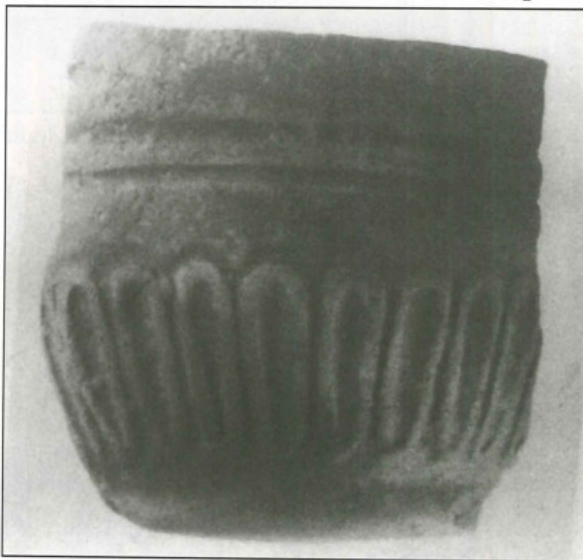
A recent comparative study by the author has produced, perhaps, the first material evidence of the interaction between the Nabataean and contemporary Indian sites. It comes from the occurrence of identical pottery known as Mold Ware (MW) at Petra (Schmitt-Korte 1984: 40) and on several Early Historic sites (100 BC-200 AD) in western India, namely, Ter (Chapekar 1969; Deshpande 1969), Kondapur (Ahmad 1950; Begley 1991), Nevasa (Sankalia *et al.* 1960) and Kolhapur (Gorakshkar 1975). The MW is small in size ranging from 4 to 6.5 cm produced from two vertical molds joined together. The vertical joint is clearly visible running from rim to bottom. The ware has different shades of red, from bright red to brownish. Begley (1991) has classified the MW into four shapes: 1. Cup with out-turned rim; 2. Straight sided bowl; 3. Deep cup with two bulges; and 4. Bottle having bulbous body and long neck.

The most common motif is long petals radiating from the bottom on the lower body of the MW. Other motifs consist of beads, ovals, bead and reel, and rosettes which appear between ridges on the upper body.

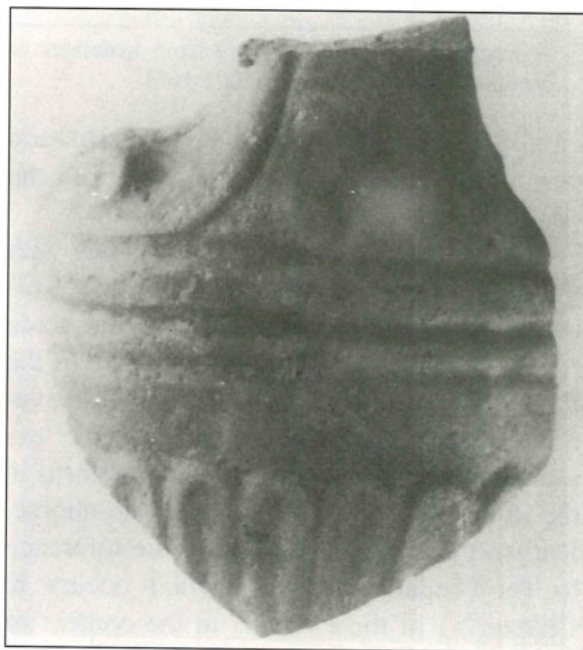
The MW from Petra as illustrated by Schmitt-Korte (1984:40) is different from the Late Hellenistic Samarian moulded ware usually found in that region, for example, at Samaria-Sebaste (Hennessy 1970:11). The Samarian ware was produced using a single mould and the scheme of floral relief decoration having lotus leaves is entirely different from that of the MW found at Petra. It is, also, totally different from the relief pottery from the collection of the Institute of Archaeology of the Hebrew University, Jerusalem as illustrated by R. Sivan (1977:143). This pottery, presumably Nabataean, has high relief decoration in two panels: one representing two antithetical

peacocks on either side of an amphora and the other, two antithetical human heads connected by a ribbon.

In contrast to this, the MW from Petra is identical in all respects, particularly in the production technique and the scheme of floral relief decoration, with that found in western India (Figs. 2-5). It is, however, very rare in Petra in comparison to its occurrence in large quantity in India, particularly, at Ter and Kondapur. These sites were the prin-



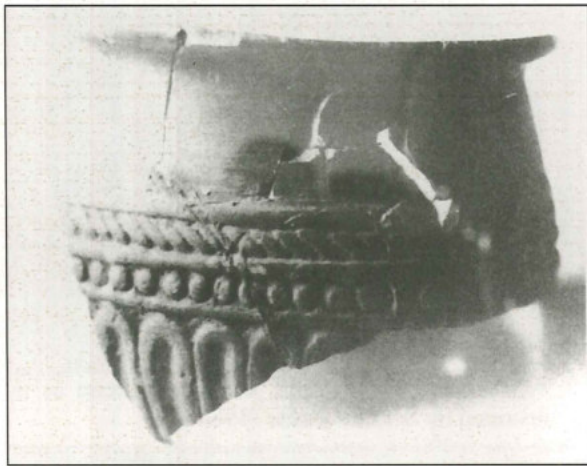
2. A fragment of the Mold Ware from Petra as illustrated by Schmitt-Korte (1984:40).



3. Another fragment of the Mold Ware from Petra as illustrated by Schmitt-Korte (1984:40).



4. The Mold Ware from Kondapur in western India (after Begley 1991:164).



5. A fragment of the Mold Ware from Kondapur in western India (after Begley 1991:165).

cipal settlements during the Early Historic periods of India and are considered as the centres of production of the MW.

The sites of Ter and Kondapur along with those of Nasik, Nevasa, Paithana and Kolhapur were interconnected by inland trade routes starting from Broach (Barugaza of the *Periplus*) on the west coast of India. Excavations at these sites have given ample evidence of contacts with the Roman World in the form of the Mediterranean amphorae, Roman glass and/ or bronzes. The reference to Ter (Tagara of the *Periplus*) occurs in Chapter 51 of the *Periplus* in the context of maritime trade. All sorts of muslins and common cloth went from Ter to the har-

bours and marts on the coasts of the Red Sea. It is, therefore, probable that the MW produced at Ter and Kondapur could have reached Petra along with other trade items. Scientific study of the MW from Petra and those from the above mentioned sites in India would provide further proof of the Nabataean - Indian relationship.

There is yet another variety of Red Slip ware from the Ganga Plains in India which is closely similar to the East African Red Pottery found at sites in Jordan. Archaeological excavations on many coastal and inland sites in south India have yielded evidence of Roman trade. A reddish pottery, for example, found at the coastal site at Alagankulam was classified as Late African red slipped ware, its probable place of origin being Tunisia (Nagaswamy 1991:252). Mineralogical analysis of this pottery has, however, shown that the pottery was coming from the Ganga Plains of North India (Gogte 1997:82). There is, therefore, a distinct possibility that the mineralogical analyses of some of the red slip wares found at, for example, the coastal site of 'Aqaba (Parker 1998:388) and classified as African pottery could reveal their Indian origin.

Perhaps, the most distinguished pottery associated with Indo-Roman trade is the Rouletted Ware. The RW has a form of a dish with an in-curved in and beaked rim, and a diameter varying from 24 to 33 cm. Fine levigated clay which fired grey was used in its production. Before firing, the flat interior was decorated with two to three concentric indented patterns, which look like rouletted decoration. The decorative motifs consisted of triangles, diamonds, dots, and wedges. This ware was treated with a slip which showed different colours: red, brown, grey and black. It was found for the first time during the archaeological excavations at Arikamedu on the east coast of India in association with the Mediterranean Amphorae and Arretine Ware (Wheeler *et al.* 1946). Subsequently, it was found mostly on the coastal

sites in India, Sri Lanka and Southeast Asia. Also, it has been found on the coasts of East Africa and at Berenice in the Red Sea.

It has now been conclusively proven that this pottery was produced in north India from the clays of the Ganga Plains of north India (Gogte 1997). An occurrence of this ware on the sites in Jordan would certainly establish the participation of the Nabataeans in the trade with India beyond any doubts. In the context of maritime trade, the coastal site at 'Aqaba appears to be the most promising place to search for the RW and other Indian pottery.

It is, however, highly surprising that no reference to 'Aqaba appears in the *Periplus* but from the mounting archaeological evidence of the Nabataean settlement from the first century BC at this site (Parker 1998), and with the availability of an easy inland route from this site to Petra, there are now strong reasons to equate 'Aqaba with Leuke Kome of the *Periplus*. Diana Kirkbride (1990: 257) has placed Leuke Kome at 'Aqaba mainly on historical grounds. From the cursory description of the long Arabian coast of the Red Sea in the *Periplus*, it appears that the author of the handbook described Leuke Kome based on hearsay rather than on the first hand knowledge. It is also possible that the author who was either a trader or a shipmaster could not visit this harbour as the trade in this part of the Red Sea was, most probably, operated and controlled by the Nabataeans. In any case, it is evident that this port site at 'Aqaba was as important as the interior trade route connecting Arabia with the Mediterranean, in the Nabataean-Roman trade.

There is an equal possibility of finding the RW at the interior sites such as Wādī Rumm, Petra and Khirbat adh-Dhariḥ. An inspection of the excavated pottery from Khirbat adh-Dhariḥ has revealed a red pottery with indented triangular patterns closely similar to that of the RW from India. Mineralogical analyses of the pottery from the

above mentioned sites, in comparison with the corresponding pottery from the coastal sites in India, would open a new vista in the archaeological study of this region.

Alternatively, it will also be interesting to search for the Arabian pottery on the ancient sites on the coasts of India. More attention has so far been given to easily identifiable Mediterranean Amphorae and Arretine ware. Also, it is quite probable that the fine, red, unpainted Nabataean pottery occurring on Indian sites, could have been mistaken for the RPW of western India.

Besides the Nabataean-Roman sites in Jordan, a search for the Indian contribution to the maritime trade on the coastal sites in Oman and Yemen would be equally instructive as the *Periplus* clearly mentions many of them in the context of the trade routes to India along the coasts of Oman and Yemen. In fact, the maritime trade between Oman and India goes back to the period of the Indus Valley civilization of 2500 BC as seen from occurrence of the Indus Pottery on the archaeological sites on the east coast of Oman such as Rās al-Hadd and Rās al-Junayz. Mineralogical analyses of the clays and pottery from these sites by the author (unpublished results) have shown that the pottery was coming to these sites in Oman from the famous Indus site at Lothal on the west coast of India. Also, as mentioned earlier, the site at Sohar on the northern coast of Oman has yielded Early Historic pottery from India. A similar scientific study of other coastal and inland sites in Oman and Yemen would throw light on the extent of maritime trade in different periods.

Conclusion

Although, it is widely believed that the Nabataeans had trade relations with India, the first material evidence of the interaction of the Nabataean and the contemporary Indian sites comes from the occurrence of the characteristic pottery, the Mold Ware, at Petra and several ancient Indian sites. A fur-

ther search for the common archaeological material occurring at the sites in Jordan and India would, no doubt, provide additional evidence of the ancient maritime trade between them.

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