Caroline Durand
Université Lumière Lyon 2
CNRS, UMR 5189-HiSoMA
Maison de l'Orient et de la Méditerranée
5/7 rue Raulin
69 365 Lyon Cedex 07 – France
caroline.durand@univ-lyon2.fr

Caroline Durand

The Nabataeans and Oriental Trade: Roads and Commodities (Forth Century BC to First Century AD)

Nabataean Trade: An Overview

The Nabataeans are usually considered to have attained their prosperity through caravan trade, primarily in aromatic products (on Nabataean trade see Johnson 1987; Rey-Coquais 1989; Zayadine 1995: 70-73; 1996; Fiema 1996: 190-191; Graf and Sidebotham 2003; Schmid 2004). This trade followed trans-Arabian routes which linked the Nabataean capital city, Petra, with the southern and eastern Arabian peninsula. Trade along these routes climaxed between the fourth and first centuries BC, resulting in considerable prosperity within the Nabataean kingdom. This is the picture painted by ancient literary sources, such as Diodorus of Sicily and Strabo, and is also that which is reflected today by the sumptuous ruins of Petra. Roman intensification of trade along the maritime route between the Red Sea ports and west coast of India at the end of the first century BC or beginning of the first century AD appears to have resulted in a decline in the volume of overland trade passing through Petra (Bowersock 1983: 21). Thus, caravan trade, unable to respond to maritime competition, would have gone into an inexorable decline which resulted in the slow fall of the Nabataean kingdom and, ultimately, its annexation by Rome at the beginning of the second century AD. This hypothesis is generally accepted (Sartre 1985: 54-56; Sidebotham 1986: 71, n. 74; Rey-Coquais 1989: 229), notwithstanding a degree of controversy stemming from the fact that recent archaeological research has tended to suggest that the Nabataean kingdom flourished during the first century AD (Fiema 1996: 191; Graf and Sidebotham 2003: 72).

Transported Commodities: What and When?

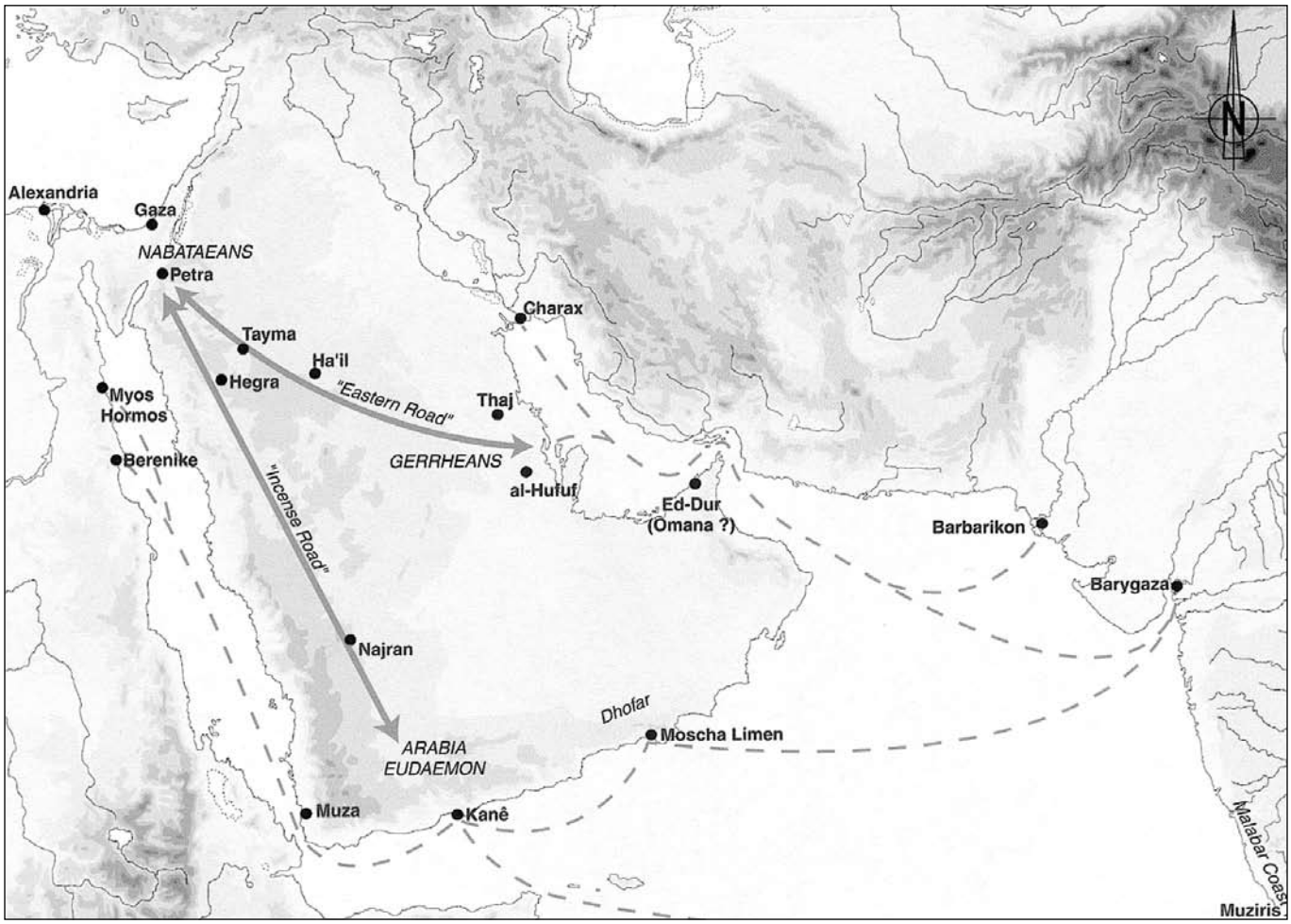
In almost all studies about the Nabataeans, one reads that they participated in the transport of spices, incense, precious stones and textiles from southern Arabia and the Indian world. But do we have a precise idea of the products which were actually being traded, especially the aromatics? Unfortunately, as most of these commodities were highly perishable they are not preserved in the archaeological record. To date, no trace has been found of these vegetal goods in the Nabataean kingdom, with the exception of a large quantity of burnt incense that was discovered in Petra during the Khazneh excavations in 2003 (Farajat and Nawafleh 2005: 375). Literary sources, however, can help to fill in the gaps in the archaeological record. This paper will discuss evidence for the aromatics involved in long-distance Nabataean trade on the basis of textual data. It should be noted that aromatics found in Nabataean territory or its immediate vicinity are excluded from this discussion[1], as is the Mediterranean trade in such products.

Frankincense and Myrrh: The Traditional "Incense Road" (FIG. 1)

The most famous text dealing with the Eastern trade in aromatics is, of course, that of Diodorus of Sicily:

> While there are many Arabian tribes who use the desert as pasture, the Nabataeans far surpass the others in wealth although they are not much more than ten thousand in number; for not a few of them are accustomed to bring down to the sea frankincense and myrrh and the most valuable kinds of spices**,** which they procure from those who convey

[1] For example, balsam of Judaea (from the Jericho area), ladanum (or labdanum), myrobalanos or sweet rush (camel grass) (on these products see Graf and Sidebotham 2003: 72).



1. Major long-distance maritime and trans-Arabian trade routes in the first century AD (Durand / IFPO).

them from what is called *Arabia Eudaemon*.

Diod., XIX.94.4-5 (Geer 1954)

Diodorus not only precisely defines the Nabataeans' role as caravaneers, but also explicitly mentions frankincense (*libanwtoς*) and myrrh (*smurna*). These two products are frequently linked with each other. Frankincense is a gum resin extracted from a tree, *Boswellia sacra*, which grows mainly in southern Arabia, especially in the regions of Hadramaout and Dhofar (Van Beek 1958, 1960; Miller 1969: 102-104; Groom 1977; Monod 1979; Groom 1981: 96-114). Myrrh, also a gum resin, is extracted from a tree named *Commiphora myrrha,* which is native to eastern Africa, although it is also found in southern Arabia (Miller 1969: 104). Diodorus mentions that Athenaeus' troops stole both frankincense and myrrh in Petra in 312BC (XIX.95.3). Other evidence for the trade in frankincense and myrrh comes from a Zenon papyrus dating to the mid-third century BC (*P. Cairo Zeno* 59009 F; Edgar 1971: 285; Durand 1997: 143-149). The text discusses delivery of these aromatics from the countries of the Mineans and the Gerrheans to a man from Moab named *Malichos*, probably a Nabataean (Graf 1990: 54). These documents demonstrate that frankincense and myrrh were conveyed along a north-south trade route that linked South Arabia — the "Eudaimon Arabia" of Diodorus — with the Levant. This ancient route, which had been in use since at least the seventh century BC (Groom 1981: 22-37; Crone 1987: 13-17; for an earlier, eighth century BC date see Singer-Avitz 1999; Jasmin 2006: 144), is the one we traditionally refer to as the "incense road" (Groom 1981: 189-194; Potts 1988a; Zayadine 1995: 69-70; Maigret 1997; Schmid 2004: 418-419; Humbert 2007). However, these documents also contain information on other trade routes. For example, the Zenon papyrus describes a second road, which originated in the kingdom of Gerrha in eastern Arabia (the location of

ancient Gerrha is still a matter for discussion; see Groom 1982; Potts 1984; 1990: 85-97; Bukharin 2007). This is much more interesting, especially when we look at some less well-known texts that give us a glimpse of the other products that were being transported.

Costus and Bdellium: Evidence for an "Eastern" Nabataean Trade Route

The first clue comes from a text by Strabo, probably written right at the beginning of the first century AD, which lists foreign commodities brought to Petra by the Nabataeans:

Some things are imported wholly from other countries, but others not altogether so, especially in the case of those that are native products, as, for example, gold and silver and most of the aromatics, whereas brass and iron, as also purple garb, styrax, saffron, costus roots, embossed works, paintings, and moulded works are not produced in their country.

Str., XVI.4.26/784 (Jones 1961)

The aromatics mentioned include styrax and saffron, both originating from Asia Minor, as well as costus — or costum — roots (*ÍÔÛÙ‹ÒÈ·*). Costus is a perennial herb, *Saussurea lappa*, which grows in the Kashmir and Pendjab mountains (Miller 1969: 84; Crone 1987: 73). Its roots were used in Antiquity for perfume and medicinal purposes; in Asia they are still used to this day.[2] Strangely, the Greek word "*ÍÔÛÙ‹ÒÈ·*" is almost never translated in modern editions of Strabo.[3] Yet, it is very clear that it represents the word "*costus*" with the suffix — *aria*, which usually means the origin of something.[4] Here it obviously refers to the roots of the plant, the only part with market value (Miller 1969: 84). We know from Pliny (XII.41) and, above all, from the *Periplus of the Erythraean Sea* that costus was exported in the first century AD from the Indus delta area, especially from the port of Barbarikon, located close to modern Karachi in Pakistan (*Periplus* 39), and also from the Barygaza area (*Periplus* 48-49), that is to say modern Bharuch, in India.

A second text comes from dioscorides, who wrote around 60AD

One can also find [bdellium] in Petra, dry, looking like a resin, a bit pale, of lower quality.

Dios., *M.M.* I.67 (translated from M. Garcia Valdés, ed.)

This excerpt mentions a gum resin called *bdellium* that one could find in the Nabataean capital, Petra. It was used both as a medicine (Dios., *M.M.* I.67) and as a perfume or incense (Pliny, XII.35). It is identified with a substance extracted from the spiny shrub *Commiphora mukul*, which grows in arid regions from Iran to western India and in eastern and central Africa (Miller 1969: 69-71; *contra* Crone 1987: 67). According to the literary sources (Pliny, XII.35; Dios., *M.M.* I.67)[5], it seems that north-west India and Bactriana were the main sources of this product in Antiquity (*Periplus* 37). According to the *Periplus*, bdellium — like costus — was exported from Barbarikon (*Periplus* 39) and Barygaza (*Periplus* 48-49).

The "Eastern Road" and its Role in the First Century AD (FIG. 1)

Thus, literary sources state that at least two different aromatic products exported from north-west India were reaching the Nabataean kingdom during the first century AD. It seems clear that north-west India maintained close relationships with the Near East in general and Petra in particular, and that a trade route existed between them. What then was the itinerary of this "eastern road"? A maritime route apparently existed between north-west India and southern Arabia that probably linked up with the traditional "north-south" caravan route. Indeed, the *Periplus* mentions maritime routes between Barygaza and Kanê (*Periplus* 27), the main port through which frankincense was exported during the first century AD. However, the most direct route between north-west India and Petra was through the Persian Gulf. Archaeological evidence for a Nabataean presence in the eastern Arabian peninsula during the first century AD supports the concept of an overland route between the Persian Gulf and Petra. Several Nabataean coins of Aretas IV (9BC-40AD) have been found at ed-Dur (Haerinck 1998: 289-290) in the United Arab Emirates. Excavations conducted at this site during the 1990s demonstrated that it was primarily occupied during the first century AD. Scholars tentatively identified ed-Dur

[2] Miller has described how there was a State monopoly on the costus harvest in 20th century Kashmir, (Miller 1969: 84).

[3] See, for example, the English translation of H. L. Jones (ed.).

[4] This suffix is, on occasion, also employed as a diminutive.

[5] Both authors also refer to a source of bdellium in Arabia.

as ancient Omana (for the location of Omana see Salles 1980: 102-104; Boucharlat and Salles 1981: 67-68; Potts 1988b: 155, 1990: 306-310; Salles 1992: 211 n. 36, 233; Groom 1995: 187-188; Healey 1996: 36; Haerinck 1998: 275-278; Jasim 2006: 236), an important port linked with Barygaza that was mentioned by the *Periplus* (*Periplus* 32) and Pliny (VI.32). Nabataean coins of Aretas IV and a few Nabataean painted pottery sherds of the first century AD have also been found at Thaj and Qatif, in Saudi Arabia (Potts 1991; Schmid 2004: 415-416, n° 2). These sites are in the probable vicinity of the as yet undiscovered ancient city of Gerrha, mentioned in the Zenon papyrus.

The "Eastern Road": Already in Use During the third Century BC?

Based on textual and archaeological evidence, it therefore appears that a trade route existed between Petra and north-west India, probably via Gerrha and Omana / ed-Dur, in the first century AD. The Zenon papyrus mentions that trade relations between Petra and Gerrha already existed in the third century BC. That these relations still existed in the mid-second century BC is confirmed by Strabo's account, which is based on information given to him by Agatharchides (Potts 1991: 142) and mentions that the Gerrhaeans and the Minaeans became richer than anyone else on the back of the trade in aromatics that were transported to the rock of the Nabataeans — Petra:

Near the island [of Phocae] is a promontory, which extends to the Rock of the Nabataean Arabians, as they are called, and to the Palaestine country, whither Minaeans and Gerrhaeans and all the neighbouring peoples convey their loads of aromatics.

Str., XVI.4.18-19 (Jones 1961)

It should be noted that there was already a long history of contact between the Indus valley and Persian Gulf. Indeed, there is documentary evidence for such contacts dating back to the late third millenium BC (Speece 1984; Ghosh 1989: 259; Salles 1993: 500; 1994; Haerinck 1998: 296; Carter 2001). Moreover, in the third century BC costus and bdellium were already known and commonly used in the Mediterranean area, since both are mentioned by Theophrastus.[6] Bdellium is also mentioned twice in the *Old Testament* (Genesis, 2.10-14; Numbers 11.7) and we find costus mentioned again on a third century BC Greek inscription from the Apollo sanctuary at Didymes, near Miletos (Dittenberger 1960: 214, 60; Miller 1969: 85).[7] All these data point to the early existence of an eastern trade route between Arabia and north-west India. However, a further clue points at Nabataean involvement in this trade.

Nabataeans and Pepper

This is another, quite famous extract taken from Diodorus of Sicily, which is based on the third century BC writings of Hieronymus of Cardia. This text says that Nabataea produced nothing other than wild honey and "pepper" *(peperi):*

(…); for among them there grow the pepper and plenty of the so-called wild honey from trees (…).

Diod., XIX.94.10 (Geer 1954)

However, no evidence for growth or cultivation of pepper in the Near East exists. Rather, pepper is native to the Indian subcontinent (Miller 1969: 80). There are two possible explanations for this discrepancy: either the mistake concerns the nature of the product, with Hieronymus confusing a local plant with Indian pepper[8], or it really was Indian pepper, but Hieronymus was mistaken about the product's origin. There are actually two very different types of pepper, long pepper (*Piper longum*) and black pepper (*Piper nigrum*), both of which were probably known about by the third century BC (Miller 1969: 82).[9] The first, long pepper, resembles a spike, 2 to 3cm. long, of closely packed seeds whilst the second, black pepper, is a small round black berry, recognisable today as our common "pepper." Black pepper is a climbing plant growing in the Travancore and Malabar forests along the south-western Indian coast, whereas long pepper grows mainly in the hottest regions of northern India, from Nepal to Bengal (Miller 1969: 80). According to the *Periplus*, in the first

[6] Bdellium probably corresponds to an aromatic substance, similar to myrrh, that was extracted from what Theophrastus, writing in the 3rd century BC, referred to as "indian *acantha*" (Theo., *I.P.* IX.I.2). Theophrastus also listed costus amongst the twenty plants used in perfume industry (Theo., *I.P.* IX.7.3).

[7] Costus is mentioned alongside other offerings made to Apollo by King Seleucos II, which included frankincense, myrrh, cassia and cinnamon.

[8] Perhaps the seeds of *Nigella sativa*, sometimes referred to as "false pepper", or alternatively Petra hypericum (*Hypericum petraeum*), of which Pliny (XII.54.119) writes that it can be recognised on account of its "pepper taste", and that its fruits were sometimes mixed with those of the balsam tree in order to augment profits.

[9] Theo., *I.P.* IX.20.1

century AD black pepper was exported from Muziris (*Periplus* 56), the main port of south-western India[10], whilst long pepper was exported from the Barygaza area in a similar manner to costus and bdellium (*Periplus* 49). Moreover, we know that long pepper first reached the Mediterranean area in the fifth or fourth century BC, whereas black pepper only became popular in the Roman world after the direct maritime route opened between ports of the Red Sea and southern India in the first century AD (Miller 1969: 82-83). It is no coincidence that recent excavations at the Egyptian Red Sea ports of Myos Hormos and Berenike have uncovered large quantities of black pepper (for Berenike see Cappers 1998: 311-313; Sidebotham, Wendrich 2001-2002: 30; for Myos Hormos see Van der Veen 2004: 126-127), but no long pepper. Therefore, when considering the abovementioned trade links between north-west India and Nabataea we can, in all probability, assume that the reference by Diodorus / Hieronymus to "pepper" in Petra relates to long pepper exported from the Indus valley.

Conclusion

Owing to a lack of direct archaeological evidence, literary sources have proved useful in shedding light on the aromatic commodities, which reached the Nabataean kingdom between the end of the fourth century BC and the first century AD. Even if the traditional north-south "incense road" remains the best-known route, and even if frankincense and myrrh remain the most oft-quoted products, we should not ignore the existence of the "eastern road" that would have served as a conduit for many other goods coming from Central Asia or northern India. Moreover, the long history of this route — spanning more than four centuries — should be taken into consideration when we attempt to reconstruct the trade networks of Antiquity, particularly when assessing the likely impact of the Roman maritime route on the Nabataean economy during the first century AD.

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[10] This port has been tentatively identified with Pattanam on the Malabar coast (Shajan *et al*. 2004).

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