# **CHAPTER 7**

# Socio-Economic Considerations and Concluding Remarks

## 7.1 Introduction

Taken together, both the literary and archaeological evidence provide insights into the society and economy of ancient Aila in the Nabataean period. Aila rose to prominence as a nexus of overland and seaborne trade. The inhabitants of this remarkable *polis* engaged in the production and distribution not only of Aqaba Ware pottery, but metals, worked-shell products, probably dates and date wine, and perhaps *ichthyo*-products such as *garum*. Their rôle as middlemen in various trading enterprises – i.e. aromatics, oil, wine, and precious metals and stones – likely provided them with sufficient wealth. In addition, there is abundant evidence that the Ailans imported goods both regionally and at the long-distance level. Finally, Aila acted as an oasis to its rural hinterland, providing it with a variety of goods and services.

#### 7.2 Aila as a Nexus of Trade

In antiquity, Aila was certainly one of the more significant sites in the region. This was due not only to its location on the Red Sea as an international port (as Aqaba is today), but also to its strategic position as a hub along trade routes that linked southern Transjordan with the Sinai, the Negev, the Syro-Palestinian littoral, the Hauran and the Arabian peninsula.

#### 7.2a Aila as a Port

To date, no archaeological evidence for Aila as a port – i.e. harbour installations – has been uncovered. Indeed, the mention of Aila in association with seaborne trade, or even as a port for that matter, is conspicuously absent in the accounts of the earlier classical authors. Of interest is a passage from Diodorus Siculus describing the perils of seafaring in the Gulf of Aqaba:

"...a rock which extends into the sea obstructs its entrance and so it is impossible for a ship to either sail into or out of the gulf. Furthermore, at times when the current rushed in and there are frequent shiftings of the winds, the surf, beating upon the rocky beach, roars and rages all about the projecting rock." (3.44.1-2)

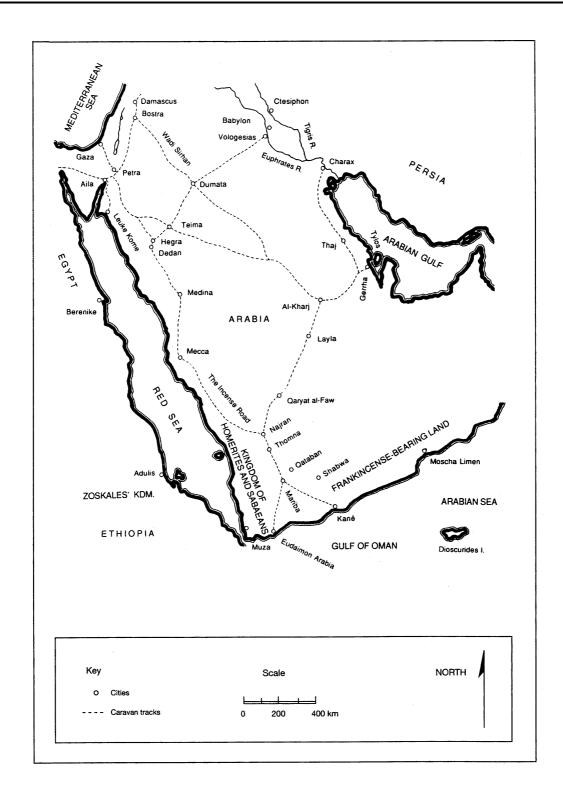
The "rock" to which Diodorus referred, located in the Strait of Tiran at the mouth of the Gulf of Aqaba, is still a hindrance to shipping today, especially during the winter months, when the north winds are at their strongest. The admonition of Diodorus was echoed by the later Arabic and medieval writers (cf. Musil

1926: 309-309), but as Eadie (1989: 117) has pointed out, this ultimately had no impact upon seaborne trade in the Gulf, a fact attested to by the floruit of maritime commerce in later periods, when Aila became known as "the port of Palestine on the China Sea" (Khouri & Whitcomb 1988). While there is clear evidence for Aila as a port in the Byzantine sources, there is a lack of information, both written and artefactual, on its status during the Nabataean and Roman periods. It is fairly reasonable to assume, however, that Aila was indeed active in maritime commerce, as was suggested by Glueck (1965: 69) and Warmington (1974: 92, 102) some time ago, and more recently by Ghawanmeh (1986: 312), all of whom have suggested that Aila superseded Leuke Kome as the primary port under the Romans. That trade in the Red Sea was active in the Early Roman period is suggested by the literary evidence, 233 by the Roman development of ports along the Egyptian Red Sea coast, such as Myos Hormos and Berenike, and by the activities of Trajan, who restored the canal between the Nile and the Red Sea port of Clysma.<sup>234</sup>

#### 7.2b Aila and the Overland Routes

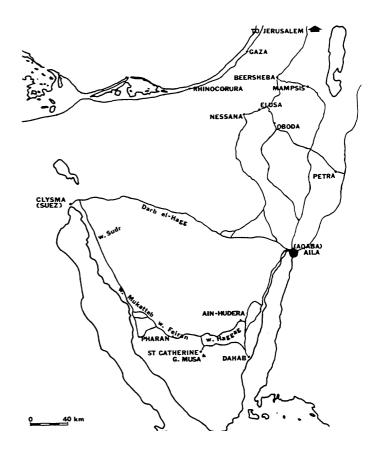
The location of Aila in southern Transjordan was well suited for a major regional hub to connect many important overland routes. From Aila, roads led southeast to the Arabian peninsula, northwest through the Negev to the Syro-Palestinian littoral, west into the Sinai and Egypt, and northward to Syria.

The Nabataeans derived a great deal of wealth as middlemen in the aromatics trade. As attested in the ancient sources, caravans made their way north from the incense-producing regions of South Arabia to Aila, whence the precious aromatics were distributed throughout the Mediterranean world. Before the Nabataeans appeared on the scene, this "incense route" (Fig. **45**) was controlled by the Minaeans of the Arabian peninsula, who flourished during the Late Iron and Hellenistic periods. Aila, as Groom (1981: 206) has aptly noted, provided the perfect location for a trading centre, where the Minaeans could exchange their aromatics for copper from the mines of the Wadi Araba. Indeed, Minaean presence at the head of the Gulf of Aqaba is attested by two jars inscribed in the Minaean script found by Glueck at Tell el-Kheleifeh.<sup>235</sup> When the Nabataeans eclipsed and replaced the Minaeans as middlemen in this trade, they inherited control of this route into Arabia, which not only acted as their gateway to the south, but provided them with a great deal of revenue as well. That the Nabataeans were in contact with the southern Arabian peninsula is demonstrated archaeologically by quantities of NPFW discovered throughout the region, <sup>236</sup> as well as by the explicit testimony by Strabo



**Fig. 45** Caravan routes leading from the Nabataean kingdom to the incense-producing regions of the southern Arabian peninsula (Young 2001: 93). Although not shown on this map, there was most likely a trunk road leading from Aila to Hegra, or modern Meda'in Salih.

Fig. 46 Principal overland routes emanating out of Aila to Nabataean sites in the the Negev and Sinai Peninsula. (Mayerson 1981: 169)



(16.4.4), who noted the presence of Ailan merchants in the southern Arabian peninsula.

Another series of roads originating in Aila ran northwest through the Negev Desert (Fig. 46). It consisted of three branches, all eventually leading to Gaza, one of the principal regional ports on the Mediterranean Sea. Before reaching Gaza, there was a fork in the road at Beersheba, where the northern fork led to Jerusalem and the western fork continued on to Gaza. Several Nabataean towns sprang up along this route from Aila through the Negev: Mampsis, Elusa, Oboda, Sbaita and Nessana. These settlements, and the smaller campsites that sprang up around them, 237 not only provided weary travellers with a place to rest and water their animals, but also generated large amounts of revenue for the Nabataeans, once again derived directly from the control of an overland route. Many of these Nabataean caravanserais grew into full-fledged towns, complete with temples, markets and other amenities. Therefore, the Aila-Gaza road led directly to the development of the Negev cities in the Roman, and later Byzantine, period (Aharoni 1954: 9).

An often-overlooked network of roads emanating out of Aila was the series that led westward into the Sinai peninsula (**Fig. 46**). A branch of this road appears on the *Peutinger Table* as

running almost directly west and, after passing the *stationes* of Phara and Medeia, terminated at the port of Clysma, located at the northern head of the Gulf of Suez (see Fig. 6 above). After Miller's (1916) brief discussion of this route, it remained essentially *terra incognita* until Mayerson (1981) discussed it in some detail. A closer examination of the Sinai network has revealed that the "Phara" of the *Peutinger Table* can be identified with the site of Pharan, located along the Wadi Feiran deep in the southern part of the Sinai peninsula.<sup>238</sup> Therefore there were, in actuality, two routes in the Sinai leading out of Aila. The first led almost due west, directly to Clysma, crossing a huge expanse of desert. While this was by far the most direct route, Mayerson (1981: 169) asserts that it was likely the least used, due to the absence of water sources and settlements offering travellers a place to rest.

A second road, referred to by Rothenberg (1970: 14, 18-19) as the "Aila-Feiran Highroad" (**Fig. 46**) ran south, following the eastern coastline of the Gulf of Aqaba, then turned west passing through Feiran, finally turning northwards and terminating at Clysma. This route had a number of stopping points along its length. Among these were several Nabataean camping grounds, the major Nabataean settlement at Tell el-Mekharet, Nabataean rock-cut monuments reminiscent of those at Petra, Nabataean copper mines and processing sites,

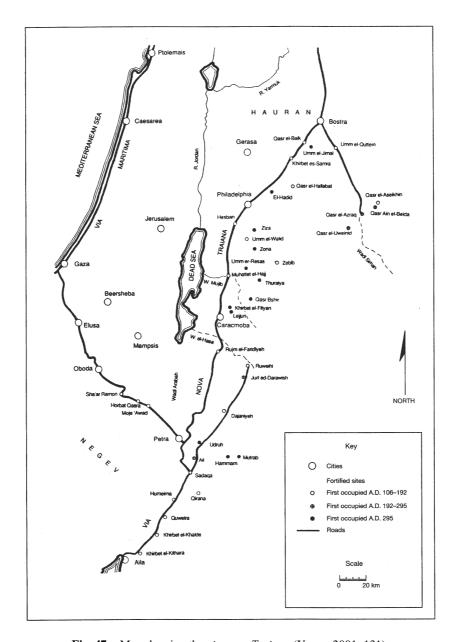


Fig. 47 Map showing the via nova Traiana (Young 2001: 131).

numerous Nabataean rock-carvings and inscriptions, and turquoise mines that were likely exploited by the Nabataeans. In addition, the Aila-Feiran route was well-travelled by pilgrims wishing to visit the "mountain of God" in Sinai, as attested in later periods (Geyer 1898: 183, c. 39-40).

The most important road in the entire region led northward from Aila toward the Nabataean capital at Petra, and continued north through the Decapolis cities, terminating at Bostra in southern Syria. During the Nabataean period, this road acted as the lifeline that connected Petra with its port at Aila, and therefore with the Arabian incense route. After the Roman annexation of Nabataea by the emperor Trajan in AD 106, a well-built road (**Fig. 47**) was constructed along this route under

the governor Claudius Severus (AD 111-114) and named in honour of the emperor as the *via nova Traiana*. According to the large number of Roman milestones found along the length of this road (Thomsen 1917), an example of which can be found in the Aqaba Museum (Bennett 1997: pl. 12A), it ran *a finibus Syriae usque ad mare rubrum*, or "from the borders of Syria to the Red Sea." Roman milestones are found in abundance along the northern sector of the *via nova Traiana* (Germer-Durand 1897; Beyer 1935), but there is a paucity of evidence from the section of the road from Petra to Aila (Gregory & Kennedy 1985: 437), and with the exception of the two aforementioned milestones discovered by Whitcomb, only one other example has been found in the vicinity of Aqaba.

## 7.3 Production and Exports from Aila

The inhabitants of Aila likely engaged in the production of a variety of commodities, which were either consumed or used locally, or exported both within and beyond the Nabataean realm. In addition to the Aqaba Ware pottery discussed in the preceding chapter, the Ailans most likely manufactured metals (especially bronze), worked-shell products, dates, and perhaps date wine and *garum* as well.

## 7.3a Production of Metals

A number of finished bronze artefacts (e.g. nails, hooks) excavated during the first two seasons of the Roman Aqaba Project suggested some type of metallurgical activity at Nabataean Aila. During the 1998 and 2000 seasons, however, the first solid evidence for the manufacturing of metals in this period was uncovered: from Area B, there were bronze sheets and lumps and, more importantly, a large chunk of copper slag; and from Area M came more copper slag.<sup>242</sup> As there are no copper deposits in the direct vicinity of Aila, the most likely sources for this copper are the mining and smelting sites at Timna and Feinan, both exploited extensively in previous periods. As the Early Roman/Nabataean finds from Feinan and their contexts have not yet been fully published, <sup>243</sup> it is difficult to say with any certainty whether or not the copper discovered at Aila came from that site. Timna, on the other hand, provides a few clues as to Nabataean metallurgy in the Wadi Araba during this era. During his survey of the region, Rothenberg (1972: 28, 177-179; Idem 1990: 54-63 passim) discovered a Nabataean casting installation in the court of the Hathor temple at Timna. Although there were nearly 50 kg of copper ore nodules present in Nabataean contexts from the site, there was no evidence for smelting, which led the investigators to believe that this ore was "...only collected by the Nabataean metallurgists and stored to be transported to a smelter [located] elsewhere" (Rothenberg 1972: 177). It seems reasonable to assume, therefore, that the copper slag found in Areas B and M at Aila may have originated in Timna, however this can only be proven by scientific analysis and comparison of the Ailan samples with the ores from either Timna or Feinan. Interestingly, the Nabataean pottery found alongside the ore nodules from Timna offers almost exact parallels for two of the Petra imports to Aila described in section 5.9a above and illustrated in the catalogue below.<sup>244</sup>

## 7.3b Dates and Date Wine

One commodity that was likely produced at Nabataean Aila, and perhaps exported, is wine made from the readily available dates, which grew in the palm groves situated around the site. Strabo (16.4.18, 21) specifically mentioned a grove of palm trees near the Aelanites Gulf, and although depleted over the centuries, many of these palm trees are still visible today. An earlier statement made by Diodorus Siculus may have alluded to date wine consumption among the Nabataeans. He informs us that:

"They...use as food...plants that grow from the the ground which are suitable for their purpose; for among them there grow[s]...the so-called wild honey from trees, which they drink mixed with water." (19.94.9-10)

It has been supposed by some (e.g. Evenari et. al. 1982: 346) that this "tree honey" referred to by Diodorus was made from dates. However, that this beverage was honey seems suspect in light of the fact that Hellenised peoples mixed their wine with water, and the passage in Diodorus specifically mentions this mixing process. This notion finds support in a statement by Strabo, who in alluding to the inhabitants of Arabia Felix – culturally similar in many respects to the Nabataeans – reports that "...the greater part of their wine is made from the palm" (16.4.25).

Archaeological evidence for the production of date wine can be inferred from the presence at Berenike on the Egyptian Red Sea coast of a 5<sup>th</sup>-century AD jar produced at Aila (i.e. the socalled "Ayla-Axum" amphora) which bears a dipinto (i.e. painted) inscription on its shoulder which has been tentatively read as "date wine" (R. Tomber: pers. comm.). In addition, the present author is of the opinion that the Aqaba Ware Ribbed-Neck Jars (J2) were used to store and transport date wine from Aila, although this is – at this point – difficult to prove. However, the similarities in rim form between the "Ayla-Axum" jars and their Nabataean precursors may hint at a similar function, and therefore represent a continuity of tradition for the shipment of date wine. The distribution of date wine may have been limited to the Nabataean realm and its immediate surroundings, because "...there is no mention of it[s] use elsewhere in the Mediterranean world, and the Romans...may have looked upon this product as a novelty, but hardly as wine" (Dudley 1992: 73). Perhaps the Agaba Ware J2 jars were exported to markets in the south -e.g. the Sinai, Upper Egypt and Nubia – just as the later "Ayla-Axum" jars were, and escaped the notice of the classical authors.

## 7.3c Garum and Other Fish Products

Other likely commodities produced at Nabataean Aila were *garum* and related *ichthyo*-products, such as salted or pickled fish and shellfish. *Garum* was a popular and ubiquitous fish sauce that was used as a condiment to flavour the rather bland Roman food.<sup>245</sup> *Garum* received a great deal of mention in the ancient sources,<sup>246</sup> and was also used for medicinal purposes, particularly stomach ailments, much like cod-liver oil has been in recent times (Curtis 1991: 27-37).

The process of *garum* production is based upon the fermentation of the intestines and leftover parts of salted fish, whereby – after a period of soaking in salt – the liquid is left in the sun for a period of between 30 and 60 days. There are recipes for *garum* and related products preserved in the *Geoponica*, a collection of the "extracts of agriculture" gathered by a certain Cassianus Bassus in the 6<sup>th</sup> century AD, and adapted from works by Vindonius Anatolius of Beirut and

Didymus of Alexandria, who both wrote in the 4<sup>th</sup> century AD. In the 10<sup>th</sup> century, this work was then collected and edited by Constantius VII Porphyrogenitus (*Geoponica* 1895: 528-529). In addition to *garum*, the *Geoponica* makes mention of a variety of fish sauce types, including *muria* and *allec/hallec/allex*, which were cheaper, often much saltier and lower-quality by-products of *garum* production.<sup>247</sup>

The bulk of our extant evidence for garum production comes from the western Mediterranean, and indeed most of the ancient references and modern studies on the subject have given only cursory treatment to the eastern Mediterranean.<sup>248</sup> Recent archaeological excavations have provided a clearer picture of garum in the Levant, but the majority of the evidence is Late Roman in date. <sup>248</sup> Of interest from this period is an Aqaba Ware pilgrim flask, uncovered during the Swiss excavations at Petra ez-Zantur, <sup>249</sup> that originally contained garum - attested by the numerous fish bones found in the bottom of the vessel. Analysis of the fish bones revealed that they originated in the Red Sea (Studer 1994: 195). Similar remains were found at the Late Roman forts of En Boqeq and Tamara, located along the eastern shore of the Dead Sea and in the northeastern Negev, respectively. A study of these materials has indicated the overwhelming majority of the fish bones attested at these sites originated in the coral reefs of the Gulf of Aqaba.<sup>250</sup>

That the Red Sea was a major source for the fish used in the garum market of ancient Transjordan is of little surprise, as several of the species of fish attested in those waters were used in its production (Goren & Dor 1994). And the salt necessary for the manufacture of garum was no doubt readily available from the nearby Gulf of Aqaba, and could be obtained through collection of seawater in evaporation tanks.<sup>251</sup> The fish bone finds from Petra, En Bogeq and Tamara, therefore provide the first direct evidence that garum was being produced using fish from the Red Sea. When one considers the archaeological data uncovered from RAP Area B (Harvey 1998: 17), especially the sheer number of fish bones and the presence of numerous tabûns, the latter of which may have been used to speed-up the production of garum (Curtis 1991: 12-13, 180), combined with the presence of a 2<sup>nd</sup>-century AD jar from trench M.4 which contained hundreds of tiny fish bones, 252 it seems very likely that an important commercial port city such as Aila could have been the production centre for garum or other fish products. Whether or not Aila actually produced garum, from the available archaeological evidence, it seems reasonable to assume that fish sauces and similar products at least passed through the site in some quantity and were consumed locally.

## 7.4 Concluding Remarks

After a thorough examination of the historical sources and archaeological evidence, pieces of the puzzle that is the history of Nabataean Aila begin to fall into place. The ancient authors make it clear that Aila was an important point of transhipment in the lucrative aromatics trade, which must have generated a great deal of revenue for its inhabitants. The discovery of a

Nabataean incense altar dating to the 1<sup>st</sup> century AD in Area M (see Fig. 12 above) represents a poignant example of the importance of frankincense and myrrh to the Mediterranean world in general, and the people of Aila in particular.

The stratigraphy and associated finds from the excavations of the Roman Agaba Project have made it possible to reconstruct an occupational history for the site, from its founding to its incorporation into the Roman empire as a new province. And, the pottery from the RAP excavations has yielded an abundance of new information about the economy of Nabataean Aila. For example, it is clear that the inhabitants of Aila saw goods from all over the Mediterranean world passing through their polis, attested by the numerous imported pottery found at the site. In addition, the Ailan ceramics offer vivid insights into the site's role in the regional economy. Most ancient authors, historians and archaeologists have often ignored this aspect of the ancient economy, in favour of studying long-distance trade. But, it should be stressed that local trade was indeed "the most important component of the Roman economy in terms of gross product exchange" (Adan-Bayewitz 1993: 19).

By studying Aila's involvement in local trade, one can now begin to establish trading patterns within and outside of its rural hinterland, and the seminal part Aila played as a major regional source for commodities. The economic model for the relationship between Aila and its rural hinterland, therefore, seems to represent a mirror image to the traditional view of the *territorium* surrounding a classical *polis*. Most ancient cities utilised their rural hinterland to provide a variety of raw materials and agricultural products (Smith 2000). Aila, however, was a veritable oasis in the midst of a large expanse of desert, and the sites within its immediate environs were economically dependent on Aila to provide pottery, metals and foodstuffs.

Aila played an important role in the history and economy of ancient southern Transjordan as a port city that was involved in both overland and maritime commerce. From its foundation, possibly under Aretas III, and its development by Obodas III in the late 1st century BC, Aila steadily grew, reaching its apex in the 1st century AD, during the Nabataean renaissance under Aretas IV and the last Nabataean kings. This apogee is consistent with Strabo's account of Aila as a polis during this period. Noteworthy is the fact that the Aila of this epoch was one of only three known production centres for Nabataean pottery,<sup>253</sup> suggesting its prominence among the cities of Nabataea. During the early-2<sup>nd</sup> century AD, Aila experienced a brief interruption in its occupation, attested by the tumbledover mudbricks and accumulations of windblown sand uncovered in the stratigraphical record. After this, Aila became part of the new Provincia Arabia, and enjoyed continued prosperity and growth for centuries to come.

The study of Aila's history and economy is of great importance because the site is at risk. As modern Jordan's only port and outlet to the Red Sea, the pressure to develop this narrow stretch of coastline land is immense. The Aqaba Regional Authority has plans to build a complex of thirteen hotels – surrounding a giant man-made saltwater lagoon – in the Circular Area (Parker: pers. comm.). This puts at risk almost all of the Roman Aqaba Project excavations areas that have provided the archaeological evidence for Nabataean Aila's history and economy. Fortunately, the excavators have been able to glean a great deal of information about this major site before it becomes a victim of its urban environment.

The evidence uncovered by the Roman Aqaba Project has vastly increased our understanding of Aila's place in history, greatly supplementing the few words provided by the ancient authors regarding the site. Taken together, the present study has attempted to give a historical voice to the Nabataean Ailans who lived and died there so long ago, by examining both the society and economy of their own kingdom, and their place in the ancient world as well.

#### **NOTES TO CHAPTER 7**

- 233. For example, Strabo (16.4.24) explicitly states that the Egyptian ports were more important in his day.
- 234. Whitcomb & Johnson 1982; Sidebotham 1986: 68, 146, 176; *Idem* & Wendrich 1995, 1996, 1998.
- 235. Glueck 1938: 15, fig. 5; Ryckmans 1939. For a summary of the debate concerning the origin of these inscriptions, see Pratico 1993: 62.
- 236. Ingraham *et. al.* 1981: 75-78; al-Ansary 1982: 15-16, 22, 29 and 63; and, more recently, Potts 1991.
- 237. Meshel & Tsafrir 1974, 1975. See also Rosen 1993.
- 238. Mayerson 1981: 171. For the site of Feiran, where quantities of Nabataean pottery have been uncovered, see Grossmann & Reichert 1992 and Grossmann *et. al.* 1996.
- 239. Rothenberg 1961: 15, 22, 37, 40, 43, 59, 84, 140, 161, 182; *Idem* 1979: 109, 166 and 170.
- 240. Butler 1911; Pekàry 1968: 140-142; Bennett 1997: 177.
- 241. Andrew M. Smith II: pers. comm. During the course of the Southeast Araba Archaeological Survey (SAAS), associated with the Roman Aqaba Project, Smith and his survey team discovered a quarry to the north of Aqaba where milestones, perhaps for use along the *via nova Traiana*, were produced. Among the ruins of this putative "milestone factory," was a nearly complete uninscribed milestone, which may have originally been painted instead of inscribed. See Graf 1995, for examples of uninscribed milestones from this road.
- 242. Harvey 1998: 8, 13-14, 18. Retzleff 2000: 11. Copper slag was discovered in B.3:92, which dates to the early-2<sup>nd</sup> century

- AD, and in trench M.5 from a clear Nabataean Phase II context, i.e. the late-1<sup>st</sup> century AD.
- 243. Hauptmann & Weisgerber 1989. See also Rothenberg 1972: 222.
- 244. Gichon 1988: 253-260, figs. 87-88. The unguentarium and Khairy Group II lamp are the closest published parallels to the pieces from Aila (P7-8, Cat. Nos. 37-38).
- 245. Vehling 1936. This translation of a Late Roman cookbook attributed to Apicius mentions several recipes in which *garum* is used, either by itself as a seasoning, or combined with either wine or oil.
- 246. See especially Zahn 1910, who lists all of the known ancient references to *garum*. See also Corcoran 1962; and Renard 1970, who discusses *garum sociorum*, which was reportedly of the highest quality and was produced in Spain. See, more recently, Curtis 1991, who offers the most comprehensive study on the subject; and Wilkins *et. al.* 1995: 121, 144-145.
- 247. Cotton *et. al.* 1996: 231. *Muria* was essentially a salty liquid similar to *garum*, but was used as a preservative; *allec/hallec/allex* was residue from *garum*, and was a thick concoction of leftover fish parts, including the scales and bones.
- 248. A thorough analysis of the ancient sources using the work of Zahn as well as the CD Rom *Pandora* has revealed no mention of *garum* from Nabataea or the Red Sea. I would like to thank Marjo Lehtinen (University of Helsinki) for her assistance with this search. Curtis (1991: 141-147) devotes very little discussion to the Levant, and the few sites he mentions are either in Anatolia or Syria; this is no surprise, however, because the monograph is based upon his dissertation, which focused only upon the western Mediterranean. See also the following: Van Neer & Lentacker 1994, who present evidence of local *garum* production on the Belgian coast; Tranoy 1981, whose focus is Gaul; Edmondson 1987, whose study is on Lusitania, or modern Portugal; and Morales-Muñiz 1993, who discusses Iberia, i.e. Spain.
- 249. Lernau 1986, notes the presence of *garum* at two Late Roman *castella*. Van Neer & Ervynck 1998, present evidence from the Egyptian Red Sea port of Berenike. And Studer 1994, discusses the data from Petra the first published Nabataean site to yield evidence of *garum*. Of an earlier, 1<sup>st</sup> century AD, date is Cotton *et. al.* 1996, whose study is on Masada, however the fish bones attested there represent species from the Mediterranean and not the Red Sea.
- 250. The vessel in question is currently on display at the lower, Nabataean Museum at Petra. I would like to thank Mr. Suleiman Farajat from the Petra Regional Office of the Jordanian Department of Antiquities for allowing me to examine this flask. It came from the Late Roman house on ez-

- Zantur (Y. Gerber: pers. comm.), in a context dating to the 4<sup>th</sup> century AD.
- 251. Lernau 1986: 93-94. Almost half (47.7%) of the fish bones attested at En Boqeq and Tamara represent the remains of parrotfish from the Gulf of Aqaba.
- 252. Retzleff 1998: 6. It must be stressed, however, that these fish bones have *not* yet been studied by a qualified specialist.
- 253. The only other Nabataean sites to manufacture pottery were Petra (cf. 'Amr 1991), which was the main production centre, and Udruh (McQuitty 1987). There also appears to have been ceramic manufacturing at Elusa (Negev 1976b: 94), but the evidence appears to be mostly Byzantine in date, and further fieldwork is required to clarify the picture with regard to the Nabataean period.

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