

Friction in Aegean-Pontic Trade: Transport Amphoras, Geography and Economy (Late 6th through 4th Centuries BC)

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When the dominant paradigm of studies of the ancient economy shifted at the turn of the century into what some called the post-Finley era, the entire tenor of the field seemed to become much more optimistic. The paradigm of New Institutional Economics, which emerged to dominate studies of ancient Mediterranean economies in the early 2000s, itself has a decidedly optimistic tone. Societies develop institutions to reduce the costs of doing business, hence improving economic performance. Peter Bang sounded a more pessimistic note and was dismissed as a neo-primitivist.¹ But I found myself quite attracted by his attention to the basic fact that there were major problems with ancient economies, and systems developed around these problems.

The assertion that ancient economies had problems is hardly new. Modern economies have problems. Indeed, one of Douglass North's overarching questions was why some economic systems are so successful while others fail.²

Archaeology can help document and explain such historical trajectories. My particular focus is on the Hellespont and the Bosphorus as a zone of friction or bottleneck.³ The nature of this friction changed over time in terms of directionality, who was most affected and how, and responses to changing circumstances. Much of the work on Aegean-Pontic interaction has focused on the grain trade, Athenian foreign policy, and the economics of taxation on goods passing between the two regions.⁴ The present paper turns the attention to the archaeological evidence. My particular focus is on the shipping of transport amphoras through the region from the late 6th through 4th centuries BC.

The selection of the Hellespont in tandem with transport amphoras is particularly fitting on many levels but also brings certain challenges. More than a century of intensive research on transport amphoras in the Pontic region means that the amphora record there is well-known.⁵ This long and rich tradition of Pontic 'amphorology' developed largely in parallel with research in the Aegean world, and yet linguistic, economic, and political barriers have all limited the extent to which the Aegean amphora record is studied in comparison with the Pontic and vice versa. In a sense such a gap in the scholarship is justified by the one pattern that has been noted in the Aegean vis à vis Pontic amphoras: they rarely appear in the Aegean basin. Ships brought amphora-borne products from the Aegean into the Black Sea in great quantity. Those ships returned to the Aegean with grain, fish, hides, and other goods all, presumably, in perishable containers. Another seemingly common commodity – enslaved peoples – required no containers at all. Did Pontic wine producers – assuming wine comprised the bulk of the goods in Pontic amphoras⁶ – know they could not compete with Aegean goods?

Aegean-based shipping brought coals to Newcastle (wine to Thasos) all the time. Why not add Pontic amphora-borne goods to the mix?

The question has been asked before. Examining the distribution of Sinopean stamped handles in particular, Garlan posits that Sinopean wine and oil lacked the necessary reputation for broader Aegean or Mediterranean distribution while Sinopean processed fish and miltos may have been the more likely goods driving the sparse record of distant exports.⁷ Lund emphasizes the much greater scale of non-amphora-borne goods filling the ships headed out into the Aegean.⁸ Lund is certainly right to emphasize that amphoras do not show the whole picture. And yet, questions remain as to how and why such a trade imbalance developed, and why Pontic amphora production rose to such prominence locally but never on an 'international' scale.

Basic geography surely plays some role. Distance, currents, prevailing winds, and topography, all shape economic behavior. The counterclockwise currents in both western and the eastern halves of the Black Sea create a two-way path north and south between Crimea and the Turkish coast, but travel from the Bosphoros northwards has to work against that current. That route, however, does work reasonably well for ships sailing across the prevailing winds moving from east to west.⁹ These conditions, however, remain stable throughout the centuries under consideration here. Human behavior is never so stable.

This paper begins by surveying and discussing major trends in amphora circulation in the Pontic region from the late 6th through 4th centuries BC. This survey highlights changes in evenness, both in terms of the relative frequencies of the different amphora types and in terms of the geography of distribution, as well as changes in elite, often non-Greek elite, interest in access to amphora-borne goods. The development of intensive amphora stamping by Heraclea Pontica, as one of the first Greek amphora producers to use stamping on a large scale, can be better understood against the socio-economic conditions established in part by the existence of the bottleneck at the Hellespont. And yet, these conditions were not simply the result of external (Aegean Greek) interests; the social structures that shaped amphora distribution within the Pontic region likely contributed to limiting long-distance exports of those Pontic jars.

Late 6th Century BC

Following the early establishment and growth of Greek settlement along the coasts of the Black Sea from the late 7th century, amphora imports are especially common by the second half of the 6th century. The most common types are those of the region of Lesbos, Chios, Clazomenae, and further south into Ionia.¹⁰ This latter presence, surely involving Miletos and Samos but likely many other producers are well, is easily reconciled with later sources' descriptions of Milesian colonizing expeditions to the region. If, as some argue, this tradition only attests to trade and informal settlement (as opposed to corpo-

rate, coordinated ventures of colonization),¹¹ nevertheless the presence of East Greek amphoras in the Black Sea fits well with the wide distribution of Ionian goods throughout the Archaic Mediterranean. More surprising is the limited range of imported types from the North Aegean. One type, the so-called Protothasian or profiled toe type, is fairly common at Pontic sites. A second northern type, the wedge-rim type, which is far more common around the late Archaic Aegean, rarely appears at Pontic sites. Other more distant Aegean exporters, such as Corinth, western Greece and Attica, are also scarce at Pontic sites. While geography alone might explain the rarity of such distant imports as those from Corinth or Athens, such an explanation fails to account for the apparent exclusion of much north Aegean traffic.

Two other features of the late Archaic record of amphora traffic into the Black Sea bear emphasis. First, there appears to be some diversity in the frequency of different types seen as one moves from site to site.¹² Chian might most common at one site, but only second or third ranked at another. Second, the urban settlement sites themselves were the primary consumers of amphora imports in the late Archaic period. The jars are not yet part of elite funerary display. The diversity of import patterns from site to site together with the apparent exclusion of certain Aegean exporters (apart from those perhaps with ties to Ionia) may indicate a significant role for prior social connections between Ionian exporters and Ionian-origin Pontic importers.¹³ These social paths could have fostered a situation of increasing returns for those early participants whose success laid down advantages for their followers. At the same time, a lack of such connections made entry costs insurmountable.¹⁴

5th Century

Precisely those social ties that underpinned late Archaic trade were ruptured, first, by the hostilities between Persians and Greeks along the coast of Asia Minor and across the Aegean in the early 5th century and, later, by the Athenian assertion of political hegemony over much of the Aegean.

Changes to the record of amphora imports to the Black Sea and other aspects of the Pontic archaeological record may be closely linked with these political and military events. Ionian imports decline; northern Aegean imports rise. This shift is difficult to divorce from the destructions and abandonments of those Ionian centers such as Miletos and Clazomenae that had played such significant roles in late Archaic trade. By contrast, northern Greek production now played an increasing role in eastbound shipping by merchants seeking return shipments of grain for Athens. Locally within the Pontic region, after an initial consolidation of settlements and abandonment of rural sites, there is a general growth across the region in the later 5th century. Interestingly, from site to site the amphora record is now much more consistent. At the same time, there is an increasing interest among rural elites, presumed to be non-Greek, in placing Greek

amphoras in their monumental tombs.¹⁵ Finally, at the very end of the 5th or more likely the first decade of the 4th century, local production within the Pontic region emerges at Heraclea Pontica on the south coast.¹⁶

Athenian and other Aegean states' interests in Pontic grain and northern Aegean timber and metals are well known. The Hellespont was not only a key highway for Athens' food supply but also a source of revenue from taxes and tolls.¹⁷ Grain ships financed from Athens were required to return to Piraeus,¹⁸ so Athens further constrained merchants' choices. The identity of cargoes and merchants – whether from within or outside the Delian leagues – became important through the 5th century.¹⁹ Both Athenians and all other members of the League had obligations involving cash, so there was further incentive to convert all manner of goods to cash through the market. Athenian interests, in other words, spurred on development of the economic systems of the 5th century. This high level of government intervention in Aegean economies had the effect of making the economic system more impersonal, less socially grounded; though personal connections and interests in personal status remained in play.

This is certainly the impression one gets from the patterns of imports at Pontic sites. There is now far greater consistency from site to site implying that once ships entered the region, all sites had roughly equal access to the goods and all goods were being marketed through the same systems and opportunities. 'Whom you knew' no longer mattered as much as what you could pay in the marketplace.²⁰

The rise of local production early in the 4th century can be explained by this change in the processes of transactions. If access to amphora-borne goods was now much more dependent on fulfilling the cost demands of the importing merchants, then local production could hope to undercut the Aegean importers' costs. After all, Heracleian exporters did not have either the same costs of distance and risk or the more tangible costs of tolls through the Hellespont. Friction imposed largely by Athenian interests now created a favorable setting for entry into market by producers within the Black Sea. That same friction likely kept Heracleian goods largely within the Pontic region.

4th Century

The 4th century was in many ways the high-water mark for the Pontic amphora trade. While Athenian hegemony waxed and waned through the century, Athenian financial and administrative resources were still very much aimed at facilitating Athenian food supplies, including at times, grain and other goods from the Black Sea.²¹ Northern Aegean amphoras, most noticeably those of Thasos, continued to be major component to the imported record alongside jars from Chios. Southeastern Aegean amphoras began to reappear in the late 5th century and were now also significant components to the imported assemblage. Heracleian production was joined by Sinopean production in the early 4th century and Chersonesan towards the end of the century.

Two major changes arise in this period. First, the consistency of amphora frequency patterns between sites declines again. This shift raises the possibility that once again different goods were moving through more idiosyncratic markets. Second, local elites were now at the peak of their interest in amphoras as part of the funerary ritual. Elite feasting, too, likely made routine use of such demonstrable access to Greek wealth and hence increased the indigenous consumption of these goods beyond what is most readily visible in the burial tumuli. Over the course of the first half of the 4th century, burial assemblages are strikingly consistent in the dominant presence of Heracleean amphoras with rare Thasian additions.²² While there are exceptions to this tendency, only around 350 BC and later do we see greater diversity in the amphora types consumed in this way. By the end of the century, the tumulus assemblages show a much wider range of amphora types including more southern Aegean types alongside various Pontic and north Aegean producers. Settlement assemblages, whether urban or rural, are always more diverse.

The elite preference for Heracleean amphoras could be explained in one of two ways. On the one hand, Heracleean products may have been cheaper, by whatever criteria the contents of such jars were assigned prices, and the supply line may have been more reliable. On the other hand, these elites may have developed, over the course of the 5th century, closer social connections with Heracleean suppliers as opposed to Aegean-based shippers. If so, the Heracleean jars would be moving through a different marketing system than were the Aegean-origin cargoes. The latter explanation seems more likely. Were we dealing simply with a matter of price and accessibility, settlement assemblages as well as the tumuli would all show similar assemblage profiles as they had in the 5th century.

I argued earlier that the diversity of assemblage profiles in the late Archaic period was indicative of socially embedded exchange partnerships. It is worth considering whether the same circumstances returned, at least to some degree, in the 4th century. Certainly, as Athenian political and economic clout within the Aegean waned, the Athenians themselves extended formal, socio-political links into the Black Sea rewarding those who could provide secure supplies of grain.²³

The Amphoras Themselves

The same rise of Heracleean production in the late 5th and especially 4th centuries, which so radically redefined Pontic shipping, was accompanied by new institutions. Heraclea was among the first producers to use a marking system that names the ‘fabricant’.²⁴ The precise roles or responsibilities of this named person are not certain.²⁵ We know from later Heracleean and other cities’ stamps that these persons (elsewhere they could be women) held their position for multiple years. Garlan and others have proposed that the person was associated with the city’s fiscal interests somehow associated with am-

phoras. The person may have been involved with the management of workshops much as choregoi managed dramatic productions or trierarchs managed triremes. This latter model would offload some portion of the transformation or production costs to wealthy 'volunteers' and reduce such costs for the producer. If the fabricant was somehow involved in the collection of tax, then the transformation costs and the ultimate sellers' costs might rise, but the polis itself would benefit. Either way, the new scale of amphora production attracted the organizational abilities of the polis and new institutions developed.

As far as can be known, Heraclea had at most one prototype or model for its system of stamping, Thasos. Other contemporary amphora producers, whose practices were surely known at Heraclea, had not developed the same systems. Mende offers the closest parallel. Carefully painted dipinti on the shoulder or neck record what appear to be initials or abbreviations, though the meaning of these diverse markings has never been determined. Stamps on the handles can include images related to Mendean coinage or single letters, never names in the late 5th century and only a very few different letters. These markings may have served the same administrative function as Heracleian stamps, but the very few 'variables' indicated by the Mendean stamps and the complexity of the dipinti make it hard to equate the two systems. Mendean stamps and others of the same period identify ethnicity in ways that are not seen in the Heracleian stamps. It is tempting to link Aegean 5th-century stamping identifying point of origin with a commercial environment, dominated by Athenian regulations, where such identity mattered. When Thasos introduced amphora stamps on a consistent basis, perhaps only a very few years before Heraclea (some even argue Heraclea was the leader in this area), we see a combination of Aegean and Pontic approaches. Thasian stamps list the fabricant and the eponym but also the ethnic. While maintaining the Aegean need to avoid friction related to point of origin, Thasos also adopted the broader system of either reducing transformation costs or increasing civic revenue from that increase in production just as Heraclea had done.

The Effects of Friction

One of the key distinctions between traditional economics and economic history is the latter's interest in change, not simply change in scale of one variable or another, but changes in the very rules of the game. The old approach to ancient economies sought to define the specific rules as a static set. The more optimistic approach, as I characterized our field's current situation, seeks the changing rules and the changing ways the players used those rules. Rules, however, include limitations; and those limitations can have profound effects.

In this paper I have considered the impact of personal or social connections on both late 6th century and perhaps even 4th century shipping through the Hellespont and

around the Pontic region. Cataclysmic events of the early 5th century changed the rules of the game and increased the costs of doing business through the Hellespont such that large scale localized production within the Pontic region became economically viable. Alongside that opportunity, however, came added costs of production that were lowered either through liturgical service or through some sort of civic management – whether directly or indirectly related to the amphoras themselves – paid for through taxation. That institutional solution within the Pontic region itself then influenced significant change in the Aegean basin as systems there grappled with a different set of constraints.

Notes

¹ Bang 2006; cf. Silver 2009.

² North 1990, 8 f.

³ Archibald 2013, 242.

⁴ E.g. Braund 2007; Gabrielsen 2007; Moreno 2007; Tsatskhladze 2008; Bresson 2016, 410 f.

⁵ Monachov – Kuznetsova 2017.

⁶ Lawall 2011; Panagou 2016.

⁷ Garlan 2007, 147.

⁸ Lund 2007, 190.

⁹ King 2004, 16; Gabrielsen 2007, 299 f.

¹⁰ On the amphora types discussed here, see Dupont 1998; Monachov 2003.

¹¹ Osborne 1998, 2008; Greaves 2007.

¹² Throughout this paper, the trends discussed are based on the figures provided by Monachov – Kuznetsova 2017.

¹³ Lawall 2017, 302.

¹⁴ Lagerholm – Malmberg 2009, esp. 88 f.

¹⁵ Problems of ethnicity and Pontic sites including burials, see Pedersen 2010.

¹⁶ Balabanov et al. 2016, 53–93; Monachov 2003, 123–144, for the amphora typology.

¹⁷ Gabrielsen 2007.

¹⁸ [Dem] 35.50–51, Bresson 2016, 315 f.

¹⁹ Pébarthe 1999, 2000.

²⁰ Hirth 1998.

²¹ Braund (2007) and Tsatskhladze (2008) both contrast the situation in the 4th century with that of the 6th and 5th centuries.

²² Monachov 1999.

²³ Moreno 2007.

²⁴ On Thasian chronology, see Tzocher 2016. Kac 2003 argues for Heracleian stamping of fabricants as starting before 400 BC; cf. Balabanov, Garlan and Avram 2016, 89.

²⁵ Garlan 2013, 218. 252–263. 267.

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