

Trade beyond the Empire: the Quantification of Roman Amphorae and the Implications for Indo-Mediterranean Trade

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Indo-Mediterranean trade has provoked scholarly interest for over a century with a strong emphasis on documentary evidence, particularly the 1st century AD documents, the *Periplus of the Erythraean Sea* and Pliny's *Natural Histories*. Excavations at port sites on the Egyptian Red Sea, in South Arabia and in India have now provided widespread archaeological evidence to investigate these exchange systems in a more nuanced way.

This case study examines Roman amphorae from Indian Ocean sites, briefly comparing assemblages from the Egyptian Red Sea, South Arabia and India with Mediterranean sites in order to better understand the underlying mechanisms of this trade. Arguably the least important of the exchange items, in a trade that was fuelled particularly by spices, amphorae take on significance given their visibility and widespread distribution.

Quantitative comparisons between the Indian Ocean and Mediterranean provide a method to better understand the distribution of amphorae outside the Roman world, and the mechanisms behind these networks. Like any quantitative study, assemblage comparisons must consider factors including identification biases, varying methods of quantification and site/deposit function. These, and even slight differences in chronology, can all be significant.

Early Roman amphorae – primarily Dressel 2–4 for wine – have been identified from seventeen sites in India. These amphorae, clustered around ports, catered for Western residents and local elites. The *Periplus* suggests a local market existed for the latter,¹ with barter another likely mechanism for their distribution. Two Indian assemblages are quantitatively significant although comprising only a small percentage of the total pottery on site: over 6000 amphora sherds were recovered from the Kerala Council for Historical Research excavations at Muziris (Pattanam) conducted by PJ Cherian;² c. 580 are published from various campaigns at Poduke (Arikamedu), including most recently those of Vimala Begley.³ This widespread presence of Dressel 2–4 from all Indian assemblages raises the question of whether this shape was particularly selected for India.

Comparison with a variety of Mediterranean sites demonstrates that between the late first century BC into the second century AD, Dressel 2–4 consistently dominates, not only in India, but frequently at Mediterranean sites,⁴ at the Egyptian ports and in South Arabia. A more refined question, therefore, first raised by Will in her study of Arikamedu,⁵ is whether specific sources of wine in Dressel 2–4 amphorae were selected for India and the Eastern trade; Will concluded a bias of Koan wine at Arikamedu was due to a preference in taste.

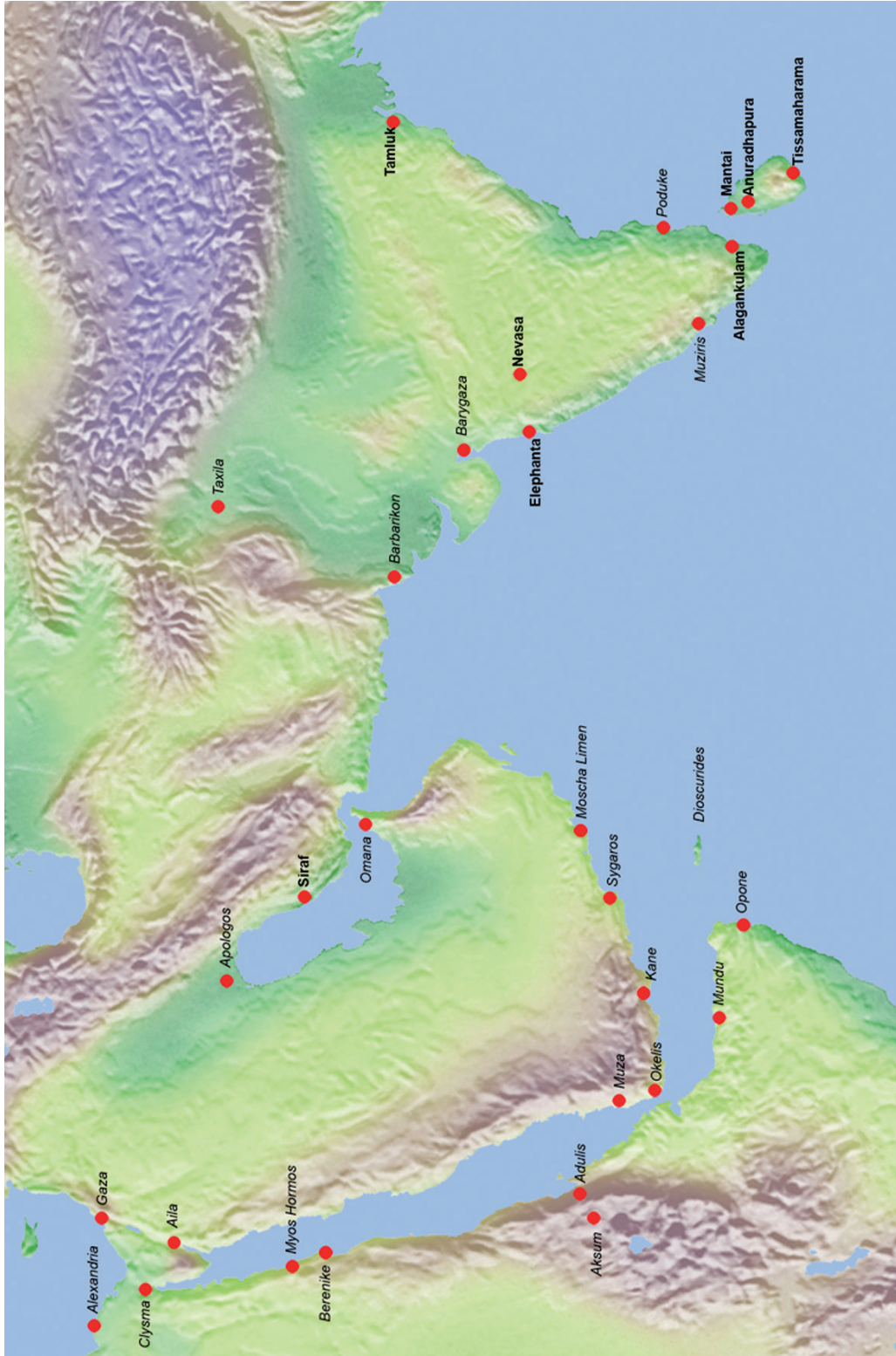


Fig. 1: Key Indian Ocean ports with Greek names in italics.

Although there are localised differences, Italy (Tyrrhenia, sometimes specifically Campania or Vesuvius), is normally the most common source of Dressel 2–4 from Myos Hormos, Berenike,⁶ Moscha Limen (Khor Rori)⁷ and Pattanam;⁸ only from Arikamedu⁹ are Dressel 2–4 from Kos more common.

Within the Roman world, distance from source and proximity are important in determining the distribution of amphorae. Beyond the Roman Empire, geographical restraints may be less significant and social distance more so. The variety of amphora sources present in Alexandria were available for cargoes to India. While there are many correspondences between the types found in Alexandria and India, Şenol has noted that Italian Dressel 2–4 are generally poorly represented at Alexandria, despite their importance in India.¹⁰

Inscriptions from the Eastern Desert of Egypt, from Wadi Hammamet on the route leading to Myos Hormos and in Wādi Menih on the route to Berenike, provide insight into this pattern. Five Italian individuals or groups are documented.¹¹ At Wādi Menih, merchants from Puteoli and Capua have left graffiti that illustrate the participation of Campanians in Eastern trade. Their main interest would have been in the more lucrative items they imported from India; nevertheless, these individuals may well have also carried wine from their own region. Connections between merchants from specific regions seemed to have played a determining role in the distribution of goods to the East. Whether the dominance of Koan amphorae from Arikamedu suggests a special connection with merchants from that region, rather than a preference in taste, is a possibility.

In conclusion, Dressel 2–4 amphorae clearly were not specifically selected for India, following a pan-Mediterranean trend, but there is a strong argument that the activity of individuals, from specific regions, was a major determinant in the types of wine exported to India, illustrating the importance of social networks in pottery supply.

Notes

¹ Casson 1989, 81, PME48.

² e.g., Cherian 2015.

³ Will 1996; 2004.

⁴ e.g. Moore 2010.

⁵ Will 2004.

⁶ e.g., Tomber 1999, 125 tab. 5-1.

⁷ Tomber 2017.

⁸ Tomber 2015.

⁹ Will 1996; 2004.

¹⁰ Şenol 2007, 62.

¹¹ Tchernia 1997; De Romanis 1996a; 1996b.

Image Credits

Fig. 1: A. Simpson.

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