Production of Prestigious-Quality Garum in Lusitania as Proxy for the Politicoeconomic State of the Roman Empire

The earliest parts of the construction of the fish-salting and garum production factory at Tróia is argued by Pinto *et al.* to be "certainly from the [first or second century]" [6]. Knowing this, it seems then that the initial site's construction began essentially immediately after the conquest of Lusitania. What would serve as the pressure for such a relatively-rapid development? The answer lays with understanding the role garum served in Roman society. Garum was a type of fermented fish sauce made from the intestines and other parts of salted fish. It came in many qualities and had many derivatives and economically-relevant manufacturing byproducts – these range from allex, the remaining fish product, which was used by the poorest for flavoring, to the finished "noble" garum used by the upper classes. When considered in all of its forms and derivatives, garum served as a staple food to the Romans. Despite that, however, some regions (such as Lusitania, where the site at Tróia is found) gave rise to such high quality garum that its expense was such to make it a prestige good reserved only for the most wealthy [4].

There are a variety of factors that go into making a site favorable for a fish-salting facility. The most important of these by far, however, are access to bountiful supplies of both high-quality salt and fish. Tróia meets both of these condition – sitting on a peninsula separating the ocean from the Sado River. The river is famed for its historical high-quality salt exports, and the surrounding ocean contain an ample supply of fish. It is then no surprise that the site at Tróia is home to the greatest known production capacity for garum in the period of the first and second centuries, during which time it also reached its peak production capacity [6]. The region's high-quality salt and fish predictably led to the high-quality garum for which the region was renowned. Because this site is home to such high-quality production, by tracking investment and rates of development and operation here, we can infer information about the state of the Roman socioeconomic institution at large over time.

Referring to the labeling convention for the various workshops at the site established by

pinto in [6], Étienne *et al.* inferred that workshops 1 and 2 appear to have been abandoned around the latter half of the second century before eventually succumbing to ruins. Furthermore, workshops 12 and 13 appear to have collapsed from decay sometime in the second century, and not due to some singular event [7]. Why would one of the most productive sites for production of the highest quality garum suddenly and unexpectedly be abandoned? The true cause is not known, though Mayet and Silva (as cited in [6]) suggest only a natural disaster such as an earthquake could have been the cause. I argue that instead the collapse of the facility could be due to mass political unrest in Rome, leading to a massive logistical breakdown that stopped the flow of money to the region in a foreshadowing of the Crisis of the Third Century. Consider that the facility's collapse occurs essentially immediately after a time commonly considered to be the peak of the Roman Empire. The Lusitanians at Tróia would have been adapted to a pleasant life of relative wealth, funded by the constant flow of money from Rome paying for their prestigious garum. There is little reason, one would think, to expect the collapse of an economy in its best state. I argue instead that an economy at its strongest also leaves the people who underpin it most vulnerable to not stay the course, dragging economic output down alongside them[1].

A point which is very important to this argument is the nature of the delicate equilibrium associated with the production of this high-quality garum. Production was a complex, time-consuming process, often taking up to five months from start to finish, if not longer [3]. Logistics and supply chain issues are delicate even in the modern world; the Romans had no computer networks to facilitate their transactions. A period of political strife in the capital could leave the system with no one attending to facilitating transactions concerned only with procurement of luxury goods from far-away lands – after all, the network of supply Rome had in place to feed its population already relied on essentially daily shipments from conquered territories, such as those in North Africa [8]. With intense political turmoil ongoing, these are the shipments that overworked bureaucrats will ensure receive their full attention, not

[1]The argument which follows is my own hypothesis, extrapolated from facts and events documented in the literature

shipments of unnecessary luxuries which drain money from the coffers. This is precisely the type of political strife that was on-going at the time: the Year of the Five Emperors, 193 CE, was a year of unrest starting with the assassination of Emperor Commodus [1]. Three subsequent emperors would find themselves assassinated in the following months, essentially leaving Rome in a state of pseudo civil war.

The Lusitanians would be left with a difficult predicament at their hands. Decades of stability had allowed them to accumulate great relative wealth supplying garum to Rome. If my hypothesis that political unrest in Rome led to an unprecedented drop in demand luxury garum seen from Lusitania is true, the immediate loss at Tróia would have been massive. While the salted fish produced by the facility is "preserved", it would not have kept for the year it would have taken for political issues in the capital to resolve. It is likely the facility would have tried to offload the product locally; local demand however is not thought to have been high [8], any that sold likely would have been at immense discount. Margins in the food industry are low in the modern world when compared to other industries [9], and there is no reason to expect that to have been different during the time of the Roman Empire – therefore the economic loss from this lapse in demand is likely to have been crippling, leading to the abandonment of the facility as laborers and administrators search for employment more compatible their lucrative expectations.

Production at the facility would restart, though at a much reduced scale, sometime in the coming decades as is evidenced by redevelopment of workshops 1 and 2 dated to sometime during the first half of the third century [6]. However, this production was not to last – the best dating by Pinto points to the site once again being abandoned sometime during the second half of the third century to the first quarter of the fourth century. I argue that this period of abandonment is likely to be a product of the Crisis of the Third Century, a period of unrest so severe that it almost led to the total collapse of the Roman Empire [2]. The same general argument that was used regarding the previous abandonment of the facility also applies again here – but at a much larger scale, and with much better evidence. In

particular is the fact that the unrest associated with this crisis lasted for half a century, much longer than the mere year seen before. Although I speculated on the breakdown of internal shipping during the Year of the Five Emperors, there is little in way of direct evidence to that end. That is however not the case with the Crisis of the Third Century, where there is ample evidence that the internal trade network of the Roman Empire broke down, leading to a system which foreshadows the economic life to be seen in the coming Middle Ages [5]. Without a network of internal trade to support exports to Rome, the facility at Tróia would once again be forced to shut down just after having restarted production.

After the crisis "resolved" (the Empire would never truly be the same again), there is evidence of redevelopment at workshop 1, which Étienne *et al.* suggest dates to the first half of the fourth century [7]. Remnants of fish in the workshops suggests that production began once again at that same time. Other changes would occur in the facility over the next century or so. For example, production remained at levels that were much lower than those seen during the first phase of the facility's operation; in fact, the facility continuously downsized over the span of the fourth century, with some workshops being converted to other use cases: namely tombs and a basilica. Just as in previous eras, production at the facility would end once more. During the middle of the fifth century, production seems to have stopped somewhat abruptly. The vats in the workshops were converted into dumps for refuse, being filled with old broken pottery and other forms of waste. This timing coincides very tightly with the collapse of the Western Roman Empire, and in particular its loss in control over Lusitania. As the Empire fell into ruins, the systems which supported it would collapse in a similar fashion. With no shipping routes available for export, there was no market reason to produce garum, and the facility was abandoned for the final time.

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