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Introduction: Portus, Ostia and the Ports of the Roman Mediterranean. Contributions from Archaeology and History

Recent years have witnessed a growing interest in the ports of the Roman Mediterranean. While ancient trading patterns, as evidenced by the distribution of different kinds of ceramic, marble and shipwreck have long held the interest of scholars interested in the economy of the Roman Mediterranean, or of those regions bordering it, the potential of ports, which lie at the interface of the maritime and the terrestrial has not yet been fully realized. There has been a tendency to look at them on a case-by-case basis and often in terms of their technological interest or economic roles. Indeed many ports, such as Carthage, Ostia, Caesarea, Marseille and Iol Caesarea, to name but a few, have benefited from in-depth studies about their development and trading roles. There are, however, many port-related issues that have not received academic attention in recent years. One of these is the relationship between ports, and specifically, within the context of a Roman Mediterranean centred upon Rome and its great maritime and fluvial ports of Portus and Ostia. These two sessions are part of an initiative being led by the British School at Rome¹ to focus attention upon this issue through an ongoing programme of research at Portus and the Isola Sacra,² a collaborative research venture with the Centre Camille Jullian and other European colleagues,³ and a series of international workshops, seminars and conferences.

This contribution to the AIAC Conference⁴ comprised two separate but interrelated sessions that aimed to draw together specialists involved in the study of Roman ports in order to discuss their sites within a notional framework of relationships between Mediterranean ports, Ostia and Portus. A total of ten papers were presented to the sessions, divided into (1) those focused upon those ports whose *raison d'être* was predominately to do with supplying the City of Rome through the medium of the *annona*, and (2) those whose development could also perhaps be explained in terms of their roles in regional economies; the first session was rounded off with reflective thoughts by Geoffrey Rickman, the Discussant.

The ten papers presented here are largely as they were given at the Congress. The first three papers deal with the ports of Rome, whose principal role was the supply of the Capital by means of the *annona* and commerce more generally. The first, by Boetto, argues that our understanding of port topographies is dominated by the terrestrial perspective, and that this ignores the roles and inter-

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³ Including the ICAC, Universidad de Sevilla, etc.

⁴ The organizers gratefully acknowledge the invitation of Professor Andrew Wallace-Hadrill to participate in the conference. They also gratefully acknowledge a contribution from the *British Academy* towards the costs of travel and registration of some of the speakers as part of the "Reconnecting the Mediterranean" initiative coordinated jointly with the *Society for Libyan Studies*.

relationships of basins and other bodies of water within them. Her study is focused upon Portus and, by relating the draft of ships to the known depth of basins and canals, is able to make functional distinctions between the Claudian and Trajanic basins, the Darsena and some of the canals. As is becoming increasingly clear there were close economic and social relationships between Portus and its near neighbour Ostia. The next two papers deal with aspects of this. Firstly Heinzelmann outlines the economic development of Ostia and notes that its key economic upswing and period of major urban expansion occurred after the enlargement of Portus under Trajan. He suggests that this was not to be explained simply in terms of the river port acting as a centre of transshipment to Rome, but also as a consequence of the diversion of maritime traffic from Puteoli to Portus under Trajan. While Ostia had been a key focus of west Mediterranean prior to that date, afterwards it became a focus of intermediate trade from west and east down until the first half of the third century, generating a network of trading relationships across the Mediterranean that can be explained in terms of small-world relationships. Keay, by contrast, adopts a tighter focus on the relationship between Portus, Ostia and Puteoli. In particular he questions the often-cited assumption that cause of the Trajanic enlargement at Portus is to be explained primarily in terms of a diversion of the Alexandrian grain fleet from Puteoli. He looks at the rather slim evidence for Alexandrian connections at both Portus and Ostia in the course of the second century AD. He notes that there was an arguably stronger connection with north Africa, and the continued activity of representatives of the *annona* at Puteoli well into the second century and beyond. He concludes that while the diversion of the Alexandrian grain fleet was an important development, the enlargement of Portus under Trajan is perhaps better explained by an increase in the volume of trade across the Mediterranean in general.

The remaining papers look at other Mediterranean ports, implicitly or explicitly asking how far they can be distinguished on the basis of the role that they might have played in the *annona* and contact with Portus, Ostia and Rome. They also offer a strong contrast in that being ports of export towards Rome and the Mediterranean in general they are all, to a greater or lesser extent, to be characterized by having productive activities in the suburbs that provided a key link between their agricultural hinterlands and overseas markets.

In contrast to Ostia and Portus, Alexandria was a port whose size and extent was related to its role as one of the most important centres of export in the Mediterranean. Its success lay in its unique position between the Mediterranean and Lake Mareotis, and the accessibility of the Nile valley by means of a network of canals. In his contribution Khalil focuses upon the results of an ongoing survey of the Lake Mareotis, which was a major focus of production, consumption and export across the Mediterranean through the medium of the harbours of Alexandria. Carthage was another port that played a very important role in supplying Rome, on account of its proximity to the rich agricultural hinterland of Africa Proconsularis. In his contribution Hurst attempts to establish how far it is possible to categorise Carthage as an “annony” port, by synthesizing available evidence for its harbour installations. He suggests that it was in essence a merchant port whose harbour facilities comprised a maritime agora (circular harbour), a rectangular basin and adjacent temple complex and a six kilometre ‘ribbon’ of warehouses along the seafront incorporating the Antonine Baths. This would have created the appearance of a maritime façade of some importance, although somewhat different to those at other ports analyzed here, such as Tarraco, and possibly Carthago Nova, given the distance of the forum and other major public buildings from the sea-front. These are small by comparison with Portus and Alexandria and are, he argues, a by-product of the fact that Carthage was primarily a merchant port through which cargoes passed rapidly but also retained some functions associated with the *annona*, rather being an annony port as such.

The same seems to be true of two other ports that could claim to be focal points for the transmission of *annona* supplies destined for the Capital. They are geographically close but very different in terms of their topographies. The first of these is Gades. Little remains of the harbour installations on the principal island where the *municipium* is located although there are indications that were internal and external harbours. More important, perhaps, is his argument about the need to understand this port in the context of its hinterland. Gades was the re-distribution centre connected to anchorages and bays within the Bahia de

Gades that were fed by fish-sauce, ceramics and other products from *villae* and workshops of various kinds. While Rome was undoubtedly a key market for these, the wide distribution of amphorae produced in the vicinity of Gades underlines the importance of *Mauretania Tingitana* and other parts of the western Mediterranean. Minor ports such as Baelo, played key roles as secondary nodes in trading networks that underscored this, and Bernal underlines the relatively small scale of harbour installations at these ports and the absence of the *opus caementicium* structures that one finds at Portus and Carthage. The second port that one might class as “annonary” is Hispalis. This was very distinctive on account of being a river port at a key nexus of communication routes in south-western Spain. It was connected to the Atlantic by means of the lower Guadalquivir and the *Lacus Ligustinus*. González provides a synthesis of the topography of the port and its development, a key stage in which was the earlier second century AD, coinciding with the large-scale export of oil from estates along the Guadalquivir. The rich medieval and post-medieval heritage of Seville makes access to the remains of Roman *Hispalis* difficult. Nevertheless, rescue excavations over the last few years have provided us with important information about the structures and activities associated with the port. The river port consisted of a “ribbon” like development of installations along the length of the east bank of the Guadalquivir. Its core lay in the area between the Alcazar de los Reyes to the south and the Plaza de la Encarnación to the north. A major complex near the former was interpreted by González as a *schola oleariorum*, which he understands as a focus for the activities of *collegia* associated with the export of Baetican olive oil to Rome. While there is no evidence as yet for the kind of commercial buildings attested at Carthage there are occasional wharves and a number of *horrea* extending northwards along the Guadalquivir. These would have been used for the storage of amphorae filled with olive oil that would have been transhipped from river barges onto ocean going ships. The presence of traders can be attested indirectly from the existence of shrines to eastern and other deities in the port area. The northern sector of the port, however, was a focus of a range of productive activities, including the manufacture of Dressel 20 oil amphorae and vats for the processing of fish.

One of the remaining two ports discussed in this session was Carthago-Nova - a centre that enjoyed the best natural harbour along the Mediterranean coast of Iberia. This ensured that it played a key role in the export of silver and lead to Rome during the later Republic and early Empire and which was also the object of a spectacular urban development under the principate of Augustus. Ramallo and Martínez synthesise the development of the port, using recent archaeological evidence to define the edges of the island on which the port was sited, between an internal lagoon and the sea. It would be interesting to know how far this lagoon formed part of a broader port system, as at Alexandria and Gades, but not, apparently, as at Carthage. The principal harbour installations lay on the western side of the port, southwards of the channel that afforded communication between the sea and the lagoon. Surviving remains are too fragmentary to give any real idea about the scale of the harbour installations, largely on account of siltation of this part of the bay from the 1st century AD down until the Medieval and later periods. As at Carthage, however, they appear to have taken the form of a ribbon development, and one wonders how far this arrangement may have taken the form of a maritime façade, given the proximity of major public buildings such as the theatre. The port of Tarraco stands in stark contrast to Carthago-Nova, being an artificial creation that stood close to the mouth of the Francoli, a minor river, but not too far from the mouth of the Ebro. Macias and Remola outline its development and it seems clear that even though it could not in any sense be considered an “annonary” port, and was not blessed by an especially rich agricultural hinterland, it served an administrative centre of great importance⁵ that needed a substantial port infrastructure. The archaeological evidence is fragmentary but points to the existence of an artificial harbour defined by a concrete mole of some size, as well as a number of *horrea* and other administrative buildings. These were situated within a port area close to the forum, theatre and other public buildings, an arrangement that they define as a maritime façade in which commercial, political and social were closely juxtaposed. The main period of the development of the harbour area seems to have been the first and second centuries AD, and was followed by a profound transformation in the late Roman period.

⁵ Capital of Hispania Citerior Tarraconensis

Sustaining the viability of harbour basins would have been a key element in the success of many of these ports during the course of the Roman period. Key to this was well-organized practices of dredging, and the ability of the Romans to keep harbour basins free of silt that built up a range of climatic, geographical and anthropogenic reasons. While there is little quantifiable evidence from any of the harbours discussed above, Morhange and Marriner present evidence from comparable harbours, notably Marseilles, Naples, Tyre and Sidon, which shows how they were successfully dredged in the course of the Roman period.

Portus acted as the principal conduit through which supplies were channelled to Rome, both those that formed part of the *annona* and otherwise. This explains the exceptional scale and scope of its installations, as well as the extensive breadth of its commercial contacts. By contrast there is no easy way to distinguish those ports that were involved in the *annona* and other supplies to Rome from those that were not in terms of their harbour installations. Large-scale export does not seem to necessarily presuppose the development of a particular kind of infrastructure, and seems instead to have taken place within the context of installations that had been already established with the aim of serving regional trade patterns. Thus most of the ports discussed here developed within the constraints of infrastructure that had developed prior to the Roman period. This is clearest at Alexandria, Carthage, Gades and Carthago-Nova, with local authorities responding to the challenge of supplying Rome by working within, or enhancing, the pre-existing topography of the ports. While Tarraco might be the exception to this, Macias and Remola point out that even here the form taken by the port during the Republic conditioned its subsequent development under the Empire. Recognition of the need to meet Roman requirements for the supply of foodstuffs is perhaps better reflected in the determination of provincial port authorities to successfully dredge their ports to ensure that they could cope with even the largest ships. All of this would seem to suggest that the underwriting of the infrastructure of trade in the Roman Mediterranean was in the hands of the authorities in individual ports rather than being in any way centrally coordinated.

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