BUCHBESPRECHUNGEN


Die Rezensionen sind in vier Rubriken unterteilt:
- I. Sammelbände mit übergreifender Thematik
- II. Monographien mit übergreifender Thematik
- III. Publikationen zu antiken und mittelalterlichen Autoren und Schriften
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Innerhalb dieser Rubriken sind die Publikationen alphabetisch nach Herausgebern bzw. nach Autoren geordnet.

AT THE WATER’S EDGE


Mankind’s relationship to the sea has always been complex and ambiguous. Humans cannot survive in water; neither can we survive without it. The urban civilizations of the ancient Mediterranean world could not have existed without access to water transport, yet at the same time their citizens feared, and with good reason, the sea for its destructive powers and for the raiders whose ships might appear over the horizon at any moment. Many ancient thinkers also feared the pernicious
influence of ‘the corrupting sea’ (to quote the title of HORDEN and PURCELL’s now classic study of the Mediterranean).

Those who wish to understand the relationship of the ancients to the sea around them are fortunate to have at their disposal a large body of texts, reaching from Homer and Hesiod into the Byzantine period. The interpretation of the evidence has, however, often been blinkered by the preconceived idea of a fundamental difference between positive ‘Greek’ and negative ‘Roman’ attitudes towards the sea. This dichotomy, whose origins can be traced back to Polybius, was forcefully restated by LIONEL CASSON in his magisterial volume on The Ancient Mariners (1959):

The Romans are an anomaly in maritime history, a race of lubbers who became lords of the sea in spite of themselves. Only a nation of born landmen … when they ultimately became the chief naval power of the Mediterranean, they felt so uncomfortable in the role that they let a mighty navy rot in the slips … the lubbers found that, like it or not, they had to try the water.3

Understandable as CASSON’s statement may seem in the context of the 1950’s, a time when ‘cultural history’ or Sittengeschichte had not yet evolved into the methodologically more stringent histoire des mentalités, it is more surprising to find it repeated word for word – including the word ‘race’ – in the revised edition of 1991.

In fact, this simplistic dichotomy between ‘Greeks’ and ‘Romans’ is contradicted by much of our textual evidence, e.g., the epitaphs of Roman naval personnel (where ‘Greeks’ are rare4) or the recently discovered fragments of Poseidippos (which reveal that Propertius’ use of the terrors of the sea as metaphors for his amatory sufferings is based on Hellenistic originals5). But while the notion of Romans as landlubbers whom necessity turned into mariners has now been largely abandoned, its converse: that Greeks were naturally gifted seafarers enjoying a symbiotic relationship with the watery environment, lingers on. Indeed, as MARIE-CLAIRE BEAULIEU writes in her introduction to The Sea in the Greek Imagination, ‘Looking at the Mediterranean, bright blue in the Greek sunlight, one might expect to find the sea associated with positive concepts in Greek literature, especial-

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2 Pol. 1.5.1–2.
ly, nourishment, beauty, and divinity … In the same line of thought, the sea has been put in parallel with the earth as a nurturing mother, particularly in view of the sea’s role in the Greek cosmogony’ (p. 1).

Yet as Beaulieu goes on to point out, the sea was not always conceived of as positive, fertile or feminine, and its place in the Greek cosmology is ambiguous. On the one hand it is life-giving, bringing forth men and gods; on the other hand, it is associated with death and the world of the dead. According to Beaulieu, the spatial contradiction between Hades as a subterranean underworld and as a distant place beyond the sea is more apparent than real, since ‘On the Ocean, the water meets the vault of the sky and the corresponding chasm of the Underworld … Thus when death is represented as a sea voyage to the Ocean, it can lead either to the Underworld or to the Islands of the Blessed’ (p. 3). And while mainstream mythographers tend to place the realm of Hades underground rather than overseas, they also agree that it is reached by travelling across water – the river Styx, herself a daughter of the mighty Oceanos (p. 9).

For Beaulieu, then, the sea is a ‘mediating space’ in Greek mythology; a liminal zone which ‘separates the visible and the invisible worlds and marks the difference between men, gods, and the dead’ (p. 16). This idea is explored and developed in the six case studies which form the core of the book.

Chapter 1, ‘Hygras keleutheia; The Paths of the Sea’ (p. 21–58) explores the sea as a waterway in more than one sense of the word: as a space over which men, heroes and gods may move, and also as ways along which the waters themselves flow, a ‘hydrological network’ of springs, rivers and the Ocean.

Beaulieu’s assertion that salt water was conceptualized as inherently sterile (p. 32–3) is open to question. Homer regularly uses the epithet atrygos for the sea; while this may be – and often is – translated as ‘barren’, its literal meaning is ‘un-harvested’. Elsewhere in the Homeric corpus, the sea is described as ‘fish-filled’ (p. 34) or ‘productive of fish’. According to Aristotle, drinking salt water makes ewes more eager for intercourse with the ram while feeding them salt will increase the size of their udders. Some even claimed that by licking salt, female mice were able to conceive without being impregnated by a male. Thus salt seems to be connected with fertility at least as often as with sterility.

6 E.g., Hom. Il. 1.316; 1.327; 15.27; 24.752; but compare 17.425 where atrygos is used of the air. ‘Barren’ is clearly not the intended meaning in Hom. Od. 5.51–3, describing sea-birds diving into the bays of the atrygos hals and catching fish.
7 Hom. Il. 9.4.
9 Aristot. hist.an. 6.19 (574b).
10 Aristot. hist.an. 8.12.3 (596b).
11 Aristot. hist.an. 6.30 (581a).
12 The tradition that the Romans sowed the fields of Carthage with salt to render them barren has no support in ancient sources, see R.T. Ridley, To Be Taken with a Pinch of Salt: The Destruction of Carthage, CPh 81 (1986) 140–6.
In chapter 2, ‘Heroic Coming-of-Age and the Sea’ (p. 59–89) the sea is likewise seen as a waterway, over which heroes travel in their quest for adventure – but also, as BEAULIEU notes, in search of ‘paternal recognition and political leadership’ for the three protagonists: Perseus, Theseus and Jason. Once again, the image of the sea is ambiguous: its waters are inhospitable, unforgiving and dangerous; but precisely these qualities make the sea an attractive venue for a young man to demonstrate courage and leadership. Male coming-of-age rites typically involve facing danger under controlled circumstances such as warfare or the hunt; the sea offers a similar opportunity to display one’s daring by sailing (Perseus, Jason) or diving (Theseus) into the unknown. Significantly, the hero’s decision to sail or dive off is in each case prompted by the taunt or challenge of a male social superior.

Chapter 3, ‘The Floating Chest: Maidens, Marriage, and the Sea’ (p. 90–118) explores the mythological topos ‘unwed mother sent to sea in a box’. The story of Perseus’ mother Danaë forms the point of departure and is compared to those of Auge, daughter of king Aleos; Rhoio, daughter of Staphylós; Phronime, daughter of king Etearchos. In each case, the girl’s chastity is compromised through no fault of her own (three become pregnant by gods or heroes, while Phronime is a victim of slander); in retaliation, the father either locks his daughter in a box that is cast into the sea, or entrusts a sailor with the task of drowning her. Though the story of Danaë has a less than happy ending (p. 99–103), all four sea voyages mark a new beginning for the protagonist, lending support to BEAULIEU’s interpretation of the sea as a zone of transition. As in the previous chapter, the sea voyage is symbolic of the transition to adulthood: ‘in the case of Auge, the passage at sea is a dangerous, yet ultimately successful separation from her original oikos that prepares the way for the establishment of a new family’ (p. 112). Though three of the protagonists are already mothers when they go to sea, BEAULIEU argues, based on the work of GIULIA ŚISSA,¹³ that they are not yet gynai in the true sense of the word. Having reached land, Auge and Rhoio find royal husbands, while Phronime becomes the concubine of a wealthy citizen. According to some versions Danaë, too, eventually finds a husband but Pindar has her become an ‘enslaved concubine, a dreadful alternative to marriage for a Greek girl of aristocratic birth’ (p. 100). Danaë’s transition from parthenos to gynê thus remains uncompleted and according to Pindar, Danaë’s son Perseus needs to make another sea voyage to redeem the status of himself and his mother (p. 65–6).

In all four narratives, the sea, as BEAULIEU noted in her Introduction, constitutes an intermediate zone between the world of the living and that of the dead. Danaë’s father does not send her to the Underworld (i.e., have her killed) but neither is she allowed to retain her place among the living: at first she is imprisoned in a subterranean cavern, then sent to sea in a box with her child (p. 95–6). Given the cleansing properties attributed to seawater (p. 33), one could argue – although

BEAULIEU does not – that her immersion is intended to wash away the stain on her father’s honour produced by Danaë’s pregnancy.14

Dolphins, the subject of chapter 4 (p. 119–44) constitute an ambiguous species – fish-shaped mammals – in an ambiguous environment. From the Classical period onward, Greeks came to ascribe quasi-human emotions to dolphins, as many people still do today. Stories about dolphins rescuing drowning men were particularly popular (p. 119–20; 134–44), none more so than the tale of Arion the singer whom sailors forced to jump overboard to certain death. Like the girls of the preceding chapter, Arion undergoes near-death at sea before returning to the world of the living. In the stories of Hesiod and Melikertes, the protagonists are already dead when thrown into the sea but dolphins bring their corpses ashore for proper burial (p. 124–34). The theme of drowning is treated from a different angle in chapter 5, ‘Leaps of faith?’ concerned with dives – mainly suicidal – from a high point into the sea. The motives for such an action can be many and complex, but recurrent themes in Greek literature are erotic passion and madness, alone or in combination.

The cycle of stories about ‘Dionysus and the Sea’ (chapter 6, p. 165–87) combines narrative elements which are by now familiar from the earlier chapters: Dionysus and his mother Semele are locked in a chest and cast into the sea; Dionysus dives overboard to save himself; after serving them wine, Dionysus forces a group of pirates to jump into the sea, where they are changed into dolphins (p. 168–76). The latter half of the chapter explores the theme of diving and transformation into dolphins as metaphors for the Dionysiac symposium transporting ‘the banqueters out of their ordinary activities and into the eternal sphere of the sacred and the afterlife’ (p. 183). The Conclusion (p. 188–97) summarizes the results of the case-studies, offers a brief review of the gods of the sea (p. 194–6) and convincingly concludes that to the Greeks, the sea was ‘both a positive and negative space, where one can experience luck and success or the most dreadful kind of death’ (p. 197).

Like the sea itself, the port constitutes an ambiguous zone at the interface between the ordered world of the terra firma and the polis on the one hand, the unfathomable and uncontrollable waters on the other. In his Satyricon, Petronius takes us on a tour through the half-world of a port city (almost certainly Puteoli) and introduces us to some of its inhabitants. These are largely lower-class and (by implication) morally inferior individuals with whom respectable people should not associate, a familiar theme in Greek and Latin literature.15 Given this focus on

14 Cf. the purification rite at Leukas (Strab. 10.2.9, quoted p. 33) which involved throwing a convicted criminal into the sea, apparently not with the intention of killing him. For a similar practice in Cyprus, likewise associated with Apollo, Strab. 15.6.3.
15 E.g., Plut. Tim. 14.2 ‘spending his time in the fish-market or sitting in a perfumer’s shop, drinking watered wine from the taverns and arguing with prostitutes in full public view’; Iuv. 8.171–5, ‘you will find him in Ostia, lying down beside some hired assassin, among sailors, thieves and fugitive slaves, murderers and makers of cheap coffins’.
the corrupting, or corrupted, nature of port societies and their inhabitants, literary sources are of limited use for understanding the topography, operation or economic life of ancient ports. For these aspects, we must draw on the evidence of epigraphy and archaeology; and for their inter-relationships, on the emerging and rapidly growing discipline of marine network studies.\(^\text{16}\)

Topographical and archaeological studies of individual ancient ports have taken place since the eighteenth century but took a major step forward with LEHMANN-HARTLEBEN’s ground-breaking, comparative study *Die antiken Hafenanlagen des Mittelmeeres* (1923) with a catalogue of ports classified according to type.\(^\text{17}\) The American excavation of the Roman port of Cosa on the Tyrrenian coast from 1968 onwards demonstrated the potential of the evolving discipline of underwater archaeology for harbour studies and was among the first major research projects to situate a port in its wider economic and societal context.\(^\text{18}\) Despite this and other successful projects, it is fair to say that for most of the latter half of the twentieth century, work in coastal and harbour archaeology was overshadowed by the spectacular results of wreck archaeology, a trend that has continued into the twenty-first century where the employment of underwater ROVs (remote operated vehicles) and more recently AUVs (autonomous underwater vehicles) have extended the scope of wreck searches and wreck archaeology into previously unreachable depths of the Mediterranean and the Black Sea. Nonetheless, during recent decades a number of important studies of individual sites have added a great deal to our knowledge of ancient ports.

Sailors on the high seas have traditionally looked with disdain on their inland colleagues, and expressions such as *Süßwassermatrose* or *navigatore d’acqua dolce* often carry an ironic or downright derogatory connotation. Yet the great rivers and lakes of north-western Europe were as important for the region’s economy as the sea, and the power of their waters – graphically described for us by Gregory of Tours, among others\(^\text{19}\) – were no less destructive than that of the ocean. Nor were the *mores* of their port communities much better than those of seaports: Horace describes the canal port at Forum Appii as *differtum nautis cauponibus atque malignis.*\(^\text{20}\)

\(^\text{16}\) E.g., JOHANNES PREISER-KAPELLE and FALKO DJAM (eds), *Harbours and Maritime Networks as Complex Adaptive Systems*, Mainz: RGZM 2015, reviewed this volume, p. 293–296.


\(^\text{19}\) Greg. Tur. Franc. 4.31, 5.32.

\(^\text{20}\) Hor. sat. 1.5.4.
Early surveys of inland navigation in Gaul and Germany were published by Pierre Bonnard (1913) and Johannes Ledroit (1930) but more wide-ranging studies have until recently been lacking. As part of their study of a Roman port on the Rhine, Höckmann, Peschel and Hornig (2002) proposed a typology of lake and river ports based on a selection of seventy-eight ports, mostly in northern Europe and the Balkans.

The present volume by Christina Wawrzinek, In Portum Navigare: römische Häfen an Flüsse und Seen, is a far more ambitious project, covering no less than 291 locations where remains of a Roman port have been identified (catalogue A, 92 sites) or the presence of a Roman port has been assumed, typically on the basis of a literary source (catalogue B, 199 sites). Most of these are located in Italy, Gaul or northern Europe, with a single example from the Levant. Roman Egypt, with its millennium-long tradition of river navigation, is not included in the survey. The entries in catalogue A typically include a description of the site and the installations, notes on its historical and geographical context, a summary of its research history and references to selected secondary literature. The entries in catalogue B contain a summary description and references to the secondary literature. The book is, however, by no means a mere catalogue; it also attempts a systematic analysis of the port as an institution, its structures and layout, and its place within networks of civilian and military transport. Essentially, Wawrzinek has done for Roman freshwater ports what Lehmann-Hartleben did for the seaports ninety years ago; and like the work of her predecessor, that of Wawrzinek will provide a foundation and a point of reference for systematic harbour studies for a long time to come. The critical remarks which follow below should not detract from the overall impression of her work as a major landmark in the study of freshwater shipping in the Roman world.

One obvious challenge is that of definition. A ‘port’ may be defined functionally: as a point in space where goods are loaded or unloaded from boats – or formally: as an artefact possessing certain features. The author has chosen the second option: ‘ports’ are defined as ‘künstlich angelegte Häfen’ (p. 9) which are, indeed, the ports most likely to be discernible in the archaeological record. The distinction between ‘sea’ and ‘river’ harbours poses a more difficult problem. Some of the world’s great ocean ports, such as New York and Melbourne, are located on river estuaries; but these are not ‘river ports’ in the usual sense of the word. According to Wawrzinek, the port of old Ostia should be considered a ‘river’ harbour because the sandbar prevented sea-going ships from entering the estuary, forcing them to offload their cargoes into lighters (p. 330, though this is to some extent

contradicted by Livy’s claim, cited on p. 445, that large warships could go up the Tiber to Rome). Trajan’s harbour at Portus, on the other hand, is considered a seaport, since it represents ‘die Weiterentwicklung des claudischen Hafens … der zweifelsohne ein Seehafen war’ (p. 10). Perhaps it would have been useful to include a separate category of ‘interface’ ports which at one and the same time served inland and seagoing vessels, as was the case at Ostia or, e.g., Aquileia. The author admits that her categories are not unambiguous and among ‘doubtful’ cases she cites Sevilla and Ravenna (p. 10, n. 3) of which the first is included in her study (p. 434), the second not. Other examples which might have been categorized as seaports rather than river-ports are London (p. 284–307) and Pisa (p. 428–9), on which more below.

The problem of definition surfaces again in the short chapter on man-made waterways: canals in everyday language and ‘künstlich angelegte Wasserläufe’ in WAWRZINEK’S terminology. Since canals are integral to many harbour projects, there are good arguments for including them in the study; since in spatial terms they constitute lines, whereas ports are nodes, there could be equally good arguments for omitting them. The author has chosen to include some, but not all, known canals in her brief survey (p. 34–9), but the criteria for selection are not stated. The Cambridgeshire Car Dyke is quoted as an example of an artificial water transport route, with reference to publications of the 1940’s and 1960’s, but more recent studies suggest that its primary purpose may have been drainage. Two minor Italian canals qualify for mention (p. 35), but not the waterway through the Pontine Marshes on which a regular overnight passenger service operated, nor its harbours. Abortive canal projects in Gaul and Bithynia are dealt with at some length, but not Nero’s uncompleted ship canal between the Bay of Naples and the Tiber.

In the chapter on vessels (p. 61–72) the author lists the characteristics of selected types: beam, displacement, draught etc. (table 2, p. 64). The question of propulsion is only touched upon briefly (p. 66), the author correctly noting that naval vessels were more likely to be rowed than freighters, types of rigging are not discussed and towing is not mentioned. The iconographic evidence suggests, however, that towing by men or animals was a common practice on the rivers of Gaul and Germany.

The following chapter on the physical harbour installations is more clearly structured and argued, and demonstrates the author’s mastering of a large amount of evidence which is analyzed and compared in a systematic fashion. Especially useful is the chronological survey in tabular form (p. 123–8) and the discussion of commercial as against military ports (p. 131–63), leading the author to reject the

24 Liv. 45.35.3; 45.42.12.
26 Hor. sat. 1.5.4; Strab. 5.3.6 (C 233).
27 Tac. ann. 15.42; Plin. nat.14.61.
theory of a typological distinction between the two categories (p. 160–1). Nor is it possible to establish a separate typology of freshwater port installations as distinct from those of sea ports (p. 171–2).

The catalogue that forms the main body of the book is followed by a selection of literary sources or ‘Testimonia’ (p. 441–52) for ancient harbours. This is organized in alphabetical, not chronological, order and includes a number of text excerpts which have little to say about inland navigation as such (e.g., Isidor of Seville: *navalia sunt loca ubi naves fabricantur*28); omitted, on the other hand are Rutilius Namatianus’ description of his journey down a silt-ridden Tiber to Portus29 and the *Mosella* of Ausonius. The mention of *navalia Pisae* by Claudian30 (quoted on p. 442) clearly refers to facilities for sea-going warships, not river craft.

The epigraphic appendix (p. 452–65) is even less helpful. It consists of a series of facsimile snippets from the Corpus Inscriptionum Latinarum reproduced without comment or translation. Since the reader will in any case need to consult CIL for the date and find-spot of the inscription (which are not given) a simple list of CIL references, without facsimiles, would have been equally useful; the paper and effort saved could have been more profitably devoted to an index of sources, which the book lacks.

The wide scope of this book is at the same time its strength and its weakness: it attempts many things at once, with a consequent lack of focus and direction in some chapters. Even so, there is no question that WAWRZINEK has laid a solid foundation for future investigations into the topography and archaeology of Roman river ports.

From the perspective of harbour archaeology, it is unfortunate that many ancient seaports were so well sited that they remain in use today. The excavation of the Roman docks of Marseille or the ancient port of Cádiz, the Zea Harbour Project in the Piraeus and the Yenikapi excavations in Istanbul all share the challenges posed by a constricted excavation site in a functioning urban environment. Fortunately, other port sites remain accessible, having been abandoned due to depopulation – e.g., Phaselis in Turkey; Caesarea Maritima in Israel; silting – e.g., Cosa and Ostia; or a combination – as at Aquileia on the northern Adriatic or Empúries in Spain. From the somewhat cynical viewpoint of the archaeologist it is especially fortunate that all Rome’s ports at the mouth of the Tiber were eventually rendered useless by silting, though the advantages this offered the archaeologist have to some extent been nullified by the inexplicable decision to locate Rome’s international airport on top of the Claudian harbour at Portus. Receding shorelines have left other ancient harbours offshore and under water: for instance, Amathous on the south coast of Cyprus or Olbia (Hyères) on the south coast of Gaul. An especially striking case in this category is the ancient port city of Thonis (later

29 Rut.Nam. 179–85.
30 Claud. gild. 483.
Herakleion) in Aboukir bay, 6.5km to sea off the present Mediterranean coastline of Egypt.

From the Late Period and well into age of the Ptolemies, Thonis-Herakleion was Egypt’s main entrepôt, where Mediterranean merchantmen unloaded their cargoes to await shipment up the Nile by river-boat: an ‘interface’ port comparable to Roman London or Ostia. After the foundation of Alexandria, the settlement went into a slow decline (p. 9) that was aggravated by seabed subsidence (p. 3–4). By the end of the first millennium AD, the site of Thonis-Herakleion was below sea level and the city all but forgotten.

Since its rediscovery in 2000, Thonis-Herakleion and the neighbouring city of Kanopos, to which it was linked by a canal, have been studied by the Oxford Centre for Maritime Archaeology in collaboration with the Institut Européen d’Archéologie Sous-Marine (IEASM). The results have been published in a series of attractively produced volumes, which includes monographs as well as conference proceedings; the ninth and most recent is Thonis-Heracleion in Context, edited by DAMIAN ROBINSON from the University of Oxford and FRANCK GODDIO, the director of IEASM.

The volume contains revised versions of sixteen papers presented at a conference in Oxford in March 2013, organised under four main topics: religious landscapes (FRANCK GODDIO, SANDA S. HEINZ, AURÉLIA MASSON), local trade (BRIAN MUIHS, ANNE-SOPHIE VON BOMHARD, ANDREW MEADOWS, CATHERINE GRATALOUPOU, ELSBETH VAN DER WILT), ships (DAVID FABRE, ALEXANDER BEOV, DAMIAN ROBINSON) and trade beyond Thonis-Herakleion (ALEXANDRA VILLING, ROSS THOMAS, MARIANNE BERGERON, MOHAMED KENAWI, PENELope WILSON) and framed by an excellent introduction by the editors titled ‘Thonis-Heracleion and the “small world” of the northwestern Delta’.

Within ancient maritime studies, the concept of ‘small worlds’ has been explored in the recent work of IRAAD MALKIN and THOMAS TARTARON. For MALKIN, strongly inspired by contemporary network theory, the ‘small world’ is virtual and spatial proximity plays a secondary part, if any. TARTARON, on the other hand, while acknowledging the importance of medium- and long-distance contacts conceptualizes his ‘small worlds’ or ‘Mycenean coastal worlds’ as spatially coherent, as ‘aggregates of many neighbouring coastscapes’. The editors of the present volume describe ‘small worlds’ as ‘groups of communities tied together in a relatively limited geographical area through dense social and economic relationships’ (p. 1), a definition closer to that of TARTARON than to MALKIN. Thus the site of Thonis-Herakleion is seen not only as a point of interface with a long-distance

31 An updated list of all volumes in the series, with summaries, is available online at http://www.arch.ox.ac.uk/OCMA-publications.html.
33 THOMAS F. TARTARON, Maritime Networks in the Mycenaen World, Cambridge: Cambridge University Press 2013, 190; also 194–5.
trading network but as one node in a regional network of trade and exchange which also included Kanopos and Naukratis. As particularly successful attempts to explore the latter aspect one might mention the chapters by MEADOWS on coin circulation (p. 121–35), by FABRE on ship types (p. 175–94, especially p. 180 and 184–5) and by BERGERON on imported fineware pottery at Naukratis (p. 267–81).

Perhaps because they share a common set of methodological tools and environmental challenges, marine archaeologists in different periods have a tradition of cooperation and exchange of ideas across the longue durée. This is clearly brought out in two recent edited volumes, one spanning the period from the Etruscans to the Vikings, the other from the Ertebølle culture to the eighteenth century.

In Häfen im 1. Millennium AD: Bauliche Konzepte, herrschaftliche und religiöse Einflüsse the editors, THOMAS SCHMIDTS AND MARTIN M. Vučetić, have collected the proceedings of a conference that took place in 2014 under the auspices of the Schwerpunktprogramm ‘Häfen von der romischen Kaiserzeit bis zum Mittelalter’. Of the nineteen papers, about one-third deal with Mediterranean ports (p. 9–116), another third with river ports of northwestern Europe (p. 119–228) and a third group with the Atlantic and North Sea coasts (p. 231–321). The final chapter (WOLFGANG RABBEL et al., p. 323–40) discusses the challenges involved in the application of geophysical prospection methods in wet or waterlogged environments, based on field experience in all three periods and regions (Ainos in the Aegean; Drachenfels on the Rhine; Leiruvogur in Iceland). A further example of the potential of geophysical prospection is the chapter by ANDREAS VÖTT et al. on the river harbours of Ostia (p. 23–34): using a combination of stratigraphic coring and electrical resistivity tomography (ERT) the team was able to identify two phases in the evolution of the river port, an older basin in use from the fourth to the second century BC and a more recent construction, its quayside closer to the river, in use from the second century BC to the first century AD.

Of special interest in the present context are the papers by STEFAN FEUSER (p. 35–51) and MARGARETA SIEPEN (p. 141–9) on the place of religion in port communities. FEUSER discusses the limited evidence for Schwellenritualen or ‘rituals of transition’ in Italian ports, while SIEPEN reviews the finds from the port of Gelduba, modern Gellep near Krefeld, where an auxiliary fort was established in the late first century AD. The site underlies the river harbour of modern Krefeld and during dredging operations in 1975, massive numbers of Roman small finds came to light and were picked up by local enthusiasts and treasure-hunters. MARGARETA SIEPEN and her colleague CHRISTOPH REICHMANN have succeeded in tracing a large part of these finds in private collections, some 20,000 objects in all, including 5,583 coins, a strikingly high number. Equally striking is that despite the destruction of the fort in AD 353, coins continued to find their way into the harbour basin, along with bangles, rings and fibulae. This suggests that by the end of the third century, the function of the harbour had evolved from a simple transport node to become a liminal cultic site (Brückenopferplatz) (p. 145). One
wonders if a similar process of transition from port to sanctuary might be observed at other late Roman sites in the region (could this, for instance, explain the inclusion of the enigmatic *portus (a)bucini* in the *Notitia Galliarum*?)

Among other contributions of interest to students of ancient navigation one should also mention JULIA DAUM on Tyrrhenian harbours (p. 9–22), HELMUT BRÜCKNER et al. on the fortifications of Ainos (p. 53–76), Albrecht Berger on the harbours of Constantinople (p. 77–88) and ALFRED SCHÄFER on the relation of the Roman river port at Cologne to the city’s street plan and defences (p. 119–32). CONSTANZE HÖPKEN’s paper is devoted to the question of trade flows into the Roman Rhineland as documented by pottery finds (p. 133–40). Among the papers dealing with later periods, one finds two contributions by EWALD KISLINGER et al. (p. 89–92) and DOMINIK HEHER et al. (p. 93–116) on Balkan ports and trading networks during the Byzantine period, as well as a long and particularly rich chapter by LUKAS WERTHER et al. (p. 151–85) on the *Fossa Carolina* which was dug in the late eighth century to link the basins of the Rhine and the Danube.

The *Niedersächsische Institut für historische Küstenforschung* was established at Wilhelmshaven in 1938 and celebrated its 75th anniversary in 2013. To mark the occasion, the Institute published a collection of twenty papers which together illustrate the wide range of activities of its researchers, from submerged prehistoric landscapes to Early Modern dike construction. While many chapters deal with north European prehistory or the Middle Ages, the volume includes several which will be of interest to students of the north-western Roman provinces and the frontier zone, particularly the papers by IRIS AUFDERHAAR and ANNETTE SIEGmüLLER on proto-urbanisation between the Weser and the Elbe (p. 123–44; 145–71) and by ANNETTE SIEMüLLER, JUTTA PRECHT and HAUKE JÖNS on landing places along the lower reaches of the Aller and Weser (p. 173–90; 191–8).

From a methodological point of view, the discussion by INGO EICHFELD (p. 217–37) of settlement, economy and waterways in East Frisia during the early Middle Ages is particularly interesting, and a timely reminder that the flat-bottomed vessels typical of inland waterways required little in the way of permanent installations, that many freshwater harbours ‘nicht über feste Einbauten in Form von Holz- oder gar Steinkonstruktionen verfügten’ (p. 220), in other words, were not ‘künstlich angelegte Häfen’ in the sense of WAWRZINEK’s study (cited above). This problem, combined with the settlement continuity at many port sites in the watershed of the Rhine and its tributaries and the scarcity of textual sources for the transport geography means that our understanding of the role of river navigation during this crucial period in the evolution of the European economy is likely to remain, if not ambiguous, at least incomplete.

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34 JILL HARRIES, *Church and State in the Notitia Galliarum*, JRS 68 (1978) 41.