

environment. The city incorporates 'natural' lines of defence and occupies a strategic location on the main overland route between central and northern Greece (hence the modern highway cutting across the site today). Next comes a comprehensive summary of the overall layout of the city, its walls, towers and gates, along with a consideration of the upper and lower towns, the limited evidence for public buildings in the former, and the better preserved and more extensively investigated housing blocks in the latter.

Chapter 3 focuses on the city gates: five of which are major and five minor. All of the gates in the lower town, both major and minor, align with important urban avenues; this suggests that the minor gates of the lower town were not merely sally ports, but rather placed so as to allow ease of access for the city's inhabitants to their fields. The acropolis keep was accessed by means of two gates, one connecting the acropolis with the upper town and one exiting the city walls. Excellent colour plans, reconstructions and photographs accompany the discussion here, as elsewhere throughout the volume.

Chapters 4 and 5 provide a detailed presentation of the Southeast Gate, based on eight seasons of fieldwork. The structure is of a 'courtyard gate' design; a passageway (6.78m wide) flanked by two rectangular towers giving access to a courtyard preceding the gateway proper, around 3.4m wide and originally closed by double-winged wooden doors (from which three iron nails survive). One of the project's research questions was whether the walls were constructed entirely of stone (comprising limestone and conglomerate quadrangular ashlar blocks with a rubble core), or whether stone coursing gave way to a mudbrick superstructure. The surviving stonework of the towers at the Southeast Gate reaches 3–4m in height; combined with courses of toppled masonry, here and elsewhere, it appears probable that the full elevation of the walls was attained solely using stone, and as such, was all the more impressive. Indeed, such *Imponierarchitektur* is especially characteristic of Demetrios Poliorketes' *gigantomania*.

Chapter 6 is devoted to a discussion of the chronology of the Southeast Gate, based primarily on the numismatic evidence of about 300 coins discovered in association with the complex. These confirm its construction during the reign of Kassandros (316–297 BC; note the typo on p. 138). They also provide dating for the rapid transformation of the

gate into a farmstead, following the earthquake of 265 BC, with occupation continuing to the 220s, when a fire swept through the repurposed buildings. The barn and associated structures that were built within and around the Southeast Gate following the earthquake and abandonment of the city are given little attention in the present volume, and will presumably be the subject of a subsequent publication.

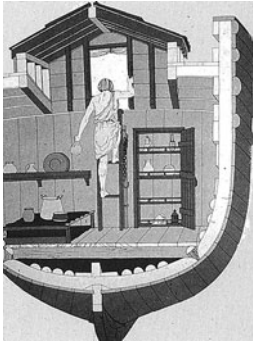
Chapter 7 offers a comparative consideration of artillery towers and courtyard gates at other sites in the Late Classical and Hellenistic periods, and as such provides an important supplement to the standard treatments of Greek military architecture. The volume concludes with detailed chapter summaries, a bibliography and useful appendices documenting the foundations and walls of the Southeast Gate, a catalogue of the 'traveller's hoard' of 15 fourth-century BC coins discovered in 1995, and an account of the Thessalian campaign of Demetrios Poliorketes in 302 BC. This beautifully produced volume (notwithstanding its glued binding, from which pages quickly detach) makes welcome contributions on many fronts. Continuing the New Halos publication series, it will be of value to those working on Greek city-planning, domestic architecture and fortification systems. The volume is also an argument for the ongoing publication of archaeological excavations, even while active fieldwork continues, despite the revisions that new findings inevitably necessitate.

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DEBORAH N. CARLSON, JUSTIN LEIDWANGER & SARAH M. KAMPBELL (ed.). *Maritime studies in the wake of the Byzantine shipwreck at Yassiada, Turkey*. 2015. xix+248 pages, 92 b&w illustrations, and tables. College Station: Texas A&M University Press; 978-1-62349-215-1 hardback \$75.



More than 50 years have passed since the excavation of the Yassiada shipwreck off the coast of Bodrum, Turkey; publication of *Yassi Ada (sic) volume I*, by George Bass and Frederick van Doornick followed in 1982. Since then, maritime archaeology has made considerable progress.

The work under review here presents revised papers from a 2007 symposium held at the Institute of Nautical Archaeology at Texas A&M University. As suggested by the title, the work centres on the Yassiada wreck and similar studies, and fittingly so. The publication of Yassiada provided a serious boost to Byzantine archaeology and Byzantine studies generally, and was foundational to several advances since made in explorations of the Byzantine economy. This is especially true of the study of the amphorae cargo of the small Yassiada vessel, which scholars now accept as indicative of a robust late antique Mediterranean seaborne exchange, although the precise nature of this exchange remains under debate. This vigorous movement of goods, of course, stands in sharp contrast to the formerly rather bleak horizon of the dominant narrative of the late Roman and early medieval worlds.

Maritime studies is divided into four parts. Part I deals with the broader maritime economies, principally derived from material found in the Yassiada shipwreck, and thus mainly pertaining to the late antique eastern Mediterranean. Elizabeth Greene and Mark Lawall contribute work on container standardisation based on Hellenistic samples; unsurprisingly, the results indicate relatively consistent vessel standardisation only in the late Hellenistic period (second century BC). Peter van Alfen notes that the uniform vessel capacities of the LR2 amphorae recovered from Yassiada indicate state control over the initial production, linked, in all likelihood, to the supply of the military on the Danube frontier, in this case by a church-owned ship. Van Alfen's view that vessel standardisation was imposed by the church or state, through their considerable influence and purchasing power, is reasonable but untested. It is surprising that decades

after the discovery at Yassiada, and despite its centrality to Byzantine life, we await a full study of the Byzantine church in the economy. Curiously, the close-interval capacities of the Yassiada vessels, van Alfen argues, include forms that varied from one another by only five or six Roman pounds (*litra*). In 50kg vessels, one wonders what is the point of such a narrow gradation. If the state were responsible, how were such narrow limits maintained, and for what reason? It seems that such claims can only be tested in light of evidence from similarly closed contexts, probably best provided by another shipwreck of the same era.

Part II comprises papers that focus on ships and harbours, beginning with an overview of the Madrague de Giens (France) wreck of the first century BC, a large vessel of 550 tonnes carrying up to 10 000 amphorae. The chapter by Eric Rieth details the Port Bertheau II wreck, an early medieval coaster, 14.6m long, from the Atlantic coast of France, excavated in 1992–1997. Reith argues Port Bertheau II, whose oak timbers and planking have yielded radiocarbon dates *c.* AD 600, represents an outlier with carvel planking and frame-first construction apparently used by the early medieval period, centuries before carvel construction became common in north-western Europe. Construction technique is also the focus of Sarah Kampbell's work on the seventh-century Pantano Longarini ship, which Kampbell argues was a coastal lighter equipped with a ramp for loading cargo and livestock. Given the vitality of late antique and early medieval Sicily, Kampbell notes that the vessel's large size relative to other ships of the period (it is some 31.5m long and 10.3m maximum beam) represented a significant capital investment, but that its rather crude construction indicates an effort to keep cost under control. It could simply reflect a loss of skill or a decision to employ unskilled labour. In any case, her analysis is intriguing, opening, as it does, broader avenues by which to explore coastal trade. As navigable rivers in Sicily are unlikely to have played a role, Kampbell's theory opens new avenues of research in the central Mediterranean, namely local trade and tramping around the island. We know from the excavations of the late antique palatial complex at Piazza Armerina and the growing body of rural archaeological material from Sicily that the island had no shortage of patrons capable of building and floating such a craft, but, by the seventh century, the church is probably the best candidate, given the extent of its holdings on the island.

While informative, the chapter by Pulak, Ingram and Jones on the shipwrecks of the Theodosian Harbour, Yenikapı and Istanbul does not provide much new information. These wrecks, more than 37 of them, offer the promise of revolutionising our knowledge of Byzantine maritime construction and deepening our understanding of trade networks, shipboard life and, if carefully recorded and published, a number of other important questions beyond the late antique and early medieval economy. Cicilior's chapter on the Genoese *panfilii* ship types, based primarily on thirteenth-century Genoese notarial documents, is a strong contribution.

Part III includes papers by Jeffrey Royal on the Roman Levanzo I wreck and its cargo of vaulting tubes, with a discussion of their economic significance; Robert Hohlfelder on the harbour at Aperlae in south-eastern Turkey; and Justin Leidwanger's overview of anchorages, wrecks and maritime trade in Cyprus. Vasilios Christides places the eleventh-century Serçe Limanı wreck in historical context and offers a brief look into eastern Mediterranean shipping. More detailed and informative is John Pryor's 'A medieval Mediterranean maritime revolution, crusading by sea ca. 1096–1204', in which the author amplifies his earlier work with a number of useful observations on sailing distances, ports of call and networks. Roxani Margariti's discussion of the relevance of Geniza documents in illuminating nautical knowledge is a good introductory work and invitation for closer scrutiny for this still underused body of material. Part IV consists of van Doorninck's concluding chapter, which revises and updates many of the original conclusions drawn in the first publication of the Yassiada shipwreck. Notably, van Doorninck reiterates that the vessel belonged to the church, that it was engaged in supplying military tax-in-kind (*annona militaris*), that it was based on Samos and that the final voyage of the vessel occurred in AD 629–30. Whatever one's views on these conclusions, it is beyond dispute that the discovery of the Yassiada wreck and the scholarship spawned by its publication have stimulated Byzantine archaeological research and numerous subfields. Sadly, besides the Institute of Nautical Archaeology's exploration of Serçe Limanı, and despite the potential to transform our knowledge of Byzantium (perhaps the most understudied society relative to its size and longevity), maritime archaeology has yet to fulfil the promise and lasting influence achieved by Yassiada, as rightly recognised in this volume.

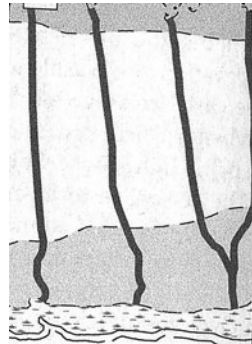
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- STEPHEN RIPPON, CHRIS SMART & BEN PEARS. *The fields of Britannia*. 2015. xix+445 pages, numerous b&w illustrations, 34 tables. Oxford: Oxford University Press; 978-0-19-964582-4 hardback £90.



The fields of Britannia represents the report of the eponymous research project that addressed issues of landscape continuity from the late Roman to the early medieval periods in England and Wales, in relation to a) field systems and land bound-

aries, and b) vegetation history as a proxy for land use. To this end, the authors have collected the most reliable excavation results and pollen sequences, obtained mostly from relatively recent developer-funded work. They have attempted to control for geographic variation by considering them in relation to eight regions, defined by physiography, the extent and nature of Romanisation, the apparent degree of 'Germanic' cultural influence, and the character and development of the 'historic landscape'. Each region is sub-divided into *pays*. In the cultural landscape, continuity is assessed by seeing how far the orientation, or the actual boundaries, of (ideally, late) Roman field systems are perpetuated as historic field boundaries or the edges of medieval furlongs. (It is fortunate that most Romano-British field systems are coaxial enough to facilitate this methodology.) The authors insist that all excavators should consult nineteenth-century maps to see whether their field ditches line up with, or underlie, destroyed historic landscape boundaries; by not doing so, several have not properly understood their sites. Vegetational continuity is assessed by looking at variations in percentages of indicator species for