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Food at sea on the Late Antique Mediterranean

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Meals on the backs of monsters

The 6th-c. Irish saint Brendan, around the midpoint of his life, traveled with a group of fellow monks on a search for the Promised Land of the Saints. One portion of this journey involved stopping on an island, a welcome respite after some time at sea in their currach, or small wood and skin boat. Upon landing ashore, he and his companions disembarked and removed from their craft a cooking pot and various meat and fish for salting. Once the fire was hot enough to make the cooking pot boil, the island began to tremble. Thinking quickly, Brendan ordered his fellow monks back to the boat and the safety of the sea. Only when they saw their campfire recede into the horizon did Brendan tell them this was no island, but the back of the great fish Jasconius.[1]

Tales of sailors landing on sea monsters appear in several variants in ancient literature, including the Latin *Physiologus* and the Babylonian Talmud. The former's story of the Aspidochelone, for instance, tells of men who beached their ship and built a *focus*, or cooking hearth.[2] In the latter, sailors and passengers on a ship paused on an island to cook food.[3] While fantastical and variable, these stories feature a common element of cooking and dining at sea, far from home, mundane tasks that make the tales all the more real despite their monstrous culminations. For those interested in quotidian life at sea, they provide a window into the practices of ancient seafarers, highlighting how they would, from time to time, choose to depart their ships and dine on shore. The counterpoint to this is unstated but also clear: other meals must have been consumed on board during Brendan's journey, and such experiences on shore were not the norm. Indeed, much of his time at sea would have been marked by simple ready-to-eat foods. Each story contains varied models of cooking and provisioning at sea, and that these versions offer contrasting vignettes of the food's actual preparation and consumption only underscores the diverse models by which sailors provisioned themselves.

Why go ashore to eat? Brendan's voyages allow us to hypothesize. The most obvious reason is that the ship bearing these men did not have a source for heating food on board, so this was the only means for a cooked or warmed-up meal. Or this may reflect a concern for safety, as fire proved more dangerous on a boat than on land. But other possibilities exist as well. The ship's water supply, a perpetual worry, needed constant replenishing. For a sea-weary crew, this may also have been an opportunity to stretch their legs.

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1 The version above is from the 10th-c. *Navigatio Sancti Brendani Abbatis* 10. See Selmer 1959, 20–21.

2 *Physiologus Latinus* B, 24.

3 *b. Baba Batra* 73b.

Or perhaps the pre-prepared foods – easy to serve en route with a ship's simple wares – were, this one day, no longer enough, and going ashore offered the chance not only to salt provisions for future journeys but to eat a piece of finely charred meat or fish cooked over an open flame. Such a meal would also offer the crew an opportunity to do something far more difficult at sea: to eat together as a complete community. When the ship was underway, someone had to remain at the helm, which meant eating apart from the rest.

Archaeologies of cooking and dining on board

Tucked into the folds of the fantastic, these stories hint at the many possibilities and rhythms of daily maritime life, offering a stark contrast to the comparatively narrow lens through which the material remains of cooking and dining at sea have often been interpreted. A few early investigations of particularly well-preserved shipwrecks have dominated discussion, creating powerful singular models that, in turn, have generally limited other interpretations and even the questions asked of shipboard assemblages. Among these, the 7th-c. CE Yassıada vessel looms large, having become not merely a point of comparison but a normative model for a ship of Late Antiquity.[4] Its well-appointed galley cabin, covered in a tile roof at the stern, featured a dedicated cooking surface in a brick-lined "fire box" and shelves stocked with an abundance of cookpots. A series of repeated serving and dining ware shapes suggested to the excavator, George Bass, "four, or possibly five, table settings for officers or important passengers," while the cooking pottery and specialized kitchen space indicated a capacity to feed additional people.[5]

This vivid model has offered Mediterranean maritime archaeologists an important starting point. The notion of table wares working in sets and the linking of those presumed sets to crew size is a recurring theme in interpretations of shipwrecks.[6] Even so, very few assemblages are sufficiently intact and documented to offer reliable counts, and caveats are in order: distinguishing between wares for sale and for use on board can be tricky, and we must always keep in mind the variable preservation in different contexts of the ceramic, metal, and wooden materials that fulfilled such roles.[7] Yet routine differences in numbers among various dining ware pieces and the interchangeability of certain vessels for use in cooking, serving, and eating can call into question identifications of sets and attempts to render crew size from ware counts alone. So can the specific material needs implied by the varied daily practices of food consumption like those suggested above for Brendan's sailors. The Yassıada ship's dedicated kitchen and cooking surface offer a reasonable comparison for certain vessels engaged in certain types of seafaring practices and journeys, but not for others. This galley and its instruments need not have been the norm, though they have often formed the basis of comparison for other Late Roman shipwrecks in the eastern Mediterranean – and even for wrecks from other periods and regions of Mediterranean antiquity – one that defines other assemblages by how well or poorly they hew to the formative model from Yassıada.[8]

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4 See Munnery 2024, 90.

5 Bass 1982b, 188; see also van Doorninck 1982.

6 Beltrame 2002, 48–50.

7 See generally Trego 2019.

8 E.g., Kapitän 1969, 133; see also generally Beltrame 2015.

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Such a narrow approach, of course, overlooks the flexibility and dynamism of maritime activities over different distances, scales, and temporalities, each journey lending itself to not one but a variety of cooking and dining practices. Some voyages took weeks, with few landings on shore, while others were short hauls along the coast, moving from port to nearby port and back. Some journeys were seasonal or opportunistic while others routinely plied the same waters, conditions that generated different labor arrangements that in turn affected provisioning. Larger ships demanded larger crews, but the size of a ship did not always dictate the sort of journey it was to take. Sailors stopped when needed: water was constantly being replenished, and storms or dead calm might force a ship to make landfall or to head into strange waters.[9] There was, as a result, no one model of food preparation or consumption at sea. Sailors must have eaten dynamically, responding to the varied pressures, opportunities, and availabilities that life on board offered. Under these fluid conditions, one ship's pantry might have to meet the (not always predictable) needs of different journeys at different times, not to mention the cultural, social, and personal preferences of their individual and sometimes shifting crews. And although the shape of a cooking vessel often played a role in how food was prepared in it – a wide, open form was usually used to prepare roasted, sauteed, or baked things, while a deeper, rounder form yielded soups, stews, porridges, and gruel – this need not always have been the case.[10] The archaeological record of shipwrecks reflects all of this complexity in mobility,[11] favorably preserving the final voyage but also echoes of earlier journeys that assembled and retained (and discarded) wares along the way. Our interpretations of shipboard assemblages should account for this complexity.

With this in mind, we revisit the assemblages of three excavated Late Antique shipwrecks marked by contrasting hull sizes, necessary crew complements, and distances traveled during their final voyages: the early 6th-c. Marzamemi 2 assemblage from southeast Sicily, a large (ca. 30-m) vessel on a long-haul interregional journey carrying architectural marbles; the late 4th- or early 5th-c. Dramont F site off southern France, a very small (ca. 10-m) vessel engaged in the local coasting trade in resin; and the 7th-c. Yassıada wreck from southwest Türkiye, a mid-sized (ca. 20-m) vessel lost while carrying an Aegean wine cargo (Fig. 1). The size of such vessels allows for speculation about the crews they would have required to safely operate the rigging and other elements while underway: probably as many as 8–12 at Marzamemi, only 2–3 at Dramont, and 3–5 at Yassıada. We explore the different affordances of the galley assemblages on these wrecks, identifying the flexible possibilities these wares created for how food *could* have been prepared and consumed en route and thus broadening the model of how we might detect and understand the dynamic lived experiences of those crossing the ancient Mediterranean.

Marzamemi 2

The early 6th-c. CE Marzamemi 2 wreck came to rest in the shallow reefs off southeast Sicily, where it was first investigated in the 1960s and early 1970s by Gerhard Kapitän; new campaigns resumed and completed excavation between 2013 and 2019.[12] Situated

[9] McCormick 2002, 422.

[10] See Arthur 2007; Banducci 2021.

[11] Leidwanger 2020, 83–98.

[12] Kapitän 1969; Kapitän 1980; Leidwanger et al. 2021.

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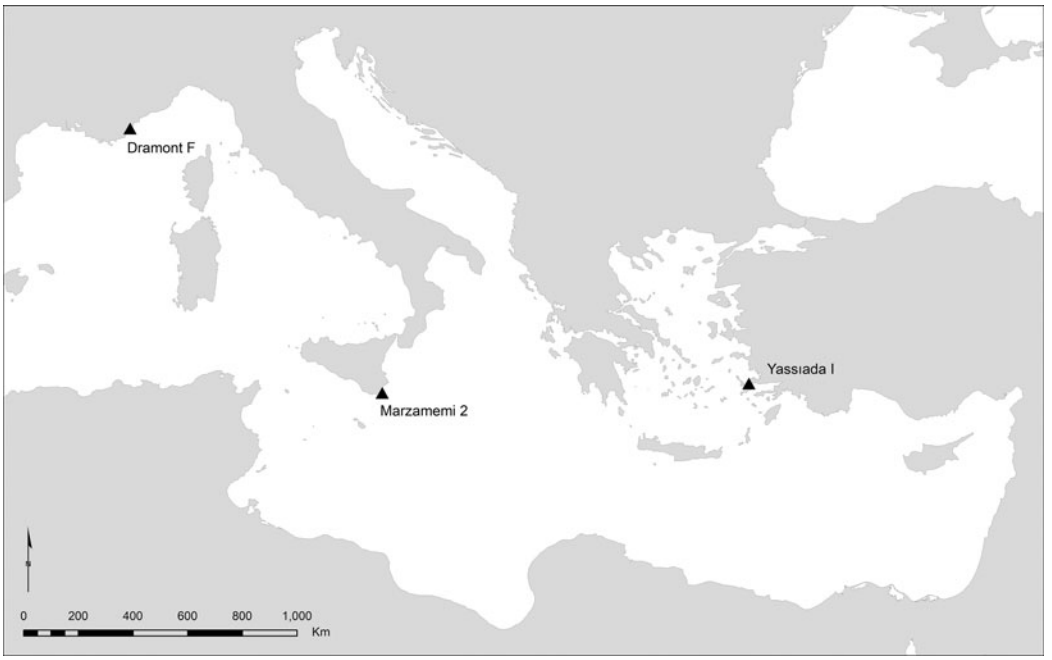

Fig. 1. *Locations of the three shipwrecks discussed. (J. Leidwanger.)*

less than 1 km offshore at 7 m depth, the assemblage is concentrated in an area of 30 x 30 m, with some spread of material to the west. The turbulent seabed and later collapse of the surrounding reefs make it difficult to assess the overall assemblage, including its fragmentary ceramic wares. So too does the fact that many materials retrieved by Kapitän, most notably the pottery, have not been relocated, leaving the assemblage incomplete. But what is clear is that the ship was carrying 100 tons of elite architectural materials on a journey that likely originated in the Sea of Marmara or the northern Aegean to some destination in the central Mediterranean.[13] A ship of this size (at least 30 m in length) would have necessitated a crew of perhaps 8–10, and probably no more than 10–12, to operate efficiently on this voyage.[14]

There is abundant evidence of cooking on the Marzamemi ship despite what we know to be an incomplete assemblage (Fig. 2). Several thick bricks and thinner tiles may offer evidence of a fire box or a small, fixed hearth that offered a safe way to cook with coals or a flame on board. There are, however, not many cooking vessels: only eight have been identified, all of which are narrow-mouth, closed forms (Fig. 2.6–7). These were likely used to prepare sauces, soups, or stews. Their fragmentary nature makes estimating specific sizes hard, but many of the what appear to have been rounded vessels seem quite small, which would impact the amount of food they could produce at once. If a fire box or hearth existed, it would also have allowed foods to be laid directly on the hot coals and roasted. Such formal variation may indicate that pots worked in conjunction to create more elaborate dishes. It is possible to imagine a smaller pot being used to prepare a sauce that would subsequently be added to a protein or other staple prepared in coals or on land on a spit, and there is precedent for this in Roman cooking literature.[15] Finally, a large

[13] Leidwanger et al. 2021, 308–11; cf. Kapitän 1980, 125–30.

[14] Whitewright 2016, 882.

[15] Donnelly 2015, 143.

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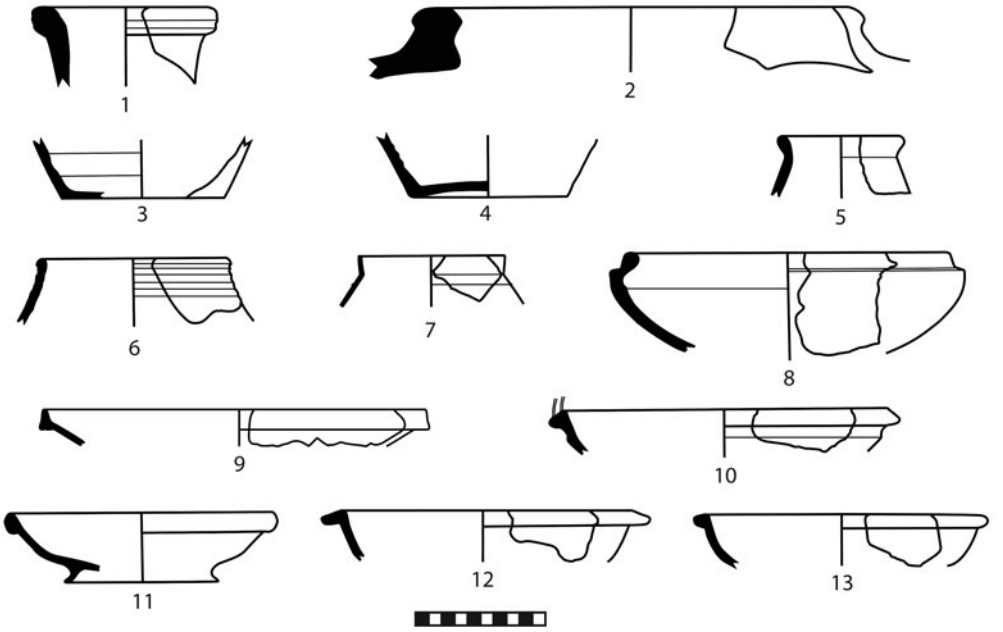

Fig. 2. *Ceramics from the galley assemblage of the early 6th-c. Marzamemi 2 wreck. (Courtesy Marzamemi Maritime Heritage Project.)*

cylindrical stone vessel may be a mortar, although the vessel's heft would have made for difficult pouring; it may also have served to crush grain to be mixed with water for a sort of hardtack or other bread. Thus, a range of victuals prepared in a variety of ways may have been available for the Marzamemi ship's sailors at mealtime, an opportunity that those working on smaller craft might only have enjoyed in port or while seated in front of a fire, their ship beached on shore. The ship's size, long journey, and two large water jars (Fig. 2.2) may have made such stops rare.

The service vessels also offer tantalizing information about the crew and their patterns of consumption (Fig. 2.9–13). Most rims are from open forms, especially a variety of shallow bowls. This assemblage has little uniformity, which is striking; the vessels are not matched in size or fabric, but include products of Egypt, North Africa, and Cyprus. Even among the most common form (Hayes 99A; Fig. 2.11) there are differences in size, raising the prospect that these wares were not purchased together. On the other hand, if one focuses on general features and functionalities, the service assemblage is remarkably consistent. Though distinct in terms of typology and production region, the serving forms – African Red Slip form Hayes 99A, Cypriot Red Slip form H5 (Fig. 2.10), and Egyptian Red Slip form H (Fig. 2.9) – offer the same basic function: they hold food. There must have been variation in actual use of vessels, and one vessel might be used in multiple ways. A bowl a crew member ate from at mealtime might hold dry goods at other times. These vessels and their afforded purposes hint at the Marzamemi crew's participation in a particular seafaring culture. Small bowls could be put out at mealtime, each holding a different foodstuff for the crew to choose from. Such a situation might be awkward, however, as the composition of the assemblage means this would not have allowed for food taken to be placed into any other vessel for personal consumption. Another option is that the bowls were meant for individual use, as each small, rounded vessel would be

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ideal for holding a quantity of soup, bread, or other foodstuff on the rolling sea. If so, the hodgepodge method of acquiring so diverse a collection of wares could suggest evidence of a sort of "mess kit" that would travel with sailors who worked on a variety of ships, assembled here to ferry a stone cargo to its destination.

Dramont F

The Dramont F ship, which was wrecked ca. 400 CE off the coast of Provence, presents the smallest assemblage examined here.[16] Excavated in the early 1970s by Jean-Pierre Joncheray and colleagues, it was well preserved at 58 m depth on a muddy seabed, including parts of the hull coated inside and out with pitch. Its cargo of about 3 tons of pitch resin was carried in some 120 (reused?) African amphoras. The ship's small size (perhaps 8 m, at most 10–12 m long) and limited cargo, which analysis suggests most likely originated along this same coast, indicates a vessel engaged in far more local traffic than the one at Marzamemi. Such a ship and journey would require only a few sailors to operate, at least two and perhaps three, and the vessel's size would have limited options for food preparation and cooking space.

The galley assemblage for the ship is very small, consisting of eight objects: one Hayes 61 plate (Fig. 3.2), a pot (Fig. 3.4), four jars or pitchers (Fig. 3.1, 3; one that is not illustrated is in copper), a lid (Fig. 3.5), and also what is probably a small (Keay 52) amphora. Given the presence of the cargo amphoras that contained resin, and not food, it seems reasonable to imagine that the contents of the jars and small amphora were crew provisions. Basing arguments on the absence of an object is hardly secure – even in such a well-preserved context – but the lack of an obvious water jar here raises the prospect that the small amphora, or even the pitchers, contained the ship's water stores, which meant the ship's range was quite limited.[17] In terms of crew size, assuming a one-to-one relationship with the dining wares here would imply a single sailor, an untenable prospect given what we know about operating a sailing rig in antiquity. The jugs may offer a more appealing approximation of crew numbers, but the size and profile of the Dramont F assemblage raises the possibility that we are observing something quite different, where humble is the norm and the individualization of objects cannot be assumed. One possibility is that this ship was an extended family endeavor, which could easily provide a crew of two or three as necessary, with vessels to hold and serve food communally.

The galley assemblage provides a rare window into life at sea on a humbler vessel. Whether the single pot (Fig. 3.4) was used to cook food is unknown. There is no recording of soot on it, though the marine environment does not always preserve such traces nor is it a consistent marker of cooking more generally.[18] What is unusual is that if the pot were used to prepare food, likely a stew, soup, or porridge, the one extant receptacle for holding food – the very wide Hayes 61 plate (Fig. 3.2) – is not well suited for serving it. The lid

[16] Joncheray 1975. See also discussion of the vessel's size and cargo tonnage in Nantet 2016, 493–95.

[17] The World Health Organization estimates a person needs to consume at least 3 liters of water per day. If each jar held approximately 1.5 liters, a two-person crew would have a day's supply of water (and potentially be thirsty still, given the Mediterranean sun). This would, of course, be extended if the Keay 52 was used to store water. See World Health Organization 2013.

[18] On the impermanence of such markings in the underwater environment, see Morrison et al. 2015; on soot in general, see Banducci 2021, 126, 290–93.

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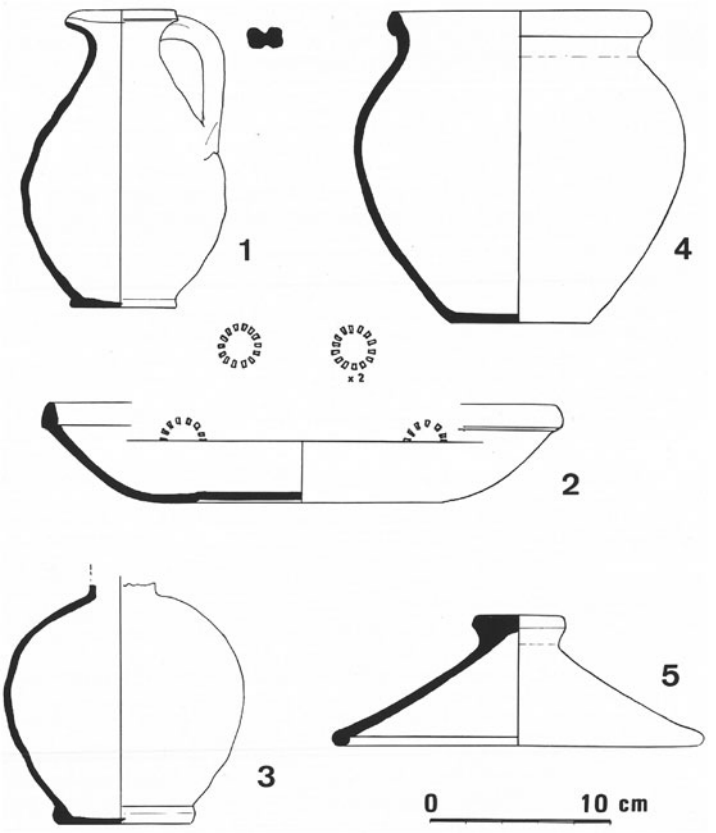

Fig. 3. *Ceramics from the galley assemblage of the late 4th- or early 5th-c. Dramont F wreck. (From Joncheray 1975, 115; courtesy C. Joncheray.)*

(Fig. 3.5) is larger than the diameter of the pot but would cover it adequately. Of course, this single pot could also have been used to heat pitch resin, either as part of the crew's resin trade or for maintenance of the vessel, as already evident on the hull timbers. For the Hayes 61 plate, it seems more likely to have functioned as a vessel for serving other, stored foods, held perhaps in the jars. Its flat, open surface would also have allowed for the kneading of dough and preparation of hardtack or other bread product. This dough could be left under the warm sun to set and then cooked at a later time.[19] Given that there is no secure evidence of cooking fires on board – no metal stands, no evidence of a hearth except for a lone brick, and likely not much space for such an endeavor anyway – it is far more probable that any cooking would have needed to take place on shore, easily accomplished if the ship sailed (as seems evident) within sight of land. If the pot did prepare meals, it seems probable that the runners of resin who crewed the ship would have eaten the food directly from the pot itself. One might imagine such short "there and back" or coast-hopping journeys depended on simple ready-to-eat foods en route, and potentially rarer episodes of cooking on shore at either a major stop or as the ship turned around to head home.

[19] Cato, *Agr.* 22.

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Yassıada I

Returning now to the 7th-c. Yassıada I assemblage that has loomed large in discussions of this kind, this ship sank off the tip of the Bodrum peninsula in southwest Türkiye and lay undisturbed at 32–39 m until the early 1960s, when it was excavated by George Bass.[20] Its remarkably good preservation included large parts of a sleek wooden hull, estimated to be 20–21 m in length, 800–900 mostly Aegean (LR2-related) amphoras carrying wine, and a range of shipboard objects as well as cooking and service vessels that provide vital insights into the crew and its foodways. The cargo amphoras' origin, reuse, and graffiti, combined with several other clues from the assemblage like the bronze steelyard, suggested to the excavators a church-sponsored vessel moving foodstuffs for military supply between the Aegean and eastern Mediterranean.[21]

The galley structure itself, already mentioned above, has been reanalyzed several times, and the current reconstruction incorporates material evidence from several other wrecks. This tile-roofed area at the stern served as storage for many of the ship's ceramics and featured a fire box in brick and tile with a metal grating that acted as a cooking surface. Its discovery and reconstruction – in part because of the striking images of that hypothesized arrangement – has, to quote Carlo Beltrame, "strongly influenced the image we have of galleys on board ancient ships."[22] A large number of cooking vessels came from the galley: 2 bronze pots, a flat bronze pan, 2 open-form casseroles, and at least 18 cooking pots of a variety of sizes and shapes (Fig. 4.6–10). There are many potential reasons for having so many cooking implements on a ship of probably average size. Some might have been meant for trade, though the fact so many have evidence of use would seem to negate this. Multiple pots would allow for the preparation of meals for multiple days at once, or for a variety of meals, including ones that required cooking in more than one pot. At about 1 x 0.73 m, the large fire box could accommodate a great number of pots at a time, and its size is suggestive that it was meant for bulk cooking.[23] If the sleek and speedy hull could also at times have been used to ferry passengers, as the excavators suggested,[24] they may have traveled with their own service vessels. Such previous journeys might help account for the galley's capacity to cook for many more than the likely crew itself. In addition, not all "cooking" pots were used for cooking: one pot was clearly used to heat pitch resin for some shipboard use.

The service vessels at Yassıada merit deeper analysis. Our recent re-examination of the ceramics from this shipwreck does not bear out the original assessment of vessel uniformity. One of the most striking aspects of this assemblage is the presence of three (not four) large North African platters or plates, which resemble Hayes forms 105 and 106 (Fig. 4.1). In addition, there are a series of smaller glazed vessels of quite varying shapes, 17 pitchers (Fig. 4.4–5), and 10 irregularly shaped bowls (Fig. 4.2). The presence of several metal concretions inside one of these bowls may indicate that it was in use for another purpose at the time of sinking. This collection of plates, bowls, and glazed vessels seems less evidence of sets for certain crewmembers than reminiscent instead of an environment where foods

[20] Bass and van Doorninck 1982.

[21] van Doorninck 2015.

[22] Beltrame 2015, 65.

[23] van Doorninck 1982, 120.

[24] van Doorninck 2015, 205.

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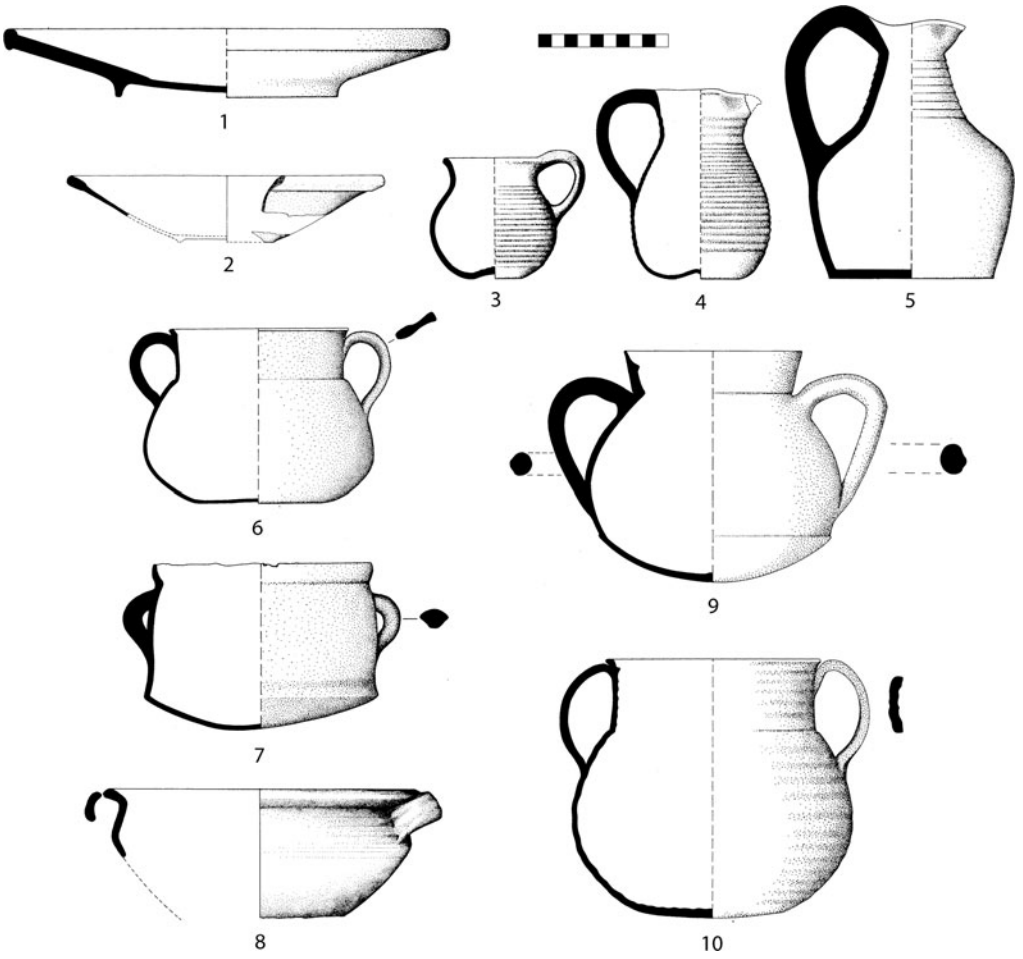

Fig. 4. *Selected ceramics from the galley assemblage of the 7th-c. Yassıada I wreck. (After Bass 1982b, 166 fig. 89, 168 fig. 8-10, 171 fig. 8-12, 176 fig. 8-15, and 179 fig. 8-16; courtesy Institute of Nautical Archaeology.)*

were put out and eaten communally, either directly off the Hayes 105/106 platters or from the smaller, individual vessels.[25] Either way, this contrasts starkly with the sets originally proposed.

Food at sea in Late Antiquity

From just these three short glimpses, the complexity of food preparation and consumption practices on the Late Antique Mediterranean already comes through vividly, calling into question certain normative assumptions that have often framed investigations of and limited critical thinking about shipwreck assemblages.

Perhaps most obvious is the recognition that there need not be a one-to-one correlation between a particular ware or shape and crew size. Closer scrutiny of the Yassıada assemblage suggests no consistent number among the serving vessels that might point to identifiable "sets" for crew members, but rather a practice whereby some vessels may have

[25] An observation also made in Munnery 2024, 89–90, though based on the original report.

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served communally and others may have held individual portions. Given the trend toward communal dining from larger serving vessels in this period, the number of larger plates or platters at Yassıada or Dramont may relate more to the forms of food consumed and the arrangement of its distribution.[26] The smaller bowls may bring us closest to individuals in such contexts as at Marzamemi, but even in these cases, we cannot assume that a small bowl's sole use was in the hands of a single crew member at a meal and therefore that the maximum number of bowls indicates the number of people on board. These bowls may have fulfilled different purposes of serving, storage, or preparation of food (or even other items) at different times. One bowl at Yassıada may have been holding something quite different given the several metal concretions found adhering to it. Galley wares in materials that do not survive so readily, such as wood, present another challenge, complicating our ability to evaluate assemblage holistically. Nor is there a single consistent component of the assemblages – bowls, cups, etc. – to which one might connect crew size. The four pitchers at Dramont are enticing (if they were for serving rather than storage of water or another liquid), but the number at Yassıada certainly exceeds what one might reasonably assume for a crew.

The rich variety of ways in which meals were cooked and prepared likewise comes through in these assemblages. The wares clearly reflect different practices of acquisition and ports of call, but also different meals cooked, even probably on a single voyage. The size of a ship and its range played a role in provisioning. The crew of the Dramont F ship, on their short-haul journey, may well have relied primarily on ready-to-eat supplies or foods warmed under the sun, but they may also have enjoyed cooking a fresh meal at port upon unloading cargo and before setting off for home. The preponderance of cooking pots on board the Marzamemi 2 ship and relative lack of other forms may be a function of feeding a crew that varied in size quite significantly, offering meals that were both high in calories and water and relatively easy to prepare. The large-scale investment in cooking infrastructure at Yassıada offered the chance for more elaborate multi-stage cooking and, in the process, potentially an important opportunity to create a locus of community at sea. Yet this need not have been the norm, and one might imagine the various cooking pots arrayed together over the fire preparing several meals at once that would then need only be reheated later for quick consumption en route.

We must also recognize that these wares were assembled over the course of and intended for many journeys, such that the full array need not reflect merely the needs of the one final voyage and crew. As noted above, journeys ranged in route and length as well as frequency of stops, and therefore also in their provisioning and crewing. The Dramont F ship may have had the same personnel on its routine journeys, but this may not have been so common; both the number and composition may have varied from journey to journey – as has been suggested for the Marzamemi crew – depending on whether longer or overnight sailing (or intricate cargo handling) was anticipated. Passengers present another challenge. If the excavators at Yassıada are correct to view this ship as designed for speedy transit of travelers, one reading of its unusually large cooking capacity is that it might have been to cater to such passengers, who presumably then brought their own food as well as dining wares. The picking up of extra pots may have been a practical response to their short lifespans, suggested by ethnographic work: often just a year or at

[26] Hudson 2010.

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most a few years for cooking wares.[27] These lifespans would no doubt have been cut even shorter by greater rates of breakage on a moving ship, and one solution may have been to acquire duplicate or extra wares in anticipation of such losses, one possible explanation behind the numerous cooking pots at Yassıada. The continued use of one open pot here, too, even after the loss of at least one handle suggests these vessels could at times serve for longer periods, despite some breakage, unless they were put to an alternative use as storage.

On a broader level, these galley assemblages offer the opportunity to examine social dynamics and power structures on board. Implements for consuming food have been studied to learn more about regional dietary preferences.[28] Indeed, the varying assemblages on these wrecks – the large number of cookpots at Yassıada, the diverse serving bowls at Marzamemi – may well be evidence of foodways present in differing parts of the Mediterranean. For our purposes here, the ceramics are powerful tools for establishing difference and hierarchy.[29] The Yassıada wreck assemblage has been interpreted through such a lens, with the various dishes and accessories forming "table settings for officers or important passengers."[30] This phrasing reveals certain assumptions regarding the roles of objects in expressing difference – reminiscent of a 19th-c. British ship of the line or even a Roman aristocrat's *triclinium* – that may not have been so strictly defined in this context. Hierarchy was no doubt part of life on ancient ships, which makes the lack of evidence for it on board the early Hellenistic shipwreck at Kyrenia (according to Andrea Berlin) all the more interesting.[31] The presence of the steelyard bearing the title "naukleros" must reveal the person in charge at Yassıada,[32] but a broader culture of social dynamics and etiquette through which such hierarchy might have been expressed is worth further scrutiny. Power and difference could be displayed in many ways, even in a galley outfitted with an assemblage of similar serving and dining wares that otherwise suggest a more egalitarian method of consuming food. While a ship's captain and a lowly deckhand could eat similar food off the same plates, not everyone gets first choice of available foods or places to sit; one might cook the meals or wash the plates, and another might eat first.

Expanding the view of maritime foodways

The foodways of seafarers were intimately connected to the worlds in which they operated, from the massive long-distance shipment at Marzamemi to the interregional supply run of Yassıada to the small-scale local coastal haulage at Dramont. The particular needs and opportunities associated with these journeys, and of course the innumerable cultural and personal preferences, dictated how food was prepared and consumed en route. The variability in voyages crisscrossing the Mediterranean – variability in size and spaces on board, in length and cadence of journey, and in required crew complements and passengers – created the diverse galley assemblages reflected in these Late Antique shipwrecks

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27 E.g., Nelson 1991; Shott 1996; see also Peña 2007, 57–60.

28 Arthur 2007.

29 D'Arms 1999, 302; Sutton 2014, 307–8.

30 Bass 1982b, 188.

31 Berlin 2022, 279, who sees "free men…either working on their own behalf or in conjunction with a small consortium."

32 Bass 1982a, 313; Arnaud 2020.

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and no doubt also in other shipwrecks from antiquity. Our frameworks for interpreting these assemblages must grow to embrace more nuance while being sufficiently flexible to reflect this dynamism.

To date, a narrow focus on assembling galley wares into sets and transforming these sets into estimates of crew size has tended to flatten much of this diversity of practices and, in turn, the human experiences to which food preparation and consumption were so intimately tied. The well-preserved and published Yassıada wreck offered a powerful early model – including striking images of the galley reconstruction – that has seemingly become the norm for interpretations of shipwrecks of this period (and other periods), even at times when their materials are markedly different. Yet examining other assemblages through this normative model necessitates assumptions about ceramics and foodways that may not hold for other ships, regions, journeys, crews, and of course periods. Focusing on the diversity in seafaring practices allows for a better understanding of the affordances of the highly variable galley assemblages on board and how those wares and the foods prepared and served in them, in turn, inform a deeper awareness of the social lives of everyday sailors. All of the observations and possibilities proposed above are preliminary and demand further scrutiny of the finds from these and other shipwrecks, including those that may preserve more ephemeral wooden or other traces of such wares. A more flexible approach to these wares, though, opens a productive new window into not only shipboard hierarchy but other social dynamics of labor regimes, placemaking, and hospitality at sea, crew and passenger relations, and changing nutrition as well as dietary and dining practices across this transformative period.

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References

Arnaud, Pascal. 2020. "Polysemy, epigraphic habit and social legibility of maritime shippers: Navicularii, naukleroi, naucleri, nauculari, nauclari." In *Roman Port Societies: The Evidence of Inscriptions*, ed. Pascal Arnaud and Simon Keay, 367–424. Cambridge: Cambridge University Press.

Arthur, Paul. 2007. "Pots and boundaries: On cultural and economic areas between Late Antiquity and the early middle ages." In *LRCW 2: Late Roman Coarse Wares, Cooking Wares, and Amphorae in the Mediterranean*, ed. Michel Bonifay and Jean-Christophe Tréglia, 15–27. BAR-IS 1662. Oxford: Archaeopress.

Banducci, Laura M. 2021. *Foodways in Roman Republican Italy.* Ann Arbor: University of Michigan Press.

Bass, George F. 1982a. "Conclusions." In *Yassi Ada I: A Seventh-Century Byzantine Shipwreck*, ed. George F. Bass and Frederick H. van Doorninck, Jr., 311–19. College Station: Texas A&M University Press.

Bass, George F. 1982b. "The pottery." In *Yassi Ada I: A Seventh-Century Byzantine Shipwreck*, ed. George F. Bass and Frederick H. van Doorninck, Jr., 155–88. College Station: Texas A&M University Press.

Bass, George F., and Frederick H. van Doorninck, eds. 1982. *Yassi Ada I: A Seventh-Century Byzantine Shipwreck*. College Station: Texas A&M University Press.

Beltrame, Carlo. 2002. *Vita di bordo in età romana*. Rome: Istituto Poligrafico e Zecca dello Stato.

Beltrame, Carlo. 2015. "The contribution of the Yassıada shipwreck excavation to the knowledge of life aboard ancient ships." In *Maritime Studies in the Wake of the Byzantine Shipwreck at Yassıada, Turkey*, ed. Deborah N. Carlson, Justin Leidwanger, and Sarah M. Kampbell, 63–70. College Station: Texas A&M University Press.

Berlin, Andrea. 2022. "The goods of the crew." In *The Kyrenia Ship Final Excavation Report*. Vol. I. *History of the Excavation, Amphoras, Ceramics, Coins and Evidence for Dating*, ed. Susan W. Katsev and Helena W. Swiny, 265–321. Oxford: Oxbow Books.

D'Arms, John H. 1999. "Performing culture: Roman spectacle and the banquets of the powerful." In *The Art of Ancient Spectacle*, ed. Bettina Bergmann and Christine Kondoleon, 300–19. Studies in the History of Art 56. Washington, D.C.: National Gallery of Art.

Donnelly, Andrew. 2015. "Cooking pots in ancient and Late Antique cookbooks." In *Ceramics, Cuisine and Culture: The Archaeology and Science of Kitchen Pottery in the Ancient Mediterranean World*, ed. Michela Spataro and Alexandra Villing, 141–47. Oxford: Oxbow.

Hudson, Nicholas F. 2010. "The archaeology of the Roman *convivium*." *AJA* 114: 663–95.

Joncheray, Jean-Pierre. 1975. "Une épave du Bas-Empire: Dramont F." *CahArchSubaq* 4: 91–140.

Kapitän, Gerhard. 1969. "The church wreck off Marzamemi." *Archaeology* 22: 122–33.

Kapitän, Gerhard. 1980. "Elementi architettonici per una basilica dal relitto navale del VI secolo di Marzamemi (Siracusa)." *Corsi di cultura sull'arte ravennate e bizantina* 27: 71–136.

Leidwanger, Justin. 2020. *Roman Seas: A Maritime Archaeology of Eastern Mediterranean Economies*. New York: Oxford University Press.

Leidwanger, Justin, Elizabeth S. Greene, and Andrew Donnelly. 2021. "The sixth-century CE shipwreck at Marzamemi." *AJA* 125: 283–317.

McCormick, Michael. 2002. *Origins of the European Economy: Communications and Commerce, A.D. 300–900*. Cambridge: Cambridge University Press.

Morrison, Jerolyn E., Chrysa Sofianou, Thomas M. Brogan, Jad Alyounis, and Dimitra Mylona. 2015. "Cooking up new perspectives for Late Minoan IB domestic activities: An experimental approach to understanding the possibilities and probabilities of using ancient cooking pots." In *Ceramics, Cuisine and Culture: The Archaeology and Science of Kitchen Pottery in the Ancient Mediterranean World*, ed. Michela Spataro and Alexandra Villing, 115–24. Oxford: Oxbow.

Munnery, Rowan. 2024. "Shipshape and Roman fashion: Space at sea in Late Antiquity." In *Lived Spaces in Late Antiquity*, ed. Carlos Machado, Rowan Munnery, and Rebecca Sweetman, 80–95. London: Routledge.

Nantet, Emmanuel. 2016. *Phortia: le tonnage des navires de commerce en Méditerranée: du VIIIe siècle av. l'ère chrétienne au VIIe siècle de l'ère chrétienne*. Rennes: Presses universitaires de Rennes.

Nelson, Ben A. 1991. "Ceramic frequency and use-life: A highland Mayan case in cross-cultural perspective." In *Ceramic Ethnoarchaeology*, ed. William A. Longacre, 162–81. Tucson: University of Arizona Press.

Peña, J. Theodore. 2007. *Roman Pottery in the Archaeological Record*. New York: Cambridge University Press.

Selmer, Carl. 1959. *Navigatio Sancti Brendani Abbatis: From Early Latin Manuscripts*. Notre Dame: University of Notre Dame Press.

Shott, Michael J. 1996. "Mortal pots: On use life and vessel size in the formation of ceramic assemblages." *AmerAnt* 61, no. 3: 463–82.

Sutton, D. C. 2014. "Nefs: Ships of the table and the origins of etiquette." In *Material Culture: Proceedings of the Oxford Symposium on Food and Cookery*, ed. Mark McWilliams, 304–13. Totnes: Prospect Books.

Trego, Kristine M. 2019. "For sale or sailors? Towards a galley ware functional designation methodology." *Journal of Maritime Archaeology* 14, no. 2: 273–89.

van Doorninck, Jr., Frederick H. 1982. "The galley." In *Yassi Ada I: A Seventh-Century Byzantine Shipwreck*, ed. George F. Bass and Frederick H. van Doorninck, Jr., 87–120. College Station: Texas A&M University Press.

van Doorninck, Jr., Frederick H. 2015. "The seventh-century Byzantine ship at Yassıada and her final voyage: Present thoughts." In *Maritime Studies in the Wake of the Byzantine Shipwreck at Yassıada,*

Turkey, ed. Deborah N. Carlson, Justin Leidwanger, and Sarah M. Kampbell, 205–16. College Station: Texas A&M University Press.

Whitewright, Julian. 2016. "Ships and boats." In *A Companion to Science, Technology, and Medicine in Ancient Greece and Rome*, ed. Georgia L. Irby, 870–88. Chichester: Wiley Blackwell.

World Health Organization. 2013. "How much water is needed in emergencies?" Technical notes on drinking-water, sanitation and hygiene in emergencies 9. https://cdn.who.int/media/docs/default-source/wash-documents/who-tn-09-how-much-water-is-needed.pdf.

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