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More than 1,200 islands: narratives of Small Worlds in the Adriatic Sea in Greek and Roman times

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Abstract: In the Adriatic Sea, there are more than 1,200 islands of different size and geomorphology between the western and eastern coastal areas. Over time, local communities and traders from different places in the Mediterranean built settlements or *emporia*, mainly on the larger islands, while smaller islands served as stopover points for maritime transport and trade. In ancient times, for example, the islands Vis, Korčula, Hvar and Palagruža became important through transport, geomorphology and natural environment. Within the context of the settlement of the Adriatic east coast, there is intense debate regarding the role of island communities and their identities as maritime societies in relation to the process of Greek and Roman migration. According to Wilkes, the common narrative includes top-down Romanisation and Roman centralisation, the establishment of the province of Dalmatia by Augustus and the decrease of piracy caused the Italic expansion to eastern Adriatic coastal areas. Aquileia, Pola and Salona were main port cities, with settlers and tradesmen arriving by maritime, fluvial or land routes. This chapter contributes to this topic by addressing the dynamics of settlement development and the interplay of the local communities on Adriatic islands. After a brief overview of selected findings, we consider which concepts of communication and connectivity could be used to describe regional and interregional places and players in more detail in the future.

Introduction

In the Adriatic Sea, more than 1,200 islands of different size and geomorphology are located between the western and eastern coastal areas. Local communities and traders from different places in the Mediterranean built settlements or trading places, mainly on the larger islands, while the smaller islands served as stopover points for maritime transport and trade.

Islands were important as visual landmarks, marketplaces and stopovers, and in Roman times there were probably some major port cities on the islands of the Adriatic Sea, as for example, within the bay of ancient Issa on Vis (Faivre *et al.* 2012). Presumably, due to location, accessibility, navigability and local supply situation, smaller areas of human interaction emerged. These include the northern archipelago reaching from the islands of Cres and Krk to Trogir, the central southern archipelago off Salona to Dubrovnik, and the central western archipelago reaching west from Vis to Vieste and Sipontum on Gargano. In terms of size, number and topography, islands off the coast (*e.g.* Vis, Hvar, Korčula and Brač) differ from islands in the middle of the Adriatic Sea (*e.g.* Sušac, Palagruža and Tremiti). The islands near the coast provided diversified settlement areas because their numerous small bays could protect ships from winds or currents. For reasons of navigation and safety, they enabled the creation of shipping routes which generally ran from the Strait of Otranto and reached as far as the Venetian lagoons (Wasmayer 1976). Considering the state of nautical science, sailing along these coasts was a risky venture until recent times (Wasmayer 1976: 200–202). Sea routes of the Adriatic in northern and southeastern directions run along the eastern coast rather than the western one due to various stopping places, as well as a network of lighthouses and coastal lights. In addition to this widely navigable route, island landscapes also offered varieties of smaller routes, both between islands and between islands and the opposing mainland. Numerous ancient shipwrecks with their cargoes at or near the various islands provide valuable information about actors, travel routes and connections between settlements (*e.g*. Jurišić 2000; Kirigin *et al.* 2006).

The study presented here contributes to the understanding of human life by linking port research with human activities along the coasts of the Adriatic Sea. Ancient harbours and landing sites along coasts and at rivers or canals of the Adriatic region were critically important to maritime trade (Zaccharia 2001). Here, next to lagoons, plains and mountainous coasts, diverse landscape conditions influenced human activities, for example, in agriculture and crafts, and harbours and landing sites served as locations of departure or destination for sea routes as well. Our study illustrates the need to consider the Adriatic space in a holistic perspective when dealing with maritime trade. It aims to strengthen this perspective by expanding existing discussions about the origins of *amphorae* as products of human craft activities, by incorporating research on harbours and landing sites to create a multifaceted study (Pesavento Mattioli and Carre 2009; Lipovac Vrkljan *et al.* 2017).

Ilves, Kristin, Veronica Walker Vadillo, and Katerina Velentza. *Delivering the Deep: Maritime Archaeology for the 21st Century: Selected Papers From IKUWA 7.*
E-book, Oxford, UK: BAR Publishing, 2024, https://doi.org/10.30861/9781407361475.

In this research field, an Italo-centric view has long prevailed in questions concerning the production areas of *amphorae*, based on an imbalance of research results. This imbalance has been tackled in recent decades, especially through research conducted in many areas of the Adriatic east coast (*e.g.* Lamboley *et al.* 2018; Lipovac Vrkljan *et al.* 2022). The fact that human activities took place near the coast makes the links between ports, landing sites and the hinterland obvious (*cf*. Westerdahl 2011: 745). This assumption is strengthened by the fact that *amphorae* as craft products were mass products in maritime trade. If we look at the economic processes behind the production of *amphorae* in relation to their importance for maritime trade, ports and landing sites are seen to play vital roles as places for exporting and receiving goods (Lipovac Vrkljan *et al.* 2017). The study of the Adriatic, through the investigation of archaeological finds and features on land and underwater on the coasts, thus show economic processes in diverse coastal areas. Even today, the coastal regions of the eastern Adriatic with their offshore islands play an important economic role for the riparian states. Goods for local supply find their way across the Adriatic, and important modern cities such as Pula, Split, Zadar and Dubrovnik are coastal towns which were settled in antiquity (Pavić 2018). An important economic resource is the tourist development of the coastal areas and especially of the islands. It was therefore appropriate to investigate how ancient communities created and used communication routes across the islands, as well as the roles of geographical ranges in trade, transport and formation of settlement communities.

The objective of this chapter is to review how previous interpretations of findings—for example, on the Islands Vis, Korčula, Hvar and Palagruža off the eastern Adriatic coast—fit into common narratives of Greek migration and Romanisation in the Adriatic. The chapter contributes to this topic by addressing dynamics of settlement development and the interplay of local communities on the Adriatic islands. It argues that concepts such as Small Worlds and micro-regions provide an approach which can gain a better understanding of the settlement history due to the specific geographic and topographical situation and the historical setting of the Adriatic region.

A 'completed' study and consequent new research questions

The idea for this chapter evolved from the project 'The Adriatic communication area' carried out between 2016 and 2019 (principal investigator: Martina Seifert; scientific researchers: Sebastian Adlung and Julia Daum), and it is closely linked to some early results. The project was part of the programme 'Harbours from the Roman period to the Middle Ages' set up by the German Research Foundation in 2012 (https://www.spp-haefen.de/en/priority-programme-1630/). Based on desktop studies, our research dealt exclusively with Roman harbours and landing sites for non-military use in the Adriatic area and aimed to analyse Roman harbour building strategies, as well as the role of their initiators, in order understand the economic significance of these ports for regional and long-distance trade. The societies located at the port sites were regarded as relevant players in urbanisation processes, as were the highly functional, networked communities in the micro-regions which were socially, politically and economically relevant to them (Daum and Seifert 2018, 2020; Adlung 2022).

The starting point for this chapter includes structural considerations of Roman ports and landing sites on the Adriatic coasts, as well as some preliminary results and several open questions from the project. It is necessary to outline this framework briefly. As a first step, we classified ports according to their range as short-range, middle-distance or long-distance, using the categories proposed by Rickman (1988). The terminology and port nomenclature used is based on the results of the Terminology Working Group of Special Research Programme (SRP) 1630 (Kröger 2018; Werther *et al.* 2018). Roman terms such as *provincia*, *regio*, *municipium*, *conventus*, *villa*, *gens*, *familia*, *etc.* followed a discussion of the respective state of research (*e.g*. Rothe 2018). The terms 'city' and 'hinterland' played a subordinate role for this study within the SRP 1630: on the one hand, insufficient demographic data were available for our research area, and on the other hand, the findings situation did not permit the estimation of settlement sizes (for a general discussion of the city concept, see Kolb 1984; Zanker 2014). When addressing and classifying settlements, we used their Roman legal status of the time (*e.g. colonia*, *municipium*, *oppidum*, *civitas*, *vicus* or similar), if it was known.

The impact and formative capabilities of people and their involvement in larger networks of economic redistribution seemed to us to be the most significant (Horden and Purcell 2000: 369–371; Harris 2005: 29–34). Evaluating a heterogeneous body of material in a dynamic, regionally huge research field was a significant challenge for a purely desktop study (Haeussler and Webster 2020: 3–5). This preliminary attempt to identify communication spaces based on tentatively identifiable fields of interaction resulted in a small-scale division of sub-areas. On the one hand, the size and geographical extent of the study area with its western and eastern Adriatic coasts corresponds to the territorial framework of Roman *regiones* and *provinciae*. On the other hand, identified fields of human activity appeared to be partially congruent. The province of Dalmatia, for example, consisted of three judicial districts (*conventus juridicius*) which had their seats in Salona, Scardona and Narona (*e.g*. Marin 2006; Jeličić-Radonić and Torlak 2019: 1921–1993). The availability of agricultural farmland, natural resources, traffic routes and river connections to the inland characterised the coastal settlement areas in the three *conventus*. Pliny (Plin. Nat. 3, 139; 142–143) provides the most comprehensive information about the *civitates* of the *conventus*, enumerating in detail the autochthonous *civitates* in Dalmatia (Džino 2014: 222–224). However, it is unclear whether boundaries of administrative districts correspond

Ilves, Kristin, Veronica Walker Vadillo, and Katerina Velentza. *Delivering the Deep: Maritime Archaeology for the 21st Century: Selected Papers From IKUWA 7*.
E-book, Oxford, UK: BAR Publishing, 2024, https://doi.org/10.30861/9781407361475.

to boundaries of municipalities and provinces in all periods, as well as to geographical or cultural regions (Šašel Kos 2014: 163–164, 2022: 61–70; Džino 2014: 221).

The regional development of boundaries and settlement areas is also connected with a common narrative on settlement history, which sees it as a process of top-down Romanisation, as for example, the establishment of the province of Dalmatia by Augustus and a decrease in piracy led to Italic expansion in the eastern Adriatic coastal area (Bracchesi 2004; Pitassi 2009: 144–156). Wilkes assumed that from Aquileia and Salona, settlements of Italians took place first along the coast and later in the hinterland (Wilkes 1969; for critical aspects and new discussion, see Šašel Kos 2022). In fact, archaeological, literary and epigraphic evidence confirm the role of Aquileia, Pola and Salona as port cities, where settlers and tradesmen arrived by maritime, fluvial or land routes (*e.g.* Broekaert 2013: 46–48, 58–59, 89–90, 94–95, 166–167). By looking at some *gentes*, including members of the *Statii* in Aquileia, many freedmen were active in commerce and the manufacture of bricks (Šašel Kos 2017: 172). The list of comparable coastal locations where similar processes are to be reconstructed could be extended, as for example, to ancient Risinium (Šašel Kos 2017: 174).

Geomorphological features of the natural environment, traffic route connections along the coasts and to the inland and crafts and products, as well as assumed short distance and regional trade, indicate a subdivision into different regions embedded in networks and entanglements (Fioriello and Tassaux 2019). The following regions have been identified: (1) Opposing coasts on the Strait of Otranto (Barium, Brundisium, Hydruntum, Oricum, Apollonia, Dyrrachium). (2) Coast of Gargano (Sipontum, Vieste, Tremiti Islands up to Ostia Aternum). (3) Coast of Marche (from Ostia Aternum to Ancona). (4) Coast and lagoons of Emilia-Romagna (from Ancona via Ravenna to the mouth of the River Po). (5) Lagoons on the coast of Veneto (from the mouth of the River Po via Altinum to Aquileia). (6) Coast of Friuli Venezia Giulia and the Amber Road (Aquileia, Emona, Nauportus). (7) West Coast of the Istrian Peninsula and the Gulf of Trieste (Pola, Fažana, Brijuni, Dragonera, Loron, Tergeste). (8) North Croatian islands (Krk, Cres, Rab, Pag). (9) Northern East coast of the Adriatic (from Ad Turres to Aenona and Iader). (10) Central East coast of the Adriatic (from Pakoštane to Salona). (11) Central Croatian islands (Vis, Korčula, Hvar, Brač). (12) Southern East coast of the Adriatic (from Dubrovnik to Lissus). (13) Lagoons on the coasts of Albania (from Lissus to Oricum). (14) Offshore Islands of the Adriatic (Sušac, Palagruža, Pianosa, Tremiti Islands).

A group of ports in the larger settlements played a predominant role in trans-Adriatic traffic, including Ancona, Ravenna, Aquileia, Salona, Brundisium, Dyrrachium and Narona (*e.g.* Zaccharia 2001; Adlung 2022). Shipping traffic across the Adriatic had to follow the two currents which separate the sea into northern and southern areas. The border zones of these currents lie between the Gargano peninsula and the region around Cape Ploča. Today, only the currents along the southern coast—the islands of Mljet to Apulia, via Issa, Palagruža and Tremiti to Daunia, starting from the archipelago off Iader to Picenum and from the Istrian Peninsula to the Po Valley—favour a direct crossing of the Adriatic Sea (Radić Rossi 2006: 198). Near the Velebit massif, dangerous downdrafts are common (Wasmayer 1976). In general, surface waters flow in a northwesterly direction along the eastern coastline, turn around in the upper Adriatic, run in a southeasterly direction along the western side, and leave the Adriatic via the Strait of Otranto (Poulain and Cushman-Roisin 2001). In the north of the Adriatic, tides are noticeable, in contrast to wider areas of the Mediterranean. River inflow also strongly influenced the Adriatic Sea in ancient times (Plin. Nat. 3, 20, 22; Poulain and Raicich 2001: 61–64).

Studies of the eastern Adriatic coast revealed that even within a few kilometres, widely varying settlement patterns existed, formed and influenced by topography, microclimate and other natural or geographical factors, as well as by political and cultural conditions (*e.g.* Staffa 2002; Carre *et al.* 2011). Long before Roman settlement and claims of land ownership, coastal settlements made intensive use of shipping to interact with each other (Forenbaher 2009). It is reasonable to believe that at this point, settlements on the coast, both on islands and the mainland, included one or more landing places (*e.g.* building remains on Sveti Klement on the Pakleni archipelago or along the western coast of Istria; see Carre *et al.* 2011; Begović Dvoržak *et al.* 2012). Because the foothills of the mountains reach the sea, the construction of road networks along the eastern Adriatic coast was not feasible in all places. Thus, between ancient Ad Turres and Zengg or between Omiš and Makarska, ships were probably the predominant form of transportation, based on the location and number of ancient shipwrecks in the region (Jurišić 2000; Kirigin *et al.* 2006). The largest ports developed in mainland coastal towns which were directly connected to the provincial road network (Deluka *et al.* 2003).

One step beyond the Roman Adriatic: considering the islands of the Central Adriatic

To clarify further questions about the traffic routes in the Adriatic, about trade and communication, it was necessary to look beyond the Roman horizon of the project. It quickly became clear that we could take into consideration only a small part of the research material and questions of the emerging and actively worked research fields (*e.g.* Jurković 2019: 111–137; Ugarković and Barnett 2020: 89–122). We want to emphasise that this project did not set out to contribute to the large body of research on the Adriatic islands or critically evaluate the extensive research published in recent times, but rather, its goal was to direct attention to clues to pre-Roman traffic routes. The starting point here was also the question of whether small-scale social or economic communities and/or networks can be grasped through finds from the islands, and the connections

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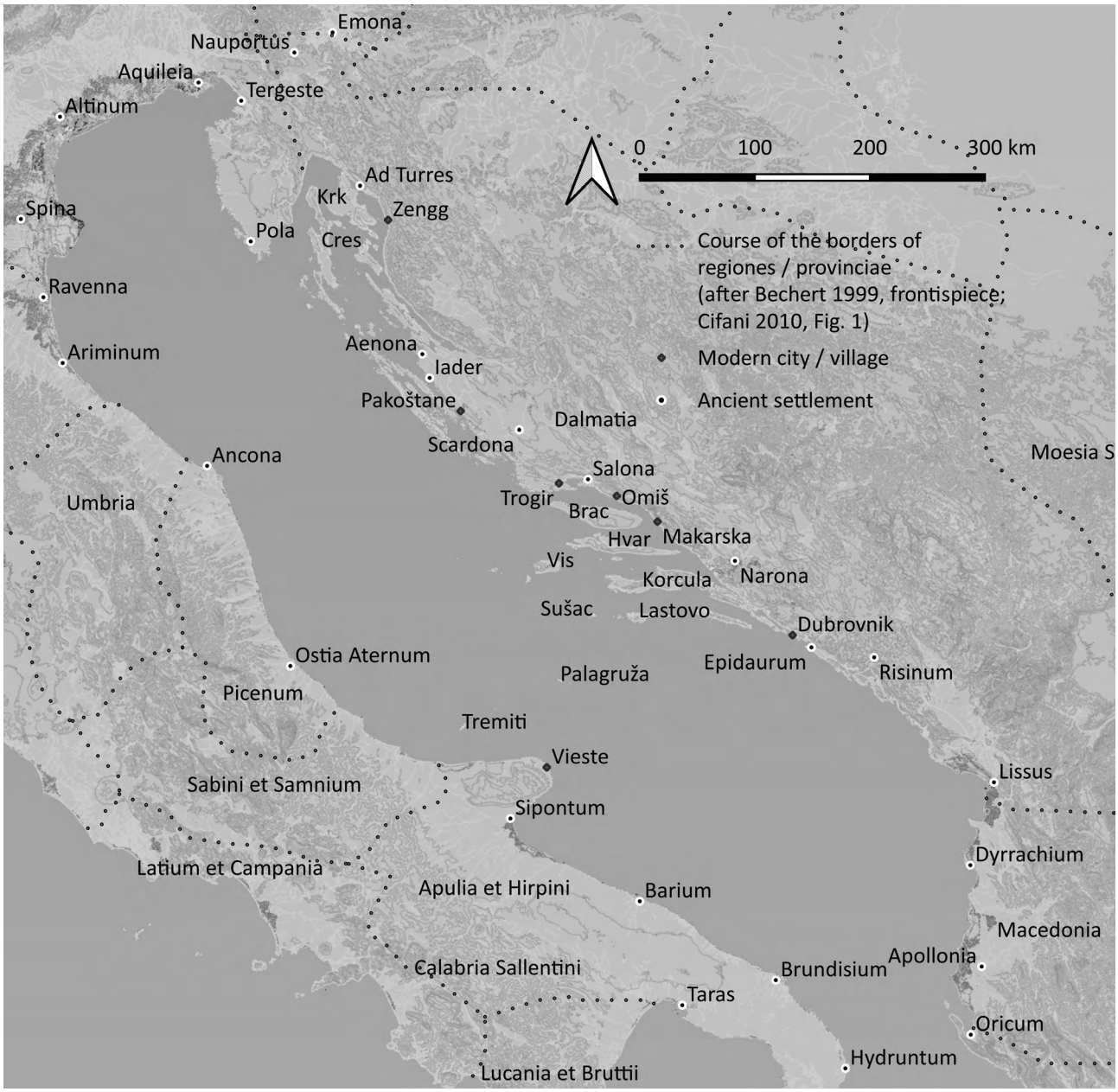

Figure 2.1. The Adriatic Sea with sites as mentioned in the text. Image by Sebastian Adlung and Nils Thiele, QGIS.

these might have with settlement movements and trade in pre-Roman and Roman times. Accordingly, discussion of the islands of the central Adriatic concentrates on just a few examples from the archipelago between the cities of Split and Dubrovnik.

Access to islands depended on seafaring, and the degree of an island's seclusion or dependence, in turn, rested on the relationship between seafaring and craft. At the same time, islands were inhabited by maritime-oriented societies, and owners and builders of boats were certainly the active or determining actors in island life. In addition, ancient societies may have understood island inhabitation as an expression of social identity (Boomert and Bright 2007: 13; Kouremenos 2018). Recent debate on the settlement history of the east Adriatic has intensely focussed on the role of island communities and their identities as maritime societies in relation to the process of ancient migration in the Adriatic (Jurković 2019). Recent studies focus on material remains on central Adriatic islands such as Hvar and Vis (Forenbaher 2018a, 2018b; Ivčević *et al.* 2019; Ivčević 2021). Other works examine finds from islands in the vicinity and their use in antiquity, including sites on Brač with a focus on the evidence for agricultural use or beekeeping (Jelinčić Vučković *et al.* 2022: 133–136).

The Island Vis with the settlement of Issa is the farthest inhabited island off the central eastern Adriatic mainland (Miše and Quinn 2022: 231, 235). According to literary evidence, Greek migration to Vis and Pharos took place in the fourth century BC from Syracuse (Diod. 15, 14, 2; Kirigin 2006). Before the *polis* Issa and its city port were established, a trading base must already have existed at this location. At least five Iron Age hill fort settlements

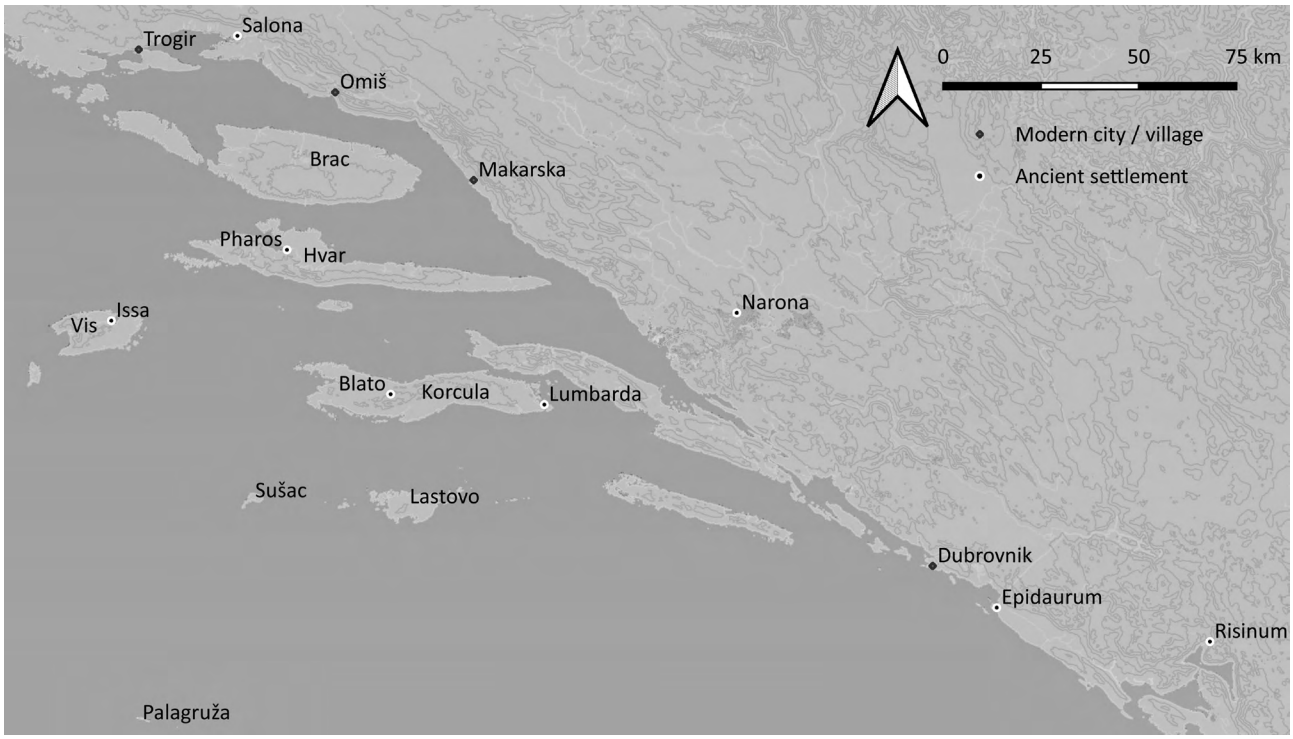

Figure 2.2. The Central Adriatic Sea with sites as mentioned in the text. Image by Sebastian Adlung and Nils Thiele, QGIS.

with Greek and South-Italian painted pottery have been identified on the island. According to Kirigin, one of these sites, Talez, was possibly abandoned by the end of the fifth century BC, when settlement activity shifted to the north coast and Issa was established (Kirigin 2009: 25). In the bay near modern Vis, the remains of ancient Issa comprise necropolis areas, in addition to the enclosing walls. Within the older graves, many objects from Italy, Sicily and Greece have been found, while younger graves contain local fine-ware pottery in addition to imports (Kirigin 2009: 26). Archaeometric analyses of pottery finds from graves yielded the following information (Šegvić *et al*. 2016: 25–27, 45–48): Many ceramic vessels were made from local resources and are therefore local products. Other objects, however, especially red-figured pottery and Gnathia pottery due to their so-called superior production, are considered imports. Based on identified local objects and the presumed organisation of the workshop, Šegvić *et al.* assumed Issa was already a noteworthy settlement in the second half of the fourth century BC (Šegvić *et al.* 2016).

Inscriptions from Issa's burial contexts show a heterogeneous picture of Greek and Illyrian names, but also names from southern Italy, Thebes and the Peleponnes (Kirigin 2009: 26). In front of the walls enclosing Issa, two pottery workshops were reconstructed through misfires, the remains of kilns, kiln suspensors and moulds for relief ware. One was possibly responsible for *amphorae*, including Lamboglia 2, while another focussed on fine Hellenistic table ware; both kilns were used from the second half of the fourth century BC to the first century AD (Miše 2018: 55). Ceramic evidence since the third century BC testifies to pottery workshops; these distributed their products mainly in the Central Dalmatian coastal area (Katić 2005: 75; Ugarković and Paraman 2019: 303; Čelhar *et al.* 2023). These include the type called grey ware from the end of the second century to the first century BC; most of the finds of this type come from graves on the site (Ugarković and Šegvić 2017: 162). Individual objects from Issa have also been found on neighbouring islands (*e.g*. at Kaštel on Lastovo; see Della Casa *et al.* 2009: 122).

Three phases have been differentiated for the local production of Hellenistic pottery at Issa, beginning in the middle of the third century BC or possibly the end of the fourth century BC (Miše 2013; Segvic *et al.* 2016: 48). Miše identified mainly local production of Gnathia pottery at Issa (Miše 2013: 99–130, 2018: 55). Possibly due to the distribution of so-called Canosian Gnathia pottery, potters from the Canosa area in particular were responsible for establishing workshops on Vis in the mid-third century BC (Miše 2012: 240). Finds from Vis show the cultivation of wine, production of ceramics and transfer of cargo. Around 160 sites have been identified on the island and off its coasts with sherds of *pithoi*, *dolia* or *amphorae*; however, it is unclear whether the items were produced for export from the island or local personal consumption (Kirigin 2012: 287–289). Greco-Italic, Lamboglia 2 and Corinthian *amphorae* have also been found near the islet Krava in front of the bay of Issa (Radić Rossi 2003: 158–189; Kirigin *et al.* 2006).

In 230/229 BC, Issa was proclaimed *civitas libera et foederata* by Rome (Plb. 2, 11, 2; App. Il. 2, 7–8). Since

the first century BC, it had belonged to the administrative territory of Salona (Wilkes 1969; Džino and Domić Kunić 2018: 80–81; Pavić 2018: 206–215). Since the first Illyrian War, entrepreneurs and merchants can be assumed to have been at Issa (*e.g*. Gaius Fuius; see Milivojević 2010–2011: 194). On site, the remains of a *thermae* building and sculptural finds can be attributed to the Roman phase (Čargo 2021; Jovanović 2021). Some graves within the necropolises (Martvilo, Vlaška Njiva) were also used in Roman times (Miše and Touloumtzidou 2016). A few metres in front of the modern quay, there are ancient stone layers under water. Similarities in building materials suggest these blocks belong to the period from the fourth to the third centuries BC and are legacies of ancient harbour architecture (Faivre *et al.* 2012: 212–219). In the first century BC, the harbour area in front of the peninsula expanded; nine perforated *dolia* date from this period (Jurišić 2000: 77; Pešić 2008: 189). From the late Roman period, findings of African red slip fine ware also indicate a later use of the harbour in the fourth and fifth centuries BC, although settlement and burial finds from this late period are unknown. Likewise, at over 100 so-called farm sites inland, only 26 late Roman pottery finds have been noted (Kirigin 1998: 433–434).

To reconstruct the transfer of goods, information in nautical manuals needs to be included (Wasmayer 1976: 201–207). For example, the Scirocco does not affect the bay of Vis, and it therefore still has a particular importance as a harbour site. Finds of Corinthian vases of the sixth century BC led to the hypothesis that settlers and seafarers from Corfu founded the settlement of Korkyra Melaina on the island of Korčula in the early sixth century BC (Krklec *et al*. 2011; Radić and Borzić 2017b). According to Greek and Roman sources, the first settlers came from Knidos in Asia Minor (Strab. 7, 5, 5; Plin. Nat. 3, 30). Several Bronze and Iron Age hill forts are known on the island; the best known include Corinthian pottery shards at Blato, and contacts with Greek settlers are assumed from the sixth century BC onwards (Kirigin 2009: 21; Radić and Borzić 2017b: 307–309). Corinthian and Apulian geometric pottery finds from the seventh and sixth centuries BC are known from the sites of Kopila and Vela Silja (Radić and Borzić 2017b: 318). An inscription from the second half of the fourth century BC (the so-called Psephisma of Lumbarda) indicates that later Issaeans from Vis founded a settlement on the site of today´s Lumbarda (Bass 1997: 152–158). The inscription, which has survived in several fragments, has so far been divergently dated, from the fourth century BC up to mid-third century BC, on basis of letter form, style and overall impression (Marohnić *et al.* 2021: 139–140). The inscription fragments were evidently built into a cistern built in the third century BC. The reason the fragments were built into the cistern is unclear (Potrebica *et al.* 2019: 119).

Preserved are 200 names of Issaean settlers, but also of Illyrians, who may have been negotiators and landowners (SEG 40–511; SEG 43–348). Where an associated settlement was located has been a major point of discussion in the study of the island ever since (Radić and Borzić 2017b: 304). Grave finds at the settlement at Kopila near Blato show that from the fourth century onwards, Illyrians and Greeks lived side by side, while retaining their material culture, as judged from local and imported material in the excavated graves (Radić and Borzić 2017a: 116–117). A series of rural *villae* formed the core of later Roman land use and migration (Bass 1997: 158–162; Begović Dvoržak and Dvoržak Schrunk 2004). Finds from the sites designated as *villae rusticae* showed the owners of these estates decorated their own buildings with imported stone materials, and possibly inhabitants of Korčula were also involved in distributing and trading stone materials from the island itself. Several quarries may have been in use in Greek and Roman times (Parica and Borzić 2018: 985–987). Ceramic workshops on Korčula have not been found to date, but they have been assumed (Katić 2005: 79–80). Off the coast of Korčula, *amphorae* from the fourth to the first centuries BC have been documented in at least ten underwater sites (Radić and Borzić 2017b: 308).

Ancient harbour areas on the island have not yet been localised through architectural remains. Considering natural conditions and distribution of ancient shipwrecks off Korčula, the bays of Vela Luka, Lumbarda and Korčula appear to be suitable locations for ancient harbour areas. The island of Hvar is about 68 km long and no wider than 15 km; the coastline is steep and in the northern central part lies the flat, fertile plain of Stari Grad (Gaffney and Stančić 1992: 113). The island, just like Vis, must have been an important stopover for travel up and down the Adriatic and across to Italy (Miše and Quinn 2022: 231). Shipwrecks and findings provide evidence for highly frequented sea routes to the bay of today´s Hvar, as well as treacherous conditions for sailing (Jurišić 2000: 63–65, 2006: 177, 181–182). In general, about 230 underwater sites are known to exist off Hvar, the majority of which are on the west coast and mainly between Hvar and the offshore islets; the most common underwater finds are *amphorae* of the Lamboglia 2 type (Petrić 2014: 9–11, 15). Ancient harbour areas on the island have not yet been localised through architectural remains, but a total of 12 localities off the coasts of Hvar have been identified as potential anchorages based on finds from the seabed (Petrić 2014: 17–18). According to Diodorus, the Parians founded a settlement at Pharos in 385/384 BC with the consent of Dionysius; the site is northwest of the present Stari Grad (Diodorus Siculus XV 15, 13, 4; *cf.* Gaffney and Stančić 1992: 123). Graves, fortifications and stray finds in caves on the island have been dated to the Bronze and Iron Ages; according to Kirigin, the majority of the 600 known archaeological sites on the island belong to the Bronze and Iron Ages (Kirigin 2009: 22; Kirigin and Barbarić 2019).

Ceramic objects from the eighth century BC testify to contacts with southern Italy. Iron Age sites are located on hills, referred to as hillfort sites (Gaffney and Stančić 1992: 115–117). Greek archaic painted pottery has been found at the site of the later Greek colony (Kirigin 2009:

22); no Greek fine pottery sherds predate the founding of the city, which has been dated to the years 385/384 BC (Kirigin 2017: 55). The pre-Greek settlement phases of sites are sometimes difficult to place in spatial context. Excavations have provided evidence of early Greek settlement phases from the early fourth century BC (Slapšak and Kirigin 2001: 569; Kirigin and Barbarić 2019: 224–229). Excavations at the site 'Remete Garden' provided evidence of building activities in the period from the third to the second centuries BC with possible remains of an oven (Popović and Devlahović 2018: 391–392). In addition to these, remains of dislocated kilns, *amphorae* waste, moulds for terracotta figurines and ceramic coasters were found near the southern enclosing wall; all were from a Hellenistic context. According to Miše, there are indications of the production of *amphorae*, but not of fine tableware (Miše 2018: 56).

Amphorae have been found from this context. Within the fourth to third century BC, Corinthian B clearly dominates the Greek-Italian, Lamboglia 2 and Corinthian A types. This type dominates, including other findings, both as imports and as locally manufactured objects (Kirigin 2018: 399–402). Corinthian *amphora* sherds from the Classical and Hellenistic periods testify to imports from Corinth and/or Corfu (Kirigin 2018: 405; Konestra and Lipovac Vrkljan 2018: 130). Rescue excavations near Kuća Škoko provided evidence of ceramic material, mostly from the fourth to third centuries BC: Gnathia pottery, Corinthian B *amphorae*, red-figure pottery and small finds from the second to the first centuries BC (Visković and Ugarković 2021: 218). Corinthian B *amphorae* were found in Corinth from the end of the sixth to the third centuries BC; these were produced and distributed over the colonies in the Adriatic region. Local products from Pharos include the Pharos-2 *amphora* from the second to the first century BC. At Pharos, fragments of kilns and over-fired ceramics were the basis for identifying pottery workshops; these finds point to manufacture in the fourth century BC. Certain ceramic objects from Numama and Spina may also have come from the workshops of Pharos (Katić 2005: 75–80). Many objects can be clearly identified as imports from Corfu and Calabria, while some objects are possibly local (Miše *et al.* 2019: 484–485, 2022: 229–230). The Faros 2 *amphorae*, evidently from the middle of the second to the first centuries BC, were found on Hvar, Vis and eastern Bosnia and Herzegovina; according to Katić, these were supplanted by Lamboglia-2 *amphorae* (Kirigin 2009: 24; Katić 2019: 127, 131). Roman coins from Pharos or Stari Grad date from the third to the first centuries BC, with higher amounts coming from the later periods (Bonačić Mandinić 1990: 114–115).

During the Illyrian Wars, the destruction of Pharos by Aemilius Paulus is mentioned (Plb. 3, 18–19); however, no traces of such destruction have been found archaeologically (Kirigin 2009: 25). According to Kirigin, none of the sherds found from *pithoi* which have been examined so far could be verifiably classified as belonging to the Roman period. In his opinion, this is primarily because mainly Greek finds come to light in the city area, while Roman finds are known from the area of the Greek *chora* (Kirigin 2017: 59). Of these Roman sites, 27 were identified as remains of Roman farm buildings (Popović 2017: 582, 586). Until the middle of the first century BC according to Kirigin, traces of settlement are detectable from when the island was incorporated into the Roman province of Dalmatia (Kirigin 2009: 24). The survey of Hvar provided evidence the island was populated densely in late Roman times, and this fact stood in clear contrast with the few findings on Vis (Kirigin 1998: 434–435). Excavations in the city area (*e.g.* in the Burak and Groda areas) provided evidence of several late Roman residential buildings, which together indicate a settlement of this time (Visković and Baraka Perica 2019: 227).

As the westernmost place, the two-kilometre-long island of Palagruža is 40 kilometres away from Sušac, Lastovo and Vis. Palagruža, with its mostly steep coastal sections, has a narrow pebble beach on only its southern shore (Kaiser and Forenbaher 1999). Scholarly research has not identified the ancient remains of harbour constructions so far (Miše *et al.* 2018: 11–12). Presumably, however, only a part of the southern side served for short-term anchoring, while the narrow beach section may also have allowed smaller boats to go ashore. The earliest finds from the island date from the Neolithic (Miše *et al.* 2018: 21–22). Bronze Age stone artefacts found on the island are thought to be from the Gargano, while pottery finds from the mid-third millennium BC are known from both opposite coasts and from the Peloponnese. Forenbaher does not assume a permanent settlement on the island, but rather, frequent visits from fishermen and seafarers (Forenbaher 2018a: 249–256).

From Salamandrija, black-figured ceramic vessels from the end of the sixth and the beginning of the fifth centuries BC are known (Semeraro and Kirigin 2017: 211–214). Greek graffiti on pottery sherds, as well as votive offerings, indicate a sanctuary of Diomedes at this site (Kirigin *et al.* 2009; Miše *et al.* 2018: 13, 24). A few of the more than 100 inscriptions can be interpreted as indicating that Greek seafarers were headed for Palagruža on their routes to Numana, Adria or Spina in the Adriatic Sea (Kirigin 2009: 31). Attic and Gnathic drinking vessels are similar to those known from the Apulian coast and the east Adriatic islands from the fourth to third centuries BC (Miše 2017; Miše *et al.* 2018: 24). Finds of figuratively decorated pottery on Palagruža show correspondences with finds from Spina and Adria; according to Kirigin, objects by presumably the same artists were found in all three places (Kirigin 2009: 21).

Ceramic findings show a wider chronological range from the first century AD to the third century AD. Finds from Deposit 4050 include black-gloss pottery, grey-gloss and relief pottery, while thin-walled and lead-glazed pottery were found from the early Roman period at Eastern Sigillata, North-Italian Sigillata and Italian (Arretine) Sigillata. The majority of these finds date from the Hellenistic period

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(Miše and Šešelj 2008: 1–2). In addition to ceramic finds, scattered architectural elements are also known from Roman times, possibly from a temple building. Very few finds exist after the first century AD (Miše *et al.* 2018: 24). Palagruža is known from late Roman times (Kirigin 1998: 429–431): Late Roman and African *amphorae* come from the cistern on the north hill (which has been dated to the third to the sixth centuries AD), possibly associated with a villa on the east hill. A Roman fort may have been built in the fourth or fifth century AD, but possibly as early as the third century AD (Miše *et al.* 2018: 25–26).

On Palagruža and nearby islets, archaeologists discovered several shipwrecks (Kirigin *et al.* 2010). On the reef of Pupak, 600 m to the east, a shipwreck cargo contained Dressel *amphorae* of type 2–4 and Hispanic vessels from the first century AD. The analysis of tombs at Palagruža suggested these were not conceptual burials; therefore, there may not have been a permanent settlement on Palagruža either (Forenbaher *et al*. 2013–2014: 96–98, 108). If we look at coins found on the island, there are coins from the fourth and third centuries BC from Neapolis, Luceria and Pharos, as well as Republican coins from the second and first centuries BC from Rhegium, Brundisium, Apollonia and Dyrrachium; striking are the frequent coins from other places, which also show references to Diomedes (Bonačić Mandinić 2013: 371–377).

These few clues to settlement history and the archaeological finds briefly mentioned indicate that Roman locals and Greeks shaped the cultural and political development of the islands of the eastern Adriatic (Ugarković and Barnett 2020; Borzić 2022). Investigations of the *amphora* finds from Vis (Issa) and Hvar (Pharos) led Katić to assume the differences or the presence/absence of certain *amphora* types should be understood either as indicating competitive situations between productions or the desire for a differentiation of products (Katić 2005: 79). The same can be said of the distribution of shards from *pithoi* on Vis and Hvar, where opposite tendencies can also be observed (Kirigin 2017: 59). In another context, Kirigin discusses the possibility of production on Vis crowding out production on Hvar (Kirigin 2018: 405). Shards of *pithoi* and *dolia* found at over 200 sites on the islands of Brač, Solta, Hvar and Vis indicate that wine or olive oil was stored. The problem here is that the majority of the finds represent body fragments from surveys or pieces in museums; that is, very few objects have provenance verified by excavations (Kirigin 2016: 187–188). In the context of Vis and Hvar, Miše and Quinn proposed that due to the distribution of finds from *amphorae*, Pharos on Hvar may have acted more as a redistribution site for objects from the southern Adriatic region, with neighbouring Issa on Vis actually producing and distributing the objects (Miše and Quinn 2022: 225; also see Miše *et al.* 2019: 237).

Settlement remains and necropolis finds, especially Illyrian grave finds (*e.g*. on Korčula), attest to the existence of indigenous communities and the establishment of marketplaces on the islands before Greek and Roman migration (Gaffney *et al.* 2002). Ancient sources mention Greek mobility dating back to the sixth century BC, while in the fourth century BC, Greeks founded the settlements of Pharos on Hvar and Issa on Vis. Archaeologic evidence clearly shows mobility from the south to the north Adriatic and from the east to the west (for complex cultural identity, see Šegvić *et al.* 2016: 25).

Kirigin draws attention to the relationship between local conditions in the Greek and Roman periods: at Pharos in the modern urban area, mainly Greek settlement features are known, while Roman settlement features are found in the area of the Greek *chora*; here 80 of 129 archaeological sites belong to the Roman era (Kirigin 2017: 59). Another shift can be observed in relation to *amphorae*. In Hellenistic times in Dalmatia, agricultural products were transported in *amphorae* of the Corinthian type A and B sourced from different workshops, and this is evident in the heterogeneous loads from shipwrecks. In the south of the Adriatic, the relationship changed in the late Republican period. Loads on ships—for example, Lamboglia 2—were now significantly more homogeneous. This could possibly be attributed to fewer producers and workshops (Miše and Quinn 2022: 225).

Nautical conditions in the Adriatic Sea have always been very complex, as mentioned above. Seafarers and merchants who sailed or crossed the Adriatic surely depended on the large number and safety of ports on the islands and along the coast (*e.g*. Zaccharia 2001; Radić Rossi 2006). Settlers and traders were certainly involved in ongoing negotiations about passageways and territories (Arnaud 2016: 143–146; for research on the Roman military in the Croatian islands, see Bužanić 2019). Especially controlling access to the Adriatic Sea and the resulting strategic advantages and trade opportunities led to disputes reported by the above-mentioned written sources.

For their maintenance, local communities on islands which managed settlements were partly dependent on trade products from the mainland. Their island status, with accessibility only by sea, often meant they were involved to a lesser extent or in a different way in the conflicts taking place on the mainland (*e.g.* local communities on Vis and on Hvar regarding conflicts with the Illyrians and Romans as mentioned in the ancient written sources).

Auriemma and Degrassi showed that according to findings of different *amphora* types in wrecks and settlements, human activity increasingly concentrated on smaller, local areas beginning with the fourth century BC (Auriemma and Degrassi 2015). As far as the fragmentary preserved testimonies allow a generalising statement, the supply situation with agricultural products or the pottery production seems to have been without noteworthy declines until the second and first centuries BC in the region of the Central Croatian Islands with Greek settlements. Settlement traces and burial finds on Vis and Hvar and trade products from

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these islands, especially Vis, indicate continuous use of island ports during the Roman Imperial period.

Small Worlds and micro-regions

The brief diachronic look at the island finds from 'Greek' to 'Roman' times shows how small-scale and complex the regional networks of relationships actually were. To compile a picture of trade, migration processes or local social networks within the region, there are even more factors to consider (for recent studies of maritime networks, see Knappett 2013; Leidwanger *et al.* 2014; for the terms mobility/connectivity, see Leidwanger and Knappett 2018: 4). In a recent study, Tartaron describes the local scales of Bronze Age maritime networks as presented by the coastscape and the Small World (Tartaron 2018: 89–90). Following the discussions resulting from the Spatial Turn (Bruner 1984: 5; Lawrence and Low 1990: 453–505; Lefebvre 1991: 26, 143; Bachmann-Medick 2006: 284–328) and the Topographical Turn (Wagner 2010: 102; Rau 2013: 104–105), in our study, we understood space as a socio-cultural category, and not exclusively as a topographical-material category. Space as a symbolic construct enables or limits actions as determined by topographical-geomorphological conditions, but which at the same time exceed them. For example, landing sites are water-bound contact zones (Ilves 2011: 8–9, 2013). Communications which take place in spaces defined in this way require contact situations between acting persons. These communications can be established by other means through traffic route relations on land and water, whereby ports and landing sites as traffic spaces occupy an essential interface. Braudel sees traffic routes and movements as the unifying bracket of the Mediterranean world (Braudel 1997), unlike Abulafia, whose study focusses on the sea and coastal cities (Abulafia 2013).

Horden and Purcell understood ancient urban and settlement history as a history of micro-regions. Consequently, they use the term micro-region to describe a complex entity, one which does not refer solely to a topographical and geographical unit (Horden and Purcell 2000). A micro-region means the existing natural environment and the space defined by its inhabitants as being part of it incorporated into economic and social activities. It is not the city as a fixed entity which is significant, but rather, the interaction between its different forms of governance/economic management, as well as its integration into larger networks of redistribution.

We suggest the concept of micro-region could be useful for this investigation, as it can subsume both the natural space and the space for political, social or economic action. This does not have to coincide with political borders, administrative boundaries and topographical landmarks (Zimmermann 2014: 404) as outlined at the beginning of this chapter. Spatial division models describe, but do not define, the usually fluid boundaries between places and spaces (Hüssen and Gschwind 2012: 161–178; Reinhold *et al.* 2013: 16–17). The concept of micro-ecologies, which describes the interaction between different forms of management and their integration into larger networks of redistribution, should also serve as a working concept for future studies (Horden and Purcell 2000: 80; Zimmermann 2014: 404).

Along the Adriatic coasts, inhabitants of the regions used different strategies to expand, protect and maintain their communities. Therefore, successful local settlement and survival inherently linked the ways in which people take up the particular issues of a settlement area and establish appropriate structures of varying types. With regard to the islands under discussion, various regions formed communication spaces in the sense of Small Worlds (for the concept of Small Worlds, see Broodbank 2000: 175–210; Malkin 2011; Tartaron 2013; Broodbank 2018; Tartaron 2018: 61–92). They relate regionally, as well as supra-regionally, through economic and political entanglements. Actors, goods, political frameworks and different transport routes provide the connecting links between settlements on the eastern and western Adriatic. Along the east Adriatic coast and on the islands, settlement sites developed in different ways in terms of size and infrastructure.

Concluding remarks

The older scholarly literature, in referring to outdated models of colonisation and the seizure of land (Zippel 1974: 4), assumed the ports for trans-Adriatic traffic towards the eastern Adriatic coast gained importance for Italic trade with the subjugation of the Illyrian tribes (Džino 2013: 145–146). Based on recent concepts, there is need for updated views of Romanisation processes (for a detailed discussion, see Wodtke 2018: 59–120; Haeussler and Webster 2020). Roman so-called colonisation in the last years of Caesar's reign had already brought about demographic- and settlement-related change, so Illyricum had become a frontier zone (Šašel Kos 2011: 107–110; Džino 2013: 156–157). Expanded economic and political access led to an intensification of agriculture for products such as wine, oil and grain, as well as the mining of stone, salt and ores (Alföldy 1965: 196; Begović Dvoržak and Dvoržak Schrunk 2004: 65). According to Džino, in the mid-first century BC, *conventi* of Italic traders existed in Lissus, Narona and Salona, and possibly in Epidaurum and Iader (Džino 2005: 89). Shipwrecks, especially on the eastern and northern coasts (*e.g.* at Epidaurum; see Parker 1992: 137; Cambi 2001: 139) attest to the important function of large and medium-sized ports in the distribution of goods for the entire Mediterranean region, and they can be traced in the period from the fourth century BC to the third century AD. Here, too, it is important to point out the limited informative value of this study, since, among others, the role of the indigenous inhabitants and their involvement in historic development did not fall within the scope of the research.

An increased development of raw material sources (*e.g.* stones and metals) apparently took place with the conquest

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of territories by the Romans (Škegro 2006: 149). Near Patavium, which received the status of a *municipium* of the Tribus Fabia in 49 BC (CIL V 267), there were important stone quarries in the Eugan Hills. Narona was considered the last trading post of the grain transport on the Neretva, which led upstream from the Adriatic (Džino 2013: 157) At the same time, settlers arrived at settlements like Narona in several stages (Bekavac and Miletić 2016: 237–238). Strabon emphasises the mercantile as well as the military character of Aquileia (Strab. 5, 1, 8). Nauportus and Emona functioned as trading centres and military bases at the same time.

Case studies on *villae rusticae*, *villae maritimae* and *piscinae* suggest some of their owners were involved in maritime trade and monetary transactions, as well as military administration. The highest quality of land with natural harbours went to important military officers or members of the Roman aristocracy. From this time on, further development and securing of these territories belonged to the remit of their owners (Fontana 2001: 659; Wilson 2011: 50–51). The provinces of Istria and Dalmatia showed a different approach to the practice of granting land ownership (Carre *et al.* 2011). While in Istria, owners belonged to the elite of the Roman colony and the group of senators, for the *villae* in Dalmatia, presumably envoys from Rome were sent to take over the administration (Džino 2013: 157). However, the extent to which each architectural finding on the coast or islands can be associated with a *villa* or a *piscina* needs to be questioned critically (Begović Dvoržak and Dvoržak Schrunk 2004). Presumably, numerous *villae* were destroyed by building projects in Late Antiquity. *Villae* were generally often situated on or near by main roads in the provinces, near urban centres or larger settlements. They functioned to produce agricultural products and deliver goods to neighbouring centres via the developed roads (Tassaux 2007; Bowden 2018).

There is no question that one of the main forces behind the successful incorporation of territories into the Roman Empire was urbanisation (for critical discussion, see Džino and Domić Kunić 2018: 77–78). We should not ignore the role of *municipia* and *coloniae* in stabilising Roman rule (*e.g*. in Dalmatia) in this respect (Bekavac and Miletić 2016: 243). Nevertheless, complex cultural and political interaction processes accompanied the migration processes, beginning with trade, exchange and military expansion, followed by joint settlements or even hostile land seizure, which did not lead to the takeover of power or to the founding of cities, either in general or in all places at the same time. Roman migration in the last years of Caesar's reign had already caused developments in demography and settlement. In the mid-first century BC, Italic traders appear at Salona, Narona or Lissus, and probably at Iader and Epidaurum (Džino 2005: 89; Milivojević 2010–2011).

The islands of the east Adriatic with smaller-sized, functional ports as discussed here formed important entities by means of transport, geomorphology and natural environment. Because of their significant role as traffic nodes and safe harbours for trading routes, coastal communities emerged and probably carried out specific tasks in intercultural communication and trade. From our current state of knowledge, it is difficult to describe the social, political, or cultural identities of these island communities from the fragmentary archaeological, literary and epigraphic evidence as cited above. The chapter tried to shed light on their entanglements to some regional and interregional places or players. Working with concept such as Small Worlds and micro-region in the Adriatic Sea in Roman times, a few remarks indicate the islands could have played a more central role, probably as stabilising factors, and they could also have acted more resiliently in conflict situations in their small regional contexts. Recent research in Island Archaeology also addresses this question of isolation and connectivity (Dawson 2019: 5).

The interpretation of the findings from the islands Vis, Korčula, Hvar and Palagruža off the eastern Adriatic coast fit the common narrative of Romanisation (*e.g*. for the province of Dalmatia), but they clearly show the understanding of migration processes and settlement development needs a broader chronological perspective (*e.g*. findings from Palagruža: Forenbaher 2008: 239). In this chapter, the focus was on settlement and migration movements in Greek and Roman times. However, this limited timeframe should not hide the fact that on many islands, findings from the Neolithic period onwards indicate prior settlement. Coastal connections in the Early and Middle Bronze Age are based on pottery and stone objects, with the central Dalmatian coasts and islands playing a key role (Forenbaher 2018a: 255–256; Arena *et al.* 2020: 254–255). Within the Adriatic, at least since the eighth and sixth centuries BC, there is evidence of cultural contacts with Greek traders and migrants between opposite coasts, including matches and imports of pottery vessels (Kirigin 2009: 20; Miše 2018: 54). Another research focus is on the Greek 'pre-colonial' settlement phases on the islands (Gaffney *et al*. 2002). The connections between the coasts intensified from the fourth century BC, when Greek colonists migrated to the mainland from the islands of the Adriatic Sea (Džino 2013: 154; Jeličić-Radonić 2015: 23–24). These processes intensify and come to a head in the first century BC, a period characterised by dynamic developments in harbour construction and trade relations (Milivojević 2010–2011: 189–191; Džino 2013: 147).

Ports and landing sites have played a central role since Greek times at the latest, and they retained these in Roman times. Even today, many bays on the east coast, including the example on the island of Vis, are important harbours for ships and boats of the Adriatic water-transport system. The case studies of our research project thus offer insights into ancient connections between maritime links and human activities on the coasts of the Adriatic. At the same time, our research shows that certain stretches of coastline were of great importance in antiquity, but they seem to have lost this significance in modern times. Here, changes

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in sea level and land movements emerge as explanations which must always be kept in mind when evaluating ancient coastlines.

Acknowledgements

We thank the organisers of the conference 'International Congress for Underwater Archaeology' at the University of Helsinki, Finland, 6–10 June 2022, for inviting us to this most interesting and inspiring event. We profited from the discussion in the session 'Maritime Cultural Landscape of Coastal Waters' and thank our chairs Kristin Ilves and Veronica Walker Vadillo, as well as the discussants, for sharing their stimulating ideas with us.

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3

Maritime cultural landscape of fishing communities in Cyprus

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Abstract: This chapter examines the interdependent social, economic, cultural, technological and environmental aspects of fishing within the archaeological context of Cyprus. Through this examination, it is possible to understand the human utilisation of maritime space and the relationship between fishers and their maritime cultural landscape on the island of Cyprus from the Neolithic to the Early Christian periods (tenth millennium BC–mid-seventh century AD).

Heretofore, fishing in Cyprus has been neglected from an archaeological perspective. Consequently, the research presented here studies the archaeological evidence of fishing gear with the fishbone assemblages and the iconographic and written sources to determine the establishment and development of fishing in Cyprus diachronically. Environmental and ethnographic data are used to examine how the island's topography and physical Mediterranean environment determine the presence or absence of fishing within its maritime landscape. Through this study, an attempt to recover the mental maps of fishers is conducted by trying to reveal fishers' choices of specific fishing grounds, gear and/or fish species. Consequently, this study attempts to provide a comprehensive understanding of the human daily activity of fishing in Cyprus diachronically. Subsequently, it contributes to understanding the life of fishing communities in Cyprus through maritime archaeology.

Introduction

Being a fisher is not only about having the equipment to catch fish to fulfil the needs of daily subsistence or commercial purposes; rather, it is chiefly a way of living (Mylona 2008: 74). Fishing is not a simple two-way interaction between the fisher and the sea, but rather, an activity whose establishment and development is influenced by technological, social, economic, cultural, biological and environmental factors (Bekker-Nielsen 2010: 187; Cottica and Divari 2010: 363; Marzano 2013: 51–88; Michael 2022: 68–98). As a result, a holistic understanding of the occurrence and nature of fishing in the past can be acquired by considering all these factors/variables together and attempting to perceive fishing as a 'lifestyle' of ancient Cypriot communities.

The research presented here is based on the results developed during the author's PhD research project (Michael 2022), under the supervision of Dr Julian Whitewright, Dr Anna Collar and Dr Jaco Weinstock. According to a substantial literature review, fishing and its subsequent role in the ancient maritime cultural landscape of Cyprus are rarely acknowledged by other scholars (Ohnefalsch-Richter 1913; Frost 1985; Desse and Desse-Berset 1994a: 78–79; Michaelides 1998; Egoumenidou and Michaelides 2000: 12; Ionas 2001: 217; Reese 2007; Keleshis 2013; Lindqvist 2016; Knapp 2018: 151; Michael 2022: 15–66). Consequently, this research is the first attempt to explore and determine the occurrence and nature of fishing in the maritime cultural landscape of Cyprus through time, from the Neolithic to Early Christian periods (tenth millennium BC–mid-seventh century AD).

Through the systematic examination and mapping of the archaeological evidence of fishing gear (harpoons, fish-hooks, traps, stone, clay and lead weights for net or line, fish-ponds) and fishbone assemblages recovered in a variety of archaeological sites in Cyprus, the occurrence, the nature and the regional and temporal distribution of fishing in Cyprus are defined. In addition, the iconographic and written sources, the modern and historical environmental data from modern, archival and ethnographic sources, are a supporting class of evidence which leads to the reconstruction of ancient fishing methods and the understanding of the reasons behind the choice of a specific method, fishing ground or/and fish species.

The chapter emphasises the environmental and cultural aspects of fishing, as it aims to understand how the parallel study of archaeo-ichthyological evidence with the physical Mediterranean environment, the topography of Cyprus and several economic aspects of Cypriot society determined the presence or absence of fishing in the maritime landscape over time. Through the study of three chronological case studies (Neolithic period (9200/9000 BC–4000/3900 BC), Late Bronze Age (1650 BC–1125/1050 BC) and Historic periods (Geometric–Early Byzantine periods: 1050 BC–647 AD) which yield more prominent archaeo-ichtyological evidence, this chapter attempts to comprehend how fishers perceive, value, use

Ilves, Kristin, Veronica Walker Vadillo, and Katerina Velentza. *Delivering the Deep: Maritime Archaeology for the 21st Century: Selected Papers From IKUWA 7*.
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