

Insight to Late Antique structures of Karia Trakheia in the Diocese of Asia and their distribution patterning across the landscape

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ABSTRACT

This paper explores the Bozburun Peninsula within its Late Antique context and examines the spatial extent of apsidal structures through the Early-Middle Byzantine period. Drawing on surveys conducted across the territorial and insular sectors (ca. 460 km²), remote sensing (primarily aerial and Lidar technology), and earlier records merged to increase the reliability of data interpretation, the results indicate a densification of religious buildings toward the centre of the region (and slightly austral), particularly in the vicinity of Tymnos and Thyssanos, whereas no clear correlation with scale emerges in either the southern or northern sector. Given these results, the positioning of apsidal structures in Karia Trakheia suggests a network-based organization centered on an omphalos-like domain, with structures clustering in certain places as if radiating outward from a navel — that is, densely clustered around a central node, in the way spokes radiate from a hub.

Key words: Late Antique, Early Byzantine, Dioecesis Asiana, Bozburun, apse, ecclesiastical.

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Introduction

Nestled between the rugged terrain of ancient Knidos (Datça) and Phycus (Marmaris), the Bozburun Peninsula¹ is an extensive region stretching ca. 50 km from its southern tip to its northernmost point (Figure 1). This semi-arid region reaches elevations of 800-900 m (rising to loftier elevations toward its periphery) and slopes of 70-80 degrees, where numerous windswept hillslopes are marked by faint terrace remains forming a fragmented network of agricultural land. Differences in relief are offset by a few depressions suitable for cereal production, in contrast to the terrace systems used for standard tradable products across most periods (though these held particular significance and value especially in the Hellenistic era). The insular sector lies mainly between the mainland, Symi Island, and a few necklands, allowing easy transport and communication between maritime and terrestrial resources.

Some information is available on the region's seismic activity. It is well established that tectonism and sea-level rise have dramatically altered the geomorphology of the western coasts of Asia Minor, with varying magnitudes and effects; the silting of harbors is perhaps the clearest evidence of this. Apart from unrecorded events of prehistory, the seismic history of Bozburun, to our knowledge, does not extend much beyond the earthquake records of the Hellenistic period, which were systematically catalogued from 227 BC onward and continued in the medieval chronicles².

¹ The Rhodian Peraia, as described by Strabo *Geographica* 14.2.4-5, comprised Phycus and Loryma, both identifiable with rugged Karian coastal settlements.

² Presumably, Rhodes was severely affected by the Cretan earthquake in the year 53 (inscription no. 3753; Ambraseys 2009, 115). In addition,

As a sub-land of Karia (the ancient Karian Khersonesos in the Classical period and Rhodian Peraia³ in the Hellenistic period), the Peninsula (formerly Daraçya) is formed by a network of territorial patches marked by numerous “marginal” terraces and rural settlements. The region was also notably well suited to animal husbandry. A variety of findings reflecting the agrarian economy⁴, including abandoned terraces, can be traced from the Archaic to the Late Antique period, at varying frequencies, in the *demos*⁵-type settlements and their *khora*i. Under permits granted by, and under the auspices of, the Ministry of Culture and Tourism, the settlement typologies and patterns that have become more clearly evident since the second campaign of our field surveys are now better understood in terms of the transformation they underwent up to the end of Late Antiquity.

The Peninsula remained largely under the economic patronage, political sovereignty, and socio-cultural influence of Rhodes during the Hellenistic era, the effects of which are attested by epigraphic material as well as architectural remains. From its subjugation by Rome to its survival under Constantine the Great, the region faced new circumstances. The economic, social, and political crises that beset the Roman Empire from the early 3rd century onward came to a temporary halt in Late Antiquity. With the foundation of Constantinople in the 4th century, there followed a period marked by relative stabilization of the political, economic, and religious climate that lasted until the 7th century. This was also a time of reorganization of the provincial, military, and financial system: large provinces were subdivided to create smaller administrative units and increase the number of cities. The Empire was divided into twelve dioceses (administrative regions), which were subsequently reorganized into provinces. Both the cities of Asia and the Islands were incorporated into the *Dioecesis Asiana*. As a result of a new political initiative by Emperor Justinianus, a *quaestor exercitus* was established in 536. This office, centered at Odesus (Varna) on the Black Sea, held responsibility for the area from Scythia Minor in the north to the Islands and Karia in the south. Its fundamental tasks were the collection of tribute, the recruitment of troops, and the procurement of military supplies. It is also worth noting that Karia contributed a share of the tribute collected in the south to support the legionaries stationed along the Danube⁶.

Bozburun must have shared in this broader picture. Given these changing conditions, the transition from a temple- and Rhodes-dependent economy to an imperial order cannot have been easy. This study presents part of the results of our fieldwork carried out across the Bozburun Peninsula and focuses on the visible and measurable evidence, with particular attention to the Late Antique apsidal structures (Figure. 1) documented in the territorial and insular parts of the region. The distribution patterns, and the motives behind their specific placement (if any), are also examined with the aid of remote sensing tools, primarily Lidar and GIS techniques. The rationale for undertaking this investigation stems, first, from the abundance of apsidal structures in the *territoria* of certain *demoi*. Previous researchers have only been able to record the most visible examples of these predominantly Late Antique/Early Medieval (see Chronological Framework, below) apsidal structures — which are often fully religious buildings — in the immediate vicinity of the coast (e.g. the ruins at Söğüt, the chapels at Taşlıca and Selimiye, or those at İlimar (Ulupınar) and Gerbekilise/Gebekse⁷ east of Bayır, Figure 1), thereby overlooking a group of structures built on hilltops or situated on necklands. This opportunity is taken here to present hilltop sites documented on the islets and inland for the first time, along with those reported to the Ministerial authorities for urgent protection. Second, the

degree and extent of socio-cultural transition under Rhodian domination is scarcely comparable to the process that took place under Roman rule. However, the nature and form of the transformation in the religious sphere need to be reassessed in light of the Roman takeover of the mainland from the Rhodians⁸, from the Late Hellenistic to the Early Byzantine period. Although it is often difficult to avoid questions such as the relationship between apsidal structures and settled areas, the following discussion focuses primarily on spatial issues; the relationship to settlement patterns is the subject of another study. Preliminary observations, however, indicate that several apsidal structures are directly associated with visible settlement remains, including terraces, press beds, cisterns and dwellings, as recorded at Yeşil Ada, Adaboğazı and Kızıllada — suggesting that their distribution is unlikely to be independent of the surrounding agricultural and residential landscape; a full settlement analysis, including a preliminary map of associated structures, is reserved for the forthcoming companion study.

To achieve a sounder interpretation using as much data as possible, the study — particularly the discussion section — draws on all available knowledge gained, complemented, and updated through research or recorded in the literature (generally in line with evidence published over the past century, but drawing substantially on the records of Ruggieri⁹). It thus seeks to ensure data reliability through a holistic approach. Although some of the earlier data refer to evidence reported during our 2009–2012 campaigns as preliminary outputs of the study, the bulk of the material is drawn from research intensively conducted since 2021 (the potential of the data is always assessed in light of the temporal constraints of fieldwork, which under normal conditions extends beyond the periods stipulated in the official permits). Our territorial and insular surveys were carried out largely within the boundaries of modern Selimiye, Bayır, Bozburun, Söğüt, Taşlıca, and Bozuk (corresponding approximately to Hygassos, Syrna, Tymnos, Thyssanos, Phoinix, and Kasarae, respectively — none of the *demoi* retains its ancient name today), as well as in the northern

for others after 227 BC and for the possible Rhodes earthquake of 115 BC, Malalas.275–276/416–417; for the earthquake shortly before the conquest of the island by the Knights Hospitaller in 1302 and all others between the 14th and 19th centuries, Ambraseys 2009, 91–791. For the earlier, Hellenistic-period catalogue of earthquakes affecting the region, see also Guidobani 1994, 140–141, 147, 235, 251, 301, 312, 407, 420–422.

³ Fraser and Bean 1954.

⁴ On the Classical Period agriculture, i.e. Wells, 1992; Bintliff et al. 2006, 666–673. The earlier history of the settled lands is also backed by a rich collection of trade amphorae adorned with elements of viticulture, Grace 1934; Finkielsztejn 2001.

⁵ *Demos* could form *koina* arising from various political and economic conditions. There is information that *koina* could be “named after a prominent Rhodian, especially one with a distinguished naval career” (Gabrielsen 2017, 20).

⁶ Roussos 2017, 30–33, Figure. 3.3.

⁷ A group of structures is found at the isthmus, namely Gebekse/ Gebe Kilise, SW of Çiftlik Bay. Gebekse has been identified through a Byzantine inscription. Fraser and Bean note ruins of houses and other small churches, which together with this uppermost church form a Byzantine trading outpost (1954, 33, no.18). See also Bean 2000, 165–166; Ruggieri 1989, 77; Bresson 1991, 85 (no.55). A further group of structures situated uphill, rarely identified under a similar place-name, has been introduced by Özcan 2019, 76–77, on the Karian Trail, NE of Çiftlik Bay.

⁸ On Rhodian religion and priests after synoecism, see Dignas 2003, 35–51. Organizations on the Peninsula must also have had connections with Rhodian institutions, led at the time by male and female officiants. For Rhodian cultic Hellenistic epigraphy in context, see Zachhuber 2018, 31.

⁹ Sources of permission are controversial.

and southern extremities of the island groups in Selimiye Bay (Losta and Sinus Schoenus), Bozburun Bay (Sinus Tymnias), and Söğüt Bay (Sinus Thyssanos)¹⁰ (Figure 1). Drone imagery and measurements were obtained for the majority of the apsidal structures (a synopsis of approximate metrics is given in Table 1).¹¹ Data recorded in the literature were processed for cartographic display. By presenting the results of studies conducted in new and different localities, the article seeks to avoid a selective approach as far as possible. Nevertheless, in keeping with the premise of the study, the geographical cluster encompassing the findings in the mid-west of the Peninsula (which almost constitutes a concentration zone, if not a sampling area) may lend support to the patterns observed across the wider region.

Research questions

This study is guided by three specific research questions: What is the spatial distribution of apsidal structures across the Bozburun Peninsula? What do these patterns reveal about ecclesiastical administration, rural Christianization, or economic organization in Late Antique Karia? How does the Bozburun evidence compare with other regions of Late Antique Asia Minor¹²?

Chronological framework

For clarity and consistency, the following periodization is used throughout this paper: “Late Antique” denotes the 4th-7th AD; “Early Byzantine” the 7th-9th AD; and “Middle Byzantine” the 9th-12th AD. Where earlier scholarship uses alternative or overlapping terms such as “Early Medieval” or “Late Roman”, these should be understood as falling within the Late Antique-Early Byzantine span defined here unless otherwise specified.

Concentration zone

A series of apsidal structures in the insular sector of Tymnos, Thyssanos and Hygassos have been recorded or revisited in the first instance. There is also, however, a marked intensification of such structures in the near coastal area and its hinterland, extending to the *chorai* of Syrna, Phoinix, Kasarae and its sub-land Loryma (Figure 1, No. 1-26). Core findings come mainly from the Tymnian *territorium*, where the frequency of these structures is relatively higher than within the sphere of influence of the other *demoi*.

Apart from a few cases, there is a paucity of buildings with inscriptions. Wall decorations and frescoes attest to the presence of a Christian community, particularly in the coastal environment.

Major archaeological sites surveyed within the insular system of Bozburun and Söğüt

Most of the apsidal structures, and part of the complexes incorporated into the island and coastal land inventory affiliated with the Bozburun and Söğüt districts, have been documented as single-nave religious buildings. Many exhibit a masonry technique using irregular stones, spolia (sometimes appearing as cut stones), brick and mortar as the main building materials. Alternating courses of stone and brick mark the wall construction identified with the “Late Roman Wall” technique¹³. In what follows,

beginning with the nearest island, Yeşil Ada, the sites are presented in a galactic, spiral, clockwise order (Figure 1, No. 1 through 16).

Yeşil Ada¹⁴ (Müsgebi) (No. 1)

Well-viewed from the center of Bozburun, a castle on Yeşil Ada¹⁵ (Figure 2), with its entrance gate to the south, was last used during the Byzantine and Ottoman periods (Figure 3A). Along the western and northern walls are spaces that must have served as military quarters. Archer openings are found on the north and south walls. There are two gates of similar size, slightly trapezoidal in shape, accessed from inside the rooms. The walls reach 2 to 3 m in height in this sector, where a cistern was also recorded.

Dwellings adjoin the N and NE walls. Some of those that appear to have had vaulted entrances have collapsed. A large building, constructed at a higher elevation on an E-W axis, stands at the center; it presumably functioned as a *principium*¹⁶ (Figure 3B). At the center of the vaulted opening directly opposite the entrance is a limestone platform, evidently a workshop, with barely visible channel traces. This has been recorded as the widest drain channel (11-12 cm) found to date anywhere in the region. The press bed is elliptical due to fracturing and its disturbed context (its original diameter was around 80 cm). Immediately below it, another channel leading to a probable *dolium* was found. West of the press bed, a fragment of a belt that may belong to a grave platform or a pedestal has been documented. East of the dwelling area where the workshop is located, another section with an apse appears¹⁷ (Figure 4). All of these findings appear to be part of a complex, or a religious building incorporating a *principium*.

A marble find (Figure 5A) and a large flat base — possibly part of a mortar and a pithos, respectively — have been recovered. Combed body surfaces (Figure 5B-D), common throughout the surrounding area, are also worth noting. The abundance of Byzantine ceramics indicates continuity of occupation across the islands.

Adaboğazi (No. 2a, 2b)

On the shoreland just west of Yeşil Ada (Göl Mevkii and its surroundings), below the agricultural terraces south/southeast of Ulusuluk Tepe, lies a N-S aligned complex, locally known as a winery¹⁸ (No. 2a; Figure 6A,B). The complex consists of at least three large spaces/buildings situated in the coastal plain, at eleva-

¹⁰ For recent evaluations about the identification of the *demoi*, Oğuz-Kırca 2014a, 268-284. On Hygassos and hypothetical identification, Oğuz-Kırca 2014b, 33-43. On the ancient topography and appellation of the bays and coves, Mela.I.16; Plin. *Nat.* VI. 29; Foss and Reger 2000, 946, G4.

¹¹ All the measurements provided in the reports submitted to the Ministry of Culture and Tourism.

¹² On explicit research questions and methodology in landscape/survey archaeology, see Bintliff 2012; Given 2004; Alcock *et al.* 1994.

¹³ Schneider 1938, 438-442; Yavuzatmaca 2016, 69.

¹⁴ Ada stands for “island”.

¹⁵ Perhaps Δασκαλειό ο Σχολειό, directly cited by Ruggieri 1989, 348.

¹⁶ For main buildings in the Roman headquarters, Vegetius, *De Re Militari* I.22-24. Also Lander 1984, 59.

¹⁷ Defined as a fortress chapel located in the central area, oriented toward the east (Ruggieri 1989, 349). Octagonal Doric plates, no longer present today, were used in the altar.

¹⁸ It is probably the building that Ruggieri (1989/2, 348-349) spells as a commercial area where the pier can be seen. On the historical geography of Göl location and its surrounding (despite some reservations), see Hild 2019, 223-225.

tions ranging between 1-6 m. A well in active use, a Late Antique Period dwelling, and a submerged pier and walls were documented on the shore.

Chisel marks are visible on the rocky area behind the com-

plex; this must be where material was quarried to renew parts of the structure in later periods. At the base of the southern building, plaster fillings are observed beneath the ceramic-filled masonry, apparently added as later support. The main walls of the complex

Table 1. Rough measurements of a selection of the apsidal structures.

	Locus	No. on Fig. 1	No. ruins/ complex	Orientation	Apsis orientation	Entrance	~ Inner area (m ²)
Bayır	Yokuşbaşı	11	1	E-W	E	S	4×2,6
	Gebekse ^a	26	1	E-W	E	W	(16,10×?) + (5,8×5,10) + (16,40×12,40) + (13,50×12) ^{b/} main church 6,2×3,4/complex 11,5×10,6
Osmaniye	Ge(r)bekse/İlimar ^c	17	1 complex	E-W	E	NA	~7×20
Orhaniye ^d	Coast	18	1	SE-NW	SE	S-SW	NA
Turgut ^e	Coast	19	2	E-W?	E	W	7,9×10,3; 7,9×7,7
Selimiye	Centrum-Kızılköy	20	2	E-W?	Central?	S?	18,6×13,1 ^f
Bozburun	Yeşilada ^g	1	1	E-W	E	W	11×9
	Adaboğazi	2b	complex	NW-SE	SE	?	18×29
	Adaboğazi-Göl ^h	2a	complex	N-S	NE?/E	W,N,S	22×17,3; 13,6×13,6; 9,2×7,4
	Kiseli Ada	3a	3 ⁱ	NE/SW	E/N?	W/ E-N?	17,3×12,8 ^j
	Kiseli Ada	3b	1	E-W	E	W	6,4×2,8
	Kızılada ^k	6	complex	E-W	E/SE	W	8×5
	Mercimek Cove	7	2/complex	E-W	E	W?	16×9,9; 10,6×11 ^l
	Taşanbük	8	1	N-S	NA	E	min. 5×6
	Kameriye Adası	9	1	E-W	E	W	4×7
	Koca Ada	10a	1	E-W	E	W	2,8×5
	Koca Ada	10b	1	E-W	E	W	7×2,8
Söğüt	Söğüt Ada	4	1 ^m	E-W	E	W	3,2×4,5
	Coastal land	5	complex	N-S?	S	NA	NA
	İskele Quarter	21	1 ⁿ	E-W?	?	W?	19,8×15
	Kaletepe (Korsan)	12	1	E-W	E	W	8×3,1
Taşlıca	Kıslan Deresi	22	1	E	NA	W	13,15×11,10 ^o
	Kaledağ	13	1	E-W	E	W	~6×11
	Memelin	14	1	E-W	E	W	6×2,2
	Mazıkısığı-Arap Ada	15	1	E-W	E	NA	4×9
Bozuk	Asardibi	23	1 ^p	E-W?	E?	W	8,4×1 ^q
	Ali Germesi (Alagelmesi?)	24	1 ^r / 2	E-W	E	W	(14×5 ^s)/ 7×4,2 and 7×4,2
	Loryma; Louboukki	25	1 ^t / complex	E-W	E	W	15,20×14,40; 10,60×12,20; 7,9×7 ^u
	Tola	16a	complex	NW-SE	NA	W	11,5×5,10 ^v
	Tola-Mersin Burnu	16b	1	E-W	E	W?	3×7
	Mersin Burnu	16c	1	E-W	E	N	6×20
	Karamaka ^w	16d	1	N-S	S	E/SE	11×7

^a See Footnote 7. Similarly named two separate ruins exist in Bayır and Osmaniye.

^b Ruggieri 1989, 365-372 (if the one we address correctly).

^c Footnote 7.

^d Kyr-Vassili (Ruggieri 1989, 83-86). Scales unstable in Ruggieri's work.

^e Ruggieri 1989, 85-89. Second one could be a complex. No certain.

^f Ruggieri 1989, 90-91.

^g Ruggieri (1989, 348) claims that the area in front of Müsgebi (possibly NW of the complex we identify with "Adaboğazi") was the property of Göl complex. If we have not skipped the announcement of any associated inscription, our reservation is that a trading post? like the complex at Göl Location, together with the level area of Adaboğazi and close surrounding was under the surveillance of such a stronghold in the administrative terms.

^h Late use is also focused (Ruggieri 1989, 96-100).

ⁱ One of them named Άγια Βαρβάρα (Ruggieri 1989, 345). The structure to the southern part had a thermal function (Ruggieri 1989, 347).

^j Ruggieri 1989, 345-347.

^k Data for Building No.3.

^l Second structure is a chapel (5,8×2,6 m²) that belongs to the first structure identified as a church (three nave basilica), Ruggieri 1989, 92-96.

^m St. Athanasius worshipping tradition in two churches in close environs of Söğüt Bay is attested (Ruggieri 1989, 351). Dimensions of 13,4x12,9 m are given. About a church situated in the cove, close by Zeytin Ada, the author speaks of 8th-9th centuries (p. 354). It might be the one at which we point.

ⁿ Possibly the ruins of a vertical structure türbe (Islamic tomb) are associated with this one by Ruggieri 1989, 354-355. He also brings up information on the ruins of Agia Triada in today's Cumhuriyet Quarter (Saranda) and references to minor traces. Evidence is too poor to interpret further (pp. 355-356).

^o Ruggieri 1989, 357.

^p See Bresson, no.169.

^q Ruggieri 1989, 359.

^r Ruggieri 1989, 359-360.

^s Ruggieri 1989, 359-360.

^t Shear 1913, 452. Also Bresson, no.179, 182, 195, 198 for chapel of St.Michel Archange, Louboukki

^u Ruggieri 1989, 362-365. Entrance of third is probably due west.

^v Ruggieri 1989, 361.

^w Presumably Panaghia church at Karamaka, see Bresson no.201.

are partially standing; at least four buttresses are visible outside, along with a later, plastered pool¹⁹ (into which water was drained through a gutter) adjacent to the north wall.

Red, cream and occasionally black ceramic sherds are abundant on the coastal plain and in the vicinity. Frequently found are amphora necks and base forms matching those of Khios, Kos(?) and Rhodes; Late Antique amphora bases; glazed Byzantine ceramics; and coarse ware in the form of double-handled pieces with combed²⁰ and carinated body parts. Nozzled and grooved bases, especially those with wavy surfaces and pointed bases, are also noteworthy.

On the coastal arc north of Adaboğazı — an area of subsidence caused by tectonism — another group of structures forms a complex of religious buildings (No. 2b; Figure 7). These appear to have been at least two-storied.

Kiseli Ada (No. 3a, 3b)

Kiseli Ada, east of Adaboğazı, is a popular island (home to rabbits and goats) frequently visited by yachters (Figure 8). Most of the buildings are clustered along the E-W axis, between the island's lowest elevations. There is a main church complex (No 3a; Figures 8A and 9) in the central-western part. Its long walls are oriented N-S. The Early/Middle Byzantine structure is characterized by combed body fragments, common throughout the island's inner central levels. The terrace walls of the dwellings and scattered blocks (presumably the remains of a hamlet surrounding the church structures) are visible in certain places.

North of the main complex (No.3a) lie the partial ruins of a second church (No. 3b; Figure 8B), adorned with frescoes on its south interior wall. The entrance faces west; the east-facing apse has a diameter of 2.2 m (Figure 10A,B). The interior space, from the apse to the door opening, measures 6.4×2.80 m. The vault is largely destroyed, and the ceiling height, excluding the uppermost section, is at least 3 m. The west and south walls were concreted, disrupting the main texture of the façade. The original walls display *opus mixtum* technique. A later window, now badly damaged, was opened in the south wall, and the tiled beam line is easily recognizable. The south wall preserves a total of five frescoes, distinguishable by the use of three main colors — red, cream and yellow — applied to the plaster. The second fresco from the left probably depicts a group scene. On the lower left side of the frescoes, two bands decorated with floral ornaments can be traced.

South of the church lie the walls of further dwellings, one of which, on the western edge of this cluster, has partly collapsed. Carinated and uneven body fragments, similar to those found on Yeşil Ada, are abundant in the vicinity. The eastern sector of Kiseli Ada contains late dwellings in very disturbed contexts. Another settled area, complemented by a mill structure, lies at the northern end of the island (Figure 8C), indicating occupation in the Late Antique and Islamic periods²¹. The mill was converted from an arched structure-oriented E-W (Figure 11A,B), whose original plan is consistent with those of religious buildings identified on

the islands in previous seasons. It is at least a two-phase structure, 5.3 m in diameter. Its interior (3.5×4 m), which has ventilation openings, begins in a linear form and turns oval toward the west, toward the entrance. The southwest wall is largely demolished. Large and small niches are visible on the interior surface, and an arched wall on the east side survives only in outline. To the north are the walls demarcating the outer courtyard (3.1×5.1 m). Coarse, red-paste sherds are found in the surrounding area.

Söğüt Ada (No. 4)

In the coastal area, in the northern sector of Söğüt Island²², a single-nave structure (Figure 12A) with a west-facing entrance opening of 2 m has been identified. The window is preserved, and plaster is applied to the inner walls. The east-facing apse (Figure 12B) has a diameter of 2.2 m; the interior space measures 3.2×4.5 m². A mosaic fragment (not *in situ*) was found at ground level. The courtyard is also accessed from the west. To the NE of the building, very close to the shore, is a worn, badly preserved workshop complex. Sherd scatters are mostly of red paste, traceable from the Hellenistic and Roman periods to the Early Byzantine era. The masonry is characterized by polygonal stone courses with ceramic infill, consistent with the pattern observed systematically throughout the islands.

Late Antique dwelling units were identified on Zeytin Ada (NW of Söğüt Ada). At the eastern end of this island, on a hilltop, a single-chambered shelter built with stone masonry was found, with an entrance facing east. On the west side of the island stands a watchtower of the *pyrgos* type. At the entrance of a double-sided bay-oriented NE-SW, at both coastal and upper levels, ceramic-filled alternating walls, ruined masonry, pier stones and water features have been identified. Such patterns may help define the extent of the *territoria* of religious complexes.

Söğüt coastal land (No. 5)

A structure (part of a complex, Figure 13A) has been documented in the coastal land NW of Çamçalık Tepe. A floor mosaic/pavement, now submerged and easily observed from the surface in shallow water, was found at the southern end of the structure (Figure 13B). A modern concrete trough was built in front of the building. The entrance is unclear; the apse is on the south side. Nearby, an altar piece, entirely detached from its context and plastered, has been found.

In the middle of the cove, north of the structure, a building consisting of two rooms with half-preserved vaulted roofs on both sides and plaster applications on the walls has been recorded. The entrance faces southwest. The ceramic-filled wall at the center of the courtyard's north wall appears to be a later addition. Another building (with tile-filled walls and stucco application) and a cistern were found just north of, almost adjacent to, the courtyard. North of the cove, another Late Antique building with a plastered, still-preserved vault was probably built as a burial space.

Kızılada (No. 6)

A network of east-facing parcels lies beneath the rocky outcrop north of Kızılada (which is covered with *Pinus brutia* and olive trees). Here, between the uncultivated fields close to the sea, is a slightly ascending area ranging between 10-15 m in elevation. Some of the ruined and semi-ruined buildings show evidence of at least two phases. They are characterized by brick-filled alter-

¹⁹ Internal dimensions of pool: 2,1x2,8 m; diameter of gutter: 11 cm.

²⁰For combed bodies often associated with the Late Roman-Byzantine Period, Hayes 1992. Also refer to Late Roman types with grooves all over the amphorae of the 5th-7th centuries AD, Hayes 1992, 66-67.

²¹ Ruggieri identifies this building as a watchtower (1989, 347, Figure 5).

²² Καμάρι/ Karmari? or Lebounia (Limpunia given by Spratt) (Ruggieri 1989, 351).

nating walls and stucco and arch applications. The buildings are listed below in order of slightly increasing elevation.

Building No. 1 occupies an area of ca. 4×4.5 m². Building No. 2 has an arched entrance and measures 5×6 m², with an interior height of 2.5 m (Figure 14A); its walls are plastered. Three steps lead down to an inner-middle courtyard (10×10 m). From this area onward, a N-S oriented temenos wall, corroborating the wall technique applied in the church complex, is clearly visible.

East of the inner courtyard is Building No. 3, which has a barrel-vaulted structure (Figure 14B); this must be the main church. The entrance to the two-nave building is from the west. The plastered north wall appears well maintained (Figure 14C). The east-northeast section of the building, where four crescent-shaped niches were carved, is partly preserved, and features a white inscription in the northeast corner (Figures 14D and 15A). The inscription — which can be dated to the Late Medieval period or later, particularly on the basis of the forms of *alpha* and *sigma* (Figure 15B), and which is introduced to the scholarly world here for the first time — may record the name of a presbyter, though this remains uncertain (A full line-by-line transcription, proposed reading and translation are reserved for a dedicated epigraphic study; on current evidence the letter-forms are consistent with, though not conclusively dated by, comparable funerary and dedicatory formulae from Late Antique Karia, and a firmer chronology will depend on direct comparison with securely dated parallels)²³. Half of this barrel-vaulted section survives, and the frescoes on the concave part of the walls are partially preserved. Dominant colors include cream and red, with burn marks; lemon-cream plaster coating appears in places, along with pale orange, brown and dark red stripe paints, and quadrilateral and spiral patterns with red borders in wavy forms.

On the west wall of Building No. 3, cut stone was used as spolia. A column fragment (30 cm in diameter) lies *in situ* in the inner courtyard. The north wall remains intact; its exterior partly covered with plaster; the foundations of the south wall are standing. The surrounding plots contain building blocks both within and outside the temenos of the complex. Building No. 4, adjacent to the temenos wall, lies south of the inner courtyard; it could not be measured owing to dense vegetation, mainly scrub and bushes. The arched entrance (its wall now in ruins) is at least 3 m high. Building No. 5 is a pile of stones mixed with large quantities of sherds. Further ruins are visible to the rear. In and around the complex, red paste characteristic of the Late Roman period and embossed body fragments were observed in high frequencies. Early Byzantine internally glazed ceramic pieces help to clarify the chronology.

Mercimek Cove (No. 7)

The complex of apsidal structures at Mercimek Cove²⁴ is located near the terraced hinterland²⁵. The structures show evidence of at least two phases (Figure 16A,B). Agricultural terraces are visible on both sides of a stream bed (west of Karagöl Tepe) running from the cove northward. Along with the terrace remains, flat areas suitable for cultivation along the coastline were probably the short-range catchment area of the complex. A workshop, with an east-facing entrance accessed by at least two steps, was built on a terrace wall with a height varying between 1.5-2 m. Fragments of conical-bottomed bowls and pithos and amphora bodies occur around the workshop. Although the workshop appears related to two residential plots, it may equally have been connected to the complex; this remains

unclear. Sherd distribution patterns (also pointing to the Hellenistic era) suggest that the bay and its surroundings continued in use into Late Antiquity. Circumstantial evidence also exists: near the stream bed at the center of the cove, wells of different sizes have been recorded. A single standing tomb (4×5 m), a few meters above the shore to the north, provides no clear answer in the absence of an inscription or substantial imagery. It was built on bedrock with stone filling and mixed mortar techniques; its side walls were added later, its entrance was blocked, and its connection to the complex remains unclear.

Tavşanbük (No. 8)

A structure, evidently a chapel, lies west of Tavşanbük Bay, at an elevation of about 5 m (Figure 17A,B). The building, which appears to show Early Byzantine traits primarily on the basis of its masonry technique, is accessed from the south by two steps. Facing a cove surrounded by maquis, its entrance faces east, and its roof has collapsed. Traces of subsidence and collapse along the shore suggest that the building had its own pier. A spolia block from an earlier period was used on the largest visible gate lintel. Five niches facing N-S are visible on the interior walls. Diagnostic pottery is almost entirely absent, owing to destruction in the coastal area.

Kameriye Adası (No. 9)

Kameriye Island is accessible from Gelme Cove, north of Bozburun town. The dominant vegetation consists of maquis, *Pinus brutia*, olive and shrub cover extending from the slopes to the coast. Late dwellings, with only slightly disturbed boundaries and enclosed by maquis, are concentrated along the southern shoreline, where pressing installations (dated to the period before and after Late Antiquity) as well as kilns were also documented. The use of Roman ceramics in the masonry is evident. Flat-bottomed amphorae and late utensils were also recorded at intermediate elevations; those with mushroom rims are considered late-period imitations.

Main studies were carried out at Bozuk Church²⁶, decorated with a mosaic floor, and its immediate surroundings, the island's main touristic point (Figure 18A). The temenos walls, built with *agrega*, are notable for their plaster applications (often indicating later repairs). The mosaics preserved at the entrance, in the forecourt and on the south side are dominated by stars, meanders and zigzags. The mosaic floors, made of flat pebbles, appear mostly in gray, black and beige tones (Figure 18B). Spolia and other cut stones were set into the main gate and lintel, replacing an inscription removed by early travelers. The interior of the single-nave church measures 4×7 m² and has a total of three windows — one on the north wall and two on the south wall. Two altars were carved in the NE corner, in the apsidal section (Figure 18C). In the SE corner of the outbuilding, a vaulted space with mortared walls must be a burial structure. Outside the

²³ A reference to a martyr or disciple might be expected, though this remains speculative. On Byzantine parallels, Feissel 2006.

²⁴ Plans of the churches are supplied in Ruggieri's work (1989, 91-100).

²⁵ Agricultural terrace remains, often occurring in patchy formations, extend as far as Cape Apostol, at the westernmost tip of the small peninsula extending from Bozburun town.

²⁶ Also, Ruggieri 1989, 91. For a brief theoretical examination of St. Kerykos in the Peninsula, abstract of Katsioti–Mastrochristos 2018.

church's temenos wall lies a well and a pressing bed (for olives) in a disturbed context. Diagonally, at a higher level, a furnace-like structure fits closely against the wall. Other finds, such as a submerged cylindrical fragment near the shore, indicate agricultural production within the catchment area of the church.

Koca Ada (No. 10a, 10b)

Surveys focused on the north and southwest of the island. An almost untouched structure (aside from occasional use by shepherds) was documented on a neck at the northern bay of Koca Ada (No. 10a; Figure 19). The interior space measures 2.8×5 m². The building displays all the characteristics of its period. The walls were built with large and small irregular stones incorporating some spolia (Figure 20A). The interior plaster is also largely preserved, alongside evidence of later use. A square pool was placed at ground level, at the entrance.

The structure follows a simple basilica plan²⁷ with two windows. The floor is furnished with a mosaic (180×310 cm) made entirely of flat gray pebbles/sea stones (Figure 20B,C), identical to those used in the Bozuk Church on Kameriye Island (and comparable in workmanship). A large part of the mosaic in the apsidal section has deteriorated. From east to west, one finds a first belt with an eight-armed star and a floral(?) decoration beneath it, inverted flat triangles in a third belt, thin mosaics with vertical limestone blocks between them in a fourth belt, and a mixed tile-stone floor at the bottom. All the belts are demarcated by limestone blocks placed between them. The immediate surroundings of the structure yield mixed sherds of Late Antique and Islamic ceramics.

SW of the island, on a neck, a structure with an east-facing apse, planned with at least seven annexed spaces to its south, has been identified (No.10b). It resembles a monastery complex in appearance, incorporating remains of earlier building elements in its construction. It is thus recorded as one of the most characteristic groups of ruins representing the transformation into Late Antiquity. There are almost no tiles on the walls, nor was mortar used. Fragments of an architrave found in the apsidal section support the idea that it may have belonged to a shrine-like structure. Combed-ware ceramic scatters of the Roman era found in the vicinity support this interpretation. There is no reason to rule out the possibility that this spot was one of the "sect nests"²⁸ within the island system where the transformation is clearly evident.

Other examples situated further North and South

Yokuşbaşı, Bayır (No. 11)

A single-nave structure was documented 500 m south of Yokuşbaşı, where the trail forks to the left (Figure 21A,B) and runs toward modern fields near a pile of rocks. Two entrances, from the west and south, lead into the courtyard. The main entrance faces south. The structure appears to have been converted into a chapel from an older building, given the abundance of reused blocks. The apse wall remains intact; the N-S wall is fairly well preserved, but the E-W wall can barely be traced owing to later destruction. A niche is visible to the NE.

In its current state, an independent section or courtyard appears west of a corridor beginning just behind a masonry wall. This building is the first recorded example in the Syrnian *khora*²⁹, well removed from the coastal area.

Kaletepe (Korsan Kale/Pirates' Fort), Söğüt (No. 12)

An unroofed structure, at an average elevation of 340 m, has been documented east-southeast of Kaletepe, in the Bahçeli Quarter of Söğüt. The trail passing this structure descends toward Taşlıca, beyond a series of ancient agricultural terrace remains. Located near a cliff (Figure 22), it commands a view of Rhodes and its northern pier.

The original structure was built in stone masonry (Figure 23A,B). It was converted from an east-facing apsidal structure; the northern walls are preserved. The N-S walls are entirely covered with plaster, while the remaining walls are built of masonry stone with plaster applied in places. Mortar is visible on the alternating brick and stone walls. A niche was opened later in the south wall, near the apse. Together with the temenos walls, the structure covers an area of approximately 125 m².

Kaledağ, Taşlıca (No. 13)

One of the Karian-type *phrourion* fortresses, introduced to the scholarly world only in the past decade, was identified at Kaledağ, east of Taşlıca. It was built purely for military purposes, with shelter areas/barracks and water elements laid out within the walled area of the "upper" fortification³⁰.

Adjacent to a plastered cistern atop the upper fortification, at an elevation not exceeding 438 m (Figure 24A), stands a space with a western entrance, complemented by an east-facing apse whose traces are barely visible. Terracotta fragments, possibly used as base slabs, are scattered around the area. Based on the traceable plan, it is conceivable that officials of the rank of *stratigos*, or commanders who also held religious duties in the early Hellenistic period, made use of this space. Late Classical, Early Hellenistic and Roman ceramics, as well as calcareous and combed-ware body fragments characteristic of the Roman period, are scattered around the built area.

Memelin Locality, Taşlıca (No. 14)

On the ridge south of the Memelin locality, at an elevation of 192 m, a north-facing sanctuary/open-air altar was discovered in a sheltered location close to the valley plain³¹. Some hundred meters from this open-air sanctuary, neighboring a farmstead, a Late Antique structure³², probably a small chapel, has been documented (Figure 24B). The entrance faces west. Given the spolia blocks, base stones and characteristic sherds surviving from the Hellenistic/Roman era, it is possible that the structure underwent conversion, or has an earlier history behind its original construction. A partially destroyed *litus* lies in the central space, and a round, piled-up, well-like structure with a stepped platform (comparable to one documented in previous

²⁷ Mango 1978, 19.

²⁸ Oğuz-Kırca, 2022, 70.

²⁹ There is another Late Antique structure at 337 m, at the entrance of the Acropolis, at Yancağız Tepe.

³⁰ Oğuz-Kırca 2014a, 280-281. On the role of geology in the selection criteria of ancient and modern Karian fortresses, Dursun *et al.* 2025, 345.

³¹ Demirciler *et al.* 2023, 462, 475, Figure 13A. A notable feature in the rocky area is a slightly sloping niche carved into bedrock and facing directly north.

³² The extent of grave looting and disturbance in the area must have continued during the Crusader conquest.

studies at Phoinix³³ stands southeast of the structure. Stone busts were probably placed in the observed sockets.

Between Mazıkısığı and Arap Adası, Taşlıca (No. 15)

West of Kızılcaalan Tepe, on a neck, a huge pear-shaped cistern, a structure with an east-facing apse, and an *in-situ* press bed half buried in the soil immediately to its north have been discovered. The E-W oriented structure (Figure 24C) commands a clear view of the northern pier of Rhodes and its western shores. Set against bedrock, the building (at 235 m) was planned with essentially two spaces, taking an oval form toward the south. The predominance of tile-filled masonry and characteristic sherd scatters strongly point to use of the structure in the Late Antique era. Nonetheless, earlier masonry technique was observed in the corners of the interior walls, and the building can safely be described as at least two-phase³⁴, reminiscent of the group of structures documented at Koca Ada.

Tola/Karamaka Bay (Mersin Burnu/Cape Mersin), Bozuk (No. 16a, 16b, 16c, 16d)

The area NW of Bozukkale (Loryma), rich in barren land and abandoned terraces, has revealed a number of structures, in addition to the already known ruins of the Meryem Ana/Orthodox monastery of the Virgin Mary³⁵, which remained in active use until the population exchange of the 1930s-1950s. At the entrance of Tola Bay, at mid-levels, lie the ruins of a complex³⁶ facing NW (No. 16a; Figure 25A, 25B). It is at least a two-phase construction, evident from its later plaster applications. A pressing workshop lies in the front yard. Marble building elements, red-paste sherds, flat Rhodian amphora bases, probably Khios-type amphora bases (traceable from the 4th to the 1st century BC)³⁷, and thin wavy body sherds with knurled, uneven surfaces have been recorded along the shoreline and over the terraced fields.

Another structure (No 16b; Figure 25C; Figure 26A)³⁸ has been identified on the Karian Trail running along the western ridges of Tola. The ashlar used inside consists of reused cut stones. Smoothly dressed, regularly coursed long walls are present at the upper elevations, where a Late Antique nymphaeum was constructed. At the church of the Virgin Mary (No 16c; Figure 25D; Figure 26B), a huge, plastered cistern with a preserved roof, together with two wells to its south, form the basic group of constructions within the temenos area, all close to Cape Mersin. The architecture and workmanship of the church are evident in its well-preserved plan, masonry technique and roof cover (Figure 27A). The main entrance is from the north. There are two window openings on the north and south façades of the church, and mosaics can be traced across the floor outside.

A trail probably follows the ancient route past the olive groves and a late fountain leading up to Karamaka village, high above Tola Bay. The west and southwest sectors of Karamaka (corresponding to Aziziye köyü) are naturally sheltered, overlooking the open sea and Symi (Sömbeki) Island. At an elevation of 110 m, with a sweeping view of Symi, a structure with a south-facing apse and half of its dome still standing has been modeled (No 16d; Figure 27B, C). The north wall has collapsed. There are two niches and a window in the west wall, near the apse. An entrance in the middle wall was closed, and the original lintel was reused as filling material in the new wall. In addition to Late Hellenistic ceramic evidence, glazed Byzantine ceramics with black stripes on a white background and red glaze, green-decorated Byzantine

ware, and thin-walled blue-tiled body sherds were recorded nearby. A decoration on red paste, part of which may depict a dragonfly or damselfly³⁹, is of particular interest.

Alagelme Bay, Bozuk (No. 24)

At the western end of Alagelmesi Bay, near a dried streambed, two ruins⁴⁰ lie either separately or connected. Based on the current state of the foundations and some later repair walls of the two apsidal structures (Figure 28A, B), they may have formed a mansion-like complex (Figure 28C). Both show approximate interior dimensions of 7×4.2 m. The arch diameter of Structure No. 1 measures 3 m, while that of Structure No. 2 is around 2.2 m. West of this structure is a small pool (180×110 cm) added later. There was also a cistern with a collapsed vault, plastered inside, at the southernmost point against the bedrock⁴¹.

Characteristic materials include combed ware; white glass rims and body pieces with internal bubbles and patina indicating older manufacturing techniques; bulging bodies; Late Roman rims; and red slip carinated body fragments.

Gebekse Bay, Çiftlik-Bayır (No. 26)

A complex with temenos walls (interior area measuring ca. 11.5×10.6 m²) is situated right at the entrance of the cove (Figure 29A). The main church, showing excellent architectural craftsmanship (Figure 29B), is accessible via a gentle slope from the coast and stands on a rocky area overlooking Gebekse Bay. The main space covers an area of 6.2×3.4 m². The apse section remains standing, and the walls — aesthetically enhanced with arch applications — show traces of mortar. The church and its surroundings continued in use in later periods. The arched main entrance, on the west side, is 2 m wide and 2 m high. The lateral depth of the entrance wall is 60 cm, consistent with the walls of the complex at the entrance of the cove. Floral decoration is visible outside, on the upper elements of the entrance block. To the south is a crescent-shaped annex, beneath which lies a half-preserved vaulted space, apparently built later, at bedrock level.

The apse opening measures 3 m, with a radius of 1.80 m. The apse window (120 cm wide) features two arched openings separated by a small column at the center (110 cm high). Excluding some worn sections, windows No. 1 and No. 2 measure 50 and 60 cm, respectively. The window height from the arch is

³³ Demirciler and Oğuz-Kırca 2022, 264-265; 284, Figure 4.

³⁴ On the tractor road between Arap Island and Taşlıca lies a Late Antique dwelling, which symbolizes the transition from the Hellenistic Period. The elevation of the locus measures almost equivalents to that of the apsidal structure at Kızılcaalan.

³⁵ Ruggieri 1989, 361.

³⁶ Ruggieri (1989, 361) mentions a monastery and a Byzantine trading outpost located in this part of the bay. What remains today is in a very dilapidated state.

³⁷ Mattingly 1981, 79-85; Rauh *et al.* 2013, 174-175.

³⁸ This was another chapel (Ruggieri, 1989, 361).

³⁹ Dragonflies were creatures thought to have been transformed from nymphs that lived and were fed on water. Indeed, their transformation into flying insects that catch their prey while hovering over the water could indicate a water-related cult. In Akrotiri, Crete, they seem to have been represented as femininity, especially in iconographic contexts (Morgan 2022, 77).

⁴⁰ Ruggieri 1989, 359-360.

⁴¹ New studies are underway. After the processing of the drone images, the recent plan of the structures will be subject to thorough evaluation.

140 cm, and its depth is 70 cm. The plasterwork on the apse wall is clearly visible.

Assessment and conclusions

The architectural and archaeological record reveals that Tymnos and Thyssanos functioned as a kind of religious nexus of the medieval Peninsula, supported by structurally similar buildings in terms of construction and masonry technique (attested by the rare frescoes that survive to this day). Nuances appear in the ground plans, and building scale is not always consistent either. The buildings are mostly basilical⁴² and often display mosaic floors worked in the *opus tessellatum* technique, reflecting the “fashion” of the period. The large number of structures presented above is also consistent with the records of earlier travelers who conducted research in the Peninsula. These largely contemporaneous structures survived from the Late Antique period and had come to form an almost complete network by the Byzantine period⁴³. While a number of inland examples lie within the immediate hinterland of the *demoi*, most are located near the shoreline.

From church complexes (e.g. Kızılada, Koca Ada and Kameriye Island) to the small-scale chapels surveyed along the coast, it is now clear that these structure groups were among the important representatives of Late Antiquity and formed a network concentrated in the insular sector. As seen on the islands, especially in large-scale buildings such as the Bozuk Church on Kameriye Island or the Church of the Virgin Mary at Tola, the network of apostolates and apsidal structures — particularly in relation to Selimiye and its immediate domain, and possibly connected to its role as the center of the Patara bishopric⁴⁴ — appears to have supported the survival of the cult of St. Kerykos⁴⁵ or other cults and saints, often unnamed in the Late Antique period, such as the Virgin Mary or Michael the Archangel⁴⁶. These can be characterized as mushroom-like or caravan-like formations, forming a “nest of sects” before the 6th century AD⁴⁷. The term is used here in a heuristic rather than a strictly formal sense: in network-theoretical terms, these clusters resemble nodes of high centrality linked by maritime rather than terrestrial routes, consistent with wider models of Mediterranean connectivity⁴⁸. Nevertheless, a certain degree of standardization is observed across the islands, not only in the apsidal building plans (which also extends to the mosaic tradition) but also in the workshops and masonry techniques. Walls built with *agrega*, often with plaster applications (including later repairs), are widely encountered. In particular, a typology can be established for the pressing equipment, the vast majority of which was designed for olive oil production — for liturgical use as much as for daily purposes such as lighting⁴⁹. Some structures, such as the complex at Adaboğazi, may have been used for mass production. Structures with south-facing apses, however, are an exception — for example, the one at Karamaka, where the evidence is based solely on the visible remains, but whose layout allows for several possibilities given its position on the “main” road (it could, for instance, have been oriented E-W to command the road at the entrance to the village). Despite evidence for the west orientation of apses in earlier periods, the function of the Karamaka structure, given the different orientation of its apse, remains open to discussion.

Given the spatial distribution of the apsidal structures, well established, mature structures are particularly dominant around the Adaboğazi ring and, more broadly, across the insular sector. In the territorial sector, a preference for hilltop areas and/or passes between hills may reflect both the practical requirements of the terrain and a tendency to build earlier places of worship as Christianity spread through the region.

We assume, as a starting hypothesis, that people tended to adopt pre-established “ready-made” spaces for new religious buildings. A notable number of structures were found to predate the Late Antique era. Those showing evidence of at least two building phases (for example, the complex at Koca Ada in the island system, or the chapel at Kızılcaalan Tepe in the land system) were probably built in the Hellenistic period, or continued in use into the Early Roman period, before being converted for reuse. Beyond the structures documented for the first time by our survey team, there is also evidence further to the north — for example, Ge(r)bekse, on higher ground, which appears to have Early Hellenistic foundations. Exceptions are also frequently found in the terrestrial sector. It is worth noting that all the apsidal structures — whether insular or terrestrial — that show evidence of reuse or conversion are positioned on hilltops with low visibility from their surroundings. This hypothesis, however, will only be strengthened by further supporting data, particularly from press beds that reveal comparable contexts and reflect period characteristics continuing earlier traditions.

The apsidal structures within the sphere of influence of fortified areas, in physically isolated and hard-to-reach terrain (e.g. east of Korsan Kale, Söğüt), also share similarities with those on the coast, though the latter tend toward flatter plans. This raises the following question: could religious complexes have had organic links to military activity, and if so, to what extent? Evidence from defensive structures — such as the stronghold on Yeşil Ada — points to the involvement of soldiers⁵⁰ and veterans in the life of the Peninsula, as attested by previously noted Rhodian inscriptions⁵¹. Given the markedly cosmopolitan makeup of Rhodes⁵², a similar picture can be expected in the area surrounding Tymnos. This is supported by a recently discovered inscription — the Kaletepe inscription⁵³ — found northeast of Tymnos, at a site hosting a watchpost, which records eight names from various parts of Asia Minor. There is no certainty that these names are of military origin; the hypothesis instead rests on their likely connection to a cult activity performed during the Late Hellenistic/Hellenistic period⁵⁴. In the absence of direct evidence — such as an epigraphi-

⁴² Mango 1978, 19.

⁴³ For Byzantine Karia, also Sitz 2020, 62-77.

⁴⁴ Chaviaras and Chaviaras 1907, 213.

⁴⁵ Katsioti and Mastrochristos 2021, 247-251.

⁴⁶ Tiefenbach 2012.290-320. Perhaps associated with a *synodos* (320, 329). Also, Nowakowski (2018, 167-169) for a catalogue of inscriptions on 4th-mid-7th centuries AD saints of Late Antique Anatolia, indicatively pp. 370-374 for Karia.

⁴⁷ Katsioti and Mastrochristos identify a *hiatus* between the 7th-12th centuries and stress that the region was completely abandoned by the Middle Byzantine period (2021, 248).

⁴⁸ On network approaches to material and religious connectivity, particularly Knappett 2011. On Mediterranean maritime connectivity as an alternative to land-centered models, Horden and Purcell 2000.

⁴⁹ Demirciler *et al.* 2024, 491. Width of drainage channels is fixed to an average of 3 cm. Further on olive, Foxhall 2007.

⁵⁰ See Apollonios of Tymnos. *Rhod.Peraia* (McCabe).130 (I.13); *Rhod.Peraia* (IK). 209 (I.13).

⁵¹ Bru 2020, 150-169.

⁵² A large group of foreigners residing in Rhodes were the Phrygians, who were often identified by their regional ethnics (Gabielsen 2017, 34).

⁵³ Oğuz-Kırca *et al.* 2024, 1-9.

⁵⁴ As a civic subdivision of Kamiros, the *demoi* of Tymnos, or its constituent *ktoinai* (possibly located around Yeşilova Quarter too, based on both ethnic and territorial groupings), may have been more active than expected. Some scholars point to a federal Rhodian decree stating that the “appointment of a *mastos* by a *ktoinatai* must take place in the most holy sanctuary of the *ktoina*” (a *ktoina* played a key role in overseeing the financial affairs of the sanctuaries) (*Tit.Cam.* 109; Gabielsen 2017, 26). Such a record may support our hypothesis. The rules governing the most

cally attested soldier or veteran, or a securely dated fort-chapel comparable to examples known elsewhere in Anatolia — this proposed military-episcopal connection is offered here as a hypothesis for future testing rather than an established pattern⁵⁵.

Some aspects of the function of the apsidal structures and complexes on the Peninsula may remain unresolved. What exactly was their purpose? This remains far from certain. Ruggieri notes that Kamekiye Adası, Kızılada and Mersin Burnu were sites where Greek monks resided⁵⁶. The present survey both confirms and revises this earlier picture: our fieldwork corroborates Ruggieri's identification of Kamekiye Adası and Kızılada as religious *foci*, but revises his reading of the complex at Adaboğazi, which he described as a "commercial area" but which the ceramic and architectural evidence recovered here indicates was instead a production installation (a winery) — a reminder that Ruggieri's pioneering identifications, while foundational, require case-by-case verification against renewed survey data. Building on his list of possible functions (urban or rural chapel or temple, pilgrim center, episcopal or monastic structure substituting for a military base or imperial temple, etc.), we propose an additional interpretation: a "controlled" relationship between agriculture, trade and settlement, as a continuation of the Karian tradition. Given the perception of the city as taking the form of a "castron" rather than fulfilling a core role⁵⁷, and the phenomenon of forgotten city-states in Anatolia persisting until the 7th century⁵⁸, it is plausible that Karia sought to protect itself through close military-episcopal ties. The opposite would be surprising in a region like the Peninsula, which formed an extensive rural network⁵⁹ that may equally have called for self-protection. Furthermore, cult sites must have shifted over time. After Delos was declared a free port and Rhodes lost its significance in the Mediterranean, the Romans are unlikely to have actively suppressed the Karian cults at their established sites; current scholarship instead favors a model of *interpretatio Romana*, whereby local and Greek deities were reinterpreted and absorbed within the Roman religious system rather than eradicated. As Roman administrative and religious structures became established, the ritual and architectural vocabulary inherited from the Hellenistic era was accordingly adapted rather than replaced outright⁶⁰.

The presence of apsidal structures in substantial numbers (relative to the rural character of the region), most of them found outside fortification walls, is consistent with the idea⁶¹ that Christianity was stronger in the countryside than in the city before the last quarter of the 4th century AD. According to the Ravenna List (314 AD), Karia had become a separate province, one of five smaller units into which western Anatolia was divided under the Diocese of Asia. In order to help supply Constantinople under the *Annona* (food supply) system⁶², the Peninsula must also have become part of this new order of exploitation, beginning with the "newly imposed" servitude and dependency that followed the commonwealth-like system previously established by Rhodes. On the other hand, it remains unclear to what extent the Persians (and also Slavic tribes) may have been involved down to the 7th century, given that Rhodes was also captured as a result of the Sassanid incursions⁶³.

Placed alongside other regions of Late Antique Karia and the wider Dodecanese, the Bozburun pattern appears distinctive rather than universal. The church distribution recorded in the Latmos region shows a comparable preference for defensible high ground, but a markedly different, more inland relationship to the coastline; the ecclesiastical networks documented on Rhodes, Kos and Symi show a broadly similar maritime orientation but a less pronounced central clustering; and the churches recorded in the region of Antalya, in rugged coastal terrain fur-

ther east, offer a further point of comparison for rural Christianization in a similarly demanding landscape. These comparisons suggest that the "omphalos-like" pattern proposed here may reflect a specifically insular-peninsular adaptation rather than a general rule for Late Antique Asia Minor⁶⁴.

In conclusion, Late Antique apsidal structures formed part of an organic system, recalling constellations of greater and lesser satellites. They appear to have become more visible from the Early Middle Ages onward, especially under the increasing influence of the Byzantine state. A densification in the number of religious buildings seems to have occurred toward the center of the Peninsula, while some larger examples are found in the middle and southernmost parts of the region. Nevertheless, no clear correlation can be drawn between topography and average building size; it is safer to conclude that the scale of the structures grew over time. Their concentration in the littoral zone — as opposed to the more terrestrial, land-centered clustering typically expected in Asia Minor — also suggests that an ecclesiastical-administrative organization based on maritime networks prevailed in the region, reminiscent, in physical terms, of an omphalos-like pattern radiating outward from a navel and clustering in certain places. This spatial pattern is presented here as a descriptive model rather than a statistically demonstrated one: it has not yet been tested through formal methods such as kernel density estimation or Ripley's K-function against a null model of random distribution, and such testing remains a priority for future work⁶⁵. In any case, certain shared features among the apsidal structures suggest that the Peninsula kept itself as far removed as possible from the turbulent conditions of the period, and that relatively homogeneous institutions were maintained in the eyes of the authorities.

holy place must also have applied to the act of sacrifice. The burial grounds of an unnamed association (often walled) would also merit discussion. Autopsy of the Kaletpe fragment has revealed an abundance of foreign names, recorded here with their ethnics for the first time. As for the ritual itself, it may have been limited to a sacrificial act performed in the name of a god or goddess. There is no indication of a name for an association (which could bear theophoric, cultic, or private names). Another possible explanation lies in honors bestowed on prominent foreigners, since Rhodian navigators or foreigners from various parts of Asia Minor were active in the insular and peninsular context.

⁵⁵ cf. Edwards 1982, 155-75.

⁵⁶ Ruggieri 1989, 91.

⁵⁷ Ruggieri 2009, 209, 216.

⁵⁸ For a brief overview of the debate, with archaeological evidence from a selection of Anatolian sites, on the declining power of cities — whether the decline in urbanization across Asia Minor resulted from sudden catastrophes such as earthquakes or the Justinianic plague, or occurred gradually due to structural fluctuations in the political and economic climate — see, e.g., Wilson 2022, 565-590.

⁵⁹ Oğuz-Kırca *et al.* 2017, 154-156; Oğuz-Kırca 2022, 60-73.

⁶⁰ On the adaptation (rather than suppression) of local and Greek cults within the Roman religious system, Ando 2008, 43-58. The tradition of erecting pyramidal monoliths, which we attribute to the Karians throughout the Peninsula, was carried over into new structures under Roman and Byzantine rule. Although no consensus has been reached among scholars regarding the function of the pyramidal monoliths (worked in local stone) of the Peraia, a leading hypothesis holds that they relate to the underworld. These were common in inland Karia. We assume that in Late Antiquity the religious buildings — assuming all were apsidal — that provided the link between the earthly and the afterlife moved away from inland areas toward a more open environment. Caution is nonetheless advisable.

⁶¹ See Mitchell 2023, 292.

⁶² Mitchell 2023, 298.

⁶³ Wilson 2022, 565-566.

⁶⁴ For comparanda in Late Antique Karia and neighboring regions, Peschlow 2017, 264-68; Harrison 1963, 117-50.

⁶⁵ On formal spatial-statistical testing of archaeological point patterns, Conolly and Lake 2006; specifically, Bevan and Conolly 2009, 956-64.

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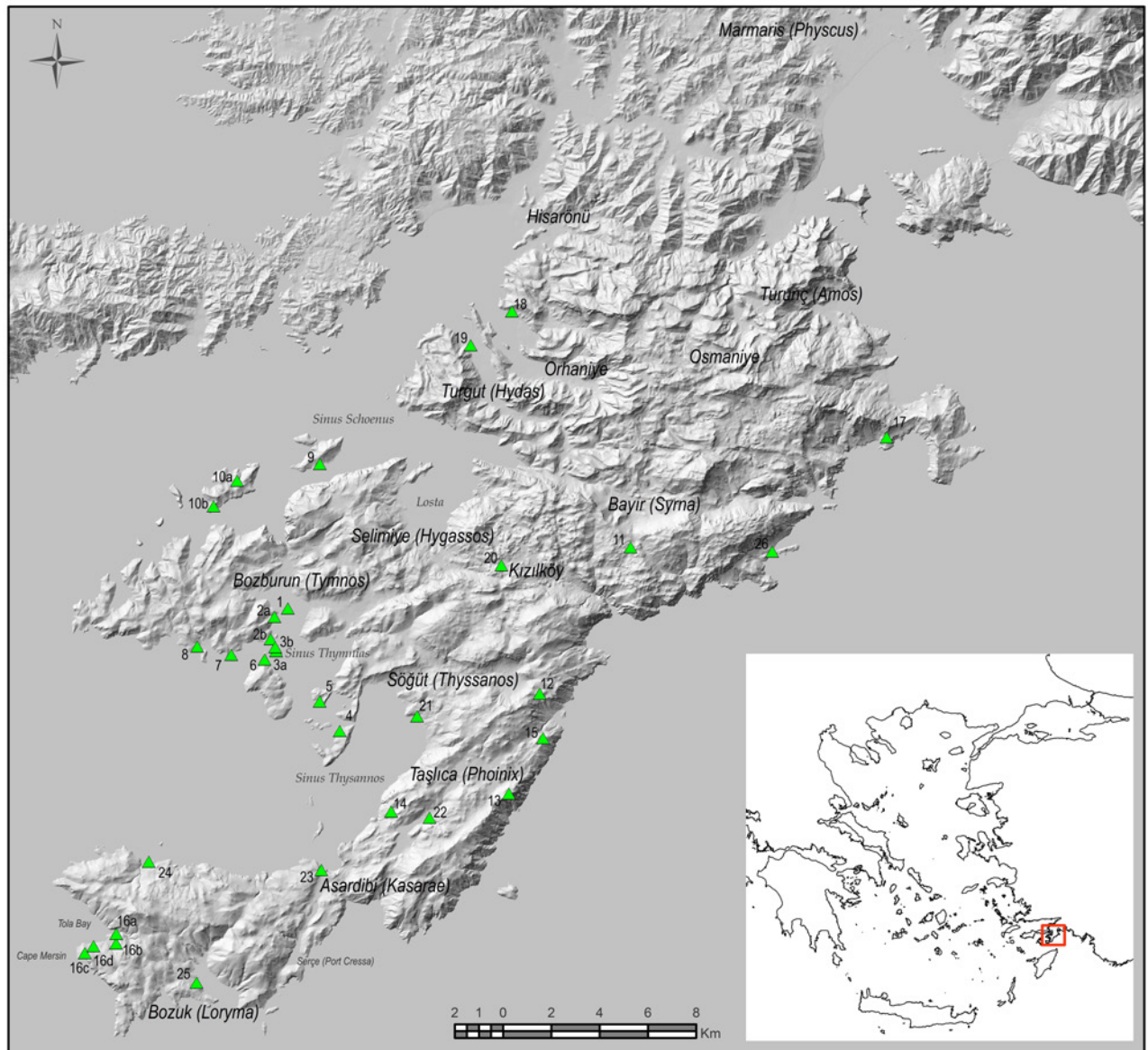


Figure 1. Major and ancient sites in Bozburun Peninsula and distribution map of the Late Antique sites/structures documented during archaeological surveys and obtained through literature data.



Figure 2. Aerial image of Yeşilada Fortress.



Figure 3. View of ramparts at Yeşilada Fortress (A) and; *principium* (B).

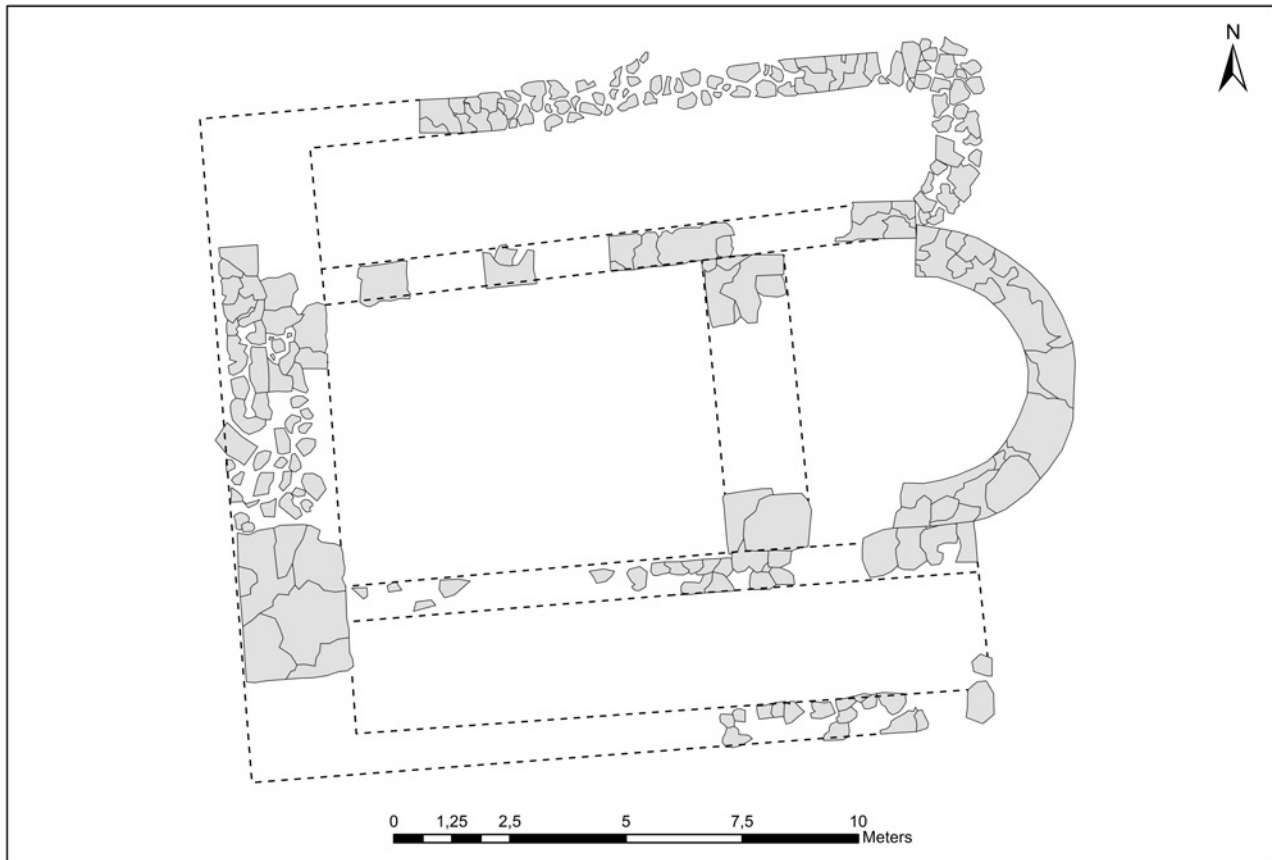


Figure 4. Plan of *principium* at Yeşilada.



Figure 5. Piece of marble finding, Yeşilada (A); surface ceramics (B,C,D).

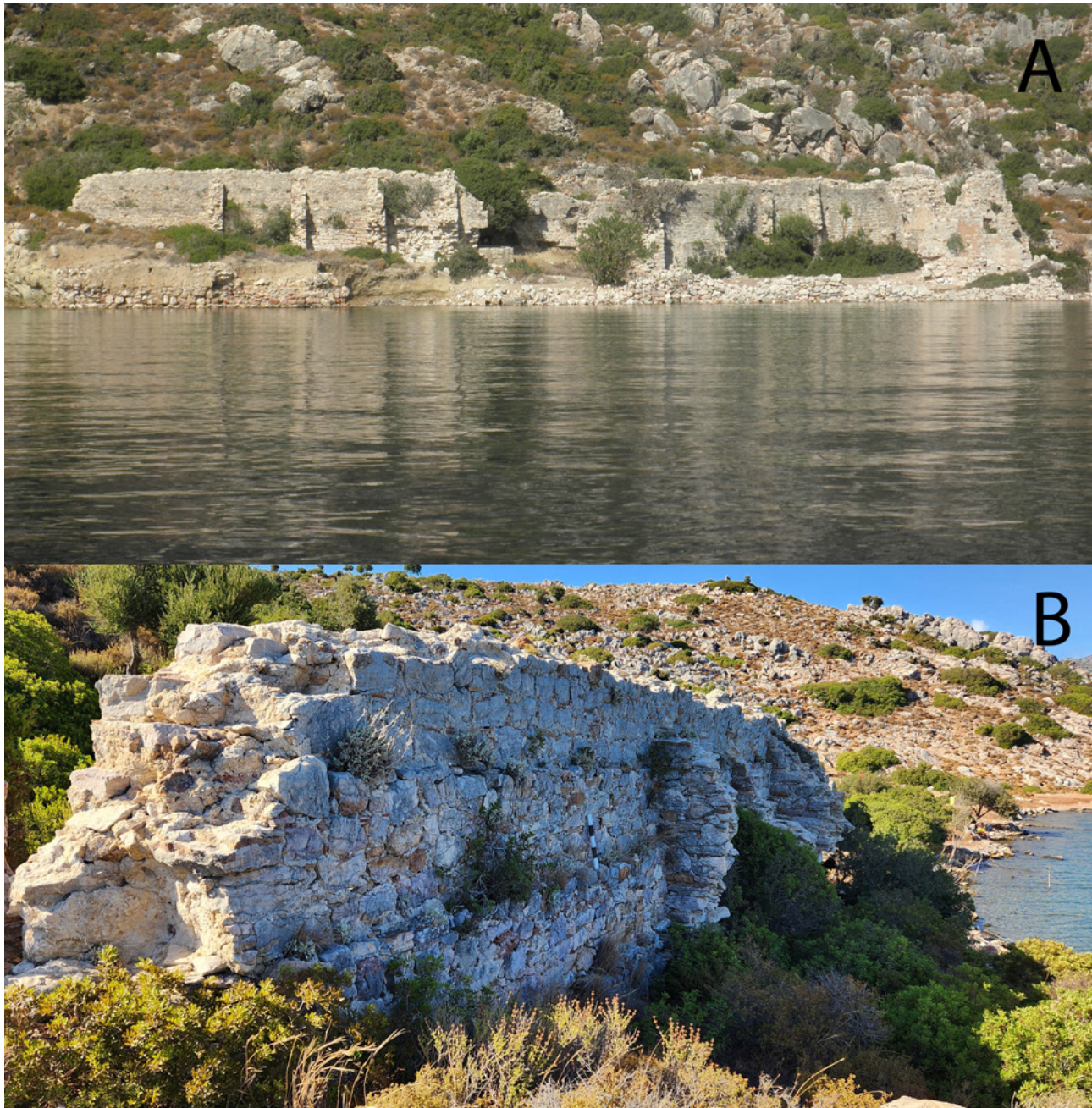


Figure 6. View of complex at Göl location at Adaboğazı (A); closer image of buttresses (B).



Figure 7. Group of structures situated north of Adaboğazi.



Figure 8. Location of the main church complex (A); church with fresco (B) and mill structure (C) marked on aerial image of Kiseli Ada.



Figure 9. View from main church complex, Kiseli Ada.



Figure 10. Outer view and entrance of church with fresco (A); inner view with frescoes (B), Kiseli Ada.



Figure 11. View from mill structure (A); inner walls with arch (B).

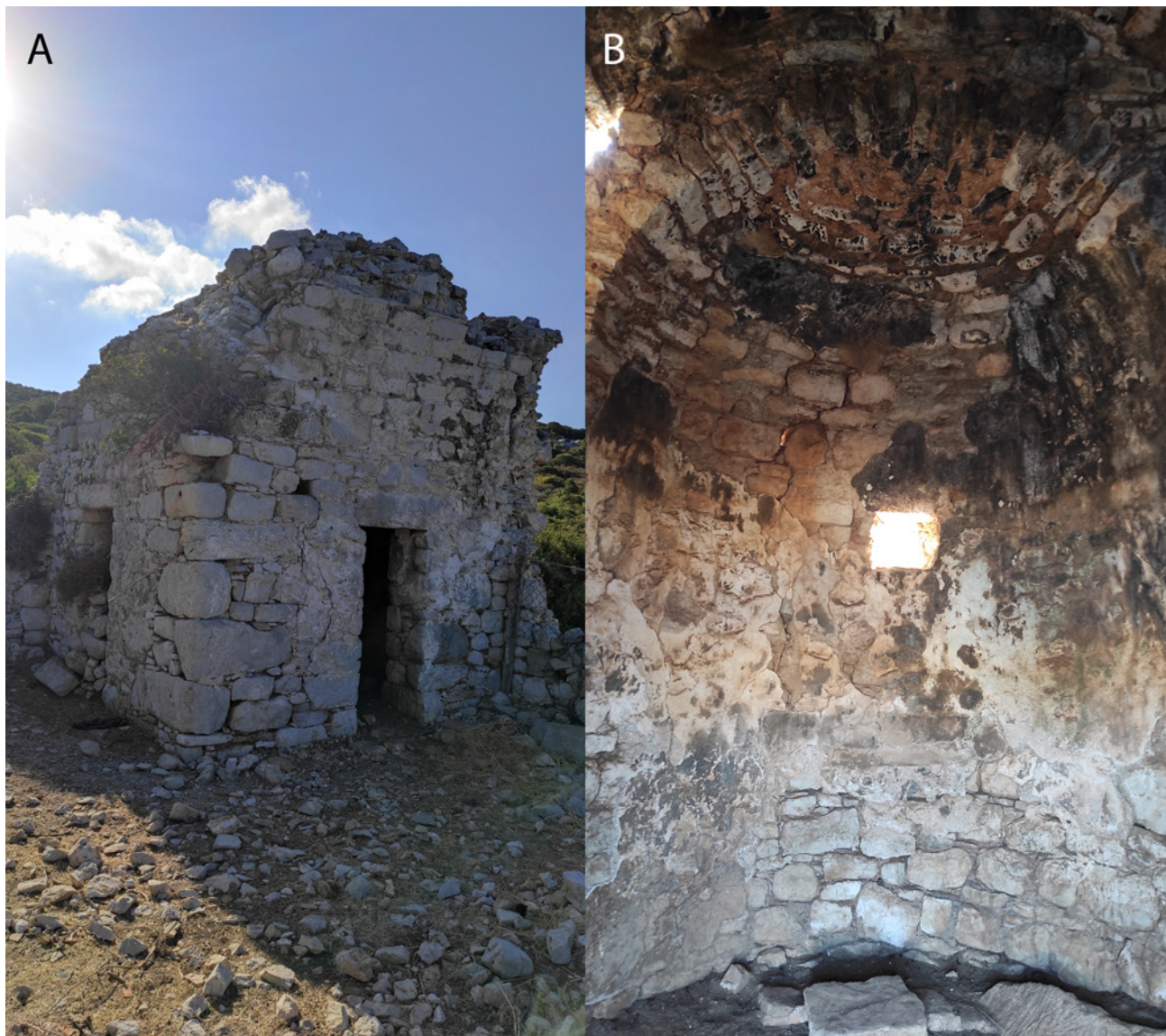


Figure 12. Outer view and entrance of apsidal structure at (A) and view from its apse (B), Söğüt Ada.



Figure 13. View from complex (A) and submerged floor mosaic (B), Söğüt coastal land.



Figure 14. View of arched building no. 2 (A); view from courtyard (B), north wall (C) and north-east corner (D) of main church at Kızıllada.



Figure 15. White color inscription in the northeast corner of main church (A); closer view of inscription at Kızılada (B).

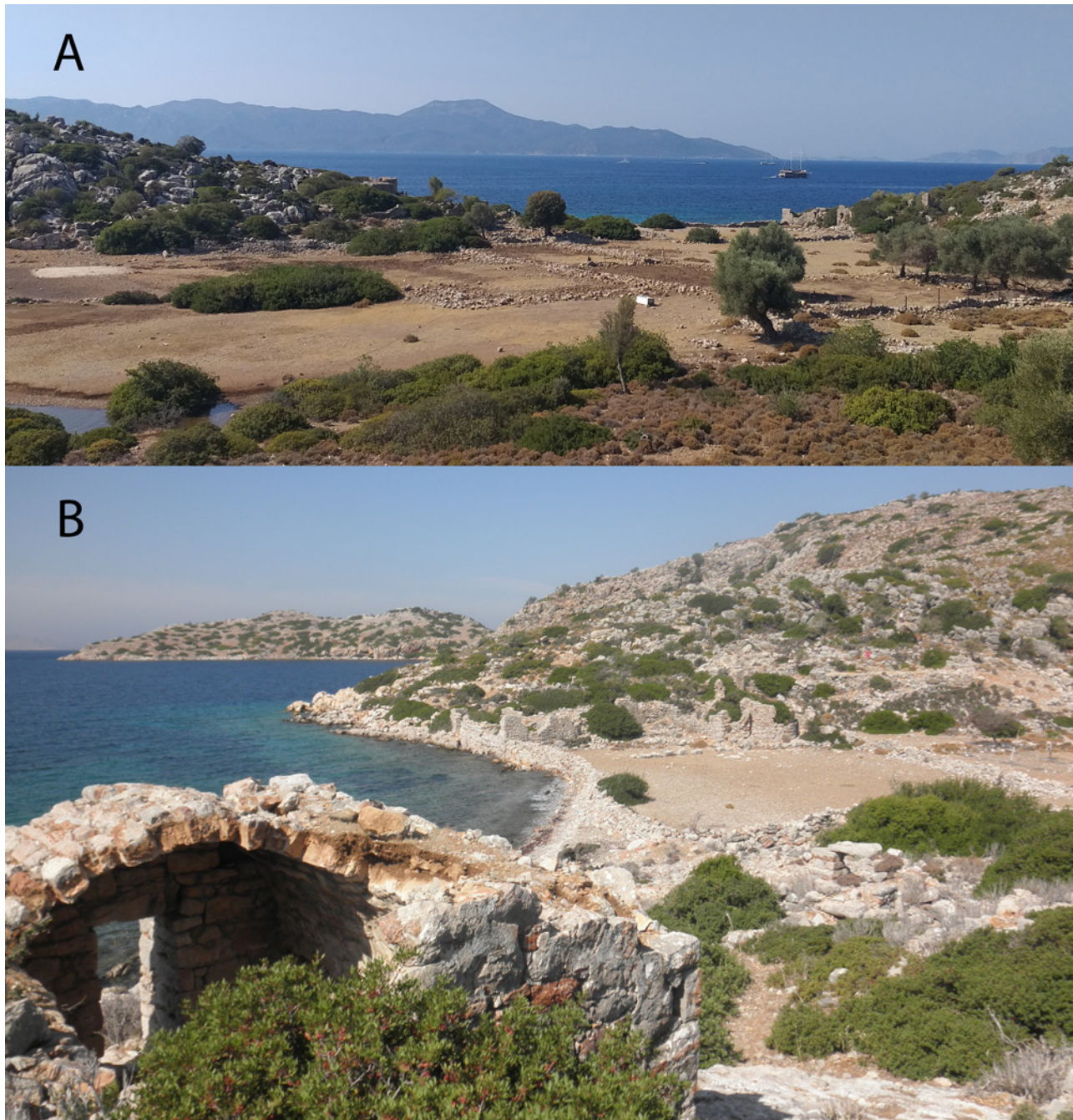


Figure 16. The coastal area (A) and view from apsidal structures (B) at Mercimek Cove.



Figure 17. Orientation of apsidal structure (A) and closer view of masonry (B) at Tavşanbük.



Figure 18. View of Bozuk Church (A); mosaic floor in the courtyard (B); altars in north-east corner of apse (C) at Kamekiye Island.



Figure 19. Aerial image of chapel at Koca Ada.

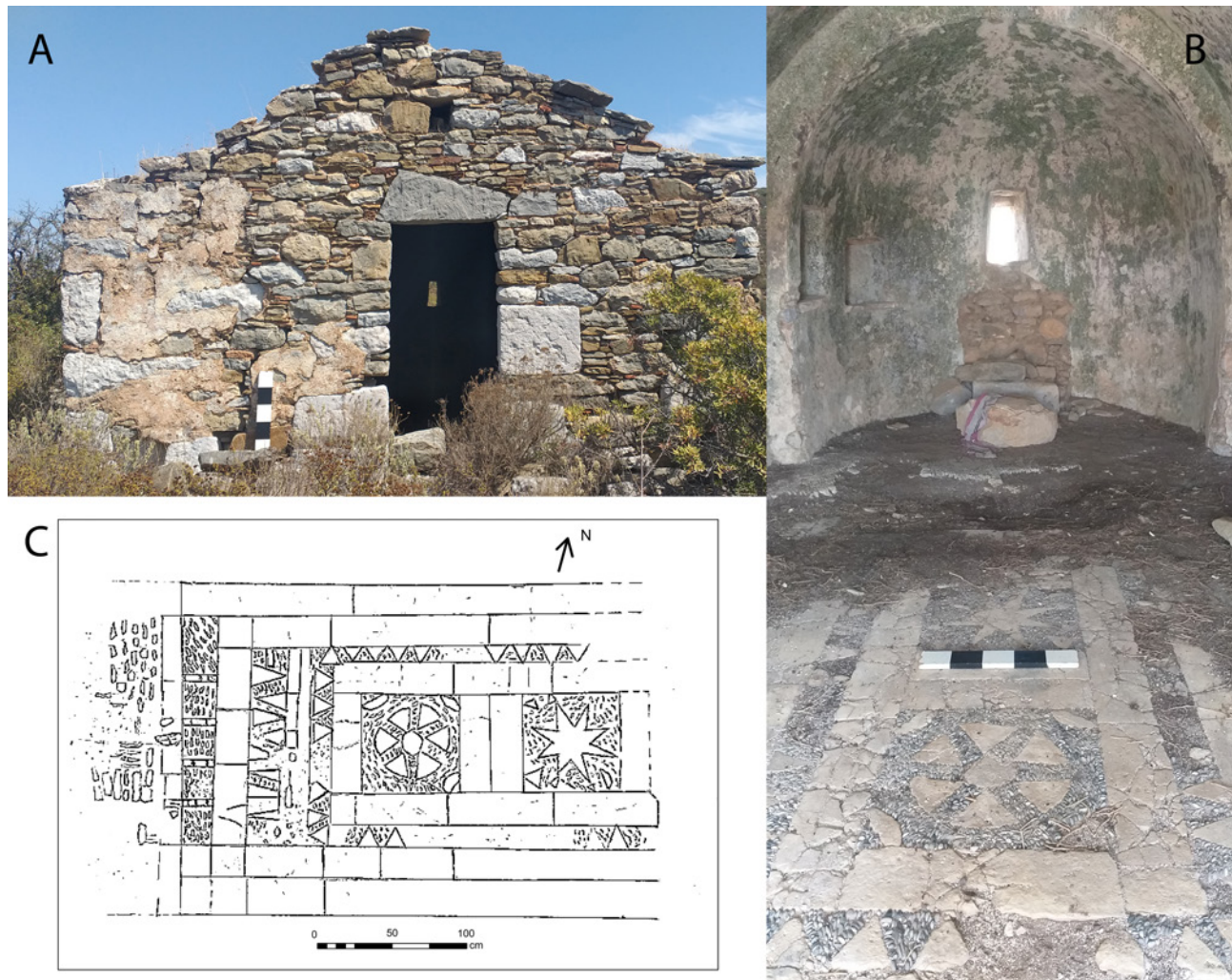


Figure 20. Outer view of the chapel at Kocaada (A), floor mosaic inside (B) and sketch drawing (C).

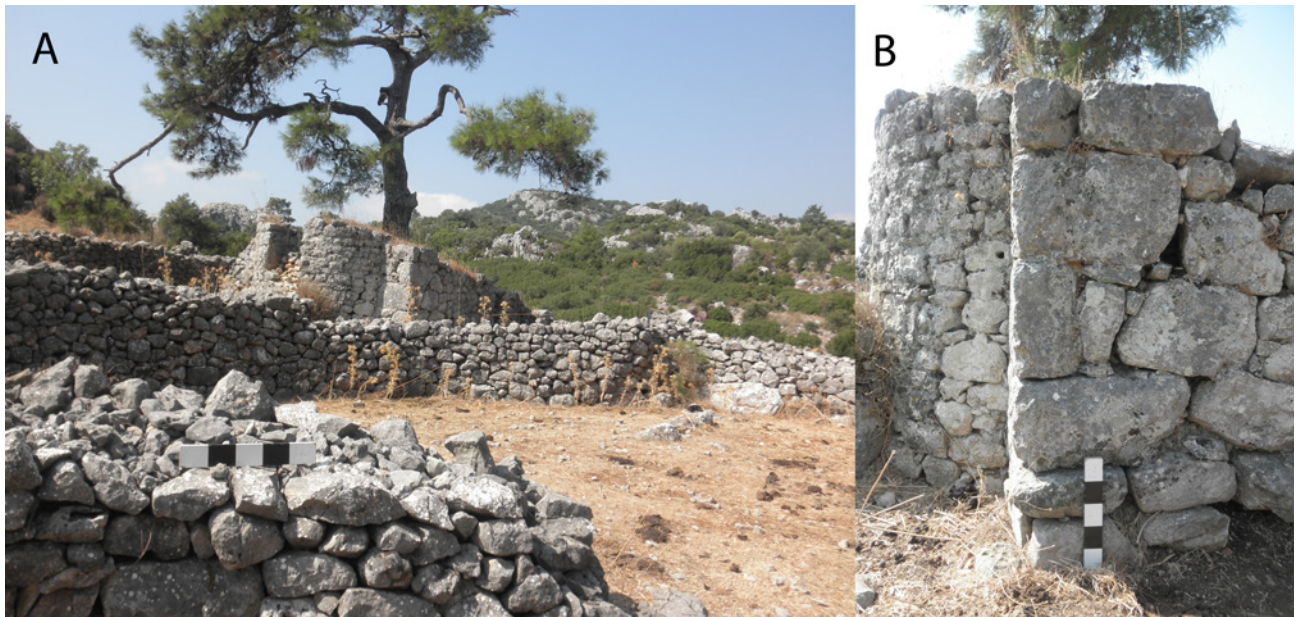


Figure 21. Outer view of apsidal structure, south of Yokuşbaşı, Bayır (A); closer image of apsidal and northern walls (B).



Figure 22. Aerial image of apsidal structure, east of Korsan Kale, Söğüt.



Figure 23. View from northern wall of apsidal structure (A); gate lento with a closer image of masonry (B), Korsan Kale, Söğüt.



Figure 24. View from space occupied by apsidal structure on top of Kaledağ (A); view from apsidal part of structure at Memelin Location (B); closer image of masonry from inner space of apsidal structure at Kızılcaalan Tepe (C), Taşlıca.

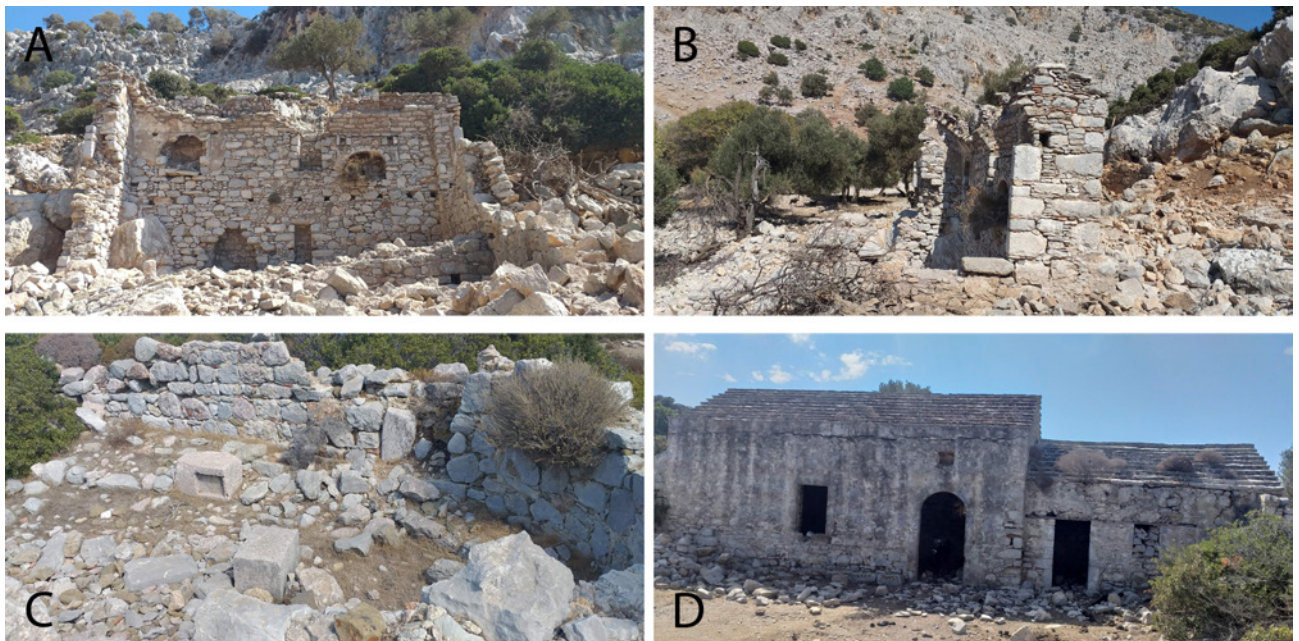


Figure 25. Image of ruins of the complex at Tola Bay (A,B); cut stones used in apsidal structure (C), west of Tola; church of Virgin Mary at Cape Mersin (D).



Figure 26. Aerial images of apsidal structure, west of Tola (A) and church of Virgin Mary (B).

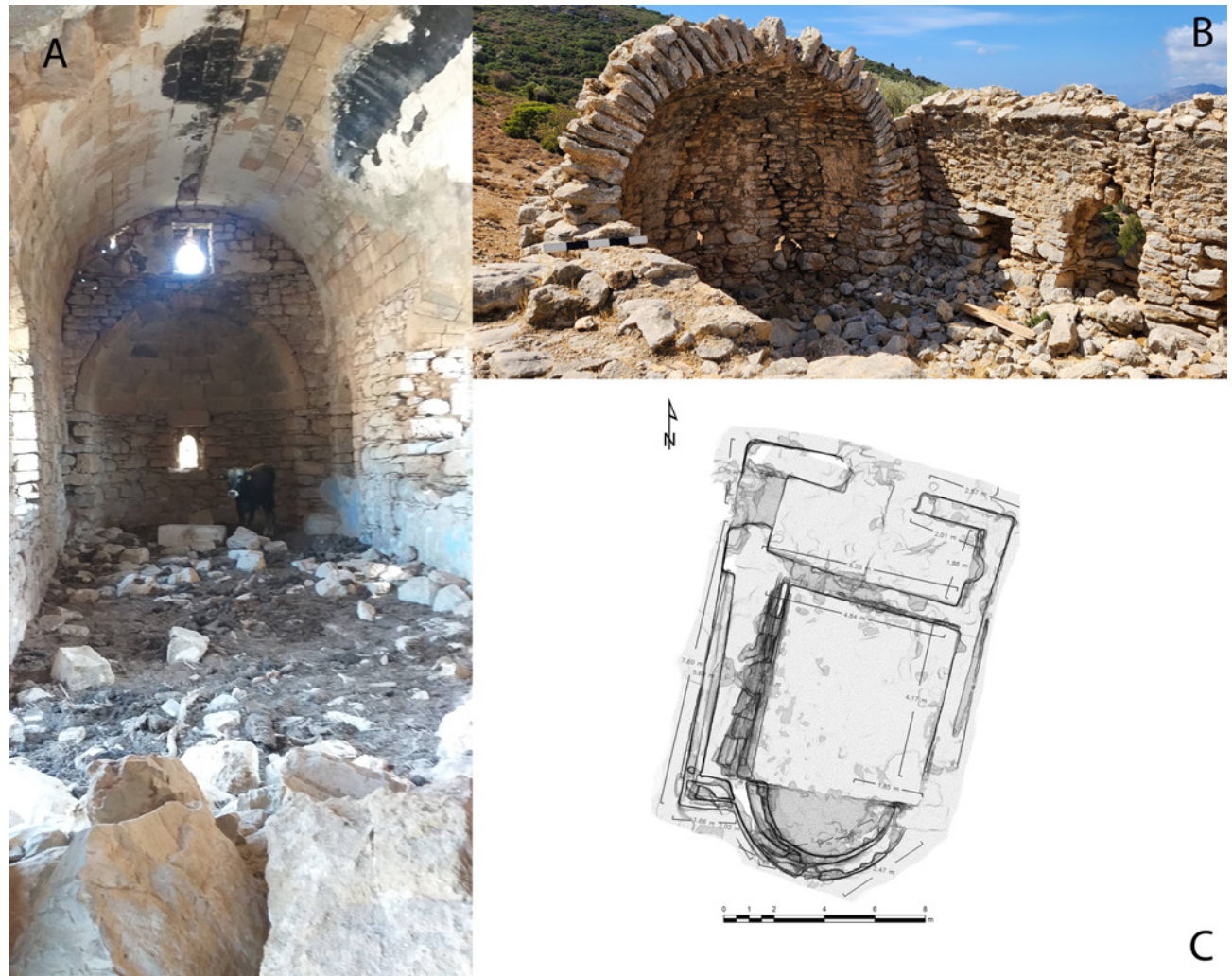


Figure 27. Inner view of the apse of Virgin Mary (A); apse of the chapel at Karamaka (B); plan of the chapel at Karamaka (C).

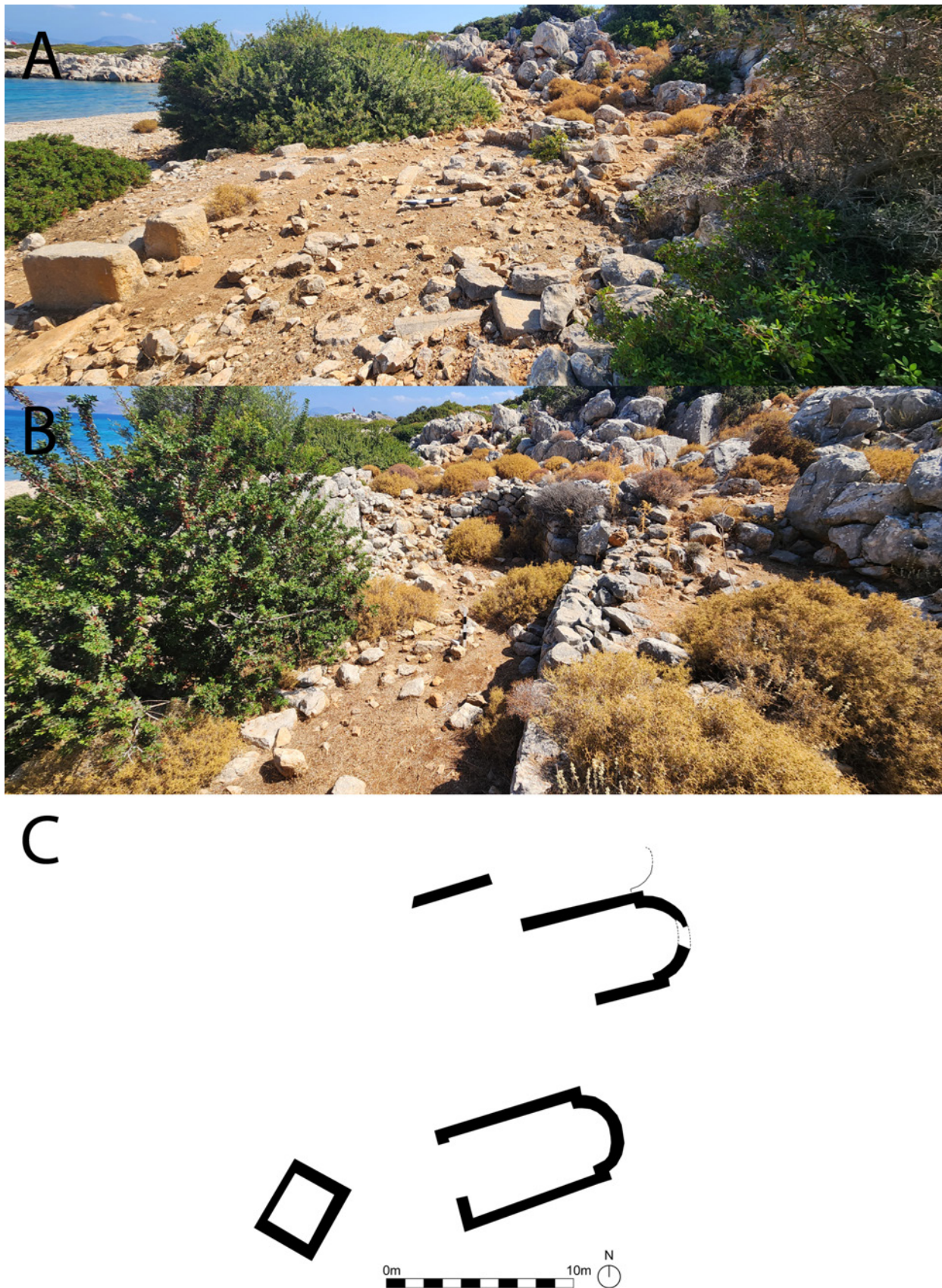


Figure 28. View of the apsidal sections and base walls of structure No. 1 (A) and structure No.2 (B); plan of the complex (C) at Alagelme Bay.



Figure 29. Aerial view of the complex at the entrance of the cove (A) and main church (B) at Gebekse Bay.