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KASTRA

ARCHITECTURE AND CULTURE IN THE AEGEAN ARCHIPELAGO

CONSTANTINE E. MICHAELIDES

KASTRA

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CONTENTS

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ACKNOWLEDGEMENTS p. VII

PROLOGUE p. 1

DOGES, DUKES, KNIGHTS, PASHAS AND PIRATES p. 5

The Duchy of the Archipelago p. 6
The Knights Hospitaller of Saint John p. 14
Tourkokratia, Turkish rule p. 24
Piracy p. 28

THE AEGEAN ARCHIPELAGO

Landscape and Seascape p. 40
Kastra, Typology and Materials p. 50

THE VERNACULAR RESPONSE: COLLECTIVE FORTIFICATION p. 66

Sifnos: Kastro and a Hilltop Monastery p. 69
Astypalaia: The Querini Kastro p. 93
Antiparos: A Rectangular Kastro p. 117
Folegandros: A Triangular Kastro. p. 131
Sikinos: Kastro Transformed p. 145
Naxos: Kastro, The Capital of an Insular State p. 157
Paros: Paroikia Kastro, Naoussa Kastro and an Unexpected Basilica p. 179
Mykonos: Kastro and Panayia Paraportiani p. 205
Syros: Ano Syros and Ermoupolis. p. 223
Santorini: The Island of Five Kastras p. 245
Kimolos: The Last-Built Kastro. p. 273

THE FORMAL RESPONSE: DETACHED FORTIFICATION WALLS p. 284

Rhodes: Fortifications and Sieges p. 286

THE HYBRID RESPONSE: SHARING LESSONS p. 304

Patmos: Monastery and Chora p. 307
Andros: Mesa Kastro, Kato Kastro and Chora p. 327
Tenos: The Last Venetian Island in the Aegean p. 339
Hydra: Kiafa and the Present-Day Town p. 357

EPILOGUE p. 375

GAZETTEER p. 377

ILLUSTRATION CREDITS p. 379

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Stewart and Revett, "The Antiquities of Athens," the Parthenon, 1787



Athens, the east side of the Parthenon today

PROLOGUE

The word "Kastro" derives from the Latin "Castrum," and stands in Greek for "castle," or "fortress." Its plural form is Kastrá. In the Aegean, the term gained use mostly but not exclusively in the Cycladic complex of islands. There, it identified a collective fortification or a fortified place such as the seat of the local Latin lord during the Duchy of the Archipelago years and, by implication, referred to the capital or main town of the island. The term is still in use in a good number of islands including Sifnos and Sikinos, where both the main town and fortification are called Kastro.

The book at hand, "Kastrá: Architecture and Culture in the Aegean Archipelago," is a sequel to "The Aegean Crucible: Tracing Vernacular Architecture in Post-Byzantine Centuries," published in 2004. "The Aegean Crucible" focused on the vernacular architecture of the Aegean archipelago, while "Kastrá" focuses on the collective fortification, a building type vital to survival in the region, during the thirteenth-to-eighteenth-century period. "Kastrá" was also written on the conviction that what we identify today as the vernacular architecture of the Aegean islands emerged from the building of Kastrá, the medieval collective fortifications of the Aegean archipelago.

"Kastrá" is a book about architecture and culture, written by an architect and addressed to the general public rather than to specialists. Observations and "notes" in the form of color slides taken during repeated visits to the region form the basic skeleton of the book which is also enriched by the helicopter-based photographs of Nikos Daniilidis.

Architects and architectural historians argue that architecture expresses the life and culture of the society it serves. "Kastrá" suggests that the reverse argument holds true as well, for life and culture in the medieval Aegean archipelago can be understood through the examination of the Kastro building type. This examination takes place in the broader context of both formal and vernacular architecture.

In describing architecture as either formal or vernacular one can employ the criteria of sponsorship and delivery. Formal architecture finds sponsorship from ruling groups, be they royal, democratic, religious, entrepreneurial, or non-governmental. Royals, elected leaders, princes of the Church, mayors, city councils, boards of trustees, and others have sponsored the Pyramids, the Acropolis of Athens, the French cathedrals, the Eiffel Tower, the St. Louis Gateway Arch, the Seagram building, the Bilbao Guggenheim Museum, and many other buildings of distinction. The formal architecture of monuments is the subject of most, if not all, courses on the history of architecture taught at academic institutions. Formal architecture in most instances is eponymous; that is, the architect's name is affixed to the building, an association that in today's highly commercial world produces "signature" architecture, or architecture inseparable from the celebrity status of the architect.

By contrast, vernacular architecture has no prestigious sponsors. Rarely is vernacular architecture mentioned in academic courses on the history of architecture. Its architects remain by and large anonymous. Vernacular architecture is perhaps better described as "architecture without architects," the term coined for an exhibition assembled at the Museum of Modern Art, New York, by Bernard Rudofsky in the 1960s. More precisely, vernacular architecture can be seen as architecture created without the participation of formally educated, degreed, and licensed architects. More often than not, in the myriad examples of vernacular architecture the world

over, the sponsor and the architect are the same person. More importantly, formal and vernacular architecture often evolve within the same space, mutually informing rather than antagonizing one another.

Supported by the London-based Society of the Dilettanti, two British architects, James Stuart and Nicholas Revett, traveled to Athens in 1751. There, for two years they surveyed and produced measured drawings of the buildings of the Acropolis, which were later published, over a period of several decades, as "The Antiquities of Athens." This four-volume, large-size publication of drawings distinguished by unprecedented exactness of scale and detail set the tone for the Greek Revival movement in Britain and brought the Acropolis and the Parthenon back to the mind's eye of the western world, including the United States where President Thomas Jefferson is known to have owned a copy.

The drawing depicted in this prologue, part of "The Antiquities of Athens," presents both genres of architecture: the formal-eponymous in the illustration of the east elevation of the Parthenon and the vernacular-anonymous in the illustration of the smaller buildings housing the Turkish garrison of the Acropolis citadel during the Stuart and Revett visit. In addition to offering a record of architecture and life for the eighteenth century Acropolis, the drawing provides an instance of cohabitation and mutually supportive architectural relationship between the remnants of the formal and the improvisations of the vernacular. That relationship was shattered when the newly emerged Greek state, with its deep political and ideological commitment to antiquity, moved to demolish the vernacular-anonymous structures in order to privilege the formal-eponymous on the way to the restoration of the Acropolis to its formal glory. A similar shattering of the relationship between the two genres of architecture occurred more than a century later in the Cycladic architectural space when the basilica of Panayia Katapoliani, on the island of Paros, was restored in the image of its Justinian glory by shedding all vernacular additions and interpretations of the preceding centuries.

The "Doges, Dukes, Knights, Pashas and Pirates" chapter reviews the geopolitics of the Aegean archipelago that contributed to the erection of Kastrá and demanded their sustenance. This chapter is divided into four segments. Between the early thirteenth and the mid-sixteenth centuries, the Duchy of the Archipelago, centered in Naxos, and the Knights Hospitaller of Saint John, based in Rhodes, emerged as the political powers whose presence, resources, and activities, both military and commercial, contributed most to the development of, respectively, the vernacular and formal architecture of Kastrá. The story of the arrival of these two groups from different locations of the Mediterranean littoral and their local histories are synopsized in the first two segments of the chapter. The Ottoman conquest in the sixteenth century established Tourkokratia, or Turkish rule, and unified the region politically and commercially. The third segment of the chapter reviews Tourkokratia with particular attention to the "millet" system and the toleration of Aegean island self-government by the "Sublime Porte." Piracy, both Christian and Moslem, which during the centuries following the sack of Constantinople in 1204, emerged as the most potent force dictating daily life and architecture in the archipelago, is the subject of the fourth and last segment of this chapter.

Complementing the geopolitics of the previous chapter, "The Aegean Archipelago" reviews first the landscape and seascape of the region and its distinctive physical environment of visible islands and invisible networks of sea-lanes. A discussion

of the typology and materials utilized in the building of Kastras, including dwellings, churches and chapels, windmills, whitewash and others, comprises, the second half of the chapter.

The next three chapters assemble the Aegean fortifications in three distinct categories, each determined by the architectural response to external threat. “The Vernacular Response: Collective Fortification” is the heading of the first category, which comprises islands where the fortifications were collective and, at the same time, part of the urban fabric of Kastro. Eleven islands (home to sixteen Kastras, with Paros supporting two and Santorini five) are represented in this category, which lists Sifnos Kastro first and Kimolos Kastro last. Indeed, Sifnos Kastro is one of the oldest, if not the oldest, of the fortifications while we know that Kimolos Kastro was the last to be built. The flow of narrative was the primary consideration in determining the order under which the remaining nine Kastras are examined. In addition, however, this order is sensitive to the presumed date of erection of each Kastro.

“The Formal Response: Detached Fortification Walls” is the heading of the second category represented by the city of Rhodes on the homonymous island. Unique in the Aegean region – notwithstanding Crete – the early sixteenth-century walls of the Knights Hospitaller were the last word of the northern Italian art of fortification of the day, and as such were detached from the urban fabric of the city. Financed by the western European resources of the Knights, the walls of Rhodes resisted two Ottoman Turkish sieges of epic dimensions, and are presented here to establish a point of comparison between the fortifications of the knights and those of the duchy.

Four islands are included in the third and last group under the heading: “The Hybrid Response: Sharing Lessons.” Two of the islands, Patmos and Hydra, never were parts of the Duchy of the Archipelago. The building of the formidable redoubt of the Monastery of Saint John the Theologian originated in the formal traditions and practices of Byzantium, while the surrounding Patmos Chora, built later on, borrowed a great deal from the vernacular manners of the Duchy. Kiafa, the original settlement of Hydra, erected after the disappearance of the Duchy from the Aegean geopolitical scene, also borrowed heavily from the vernacular building experience of the region. The unique topography of the peninsular site of Andros Kastro forced the separation of the Marino Dandolo fortified residence, built on formal architecture prototypes, from the vernacular manners prevailing on the rest of the fortified settlement, according to a drawing by Tournefort. Including a citadel at the highest point of the site, and apparently designed by military engineers on formal architecture prototypes, Tenos Kastro boasted all-powerful walls and was physically detached from the vernacular urban fabric it protected. All four islands sustained fortifications that utilized elements deriving from both formal and vernacular sources and thus have defined a separate category of their own.

Chapters on Kastras have been written so that each one can stand alone. Reading them all together, however, allows for commonalities to emerge that tie individual Kastras to a cultural and architectural framework particular to the Aegean archipelago. Kastras protected the citizens of a number of additional Aegean islands like Melos, Ios, Amorgos, and others. However, adequate physical or historical evidence, or both, is not currently available for them to be gainfully included in these pages. To enrich and enhance the understanding of a particular Kastro and its immediate

insular context, some chapters include a discussion of other significant buildings such as Panayia Paraportiani in Mykonos and the Hilltop Monastery in Sifnos.

Bernard Maybeck, a California architect (1862-1957), once said, “Architecture is the handwriting of man.” Like “The Aegean Crucible” the book at hand attempts to decipher the handwriting of the builders of the Aegean Kastras, and, in turn, to illuminate a remarkable cultural and architectural heritage that technology and globalization have now made accessible to all.



The siege of Constantinople by the Crusaders, "Histoires Romaines", French manuscript, , Jean (14th cent.), Liédet, Loyset (1445-1475), Paris, Bibliothèque de l'Arsenal

DOGES, DUKES, KNIGHTS, PASHAS, AND PIRATES

When elephants fight, it is the grass that suffers." This African saying portrays metaphorically and eloquently the sufferings of the native Greek population of the Aegean islands during the long contest for dominance in the area between, on one hand, the Venetian Republic and other Frankish princes and knights and, on the other, the Ottoman Empire.

The islands of the archipelago share a common culture, with origins traceable to Minoan times and before. However, Kastrá, the medieval vernacular collective fortifications we observe today, are best understood in the context of geopolitical developments dating from the beginning of the thirteenth century and, more specifically, the diversion of the Fourth Crusade from Egypt, its original destination, leading to the sacking of Constantinople in 1204. These events inaugurated the decline and disappearance of Byzantine naval and political power from the Aegean Sea, a decline hastened by the creation of the Venetian Duchy of the Archipelago in the Cyclades Islands and the establishment of the Knights Hospitaller of Saint John on Rhodes and in the Dodecanese Islands.

The Turkish conquest of the sixteenth century replaced Latin rule, or "Frangokratia," and ushered in the long period of "Tourkokratia," or Turkish rule, in the Aegean. Politically reunifying the Aegean Sea with both the Greek peninsula and the Asia Minor littorals, Tourkokratia eventually led to the emergence of the Greek state in the 1830s. Frangokratia, Tourkokratia, and national independence together provide the immediate geopolitical and cultural context within which the Kastrá of the archipelago acquired their distinctive forms. The following pages present a brief account of this historical context, with special attention to piracy, an institution that threatened the very existence of the island settlements on several occasions during this more than six-hundred-year-long period.



Vittore Carpaccio, *The Lion of St Mark, 1516*

THE DUCHY OF THE ARCHIPELAGO

Venice emerged from the fall of Rome as a lagoon-based asylum and eventually a city-state. During the early ninth century, a treaty between Charlemagne and the Byzantine Emperor Nicephoros allowed Venice to enjoy all the cultural and commercial advantages of a Byzantine city, without any loss of independence. At about the same time, or so the story goes, Saint Mark was traveling through Italy and chanced to be in the lagoon islands, where an angel appeared and blessed him with the words: “Pax tibi, Marce, evangelista meus. Hic requiescet corpus tuum.” (Peace be unto you, Mark, my evangelist. On this spot your body shall rest.) Soon after, and to help this prophesy come true, two enterprising Venetian merchants returned from Egypt with a stolen corpse, which they claimed to be that of the Evangelist. A special chapel was built for its original reception, to be followed more than two-and-one-half centuries later by the Basilica of Saint Mark, which still stands today, a reminder, for better or for worse, of the special relationship of Venice with the Byzantine east. Enwalled in Aegean Kastras, bas-reliefs of the Lion of Saint Mark, holding a book inscribed with the angel’s greeting, “PAX TIBI MARCE EVANGELISTA MEVS,” remind today’s visitor of past Venetian prestige, glory, and presence in the area.

Never a big city, its sixteenth and seventeenth century population being stable at about 150,000, Venice attained its power and riches by securing trading rights in many of the cities of the Levant. Transporting the products of the East back to the lagoon, Venice became a locus for distributing products from the Orient throughout Western Europe. The ports of Constantinople, the Black Sea, Alexandria, and the coast of Syria determined the trading routes of the “Serenissima Repubblica,” the Most Serene Republic, as Venice called itself. A city of merchants well equipped with war galleys, Venice eventually formed an ever-shifting overseas empire of coastal settlements and islands, including those of the Aegean archipelago, and her possessions, ports, and fortifications dotted her trading routes. In the empire’s glory days during the fifteenth century, a Venetian ship could travel from its owner’s quay all the way to the warehouses of the Levant, without stopping at a foreign port. According to Fernand Braudel, the Dalmatian and Ionian Islands, taken together, thus provided, “a stopping route from Venice to Crete...[as such] islands running along the axis of her power, were Venice’s stationary fleet.”

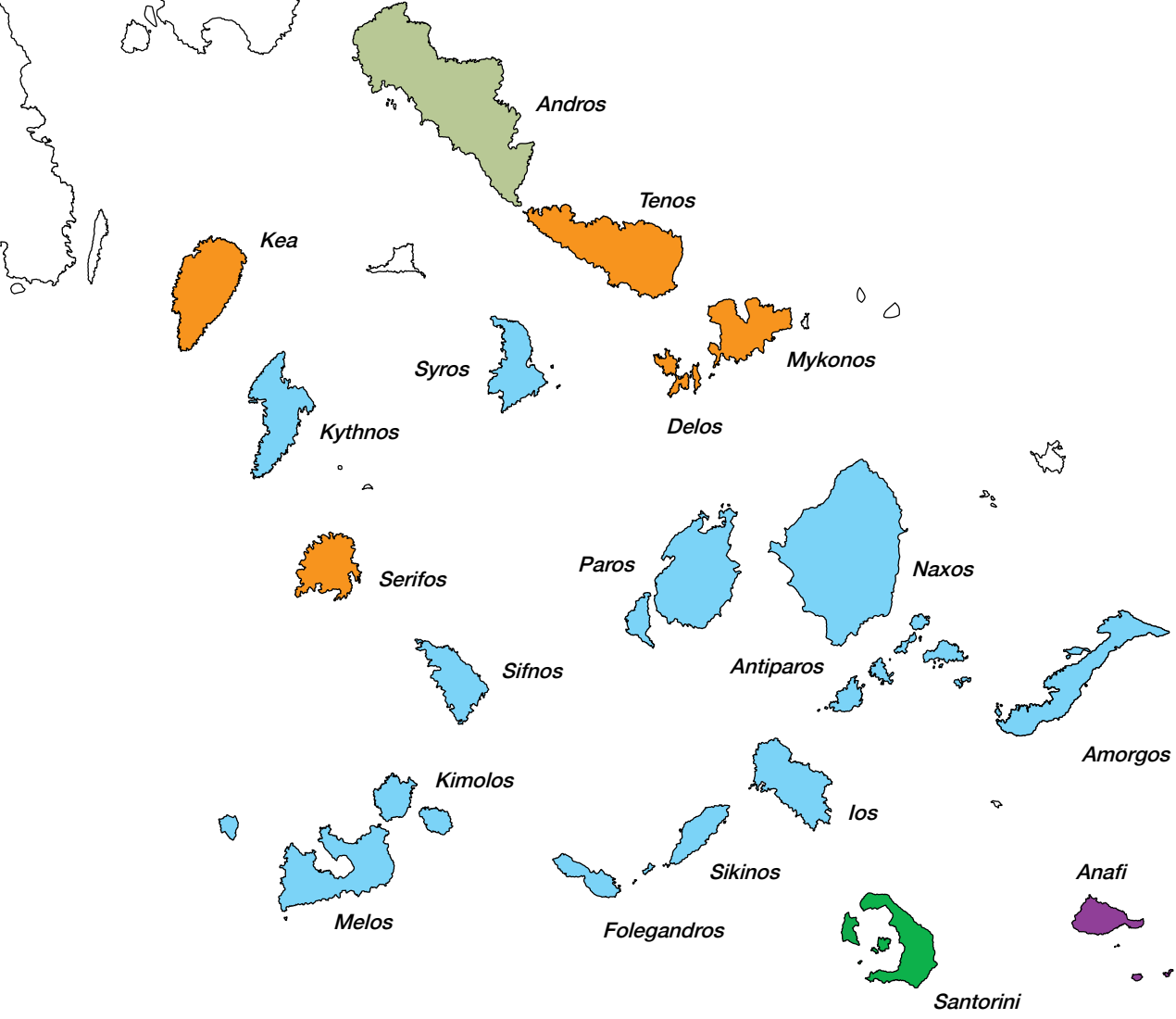
In the summer of 1198, Pope Innocent III declared the Fourth Crusade naming Egypt as its destination. Egypt was the power base of Saladin, a Kurd from what is now Iraq, who had recently reclaimed for the Moslem world most of Palestine from the crusader kingdoms. Only Venice had the knowledge and the naval resources to transport the crusader army to its destination by sea. Agreement was soon reached between the crusaders and the Venetians on the substantial sum of 84,000 silver marks. Yet only a fraction of this amount was available when the crusader force assembled in Venice in October 1202. At this critical moment, Venice’s octogenarian doge, Enrico Dandolo, took over. Using a dynastic crisis in the Byzantine Empire as a Machiavellian pretext, the doge shamelessly suggested Constantinople as the new destination for this predominantly French crusade, attributing the need for diversion to the crusaders’ failure to raise the specified sum of money. Venetian commercial interests, rather than the crusaders’ religious commitments, were to be served by the new destination and task – that is, Constantinople and its pillage.

Accordingly, in the spring of 1204, the crusaders, under the guidance of Dandolo, stormed and looted the city, the capital of the Greek-speaking, Orthodox Christian eastern half of the Roman Empire, thus confirming what the Venetians used to say about themselves: “Prima semo Veneziani e poi Cristiani.” (“We are Venetians first and Christians second.”)

The sack of the great city of Constantinople established Venice as the undisputed mistress of the eastern Mediterranean sea lanes.

Opposite page: Naxos Kastro. Interior path





- 1207, THE DUCHY OF THE ARCHIPELAGO**
- Marco Sanudo
 - Naxos
 - Melos
 - Kimolos
 - Syros
 - Paros
 - Antiparos
 - Sifnos
 - Sikinos
 - Folegandros
 - Ios
 - Therassia
 - Kythnos
 - Amorgos
- 1207, LATIN LORDS LIEGE SUBJECTS TO VENICE**
- Geremia and Andrea Ghisi
 - Tenos
 - Mykonos
 - Delos
- LATIN LORDS LIEGE SUBJECTS TO THE DUCHY**
- Marino Dandolo
 - Andros
 - Leonardo Foscolo
 - Anafi
 - Giovanni Querini
 - Astypalaia
 - Jacopo Barozzo
 - Santorini

Thus, Doge Enrico Dandolo led the Fourth Crusade to Constantinople, a city that according to John Julius Norwich, "had been not just the greatest and wealthiest metropolis in the world, but also the most cultivated both intellectually and artistically and the chief repository of Europe's classical heritage, both Greek and Roman." Dandolo also presided over the division of the Byzantine Empire into many petty feudal kingdoms, the continuous rivalries amongst which brought about a state of anarchy that lasted until the sixteenth century when the Ottoman Turks ruthlessly imposed their rule over the region. Long-term policy, statecraft, and the art of governing an empire were beyond the crusader nobility's expertise. Only the Venetians could match the political experience and sophistication of the Byzantines. To the Venetians, the crusaders were innocent children to be manipulated, and Venice benefited enormously from their naivete, gaining the most in land and commercial privilege and retaining it the longest. Indeed, Dandolo's political intuition led him to recognize that the resources of the Venetian Republic were limited in contrast to the burden of managing the captured territories; therefore, retaining Crete, he parceled out the Aegean islands to Venetian citizens to run as personal fiefs, saving Venice the administrative and defense costs of direct rule.

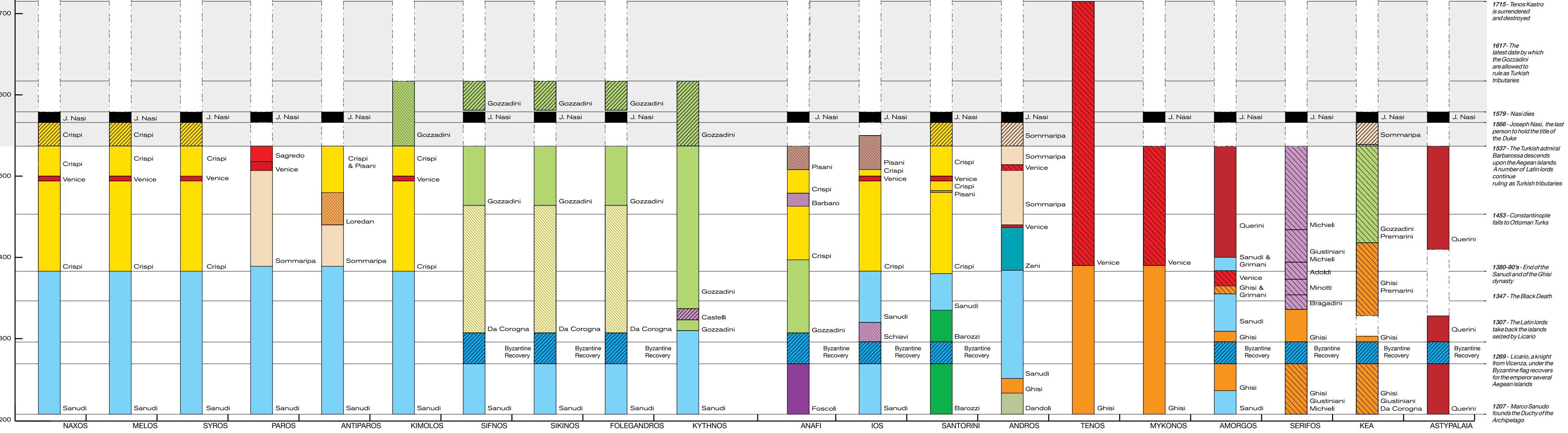
The fate of seventeen Aegean islands thus fell into the hands of Venetian overlords, remaining there for the next three hundred and fifty years. But the sack of Constantinople was not totally due to Dandolo's manipulations; it was also the consequence of a religious rift and the atmosphere of mistrust and enmity that had been escalating for centuries between the western and eastern halves of the Roman Empire. This enmity, heightened by the events of 1204, influenced the relationships between overlord and subject when parts of the Byzantine Empire, including the Aegean islands, came under the rule of "the accursed Latins."

In 1205, the year after the capture of Constantinople, Dandolo died. His successor, Doge Pietro Ziani, offered the Cycladic islands to "qualified" individuals. Thus, enterprising younger sons of leading Venetian families – prepared to risk life and fortune and able to amass enough men and ships – were encouraged to take an island or two to hold as a fief. Such entrepreneurs were not required to acknowledge Venetian sovereignty. They were expected, however, to remain loyal to the mother city and to her commercial ventures. Marco Sanudo, who had served his uncle, the Doge Dandolo, in the expedition against

Constantinople, possessed just such qualifications and was the first to muster a company of like-minded adventurers and equip a flotilla of galleys. He then crossed the Dardanelles and, beginning with Naxos, captured a number of the Cyclades Islands, declaring himself the Duke of the Archipelago. The Greek population of the undefended islands offered no resistance. Indeed, fighting occurred only at Naxos, against an occupying band of Genoese, the perennial antagonists and maritime rivals of the Venetians in the region. Naxos, the largest and most fertile of the Cyclades, provided the seat for the capital of the new duchy. In a shrewd political move, Sanudo offered his homage to Henri, the Latin Emperor of Constantinople. As a reward Henri confirmed Sanudo's title and the implicit abandonment of his duchy's formal allegiance to Venice.

In addition to Naxos, Sanudo kept for himself the islands of Amorgos, Ios, Kythnos, Melos, Paros, Sifnos, Sikinos, and Syros. Other Aegean islands went as sub-fiefs to his comrades, thereby beginning the association of some of the most celebrated Venetian family names with the Cyclades: a Dandolo with Andros, a Querini with Astypalaia, a Barozzi with Santorini, a Foscolo with Anafi, and a Gustiniani with Serifos. The Ghisi brothers took Tenos and Mykonos from the Cyclades, as well as Skyros, Skiathos, and Skopelos in the northern Aegean. Beyond the Cyclades, Kythera, one of the mythological birthplaces of Aphrodite, went to Marco Venier, who, as his family name indicated ("Venier" from Venus, Latin for Aphrodite), claimed descent from the goddess.

ISLANDS AND LOCAL LATIN LORDS, 1207-1617



| | | |
|---|---|---|
|  BAROZZI Santorini (1207-1269) Liege subject to the Duchy |  GHISI Tenos, Mykonos, Delos and Amorgos (1207-1390), of Andros (1233-1251), Kea (1296-1390), Serifos (1207-1336), Andros (1233-1251) Skiathos, Skopelos and Skyros (1207-1269) Liege subject to Venice |  QUERINI Astypalaia (1207-1537), Amorgos (1400-1537) |
|  CRISPI Dukes of the Archipelago (1383-1537), (1537-1566 as Turkish tributaries) |  GIUSTINIANI Serifos (1207-1412), Kea (1296-1303) Liege subject to Venice |  SAGREDO Paros (1531-1537) Liege subject to Venice |
|  Da COROGNA Sifnos, Sikinos and Folegandros (1307-1463) |  GOZZADINI Sifnos, Sikinos and Folegandros (1464-1617), Kythnos and Kimolos (1537-1617) as Turkish tributaries, Kea (14018-1500) Liege subject to the Duchy |  SANUDI Dukes of the Archipelago (1207-1383) |
|  DALLE CARCERI Duke of the Archipelago (1371-1383) |  LOREDAN Antiparos (1440-1480) Liege subject to Venice |  SOMMARIPA Paros (1389-1507), Antiparos (1389-1440) and Andros (1440-1566) Liege subject to the Duchy |
|  DANDOLI Andros (1207-1233) Liege subject to the Duchy |  PISANI Santorini (1480-1482), Anafi (1508-1537), Ios (1508-1550), Liege subject to the Duchy |  VENIER Paros (1518-1537) Liege subject to Venice |
|  FOSCOLI Anafi (1207-1269) Liege subject to the Duchy |  ZENI Andros (1411-1418) Liege subject to Venice | |



Naxos Kastro. Interior path



Antiparos Kastro. Exterior walls



Sifnos Kastro. Interior path



Ano Syros. Interior path

Given the thirteenth-century conditions from which the Duchy of the Archipelago emerged, the principal town and seat of the feudal ruler of each island had to be fortified. The Kastro in Sifnos is one of the earliest such examples of collective fortification surviving nearly intact and still inhabited today, as are fortifications of slightly later provenance like the Kastro of Antiparos, Astypalaia, Folegandros, and Sikinos.

The adventurous, seafaring lifestyle of Marco Sanudo and his comrades was supported by the geography of the Cycladic islands and the limited resources and relatively small size of the duchy. Sanudo and his Venetian aristocrats straddled the thin line separating legal behavior from piracy, promoting their stature and expanding their holdings at any opportunity. Such an occasion for aggrandizement presented itself in 1212 when the Venetian governor of newly acquired Crete was faced with a powerful native Greek insurrection, one of many to follow in the island during the years of Frangokratia and Tourkokratia.

Sanudo sailed to his aid, allying himself with both sides and hoping to acquire the island as a reward for his willingness to take risks in the power struggle within the Venetian nobility. At first he seemed to be succeeding, but when reinforcements from Venice arrived, it became apparent that he had bitten off more than he could chew. A truce was arranged which allowed Sanudo to withdraw to his duchy without penalty for his disloyalty to the mother city. The Venetian magnanimity towards Sanudo in this instance illustrates the willingness of the Serenissima to tolerate a measure of misbehavior from the Duke of the Archipelago, or the "prime duke of Christendom," as he was otherwise known, so that the mother city could continue its strategy of avoiding the absorption of the Aegean islands into her already over-extended insular empire.

Failure in Crete did not discourage Sanudo from another try. The following year, with only eight ships under his command, he seized the port city of Smyrna on the coast of Asia Mi-

nor, part of the realm of Theodore Laskaris, the Byzantine emperor of Nicaea. The strategy behind this aggressive act is unclear, but again, it misfired. The much stronger Nicaean forces counterattacked, recaptured Smyrna, and took Sanudo prisoner.

In his eloquent book "Medieval Greece," Nicolas Cheetham describes the surprising resolution of Sanudo's unprovoked and failed aggression: "From his predicament he was saved by his luck and charm, for Theodore found his personal qualities so attractive that he set him free and gave him his sister in marriage, an outcome which enhanced his prestige with his Greek islanders and even with his Latin overlord.... Marco was the first of the great Latin magnates of Greece to take a Greek bride."

By taking a Greek bride, Sanudo set a pattern of intermarriage between Latins and Greeks that over the centuries led the Venetian overlord families to be Hellenized and assimilated into the much larger Greek population of the islands; indeed, family names of Venetian origin can easily be found today in the telephone directory of the Aegean islands. Allied by marriage with an Orthodox imperial family, Sanudo also bought peace with his Greek subjects by allowing the Greek Orthodox Church to function undisturbed. However, he also brought the Roman Catholic Church into the duchy to attend to the religious needs of the increasing numbers of Venetians gravitating to the Aegean in search of a promising future. The existence of these parallel religious institutions may explain the numerous double-nave, single-chapel buildings seen on many of the Cycladic islands.

From the fragments of the Byzantine Empire, Sanudo created a new, insular state that would outlive all others in the region, surviving continuous internal and external conflict for a remarkable 359 years, until the sixteenth-century imposition of Ottoman rule. The annals of the Duchy of the Archipelago are filled with the continuous struggle of its nobility for land and power. Islands passed from one family to another by marriage, inheritance, dynastic in-



Naxos Kastro

trigue, oft-disputed succession, and, occasionally, war. Fortified against pirates, the island citadels were often besieged by the minuscule army of a neighboring island. Competition between island lords was so fierce that open warfare could erupt over even minor incidents.

In a 1286 episode, outlined in greater detail in the "Syros, Ano Syros and Ermoupolis" segment of this book, corsairs carried off a valuable donkey belonging to a Ghizi of Tenos and sold it to one of the Sanudo family of Syros. The prized donkey was clearly stolen goods and provoked an invasion and siege of Syros by the Ghizi. Venetian arbitration eventually reconciled the feuding families and restored peace in the duchy. Apparently, there were no casualties, so perhaps the vernacular collective fortifications of the Aegean Kastro were effective in keeping the small forces of opposing island clans at a safe distance from one another.

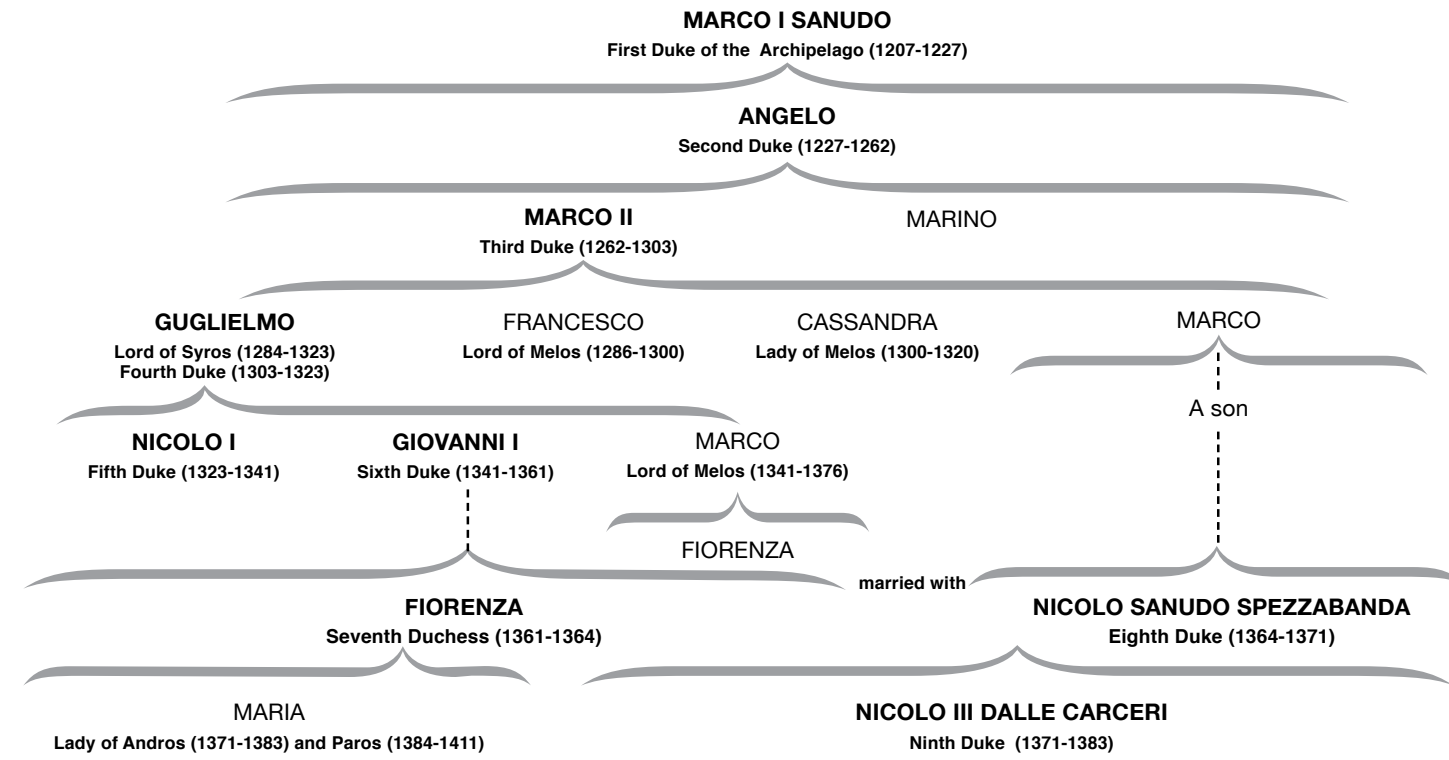
Sanudo, his comrades, and their successors over the long life of the duchy derived their livelihood and wealth primarily from the sea. Making the most of the islands' strategic locations within the shipping lanes of the Aegean archipelago, the Latin lords advanced their own commercial enterprises and simultaneously preyed upon the commerce of others.

Practicing a form of piracy acceptable at the time, they intercepted and exacted levies from passing merchant ships, a practice that enhanced their wealth and confirmed their importance as the gatekeepers of the Aegean sea lanes. Such easy pickings also attracted the attention and rapacity of Catalan, Genoese, and Turkish pirates, who raided the islands repeatedly and carried away treasure and thousands of islanders to captivity.

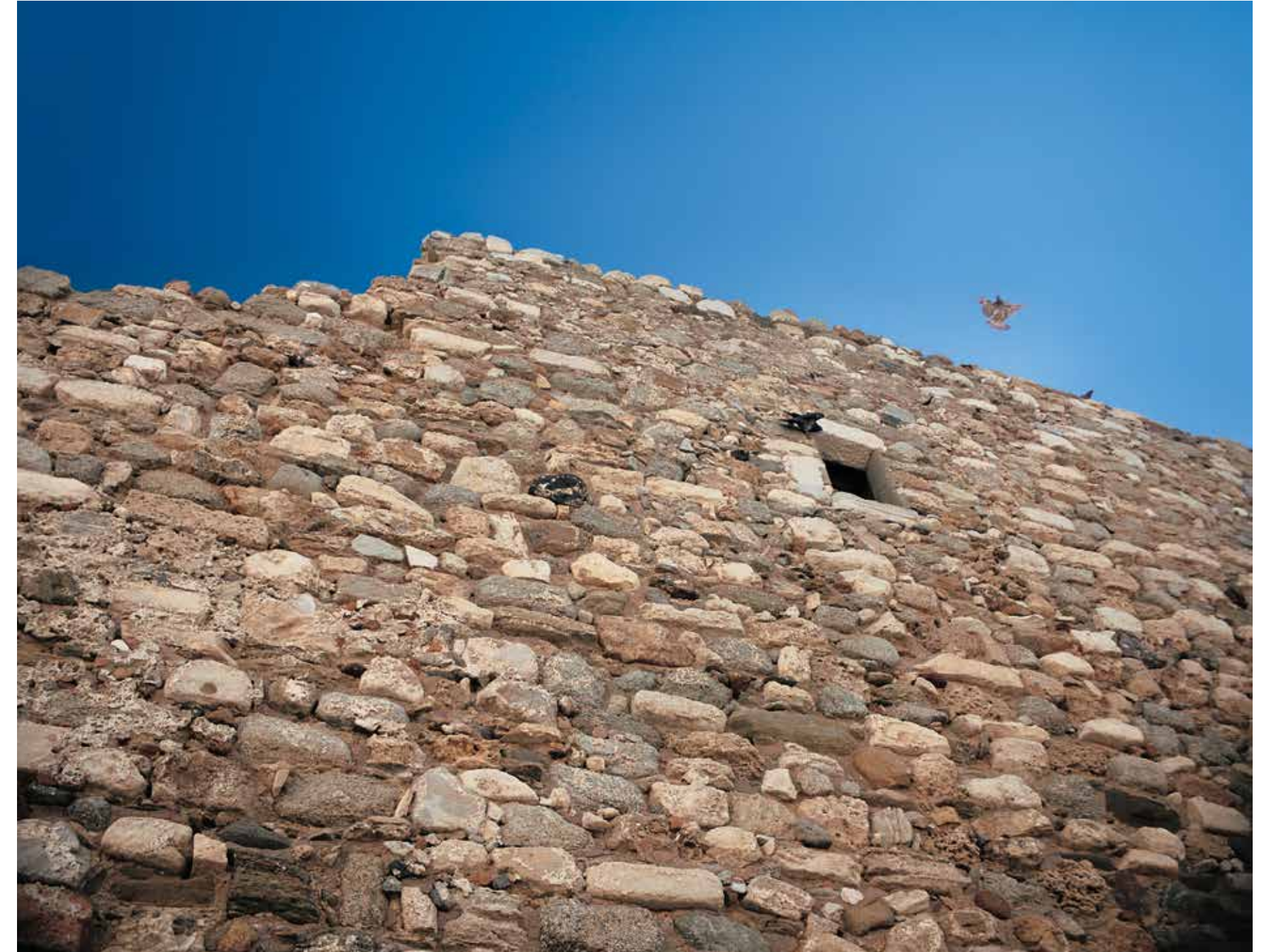
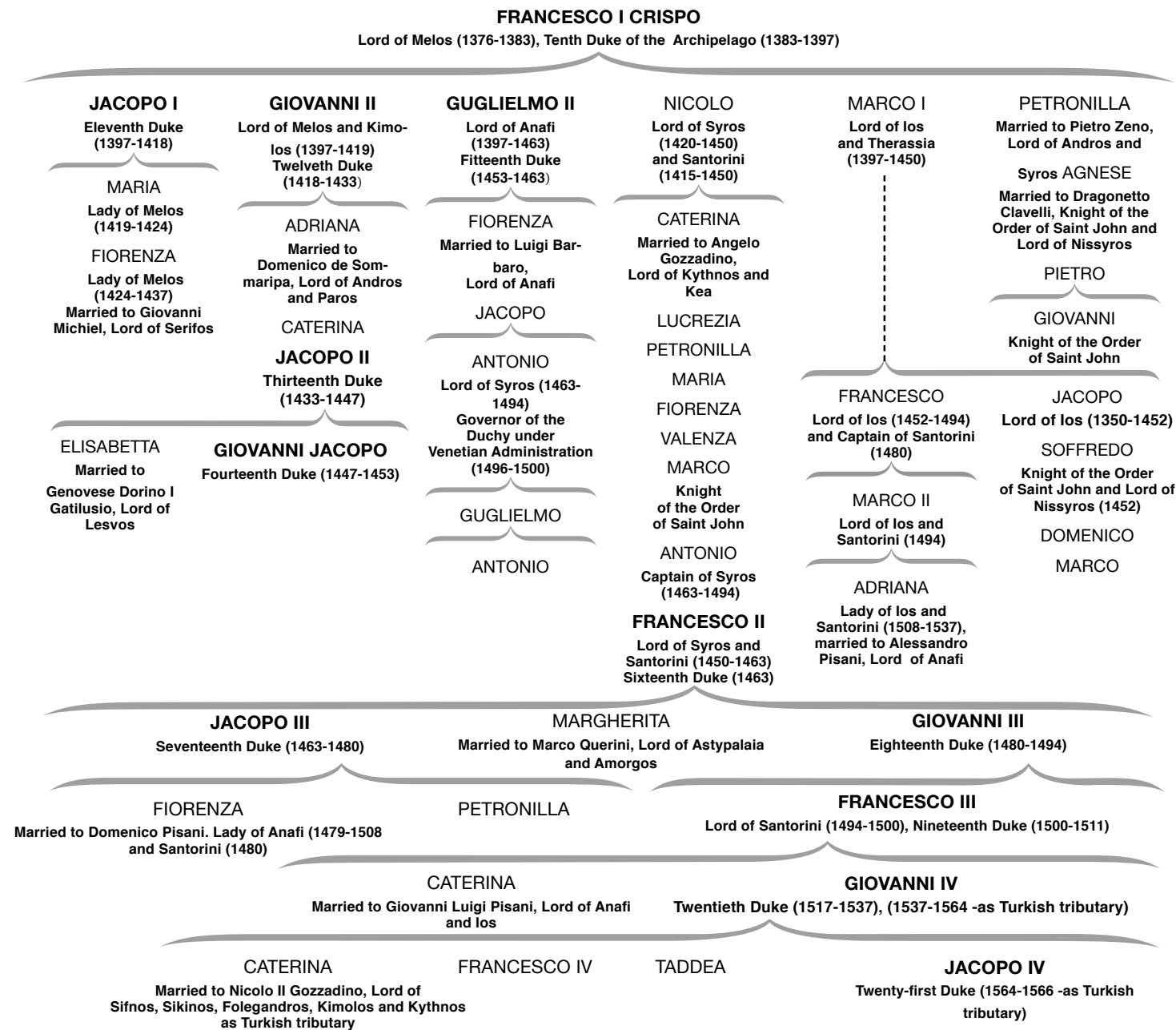
Since the war galleys used by the Mediterranean navies needed oarsmen, captive Aegean islanders provided much of this badly needed labor, and as a result, a number of the islands became completely depopulated.

To appreciate the magnitude of the problem one needs to remember that, in 1571, the all-important naval battle of Lepanto (the modern Greek Nafpakto) was the last major Mediterranean engagement to be fought with hundreds of oared galleys on each side. Some islands were recolonized, with provisions made for the security of the new inhabitants and cultivators. The building of the Antiparos Kastro between 1440 and 1446 provides a recorded example of recolonization of an island, the Kastro itself being erected to protect the new inhabitants who by their work were to enhance the value of the Antiparos fief.

SANUDI FAMILY



CRISPI FAMILY

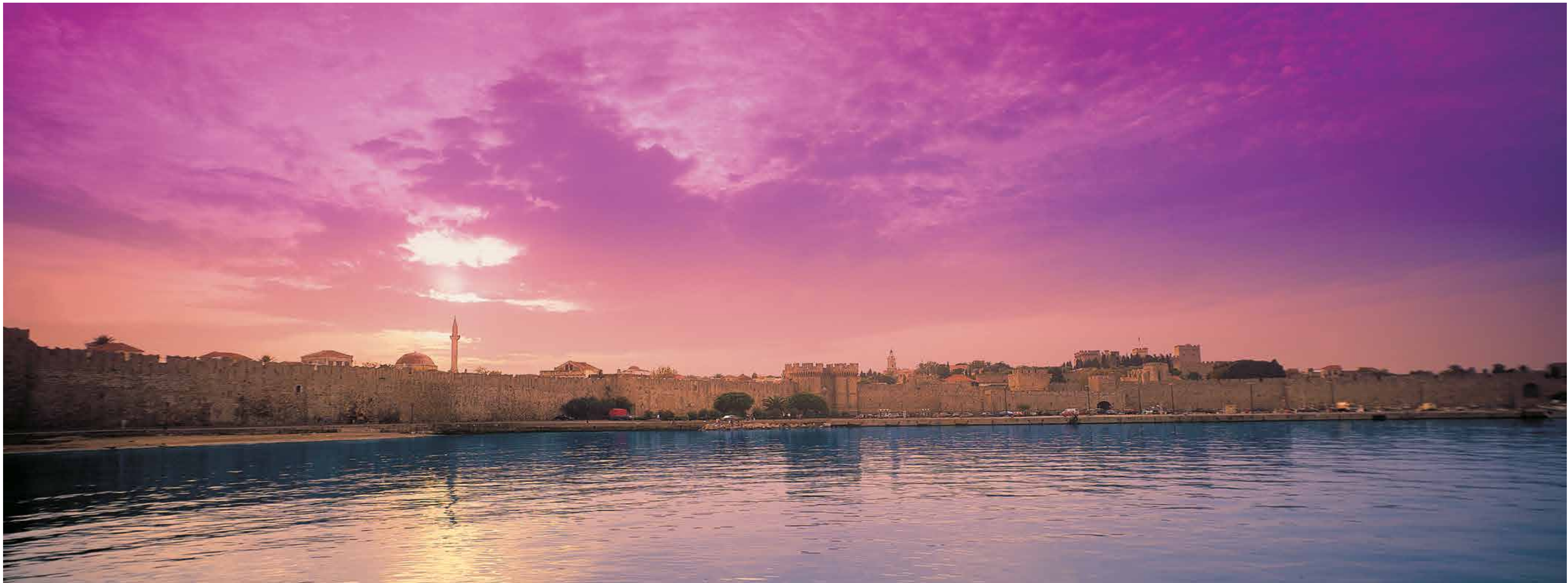


Remnants of the central defense tower of Naxos Kastro (see page 169)

Insecurity made life nearly intolerable on the islands. In the 1480s matters came to a climax under the rule of Duke Giovanni III. By this time the Ottoman Turks had established themselves on both sides of the Aegean littoral, forcing the duke to purchase his independence by paying “baksheesh,” or a gratuity, to the sultan. This payment became an excuse for the duke to impose even heavier taxes on his own people, taxes that he apparently pocketed without providing the much-needed protection in return. In 1494 a mild revolt led by the Archbishop of Naxos got out of hand, ending in the assassination of the despised duke. The people of Naxos then persuaded Venice to take over the administration of the duchy, which the Venetians returned to the late duke’s son when he came of age.

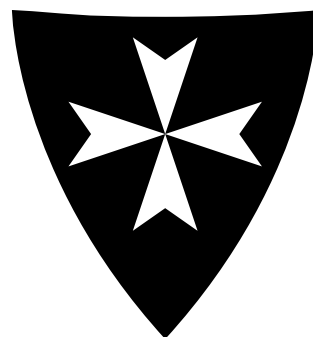
During the reign of Suleyman the Magnificent, the Ottoman Turks emerged as a maritime power of the first order, challenging Charles V of Spain for supremacy in the Mediterranean. During the Venetian-Turkish war of 1537-40, the Ottoman admiral, Kheireddin Barbarossa, brought fire and sword to the islands. To this day, the magnitude of his cruelty is remembered in the folklore of the Aegean. Expelling the barons of most of the islands, including those of Astypalaia and Antiparos, Barbarossa sacked and depopulated Paros, laid siege to Naxos, and compelled the duke to surrender and pay an annual tribute of 5000 ducats. John Julius Norwich, in his erudite “Middle Sea,” states that Barbarossa was the son of a retired Greek-born janissary and his wife, who was formerly the widow of a Greek priest, and as a result “he possessed not a drop of Turkish, Arab or Berber blood,” a point which illuminates the thin and confused lines defining religious and national loyalties of the era.

The treaty of 1540, which ended the war, did not return any of the islands to their previously independent lords, but when Giacomo IV succeeded his father as duke in 1564 the islanders of Naxos petitioned the sultan to replace their local ruler, “a notorious debauchee.” Although it is not known whom the islanders would have preferred, they were apparently surprised when the new sultan, Selim II, appointed as duke Joseph Nasi, a Portuguese-Jewish banker who had served Selim well as his financial and political manager. Nasi remained in Constantinople and never visited his ducal domain, sending Francesco Coronello as his representative on Naxos. When Nasi died in 1579, the duchy disappeared as a political entity and was replaced by direct rule from the Sublime Porte, the Ottoman government. Having successfully resisted the onslaught of Barbarossa in the 1530s, Tenos remained the last Venetian outpost and observation point in the Aegean archipelago until 1715.



Rhodes. The commercial port and medieval fortifications. The twin towers of the Sea Gate appear at the center of this panoramic photograph looking southwest, while the Palace of the Grand Masters is on the right.

THE KNIGHTS HOSPITALLER OF SAINT JOHN



While Dandolo and his associates from the Fourth Crusade were busy carving up Byzantine territory in Greece and the Aegean, the Kingdom of Jerusalem in the Holy Land continued to fight for survival. At the end of the thirteenth century, this battle ended in the loss of Jerusalem and the expulsion of the crusaders from the Levant. Among those expelled were the Knights Hospitaller of Saint John, who retreated to the Latin kingdom of Cyprus, where the Order had estates and properties. For the next twenty years, the brethren would rethink their mission and plan the future of their Order.

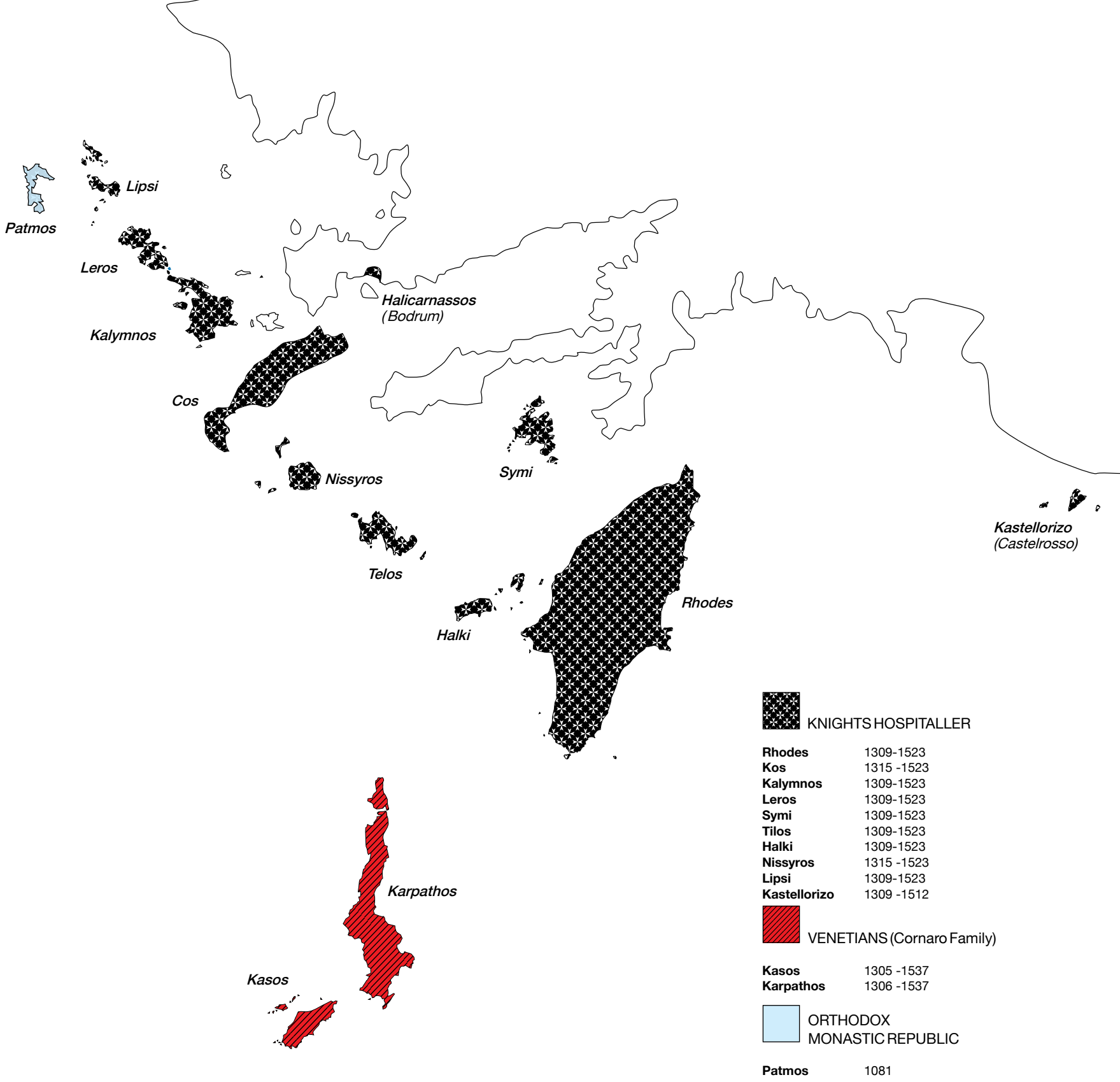
Still in existence today, the Sovereign Military and Hospitaller Order of Saint John of Jerusalem, Rhodes, and Malta is the only institution remaining from the era of the crusades. The Order was first formed in the Holy Land and later spent more than 200 years in Rhodes (1309-1522) and nearly 260 in Malta (1530-1798), playing an impressive role in Aegean geopolitics despite its small size, whether from the proximity of Rhodes or later, from the distance of Malta. The sovereignty, however, dates from the conquest of Rhodes in 1309, making the Order one of the oldest sovereign states in Europe.

The trade routes to the eastern Mediterranean ports established by the Italian cities in the eleventh century opened the door for Western Europeans eager to make pilgrimages to the Holy Land. A certain Brother Gerard emerges from the obscure early history of these medieval pilgrimages as the founder of a hospice devoted to providing food and shelter to pilgrims. Dedicated to Saint John, Brother Gerard's hospice was well established when the crusaders conquered Jerusalem in July 1099.

The tradition of Greek medicine that had survived in the area for centuries became of great value to the brethren in their treatment of the sick. Beginning in the early twelfth century, the mission of the Order of Saint John expanded to include military protection for pilgrims as they traveled the road from the coast to Jerusalem. This

military function of the Order took on a grand symbolic resonance: the Knights Hospitaller acquired the label "soldiers of Christ" to go with "servants of the poor." They were assigned to garrison castles, including, by 1142, the awesome Crac des Chevaliers, described as "the greatest and strongest of the castles of the Hospitallers" and "a bone stuck in the throat of the Saracens."

By the time of the fall of Acre, their last stronghold in the Holy Land, and their retreat to Cyprus in 1291, the Hospitallers had established the military reputation of their crusading Order. More important for their future in the Mediterranean, however, was that they also had secure revenue-producing bases and lands in Europe, whatever disasters might befall them in the East. This particular strength was to preserve the Order of Saint John during the challenging centuries that followed.



Their years in Cyprus allowed the knights to rebuild their ranks after the massive bloodletting in Acre, which had resulted in only seven of them escaping alive. Their new island location occasioned a major shift in their war-making strategy, transforming the knights from a land-fighting force to a sea-fighting one, a change that was to characterize their war against the Moslems for the next several hundred years.

Their lot was not always easy in Cyprus. The Knights Hospitaller were uneasy “guests” of the Latin King, Henry. Securing a territory of their own remained a major goal, and, naturally, the knights and their master, Foulques de Villaret, looked to the Aegean, where other Latins – Venetians, Genoese, Catalans, and so on – had recently made significant conquests. In 1306, securing papal approval and wishing to exploit Byzantine weakness, the knights joined Vignolo dei Vignoli, a Genoese adventurer to begin a combined assault on Rhodes. Three years later the city of Rhodes opened its gates to them; by the end of 1310, the Knights Hospitaller controlled the island.

After the conquest of Rhodes the pope conferred on the Order of Saint John independent sovereign status with an obligation to serve the Holy Father, a very important advance over the knights former ecclesiastical and military duties in the Holy Land. With the papacy as its spiritual overlord, the religious republic of the knights owed no other political loyalty in the modern sense.

However, throughout the existence of the Order the involvement of the pope in the temporal affairs of the knights required very careful diplomatic handling. Exploiting the advantages of the location, relatively large size, and fertility of Rhodes, Foulques de Villaret’s administration improved the structure of the Order. In addition, he ensured its future by building a formidable fortress-city, a base that helped to transform the Knights Hospitaller into the master seamen of the eastern Mediterranean.

The knights’ lifestyle in Rhodes was the culmination of a long trajectory of change and improvement in the Order. In Acre all the knights had lived together in a sizable auberge, a large lodging house commanded by an officer. But in Cyprus, with no such facility available, groups of brethren lodged together in smaller residences according to their various nationalities, a practice formalized in the Tongue (or Langue) structure that governed military and communal life in the Order. By the time the knights established themselves in Rhodes, they were already organized into seven Tongues, which were, in order of precedence, Provence, Auvergne, France, Spain, Italy, England, and Germany. The head of a Tongue was its Piliier (or Pillar). Specific responsibilities were also reserved for the Piliier of each particular Tongue. The Piliier of England, for example, was also the “Turcopilier”: that is, the commander of the light cavalry. The title might have originated from the Greek “Turcopoulo” suggesting that the light cavalry consisted of young Moslem recruits.

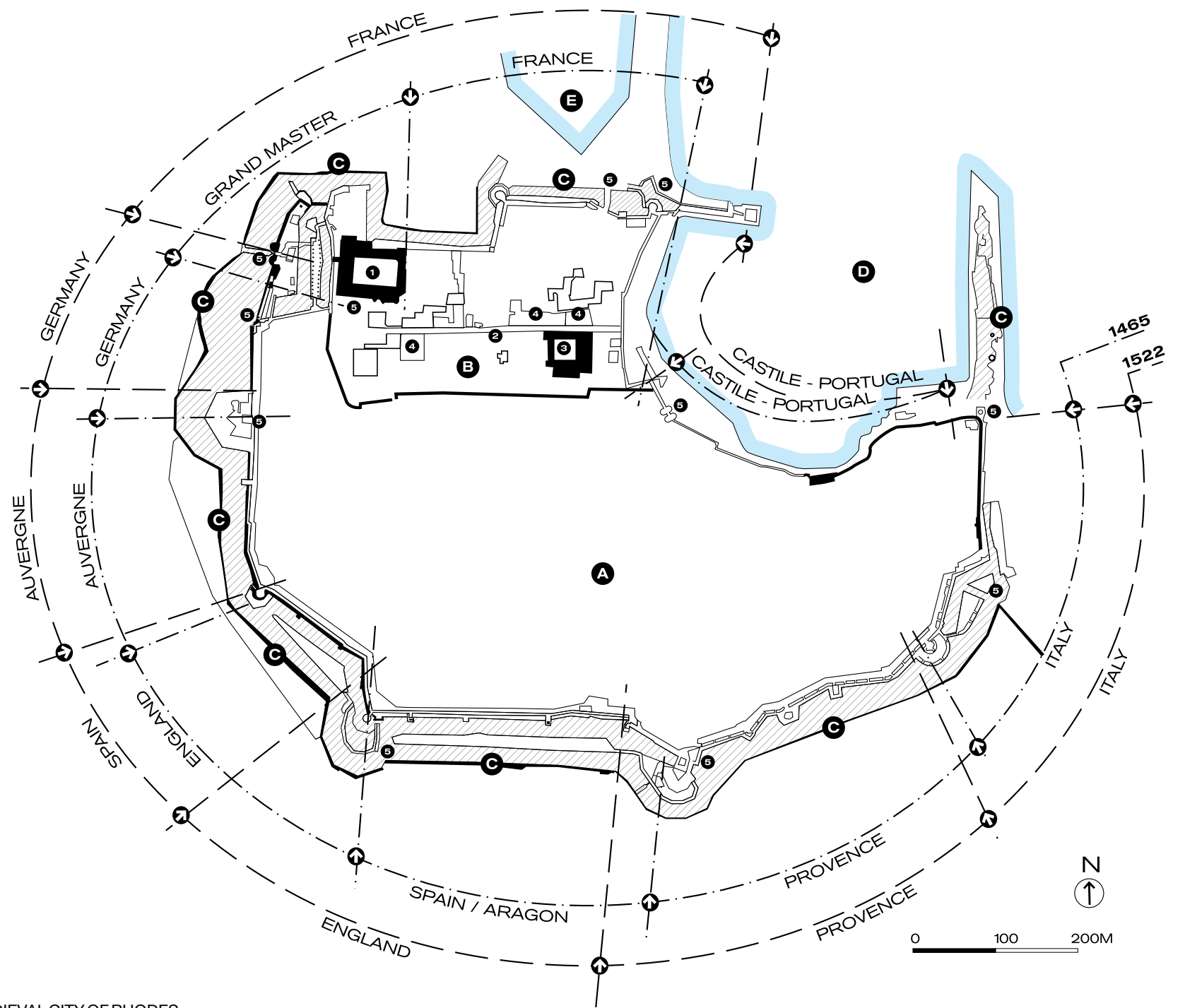
The island of Rhodes. Helicopter-based photograph of the ancient Acropolis, the medieval fortifications, and the present-day town of Lindos. Located on the east coast of the island, the medieval fortifications of Lindos, together with other strongholds on the island and on a number of other islands of the Dodecanese, served as the outer defenses of the city of Rhodes.



Rhodes. This helicopter-based photograph captures the special features of the site on the northern tip of the island on which cities were consecutively built during the fifth century B.C., the Middle Ages, and contemporary times. The farthest north point of the island is at the top, while the modern city appears at the bottom of the illustration.



Kos. Expanded by the Knights Hospitaller, the fortification illustrated above controlled the principal port of the island of Kos (known to the Knights as Lango) and served as the Order's main military stronghold after Rhodes.

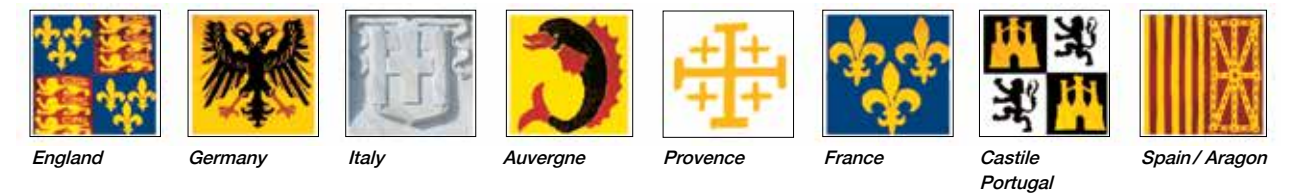


THE MEDIEVAL CITY OF RHODES

- A. City
- B. Collachium
- C. Fortifications
- D. Commercial harbor
- E. Mandraki harbor

- 1. Grand Master's Palace
- 2. Street of the Knights
- 3. Hospital
- 4. Private Knight Residences
- 5. Gates

TONGUES AND FLAGS



Each Tongue maintained an inn, where members dined under their Pillar and offered hospitality to eminent visitors from abroad. Performing their military watches at the walls and gates and turns of duty in the Hospital, knights in the city of Rhodes lived in twos and threes in private houses in the Collachium or Collachio (convent proper), most of which were located off the present-day Street of the Knights. The Tongue structure was reflected in the primary responsibility of the Order: the defense of the walls of the city of Rhodes. Each of the seven Tongues was assigned to guard a particular segment of the fortifications, as indicated on the diagram, covering the years from 1465 to 1522.

The Order, or the "Holy Religion" as the knights liked to call it, was divided into classes – knights, chaplains, and sergeants – supporting an aristocratic, religious republic and reflecting the general division of Western European society from which the Order derived. Authority was concentrated in the hands of the knights, the sons of the great houses of Eu-

rope, who filled all major military and administrative offices, including that of the magnus magister or grand master, the prince of this sovereign state. The grand master ruled with the consent of a council and the whole Order. Characteristically, L'Isle Adam consulted the council before the surrender of Rhodes at the end of the second siege in 1522.

The knights' connections to the Roman Catholic Church and to the baronial families of Western Europe, whose extensive possessions produced men and revenues along with religious and political support, sustained the Order in Rhodes and, later, in Malta. The total number of knights throughout their over two-hundred-year residency in Rhodes remained small. Reliable sources indicate the presence of eighty knights in the early fourteenth century and a maximum of 551 in 1513 when the Order was actively preparing to face its final, and successful, assault by the Ottoman Turks.



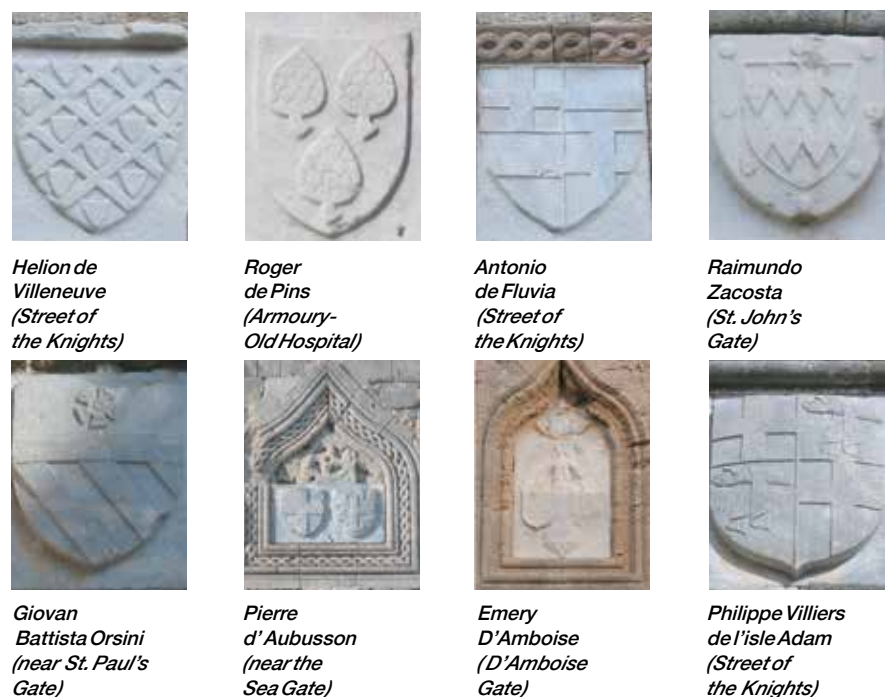
Foulques de Villaret, the first Grand Master of Rhodes (Italian portrait of the 1930s).



Kalymnos. Pera Kastro, a gigantic rock and natural fortress in the middle of the largest and most productive valley of Kalymnos, literally invited the building of a Knight Hospitaller fortification as part of the outer defenses of the city of Rhodes. The detached external walls of the medieval fortification still stand, while the enclosed town has moved to Chorio below, a development to be echoed later on in neighboring Astypalaia. Eleven chapels among the ruins are still cared for by the original owners' descendants who reside in Chorio. The single-nave, barrel-vaulted chapels were completely whitewashed in the 1970s photograph of Pera Kastro, taken from below, while their barrel vaults are painted a tile-red color in the 2005 helicopter-based photograph on the right.



| GRAND MASTERS OF RHODES | | |
|-------------------------|----------------------------------|------------------|
| 1305 | Foulques de Villaret | Greater Provence |
| 1319 | Helion de Villeneuve | Lesser Provence |
| 1346 | Dieudonné de Gozon | Greater Provence |
| 1353 | Pierre de Corneillan | Lesser Provence |
| 1355 | Roger de Pins | Greater Provence |
| 1365 | Raymond Berenger | Lesser Provence |
| 1374 | Robert de Juilly | France |
| 1377 | Juan Fernandez de Heredia | Spain (Aragon) |
| 1383 | Riccardo Caracciolo | Italy |
| 1396 | Philibert de Naillac | Auvergne |
| 1421 | Antonio de Fluvia | Spain (Aragon) |
| 1437 | Jean de Lastic | Auvergne |
| 1454 | Jacques de Milly | Auvergne |
| 1461 | Raimundo Zacosta | Spain (Aragon) |
| 1467 | Giovan Battista Orsini | Italy |
| 1476 | Pierre d' Aubusson | Auvergne |
| 1503 | Emery d'Amboise dit Claumont | France |
| 1503 | Guy de Blanchefort | Auvergne |
| 1513 | Fabrizio del Carretto | Italy |
| 1521 | Philippe Villiers de l'Isle Adam | France |



Coats of arms of Grand Masters enwalled on the streets of Rhodes with approximate location noted.

These figures are surprisingly low considering the major role the Order played in eastern Mediterranean geopolitics. This major role, however, would not have been possible without the extensive religious, political, and economic support that Latin Europe provided the knights during their Rhodes residency.

Protected by his body armor the individual knight came into his own in hand-to-hand fighting, which occurred for example, during the breaching of the walls in Rhodes. There the knight stood like a one-man panzer handling his favorite battle weapon, the two-handed sword with its crushing double edge. Bowmen and harquebusiers supported the knight by firing from his sides against the advancing enemy. Full armor was apparently not worn on shipboard, where a breastplate and helmet allowed greater freedom of movement.

The fortified city and the island of Rhodes, together with the ring of smaller islands and castles around them, served as the base for the military operations of the knights against their Moslem enemies.

The "Rhodes: Fortifications and Sieges" chapter in this volume presents the well-recorded sieges of 1480 and 1522, highlighting the detached fortifications of the city during the most critical times of the Knights Hospitaller's long presence in Rhodes and the vicinity.

Not as well known is the presence of the knights in the Greek peninsula as extensive fief holders in the Morea (Peloponnesos), or as the owners of the castle of Sycaminon near Oropos, facing the channel of Euboea from the mainland. In league with the Venetians, the knights raided the coast of Kavalla on the north shore of the Aegean, an inviting location for piracy, as the important caravan route from Constantinople to Morea ran along the coast.

Around 1350, the knights, together with Greek and Venetian forces, caught a raiding Turkish fleet off Megara unprepared and burned thirty-five of its galleys. Juan Fernandez de Heredia of Aragon (1377-96), one of the preeminent grand masters of the knights, undertook operations in western Greece where, landing to claim territory for the Order, he was ambushed and taken prisoner by John Boua Spata, a minor Albanian prince. A large ransom was demanded for his release, which was settled at the end of a year's captivity, when he arrived to take over his position as grand master in Rhodes. These and many other recorded incidents confirm the knights' involvement in political affairs and military operations beyond the geographic limits of their Rhodian and Dodecanesian holdings.

The archives carried away from Rhodes at the time of its surrender in 1522 are preserved at the Royal Malta Library in Valetta on Malta. Research into the material in the archives conducted by Professor Zacharias N. Tsirpanlis has yielded important information on the relationship between the Knights of Saint John and the Rhodian population. This research, still in progress at the time of the writing of this book, allows certain observations. The administrative structure inherited from Byzantium survived during the presence of the Order on the island as the knights acknowledged and cooperated with local representatives, particularly in matters regarding defense. Where jurisprudence was concerned, the knights exhibited understanding and showed flexibility towards the local population, ratifying Byzantine privileges and taking over only the administration of matters of defense.

During their early years on Rhodes, the knights appointed a Latin archbishop, thereby cutting off the local population's spiritual connection to the patriarch of Constantinople. Religious conflicts between the knights and the citizens of Rhodes were minimized, however, by agreements between the archbishop and the Orthodox metropolitan. It seems,



Celebration of the Mass in the church of Saint John of the Collachium, during the earthquake of 1481; from Guillaume de Caoursin's history of the siege of 1480, "Obsidionis urbis Rhodice descriptio." Bibliothèque Nationale de France, Paris.



The icons of Saint George, above, and Sergios and Bacchos, below, are from the Monastery of Saint Catherine on the Sinai Peninsula in Egypt. That traditional Byzantine military saints are portrayed as knights says a great deal about the centuries-long coexistence of Greeks and Latins in the Aegean islands. The horse of Saint George is brown instead of white, the only deviation from the rules of Greek Orthodox iconography.



Symi. Less than twenty kilometers northwest of Rhodes, the fortification pictured on this helicopter-based photograph (upper right) of the island of Symi was a valuable lookout point on the outer defenses of the city of Rhodes. The Chora, the only settlement on the island, appears, on the left of the illustration alongside the port.

too, that the large number of urban Rhodians who embraced the new Western way of life became Uniates, which meant that they retained their Orthodox rites but were in communion with the pope. However, the population at large clung faithfully to the traditions of the Greek Orthodox Church as an expression of their national consciousness and their resistance to their Roman Catholic masters.

According to Elias Kollias, ephor of Byzantine antiquities in Rhodes, the Order's fleet not only fought the Moslems, but also transported merchandise. Forced to serve in this fleet, the Rhodians put this experience to good use by sailing their own vessels to other Mediterranean ports. While the knights were in power, Rhodes emerged not only as a merchandise distribution center between East and West but as a manufacturing center, too, producing textiles, pottery, soap, sugar, and other goods. The economic interests that the Moslems of Asia Minor and the Christians of Rhodes had in common meant that commercial relations were not disrupted by the almost continual warfare between them. In addition, Rhodian Greek participation in the thriving economy of the island seems to have been significant enough for an entrepreneurial and educated Greek middle class to arise with the tacit approval, if not the encouragement, of the knights. There are reports that Rhodians of both Greek and Latin descent studied at the University of Padua and returned to Rhodes to take up administrative positions within the Order as interpreters and diplomats. Interpreters were certainly needed, as important fifteenth-century peace treaties between the knights and the Ottoman Turks were written in Italian as well as Greek, which was the official language of the Turkish sultans.

Early in the fifteenth century, when an interest in Greek antiquity began to develop in Italy, Cristoforo Buondelmonti visited Rhodes around 1414 and, subsequently, made the island his base for exploring most of the other Aegean islands, producing in manuscript form, his "Liber Insularum Archipelagi," a major contribution to geographical knowledge of the Aegean archipelago. Rhodes also attracted another important figure in the long process of the rediscovery of Greece by the western world, Cyriacus of Ancona, who reportedly visited the island, carrying with him one of the Buondelmonti manuscripts about the region. In the forty-two years of relative peace between the two sieges (1480-1522) an intellectual awakening was brought about by the coexistence of Greeks and Latins in Rhodes. The benefits of this harmonious coexistence disappeared when Rhodes fell to the Turks on January 1, 1523.

Although the Knights Hospitaller played a significant role in the Aegean, the Duchy of the Archipelago predated and outlasted them in the area. For a considerable time in the fourteenth, fifteenth, and sixteenth centuries, the two groups inhabited the same geographic space, having come to the archipelago from different directions to pursue different interests. Expanding trade and profit brought the Venetians of the duchy, whereas the knights of Rhodes came to fight the "infidel" in religious wars. Often their interests merged, and collaboration ensued. Just as often, though, their interests diverged and recriminations, always short of warfare, followed. Although functioning as independent entities, the two groups were, in reality dependent on major powers based outside the Aegean archipelago: the duchy, on the Venetian republic; the knights, on the pope and the European royalty in physical control of their estates.

The Venetians of the duchy intermarried with the local population, and their descendants remained on the islands during the Tourkokratia, the long period of Turkish rule. Today, their origin can be traced only in the Hellenization of their original Italian names. Because of their religious vows and commitment to celibacy, the knights, by contrast, did not marry members of the local population. And for social and economic reasons as well as from a sense of mutual loyalty, the knights appear to have developed a more equal (and perhaps intimate) relationship with the Rhodian Greeks, which is suggested by the large number who followed them into exile in 1523.



Gentile Bellini. Sultan Mehmet II. 1480. Oil on canvas. 70x52 cm. National Gallery, London, UK.

TOURKOKRATIA

Turkish rule

Moslem Arabs sailed through the Aegean sea on their way to besiege Constantinople only decades after the death of Mohammed in Mecca in June 632. Crete suffered raids in the seventh and eight centuries and fell to Saracens expelled from Al-Andalus, Spain, in 827. Nevertheless, the Byzantine fleet using its most effective weapon, "Greek Fire," re-imposed control in the Aegean, and a Byzantine army recovered Crete in 961.

One hundred and ten years later, in 1071, Byzantium lost the decisive battle of Manzikert, which opened the gates for the swift Turkish conquest of Asia Minor. Turkish tribes, recent converts to Islam, established independent emirates in the area, until one of the emirate leaders, Orhan, assumed the title of sultan in 1326. By the time of Orhan's death his armies had established a permanent Moslem presence on the Asia Minor coast and had crossed the Dardanelles to capture Gallipoli in 1354, making it the first Turkish base on European soil.

The capture of Rhodes in 1522 and the collapse of the Duchy of the Archipelago in 1566, both of which occurred during the reign of Suleyman, brought all of the Aegean islands except Crete and Tenos under Ottoman rule. As a result, the Aegean islands were incorporated into the same political structure as the other Greek-inhabited lands, where Tourkokratia, or Turkish rule, had begun in the preceding century.

For the lower Greek peninsula Tourkokratia lasted from the dissolution of the multinational Byzantine Empire during the middle of the fifteenth century to the Greek War of Independence, the latter leading to the formation of a national state in 1830.

As Richard Clogg, a leading authority on modern Greece, points out, Tourkokratia had "a profound influence in shaping the evolution of Greek society" and an equally profound influence on the shape of life and vernacular architecture in the Aegean islands. It isolated the Greek world from such major historical movements in the West as the Renaissance and the scientific and industrial revolutions, although by the mid-eighteenth century, a nascent Greek mercantile class within the Ottoman Empire had begun to reestablish commercial and cultural contacts, allowing the ideologies of the Enlightenment and the French Revolution to filter through. The merchant fleets of the Aegean islands became carriers of these new and inspiring messages.

Ottoman rule over the vast area of the empire comprising the Balkan Peninsula, Asia Minor, and the coast of North Africa, was based, according to Islamic concepts, on the "millet" system, or the grouping of people by religious affiliation rather than by ethnic origin.



Drawn by J.M.W. Turner, R.S. from a sketch by T. Allison.

Engraved by J. Cousins.

THE ACROPOLIS, ATHENS.

"The Acropolis, Athens," Edward Francis Finden, "engraving, 1832"

First came the privileged Moslem millet, and then came the non-Moslem "people of the book," who were assembled into an Armenian millet, a Jewish millet, and an Orthodox millet, the last being the largest after the Moslem grouping.

Soon after the Turkish capture of Constantinople in 1453, Sultan Mehmet II, "the Conqueror," chose Georgios Gennadios Scholarios as the first patriarch under Ottoman rule, making him the head of the Greek Orthodox millet. The selection of Gennadios, an active opponent of reunifying the Orthodox and Roman Catholic churches, served the Ottoman interest in sustaining the rift between the two. The policy also had widespread support among the conquered Greek population of the Ottoman Empire, particularly in the Aegean region, where Latin rule had led the islanders, as was commonly said, to prefer the Prophet's turban to the hat of the Cardinal.

The patriarch's authority as head (millet bashi) of the Orthodox millet extended beyond religious affairs to regulating the daily life of Orthodox Christians and was granted in the expectation that the patriarch would guarantee the loyalty of the Or-

thodox millet to the Ottoman state. The consequences of infidelity could be brutal. As Richard Clogg again points out: "When the sultan's authority was challenged then the hierarchs of the Church, in their role as both religious and civil leaders, were the prime targets of reprisals. Thus it was that, on the outbreak of the war of independence in 1821, the ecumenical patriarch, Grigorios V, together with a number of other religious and civil leaders was executed in circumstances of particular brutality."



"Bazaar in Turkish Athens," Edward Dodwell, early nineteenth century

The millet system accepted the existence of a non-Moslem population, but it also imposed heavy taxes and subjected the captive Greek population to indignities meant to underscore their inferior status. "The main tax on non-Moslems was the kharaj, or capitation-tax, which literally entitled the tax-payer simply to retain his head on his shoulders," as C. M. Woodhouse, a preeminent historian of Greece, observes. In addition, the Christian Orthodox subjects of the sultan could not challenge a Moslem in court, nor could they bear arms, ride horses, or wear the same clothes as Moslems. They were also forbidden to build or rebuild churches damaged by earthquakes unless with special dispensation which only money could buy. Churches could not ring their bells, a prohibition enforced in some places and not in others, depending on the whims of the local Turkish functionaries. Granting tolerance to the "people of the book" in return for tax payments was a policy that began in the early centuries of Islamic conquest. Because such taxation was a major source of Ottoman revenue, the Sublime Porte, as the Ottoman government was known, avoided mass conversions to Islam of its non-Moslem subjects.

Among the forms of forced tribute exacted from non-Moslems, the most onerous was the devshirme, or Janissary levy known in Greek as "paidomazoma," or child gathering. At irregular intervals, Christian peasant families were forced to surrender a male child aged six or seven to become a Moslem and a member of the slave bodyguard to the sultan, the Janissary Corps, the nucleus of the first standing army in modern Europe. Brainwashed into an absolute loyalty to the corps, most of the children from the devshirme tribute became lifelong soldiers, the most able rising to high rank in the Ottoman state. Several even became grand vizier.

Apparently, the devshirme was not applied to the Aegean islands. Nevertheless, the island populations suffered depletion and displacement as a result of the imposition of Turkish rule in the sixteenth century, and in parallel with piracy. The devastating raids of the 1530s led by Kheireddin Barbarossa, the Greek-born and Algerian-based corsair who later became an admiral in the Turkish fleet, linger in the islands' oral traditions, as in the account of the time when Aegina, an island in the Saronic gulf, yielded Barbarossa six thousand prisoners and was left bare of inhabitants. Conditions improved in the eighteenth century but piracy, Moslem and Christian,

Mediterranean and local, remained a constant threat to the island populations for nearly three centuries.

In addition, the Aegean islands were subject to the special tax that provided crews for the imperial Ottoman fleet. Islanders served from April to October, months when weather conditions were favorable to sailing for tax collection and general patrolling duties. Their annual recruitment did not entail conversion to Islam, however, and as a result, was not as devastating as the devshirme was to the mainland. Yet the hardships of life at sea, including disease and casualties from engagements with enemy vessels, meant that considerable loss of life was attributable to this particular form of taxation. Islands such as Hydra provided the required crews for the Ottoman fleet not in proportion to their population but, as D. A. Zakythinos states, in proportion to the number of ships they owned. By the late eighteenth century, when the Ottoman fleet was undergoing modernization, the number of islanders recruited from Hydra, Spetsai, and Psara alone reached 8,000, an enormous proportion of the population of the three islands.

This era marked the appearance of the "Bash-reis," as the co-captain in command of Christian sailors, was called on ships of the Ottoman navy. Those who served in this new position came almost exclusively from Hydra, and did much to improve the living conditions of the Greek crews. Since the primary duty of the Greek crews was navigation, they acquired an expertise that eventually contributed to the development of the islands' own local naval and mercantile power—a power that would play a pivotal role in the struggle for Greek independence in the 1820s.

Turkish rule in general, and in the Aegean islands in particular, was characterized, in the words of C. M. Woodhouse, as "vindictive oppression" alternating "with sudden relaxation." The leading Greek historian Apostolos E. Vacalopoulos says that, following Barbarossa's devastations and the firm establishment of Turkish authority on the islands, piracy seems to have lessened and that with the gradual repopulation of deserted islands came "a definite measure of economic recovery." Furthermore, the Ottoman Porte showed no interest in creating settlements or in posting officials in the Cyclades islands, for fear of Christian pirates. Given the religious and administrative autonomy inherent in the millet system, institutions for self-



"Fall of Constantinople" tempera on wood by P. Zografos, I. Makrigiannis, 1836. Abbreviated caption from the original by I. Makrigiannis: 1. Constantinople, 2. Turkish camp, 3. Sultan, Mehmet II, 4. Sultan's bodyguard

government began to emerge all over Turkish-occupied Greece, and especially in the Aegean islands.

The prevailing form of self-governing institution was the "Koinotis" or commune, the administrative details of which varied from place to place. The Koinotis constituted a legal entity, independent of the administration of the ruling power, but nevertheless enjoying the toleration of the Sublime Porte. The deed establishing the Koinotis of Mykonos in 1615 has been preserved, along with similar documents from other islands. Called elders, archons, or notables, the officers of the Koinotis of Mykonos were elected to a year-long term by a general assembly of the local population. In Hydra, only ship owners and ships' captains were eligible for election.

The officers of the Koinotis had broad powers and responsibilities. Foremost among these were the collection and delivery of taxes to the Ottoman authorities. Other duties included supervising education, health services, inspecting markets, and managing communal affairs generally. Opening the gates of the Kastro at day-break and closing them at dusk was another communal responsibility, and one that allows us to think of the Kastro, during the Tourkokratia centuries, as the physical expression of the Koinotis. From the eighteenth century on, we also hear of envoys from the Koinotis to the Ottoman Porte making special requests.

In "The Making of Modern Greece," D. A. Zakythinos, describes as follows the origins and functions, as well as the political and spiritual implications of the Koinotis to the historical continuity of Greece: "The Greek communes of Turkish times did not derive from classical models.... They were the product of necessity and the natural consequence of the conqueror's easygoing ways and administrative deficiencies; but while the commune, being Byzantine in origin, has no direct connection with classical models, the whole shape of its subsequent development follows

from a purely Greek line of thought and shows a Greek spirit. In a period of national suppression the Greek people, taking as their basis the tax-collecting machinery of their medieval empire, fashioned their own, without any outside intervention, without even any initiative on the part of their own intellectual or spiritual leaders, democratic institutions the conception and spirit of which brings them nearer than their medieval models to the sources of classical tradition."

During the centuries of Tourkokratia, the Koinotis sustained the Aegean Kastro and, in turn, was protected by it.



Kheireddin Barbarossa. When he moved from Algiers, the capital of Moslem piracy, to the Ottoman imperial seat of Constantinople at the invitation of Sultan Suleyman the Magnificent to become Kapudan-derya, or "grand admiral of the fleet," Barbarossa exemplified the blurred line between corsair and admiral.

PIRACY

As Fernand Braudel observes, piracy in the Mediterranean "is as old as history. There are pirates in Boccaccio and Cervantes, just as there are in Homer." Closer to the historical focus of this book, John Julius Norwich puts it this way: "Since the Dark Ages [piracy] had been practiced by Christian and Moslems alike, with or without the excuse of war and often with the clearest of consciences." This chapter looks at piracy as a distinctly Mediterranean institution and one that challenged the very existence of the Aegean island towns. For centuries, the threat of piracy remained the major force in shaping Aegean urban and vernacular architecture forms, which survive today in the Cycladic *Kastra*. This critical threat to the archipelago's settlements is best understood when examined, as it is in the following pages, over the period between the naval battle of Lepanto (Nafpaktos in modern Greece) in 1571 and the fall of Algiers to the French in 1830.

By the end of the sixteenth century, following centuries of jihad and crusade, the holy war in the Mediterranean had reached a stalemate, which the naval battle of Lepanto, fought at the mouth of the Corinthian gulf in western Greece, only confirmed: it broke the spell of Turkish supremacy but offered few advantages to the victorious Christian League. Fought on the grand scale of past battles – 230 warships on the Turkish side, 208 on the Christian, each carrying hundreds of soldiers – and later commemorated in paintings of appropriately colossal scale, the battle resulted in the deaths of thousands. As the last major engagement between Christians and Moslems of the sixteenth century, Lepanto marked the end of one kind of warfare and the beginning of another: a small-scale, undeclared, eternal war, fought summer after summer, year after year, at sea or within sight of the coast, by hundreds

rather than tens of thousands, which became known as the *corso*, or the war of the corsairs, referring to the pirates of the region.

At first, a corsair's enemy was anyone who worshipped a different god. Soon, however, the distinction became blurred, as personal greed overrode religious beliefs.

Each spring, dozens of ships set sail from their Christian or Moslem homeports to attack the shipping and the coastal regions of the Mediterranean. Ships and goods were plundered and sold as prizes. Victims who resisted were slaughtered on the spot; those who surrendered survived and were sold as slaves if poor, or held for ransom if rich. The corsairs plundered on land as they did at sea, so neither shipping nor the villages of the Mediterranean littoral were secure. Given their small size and long coastal exposure, the Aegean islands paid a heavy price in corsair depredations. After being plundered, many of the islands were abandoned, apparently for long periods.

"Piracy" and "privateering," "pirates" and "corsairs" are different terms suggesting the same set of cruelties. There are, however, distinctions among them that should be made. "Piracy" suggests violent sea action for private gain. "Privateering," although based on the ancient tradition of piracy, suggests institutionalized customs, agreements, and networks of intermediaries. As it eventually developed in the Mediterranean, the corsair war was an economic activity independent of religion and nationality that was practiced by rich and poor alike across the Mediterranean Sea. Particularly after the naval battle of Lepanto, Mediterranean privateering became "legitimate" war. Kings and other rulers licensed corsairs as privateers to



"Smyrna from the Harbour, Asia Minor," Thomas Allom, engraving

augment their naval forces. In a formally declared war, corsairs would join the main royal forces in battle; more often, they would prey upon the enemy in smaller-scale operations.

The roster of corsair centers in the Mediterranean is a long one. But the most prominent were Valetta in Malta and Algiers on the North African coast. Valetta became the headquarters of the Knights Hospitaller, the Christian Order of Saint John, which moved there in 1530 under the protection of Charles V of Spain following the loss of Rhodes. On the Moslem side, Algiers became a corsair center in 1516 when Kheireddin Barbarossa, one of the most celebrated of the Barbary corsairs, seized the city, which owed allegiance to the Turkish sultan, and began its three-century-long history as the preeminent Moslem corsair port of the Barbary Coast and the Mediterranean. Barbarossa exemplified the blurred line between corsair and admiral when he moved from Algiers to the Ottoman imperial seat of Constantinople at the invitation of Sultan Suleyman the Magnificent who appointed him Kapudan-derya, or "grand admiral of the fleet." Both Algiers and Malta exploited their prominence and their distance from higher authority to increase their autonomy in dealing with friends and adversaries.

Corsairs have appeared in many historical settings and diverse geographic locations. But the life and geography of the Mediterranean, an inner sea, provided ideal conditions for the *corso* to flourish as a profession. At best, agriculture and fishing yielded marginal livelihoods. For a young person of ambition the chance to achieve

a better life through hard work was virtually nonexistent. The opportunities offered by life as a corsair were difficult to resist. In a sea crossed by hundreds of vessels and a landscape with a multitude of small harbors and inlets that provided secret places for refitting as well as shelter from the weather, the winter, and better-armed opponents, it was easy to imagine the corsair's life as leading to riches and fame.



Muslim territory c. 1740
 Christian territory c. 1740

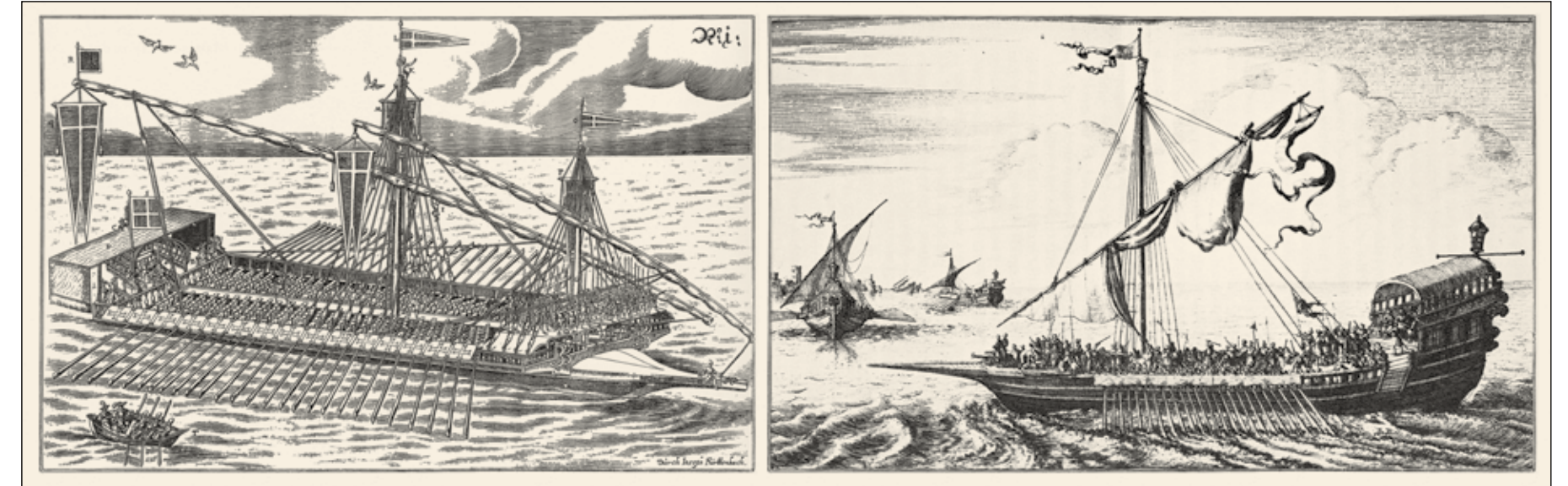


Jules Verne, frontispiece from "L'Archipel en Feu." Tales of the corso found their way into European literature as in this only historical novel of the popular French author. The romantic plot involving a respectable banker who is secretly financing a Greek corsair culminates in the naval battle illustrated above where the corsair's mother denounces her son who is killed and the banker's daughter marries the French naval lieutenant who has come to the archipelago to fight for Greek independence.

Indeed, the Italian term "corsale" identifies a person who is a corsair by profession and neither a criminal nor a fugitive. In maritime courts, a man would identify himself as such as readily as another would call himself a cooper, tanner, butcher, or baker. The corso was more often than not a lifetime profession, which the corsair entered at a young age. Good fortune offered rapid advancement. A young recruit with navigational skills and personal daring might soon become a corsair captain and go on to invest his profits in commerce, banking, and land. He might well find one of the many-recorded dynasties of merchant corsairs. The potent combination of religious zeal with greed probably accounts for the profession's longevity. As Peter Earle observes in "Corsairs of Malta and Barbary," "privateering was also of course an institution which served to enhance the glory of one's own God and to lead to the abasement of the God of one's rivals. Any institution that serves at one and the same time to make a person rich and to save his soul is never likely to suffer from a dearth of recruits."

The preeminence of the Barbary Coast and Maltese corso was eventually challenged as other flags increasingly penetrated Mediterranean waters. The growth of English, Dutch, and French trade after 1750 was paralleled by an increase in these nations' naval strength. Commercial rivalries among the newcomers led them to negotiate treaties with the Barbary Coast corsairs, which obligated the Western powers to pay tribute, often in kind (naval stores, guns, powder, etc.). In return for the corsairs' promise not to attack their shipping. Guns and other armaments paid as tribute actually enabled corsair attacks on rival merchant marines, yielding an additional commercial advantage to those paying the tribute.

The young United States was soon caught up in this web of tribute payments and trade intrigue. As early as 1785, the British encouraged the Algiers regency to declare war on the United States in the hope of driving American commerce out of the Mediterranean. Thomas Jefferson, first as United States minister to France, then as secretary of state, and eventually as president, dealt personally and at length with the vexing questions of whether to pay tribute and ransom for captured American sailors and whether to build a navy to blockade and punish the Barbary Coast corsairs. After being acrimoniously debated in the Congress, the issue was finally resolved in 1805. The United States Navy besieged Tripoli, and the marines marched across the Libyan Desert, forcing a peace treaty to end the war, as memorialized in the Marine Corps hymn. From the American historical perspective, according to Robert J. Allison "Americans had returned in triumph from the Mediterranean, having humbled the ancient enemies of Christian civilization, asserting their role as Americans in defending freedom. The victory over Tripoli ... had made the Ameri-

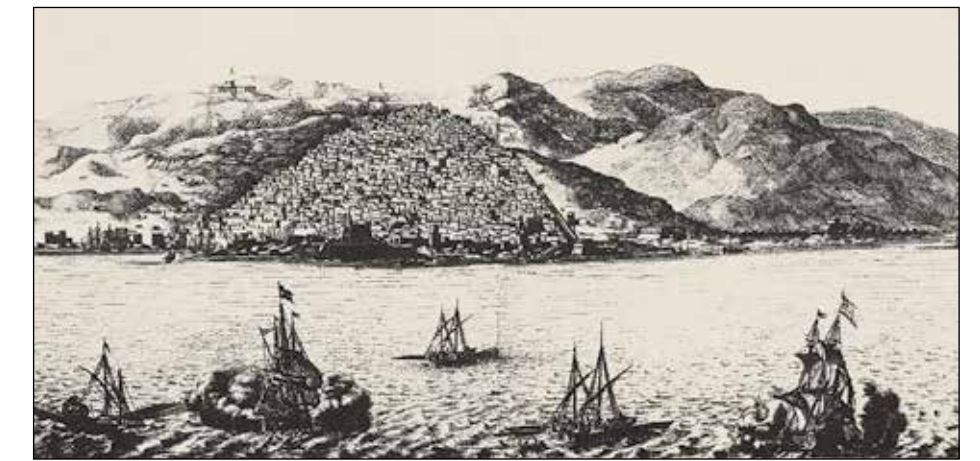


Galley of Malta

Galley of Barbary



Giorgio Vasari, "The Naval Battle of Lepanto," detail, sixteenth century.



Algiers

cans the equals of any other people, not because of military power, but because that power was guided by a spirit of justice, and its goal was not conquest but freedom."

However, it was France that dealt the final blows to the Mediterranean corsairs of both faiths. In 1798, on his way to Egypt, Napoleon ended the Christian corso of Malta. Decades later, in 1830, the restored French monarchy sent a punitive expeditionary force which landed in Algiers and cleared out the last of the Moslem Barbary Coast corsairs.

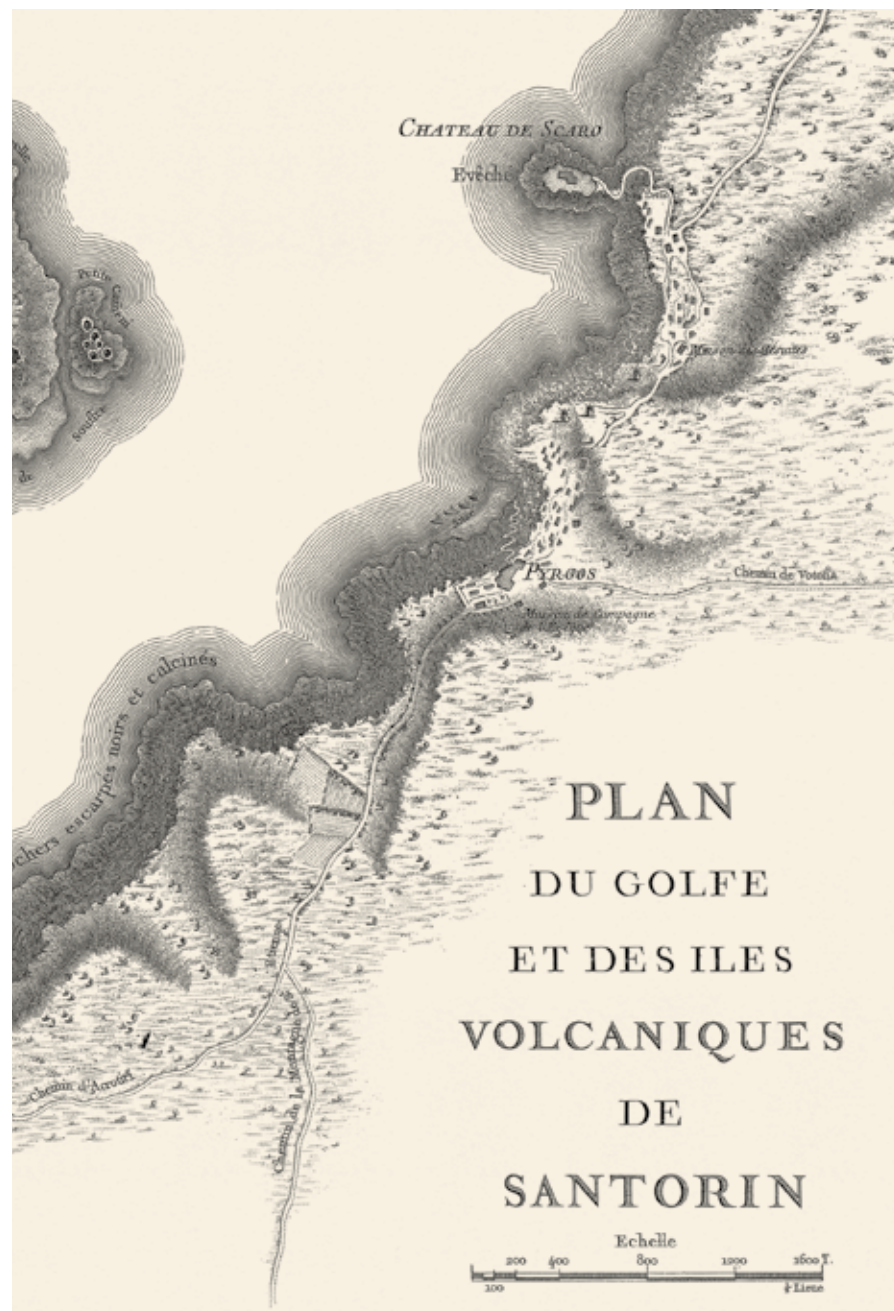
Such, in broad-brush form, were the realities of the corso in Mediterranean life. The same description applies to the corso of the Aegean archipelago but with a greater intensity that reflects the physical, political, economic, and religious peculiarities of this smaller but integral part of the Mediterranean. Certainly the corso had a direct and unmistakable effect on the life and architecture of the Aegean island towns.

By the early seventeenth century, nearly all of the Aegean islands had come under Ottoman control. The Ottoman Empire then extended from the Balkan peninsula to the gates of Vienna and over the shores of the eastern Mediterranean and North Africa to include the three regencies of Tripoli, Tunis, and Algeria, also known as the Barbary Coast. Since overland travel within the empire remained arduous and expensive, the Aegean Sea was the hub of imperial communication and trade. Few cities in Europe could match the Ottoman ports, which included Alexandria, Smyrna, Thessaloniki, and Algiers. None could compare in size with the imperial capital of Constantinople. The constant flow of ships carrying foodstuffs and raw materials to those urban centers turned the Aegean Sea into a major trade artery. Ships carrying such rich trade naturally became the corsairs' prey.

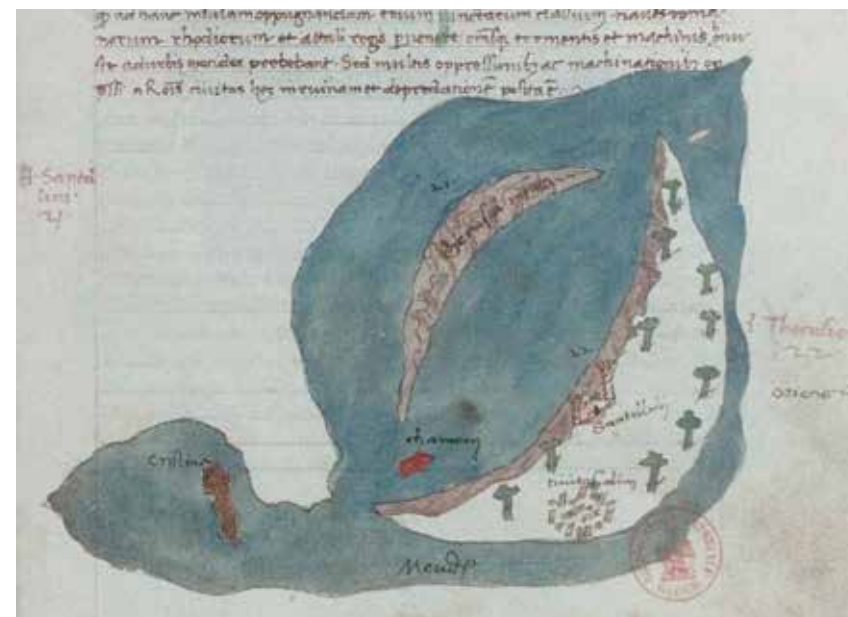
The geography of the Aegean archipelago determined the routes of the ships carrying such cargoes, and the common local knowledge of these routes made the corsair's job of locating prey easier, despite the risk of encountering the galleys of the Ottoman navy.

Under the millet system the Greek populations of the islands had substantial autonomy, since the Turkish presence was limited to annual visits by officials to collect taxes and take aboard the young Greek sailors whom the islands were required to provide as recruits for the Ottoman navy. The absence of Turkish civil or military authority prompted the Christian corsairs of the western Mediterranean to use many of the islands as forward bases of operation, despite the dangers of dwelling in enemy waters. On islands such as Kimolos (at

that time also known as Argentiera), corsairs could obtain fresh provisions, take on water, bury their dead, and, crucially, maintain their ships. Ships required frequent careening for cleaning, caulking, repairing, and overhauling. Such overhauling was necessary but hazardous and a time of extreme vulnerability for both ship and crew; therefore, the islands' small, hidden bays, and the high points above them, which allowed for the posting of lookout guards, provided the best possible locations for such crucial maintenance and repair work. In addition, the Aegean winter was a dangerous time to sail. Some Maltese corsairs spent the winter months in protected island bays on the alert for an occasional prize. But most corsairs spending the winter months in Aegean waters were also seeking the advantage of an early start on their spring operations. Whether voluntary or forced, the islanders' relations with both Christian and Moslem corsairs helped them develop and maintain the art of seamanship and their fighting skills, assets that would later serve them well in the struggle for national independence.



"Map of the Gulf and the Volcanic Islands of Santorini." Detail of engraving from "Voyage Pittoresque de la Grece," a 1782 publication of Comte de Choiseul-Gouffier. The promontory of Skaros is identified as "Chateau de Scaro." Another detail from the same map appears on page 260.



"I. Santellini, I. Therasia" (Santorini and Therasia Islands). Cristoforo Buondelmonti, *Liber insularum Cycladorum*, Bibliothèque Nationale de France, Paris. Fifteenth-century copy of manuscript map. Another Santorini and Therasia map from a different graphic variation of a Buondelmonti manuscript appears on page 252.



Skiathos, Kastro looking north



Santorini, Skaros, the site of the medieval capital of the island, looking south. The volcanic island of Nea Kameni, "the new burnt island," at the center of the caldera, is on the right of this helicopter-based photograph. The buildings of Fira, the modern-day capital of the island, form white eyebrows over the caldera cliffs on the left.

In the century or so before Greek independence, when the Dutch and the English, with their purchased immunity from Barbary corsair attacks, increasingly carried goods from the Ottoman empire to the western Mediterranean and Atlantic ports, the local eastern Mediterranean trade fell largely into Greek hands. This port-to-port commerce within the Ottoman Empire was traditionally the main target of the Christian Maltese corsairs.

The passing of the local trade into Greek hands raised difficult questions for both the Latin Christian corsairs and the Orthodox Christian Greek ship captains. In the context of the war against the Moslem "infidel," the pope, who also held religious authority over the Maltese corsairs, had always protected the Greek sailors as Christians. In addition, attacking Christian shipping contradicted the corsairs' oath. But under the new conditions, the Maltese corsairs began to challenge the Greek Orthodox captains as schismatics and heretics unworthy of the pope's protection and thus liable to Maltese corsair depredations. In this confused situation, although the Latin corsairs retained some scruples against attacking ships with Greek captains or crews, they claimed the right of "visita" – the right to stop and inspect any ship – and would readily seize cargoes as Turkish trade.

In such cases, the only remedy for Greek captains ironically lay with the courts of Malta, the records of which indicate that Greek seamen occasionally won their cases and recovered goods confiscated by the Maltese corsairs.

In these complicated and ambiguous circumstances, every side involved – Turkish merchants, Greek captains, and Maltese corsairs – took risks in playing their roles within the commercial life of the eastern Mediterranean and Aegean seas. In the same circumstanc-

es, the Greeks of the Aegean islands found opportunities to assert their autonomy, their religious beliefs, and their national identity in confronting their tormentors. With their traditional skills in seamanship and trade, the islanders developed the wealth and confidence to build and sustain the island towns and to manage sizable and robust merchant fleets. Destined to play a dramatic role in the struggle for Greek independence in the 1820s, the captains and crews of the fleets, whose homeports were the Aegean Kastro, also laid the foundation upon which the present-day Greek merchant marine has built its global pre-eminence.

Given their unusual autonomy from direct Ottoman authority, the islands and towns of the archipelago were also regular prey for Moslem corsairs from the Barbary regencies, for whom onshore raiding was a favored tactic. One or two ships would normally conduct such a raid by landing a party of a few dozen corsairs. This small group would march inland undetected and launch a surprise attack that would breach the gates of a town at dawn. Then, taking captives and seizing treasure, the corsairs would depart as quickly as they had appeared. Stories of raids and the abduction of islanders to be sold in the Turkish slave bazaars abound in the folklore of the archipelago and have found their way into Greek literature, as in "Ftochos Ayios" (or Poor Saint) by Alexandros Papadiamantis, an important nineteenth-century prose writer and a native of the island of Skiathos in the northern Aegean.

Skaros Kastro appears on the Buondelmonti map of the island of Santorini from the 1420s. The Barozzi, the first ducal family on the island, used the promontory of Skaros as the seat of their government, a status Skaros retained throughout the existence of the Duchy of the Archipelago. For reasons both internal and external, beginning in the seventeenth century,

the citizens began to leave the collective fortification for less crowded and, presumably, equally safe accommodations nearby, a trend that led to Skaros's complete abandonment after the 1830s. The fortifications, or Kastro, of the islands of Sifnos and Antiparos' have been continuously inhabited. Chora, a settlement beyond the fortifications, now extends the life of the abandoned enclosure of Kastro on the island of Astypalaia. But only the powerful character of the site and the overgrown foundation walls confirm the existence of fortified settlements in Skaros on Santorini and in Kastro on the northern Aegean island of Skiathos, which, like Skaros, was deserted after the 1830s. Historical and literary documents referring to both settlements provide insights into the life and architecture of these now deserted Kastro.

Alexandros Papadiamantis (1851-1911), the son of a Greek Orthodox priest, was perhaps the greatest Greek prose writer of his time. His stories, set on his native Skiathos, are notable for their careful observation of daily life, their loving descriptions of folk traditions and the natural environment, and their powerful portrayal of the dignity and harshness of traditional Aegean island life. "Papadiamantis did for his island what Thomas Hardy... did for [his] homeland," as Elizabeth Constantinides observes in "Tales From A Greek Island."

"Ftochos Ayios" (Poor Saint) is among Papadiamantis's nearly two hundred works of short fiction. The story is particularly useful since the narrative gives us revealing information about both life and architecture in the fortified settlement of Kastro on Skiathos. Subtitled "A Tale from Skiathos," "Ftochos Ayios" speaks of a place on the island where the earth was red and fragrant, giving rise to a legend that a poor shepherd attained sainthood by shedding his blood on the spot when he was killed by corsairs. The corsairs were said to have taken revenge on him for warning his fellow islanders in the Kastro of the corsairs'

secret landing on the island, thereby frustrating their plans. Set in the early years of the eighteenth century, the story vividly portrays the hazardous life of the islanders and the constant threat from corsairs roaming the Aegean, along with the islanders' defenses against this threat.

Papadiamantis describes Kastro as having been built on a craggy and forbidding promontory at the extreme north point of the island. A drawbridge over a deep chasm is said to have connected the promontory to the island and controlled the only entry into the town. A guard performed the daily duty of raising the drawbridge before sunset and lowering it again after sunrise.

Excerpts from "Ftochos Ayios" by Alexandros Papadiamantis

Note: The work of Alexandros Papadiamantis has been brought to the attention of the English-speaking world as "Tales from a Greek Island" in an excellent translation by Elizabeth Constantinides. The volume is a selection consisting of twelve works of short fiction. Unfortunately, "Ftochos Ayios" is not among them. The translations of the quotations from "Ftochos Ayios" appearing above are mine.

So powerfully blew the north wind in this particular part of the island that the trees were bent by its force to look as if suffering from scoliosis, and only some creeping bushes could find protection, grasping at the ground as it folded around them.....

Indeed, when I was a child, nearly thirty chapels were still surviving inside and around the old fortification, remnants of pious old days, most of them in ruins but with all four walls standing, and others missing parts and icons, only a few offering divine liturgy. Some were rising naturally on proud crags and reefs next to the shore and the sea, turned gold by abundant light during the summer, drenched in the winter by the waves agitated and crushed by the furious north wind which plowed relentlessly the sea, planting shipwrecks on the shore, grinding rocks to sand, kneading sand to rock and stalactite, spraying foam in radial patterns.....



"Santorini, a View of Skaros from the East," Thomas Hope, pencil drawing on paper, c. 1795. Unlike eighteenth-century engravings, the drawing was produced by the artist "in situ," and presents an authentic visual document communicating the distinct architectural character and density of building of an Aegean collective fortification. The steps leading to the entry-gate of Skaros Kastro at the lower left of the drawing, have survived, as shown in the photograph on the opposite page.

Papadiamantis's island tales were not illustrated, but there is a picture of a settlement similar to the Skiathos Kastro, as Papadiamantis describes it, in a drawing of a contemporary settlement, the "View of Skaros," found in the collection of Thomas Hope (1769-1831).

Hope, a Dutch-born British traveler, student of architecture, and collector and patron of the arts, visited Greece twice before the end of the eighteenth century and produced a large number of watercolors and sepia drawings, 350 of which are in the collection of the Benaki Museum in Athens. Fani-Maria Tsigakou points out in "Thomas Hope, Pictures from 18th Century Greece" that, "in order to have in his possession a more complete portfolio of Greek views, Hope also acquired works other than his own." For this purpose, he hired artists and apparently purchased drawings by the French consul in Athens, Louis Sebastien Fauvel. Tsigakou believes that "the "View of Skaros" must be attributed to Fauvel as there are great similarities [with known Fauvel drawings] in the handling of the pen as well as in the lettering." Although this judgment sounds valid, Hope retained the Skaros drawing as

part of his large collection, and thereby must have considered it an important record of his observations, I will refer to it in the paragraphs that follow as Hope's drawing.

Hope's pencil drawing is of the Kastro of Skaros during the last decades of its occupancy. The drawing is of particular merit and quality, clearly the work of an accomplished artist sensitive to issues of scale, proportion, and perspective as well as to the intimacies between site and subject.

Important and enlightening similarities exist between Papadiamantis's story and Hope's drawing in the portrayals of the landscape and of the man-made settlements. Papadiamantis calls his Kastro "a nest of seagulls," a rock rising abruptly 200 meters above the sea and joined to the rest of the island by a movable wood bridge. In the Hope drawing, Skaros also rises precipitously from the sea. Crowned by a massive rock connected to the rim of the caldera by a narrow ridge providing access to the gate of the settlement, the Skaros of the Hope drawing could also be said to resemble "a nest of seagulls."



Santorini, Skaros. This 1995 photograph confirms the accuracy of the drawing at left, including the outline of the large boulder, the horizon line, and the delineation of the island of Therasia in the background. The photographer apparently occupied the very spot where the artist sat to execute the drawing two hundred years earlier.

In fact, Skaros was situated at the top of a promontory rising nearly three hundred meters from the sea and in the caldera of the Santorini volcano, due east of the present-day village of Merovigli. Today's visitor to the site, confronted by the forbidding topography and astounded by the unexpected smallness of the settlement, would readily agree with Papadiamantis that it is "a wonder" that people "managed to live on this waterless and inhospitable rock." But as Papadiamantis explains, there was a "pressing need to do so: the fear of the Barbary corsairs and of the Venetians and the Turks crowded and piled them up on this naturally unconquerable promontory."

Skiathos, Kastro. The steps at the center of the illustration are "recent" additions providing access to Kastro and replacing the collapsed drawbridge.



SKAROS KASTRO DIAGRAM

- 1. Drawbridge
- 2. Gate
- 3. Flat roof tower-like structures
- 4, 4a. Churches and belltowers
- 5. Dwellings



Hope's drawing confirms this description. It depicts, crowding against one another, heavy masonry-walled, barrel-vaulted houses typical of the vernacular architecture forms of present-day Santorini. Minimal in square footage, they form a defensive perimeter over an abrupt site-fall to the sea on both sides of the pictured settlement. Church cupolas with the characteristic Santorini lantern, which can be seen on today's Ayios Menas in Fira on Santorini, enrich the building typology of the settlement and together with the dwelling units compose the enclosed town.

According to a seventeenth-century visitor, Skaros contained nearly two hundred houses sheltering as many as one thousand people. Massing so many units within the tight confines of the Skaros rock was only made possible by constricting the size of the individual dwelling units, which were similar to those comprising the external defense walls of the Sifnos, Antiparos, and Astypalaia Kastro. Flights of steps for negotiating the uneven site are recorded in the Hope pencil drawing as scaling elements and are integral to the architecture of the Skaros Kastro.

The Aegean climate allows outdoor living for most of the year. Scarce resources and limiting economic conditions dictated dwelling units of minimal size in any case. These small units, together with the high building density within the collective defense enclosure of Skaros Kastro, made for a shortened and, consequently, more easily defended perimeter – all conditions accurately observed and recorded in the Hope drawing with a degree of truthfulness and understanding not always found in illustrations by other eighteenth-century visitors.

The authenticity of Hope's drawing is also underscored by the outline of the Skaros rock and of Therasia island in the background, both elements of the unaltered natural landscape easily recognized by today's observer.

The feeling of authenticity is strengthened by the artist's use of pencil, which suggests that the drawing, unlike the lithographs that illustrated other travel accounts, was executed "in situ," allowing for



Detail from the Thomas Hope pencil drawing on page 34



Santorini, Oia village



Detail from the Thomas Hope pencil drawing on page 34



Santorini, Ayios Menas



Detail from the Thomas Hope pencil drawing on page 34

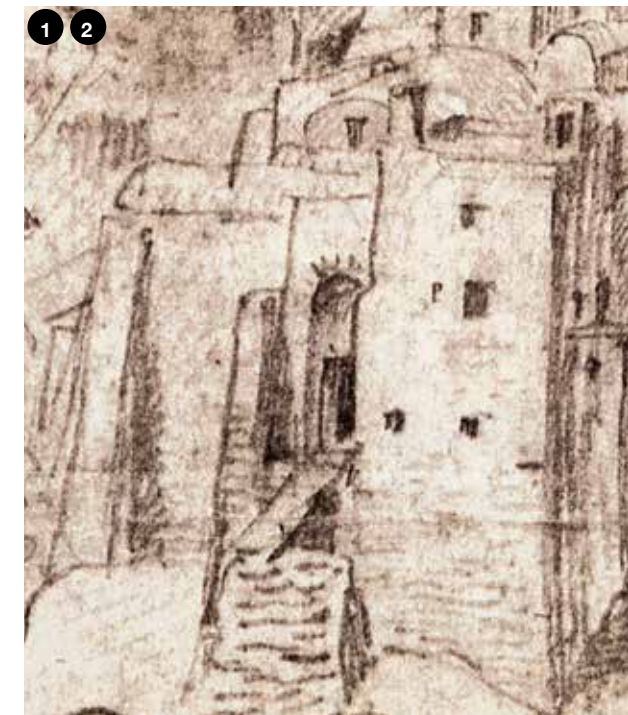


Sifnos, belltower

accurate measurement and the portrayal of both the natural landscape and of man-made architecture forms.

At its lower left side, Hope's drawing depicts the entry to the fortification. A drawbridge leads to an arched gate flanked by two tower-like structures, the only flat-roofed buildings in the drawing that form ramparts from which defenders could fight attackers from below. Small openings in the larger tower on the right provide for observation and firing and perhaps identify a room for the guard. A nearly identical entry gate is described by Papadiamantis in "Ftochos Ayios" in the scene where

the shepherd rushes to warn the gatekeeper of the corsairs' appearance on the island.



Detail from the Thomas Hope pencil drawing on page 34



Skiathos Kastro, looking southwest. The arched structure at the center of the illustration is the interior elevation of the Kastro gate.

Excerpts from "Ftochos Ayios" by Alexandros Papadiamantis

¹ Forced by reality, those inside Kastro followed the custom of raising the drawbridge daily just before sundown and lowering it in the morning soon after sunrise..... Attempting to warn his fellow islanders about the corsairs' landing on the island, the hero of "Ftochos Ayios" stands before the raised gate of Kastro and shouts, "Hey, gatekeeper! Hey, you on the Taratsa! Hey, you on the Kiosi!" In the following excerpts, Papadiamantis explains these two particular parts of the Skiathos Kastro:

².....Built above the iron gate, Taratsa was a flat-roofed tower, with embrasures and the indispensable boiling oil hole over the gate, which as a last resort threatened to scald any raider who managed to get near in an attempt to force open the iron gate. Kiosi [Kiosk] was a small space where prominent citizens were getting together for discussion or for making idle talk while smoking their long pipes, wearing their elaborate shirts and embroidered sashes.



Skiathos, Kastro. The drawbridge at the center of the illustration would have spanned the gap between the two masonry piers, just as Papadiamantis describes.

In the story, the shepherd finds himself in front of the fortification at daybreak. Anxiously, he observes the rocky gap between the island and the site of the town: “a land abyss hovering above a watery abyss,” where “vertigo conquers a person.” To his relief and despite the sun’s rise, the drawbridge is still up! He calls the gatekeeper who eventually responds, unseen from behind an embrasure, by asking whether the shepherd wants a rope and net dropped to him so that he can be hoisted up to the rampart. The shepherd refuses and shouts a warning to the gatekeeper not to drop the bridge that morning and then rushes back to tend his goats. As he returns to his flock, the corsairs, who by now realize that it was he who frustrated their raid, seize him and kill him on the spot. Hence the legend that the earth was colored red and turned fragrant and holy by his sacrifice.

In other parts of “Ftochos Ayios,” Papadiamantis provides useful information about the corsair raid, which, as described, is typical of Barbary corsair operations throughout the archipelago and confirms that the Skiathos Kastro and similar fortifications were designed for defense against such sudden, unexpected small-scale raids rather than against naval and land siege by regular military forces. The raid described in “Ftochos Ayios” involves a small corsair ship, which lands a third of its crew of fifteen to eighteen just before daybreak in a small, distant, and uninhabited bay invisible from the Kastro. The plan is to surprise the islanders at sunup by sailing the corsair ship before the Kastro to provide a diversion for the land party, which is to cross the drawbridge, breach the gate, and enter the town.

Tales of hidden treasure circulating as a result of the endless conflicts in the Aegean and Mediterranean Seas motivate the corsairs. They also hope to enrich themselves by capturing men, women, and children to be sold in the Algerian and Turkish slave markets. Indeed, the capture of slaves, common practice throughout the Aegean archipelago for several hundred years, had devastating effects on the population and the economies of the islands and the towns for which defenses had been breached.

Note: The work of Alexandros Papadiamantis has been brought to the attention of the English-speaking world as “Tales from a Greek Island” in an excellent translation by Elizabeth Constantines. The volume is a selection consisting of twelve works of short fiction. Unfortunately, “Ftochos Ayios” is not among them. The translations of the quotations from “Ftochos Ayios” appearing above are mine.



Skiathos, Kastro. Separated by a “deep chasm” from the rest of the island, the gigantic rock at the center of the illustration is the actual site of the medieval Kastro. The site’s surviving buildings, as well as the boundless northern Aegean horizon in the background, attest to the size and scale of this “nest of seagulls.” The drawbridge located on the left corner of the rock is in front of the gate to Skiathos Kastro. The view is to the north and in the direction of Ayion Oros.



Skiathos, Kastro. The gate providing access to Kastro, from outside (left), and from inside (right).



N. Visscher, Map of the Aegean Sea, 1682

THE AEGEAN ARCHIPELAGO

Landscape and seascape



Six miles east of Mykonos and uninhabited, Chtapodia island, illustrated above, serves as witness to the geological origins of the Aegean archipelago.

The history and geology of the Aegean archipelago have a unique relationship. Historically, the Aegean Sea is one of the oldest regions of the globe—Homer describes it—but, geologically, it is one of the youngest. Its numerous islands, the mountain peaks of a collapsed landmass, provide physical evidence of its geological provenance.

The Aegean islands and Crete nurtured the great civilizations of antiquity from which much of contemporary European culture derives. The islands comprised the southern-most geographical points of the European Union for the last two decades of the twentieth century and up until 2004, when the Republic of Cyprus became a member, with the island of Kastellorizo in the Dodecanesian complex serving as its eastern-most landmass.

The name of the Aegean Sea may derive from Aegeus, the mythological king of Athens and father to Theseus. Returning to the city after having slain the Minotaur in Crete and freed Athens from its yearly tribute payment to King Minos, Theseus mistakenly used a black sail, signifying mourning, instead of the agreed-on white sail, signifying victory. Anxiously waiting on the rocky shores of Attica for his be-

loved son's return, Aegeus spied the black sail and in desperation flung himself into the sea, which has been known as the "Aigaion Pelagos," (the Sea of Aegeus) ever since. Another version of the etymology of the word deriving from "aiges," (i.e. waves), suggests an image of this great body of water as eternally moving and perennially self-transforming. This visual and aural image inspired Odysseus Elytis (1911-96), the "poet of the Aegean" and the 1979 Nobel laureate, whose verse, as Yiorgos Yiatromanolakis of the University of Athens notes, celebrates the "luminous Aegean" archipelago, "interwoven with the wind, the waves, the pebbles, the stones and the vegetation."

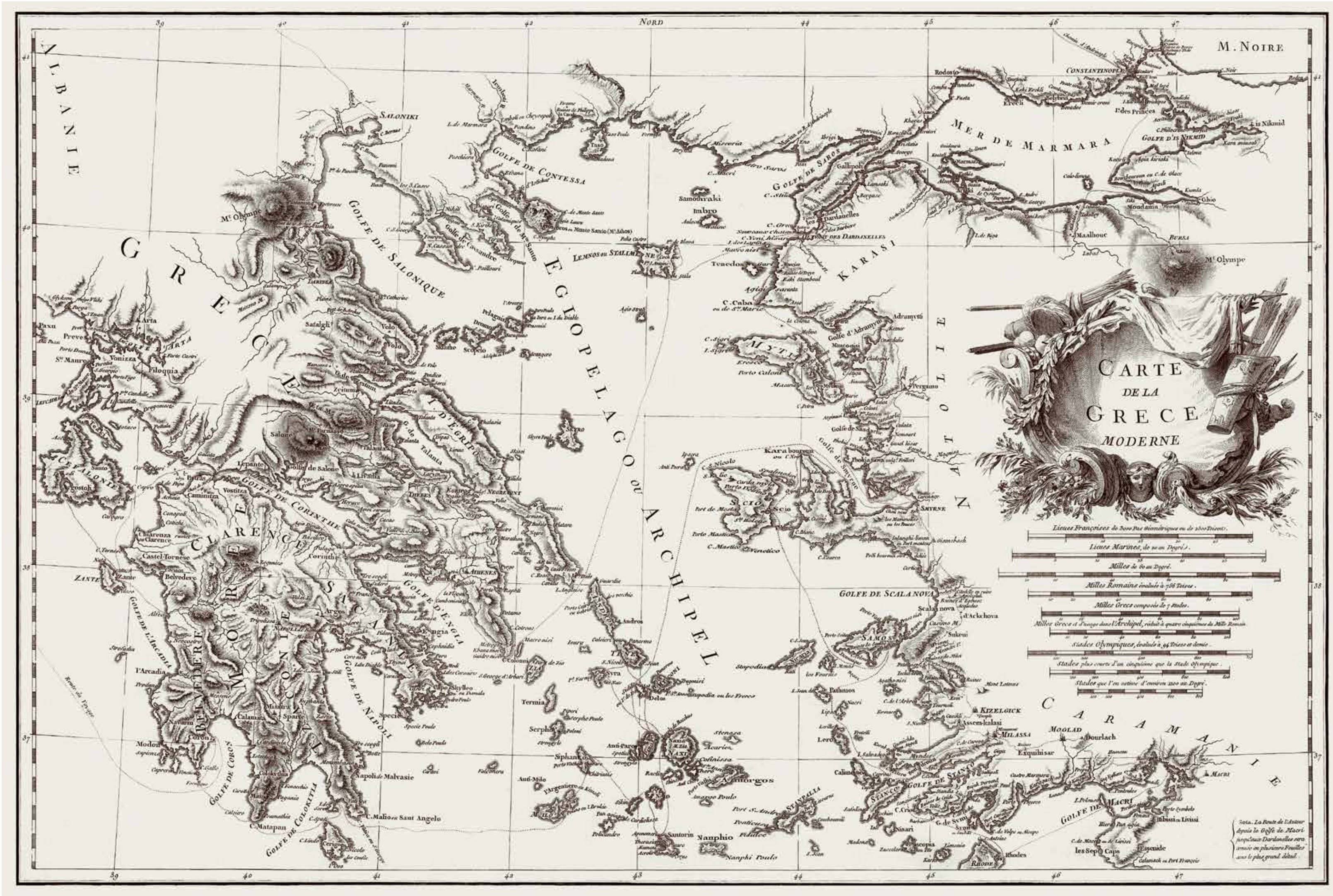
Beginning in the Renaissance, the term "archipelago" came to be identified with the area defined by the Aegean Sea. "Archipelago" derives ultimately from the combination of the Greek "arkhi" (chief) with "pelagos" (sea), but its more immediate source in English is the Italian "arcipelago." Etymologists have speculated that, rather than coming directly from the Greek "arkhipelagos," the Italian term itself might have been a corruption of "Aigaion Pelagos," Greek for "Aegean Sea." The term appears repeatedly on early northern Italian marine charts to designate the area between the peninsula of Greece and the coast of Asia Minor. The Dutch

cartographers, whose work facilitated the trading privileges acquired from the Ottoman Empire by Dutch, French, and English traders, also used the term "Archipelago" on their seventeenth-century maps. Choiseul-Gouffier, the late-eighteenth century French ambassador to the Sublime Porte, likewise designated the Aegean Sea as "Egiopelago ou Archipel."

Today the term "archipelago" has acquired a more generic usage and refers to any body of water abounding with islands or, more specifically, to any group of islands and interconnecting waters that form an intrinsic geographic and political entity. In this sense there are a number of archipelagos in the Mediterranean. Those with a relatively large number of islands are grouped around the Balkan Peninsula and include the Dalmatian coast islands and the Ionian Islands off the west coast of Greece. An enclosed archipelago, the Aegean Sea boasts the largest number of islands in the region, grouped into such distinctive clusters as the Cyclades and the Dodecanese. Kastras, or collective fortifications, built on these two groups of islands provide the focus for this book. Writing in the 1960s, Kai Curry-Lindahl, a distinguished European ecologist, has best summed up, and with a prophetic touch the uniqueness of the Aegean islands: "There are archipelagos in the northern parts

of the continent, too, but they are usually young areas, only recently liberated from ice and colonized by plants and animals, and their severe climate has discouraged exploitation by man. By contrast, the mild climate of the Greek archipelago has for centuries favored man, so that he has left little room for other creatures. This retreat of flora and fauna will eventually handicap human activities rather than help them."

As an arm of the Mediterranean, the Aegean Sea can be seen as a bay, with the mainland of Greece defining its western and northern edges and the Asia Minor Turkish coast delineating its eastern edge. To the south, a chain of islands—named, from west to east, Kythera, Antikythera, Crete, Kassos, Karpathos, and Rhodes—articulates entry to and from the larger body of the Mediterranean Sea. At its north-eastern corner the Aegean is connected by a water chain formed by the straits of the Dardanelles (the Hellespont), the Sea of Marmara (Propontis), and the Bosphorus, which leads to the Black Sea (Euxeinus Pontos). This connection to the Black Sea has been historically important to the life, commerce, and culture of the Aegean islands. A meridian twenty-five degrees east of Greenwich runs through the middle of the Aegean. Extended northward, this meridian passes through downtown Helsinki, Finland; extended southward, it touches Johannesburg, South Africa.



Roughly four hundred miles from north to south and two hundred miles at its widest, the Aegean contains some eighty-three thousand square miles of land and water. By comparison, the land area of Greece, including all of the islands, is about fifty-one thousand square miles. Crete, the largest island in the region, supports a number of mountain summits higher than two thousand meters. Mountains of 1,000 meters are not unusual and can be found on such islands as Andros and Naxos in the Cyclades; Rhodes and Karpathos in the Dodecanese; and Ikaria, Samos, and Chios in the northern Aegean. Sea depths of 1,000 meters are frequent. Greater depths occur north of Crete, with the deepest perhaps thirty-five hundred meters.

A submerged block of the earth's crust forms the floor of the Aegean Sea. Folded rocks of limestone extending from the mountains of Greece to the mountains of Turkey mold submarine ridges. Traceable on the sea floor, these ridges provide the foundation of most of those Aegean islands that emerge on the surface as island chains. The chain of Kythera, Antikythera, Crete, Kassos, Karpathos and Rhodes is one of the easiest to identify on the map. Almost touching Attica and Evvoia, the Cyclades extend south and then eastward towards the promontories of Asia Minor.

From early geological and historical times, volcanic activity has convulsed and remade the region. Santorini island, the home of two Kastras (Skaros and Pyrgos) discussed in other parts of the book, is an extreme and unique example of the effects of this volcanic activity.

The collapsed landmass that produced the Aegean Sea has also given us, sui generis, the Aegean shoreline, which mediates between landscape and seascape and between the visible and invisible worlds that compose the Aegean archipelago. Land and water meet in an extensive, undulating shoreline that meanders to yield bay after bay, inlet after inlet, beach after beach, and port after port, all geographic features on both sides of the shoreline that have supported a visible network of islands and towns and challenged the navigators of an invis-

"Map of Modern Greece," engraving from Voyage Pittoresque de la Grèce, a publication of the work of Choiseul-Gouffier. The Aegean Sea is identified as "Egiopelago ou Archipel." Marie-Gabriel-August Florent, the Comte de Choiseul-Gouffier (1752-1817) first visited Greece in March 1776 at the age of twenty-four aboard the royal frigate Atalante, as a member of the French Scientific Expedition to the Mediterranean. Eager to cover as much territory as possible, Choiseul-Gouffier took along three artists and a personal secretary and produced, complete with illustrations, the richest record of contemporary life in the Aegean archipelago to date. The first of his three-volume publication, "Voyage Pittoresque de la Grèce" appeared in 1782 while the last was published posthumously in 1822. A member of the French Academy, he was appointed Ambassador to the Sublime Porte in Constantinople in 1784 where he remained until 1791.



Kythera, part of the island chain (including also Antikythera, Crete, Kassos, Karpathos and Rhodes) which from west to east defines the southern boundaries of the Aegean archipelago.



Poliaegos island. At the upper right part of this helicopter-based photograph, a whitewashed chapel most likely erected to fulfill a personal vow, stands with other buildings in defiant command of the natural landscape, to be reached only by a zigzagging pedestrian and pack-animal path that yields to the terrain's every demand.



Land and water meet along the undulating Folegandros shoreline a feature, characteristic of the Aegean archipelago

ible network of sea-lanes. These two networks have historically facilitated the tasks of seamen who sailed in the archipelago and built the medieval collective fortifications on the island heights and promontories that we see today.

No other area of the Mediterranean has a shoreline as extensive as the Aegean's in comparison to the size of land it encloses. This unique ratio is essential to understanding the visual implications of the archipelagic landscape/seascape. A similar ratio of shoreline to enclosed land describes the larger surrounding region – that is, the continental shores that delineate the Aegean Sea as well as the islands within. The same is true of the peninsula of Greece, a medium-sized country that nevertheless accounts for approximately thirty-five percent of the total length of the Mediterranean shoreline. This thirty-five percent equals 17,000 kilometers, a surprisingly extensive length that is nearly one-half the 37,000-kilometer shoreline of the continent of Australia. Islands account for two-thirds of the length of the total Greek shoreline, while Aegean island shorelines make up a major percentage of this figure.

Subtropical in climate, the islands experience hot, dry summers and mild, wet winters. Temperatures in the Cyclades complex can range from the low forties (Fahrenheit) in the winter to the low nineties in the summer. Light afternoon breezes make for cooler nights even in the hottest summers. Rainfall is extremely rare in the summer and is heaviest in December and January. In its plant and animal life, the archipelago affords numerous examples of species isolation and adaptation to a space-limited environment.

The sun is almost ever-present throughout the region, as high-contrast black-and-white and color photographs confirm, and Greece claims the largest number of cloudless days per year of any country in Europe. But it is the wind that has the greatest impact on Aegean life. The meltemi, an intense wind that blows from the north during

the summer, usually in August, interrupts sea traffic and isolates islands from one another and from the mainland, often for days at a time. Trees twisted into tortured shapes by the wind offer testimony to its force as well as its persistence. Within the towns the narrow and irregular streets provide protection from these forceful winds and from the sun as well. The arrival of the afternoon breezes concludes siestas and commences the second half of the day.



This tree on Santorini island bears witness to the force and persistence of the Aegean winds



Supporting cultivation and preventing soil erosion for centuries, the retaining walls of Folegandros, above, are inseparable parts of the man-made landscape of the Aegean archipelago and elucidate the observation about the "moderate agricultural wealth" of the islands.

In the days of sailing ships, the Aegean winds determined the maritime calendar. Mild weather in May began the season for trade, corso, or both; to avoid winter storms, the sailing season ended in late October. Ernle Bradford, a historian of the region, suggests a possible origin for the term "meltemi" and notes this wind's role in producing the clarity of light characteristic of the archipelago: "In July and August the Etesian winds (called from the Greek etos, a year, because they were regular annually) blew from between northwest and northeast strong and steady, declining slightly at nightfall but picking up again shortly after sunrise and reaching their maximum in the early afternoon. It was then that the rowers at the galley benches could take their ease, while the Rhodian seamen hoisted the high-shouldered lateen sails and the galley plunged forward at top speed. Because this was the season of fair weather, *Bel Tempo*, the Etesians were also called *beltemp* (later corrupted to *meltem* or *meltemi*). During the summer months, except for a little early morning mist, there were no fogs and visibility was usually crystal clear. The northerly winds broomed the atmosphere and produced that extraordinary clarity of Greek light that makes an object several miles distant as sharply defined as one a few cables away."

Sixteenth-century migratory movements, including Albanian colonization of the islands, helped to replenish populations devastated by war and piracy. Venetians and other Italians were absorbed during the existence of the Duchy of the Archipelago, from the thirteenth to the sixteenth centuries, as family names from the Cyclades Islands confirm. Often coerced, migration from one island to another readjusted the balance between natural resources and the number of inhabitants, as was apparently the case in the colonization of

Antiparos in the fifteenth century. Turbulent times often resulted in population movements, and available data indicate a diaspora within the Aegean occurring periodically.

Information on the population of the Aegean islands during the *Tourkokratia*, or Turkish rule, period is limited. We can be certain, however, that the numbers remained relatively small. Fortified towns, *Kastra*, protected populations numbering mostly in the hundreds. The population of Sifnos *Kastro*, the capital of a prosperous island, apparently did not exceed 3,000 people at any given time. A recent and authoritative study of the social structure and economy of Serifos gives the population of the island as fluctuating between 1,000 and 3,000 in the sixteenth to the early nineteenth centuries, including a number of peaks as well as valleys. In 1770, at the beginning of its great adventure as a major Aegean naval power, the town of Hydra counted only 3,500 people.

Historically, most of the islands possessed only "moderate agricultural wealth," writes Professor Spyros Asdrahas, prompting the inhabitants to exchange agricultural as well as manufactured products and to provide services to one another in order to produce additional wealth. Sifnos, a relatively fertile island self-sufficient in cereals, also traditionally made cotton cloth that absorbed the cotton production of nearby islands. It exported honey, wax, onions, and sesame seeds, but also according to Asdrahas "drank wine imported from Melos." Santorini exchanged its wine for wood from Folegandros, but it lacked cereals and sent its ships to purchase them from Amorgos. Late-eighteenth-century customs records from Patmos illustrate the exchange of products among the islands: iron, cotton,



Looking directly west, this helicopter-based photograph illustrates the exceptional richness of Naxos' land amid a region of otherwise "moderate agricultural wealth." Salt works in the form of a lake appear next to the sea immediately west of the landing strip of Naxos' airport at the upper part of the illustration. The east coast of the island of Paros appears at the very top as well.

onions, cheese, wine, and wax were exported by Samos; soap, hides, sponges, cotton, canvas, and salt, by Symi; olive oil, by Crete and Mykonos; rafters and planks, from Kastellorizo, and so the list goes on. Some of the islands specialized in one main activity, according to Asdrahas.

The focus on sponge diving on Kalymnos, Symi, Chalki, and Kastellorizo is an example. The men of Melos were known as the best pilots, and those of Symi, as the best divers; both groups were much sought-after for the recovery of sunken ships. The ship-owners of Mykonos took building timber from Mount Athos (*Ayion Oros*) to Alexandria and, on their way back, carried coffee and rice to sell not only in the islands but also on the mainland.

These exchanges enhanced the interdependence of the islands. The Aegean archipelagic environment, with its visible islands and invisible network of sea lanes, led each island to focus on its own resources, on the one hand, and allowed all to share products, attitudes, and traditions, on the other. In this context, one can admire the unity of a shared vernacular architecture and at the same time appreciate the uniqueness of each island, as expressed in the handrails of Mykonos, the dovecotes of Tenos, or the bell towers of Sifnos.



With a primary presence in the region, olive trees and grapevines and their respective products, olive oil and wine, have contributed much to sustain life in the Aegean archipelago.

Extensive and undulating island shorelines provide ample space for the long summer maturation required by olives and vines, primary products of the islands. The central location of the Aegean traders and the traditional north-south, Black Sea – Egypt pattern of trading olive oil and wine for grain became important again as the eighteenth-century sea trade of the Ottoman Empire passed into Aegean hands. The captains of Hydra were following the same pattern when they broke the British blockade of Western European ports during the Napoleonic Wars, an enterprise with spectacular consequences for the vernacular architectural forms of Hydra.

Sea-lanes, rather than land paths, have provided historically inexpensive and relatively safe transportation within the Hellenic world. The passenger-car ferries, hydrofoils, and catamarans of recent decades have altered the nature of travel, opening up the Aegean islands to local and international tourism, which, in turn, has radically transformed the islands' economies as well as their towns. Some islands have been affected more than others. Distance by sea from the Athens-Piraeus metropolitan complex has played an additional role in the intrusion of tourism into the islands. Some of the more distant islands, which in the past served as places of political exile, have been spared the consequences of rapid development, but, as a result, have suffered heavy population losses. More recently, airstrips and airports built on land formerly reserved for cultivation have made some islands more accessible. Airstrips on Melos, Astypalaia, Skyros, Santorini, and other islands have shortened travel time from Athens considerably. Crete, Rhodes, Mykonos, Skiathos, and several of the other islands feature international airports with their own connections to major European cities, which have begun to render these islands independent of Athens. And helipads for emergency medical evacuation serve almost every inhabited island as part of an extensive national health care system.

A naturally formed area of land that is surrounded by water and remains above water at high tide is the geographic and legal definition of an island. By this definition, numerous islands, large and small, inhabited and uninhabited, emerge from the Aegean's waters, particularly in the Cyclades region, to form an intricate relationship between land and sea. The proximity of the islands to one another accentuates a relationship in which the sea clearly predominates and further defines the physically unique and visually inspiring character of the region.

Greece contains 9,835 islands and islets within its borders, according to Yeorgios K. Yiangakis. This figure includes islands in both the Ionian and the Aegean seas, with a majority in the latter. Of these islands, 115 have year-round populations ranging from fifty people to 100,000. With a population of 550,000, Crete is unique among the group. Of the 115 inhabited islands, eighty-three lie in Aegean waters and constitute such geographic and administrative groups as the Cyclades, the Dodecanese, the Northern Sporades, the islands of the Northern Aegean, and others.

Farther from the Athenian metropolis than the Cyclades, the islands of the Dodecanese, as a group, registered an overall thirty-five percent increase in population, from 121,000 to 163,000, during the period from 1951 to 1991. Within the Dodecanese, however, smaller islands experienced population declines during that period, while such larger islands as Kos, Kalymnos, and Leros have seen substantial population increases. Rhodes, the largest and most accessible island, blessed with attractive living conditions, tourism, and archaeological riches, has experienced a remarkable population increase of sixty-seven percent, from 59,000 to 98,000, during the same forty-year period from 1951 to 1991. By contrast, Paros, more than twice the size of Mykonos and an island with a great deal of agricultural activity and less dependence on tourism, has seen a modest six percent increase in population, from 9,000 to 9,600, during the same forty-year period.

The island of Aegina in the Saronic Gulf, only a thirty-five minute hydrofoil ride from the port of Piraeus, is now virtually part of metropolitan Athens. Not surprisingly, then, its year-round population increased by a third, from 8,800 to 11,600, during the period from 1951 to 1991. By comparison, Hydra, which is on the same hydrofoil line but is twice as far from Athens, has experienced a fifteen percent decline in year-round population, from 2,800 to 2,400, despite its many tourist attractions, although the summer tourist season temporarily triples or quadruples this number.

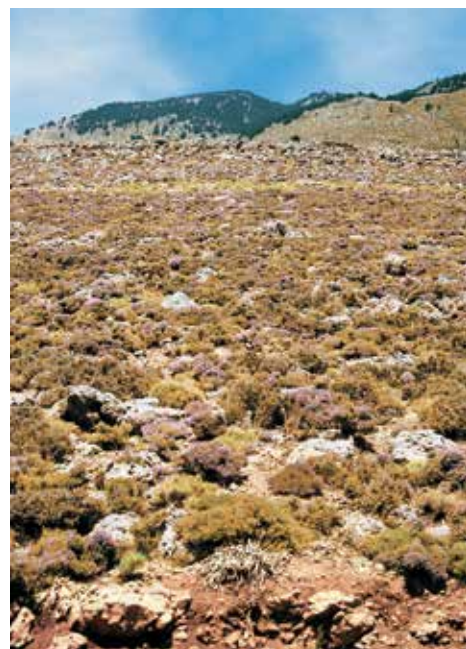
Population shifts in the Aegean islands have also occurred in the larger context of a Greek internal migration that intensified after World War II, a phenomenon that renewed and increased the population in urban centers at the expense of the mountain villages and the smaller islands and, so, dramatically altered the physiognomy of the country.



On a treeless terrain, left, a footpath leads to the 695-meter-high summit of Sifnos and the now-deserted monastery of Profitis Elias, right.



The east coast of Sifnos from the summit of Profitis Elias

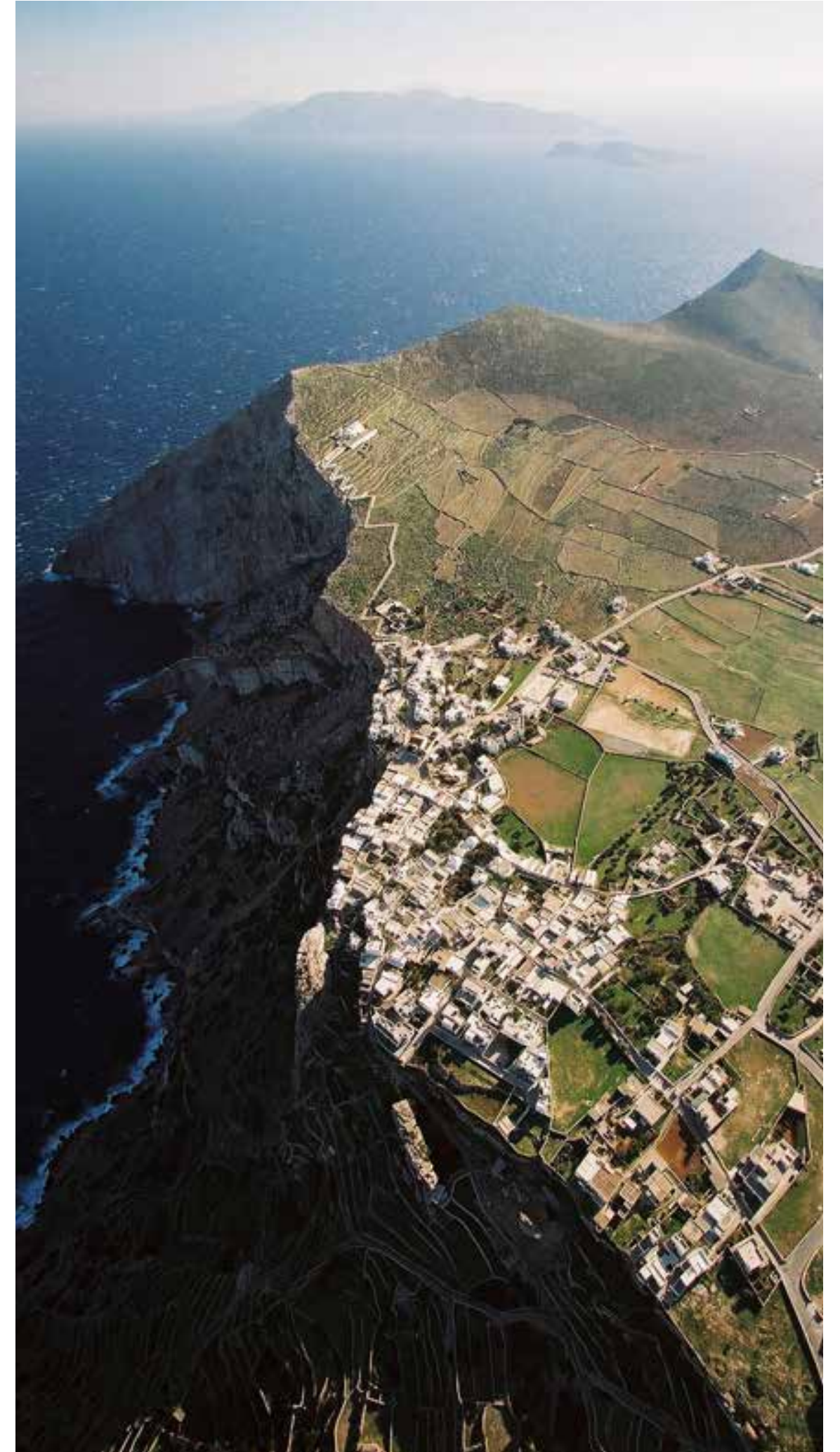


Crete. Mediterranean macchia

Most islands feature more than one high point, with a whitewashed and easily detectable building at the summit; reaching the top, however, can be difficult. A hike to the summit demands a start very early in the morning, particularly during the hot and dry summer months. An hour or two of climbing in treeless terrain covered by the typically Mediterranean macchia – that is, shrubs and evergreen bushes – on donkey trails and occasionally on cobbled paths, ends in a revealing, uplifting, and rewarding experience, acoustically, spatially, and visually.

The islands' summits are almost always windy. The massive whitewashed masonry structure of a deserted monastery or nunnery can provide much-needed protection from the wind, particularly when it reaches buffeting force. The wind also carries the sounds of people, animals, and machines to the summits, but electricity, available for the last four decades in all the islands, has deprived the scene of the once vital and characteristic sound of windmills.

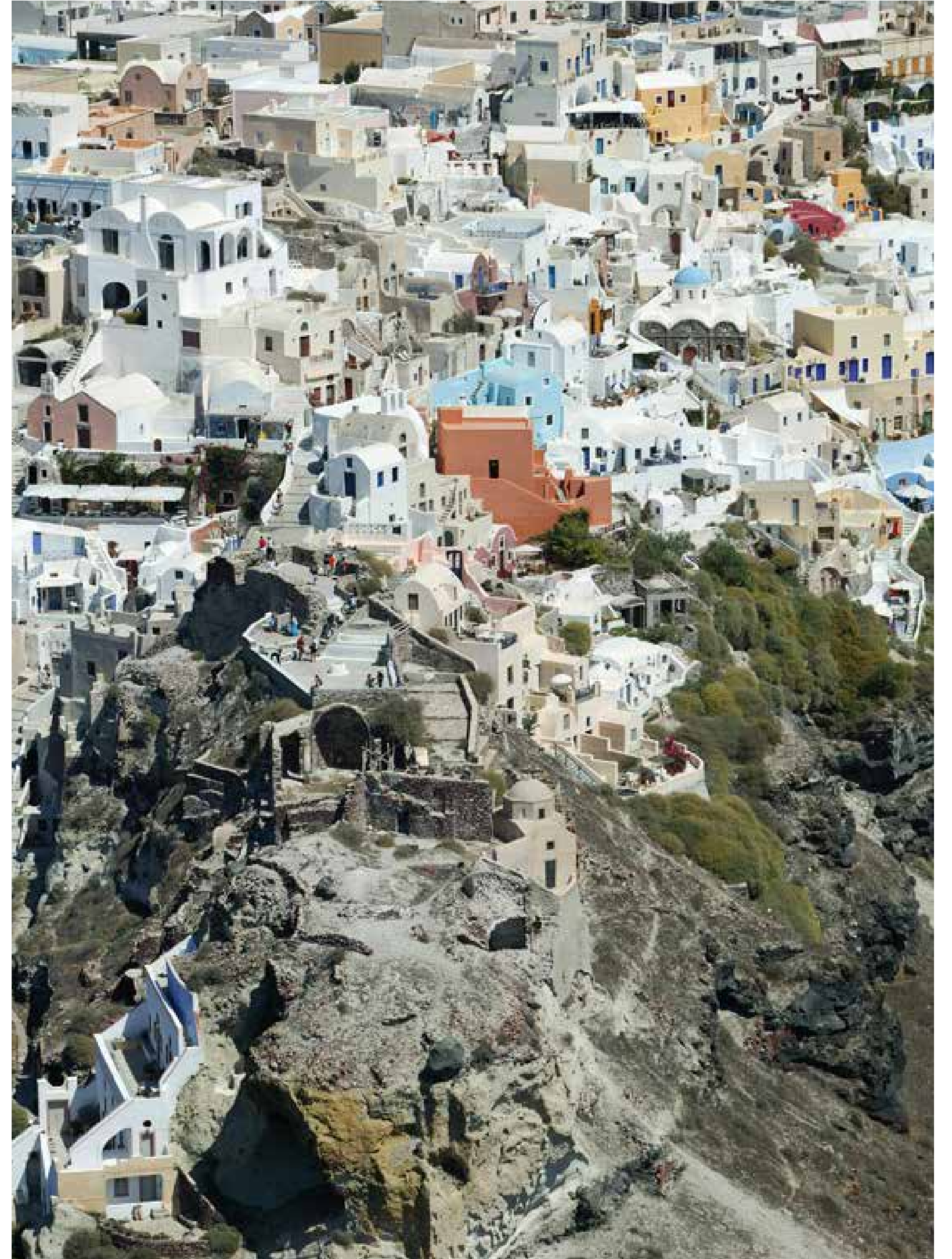
Reaching a summit yields an arresting view of the island – its periphery, its ridges and valleys, its size and scale, and its distance from other islands. Where there is only one settlement on the island, the relationship between settlement and port becomes clearer from a bird's-eye perspective, as does the intimate interdependence between a settlement and its specific site. Summits also offer commanding views of the seas encircling an island and, in the past when unfamiliar ships were sighted, allowed islanders to alert the guardians of their settlement gates and to heighten their defenses. Breathtaking views of an island's rugged scenery are also revealed from its summit. Rocky segments of coast alternate with short, sandy beaches in a continuous undulation of bays and promontories. Exposed craggy ridges and bare hills contain occasional green patches and valleys in a terrain crisscrossed by endless terraced fields – testimony to the labor of countless generations of islanders attempting to extract sustenance from an unyielding land.



Sitting in a commanding position at the edge of a precipitous drop of two hundred meters, Folegandros Kastro, at the very center of this helicopter-based photograph, engages the landscape and seascape of the island in a creative and respectful manner.



Variety and richness in architecture produced by the adaptation of building to site, and vice versa, are persuasively illustrated by the drawing at left (the settlements of Fira, Santorini), from the book "Mediterranean Villages," by Steven and Cathi House, two thoughtful and talented San Francisco architects, and by the helicopter-based photograph on the right (Oia, Santorini).



THE AEGEAN ARCHIPELAGO

Kastra, typology and materials

Kastra, the collective fortifications of the Aegean archipelago, were a successful response to preserving life and culture when piracy was a constant, daily and nightly, threat. Later, when geopolitical conditions shifted, the same fortifications were transformed with equal success into springboards for the release of a remarkable and sustained burst of human energy that recaptured for the islanders control of the Aegean and Mediterranean lanes of commerce. The collapse of the feudal system imposed by Latin rule, and its replacement by the island self-government tolerated by the Ottoman Turks, offered opportunities eagerly seized by the islanders. What began as small-scale, island-to-island trade, in their hands gradually developed into control of the sea-borne trade of the Ottoman empire.

Data about this broadly outlined development is still fragmentary. However, near the end of the Napoleonic wars and just before the beginning of the Greek War of Independence, Pouqueville, a French visitor to Greece, reported the following numbers for twenty-two Aegean islands: ships owned, 545; tonnage of ships, 140,000; ship's crews, 36,000; ship-borne cannon, 5,500. These figures record the impressive growth of the islands' merchant fleet during the eighteenth century and underscore the shift of the islands' economies to sea-borne trade. More telling is the number of cannon carried by this growing commercial fleet, an average of ten per ship, although some of the larger vessels were armed with as many as twenty.

Cannon were costly and reduced a ship's carrying capacity and speed, but they were also necessary for defense against the corsairs. Acquired with the reluctant permission of the Ottoman authorities, this large number of cannon suggests the

willingness of the Aegean captains to use them and the islanders' skills and determination to meet the corsairs on equal terms and, eventually, to turn the tables on them. Self-confidence at sea, acquired at considerable human and material cost, found equivalent expression on land as the island communities burst out of their Kastra to accommodate a larger, more enterprising, and prosperous citizenry.

An inherent characteristic of the palette of vernacular architecture is its limited number of building types, a characteristic that is indeed evident in the Aegean island towns, where the inhabitants, instead of producing new building types, incorporated new functions into preexisting architectural forms. A limited building palette is, in fact, at the heart of the visual unity of the Aegean settlements.

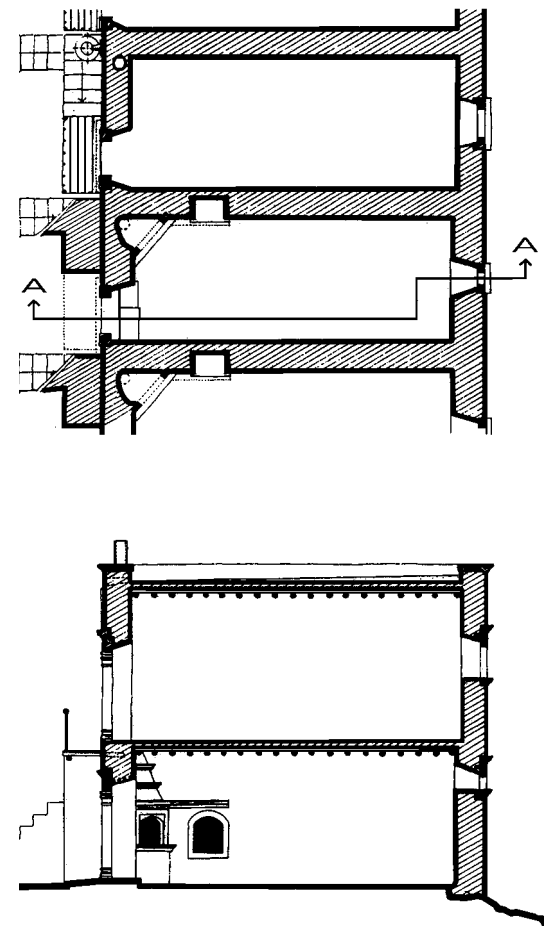
Variety and richness are introduced within this unity by the adaptation of building to site and vice versa. In addition, a firm architectural attachment to human scale underscores this richness, as measured by the ever-present steps and railings; the size and composition of doors and windows; and other, smaller-scale architectural enrichments.



Sifnos, Kastro. Monochoro dwelling unit



Sifnos, Kastro. Masonry staircases link public and private domains



Kimolos, Kastro. Monochoro dwelling unit, plan and section



This helicopter-based photograph is of Serifos Chora, built on a visually commanding, two-hundred-meter-high hill where a medieval Kastro existed; today only a few dispersed parts of it are identifiable. The photograph demonstrates the enduring use of the monochoro type outside the confines of a defense enclosure such as that of Sifnos Kastro. In a dry landscape, flat roofs continue to serve as rainwater catchment areas.

DWELLINGS

Two building types have determined the urban forms of the Aegean Kastro: dwelling units and churches or chapels. Rectangular building forms enclose the dwellings, while curvilinear building forms enclose the churches and chapels. Thus, by and large, rectangular forms have come to identify secular functions, and curvilinear ones to identify religious functions. The dwelling unit, which, repeated vertically and horizontally, produces the external defenses and determines the overall high-density of an Aegean Kastro is the “monochoro.” The term, a combination of “mono” (single) and “choros” (space), defines a living module within Kastro, accommodating the needs of a single family. Kastro, the collective fortification, and monochoro, its constituent dwelling unit, developed an inseparable and mutually supportive architectural relationship, crucial to life and culture in the medieval Aegean archipelago.

Local stone and poor-quality wood, mostly “fithes,” were the basic building materials of the monochoro. These materials determined its size and form within the Kastro. In nearly all the surviving collective fortification examples, sixty-centimeter-thick, parallel stone-walls form the long sides of the rectangular plan of the monochoro. The spacing of these two long walls depends on the locally available fithes, with a spanning capacity that does not ordinarily exceed four to five meters. One of the short sides of the rectangle becomes part of the continuous external defense wall. The entry door, located on the other short side, faces the internal path of the settlement, as is the case, for example, in the Sifnos Kastro.

The typical proportions of the monochoro plan are close to a 1:2 ratio, yielding an eight-to-nine-meter depth. The party walls are blind. For defense reasons, the windows on the back wall are small, but nonetheless are adequate for cross-ventilation. In addition to access for the unit, the entry wall provides natural light and ventilation. In the absence of partitions, an elevated platform in the back serves as the unit’s sleeping area and suggests a division of space, with daily functions concentrated in the better-lit front half. The elevated platform also necessitates a ceiling height more generous than the other two dimensions of the monochoro. Other daily and seasonal functions occur within the articulated space of the monochoro, leaving no unused or uncared-for wall or floor space. Folklore studies have extensively documented the inspiring design accomplishment represented by the monochoro, whose thick, solid masonry walls, stuccoed and whitewashed, insulate an internal space that is thermally comfortable both in summer and in winter.

Repeated vertically, the narrow-fronted monochoro dwelling unit produced the high building density characteristic of all Aegean Kastro. From the interior of a collective fortification, an upper level monochoro becomes a separate horizontal property with direct access from the street. Solid masonry, multistep exterior staircases provide access to the upper-level units.

A landing at the entry-door level effectively extends the limited square footage of the dwelling unit and enhances the social life of the street. As active links between the private and the

public domains, these solid masonry staircases articulate the street visually and serve as reminders that the juxtaposition of many individual units assembled the long, continuous, and massive external defense wall.

Solid masonry staircases, indispensable architectural elements in a constricted urban space, provided endless architectural challenges to the vernacular builders’ inventiveness.

These challenges were met with skillful responses that combined unexpected turns and dexterously arranged step placements, with narrow treads and steep risers, in the ascent from the public street to the private entry. Above a certain height, the solid masonry steps were replaced by a wood structure and often by latticework in a visually persuasive combination of materials that underscores a heavier-below, lighter-above architectural relationship. The massively sculpted masonry steps attached to the narrow-fronted monochoro dwelling units are distinctive elements of the architecture of the Aegean Kastro, as the examples of Sifnos, Mykonos, Antiparos, Astypalaia, Folegandros, and others would confirm.

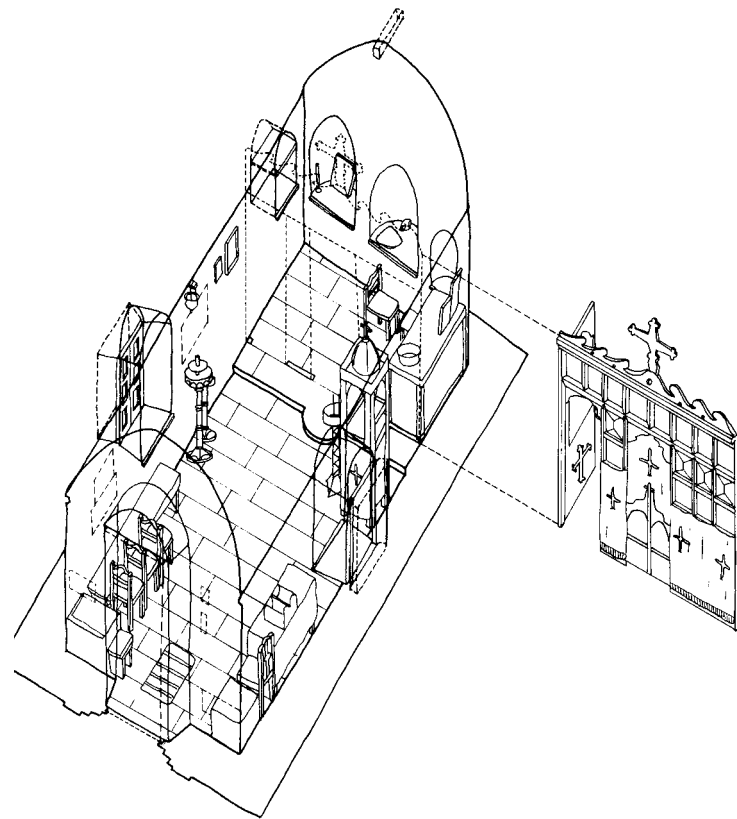
Fithes from Syros, Sifnos, Hydra, and Patmos (left to right)



Variations in the configuration of the monochoro dwelling unit appear as early as the Antiparos Kastro. There, the units are placed with their long axis parallel rather than perpendicular to the external fortification wall. Extensions of individual property to embrace more than one monochoro bay also occur within some fortified settlements. When the extension is vertical, the limited square footage of each monochoro unit allows, at best, for steep steps under a trap door to facilitate internal communication. But even with this limitation, direct external access to each of the combined monochoro units is almost always retained. Variations occurred most often, of course, when the monochoro unit began to be built outside the confines of the collective enclosure. In these circumstances, the monochoro continued to be an important dwelling unit type in the new towns developing beyond the fortified periphery of a Kastro. The current practice of unifying three or four monochoro units into a single property to create the greater square footage expected today bears witness to the architectural versatility of the original building type.



Astypalaia. Iconostasis in the interior of a barrel-vaulted, domestic-scale chapel. The axonometric below is of a typical single-nave, barrel-vaulted chapel and demonstrates the importance and location of the iconostasis, a sine qua non for a Greek Orthodox place of worship. This elegant drawing is borrowed from the extensive study of Cycladic vernacular architecture by Professor Soichi Hata, of Shibaura Institute of Technology in Tokyo, Japan. More of Professor Hata's drawings appear in this and the Santorini chapter.



The chapel on the left is incorporated into the urban fabric of Mykonos, while the chapel on the right stands free outside the nearby Sifnos Kastro.



CHURCHES AND CHAPELS

Churches and chapels are important components of the urban fabric of Kastro. Scattered beyond urban boundaries – each island includes hundreds of churches and chapels – are religious, historical, and physical landmarks in the island landscape. Whether incorporated into the urban fabric of Kastro or freestanding in the landscape, they impress the viewer not only by their ubiquity but also by their diminutive domestic scale. The great majority originated not as institutionally commissioned buildings but as private chapels erected to fulfill a personal vow. Erecting a chapel, and dedicating it to the builder's protector saint, gratefully acknowledged a safe return from a perilous sea journey or a cure for a life-threatening illness by divine intervention. Most of these votive chapels have remained private and have been bequeathed, together with family houses, to subsequent generations of the original builder's family. The descendants have maintained the chapels, and on the feast day of the saint to whom the building was dedicated, they participate in the annual whitewashing, an architectural ritual that confirms the chapel's active presence in the post-Byzantine life of the island community.

The presence of churches and chapels as historical components of the urban fabric of Kastro is underscored today by the examples of Astypalaia and Kimolos Kastro. In the former the chapel of Ayios Georgios has outlasted the abandonment of the Astypalaia Kastro. It stands free, lovingly whitewashed and maintained by the citizens of Kastro, who in the late 1940s moved to Chora below. Built during the nineteenth century, Panayia church, also in Astypalaia Kastro, sits on the base of a medieval guard tower, confirming the earlier departure of Latin lords and the preeminence of Greek Orthodoxy in the affairs of the community during the Tourkokratia years. Kimolos Kastro, completed by the end of the sixteenth century, is the only Cycladic Kastro built on the initiative of a Greek merchant after the departure of Latin lords. Symbolically replacing the Latin keep at the center of the double enclosure of Kimolos Kastro, the church of Christos, in an immediate environment of ruins, is again today lovingly whitewashed and maintained by the citizens of the town of Kimolos.

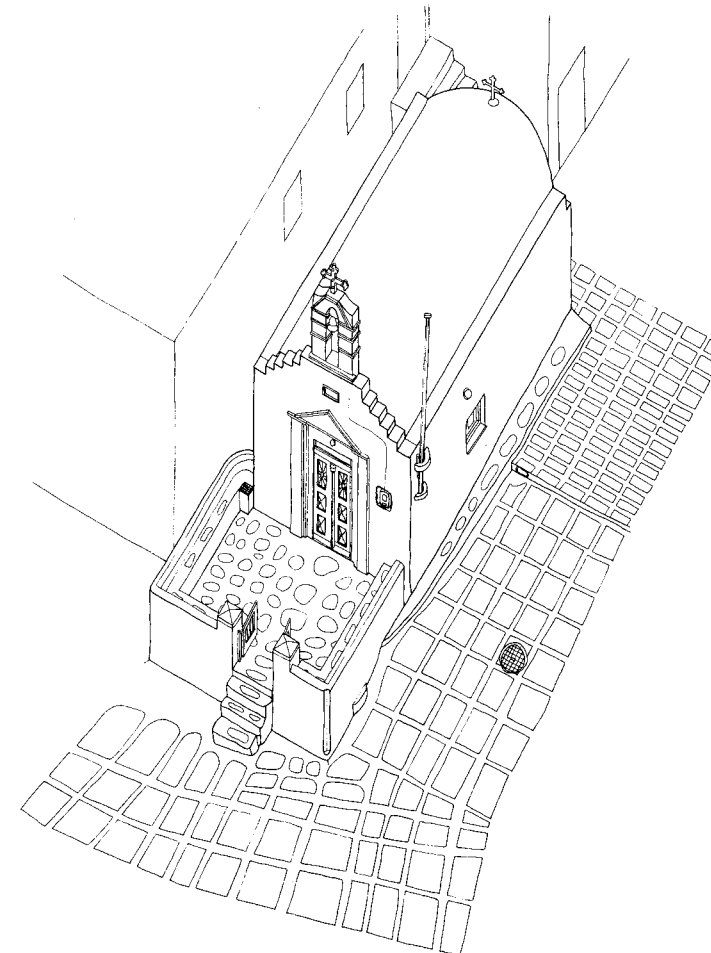
Enclosed by two-foot-thick heavy masonry walls, the majority of these chapels are constructed on the single-space, single-nave, monochoro principle adapted to a religious rather than a secular purpose. The apse attached to one of the narrow sides of the enclosure is always oriented towards the east, as required by the Byzantine Greek Orthodox tradition. The entry door is located on the opposite, or western, wall of the chapel.

No matter how minimally endowed the building is, an iconostasis (a screen separating the chancel from the interior space open to the laity) always separates the public from the consecrated part of the chapel. A barrel vault spans the width of the chapel, which normally measures between three and four meters and rarely exceeds five. Often, and in Sifnos in particular, a flat-roof construction is used instead of the typical barrel vault that is more prevalent in the rest of the Cyclades islands. In such flat-roof buildings it is the bell tower, an upward extension of either the west or the south wall, which identifies and distinguishes the chapel from the secular urban fabric, as, for example, St. John Theologos in Sifnos Kastro eloquently demonstrates. Plan



Astypalaia. A double-apse window of moderate size allows limited light to enter, adding some gentle natural illumination to the candlelit interior of the chapel.

The drawings of Professor Hata (below) and Michael Varming, a Danish architect (opposite page), together with the photograph from Mykonos (top, right), provide a rich description of the ubiquitous Aegean chapel.



proportions are likely to be 1:2, with one for width and two for length. Openings, which are few and moderate in size, allow only a modicum of natural light into the interior so as not to overwhelm the permanent candlelight within. The architectural scale and materials that fill the wall openings, including doors and windows, integrate each chapel into the urban fabric of a Kastro.

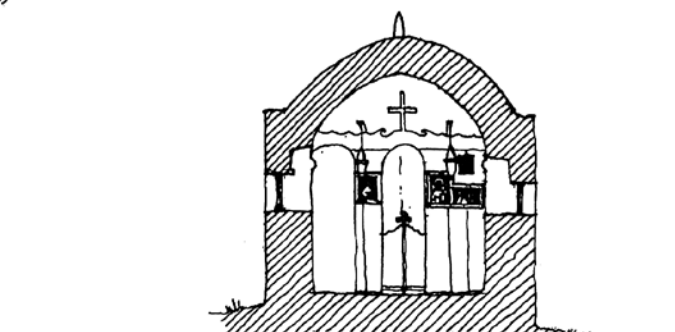
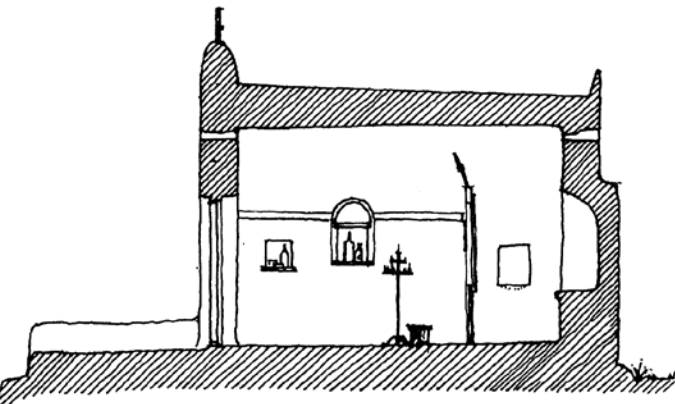
Two single-nave chapels have frequently been joined into one. Two apses at the east end confirm the origins of the building, while, occasionally, a single entry identifies its new unity. Numerous examples of such double chapels exist on most, if not all, of the Aegean islands. Some scholars believe that the double-nave, single-chapel building originated during the era of the Duchy of the Archipelago when the strong Latin Roman Catholic presence in the islands could have resulted in a simultaneous double liturgy designed to meet the religious needs of a mixed community.

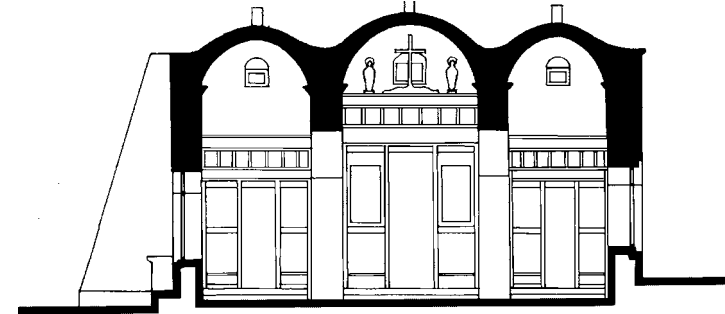
In addition to the barrel-vaulted or flat-roofed single-nave chapel, the Aegean islands' church typology also includes single-nave-with-dome chapels, one of which appears inside Sifnos Kastro. These chapels are larger in plan and in volume because of the dome, yet their other features, including the heavy stone masonry, the apse projection on the east side, the domestic-scale openings, and the upward extension of the wall to form a bell tower, remain the same as those of the barrel-vaulted or flat-roofed building types. The dome sits at the intersection of two barrel-vaults: the east-west barrel vault, which runs the full length of the building and the north-south barrel vault, which to meet the confines of the rectangular plan, appears atrophic.

The political life of the moribund Byzantine Empire came to an abrupt end with the fall of Constantinople in May 1453. The Ottoman Turkish rule that replaced it destroyed the aristocracy that had sponsored the formal culture of the Byzantine Empire, and yet allowed the captive second-class Christian population to retain its religion and culture and, in certain circumstances, a measure of self-government. Of these monumental changes in the region, Speros Vryonis writes, "The effect of Turkish forms on the Byzantine legacy was decapitation on the formal level and isolation on the folk level." The Aegean archipelago was initially stunned by this combination of "decapitation" with "isolation." But its eventual recovery is eloquently demonstrated by the architecture of the churches and chapels presented on these pages.



Mykonos, chapel, eastern elevation





Larger than the typical island chapel, the church of Ayios Konstantinos in Artemon, Sifnos, is composed of three barrel-vaulted naves, the central one wider than the other two. Unique in Sifnos and rare in the Aegean archipelago, the building utilizes, in addition to the barrel vaults, the typical vocabulary of chapels, including thick masonry walls, small openings, and whitewash.



Apollonia, Sifnos. The bell tower identifies and distinguishes a flat-roofed chapel from the surrounding dwelling units.

After the collapse of Latin rule in the Aegean, the islands' culture continued to be nurtured by the Greek Orthodox Byzantine tradition, as the islanders remained true to their religious rites and the architecture that housed them. In the past the formal culture that emanated from Constantinople had sponsored such major and innovative buildings as Panayia Katapoliiani in Paros and the Monastery of Saint John the Theologian on Patmos. When such state endowments disappeared, Aegean religious building was forced to rely on the islands' own limited means. Materials were restricted to those that could be found locally, and for economic and political reasons, the size and scale of buildings were reduced from the monumental to the domestic. Families expressing their religious devotion by building small chapels were less likely to provoke Turkish rapacity than communities building sizable, richly appointed churches. Left to their own devices, the Aegean island communities adhered to their traditional religious architectural forms and relied on proliferation rather than on innovation.

Aegean island chapels and churches are thus apparently ageless. It is difficult to discern the century in which a particular church or chapel was built, whether the seventeenth, the eighteenth, or the nineteenth, nor does it make much difference, since their spiritual and earthly virtues are diachronic and incorporate traditional post-Byzantine forms that fostered the inventiveness of their vernacular builders. The forms, materials, and details of these chapels and churches yield little archaeological evidence of the dates they were built, and dendrochronology is unhelpful where door lintels have been created from recycled pieces of marble. Occasionally, a dedicatory inscription dating from the erection or rededication of a chapel will shed some light, although most of these chapels date from the eighteenth century or later, when the Aegean island towns saw a rapid rise in maritime and commercial activity and prosperity. Economic growth meant that a vigorous and enterprising middle class of captains and merchants with money to spend began to develop and celebrate their culture and religion under the watchful eyes of the Ottoman Turkish authorities.



Joined together, two single-nave chapels stand free in the landscape of Mykonos island. The axonometric drawing of these two chapels is borrowed from the extensive study of Cycladic vernacular architecture by Professor Soichi Hata.



Two single-nave-with-dome chapels joined into one in Vathi, Sifnos. The view is to the west, and the cross in the middle sits on top of the shared bell tower, an upward extension of the west entry wall to the chapel.



VUE DE LA CÔTE DE SANTORIN.

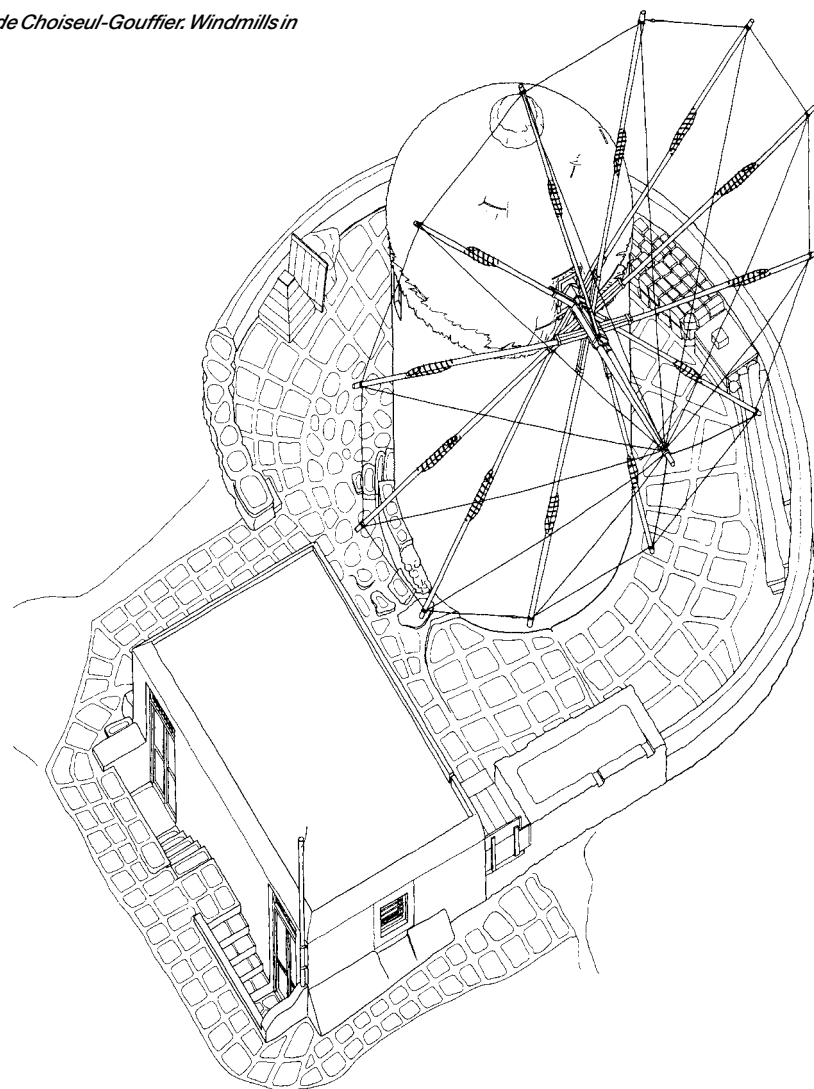
"View of the Coast of Santorini," engraving from "Voyage Pittoresque de la Grece," a 1782 publication of Comte de Choiseul-Gouffier. Windmills in linear formation appear on the right of the illustration.

WINDMILLS

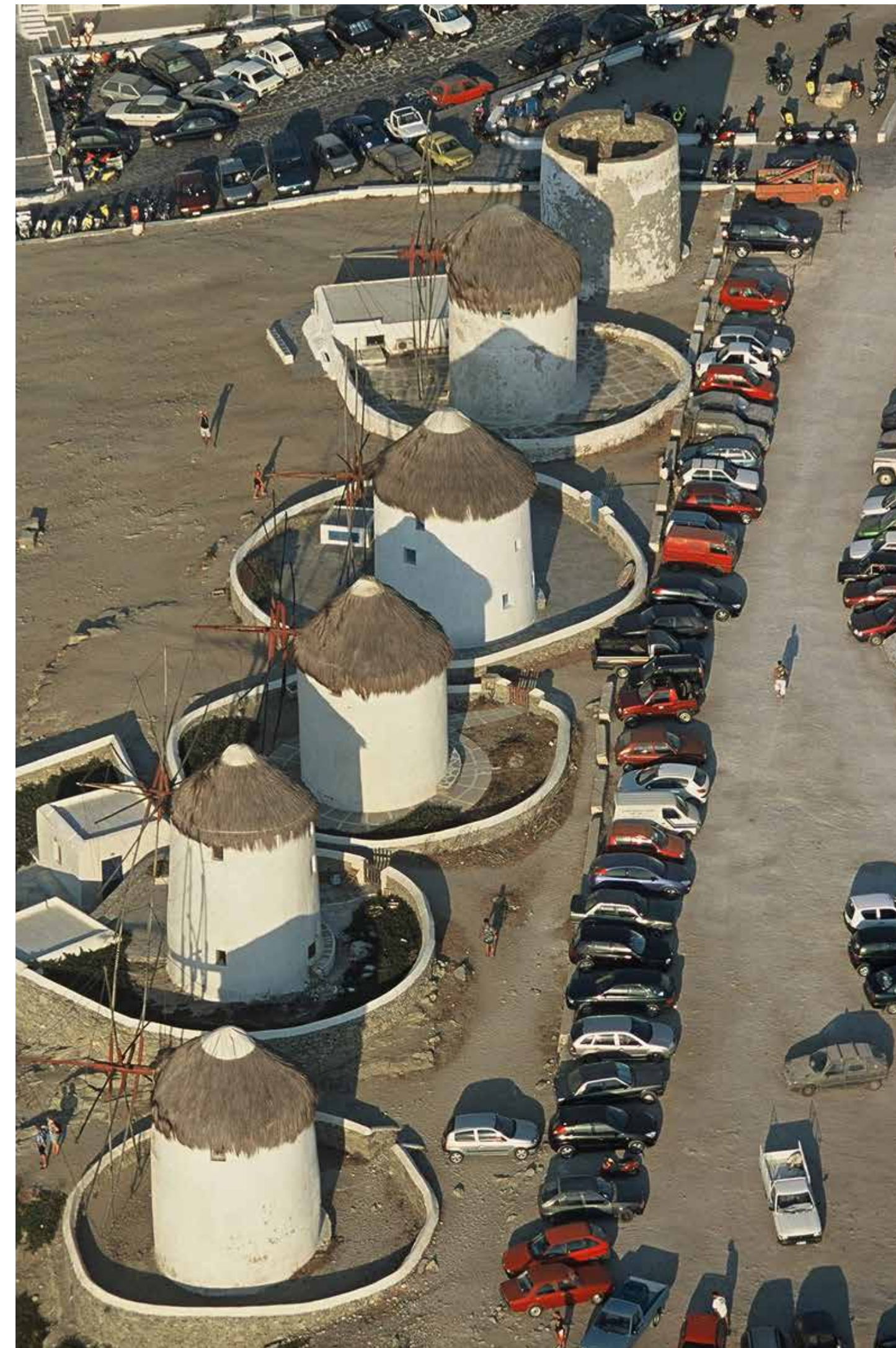
Built either as single units or in linear formations, windmills were strategically located on heights and ridges above the communities they served to harness the power of the ever-present Aegean winds and provide energy to grind grain for flour. Located by necessity outside the urban fabric of Kastrá, windmills nevertheless were important contributors to community functions, since waiting for the grain to be ground created opportunities to gossip, sing, exchange news, find brides, and pass along folklore.

Windmills were built of the same native materials as dwellings and chapels but were configured differently, in massive cylindrical forms. It is not clear how and where windmills originated, although they may have been inspired by the ancient watermills used to harness the power of the water. The earliest known windmill dates from tenth-century Persia, which supports the conjecture that windmills were brought to Europe by crusaders returning from the Middle East. In Western Europe the earliest references to windmills date from the end of the twelfth century. In France and the Netherlands, where the windmill found wide application, detailed descriptions and working drawings date from the eighteenth century.

Buondelmonti in the 1420s, Barsky in the 1730s, Choiseul-Gouffier in the 1770s, Thomas Hope in the 1790s, and many subsequent travelers found the windmills in the Aegean archipelago important enough to include in their drawings. Windmills were, in fact, integral parts of Aegean communities in both form and function. In an extensively researched and documented study, "Windmills of the Cycladic Islands," Zaphyris Vaos and Stephanos Nomikos state, "All the necessary conditions for windmill development existed in the Cyclades: scarcity of water, sufficient wind power for over 310 days a year, little rainfall and low humidity, dry conditions which contributed to the upkeep of the sails and wooden mechanism, and finally, the existence of millstones of excellent quality."

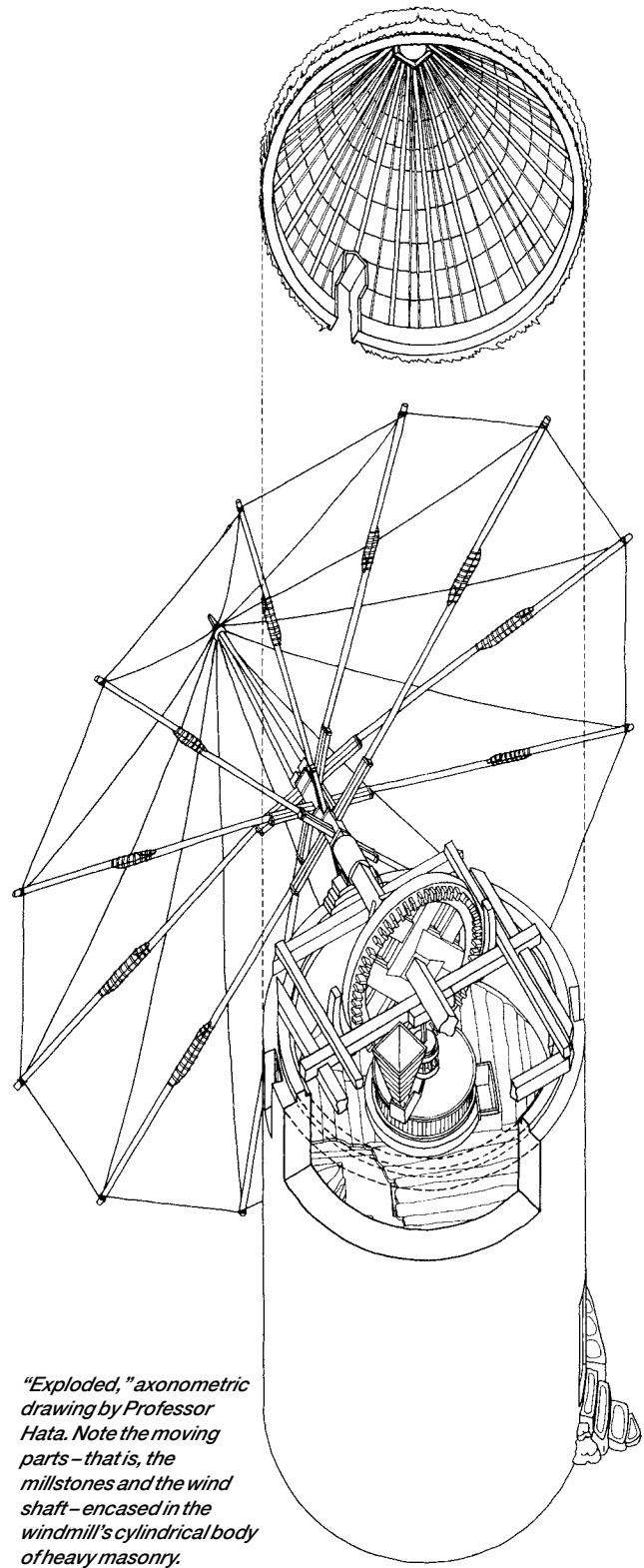


Santorini. A windmill in operation as late as 1948

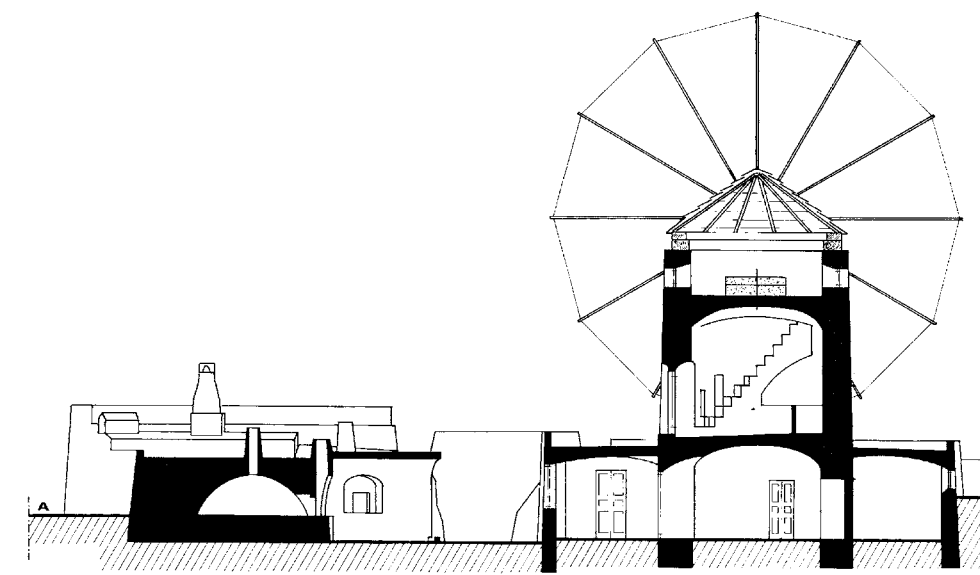
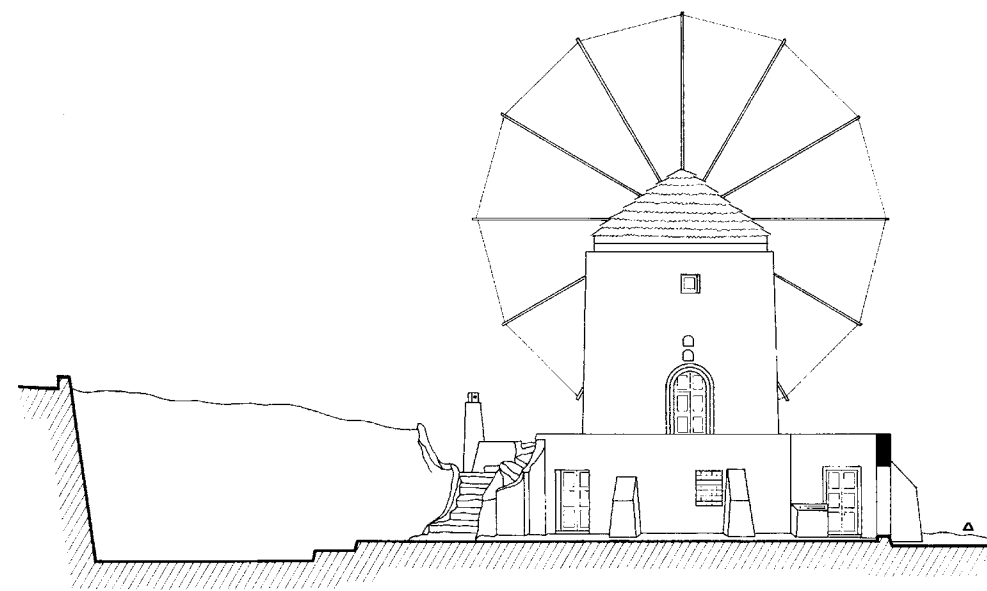


Mykonos, Chora. Stationary windmills and movable automobiles line-up for different reasons. This helicopter-based photograph was taken in the late afternoon.

Opposite page: the axonometric drawing by Professor Hata is of the fifth windmill in the photograph counting from below.



"Exploded," axonometric drawing by Professor Hata. Note the moving parts – that is, the millstones and the wind shaft – encased in the windmill's cylindrical body of heavy masonry.



Elevation and section of an Aegean windmill. Drawings from the "Windmills of the Cycladic Islands," by Zephyris Vaos and Stephanos Nomikos



Clockwise from left: windmills at Serifos, Amorgos, and Ios

Several hundred individual remnants confirm the windmill's widespread presence throughout the Aegean archipelago. Windmills were valuable pieces of real estate to be maintained, improved, sold, bequeathed, and, at times, vandalized and destroyed by corsair raids and warfare. Built as they were on exposed sites, windmills could fall victim to the destructive power of the wind they were built to catch. By the end of the nineteenth century, with the coming of industrialization and the changing island economies, windmills were on the decline. Following World War II they disappeared altogether, supplanted by nationwide electrification. More recently, experimental wind turbines have been placed on a number of the islands to generate electricity, the very phenomenon which had earlier caused the demise of the evocative windmill building type.

Heavy masonry walls, between half and one and one-half meters thick, formed the cylindrical body of a windmill. The height of this cylinder averaged about five and one-half meters, and the usual exterior diameter was about seven meters. The diameters of the base and the top almost always differed. However, it is difficult to determine standard proportions for these dimensions. A podium provided the base for the cylindrical tower, serving also as a transitional element from the usually rocky terrain and as a platform from which to operate the windmill's sails. Located on the lee side, an entry door was often the only opening into

the massive cylindrical tower. Two and, occasionally, four small openings lit and ventilated the windmill, whose exterior and interior surfaces were whitewashed annually.

Where islands lacked the proper quality or type of timber, millwrights might have to travel as far as Mount Athos (Ayion Oros) or Asia Minor to locate, select, and transport the wood appropriate to their commissions. The transportation of the wind shaft, the longest and heaviest part of the windmill mechanism, presented a particular challenge, as it had to be towed by sea and then carried by men and mules to a mill site at a high point on an island. As a specialized structure, the windmill required materials and talents different from those needed to build the more common dwelling unit or chapel.





Karpathos

Olympos (known locally as Elympos), a settlement located in the northern half of Karpathos, a mountainous Dodecanesian island, is also known for the large number of "horseshoe" type plan windmills.

Transactions with customers and workshop repairs took place on the ground floor of the windmill tower, which also served as temporary storage for grain and flour. Depending on the size and design of the tower, millstone grinding occurred on an upper level or in a mezzanine space. The location, form, and parts of the building all helped to harness the power of the wind to turn the millstone. The millstones, the pivotal parts of any windmill, did not have to be brought from afar; for centuries quarries, mostly in Melos but also in the islands of Kimolos and Poliaegos, produced millstones for most, if not all, of the archipelago windmills.



"Horseshoe" type plan windmills using a fixed wind shaft in Olympos, Karpathos (left), and Sifnos, near Kastro (right). The Sifnos windmill has been converted to a house.



"Town of Hydra seen from my Reis's house," Thomas Hope, sepia drawing. Reis means ship captain in Turkish. Note the windmills on the left side of the drawing.

Town of Hydra seen from my Reis's house

A cone-shaped, thatched roof protected the wood frame of the cap, which housed the windmill mechanism and was the most demanding and time-consuming part of the building to construct. The need to rotate the cap in the direction of the prevailing wind made the mechanism of a cylindrical windmill relatively complex.

The particularly steady winds that prevailed at a number of island sites, including Sifnos in a location near Kastro, produced an unusual and rare "horseshoe" plan for their windmills. Because such winds made rotating the cap unnecessary, horseshoe-plan windmills used a fixed wind shaft instead of one that rotated, making for a windmill that was simpler and less expensive to construct and operate. The fixed wind shaft once more suggests that the

mutually informing relationship between site and building was a salient feature of the vernacular architecture of the Aegean islands.

Vital to the life and architecture of the archipelago, the power of the wind was harnessed by sail – sails to move ships and sails to rotate millstones. Although today diesel-powered vessels mark the invisible lanes of the Aegean Sea, the relics of windmills that dot the island ridges are visible witnesses to an earlier time and a different way of life.



Tenos, dovecotes



Chios, Anavatos

DOVECOTES, MONASTERIES and WHITEWASH

Dovecotes exist only on a small number of islands, and notably on Tenos. A detailed presentation of this unique and delightful building type, erected to shelter pigeons, is part of the segment of this book devoted to Tenos. During the years of Venetian and Ottoman domination, the dovecote and the windmill developed on sites lying outside Kastras. By contrast, monasteries had a Byzantine provenance and their function, form, and architectural scale underscore continuity between Byzantine and post-Byzantine culture in the Aegean archipelago. In addition, the geographic proximity and spiritual preeminence of the Ayion Oros monasteries made them prototypes for Aegean monasteries and for

Kastras as well. Indeed, with populations in the hundreds, Cycladic Kastras developed an architectural scale and size that came to resemble those of Ayion Oros monasteries. Details on this subject are available in segments of this book devoted to Sifnos and Hydra, islands with monasteries that are, respectively, located on a hilltop site and incorporated into an urban setting.



Santorini, Barrel-vaulted chapel near Skaros

Whitewash, the most distinctive feature of the vernacular architecture of the Aegean archipelago, is of uncertain historical origin. Some scholars believe that the exterior elevations of early settlements were built of exposed stone without stucco and whitewash so that they might more easily blend into the natural environment and conceal the buildings from potential raiders. The buildings of Anavatos, a settlement on the island of Chios uninhabited since the nineteenth century, support this theory, which sees the application of whitewash as a recent practice. Scholars who disagree point to the reliable descriptions by such travelers as Thevenot, a Frenchman who visited thirteen Aegean islands in 1655 and who, referring to Skaros in Santorini wrote, "The houses are well built, all white of round shape surrounded by high walls so they cannot be seen at all, and you think you are in front of fortifications." To reconcile these views one might speculate that whitewashing in the Aegean archipelago began inside the densely populated Kastras and only later came into widespread and exterior use.

Possibly, whitewash was used initially as a disinfectant, given that hygienic conditions within the fortified settlements were hardly ideal. The absence of sewers, with street drain-

age only in a high-building-density environment that also housed pack animals, posed a constant threat to public health. Thus whitewash may have been applied as a disinfectant in an attempt to reduce the threat. Whitewashing for hygiene goes on today as, for example, in most island public spaces and cemeteries, where tree trunks are whitewashed up to a (human) height of six feet to ensure public health, cleanliness, and good maintenance.

Repeated applications of whitewash over stuccoed masonry or stone and mortar protect the exterior walls of a building from natural wear and tear and the harmful effects of salt from the nearby sea. A fresh and bright layer of whitewash also impressively increases the heat-reflective capacity of the exterior surface of the walls, as can be easily confirmed by a visitor who crosses from a cool, dark interior to a sun-drenched, hot summer day outdoors.

Before electricity and public street lighting were introduced, whitewash was also applied to street surfaces for the night glow that marks steps and edges and facilitates night walking, an application that continues today, as many island examples confirm.



Amorgos, Chozoviotissa monastery



Walls from Hydra and Spetses



Whitewashing and coloring of a Mykonos chapel



Street surfaces from Folegandros and Sifnos

These functional uses of whitewash continue today, but social and aesthetic considerations have also become prominent. A fresh layer of house whitewash often extended to the joints of the street pavement in front, expresses family pride and perhaps some competition with the neighbors. When the schoolchildren of Folegandros whitewash the pavement and step joints that lead to the entrance of their school as they prepare to observe the October 28 national holiday (the anniversary of Mussolini's failed invasion of Greece) they engage in an act of civic and national pride. Last but not least, drawings of flowers, fish, and other traditional motifs done in whitewash on poured concrete street surfaces express some residents' dismay at the loss of the human and architectural scales of the old cobbled streets and at the same time represent a fresh and ingenious attempt to recover them.

Successive layers of whitewash applied annually on buildings of variable typology, unify surfaces, whether vertical or horizontal, heavily textured or smooth, stuccoed or not, and create a plastic continuity that enhances the engaging qualities of the islands' vernacular architecture by creating a continually changing play of light and shadow. This plastic continuity of form together with the changing light of the Aegean archipelago brings to mind

again Le Corbusier and his poetic definition of architecture as "...the masterly, correct and magnificent play of masses brought together in light..."



THE VERNACULAR RESPONSE



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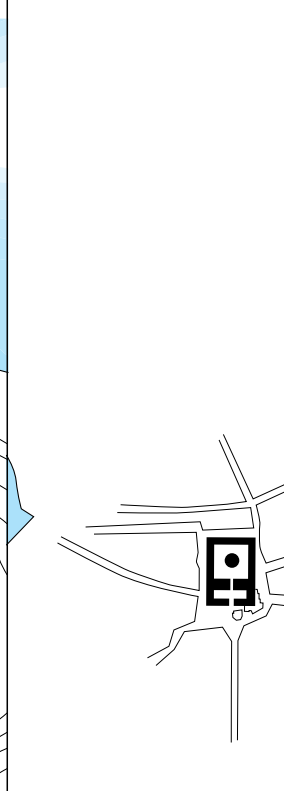
*Sifnos
Kastro
Page 69*



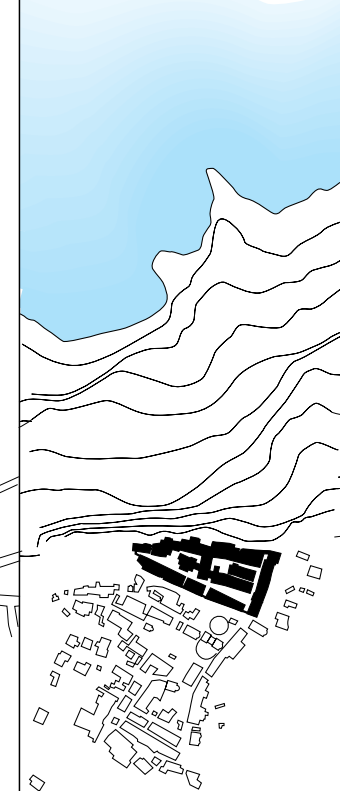
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Kastro
Page 93*



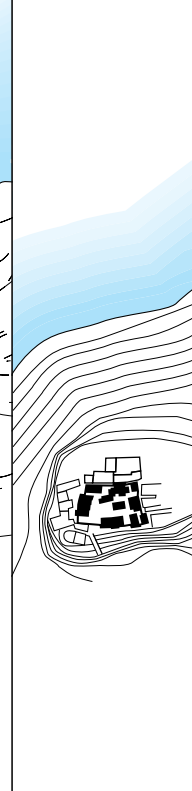
*Antiparos
Kastro
Page 117*



*Folegandros
Kastro
Page 131*



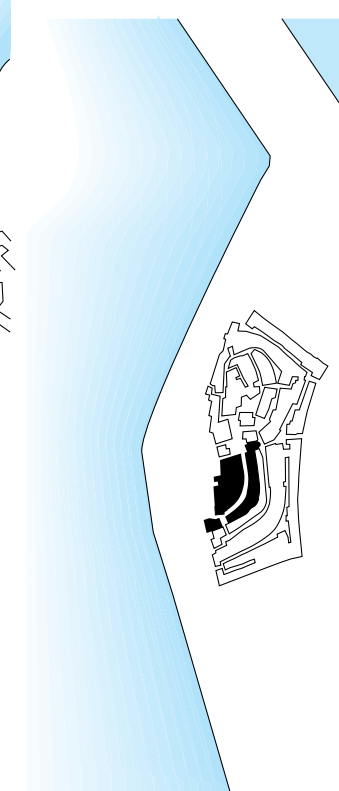
*Sikinos
Kastro
Page 143*



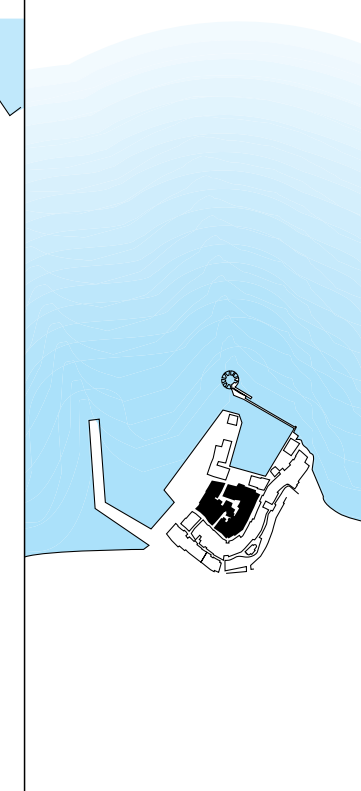
*Naxos
Kastro
Page 157*



*Paros
Paroikia Kastro
Page 179*



*Paros
Naoussa Kastro
Page 179*



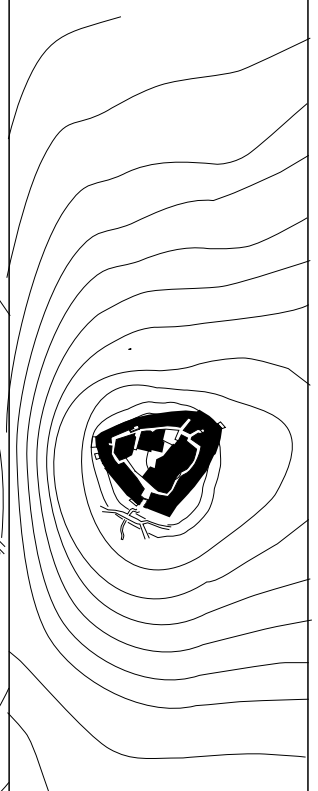
*Mykonos
Kastro
Page 205*



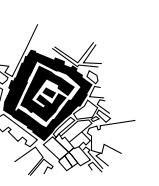
*Syros
Ano Syros
Page 223*



*Santorini
Pyrgos
Page 245*



*Kimolos
Kastro
Page 273*



THE VERNACULAR RESPONSE

COLLECTIVE FORTIFICATION

SIFNOS

Kastro and a Hilltop Monastery



The compact medieval Kastro of Sifnos appears in the foreground. The nineteenth-century central settlements occupy the ridge in the immediate background. The monastery of Profitis Elias, a white dot in the illustration, presides over Kastro and settlements from the island's highest point.



VUE DE LA VILLE ET DE L'ÎLE DE SIPHANTO.

"View of the Town and the Island of Siphanto," etching from Voyage Pittoresque de la Grece, a 1782 publication of Comte de Choiseul-Gouffier, later French ambassador to the Sublime Porte. The tower-like structure pictured on the right corner of the Sifnos Kastro, above, might be the then-extant remnant of the defense tower erected during the days of Januli da Corogna's rule from materials recycled from the ancient Greek acropolis on the same site

SIFNOS

Kastro and a Hilltop Monastery

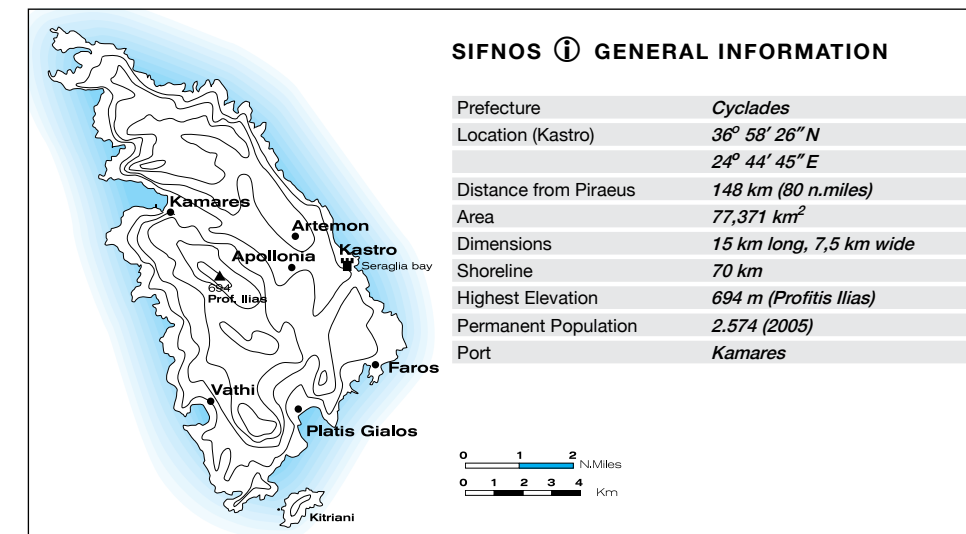
Located on the east coast of the island of Sifnos, the Sifnos Kastro crowns a domelike hill that stands eighty meters above sea level. Forming a peninsula jutting out of the landmass of the island, the north and east sides of the hill rise precipitously from the sea.

On the south side is a small bay called Seralia. Cristoforo Buondelmonti, the Florentine monk who visited most of the Aegean islands and produced a manuscript titled *Liber Insularum Archipelagi* (Book of the Islands of the Archipelago), uses the same name, Se(x)reglia, to identify the bay in his fifteenth-century map of Sifnos.

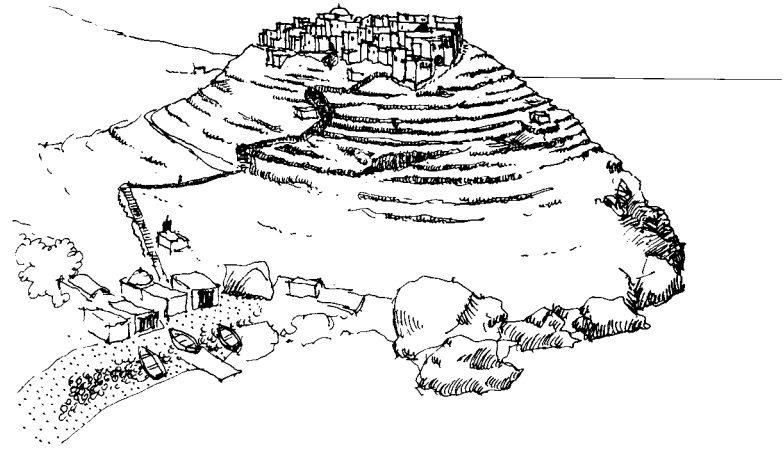
On the ridge, immediately above Kastro, and at a distance of about 3.5 kilometers by road (or two kilometers as the crow flies), appear the present-day central settle-

ments of the island. They were built after 1830, when the last of the Barbary pirates disappeared from the Mediterranean Sea. The settlements of Xambela, Katavati, Apollonia (present-day capital of the island), Pano Petali, Kato Petali, Artemonas, and Ai-Loukas are all located on a fertile plateau 250 meters above sea level.

The second ridge in the background incorporates the highest point on the island, at 694 meters, pinpointed by a white dot that identifies the currently unoccupied monastery of Profitis Elias, a building discussed in more detail in pages to follow.



"I. Sifari" (Sifnos Island). Cristoforo Buondelmonti, *Liber Insularum Archipelagi*, Gennadius Library, Athens, Greece. Fifteenth-century manuscript map. Se(x)reglia Bay is identified on the right side of the map.



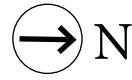
In the elegant drawing appearing above, Michael Varming, a Danish architect, captures not only the essence of both the natural and man-made elements of Sifnos Kastro but also their interrelationship. The stabilizing Aegean horizon, a common visual reference for all Aegean islands and Kastro, is incorporated in both the drawing and photograph on the right.

The side of the Sifnos Kastro most vulnerable to attack was the western side, where in past centuries, footpaths led to its three guarded gates. Today the same three gates, Venieri, Chandaki, and Portaki, provide unimpeded access for pedestrians, whether residents or visitors, to the interior of the hilltop settlement. In addition, the gates keep modern-day vehicular intruders out, thus continuing to defend the Kastro effectively and admirably!

The natural features of the site, as well as its commanding views of the sea, have invited occupancy and fortification throughout Aegean history. Indeed, the northern and highest sector of the Kastro contains the remnants of an ancient Greek acropolis first excavated by the British School of Athens in the 1930s.

In the early thirteenth-century, Sifnos became part of Marco Sanudo's Duchy of the Archipelago. With many other islands, it reverted to Greek hands when Licario, an Italian admiral in the service of the emperor, restored Byzantine rule in the area during the latter part of the century. Nearly one hundred years later, and two years before the Knights Hospitaller of Saint John installed themselves on Rhodes in 1309, Januli da Corogna, an adventurer of Spanish origin who belonged to the Knights, seized Sifnos, renounced his allegiance to the Order, and declared himself an independent sovereign. His seizure initiated a period of more than three hundred years of continuous Latin rule on the island, which passed by marriage from the da Corogna to the Gozzadini family, the latter being eventually dethroned by the Turks in 1617. The main features of the architecture of the Sifnos Kastro we see today date from this early period of Latin rule.

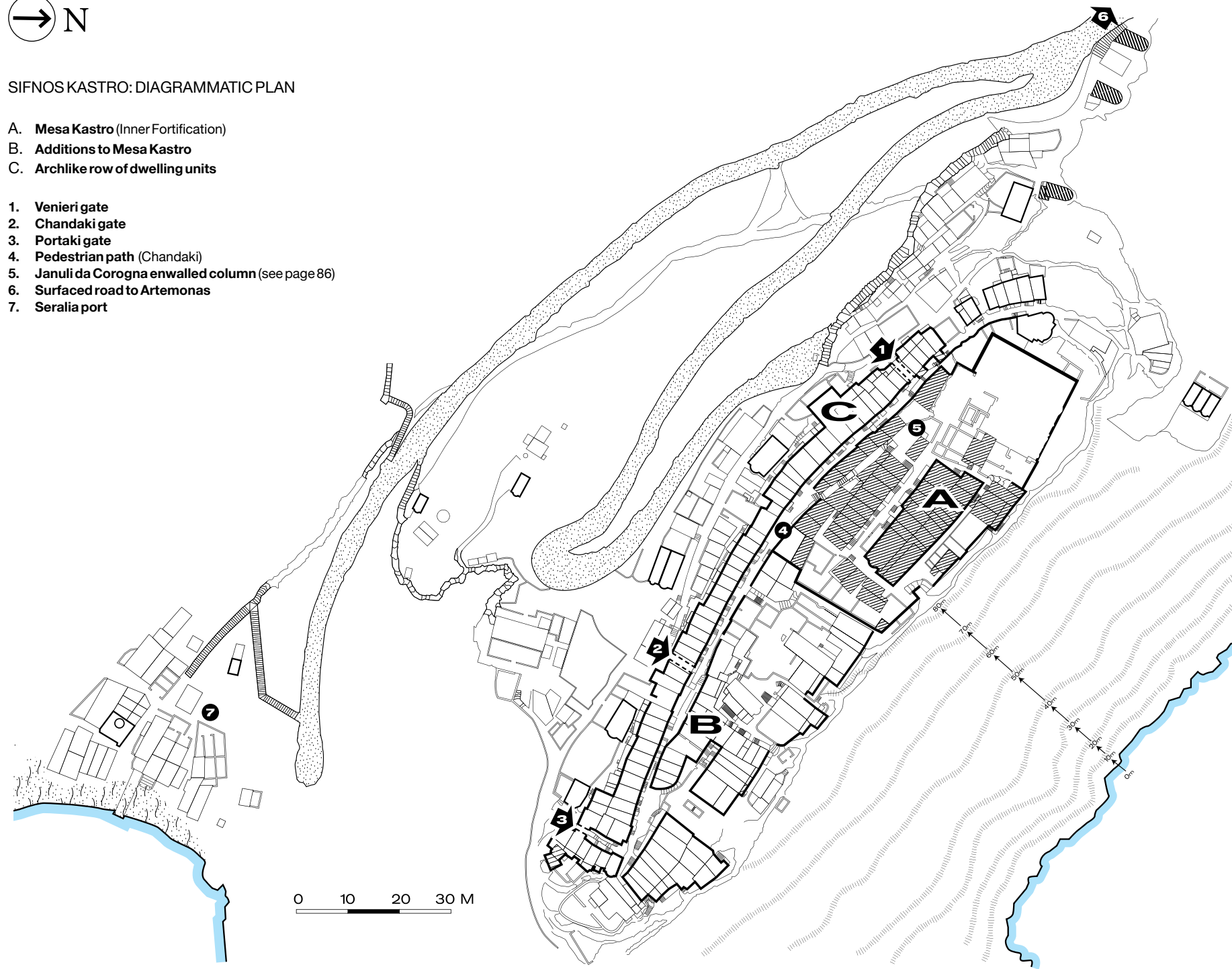




SIFNOS KASTRO: DIAGRAMMATIC PLAN

- A. Mesa Kastro (Inner Fortification)
- B. Additions to Mesa Kastro
- C. Archlike row of dwelling units

- 1. Venieri gate
- 2. Chandaki gate
- 3. Portaki gate
- 4. Pedestrian path (Chandaki)
- 5. Januli da Corogna enwalled column (see page 86)
- 6. Surfaced road to Artemonas
- 7. Seralia port



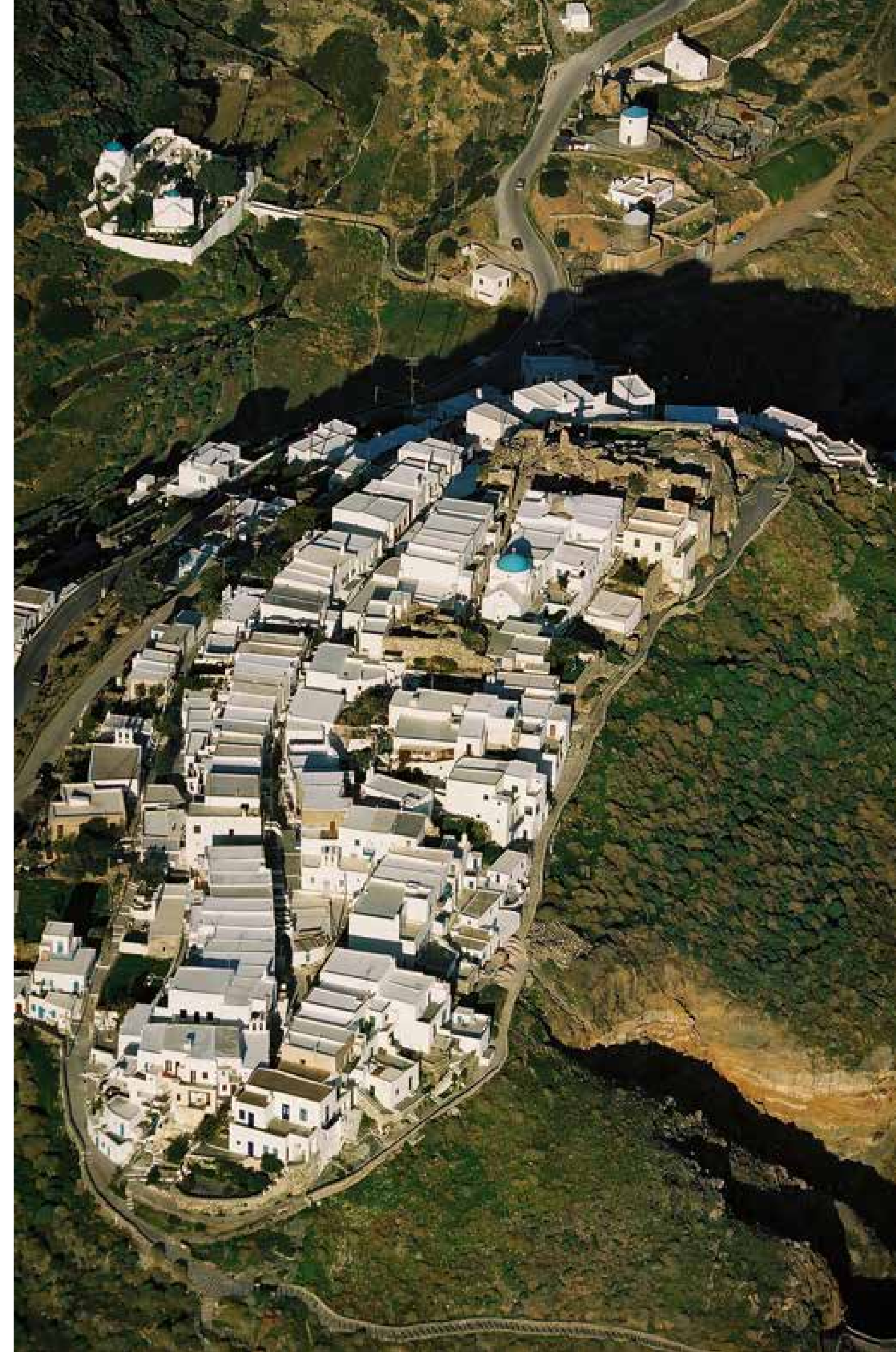
The Sifnos Kastro seems to have been built in four distinct stages, each of which enlarged the defense perimeter. The Mesa Kastro (or “inner fortification,” a term still in daily use by the inhabitants) at the north end of the settlement encloses the fourteenth-century structures of the early da Corogna rule. These structures were built on top of the ancient acropolis, which provided enough recyclable, high-quality building material for a fortified residence for the local ruler and, presumably, a local government seat. The presence of churches, both Latin and Greek and large enough for official functions, reinforces the hypothesis that the site included a government seat. Further evidence stems from the existence of a heavy masonry foundation measuring about seven meters square, suggesting a defense tower or a keep similar to structures in other Kastro and monasteries in the Aegean littoral used as strongholds for observation and last-resort defense.

At later unknown dates, two additions were attached to the southeast side of the Mesa Kastro. Neither is physically integrated with the Mesa Kastro. In the fourth building stage an arch-like row of dwelling units sharing party walls formed the last and most characteristic

enlargement to the Sifnos Kastro. Facing west, it extends from the south tip to the north end of the earlier fortified enclosures.

This last and most significant addition increased the size of the Kastro substantially; it was built to house the common people rather than the nobility at a time when the Hellenization of the Latin lords had advanced appreciably. As it extended to embrace the older fortifications, the new enclosure became one of the most legible and best-preserved applications of the collective fortification system. Two levels of individual properties provide a continuous, massive external wall with a minimum number of openings, each of minimal dimensions.

A helicopter's or, metaphorically, bird's-eye view of Sifnos Kastro. The blue dome is that of Panayia Eleoussa. The cemetery discussed on page 91 appears at the upper left corner of the illustration.





Venieri gate (outer wall)



Venieri gate (inner wall)



Chandaki gate (outer wall)



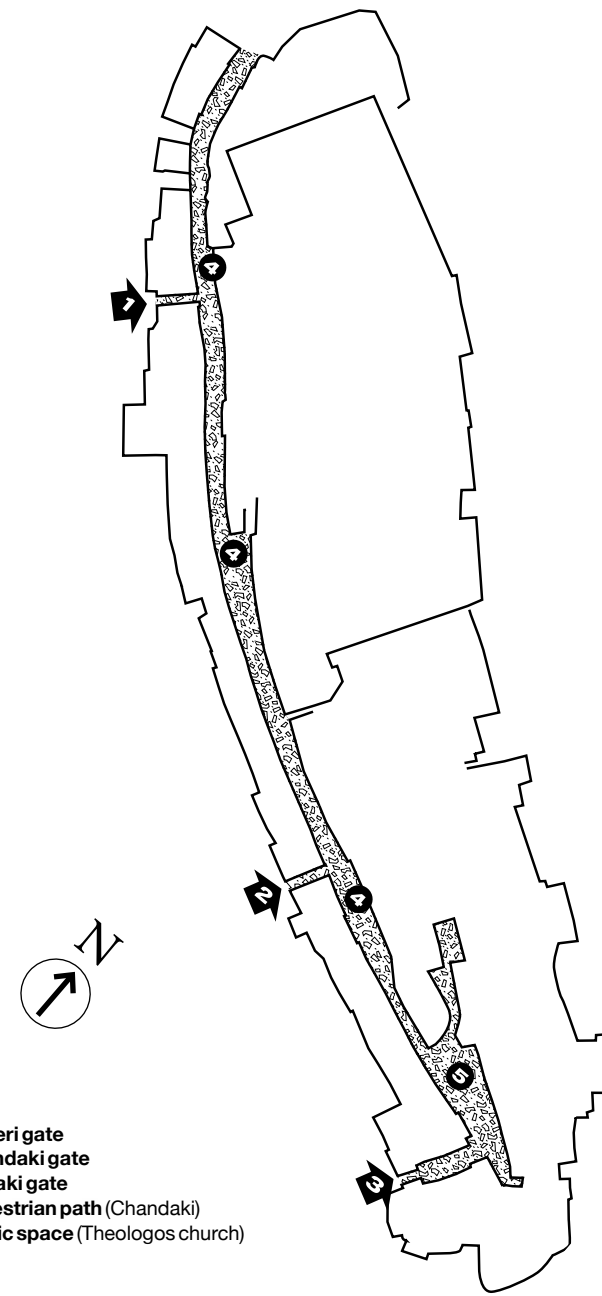
Chandaki gate (inner wall)



Portaki gate (outer wall)



Portaki gate (inner wall)



1. Venieri gate
2. Chandaki gate
3. Portaki gate
4. Pedestrian path (Chandaki)
5. Public space (Theologos church)

Surviving almost intact, three gates incorporated into the lower level of the enclosure control access to the interior of Kastro. The Venieri, Chandaki, and Portaki gates are a living part of the Sifnos Kastro, inviting pedestrians and beasts of burden to enter the Chandaki path, which bends to follow the inner surface of the enclosure.

The builders of these three gates borrowed from the formal military architecture then in Byzantine and Latin use, making adjustments for local circumstance. Each of the first two gates, Venieri and Chandaki, duplicate the dimensions and volume of a lower-level dwelling unit. Side walls shared with other units define their width. Doors of some type – probably metal, timber, or most likely a combination of the two – blocked entry at the outer and inner walls. If the enemy breached the external doors, the defenders at the upper level could reduce the attackers' enthusiasm for breaching the second pair of doors by dousing them with boiling oil from above.

Gates were closed at sundown and opened at sunrise. As fears of piracy diminished, the gate areas came to be used as public, semi-enclosed spaces for neighborhood social gatherings, a custom that has lasted into modern times. To accommodate participants at such gatherings, stoops – that is, raised platforms for seating – ran the length of the gate enclosure on both sides and may explain the current local reference to the Venieri gate as the Loggia Venieri. Roughly shaped wood beams, of local origin, support the ceiling and reconfirm the domestic scale of the gate enclosure.

The name Portaki, meaning “little door,” appropriately characterizes the smallest of the three gates at the southeast end of the Kastro. Small indeed, with its domestic scale dimensions and a lintel that is flat rather than arched, the external opening seems intentionally unobtrusive and probably served special or private rather than public functions. Restrict-

Echoing the curvature of the external enclosure, Chandaki path cuts deeply into the urban mass of Sifnos Kastro, leading to Mesa Kastro (upper end of photo) and to Theologos church public space (lower end of photo).

ed in its internal dimensions, too – no room here for double rows of stoops – the entry path follows a set of narrow steps as they rise to meet a loggia built on the left side with unexpected flair. A squat column supports two substantial arches, with the wall recession behind the arches offering the equivalent of the loggias of the other two gates. The small-scale assembly, the interplay of spaces – some covered, others semi-enclosed or uncovered – and the elements borrowed from formal architecture, though executed in the most sensitive vernacular manner, make this diminutive gate and the internal path emerging from it one of the most rewarding urban experiences inside the Sifnos Kastro.





Massive blocks of steps articulate the curved Chandaki path.

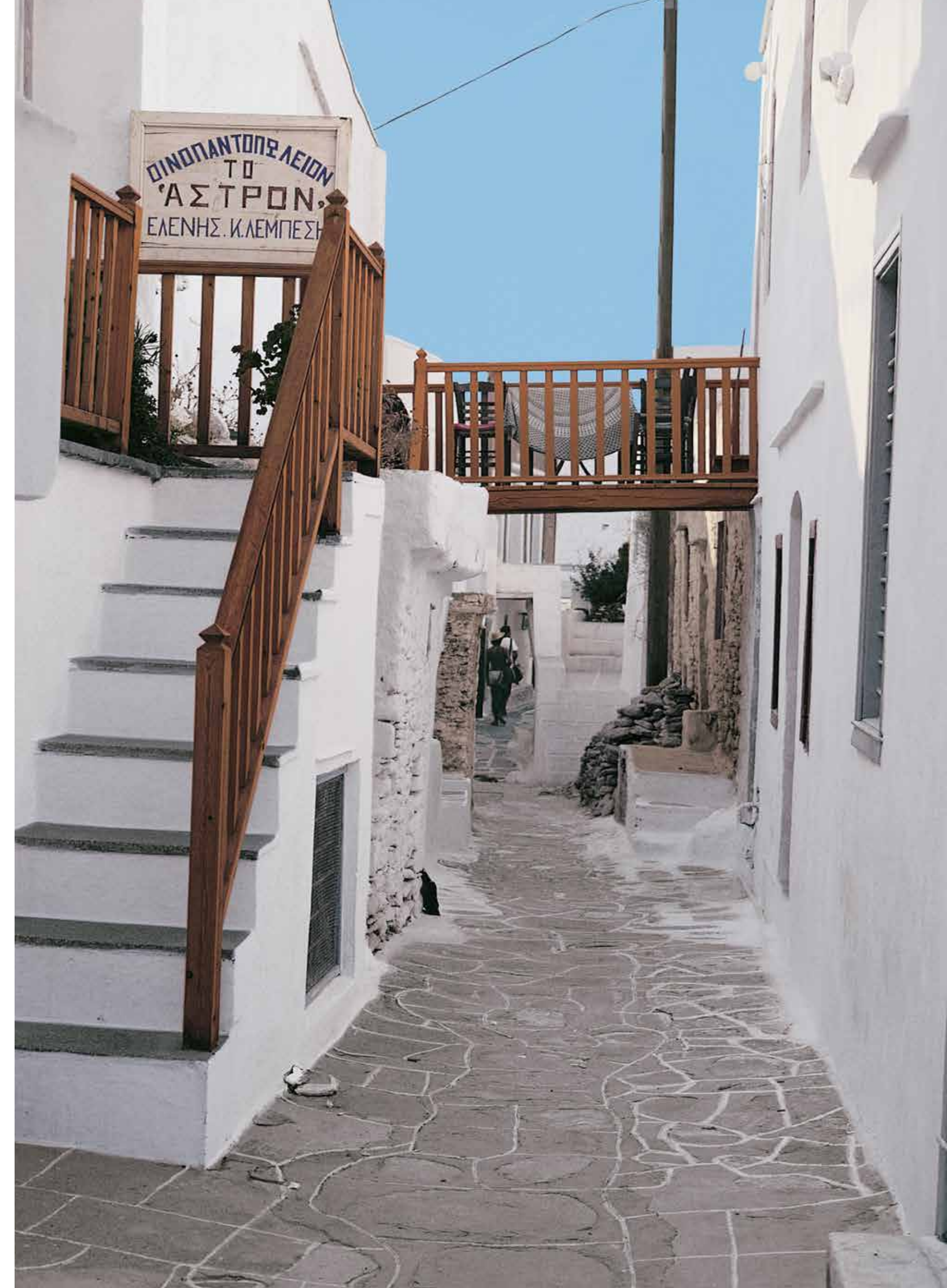
A dwelling unit of the continuous external wall accessed from Chandaki path. Its immediate neighbors having collapsed, this unit stands free, thus allowing identification of the typical component of the external wall.

Beyond the gates, the Chandaki path becomes a lengthy pedestrian circulation artery and a preeminent part of the urban fabric of Sifnos Kastro. The name Chandaki, meaning ditch or trench in Greek, is an apt characterization of the architectural dimensions and function of this path. Echoing the curvature of the external enclosure, Chandaki path leads to Mesa Kastro and other parts of the town, meanwhile providing graceful access to individual dwelling units comprising the external defense wall.

Due to the constricted space of the dwelling units, upper floors are reached by exterior steps made of stone masonry blocks. In a mild and dry climate, these externally placed steps serve foot traffic between lower and upper levels while allowing precious internal space to be devoted to other functions. These massive blocks of steps articulate the curved Chandaki path in a manner typical of Aegean Kastro. Their presence and use introduce subtly but firmly a domestic scale into the public space and urban fabric of the Sifnos Kastro.



Opposite page: Dwelling unit converted to general store "To Astron" (The Star).





*Above: Kastro from the west. The cemetery discussed on page 91 appears at the lower right corner of the illustration.
Below: As in other Kastro and throughout the Aegean, the flat roofs of buildings on either side of the Chandaki path have long served as rainwater catchment areas. In this region of limited annual precipitation, drainpipes direct precious rainwater to cisterns often located within the foundation of a house. During the Duchy of the Archipelago days, flat roofs also served, when needed, as continuous ramparts, allowing defenders to move their forces quickly from point to point and to concentrate them as circumstances required.*



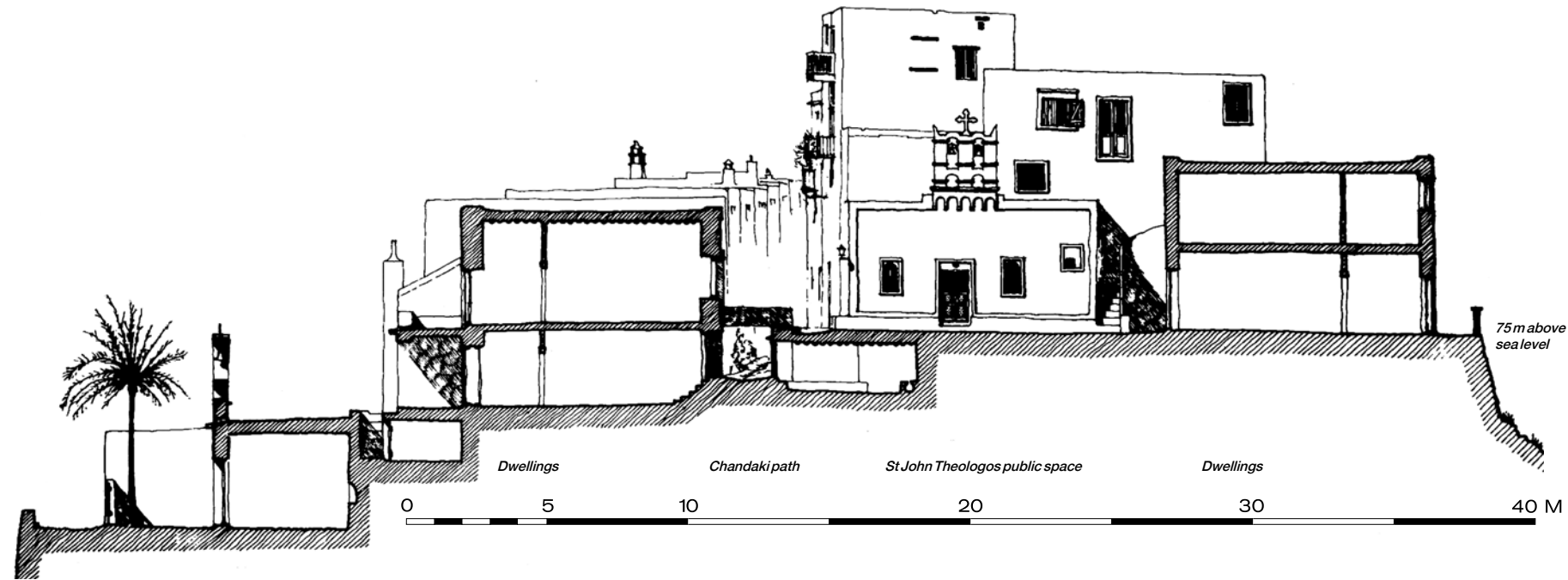
Opposite page: The domelike hill and the collective fortification of the Sifnos Kastro viewed from an inland location two hundred meters above sea level, near Vrissi monastery. Here, telescopic lenses underscore the relationship of the Sifnos Kastro to its immediate island landscape and Aegean seascape.

At its south end the Chandaki path runs into the only definable public space inside the Kastro. Because of a drop in site elevation, the two levels of this space allow for small pedestrian bridges that cross over the path and provide direct access to the upper-level dwelling units. The long sides of this triangular public space lead to Portaki gate (at the lower end of the aerial photograph) while the façade of a small church forms the base of the triangle.

The architectural quality of this public place is dramatically enhanced by the presence of the St. John Theologos church. The south elevation of the church acts as a stage set and

gently dominates the public place in front of it, echoing a grand tradition of Medieval European towns.

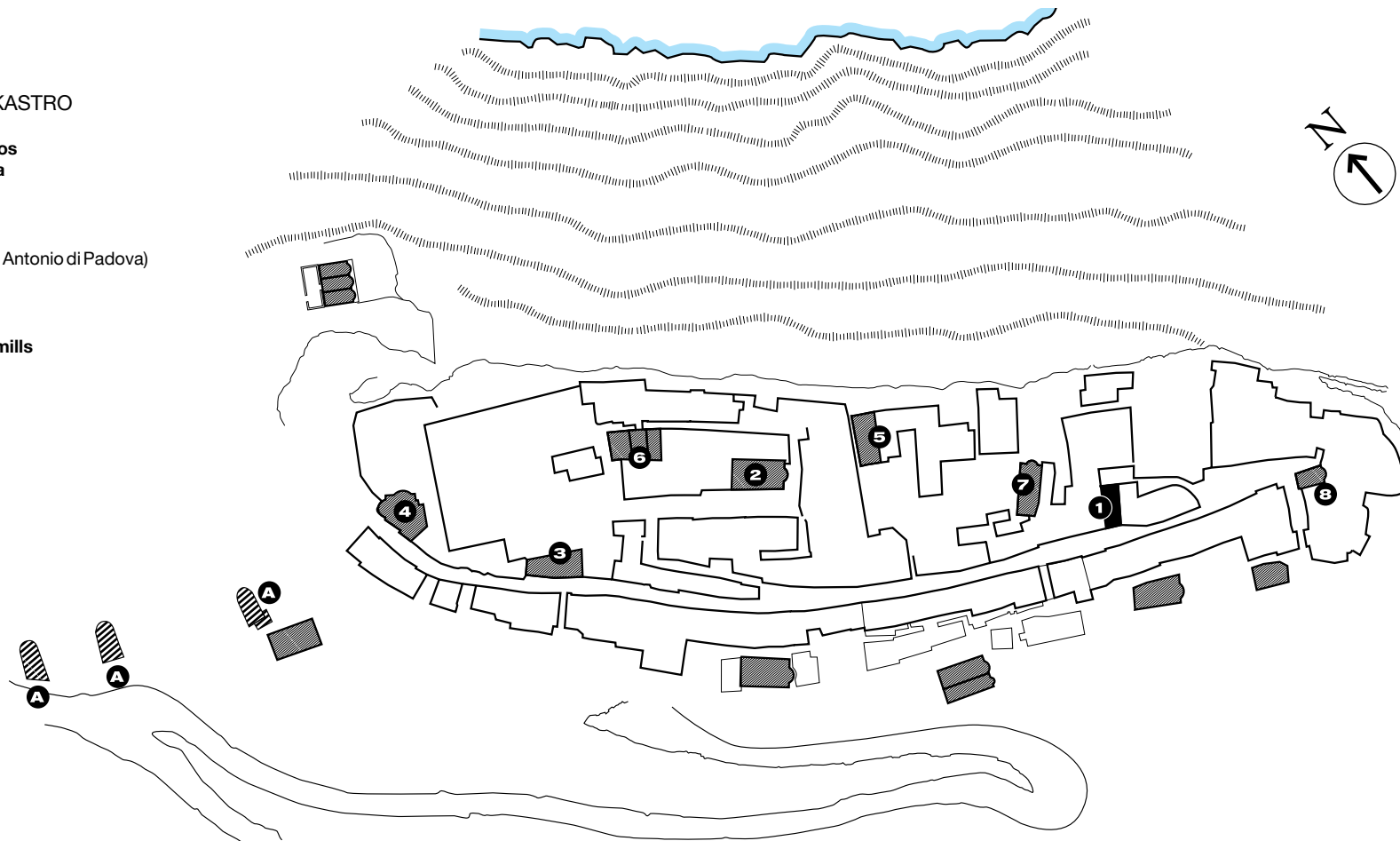
The domestic scale of this church, its flat roof, and the unpretentious composition of its south façade merge comfortably with the secular building fabric of the Kastro. Yet, in a masterful exhibition of the contradictions typical of the vernacular architecture of the Aegean island towns, the church's delightful and distinctly Sifniote bell tower sets it apart.



Architectural section through the St. John Theologos public space. This eloquent drawing by Michael Varming speaks of daily life interpreted in widths and heights. Note the remarkable balance in the scale of the architecture of the St. John Theologos public place and the larger container of the Sifnos Kastro.

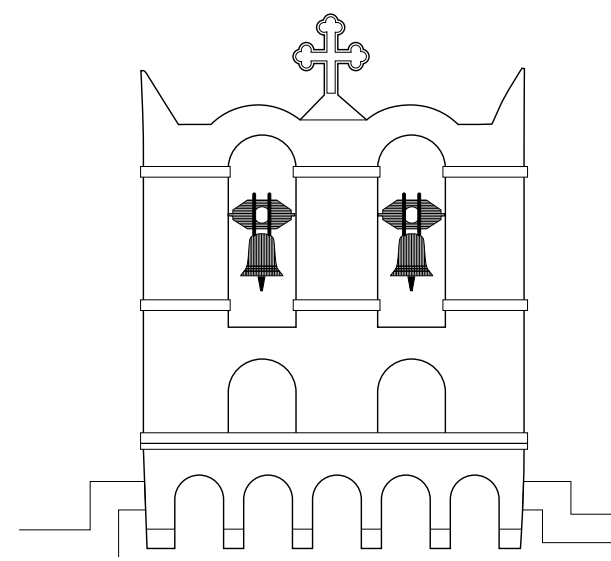
CHURCHES INSIDE KASTRO

1. St. John Theologos
 2. Panayia Eleoussa
 3. Theoskepasti
 4. Christos
 5. Pantanassa
 6. Fragantonis (San Antonio di Padova)
 7. St. George
 8. St. Nicolas
- A. Horseshoe windmills



Flat roofs, party walls, massive entry steps, and the Chandaki path define the triangular public space in front of the Theologos church. This public space leads to Portaki gate shortly below the lower left of the illustration. Visitors introduce human scale in this helicopter-based photograph.

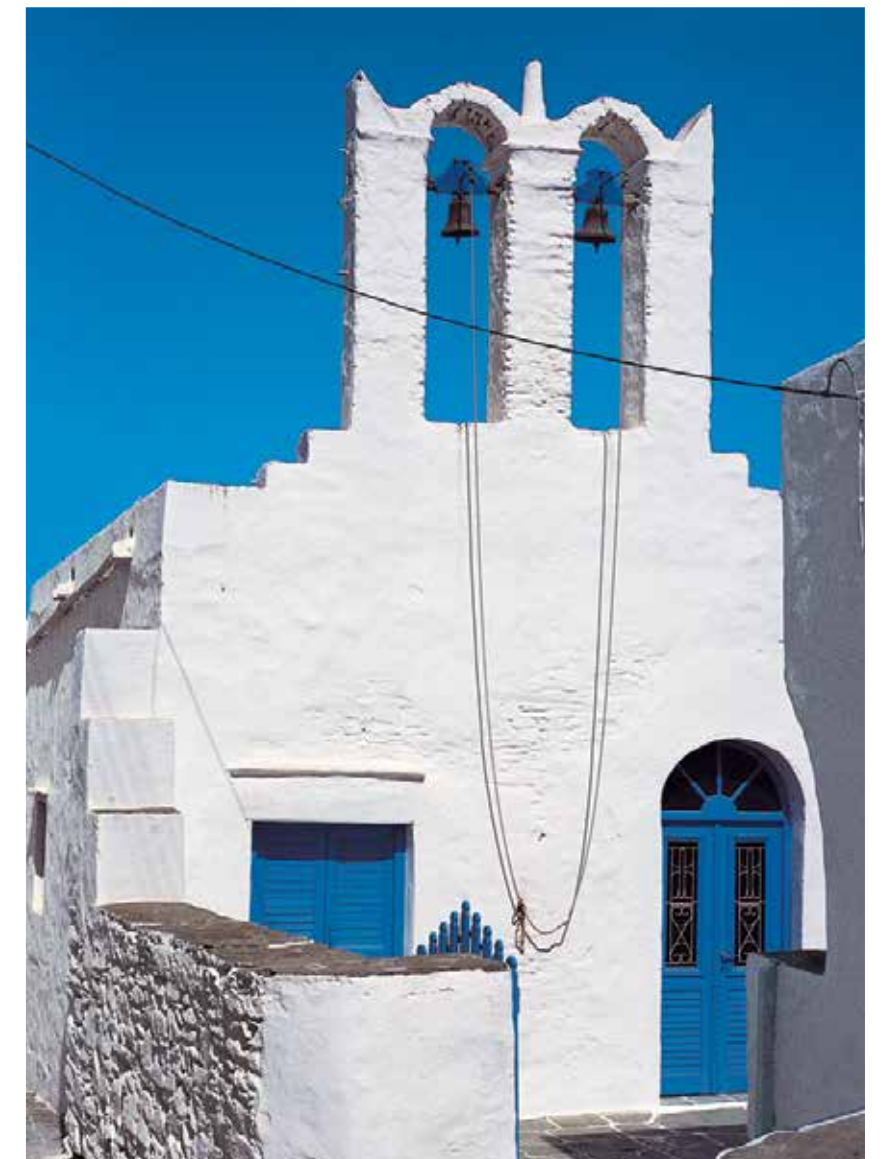




St. John Theologos bell tower, elevation drawing. Bell towers from Sifnos churches: unity and diversity, various interpretations of the same architectural theme. Clockwise from top right: Apollonia, Ano Petali, Apollonia, and Seralia.

Opposite page: Assumption of the Virgin (Koimesis tes Theotokou) church near Kastro. Note the enwalled drum of a column recycled during the erection of the wall on the left of the church.

The Aegean bell tower, a partial extension upward from either the west or the south wall, identifies a church and distinguishes it from the secular urban fabric. Aegean bell towers are integral to church walls rather than separate, four-sided architectural additions to the building. Infinitely varied in form and execution, they offer a vehicle of personal expression to their builders and an inspiring enrichment to the vernacular architecture of the archipelago. Even with such variety, the careful observer can begin to discern distinctive architectural treatments and themes peculiar to each island's bell towers.





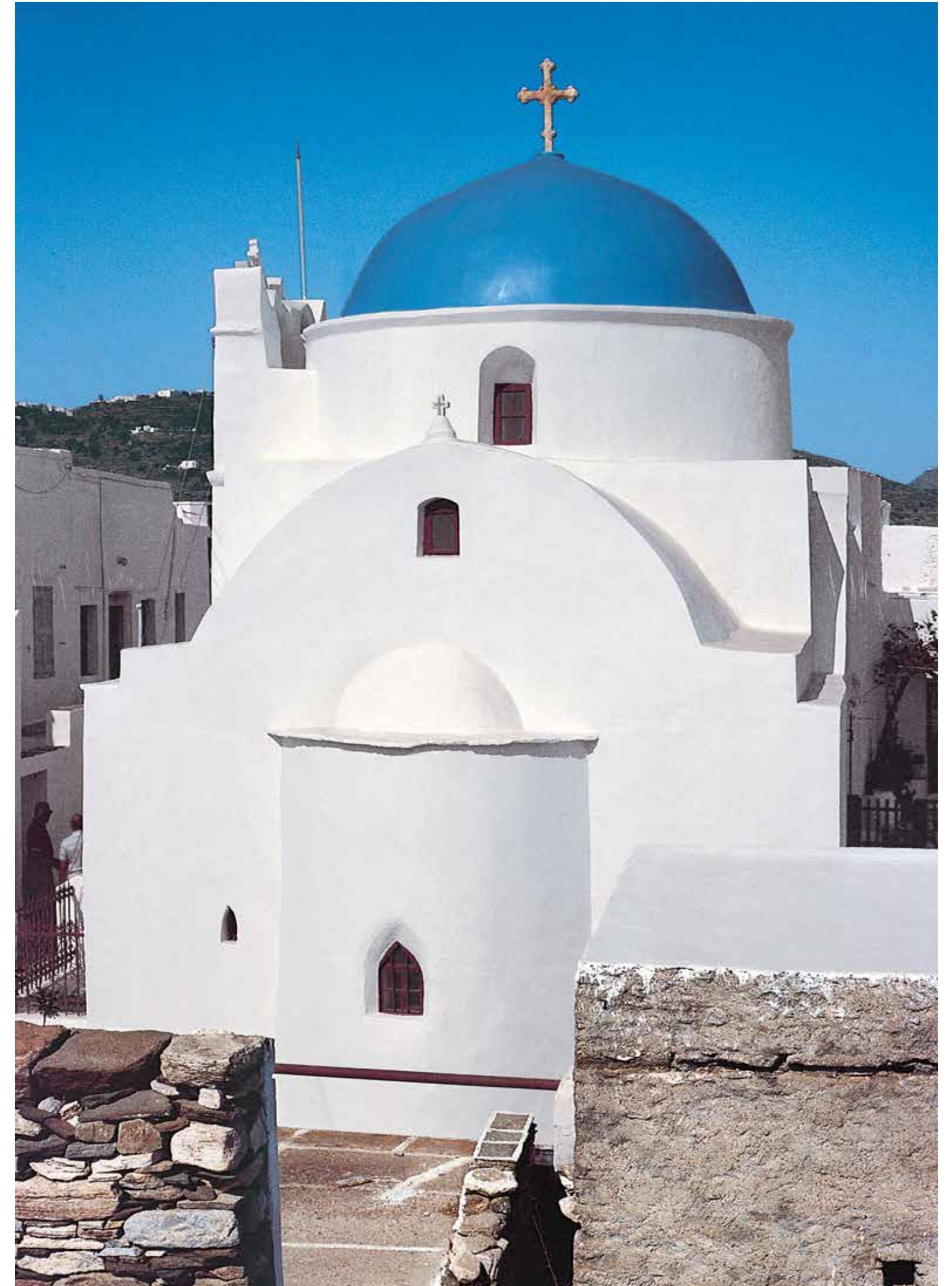
Carved on a door lintel in Mesa Kastro, the shield with the Crispi three diamonds is flanked with the date 1551 and the initials IC. The letters stand for Ioannis Crispo, the Hellenized name of Giovanni IV Crispo, twentieth Duke of the Duchy of the Archipelago (1517-1566) who during the last twenty-nine years of his rule paid taxes to the Sublime Porte, as the seat of the Ottoman Empire was known.



Enwalled commemorative column in Mesa Kastro. The carved script includes the name of Januli da Corogna.

| SIFNOS MEDIEVAL CHRONICLE | |
|--|--|
| 1204 | The army of the Fourth Crusade sacks Constantinople. Fragmentation of Byzantine territories |
| DUCHY OF THE ARCHIPELAGO • SANUDI | |
| 1207 | MARCO I SANUDO First Duke Marco Sanudo captures seventeen Aegean islands, most of them undefended. He founds the Duchy of the Archipelago and distributes islands among his friends, to be held as fiefs of the duchy. Sifnos becomes part of the duchy. |
| 1227 | ANGELO SANUDO Second Duke |
| 1262 | MARCO II SANUDO Third Duke |
| BYZANTINE RECOVERY | |
| 1269 | LICARIO Licario, a knight from Vicenza, under the Byzantine flag recovers for the Emperor several Aegean islands including Sifnos. |
| Da COROGNA FAMILY | |
| 1307 | JANULI da COROGNA Januli da Corogna, an adventurer of Spanish origin and a member of the Knights Hospitalier, seizes Sifnos, renounces his allegiance to the Order, and declares himself an independent sovereign. |
| 1317 | ANTONIO da COROGNA |
| 1340 | JANULI II da COROGNA |
| | NICOLO da COROGNA |
| 1347 | The Black Death. Ships from the Genoese trading colonies in the Crimean peninsula pass through the Aegean Sea and bring the Black Death to Italy. |
| 1374 | JANULI III da COROGNA |
| 1453 | Constantinople falls to the Ottoman Turks. |
| GOZZADINI FAMILY | |
| 1464 | NICOLO GOZZADINO - (MARIETTA da COROGNA) Nicolo Gozzadino, son of another Latin fief-holder, marries Marietta da Corogna, last descendant of the da Corogna family, and joins Sifnos, Sikinos, and Folegandros under his rule. Sifnos Kastro becomes the capital of this tiny state. |
| | JANULI II GOZZADINO |
| | ANGELO II GOZZADINO The Gozzadini family continues to rule Sifnos until 1537. |
| TOURKOKRATIA (TURKISH RULE) | |
| 1537 | KHEIREDDIN BARBAROSSA Sailing out of the Golden Horn, the Turkish admiral descends upon the Aegean islands. All are taken and devastated, including Sifnos, where he expels the Gozzadini. |
| 1551 | The date and the initials on the coat of arms above a door lintel inside Sifnos Kastro is puzzling and difficult to understand in this chronological context. |
| 1566 | DON JOSEPH NASI Twenty-second Duke Sultan Selim II, heir to Suleyman the Magnificent, names as duke Don Joseph Nasi, a Portuguese-Jewish banker and his financial adviser. Nasi, the last person to hold the title of duke, never visits the islands. |
| 1568 | It seems that the Gozzadini family rules Sifnos again, while paying taxes to the Sublime Port. |
| 1617 | The latest date by which the Gozzadini are allowed to rule Sifnos as Turkish tributaries. |
| 1830s | End of the era of piracy. Sifnos becomes part of the new Greek state. |

Panayia Eleoussa in Mesa Kastro. Its blue dome occupies the highest point on Sifnos Kastro; it appears as a landmark on pages 73 and 75.

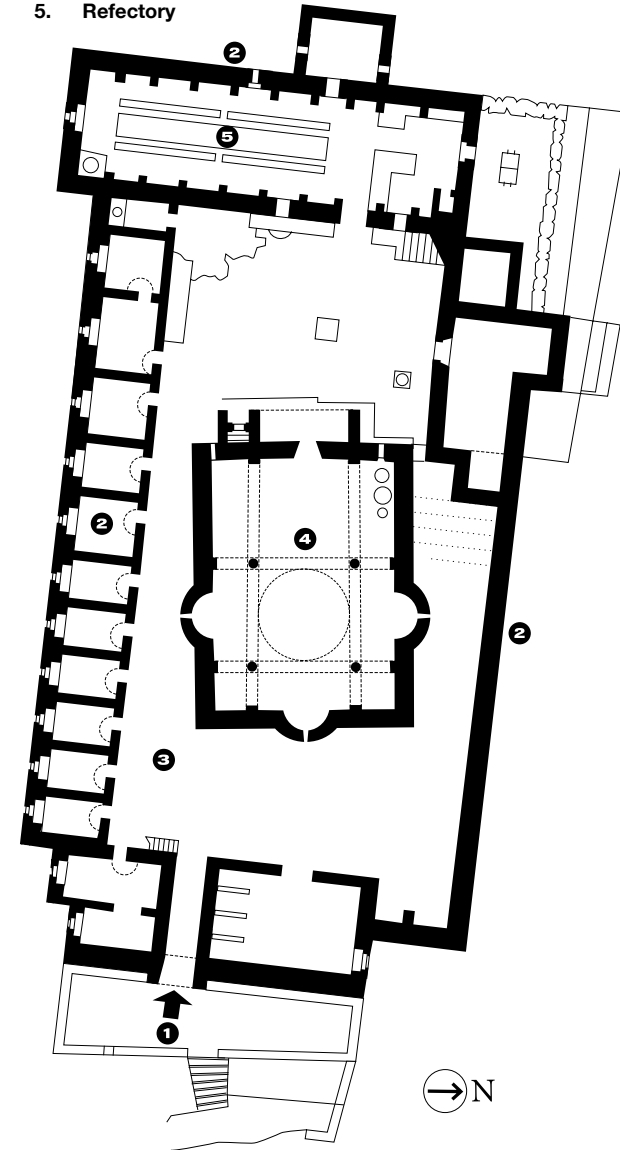




PROFITIS ELIAS MONASTERY

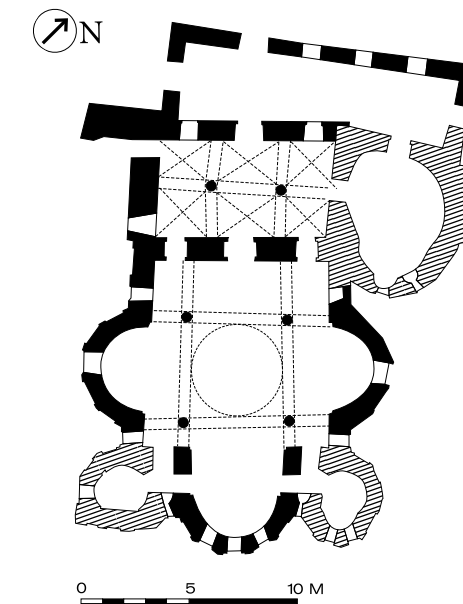
Helicopter view from the northeast and plan (below)

1. Entry Gate
2. Peripheral enclosure walls and cells
3. Courtyard
4. Katholikon
5. Refectory



Besides the characteristic east-side apse, the Profitis Elias Katholikon, the monastery church, has two more apses, located on the north and south sides, thus creating a trefoil. Although often used at Ayion Oros, a trefoil plan is extremely rare in the Aegean islands; it is puzzling and surprising to encounter one on Sifnos.

Dionisiou Monastery in Ayion Oros (Katholikon plan, below; monastery photograph, on the right).



Built with imperial funds during the fourteenth-century reign of Alexios Comnenos, the monastery sits on a precipitous site eighty meters above sea level on the southwest side of Mount Athos. The monastery walls enclose a very tight courtyard and incorporate a twenty-four-meter-tall defense tower. Its Katholikon features a trefoil plan.

During the Byzantine era, innovative leadership in architecture came from the imperial capital of Constantinople. After the Ottoman Turks captured the city in 1453, the monasteries of the Aegean archipelago, left leaderless, continued to reproduce the basic diagram of their Byzantine prototypes. Thus, the post-Byzantine monasteries and nunneries of the Aegean islands maintained the faith and ritual of the Greek Orthodox church in the traditional architectural setting of the monastic enclosure and the Katholikon. However, the size and scale of the buildings and the materials used reflect the limited local means.

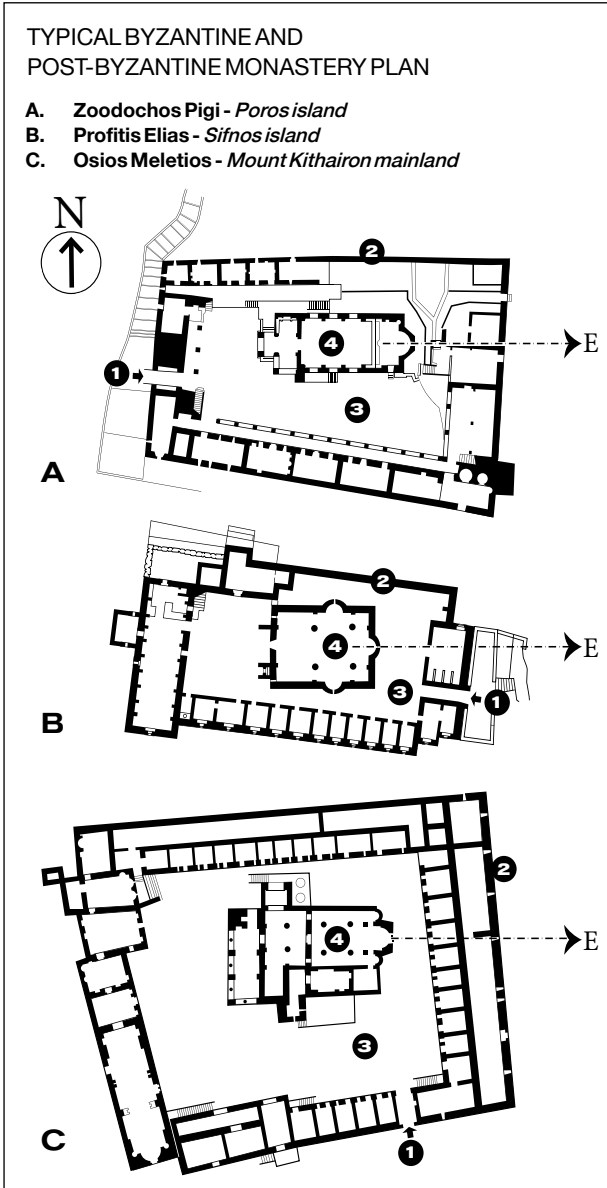
The sites on which they were built – urban settings, open landscapes, and hilltops – can be used to categorize the island monasteries with regard to their immediate physical context. Representing the hilltop setting, the monastery of Profitis Elias is closer to heaven than all other religious buildings on the island and is hard to reach, sitting, as it does, at the 694-meter summit of the tallest point on Sifnos. A two-hour, early-morning hike on mule trails takes a visitor through the treeless terrain, ending on the windy summit where the monastery sits. Its

remoteness and the difficulty of access, both to visitors and to construction workers and materials, have undoubtedly limited its size.

Following the diagram of a typical post-Byzantine Aegean monastery, the elongated rectangular plan lies astride the hilltop ridge and encloses a tight courtyard and the Katholikon. Profitis Elias, as expected, employs effectively its external wall to protect the inner place of prayer from the secular world as well as from the powerful winds blasting the island summit.

Stunning views of the landscape of the island and the surrounding seascape create a unique sense of place. The fresh whitewash, together with the well-kept cells and refectory, make it difficult for a visitor to believe that the monastery had been without monks for almost twenty years.





Sifnos, Profitis Elias monastery, helicopter-based view from the southeast. Whitewash identifies and visually reinforces the monastery surfaces that can be seen from Sifnos Kastro and settlements like Apollonia below.

Their proximity and spiritual preeminence, as well as the intimate interplay of landscape and seascape that characterized their design, made the buildings of the Ayion Oros peninsula the prototypes for monasteries throughout the Aegean islands and for the later medieval fortified island towns. With a population in the hundreds, an Ayion Oros monastery resembled an Aegean island town in size, architectural composition, and scale.

The enclosing defensive wall characteristic of the medieval town was equally indispensable to the monastery and leads to an inner courtyard open to the sky. The courtyard is a platform on which the Katholikon, the monastery church, stands free and is visible from all sides. The peripheral enclosing wall (2), the inner courtyard (3), and the freestanding Katholikon (4) together constitute the basic architectural elements of the Byzantine as well as the post-Byzantine monastery. The varying sizes of these parts, along with their proportional relationships, materials, and details, account for the manifold architectural interpretations of this basic tripartite diagram. Such factors, in turn, confirm the uniqueness of the monastery as a generic building type.

A guarded barrel-vaulted portal (1) on the enclosing wall is the only access to the interior of the monastery and leads to an inner courtyard open to the sky. The courtyard is a platform on which the Katholikon, the monastery church, stands free and is visible from all sides. The peripheral enclosing wall (2), the inner courtyard (3), and the freestanding Katholikon (4) together constitute the basic architectural elements of the Byzantine as well as the post-Byzantine monastery. The varying sizes of these parts, along with their proportional relationships, materials, and details, account for the manifold architectural interpretations of this basic tripartite diagram. Such factors, in turn, confirm the uniqueness of the monastery as a generic building type.

In plan the peripheral enclosing wall is typically quadrilateral, often polygonal, and, occasionally, triangular or rectangular. The topography of the site and the need for defensive advantage largely determined the geometry of a particular monastery plan. As institutions, monasteries have had a long life, yet their buildings have undergone repeated physical change. When wear, fire, and war brought damage and destruction, repairs and replacements were conducted in the spirit of each particular time, however different the style might be from that of the original building. Nevertheless, the basic diagram described above was faithfully adhered to.

A notable exception to this cycle of destruction and repair is the Katholikon, the geometric and spiritual center of the monastery, which remains essentially unchanged, retaining its original form and parts today. Small in size, fitting snugly into the tight monastic complex, the cross-in-square church became the dominant architectural design choice. Access to the Katholikon comes by way of a courtyard, which also serves as communal space for the monks. To accommodate large numbers of pilgrims, a generous part of the courtyard usually abuts the Katholikon entry. Regardless of courtyard articulation, however, the apse of the Katholikon always faces east.

Sifnos, Kastro Cemetery. Physically removed (see pages 75 and 78 but an integral part of life and death in the Sifnos Kastro, the cemetery is presented here in two illustrations that date respectively from 1969 (above) and 1997 (below). A stone wall possessively encloses two chapels, along with retaining walls, graves, and trees, as it adjusts continuously to its inclined site. This enclosure makes for an engagingly symbolic site plan. It allows only a single entry to the cemetery, indicated by the long axis of the pedestrian bridge over the brook, which metaphorically separates the world of the living from that of the dead.

of the two domes. The trees appear better trimmed and cared for. And, finally, the whitewashing has been expanded over the vertical surfaces of the enclosing and retaining walls. In the earlier practice, whitewash was applied with restraint, simply to underscore such important architectural features as the saddle of the enclosing stone wall and the sides of the single-entry door. While the shift to more lavish whitewashing may have been unnecessary, this change, like the others, points to a more prosperous society that is using its surplus wealth to enhance its communal property.

While no essential feature was substantially altered during the twenty-eight-year period covered by the paired photographs, patient observation registers several subtle changes. For example, in the later illustration the saddles of the peripheral walls have been rebuilt. Blue paint uplifts the architectural and religious importance

THE VERNACULAR RESPONSE

COLLECTIVE FORTIFICATION

ASTYPALAIA

The Querini Kastro



ASTYPALAIA

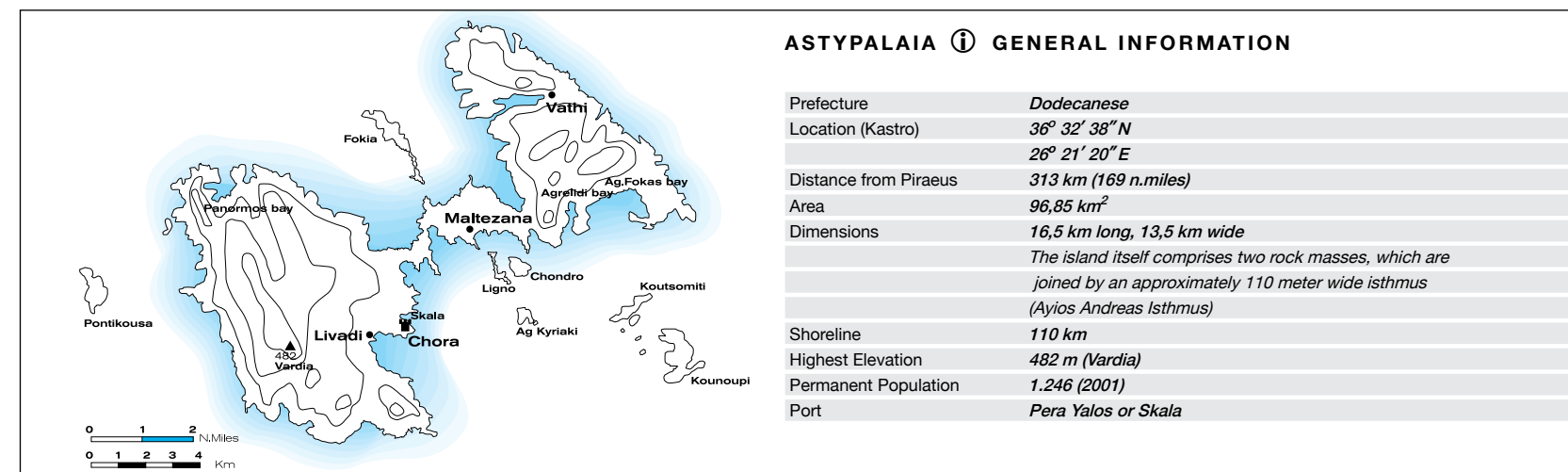
The Querini Kastro

Larger than Sifnos but not as fertile, Astypalaia consists of two halves united by a narrow isthmus that together measure ninety-seven square kilometers. The rocky and mountainous terrain, with elevations of 482 meters in one half and 366 meters in the other, includes little arable land. Like many Aegean islands, Astypalaia historically supported only one settlement, also known as Chora, which had a population of about one thousand people in the 2001 census.

Located in the southern half of the island, the Astypalaia Kastro--not unlike the Sifnos Kastro--sat atop a promontory pointing southeast, facing major north-south Aegean sea lanes. The strategic position of the island and this particular promontory invited early settlement, the historical record of which is fragmented. The ancient name Astypalaia (Asty, or "city"; palaia, or "old") has survived with few of the

usual alterations, although the island was known as Stampalia during the days of the Duchy of the Archipelago.

Historically and geographically, Astypalaia belongs to the Dodecanese island complex, and, in consequence, its more recent history has differed from those of the Cycladic complex islands such as Antiparos, Sifnos, Sikinos, and Folegandros. Astypalaia remained part of the Ottoman Empire after Greek independence in 1830 and came under Italian administration from 1912 to 1943 before it was returned to Greece with the rest of the Dodecanese Islands in 1947.





Astypalaia, Kastro and Chora helicopter-based view. Ayios Georgios and Panayia, eighteenth and nineteenth century chapels, respectively, survive the ruins of Kastro in excellent repair. The blue color of the domes is a recent and popular Aegean-wide innovation. In the photograph on the previous page dating from 1971, the same domes are white. The six barrel-vaulted chapels attached to each other, discussed in detail on pages 114 and 115 appear below Astypalasia Kastro at the center of the photograph. On the right: The Querini family crest embedded in an Astypalaia Kastro wall, but not in its original place.



"I. Astimphalea" (Astypalaia Island). Cristoforo Buondelmonti, Liber Insularum Archipelagi, Gennadius Library, Athens, Greece. The basic form of the island and the promontory of the Querini Kastro are convincingly delineated. Buondelmonti's maps, laconically drawn in pen and watercolor, provide engaging information in visually inspiring terms. Although they lack the cartographic accuracy that was achieved in the nineteenth century, they show abstractly the essential outlines of the islands, their bays and ports, and indicate outstanding features on land both natural and man-made.



The name of the Querini-Stampalia Palace on the Grand Canal in Venice is a reminder of the prominent Venetian families who sought adventure in the Aegean islands and of the era of the Duchy of the Archipelago. Whether Astypalaia became a fief of the Querini family as early as the thirteenth century is not clear.

The island had changed hands a number of times before it was ravaged by the Ottoman Turks in the latter half of the fourteenth century. It was not until 1413, while Buondelmonti was traveling in the area, that Giovanni Querini recolonized Astypalaia with islanders from Tenos and Mykonos.

The Kastro at the top of the promontory was built then to provide a protected residence for the colonists. The Querini family preserved the Venetian presence on the island until 1541 when Astypalaia also became part of the Ottoman Empire nineteen years after the conquest of Rhodes.

At 130 meters above sea level, crowning a promontory, the Astypalaia Kastro dominates its immediate environment in an awe-inspiring way. Built on a massive rock formation and erected in one stage, the Kastro is another inspiring and site-specific application of the collective fortification system employed in most other islands of the neighboring Cycladic complex.

The Astypalaia Kastro is defined by a completely enclosed defense perimeter, with access to the interior limited to one powerfully built gate. The last occupants having moved at the end of the Italian administration and World War II from the medieval Kastro above to the more recently built Chora below, the Astypalaia Kastro is no longer inhabited.

ASTYPALAIA ~ MEDIEVAL CHRONICLE

1204 The army of the Fourth Crusade sacks Constantinople. Fragmentation of Byzantine territories

DUCHY OF THE ARCHIPELAGO * SANUDI

1207 MARCO I SANUDO First Duke
 Marco Sanudo captures seventeen Aegean islands, most of them undefended. He founds the Duchy of the Archipelago and distributes islands among his friends, to be held as fiefs of the duchy. It is possible, but not well documented, that Astypalaia becomes a fief of Giovanni Querini as Marco Sanudo establishes himself as duke.

QUERINI FAMILY

1207 GIOVANNI QUERINI
1231 JACOPO QUERINI
1264 NICOLO QUERINI

BYZANTINE RECOVERY

1269 LICARIO
 Licario, a knight from Vicenza, under the Byzantine flag recovers for the emperor several Aegean islands including Astypalaia.

QUERINI FAMILY

1333 GIOVANNI II QUERINI
 Giovanni Querini reclaims the island.
1341 Turkish corsairs raid and depopulate Astypalaia.

1347 The Black Death. Ships from the Genoese trading colonies in the Crimean peninsula pass through the Aegean Sea and bring the Black Death to Italy.

1413 The Astypalaia Kastro starts to take its present form. Giovanni (also known as Zuanne) Querini, lord of Astypalaia and governor of Tenos and Mykonos, begins deporting people to repopulate Astypalaia. Venice objects to this forced migration and Querini is compelled to return the people to Tenos and Mykonos.

1451 The population of Astypalaia does not exceed four hundred.
1453 Constantinople falls to the Ottoman Turks.

TOURKOKRATIA (TURKISH RULE)

1537 KHEIREDDIN BARBAROSSA
 Sailing out of the Golden Horn, the Turkish admiral descends upon the Aegean islands. All are taken and devastated including Astypalaia.

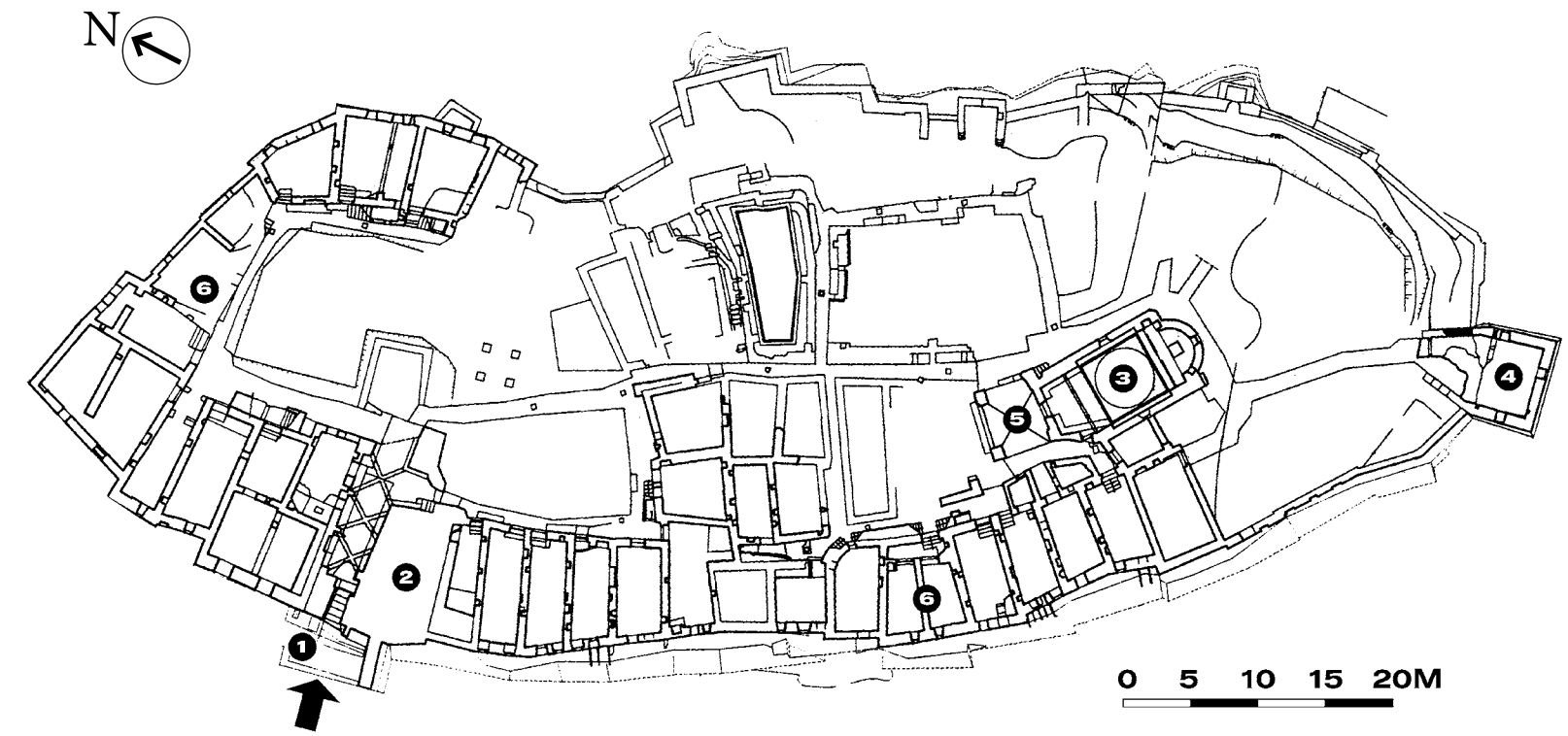
1566 DON JOSEPH NASI Twenty-second Duke
 Sultan Selim II, heir to Suleyman the Magnificent, names as duke Don Joseph Nasi, a Portuguese-Jewish banker and his financial adviser. Nasi, the last person to hold the title of duke, never visits the islands.

1617 The latest date by which the Gozzadini are allowed to rule Sifnos as Turkish tributaries.

1830s End of the era of piracy. Astypalaia remains part of the Ottoman Empire even after all Cycladic islands join newly independent Greece.



Astypalaia, Kastro and Chora, bird's-eye view. Although they follow the new site's topography and enjoy its amenities, the successive ring-like layers of the dwelling units of Chora nevertheless emulate the typical plan of the older dwelling units inside Kastro.



ASTYPALAIA KASTRO, PLAN

1. Gated Entry
2. Panayia church (sitting atop the Gated Entry)
3. Ayios Georgios church
4. Tower (only part of fortification with foundations outside the natural rock perimeter)
5. Blatsa
6. Remnants of dwelling units

In an impressive merger of the man-made and the natural landscape, the edges of the rock extend upward to blend with the external walls of the long and narrow Kastro enclosure. Measuring about 50 by 130 meters, the Astypalaia Kastro protects nearly six thousand square meters. Buttressed in places, the formidably tall external walls undulate gently on the southwest side, where the gate is located, to become irregular on the northeast side.

The effects of desertion are apparent in the ruins of the interior, where the walls of some dwelling units survive. Many of the top floors have collapsed since the early 1950s. However, the pace of deterioration has been slowed by recent repair work. Sharing party walls, dwelling units on three levels originally lined the peripheral defensive wall and were accessible from interior paths, as in other Cycladic collective fortifications. The remnants of foundations confirm the presence of similar units in the central, now open, area of the Kastro. Narrow and irregular pedestrian circulation

paths were important contributors to the apparent high density of building in the fifteenth-century Kastro. Measured drawings of the fortification trace the size and scale of about thirty of the original units of habitation.

Recent archaeological work indicates that there were perhaps seventy-five units per level. Assuming three levels of such units and four or five persons per family brings the full occupancy of the Kastro to about one thousand, a number larger than, but still comparable to, the likely numbers inhabiting the Antiparos and Sifnos Kastro.



Astypalaia, Kastro and Chora. Although in disuse, these clustered windmills, with their whitewashed and robust cylindrical forms, remain an indispensable part of the urban fabric of Chora.



Astypalaia, Kastro, exterior walls. The absence of any traces of stucco or whitewash might serve to reinforce the argument that on earlier days the exterior walls of a Kastro were not whitewashed, allowing the mass of the edifice to merge visually with its immediate surrounding and escape the observation of pirates. In contrast to the practice of Sifnos Kastro, here the exterior walls and roofline do not reveal the specific location of individual interior dwelling units.



Astypalaia, Kastro, interior walls. The freshly whitewashed surfaces of Panayia church, on the right, contrast with the exposed masonry walls and monolithic lintels of a deserted dwelling unit.



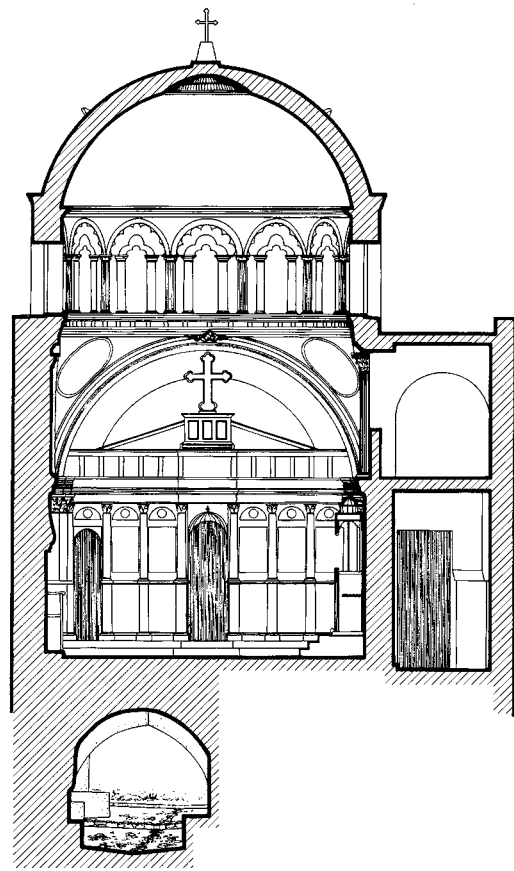
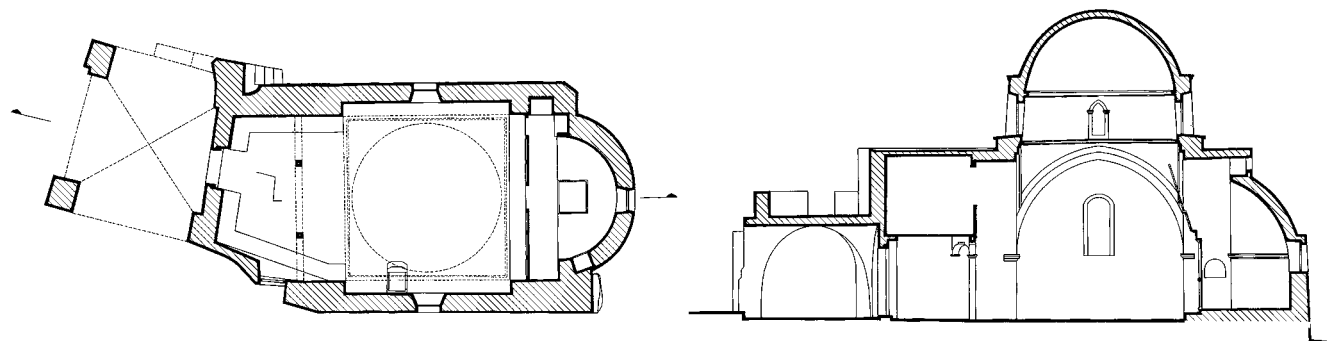
Astypalaia, Kastro and Chora. The illustration provides an elegant determination of continuity between the man-made and the natural landscape of the island, as the massive rock formation is sandwiched between the medieval Kastro above and the contemporary Chora below. The immaculate whitewash and blue paint of the woodwork, together with all other "furniture" elements in the courtyard, present vernacular architecture at its best.



Astypalaia, Kastro. Panayia church sitting above the entry gate, looking west.



Astypalaia, Kastro. Ayios Georgios church looking west, plan and section below.



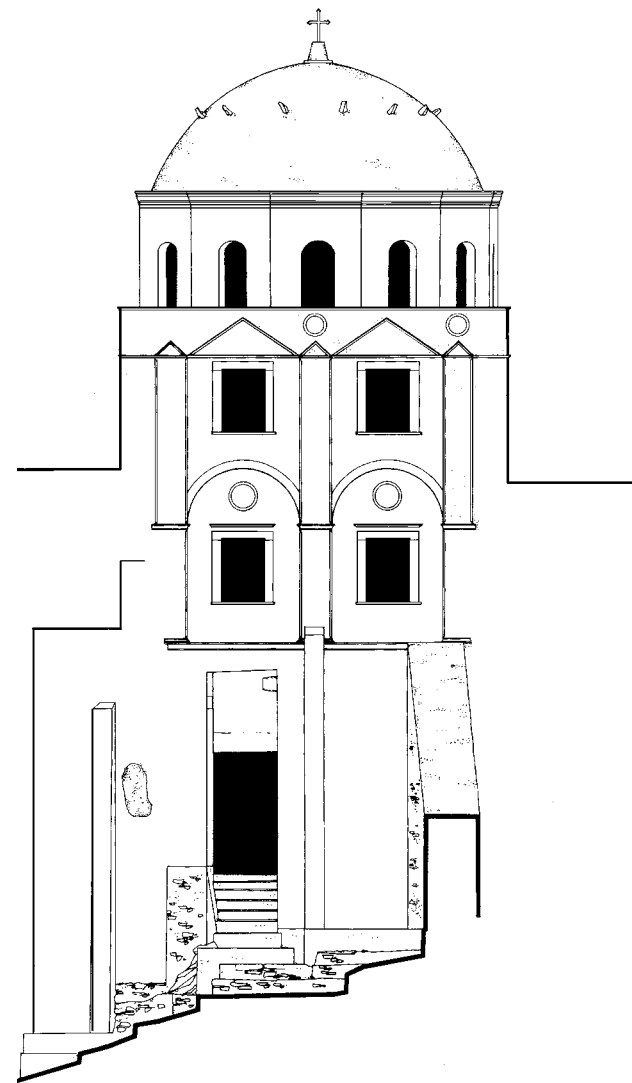
Astypalaia, Kastro. Panayia. Section through church and the gated entry tunnel underneath. West elevation including gate (page on the right)

Amidst the ruins of the Astypalaia Kastro, two whitewashed churches are still in use and survive in excellent repair. Ayios Georgios, built in 1790 and free-standing today, was part of the tightly knit urban fabric of the Kastro. Attached to its west end is a covered space, called blatsa by the people of Astypalaia (perhaps a corruption of the Italian piazza), an echo of a public space from the eighteenth-century days of the settlement.

Sitting atop the gated entry to the Kastro and dedicated to Panayia ("All-Holy Mother"), the other whitewashed church, built in 1853, is still important in the religious life of the citizens of Astypalaia. Its spectacular location and the treatment of its two exterior elevations make this building symbolic of the nineteenth-century transformation of Astypalaia, when it began to spill out of its defensive enclosure and into the town below. This church also offers insights into the vernacular architecture forms of the Aegean island towns as they evolved in the nineteenth century.

The 1853 Panayia church replaced an earlier building on the same location, most likely a tower guarding access to and defending the gate. Evidence for that assumption lies in the strategic placement of the gate along the southwestern wall of the Kastro and the uniqueness, size, and elaborateness of the interior passage space that remains.

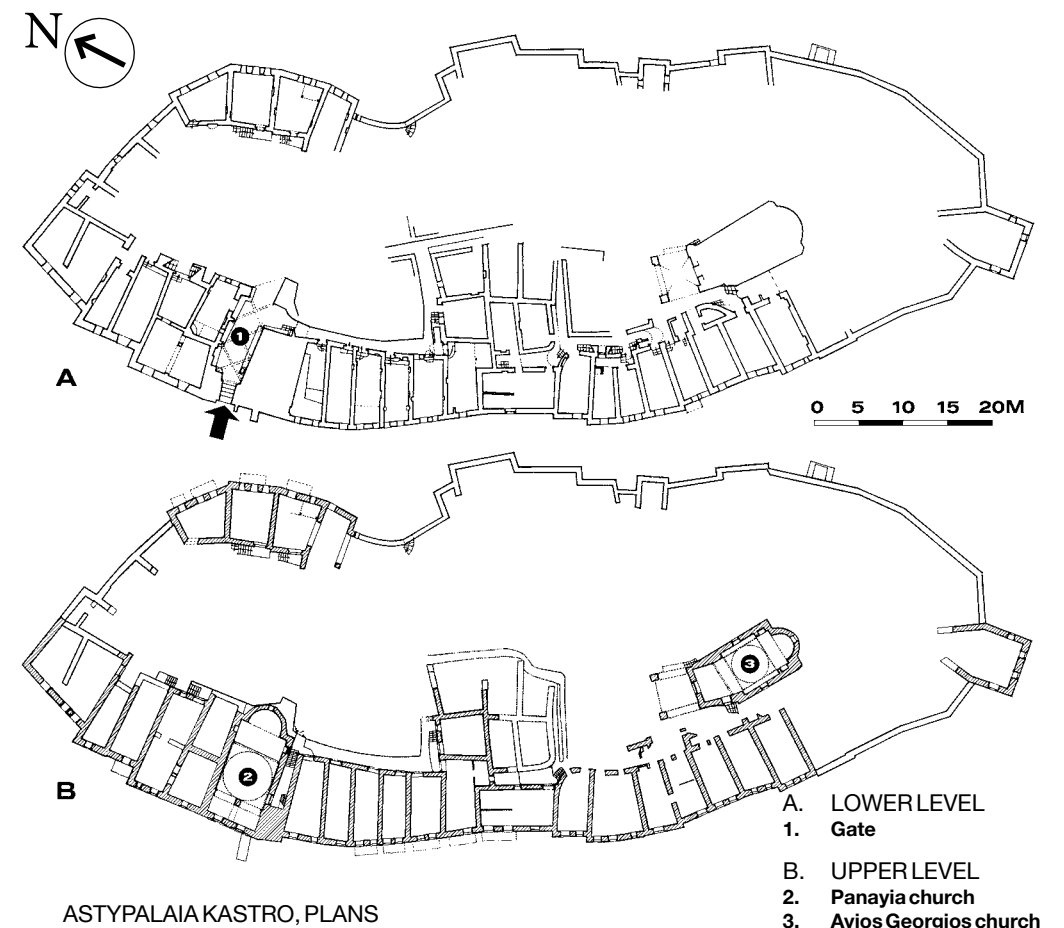
It is tempting to contemplate the symbolism of a fortification element being replaced by a church. By 1853 the defense tower was obviously an unpleasant reminder of the fear of corsairs and of Latin domination. But when the church was built, twenty years had passed since the French landed in Algiers and eliminated the Barbary corsairs, and the British and French fleets and expeditionary armies allied with the Ottoman Empire were crossing the Aegean to make war on Russia in the Crimean peninsula. The changed geopolitics of the mid-nineteenth century Mediterranean gave the citizens of Astypalaia, still under Ottoman rule, a new sense of security. Thus, the elimination of the tower and its replacement with a church, a building that reasserted the islanders' traditional devotion to Eastern Orthodoxy.



Astypalaia, Kastro and Chora. The two elevations, east and west, of the Panayia church rest atop the gate that links, respectively, the domestic and public worlds of Astypalaia, thereby appearing to celebrate the gradual shifting of the town from Kastro, above, to Chora below. Astypalaia remained within the tight confines of the Kastro after its transition from Latin to Turkish rule and up to the middle of the eighteenth century. Prosperity and an increase in population made possible by better conditions for seaborne trade finally allowed for expansion and hesitant building outside the Kastro during the second half of the eighteenth century.

In a remarkably sophisticated and "current" architectural manner, each of the two exposed elevations of the Panayia church responds to its context, and each is radically different from the other. The east elevation is addressed to the domestic scale of the Kastro interior. Apart from the large and unusual arched gate opening under the church and the massive masonry pier at its southeast corner (possibly a remnant of the earlier tower structure) all the other elements—apse, dome, whitewash, and so on—are typical of the post-Byzantine vernacular architecture of the Aegean islands. Indeed, in scale, composition, and architectural vocabulary, both of the Kastro churches, Panayia and Ayios Georgios, speak the same language.

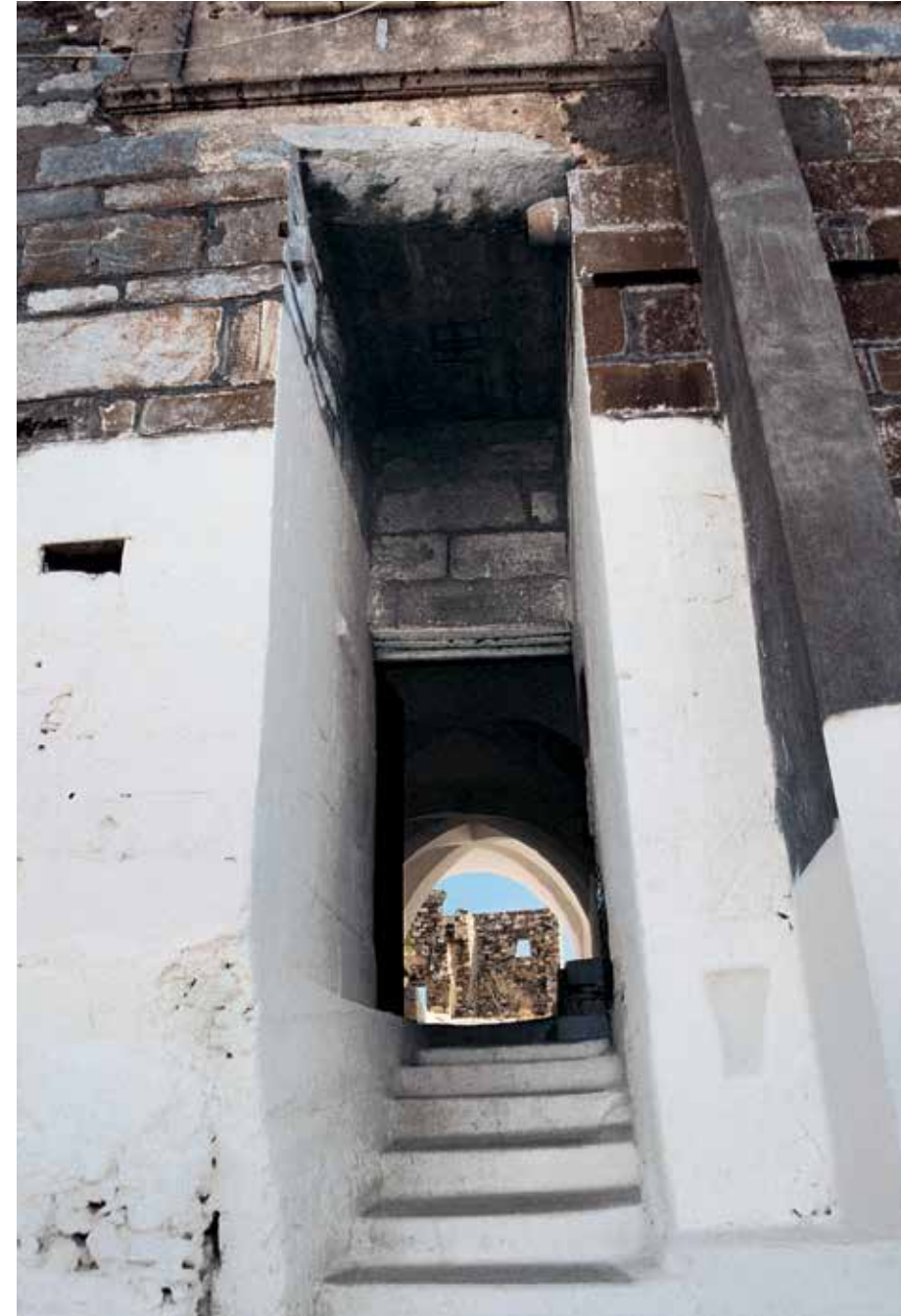
The west elevation of the Panayia church, however, is addressed to the larger, more ambitious public scale of the Kastro exterior and to the growing settlement of Chora below. Part of the larger exposed stone surface of the defense enclosure, this elevation is enriched by the four windows of the church, which alert the observer to the existence of a different place behind this short segment of the wall. The windows are framed by such formal architectural components as pilasters, arches, and pediments cut in stone in a unique and remarkable example of the assimilation of formal architecture elements into the vocabulary of vernacular architecture.



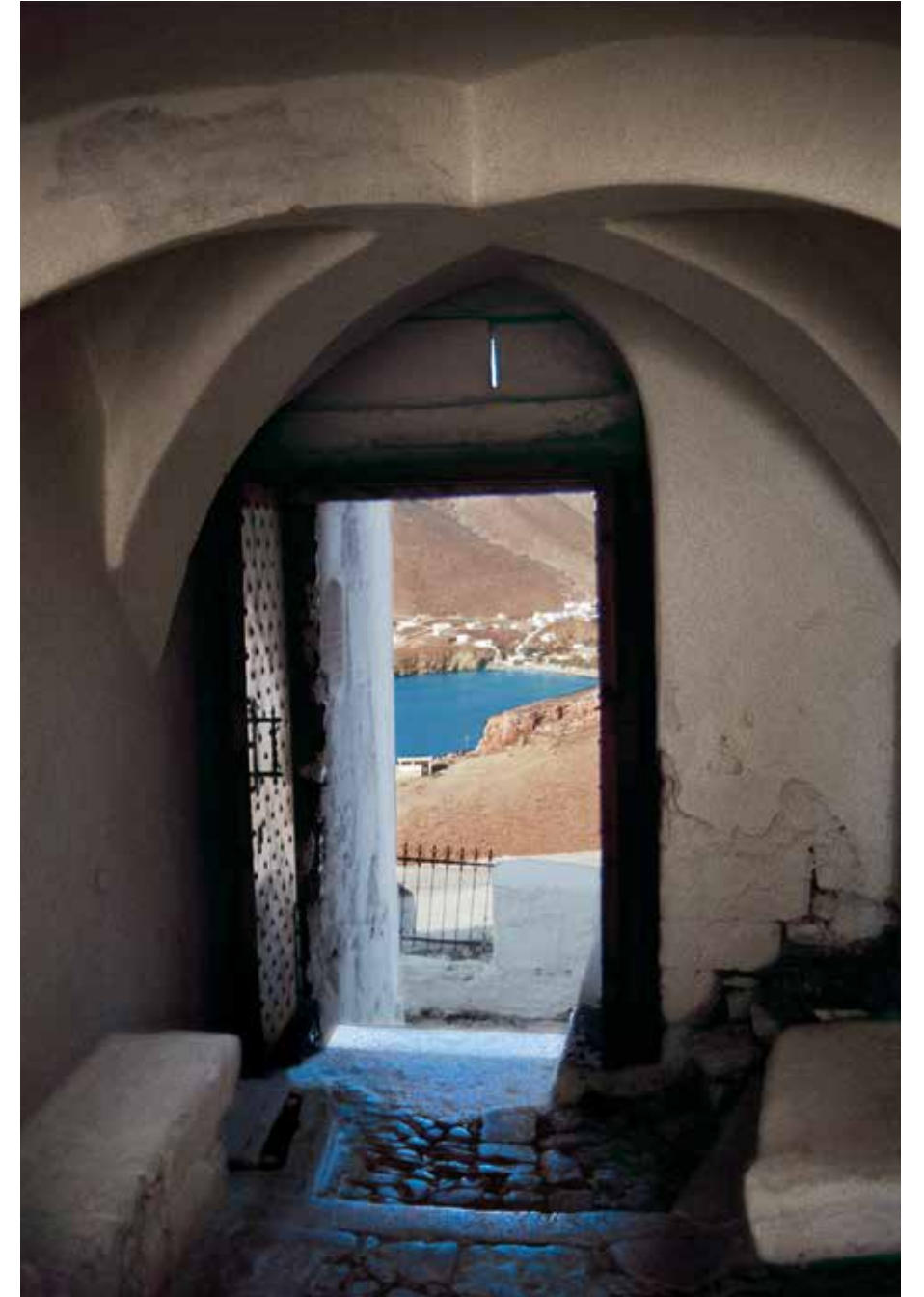
ASTYPALAIKA KASTRO, PLANS



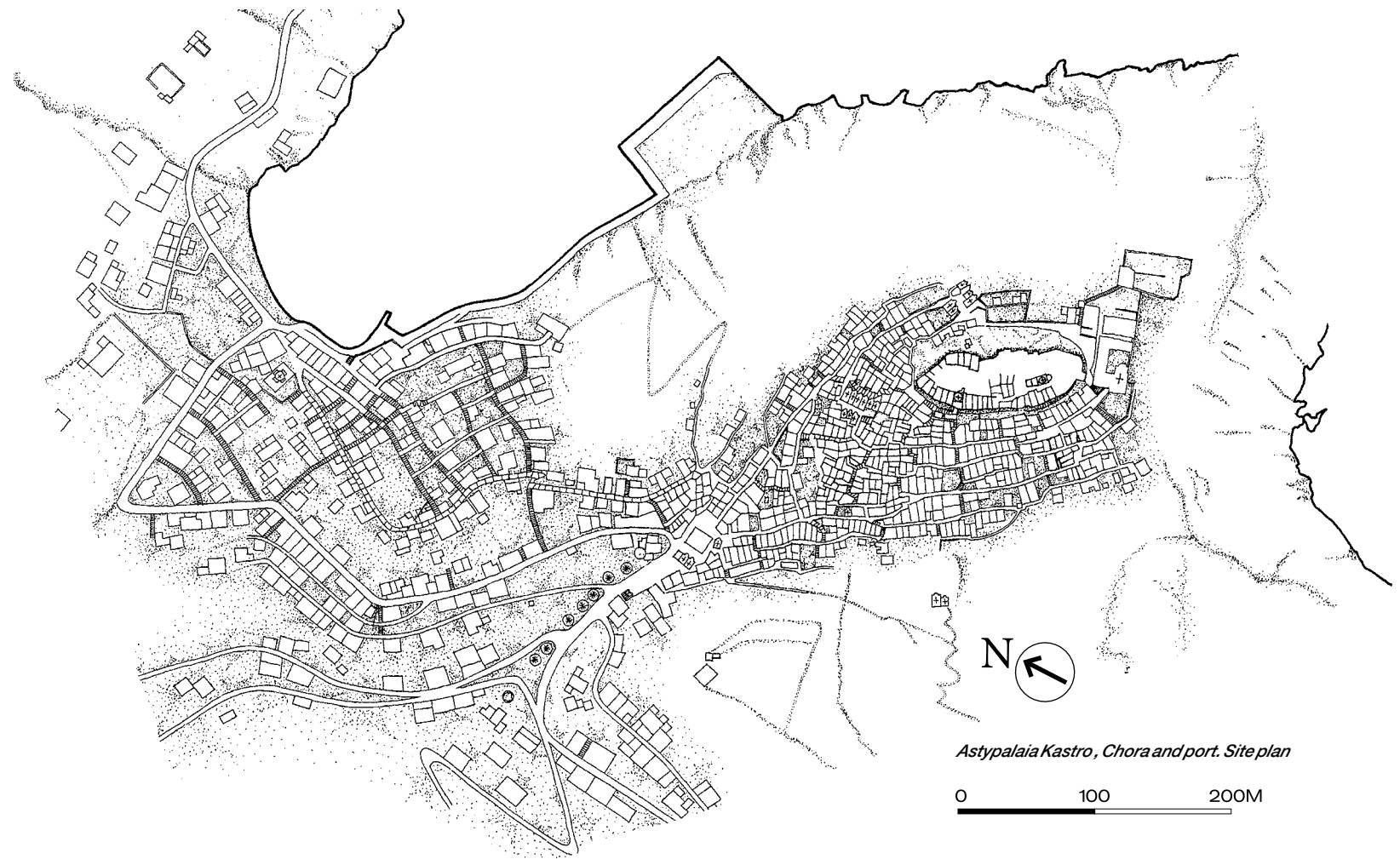
Astypalaia Kastro, Chora and port.



Astypalaia Kastro. Entry gate under Panayia church.

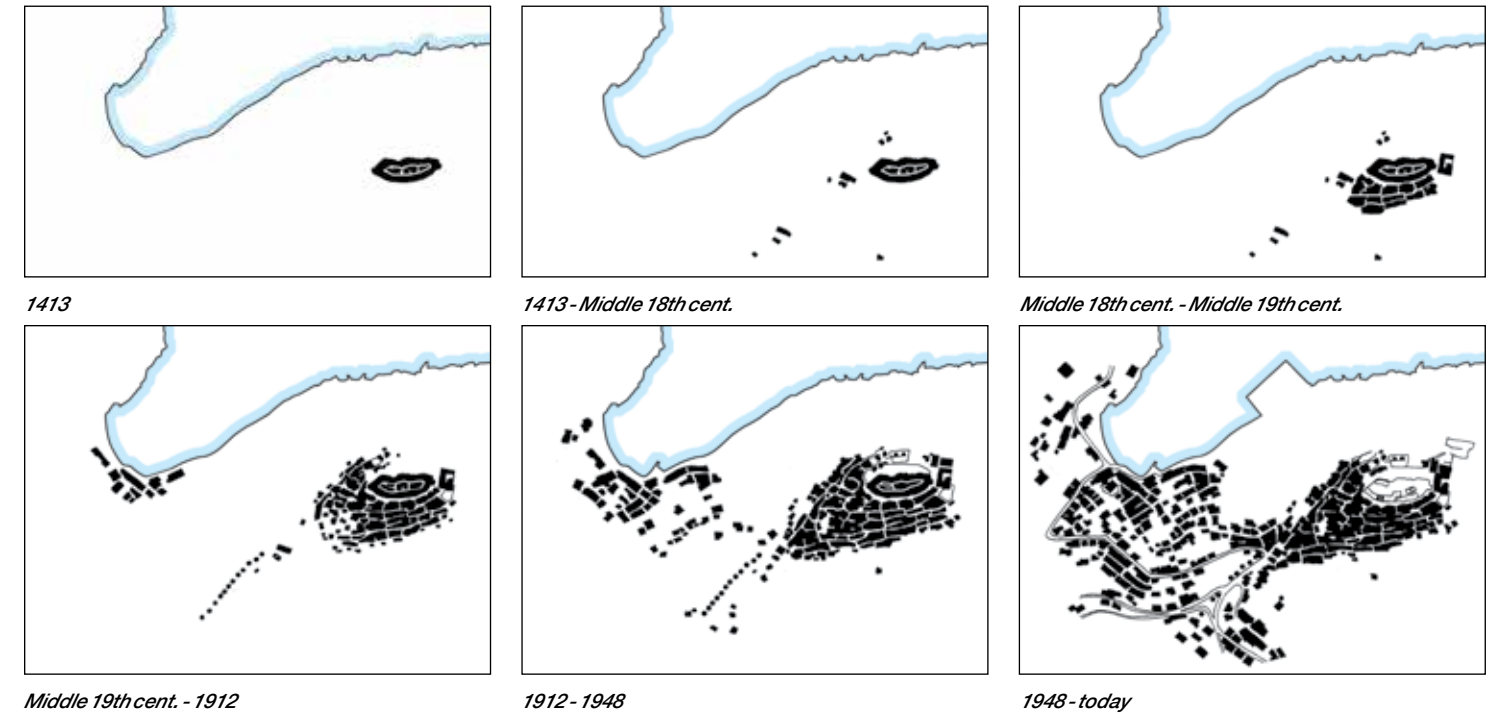


Astypalaia Kastro. Entry gate under Panayia church, looking towards Chora.



Astypalaia Kastro, Chora and port. Site plan

Astypalaia Kastro and Chora, six stages of development.



1413

1413 - Middle 18th cent.

Middle 18th cent. - Middle 19th cent.

Middle 19th cent. - 1912

1912 - 1948

1948 - today

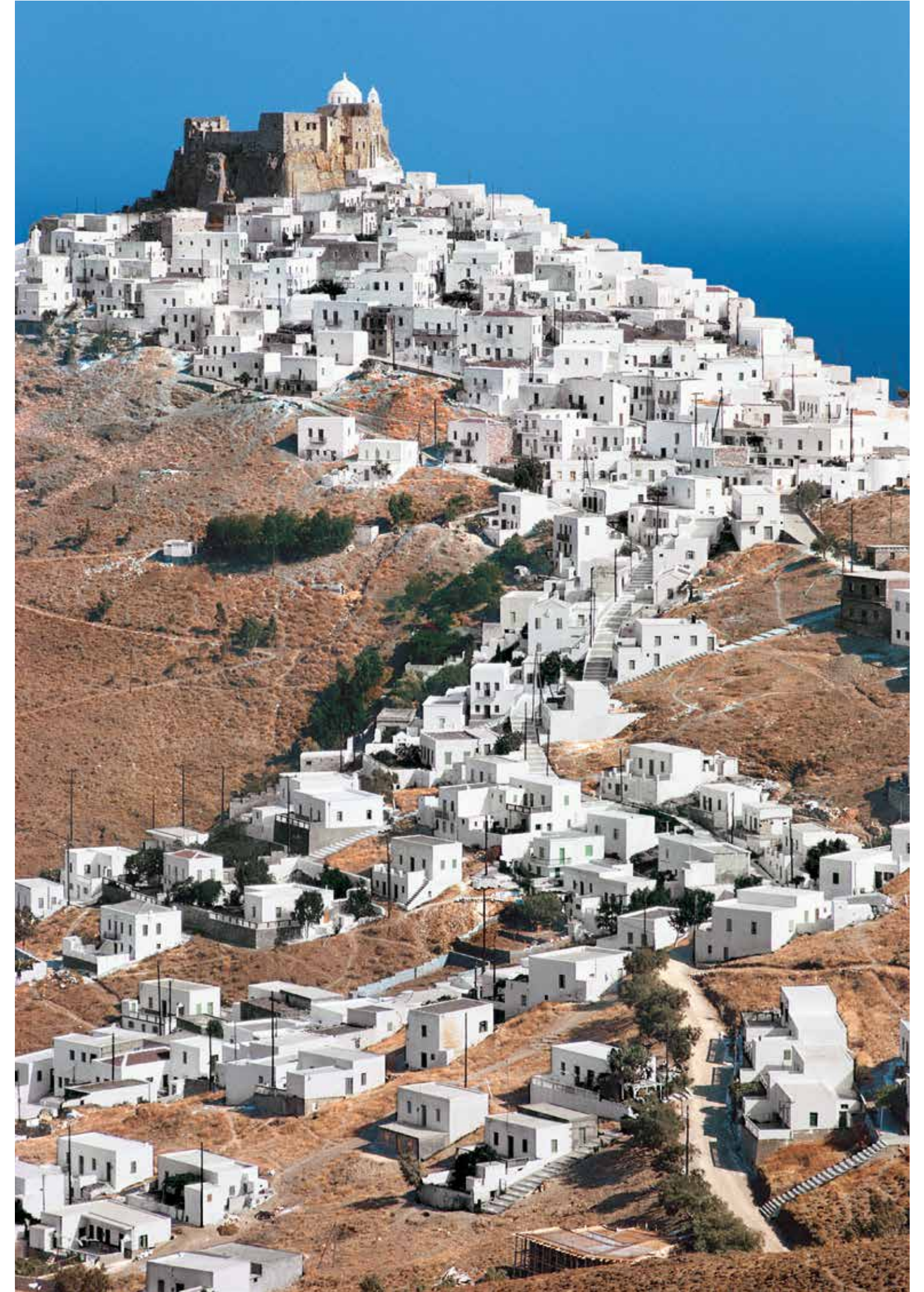


Astypalaia Kastro looking southwest. Sitting comfortably at the summit of the promontory, the Astypalaia Kastro, very much like Sifnos Kastro, dominates its immediate environment physically and strategically



Astypalaia Chora. Dating from the 1970's, the three photographs, above and on the right, depict the spine as an essential, unique and vibrant architectural element of the urban fabric of Astypalaia.

Adjusting to the intricacies of the site, a natural path zigzagged to form a physical spine connecting Chora and Kastro on the hill with the Pera Yialos port area. Flanked by houses and surfaced in a step-ramp-step sequence for use by pedestrian and beast-of-burden traffic, this natural path is of a width that underscores its importance as a spine and as a vibrant architectural element in the new, three-part articulation of the settlement: Chora, Spine, Pera Yialos. Unfortunately, overbuilding on both sides and "improvements" to allow motorcycles to override the steps of the spine have diminished the integrity of this precious architectural enrichment of the urban fabric of Astypalaia.





Astypalaia, Chora. Rows of dwelling units flank the spine as it points the way uphill towards Kastro



Astypalaia, Kastro, looking south from the fortification. The dome belongs to Panayia Portaetissa, the Katholikon of an earlier nunnery that now functions as the religious center of the settlement, defining the southern limits of Chora. Decorative rather than structural, its ribs echo those on the dome of the Panayia church of the Carmelite Order in Ano Syros illustrated on page 237 The cut-masonry wall of the tower attached to the perimeter of the fortification appears on the extreme right of the photograph.



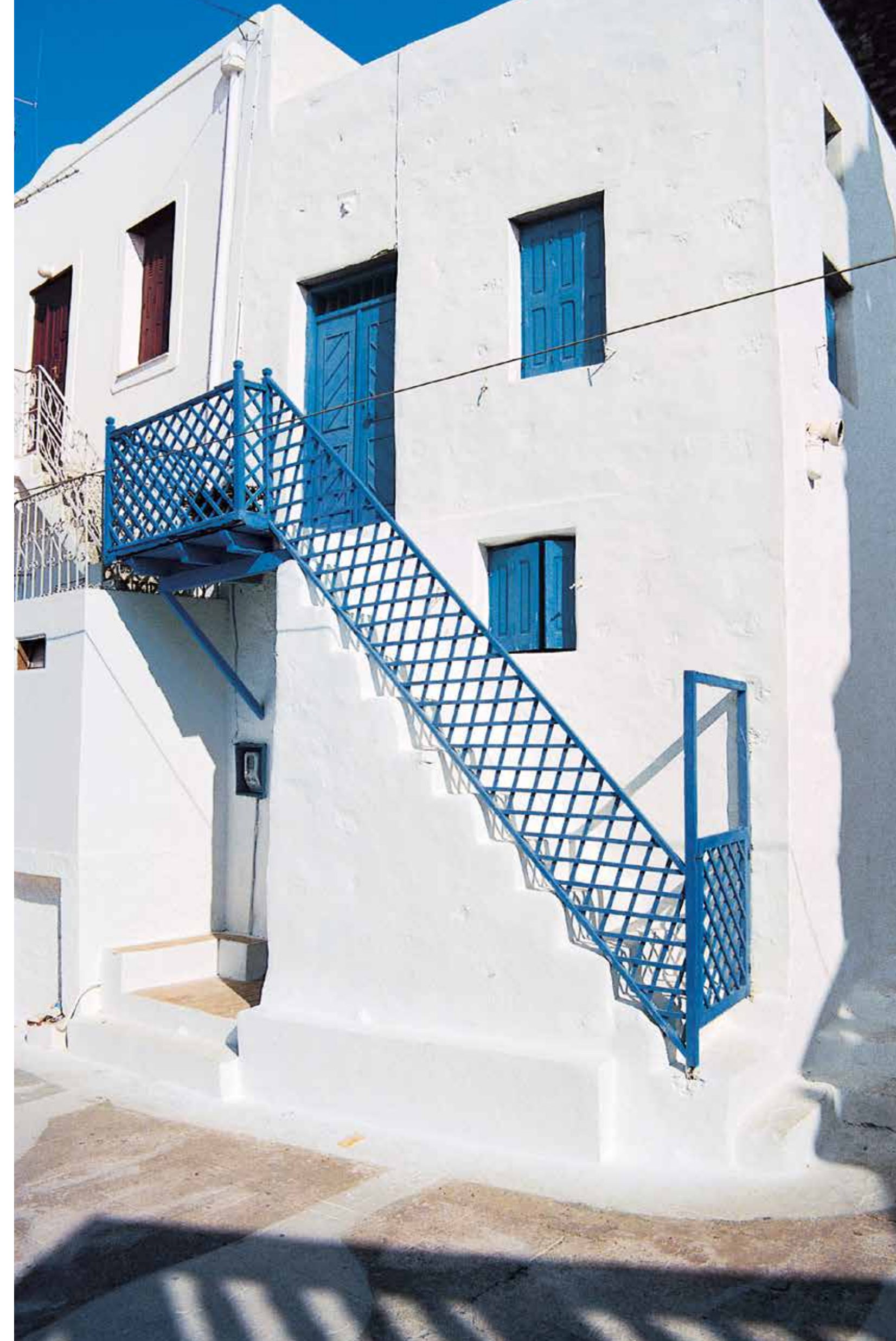
Astypalaia, Chora. Part of the urban fabric of Chora, the dwelling unit illustrated above harkens back to the typical narrow-fronted unit plan utilized in the much older Astypalaia Kastro, built as a collective fortification. It also underscores continuity in the physical concept of "house", even when external conditions have shifted dramatically. The altar sides of three of the chapels of the six-chapel complex discussed on pages 114 and 115 appear on the left half of the illustration.

In response to the topography of the new site and under the protective mass of the fortification, an assembly of dwelling units began to emerge, mostly west of Kastro, in successive rings.

The floor plans of these units remained the same as those of their predecessors inside the fortification. Yet the adaptation of the units to the new site offered a welcome reduction in building density as well as ventilation and better views over the roofs of the ring of dwellings below.

Further expansion moved northward and downhill as the site dictated, towards the bay area of Pera Yialos. Commercial buildings serving the island's sea trade appeared in Pera Yialos before and during the period of Italian administration (1912-1943).

Astypalaia, Chora. A solid masonry, exterior staircase, like those typically found within a Cycladic Kastro, provides access to the upper level of a dwelling unit in Chora. The trelliswork of the railing, repeated on the balcony of the previous page, is typical of Astypalaia Chora. The door frame over the first step of the staircase separates private and public space physically but not visually, in a manner reminiscent of the Mykonos example appearing on page 215.





Astypalaia, Chora. six-chapel complex, looking north. The entry facade of Panayia Leimonetria is on the right.

Important components of the vernacular architecture of the Aegean islands, small churches and chapels originated not as institutionally commissioned buildings but as private places of worship built to fulfill a personal vow.

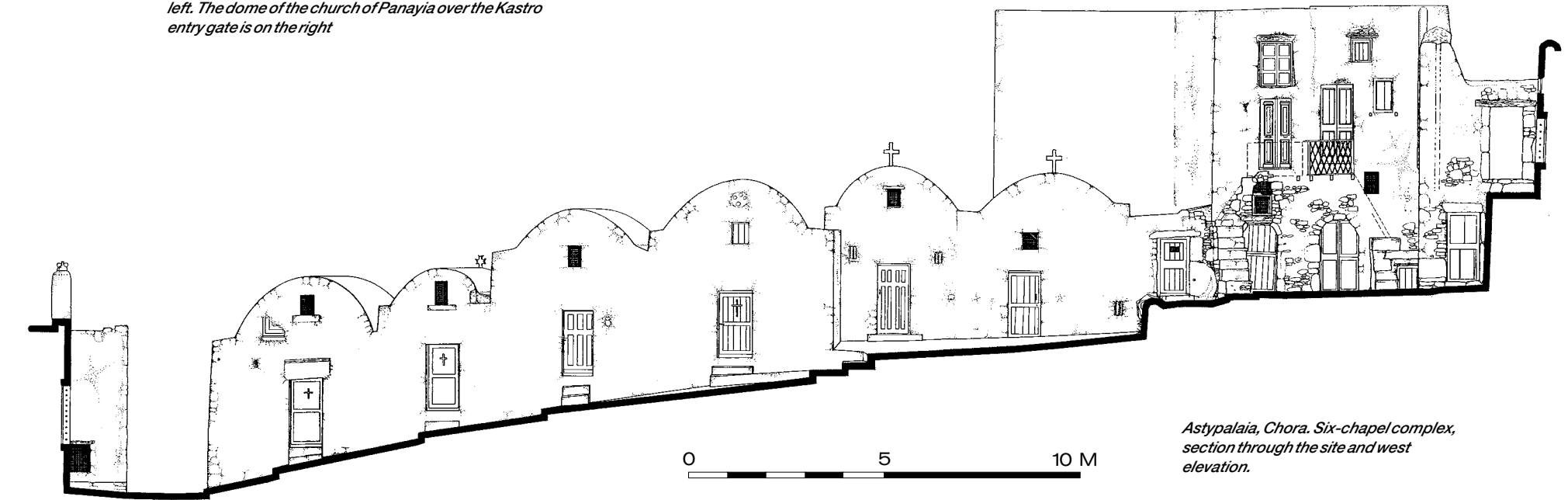
As noted earlier, erecting a chapel, and dedicating it to a particular protector saint, served as a grateful acknowledgment of a safe return from a perilous sea journey or a cure for a life-threatening illness by divine intervention.

Most of these votive chapels have remained private and have been bequeathed, together with family houses, to subsequent generations of each original builder's family. The descendants have maintained the chapels and participate in the annual whitewashing that coincides with the feast day of the saint to whom the building was dedicated, an architectural ritual that confirms the chapel's active presence in the post-Byzantine life of the island community.

A distinctive and delightful addition to the urban fabric of the Astypalaia Chora, six independent, single-nave, barrel-vaulted chapels attached to each other appear in the Karae neighborhood sixty meters north of the gate to Astypalaia Kastro. Well-integrated into the site, each of the six chapels was built at a different time during the eighteenth century and has a cross atop or on the door to identify its religious mission. Each has an apse on the east wall and a door on the west side. The barrel vault of one chapel differs from that of another in geometry, width, height, and curvature. Average floor plan dimensions are four by six meters. A small opening above the solid entry door and an even smaller one in the apse allow in a cautious amount of light.



Astypalaia, Kastro and Chora. Detail from the bird's-eye view of page 98. The six-chapel complex appears on the left. The dome of the church of Panayia over the Kastro entry gate is on the right



Astypalaia, Chora. Six-chapel complex, section through the site and west elevation.

Astypalaia, Chora. six-chapel complex, west elevation and iconostasis of Panayia Leimonetria. Situated fourth from the north and centered on an approach path, this chapel and its west facade, in particular, can be observed from a greater distance than any of the other five chapels of the complex. At noon during the summer, when the vertical rays of the sun run parallel to the surface of the elevation, short shadows briefly reveal a wall finished with veneer pieces of marble or stone, apparently recycled from an earlier unidentified building. Dedicated to Panayia Leimonetria, or the "Merciful Virgin", the chapel also encloses a thought-provoking iconostasis. Built of wood the lower part is conventional. But in the upper part of the iconostasis a deeply carved timber with angels and doves has obviously been recycled, probably from a sailing ship. Both sailing ship and chapel may once have belonged to the same family, whose two properties were ultimately fused to celebrate its naval enterprise and religious dedication.



Kassos, Dodecanese islands. A similar six-chapel complex, illustrated on the left, is part of the Panayia settlement on the Dodecanesian island of Kassos, thus providing a rare challenge to the uniqueness of the six-chapel complex on Astypalaia. No convincing explanation for the surprising architectural similarities is available.

THE VERNACULAR RESPONSE

COLLECTIVE FORTIFICATION

ANTIPAROS

A Rectangular Kastro



ANTIPAROS

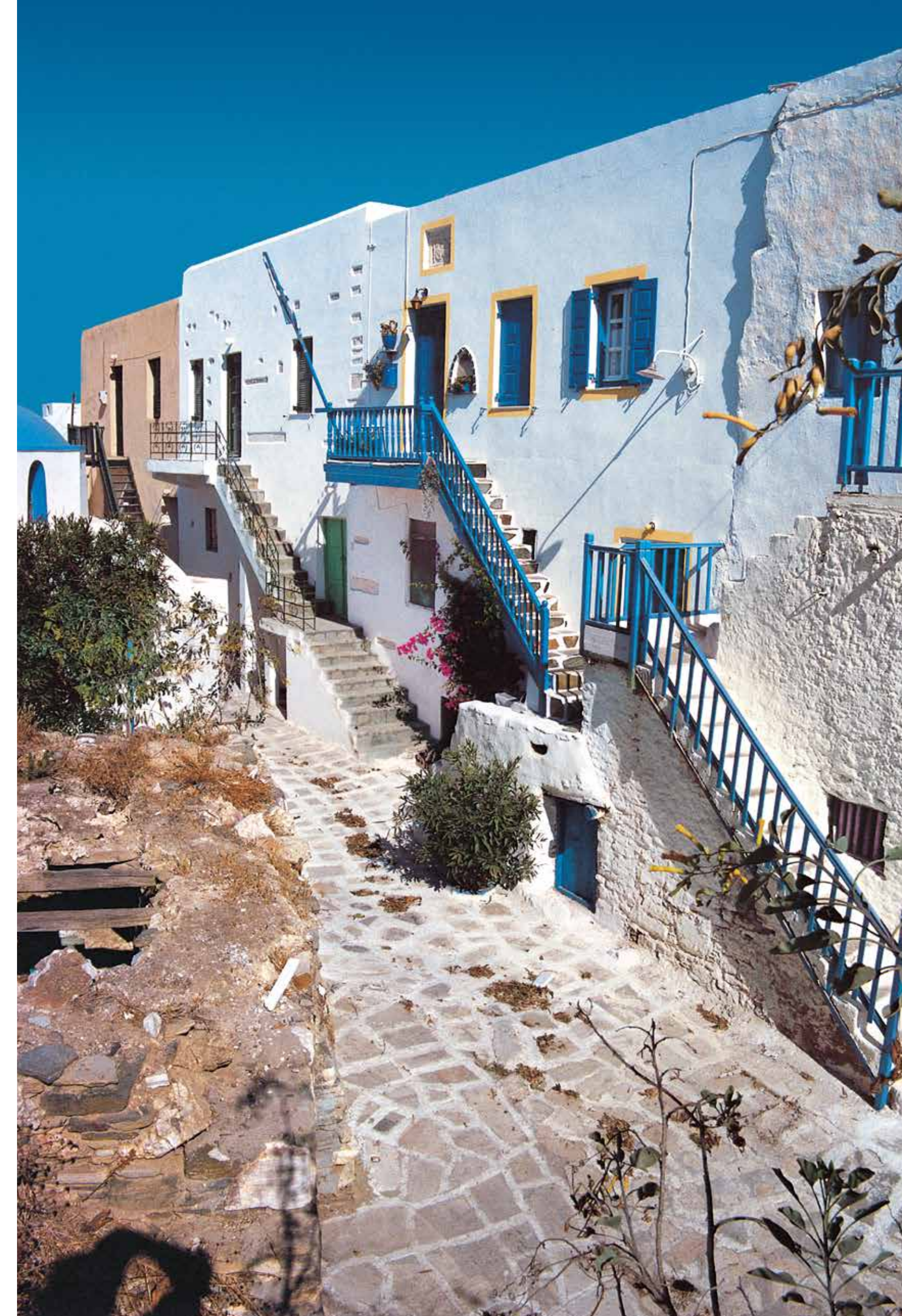
A Rectangular Kastro

Antiparos is the largest of a group of islands clustered near the southwest coast of the much bigger island of Paros. It has a surface area of thirty-five square kilometers and a high point of 293 meters. Despite the absence of a tourist industry, the town of Antiparos has defied the regional trend of the last several decades by retaining and even increasing its population to 1011 people, according to the 2001 census.

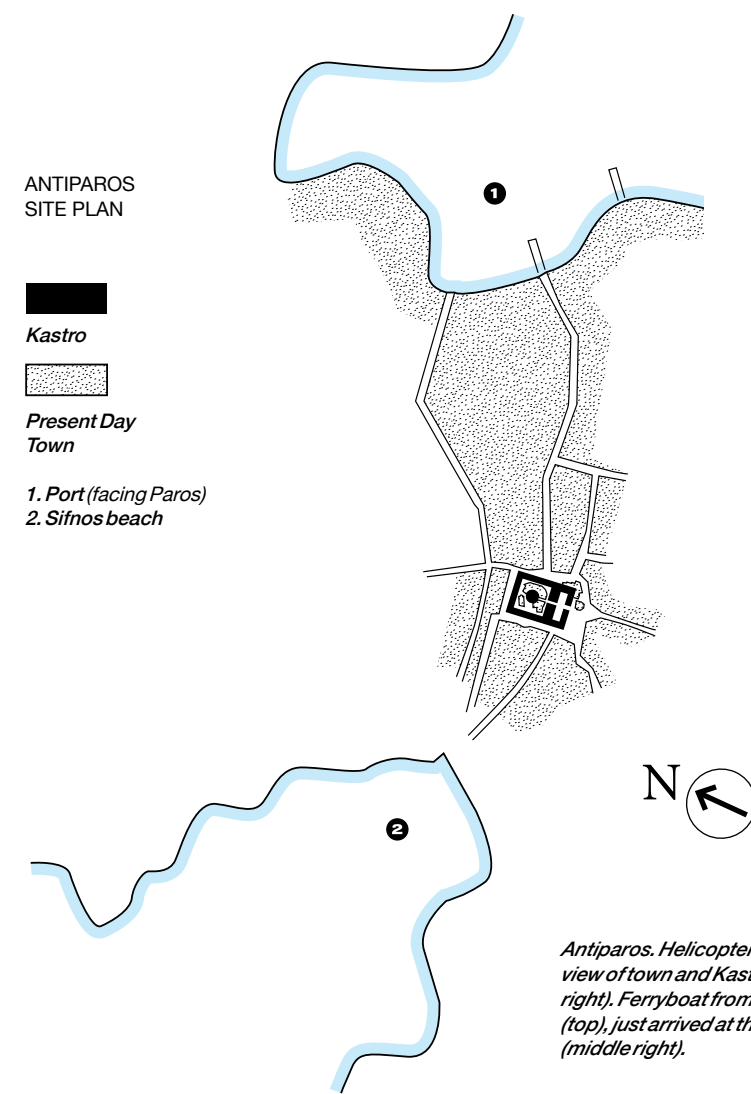
The earliest records of Antiparos within the feudal structure of the Duchy of the Archipelago date from the late fourteenth century. Cristoforo Buondelmonti refers to Antiparos in the early decades of the fifteenth century as a deserted island.

The Antiparos Kastro was built between 1440 and 1446, when the island was granted as a fief to Leonardo Loredano on his marriage to Maria Sommaripa, the daughter of a family prominent in the duchy. According to William Miller his marriage brought Loredano to the duchy: "...thus a great Venetian family obtained a footing in the Cyclades. This infusion of new blood was of great benefit to the island, which had long been uninhabited: for the energetic Venetian repopulated it with new colonists, and built and resided in the castle, whose gateway, now fallen, still preserved, in the eighteenth century, his coat of arms."

Inside Antiparos Kastro looking northwest. The Lion of St. Mark bas-relief pictured on page 123 is enwalled above a door in the center of the illustration. Color and whitewash differentiate individual properties.



| ANTIPAROS ⓘ GENERAL INFORMATION | |
|---------------------------------|--------------------------------|
| Prefecture | Cyclades |
| Location (Kastro) | 37° 02' 26" N 25° 04' 58" E |
| Distance of Paros from Piraeus | 166 km (90 n.miles) |
| Area | 35,09 km ² |
| Dimensions | 12.5 km long, 5.5 km wide |
| Shoreline | 57 km |
| Highest Elevation | 293 m (Profitis Ilias) |
| Permanent Population | 1011 (2001) |
| Port | Antiparos (10 min from Paros) |



Antiparos. Helicopter-based view of town and Kastro (lower right). Ferryboat from Paros (top), just arrived at the pier (middle right).

The Antiparos Kastro was built as a protected residence for the colonists who most likely were brought from islands nearby. These colonists introduced olive tree cultivation to Antiparos to enhance the value of the Loredano fief. This simultaneous colonization and fortification took place as the politically and militarily fragmented Aegean archipelago was once more in the process of violent transformation. The Ottoman Turks, steadily advancing across the Balkan Peninsula, breached the walls of a depopulated Constantinople in 1453 and reached Athens in 1460. When Turkish pirates, newcomers to the Aegean, began to raid the islands, the Duchy of the Archipelago ceded more and more of its independence in exchange for Venetian protection. The Knights Hospitaller of Saint John successfully defended Rhodes from the Turks during the first siege of 1480, but were ultimately defeated in the second siege of 1522.

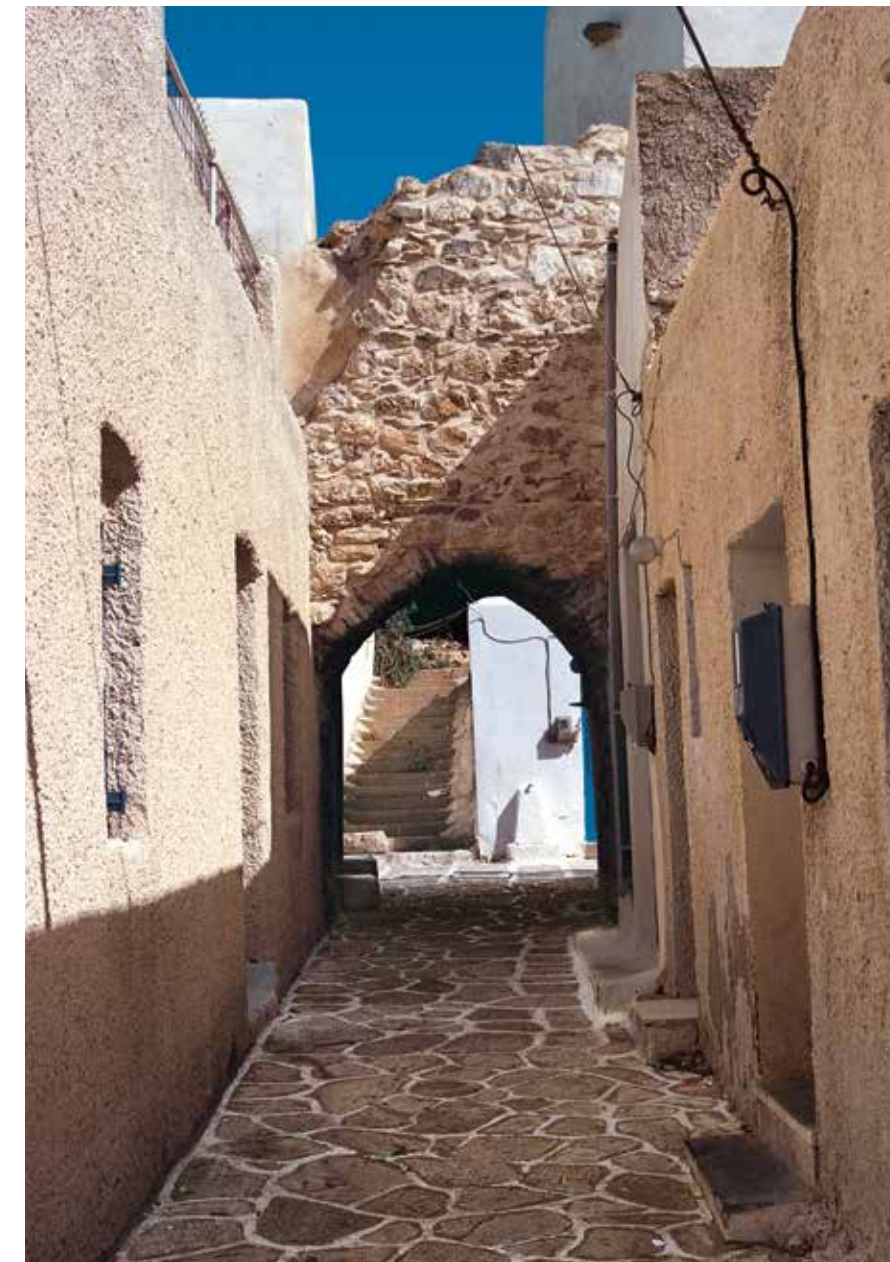
Flanked by two bays, Antiparos is the only town on the island of the same name. It is sited on flat ground forty meters above sea level near the northern tip of the island. The town port on the east bay faces a shallow strait separating Antiparos from Paros. On the west side, the bay opens up to the larger Aegean Sea. With the island of Sifnos and its medieval capital of Kastro visible from this bay at only thirty kilometers away, the defense needs of the duchy as a whole probably influenced the choice of the site for the Antiparos Kastro. Although concealed by contemporary buildings on all four sides, the fifteenth-century Antiparos Kastro is still inhabited and the urban core of a very much alive twenty-first century town.

In the dry and often parched landscape of the Aegean, access to water was a vital feature for those within a defense enclosure. Indeed, an old filled-up well has been located inside the Kastro. A contemporary well, drilled in the same location, within the perimeter of the fortified enclosure, provides water for the present community.





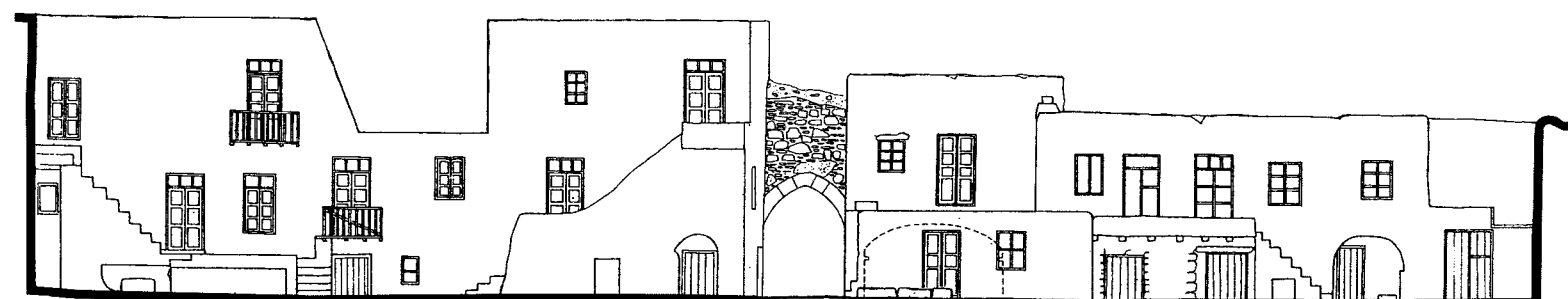
Antiparos Kastro looking north. Gate to the original Kastro appears in the lower middle of this helicopter photograph. The same gate looking north is illustrated on the opposite page.



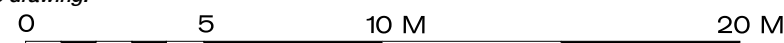
The Lion of St. Mark. A vernacular bas-relief interpretation of the coat of arms of the Serenissima Repubblica, the Most Serene Republic, as Venice called itself. The Lion decorates the entry door of one of the still-inhabited dwelling units of the Antiparos Kastro.



Antiparos Kastro. Interior elevation drawing, looking north. The Lion of St. Mark bas-relief is at the center of the drawing.



Antiparos Kastro. Interior elevation, looking south. Entry gate is at the center of the drawing.



The flat site of the Antiparos Kastro made possible the application of the concept of collective fortification within the perimeter of a perfectly square building. Each side measures slightly less than fifty-four meters. The enclosure contains twenty-four one-level units of habitation on each of the two upper floors. The top floor on the west side is missing with no indication of why or when it was removed. Contrary to the example of the Sifnos Kastro, the length of each unit runs parallel to the external wall. This length varies from six to nine meters. Shared walls five meters in length separate the units. Access to the units is from the internal court, up massive stone steps to the lower habitable floor, then up lighter wooden stairs to the upper floor. In the original building, the external masonry perimeter wall—between a meter and one half and a meter and eighty centimeters—pierced by openings whose limited number and restricted dimensions are reminders of the structure's original defensive purpose.

In the last one hundred fifty years or so, alterations to the west, north, and east walls of the original building have resulted in a proliferation of balconies, loggias, doors, and windows. Despite their incompatibility with the original concept of collective fortification, these alterations have not harmed the visual or structural integrity of the massive external wall, which retains a surprisingly commanding presence. Originally, traffic to and from the complex flowed through a single gate on the south wall, which was shut during the night and opened in the morning, a practice that had been abandoned by 1882, according to J. Theodore Bent, who visited Antiparos that year. Today, the same gate survives as both frame and passageway and continues to provide access to the central court and to a good number of the units, as intended in the fifteenth-century plan. Other units, however, have now been remodeled to open directly to the surrounding streets.

ANTIPAROS MEDIEVAL CHRONICLE

1204 The army of the Fourth Crusade sacks Constantinople. Fragmentation of Byzantine territories

DUCHY OF THE ARCHIPELAGO • SANUDI

1207 MARCO I SANUDO First Duke

Marco Sanudo captures seventeen Aegean islands, most of them undefended. He founds the Duchy of the Archipelago and distributes islands among his friends, to be held as fiefs of the duchy. Antiparos becomes part of the duchy an affiliation that continues through Sanudo's many successors.

1347 The Black Death. Ships from the Genoese trading colonies in the Crimean peninsula pass through the Aegean Sea and bring the Black Death to Italy.

1420s Cristoforo Buondelmonti refers to Antiparos as a deserted island.

1389 Gaspari Sommaripa marries Maria Sanudo, daughter of Nicolo Sanudo Spezzabanda. The Sommaripas become lords of Paros.

1437 Antiparos becomes the property of the Sommaripa of Paros, who do not have a presence on the island however.

LOREDAN FAMILY

1440 Antiparos is granted as a fief to Leonardo Loredano on his marriage to Maria Sommaripa. Antiparos Kastro is built.

1453 Constantinople falls to the Ottoman Turks.

1480 The population of Antiparos is one hundred.

TOURKOKRATIA (TURKISH RULE)

1537 KHEIREDDIN BARBAROSSA
Sailing out of the Golden Horn, the Turkish admiral descends upon the Aegean islands. All are taken and devastated including Antiparos.

1566 DON JOSEPH NASI Twenty-second Duke

Sultan Selim II, heir to Suleyman the Magnificent, names as duke Don Joseph Nasi, a Portuguese-Jewish banker and his financial adviser. Nasi, the last person to hold the title of duke, never visits the islands.

1830s End of the era of piracy. Antiparos becomes part of the new Greek state.



Antiparos Kastro. Helicopter-based view looking southeast. A recent structure houses water-pumping equipment on top of an older round foundation. This lower foundation may have supported a last-resort defense tower during the medieval past of Kastro.

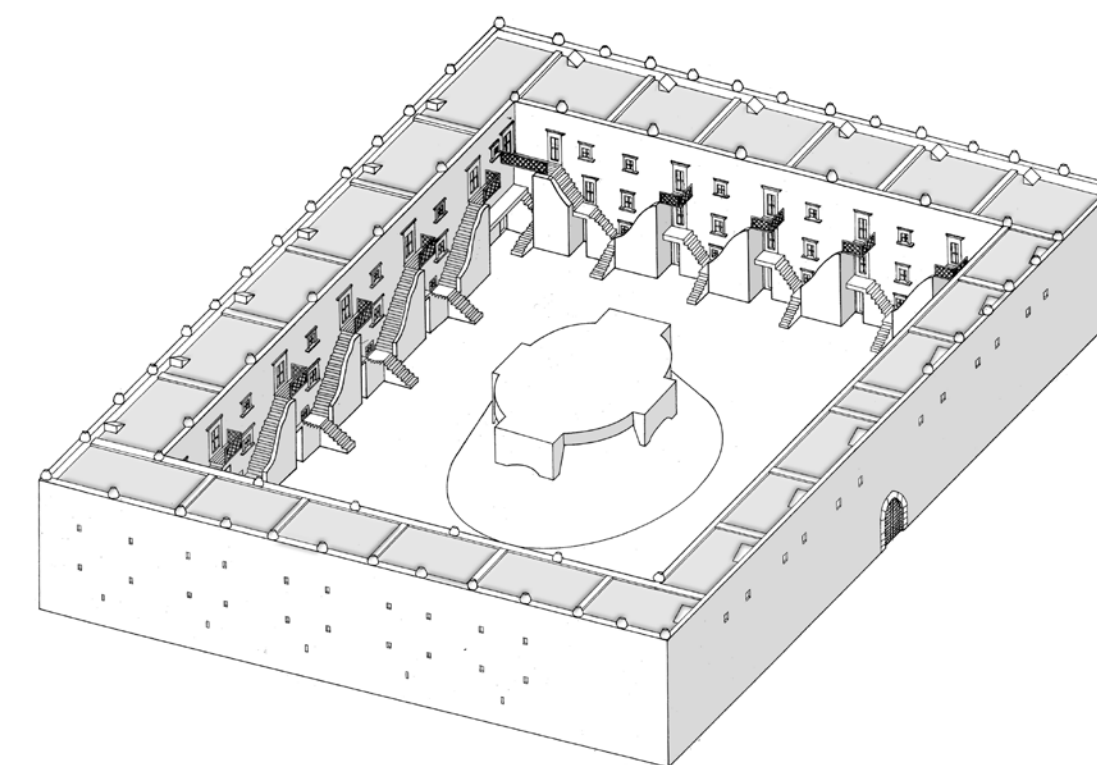


Antiparos Kastro. Dwelling units in current use. Note (illustration on the right) the similarity of unit-access steps with equivalent configurations in Sifnos or Folegandros Kastro.



Antiparos Kastro. Elevation drawing looking west

Antiparos Kastro. Elevation drawing looking east



Antiparos Kastro. Axonometric representation of original building

Imported design ideas and construction techniques were used in building the Antiparos Kastro, but the actual building materials were local. A combination of natural and cut stone was used to produce the massive external walls. Corners were built with large blocks of marble cut in ways that suggest they were recycled from an older building, although there is no evidence that such a building existed on Antiparos. On nearby Paros, however, a great many marble building blocks from antique Greek temples were recycled into the erection of thirteenth-century fortifications. Considering the proximity of the two islands, the recycled marble blocks found in the Antiparos Kastro may well have come from Paros or perhaps Paroikia.

Roughly shaped wood beams, closely spaced, span the distance between the bearing walls. A local species of tree--the fithes, a member of the juniper family--is the source of this rather poor--quality building material, which compensates for its irregular shape by being surprisingly durable.

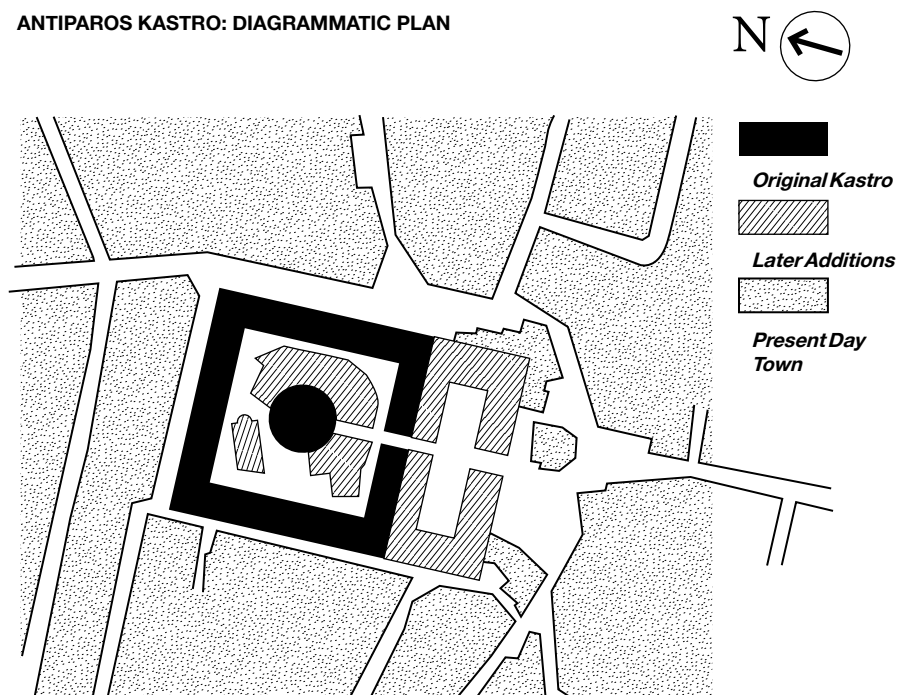


Antiparos Kastro. Exterior walls. Despite the modern-day addition of doors, windows, and balconies the original defensive wall retains its integrity



Antiparos. Helicopter-based view of town. Still inhabited, embraced and lovingly concealed, Kastro remains the urban core of the present-day town.

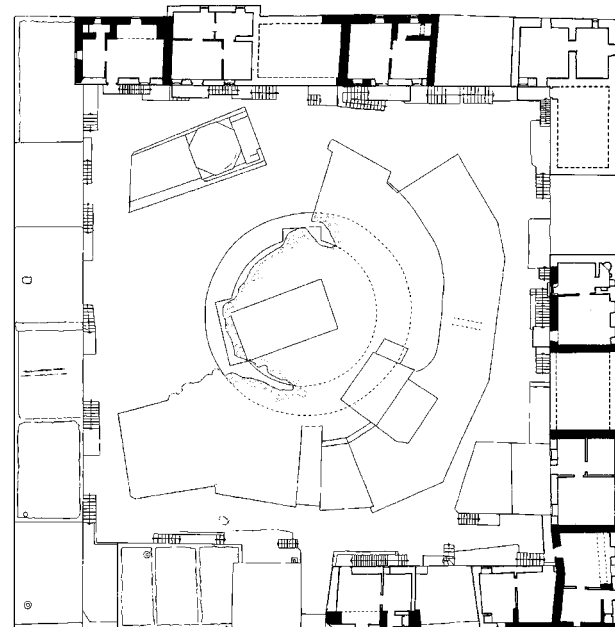
ANTIPAROS KASTRO: DIAGRAMMATIC PLAN



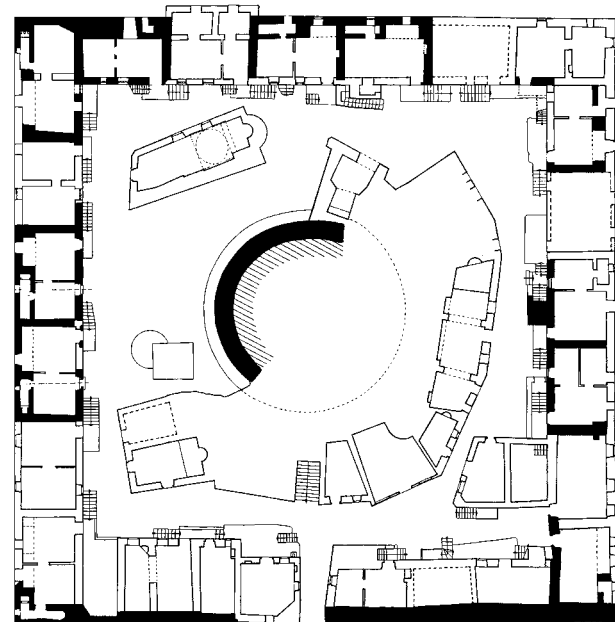
The houses attached to the south side of the original Kastro constitute the first expansion of the original collective fortification. This expansion, which suggests a population increase, occurred in the early seventeenth century, following the devastating Barbarossa raids of 1537 and after several decades of Ottoman rule in most of the Aegean islands. The additions increased the capacity of the expanded Kastro to about one hundred dwelling units. Assuming an average of four to five persons per family and, thus, per dwelling unit, Kastro could now accommodate four to five hundred inhabitants. Indeed, travelers to Antiparos from the fifteenth to the mid-nineteenth century record populations ranging from two to six hundred.

The later dwelling units do not adhere to the discipline of the original fifteenth-century edifice. But since they were attached to the south wall and built as extensions of the east and west external walls, they attest to the inhabitants' continued need for protection, and by inference, suggest the ongoing threat of piracy. At this time entry to the enlarged complex was relocated southward, on the axis of the old gate. The cul-de-sacs on the right and left of this axis, which echo the central space of the original building, reinforce the likelihood that this early-seventeenth-century addition, despite its somewhat awkward attachment to the disciplined geometry of the original edifice, remained focused on defense.

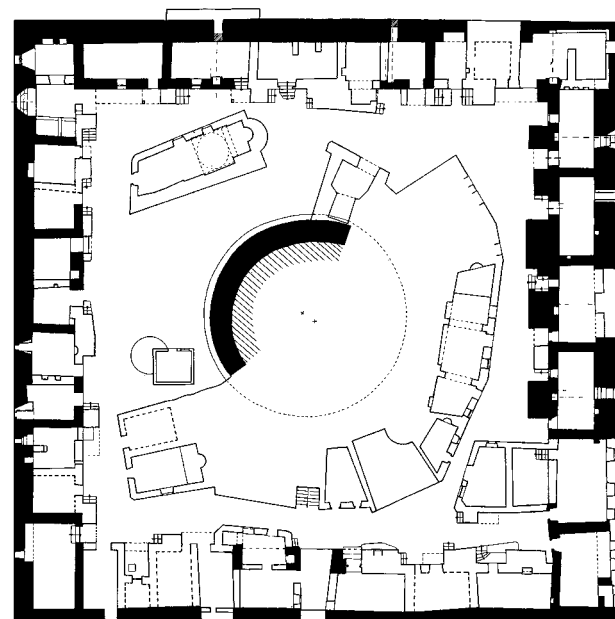
ANTIPAROS KASTRO - PLANS
 Black walls indicate original parts of the building.



Upper floor



Middle floor



Lower floor

0 5 10 20 30 40 M

In the geometric center of the courtyard, rising about six meters from the ground, sits a building with a round foundation with a diameter of seventeen meters. No information about the structure or its purpose has survived, although it may have extended above the surrounding flat roofs of the enclosure to support either a residence for the local feudal lord or a keep, a stronghold for observation and last-resort defense. French and Italian defense examples might have served as prototypes for such a structure, introduced by way of Venetian overlords or the stronghold towers of the nearby Ayion Oros monasteries. Whatever its origin, this round-based building erected at the same time as the square enclosure was clearly meant to enhance the defense of the Antiparos Kastro.

According to M. Philippa-Apostolou, who made a detailed study of the Antiparos Kastro, a grid was used in the design and construction of this exceptional example of Aegean vernacular architecture. This grid was based on the passo, a Venetian unit of measurement equal to 1.78 meters. Therefore, such dimensions as the thickness of the walls, the heights of the doors, the dimensions of the rooms, and the lengths of the external walls are multiples of the passo. Like most other architectural units of measurement, the passo was inspired by human scale and is similar in concept to the modulator (1.80 meters or six feet), a much-debated unit of architectural measurement proposed in the 1940s by the French-Swiss architect Le Corbusier in the context of the Modern movement in architecture.

The presence of a grid strengthens the belief that the Antiparos Kastro was conceived and built as a single building, rather than in stages, to realize the colonization and fortification plans of Giovanni Loredano, the Venetian holder of the fief of Antiparos. The use of the grid also demonstrates the ability of the vernacular architecture builders of the Aegean islands to absorb new building techniques imported from elsewhere.

Chapels and other buildings were added later within the perimeter of the original Kastro. Two chapels are part of a string of single rooms arranged in a curvilinear manner around the south and east sides of the round-based central tower, which was probably destroyed during the Ottoman conquest, its demise signaling a change in the overlordship of Antiparos as in that of the Aegean archipelago generally. A third chapel, also dating from the seventeenth century and called the chapel of Christos, stands free of the larger structure at the northwest corner of the inner court of the original edifice. On the domestic scale typical of the Aegean islands, this barrel-vault and dome-covered chapel asserts its presence in a difficult location with gentleness and conviction. Built parallel to the perimeter, its west wall makes a masterful and sophisticated architectural concession, rare in such a chapel's geometry, to its powerful and immediate neighbor. Its presence introduces an additional architectural scaling element that helps to register the magnitude of the complex. Together with the two other chapels, it celebrates, above all, the reemergence of the occupants' Greek Orthodox faith in the era following the downfall of the island's Venetian Roman Catholic overlords.

The seventeenth-century additions to the fifteenth-century edifice, along with more recent additions and the continuous tenancy of the edifice even today, demonstrate that the Antiparos Kastro is a living organism, constantly recycling architectural elements and redesigning spaces and, in its diachronic dynamism, keeping its precious heritage alive rather than reducing it to museum status.

Church incorporated in the later additions to the Antiparos Kastro



THE VERNACULAR RESPONSE

COLLECTIVE FORTIFICATION

FOLEGANDROS

A Triangular Kastro



FOLEGANDROS

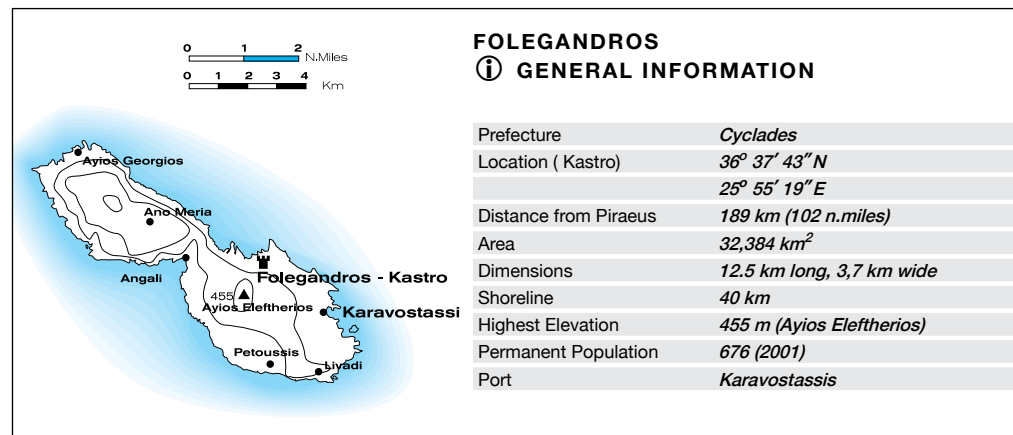
A Triangular Kastro

The Greek historian Apostolos E. Vacalopoulos writes that, during the sixteenth and seventeenth centuries, residents of the smaller and more desolate islands took refuge from pirate attacks in the natural fortifications located on the highest ground. This line of thought finds its most appropriate and fitting illustration in the Folegandros Kastro and particularly in the siting of its northern exposure.

Smaller than neighboring Sikinos, Folegandros at thirty-two square kilometers is one of the southernmost islands of the Cycladic complex. Its long southwest coast faces the Sea of Crete, traditionally an important commercial artery for

vessels sailing from the western Mediterranean through the Aegean to the Black Sea, and vice versa.

Folegandros, however, lacks the geographic characteristics to benefit from this strategic location. Unlike neighboring Melos, it has no ample bay to provide shelter to ships and pilots navigating the challenging waters of the Aegean archipelago.

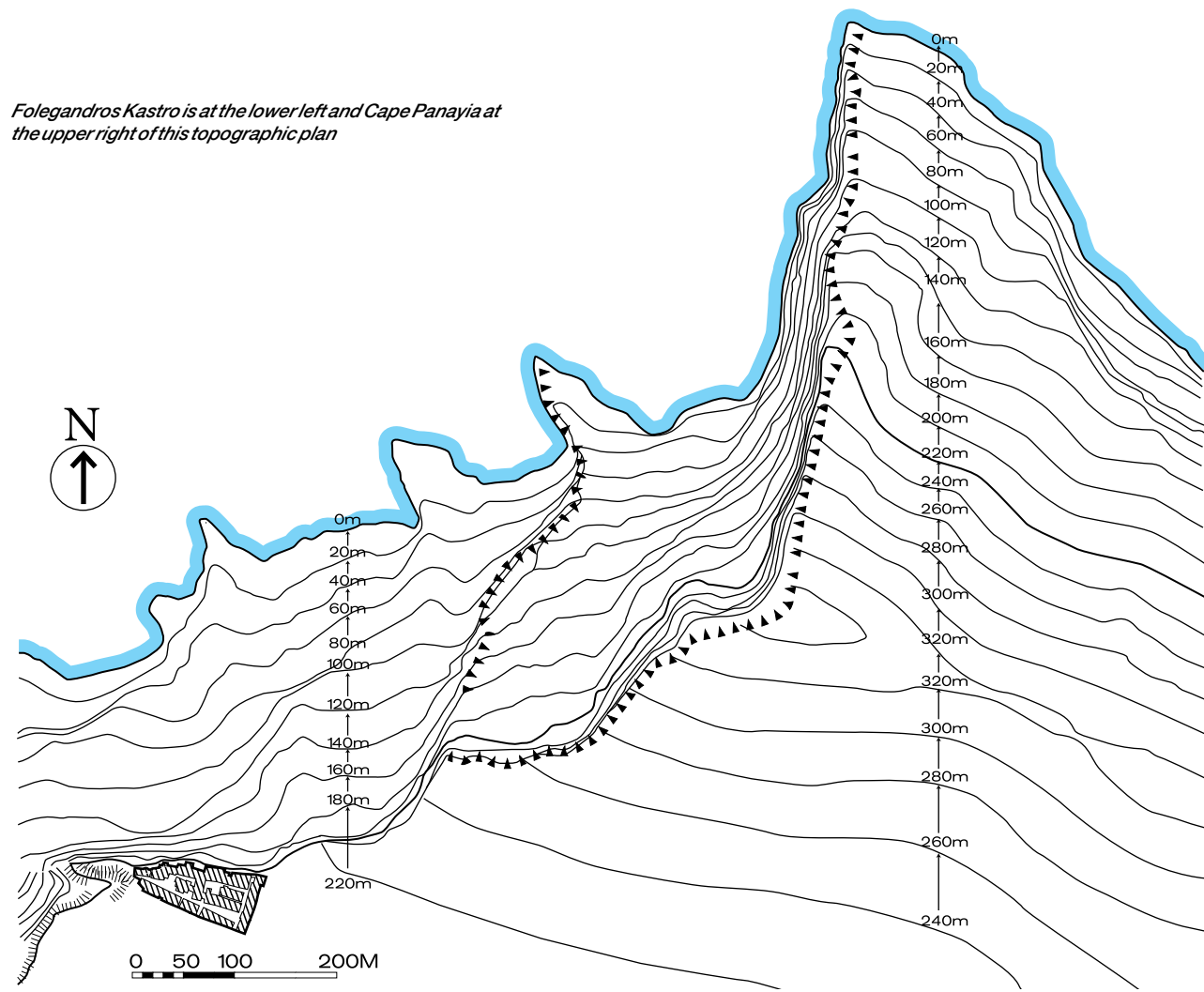


Cristoforo Buondelmonti, *Liber insularum Cycladorum*, Bibliotheque Nationale de France, Paris. Fifteenth-century manuscript map of Folegandros.

Folegandros Kastro looking south



Folegandros Kastro is at the lower left and Cape Panayia at the upper right of this topographic plan



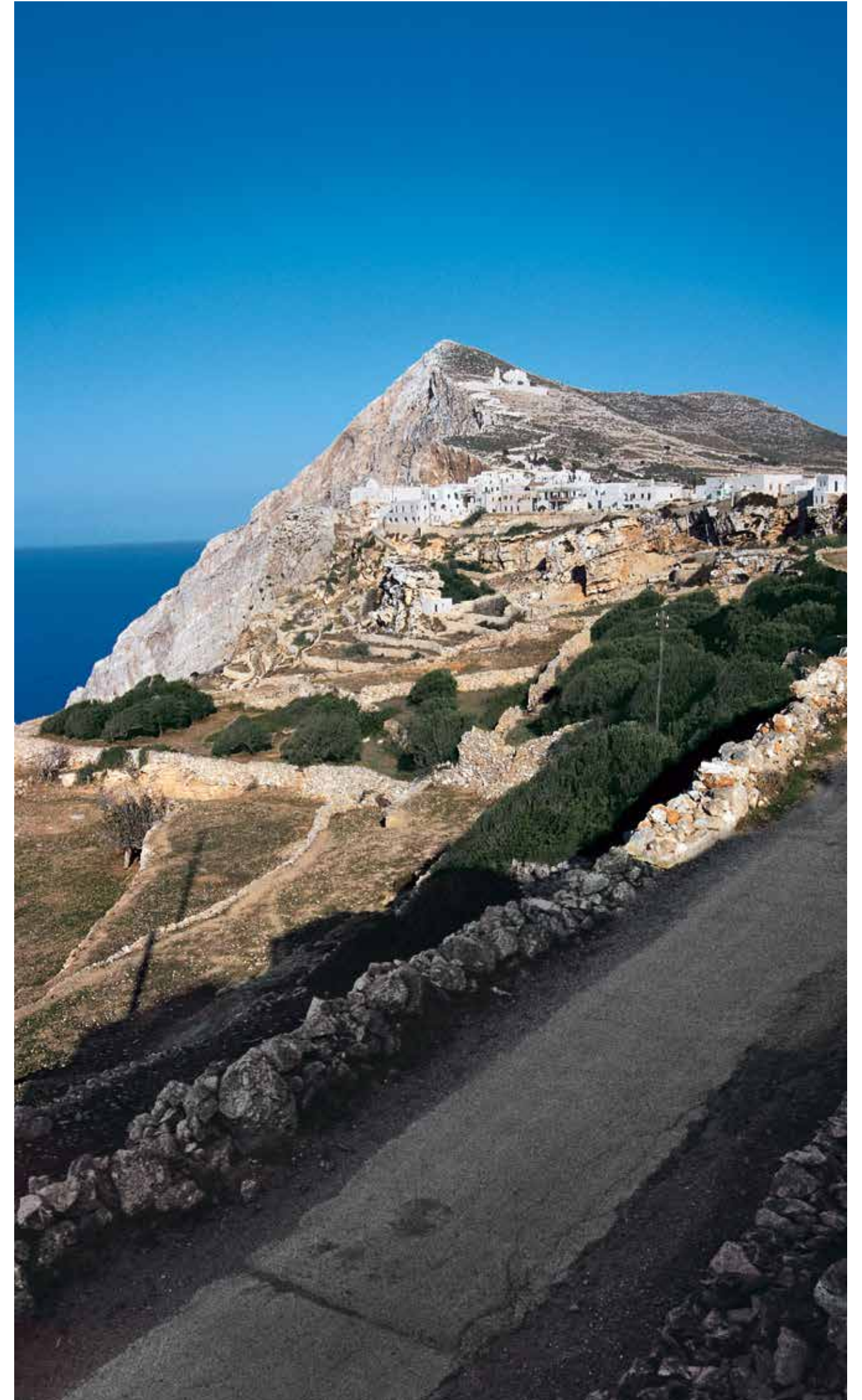
Located on a massive rock formation and on top of a sheer drop to the sea two hundred meters immediately below, the north side stands out as Folegandros Kastro's most distinctive and memorable feature. At the top of this impossible-to-scale cliff, the Folegandros Kastro seems to be flaunting its best defense feature to discourage potential assailants from the sea.

As with all Aegean Kastro, the Folegandros Kastro was erected to protect the occupants from sudden raids by small bands of corsairs. Not surprisingly, it proved inadequate to withstand assaults by the Turkish Armada, which at least once, in 1715, destroyed and depopulated the island.

The Chora of Folegandros seems to have lovingly embraced and protectively concealed its predecessor Kastro. The whitewashed, zigzagging path behind the Chora leads to the church of Panayia, where the citizens of Folegandros celebrate religious and national holidays. The retaining walls and terraces below Chora have prevented erosion and provided cultivated land for generations, sustaining the island inhabitants. Measured against the rocky terrain and the stabilizing Aegean horizon, the man-made elements engage with the natural landscape in a manner that respects its character and spirit, always of the essence in the vernacular architecture of the archipelago.



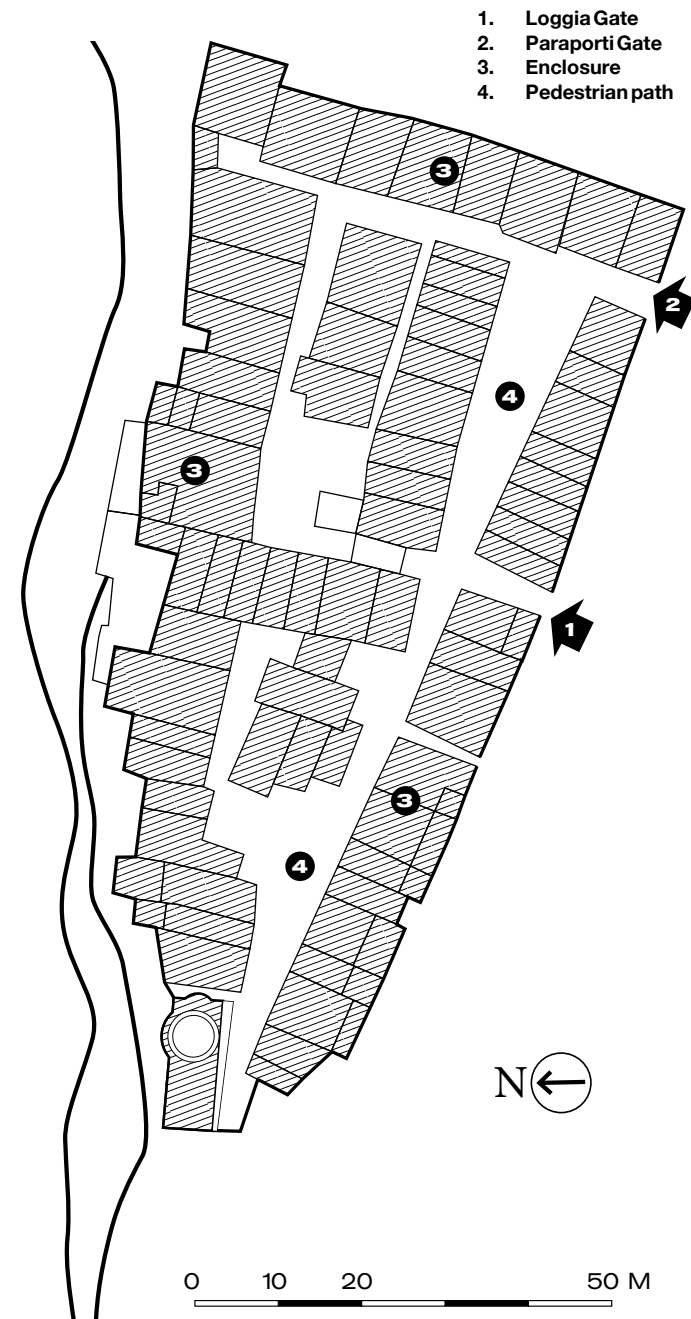
Folegandros Kastro looking southwest



Folegandros Kastro looking east



FOLEGANDROS KASTRO SCHEMATIC PLAN



An application of the collective fortification building system in use during the Duchy of the Archipelago era, Folegandros Kastro is distinguished from other Aegean Kastro by its triangular plan. Fully inhabited today and in excellent status of preservation, the Kastro boasts a three-sided configuration defined by the nearly ninety-degree intersection of its east and south sides. Opposite to this right angle, closely hugging the irregular edge of the cliff, the northern row of dwelling units forms the hypotenuse of the triangle. This triangular formation allows for internal rows of dwelling units, illustrating, once again, the high building density of a Kastro, a feature that the vicissitudes of times have removed from the neighboring Sikinos Kastro.

Typical to Aegean Kastro, external steps built on massive masonry blocks lead to the upper floors of these compact units. Reminders of the minimal internal space of the units, the multiple sets of steps introduce to this pedestrian path a revealing sense of human and architectural scale.

*Inside Folegandros Kastro. Dwelling units.
On the right, Folegandros Kastro, helicopter-based view.*





Folegandros Kastro. Loggia Gate.



Folegandros Kastro. Paraporti Gate.



Folegandros Kastro. Internal rows of dwelling units.

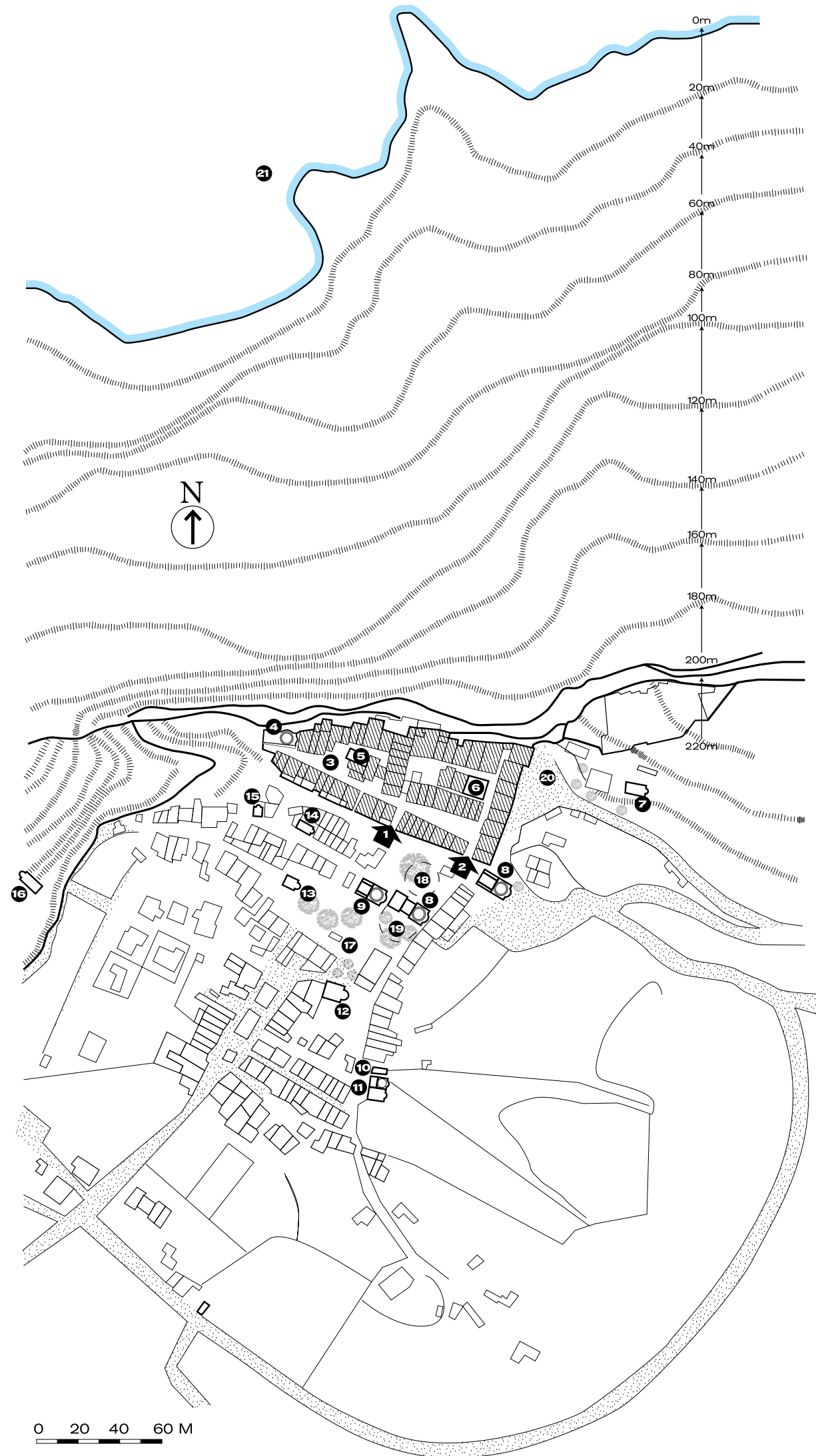


Folegandros Kastro. Internal pedestrian path.

The south wall of the defensive perimeter houses the fortified settlement's two historical gates, which are still in use today. The smaller one, Paraporti, is at the southeast corner, while the main entry, known as Loggia, is located near the middle of the wall. In size, location, and name, the gates are reminiscent of their counterparts at Sifnos Kastro -Paraporti and Portaki, Loggia and Loggia Venieri- underscoring an aspect of continuity in the various applications of the Aegean Kastro building type.

In another function common to the Aegean islands, a region of limited annual precipitation, the flat roofs of the Folegandros Kastro serve as water catchment surfaces; drainpipes channel precious rainwater to storage in cisterns within the foundation walls of the individual dwelling units.

Modern-day expectations of the residents and an upsurging summer tourist industry require extra water supplies, now brought in by water tanker from the mainland.

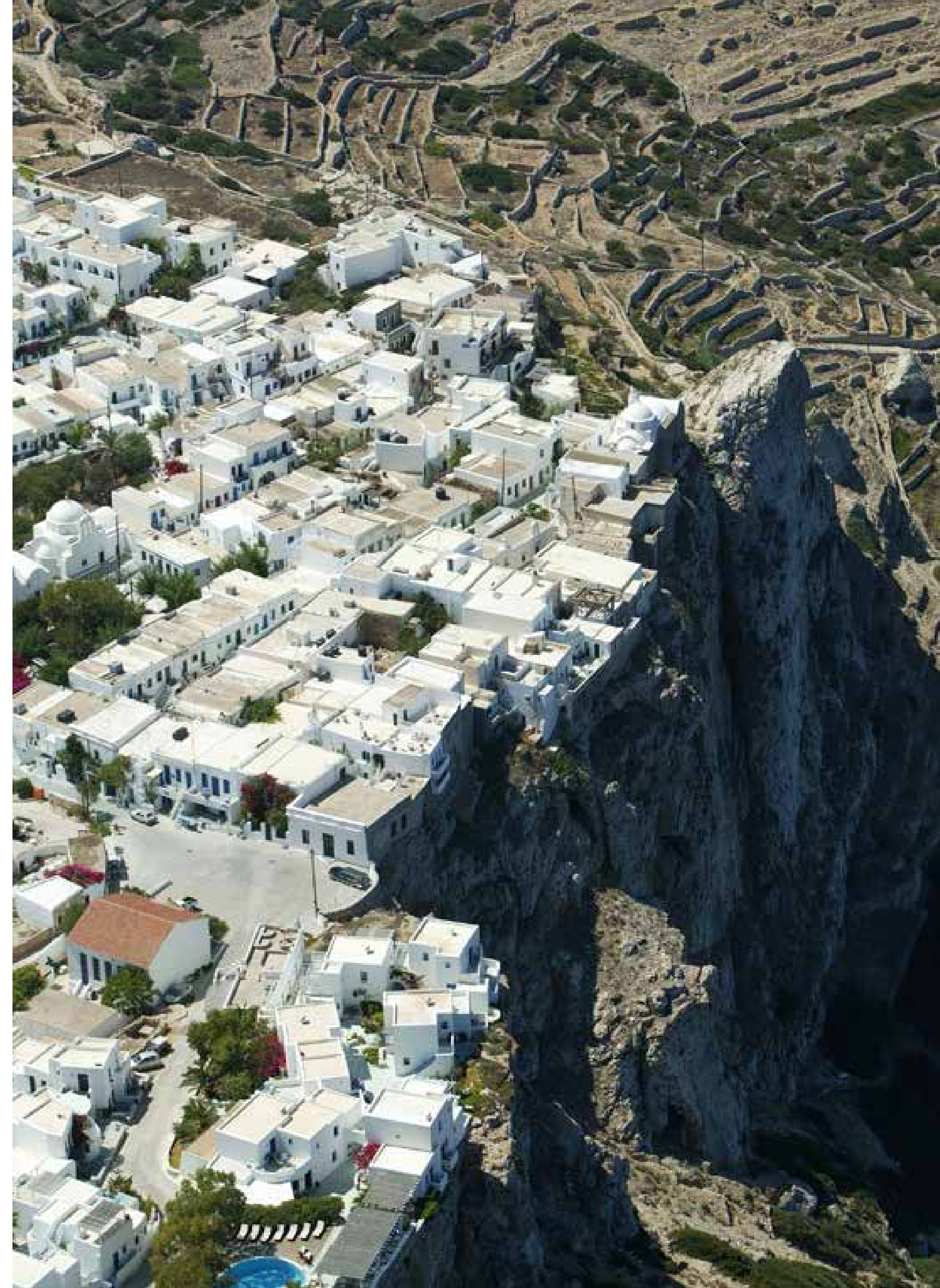


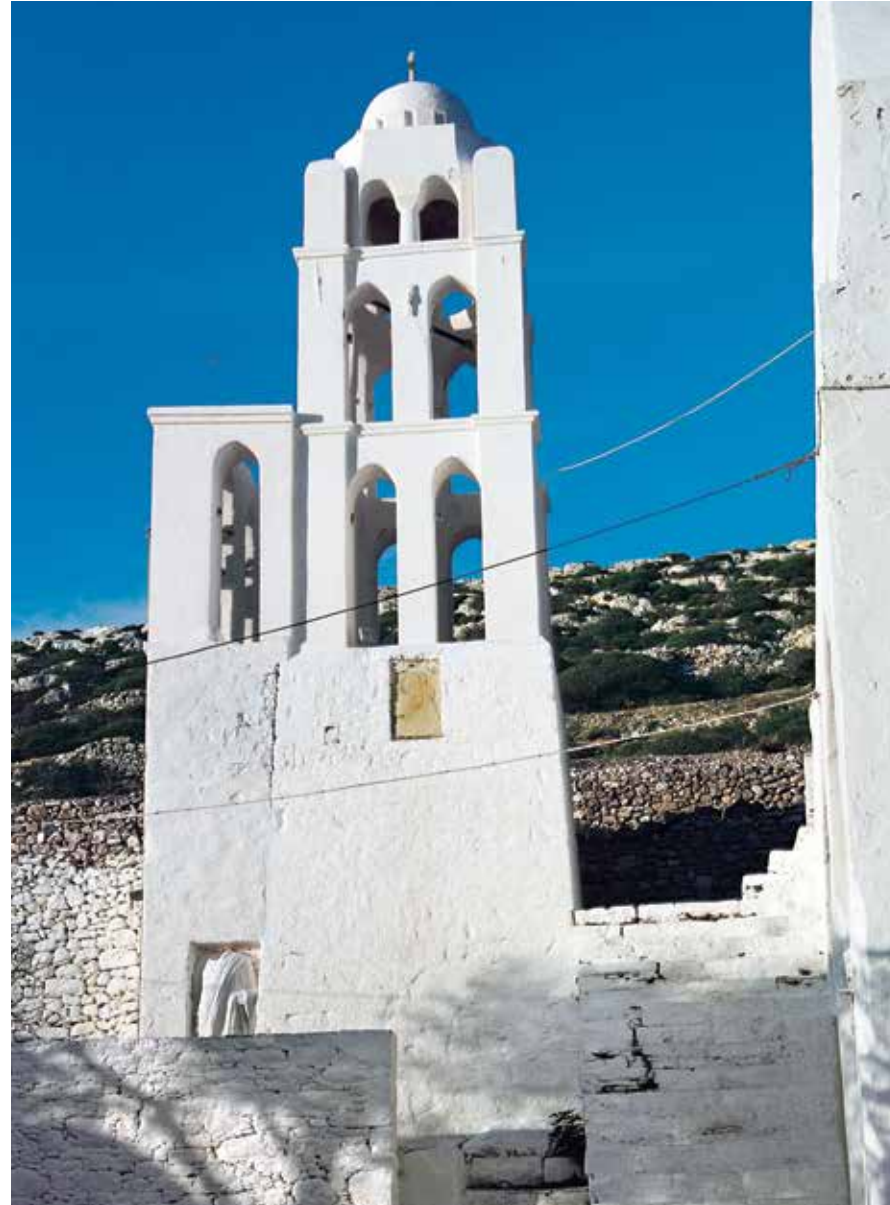
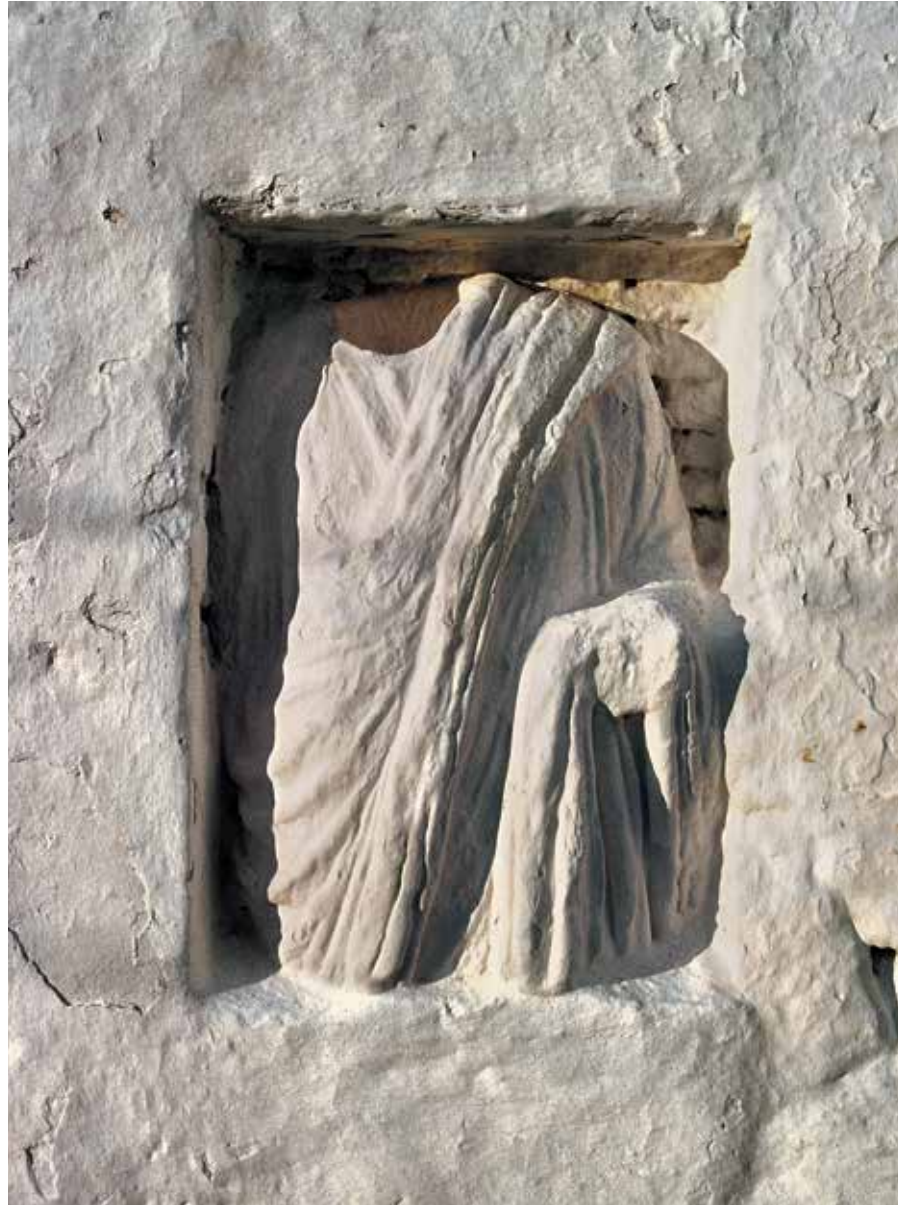
In Folegandros the Chora incorporates the medieval Kastro and the areas where the settlement expanded when the threat of piracy lessened and eventually disappeared after 1830. Part of the expansion took place on the east side of the Kastro along the path leading higher up on the hill to the church of the Virgin, popularly known as Panayia.

The greatest part of the expansion of Chora took place south of the Kastro. Expansion in both directions occurred in a way unique to Folegandros, where four public squares articulate the physical relationship between the medieval and contemporary parts of the town. Pounta Square functions as a place of vehicular arrivals and departures, thus altering the traditional use of the east wall of Kastro. Facing the part of the south wall between the two gates, Dounavi, Kontarini, and Piatsa squares serve as the main civic space of the town, enhanced by the presence of four domed white-washed churches.

FOLEGANDROS KASTRO AND CHORA SCHEMATIC PLAN

- Kastro**
1. Loggia Gate (Main Gate)
 2. Parapoti Gate (Secondary Gate)
 3. Lili Bechraki Square
 4. Pantanassa Church
 5. Ayia Sofia church
 6. Panayia Eleoussa church
- Chora**
7. Ayios Lazaros church
 8. Ayios Nikolaos Cathedral
 9. Taxiarchis church
 10. Ayios Antonios church
 11. Churches of Ayia Aikaterini and St. Fanourios
 12. Theoskepasti church
 13. Ayios Grigorios church
 14. Ayios Aikaterini church
 15. Ayios Efstathios church
 16. Ayios Vassilios church
 17. Piatsa square
 18. Dounavi square
 19. Kontarini square
 20. Pounta square
21. Plaka bay





FOLEGANDROS MEDIEVAL CHRONICLE

1204 The army of the Fourth Crusade sacks Constantinople. Fragmentation of Byzantine territories.

DUCHY OF THE ARCHIPELAGO • SANUDI

1207 MARCO I SANUDO First Duke

Marco Sanudo captures seventeen Aegean islands, most of them undefended. He founds the Duchy of the Archipelago and distributes islands among his friends, to be held as fiefs of the duchy. Folegandros becomes part of the duchy.

1227 ANGELO SANUDO Second Duke

1262 MARCO II SANUDO Third Duke

BYZANTINE RECOVERY

1269 LICARIO

Licario, a knight from Vicenza, under the Byzantine flag recovers for the Emperor several Aegean islands including Folegandros.

Da COROGNA FAMILY

1307 JANULI da COROGNA

Januli da Corogna, an adventurer of Spanish origin, and a member of the Knights Hospitaller, seizes Folegandros, together with Sifnos and Sikinos, renounces his allegiance to the Order, and declares himself an independent sovereign.

1317 ANTONIO da COROGNA

1340 JANULI II da COROGNA

NICOLO da COROGNA

1347 The Black Death. Ships from the Genoese trading colonies in the Crimean peninsula pass through the Aegean Sea and bring the Black Death to Italy.

1374 JANULI III da COROGNA

1453 Constantinople falls to the Ottoman Turks.

GOZZADINI FAMILY

1464 NICOLO GOZZADINO - (MARIETTA da COROGNA)

Nicolo Gozzadino, son of another Latin fief-holder, marries Marietta da Corogna, last descendant of the da Corogna family, and joins Folegandros, Sifnos, and Sikinos, under his rule. Sifnos Kastro becomes the capital of this tiny state.

JANULI II GOZZADINO

ANGELO II GOZZADINO

The Gozzadini family continues to rule Folegandros until 1537.

TOURKOKRATIA (TURKISH RULE)

1537 KHEIREDDIN BARBAROSSA

Sailing out of the Golden Horn, the Turkish admiral descends upon the Aegean islands. All are taken and devastated including Folegandros, Sikinos, and Sifnos, where he expels the Gozzadini.

1566 DON JOSEPH NASI Twenty-second Duke

Sultan Selim II, heir to Suleyman the Magnificent, names as duke Don Joseph Nasi, a Portuguese-Jewish banker and his financial adviser. Nasi, the last person to hold the title of duke, never visits the islands.

1568 It seems that the Gozzadini family rules Folegandros, Sikinos and Sifnos again, while paying taxes to the Sublime Port.

1617 The latest date by which the Gozzadini are allowed to rule Folegandros, Sikinos and Sifnos as Turkish tributaries.

1830s End of the era of piracy. Folegandros becomes part of the new Greek state.



Folegandros Kastro and Panayia. Detail from page 135. The torso of a statue (top left) from Roman times is enwalled at the base of the bell tower (top right) of the church of the Virgin, known as Panayia. Built on a site of worship in use since Greek and Roman antiquity, when Folegandros was also used as a place of exile, the church of Panayia, dedicated to the Assumption of the Virgin, becomes a place of pilgrimage for the denizens of Chora every August 15.

Opposite page: Following intense preparations, including the ritual of a fresh whitewash, the church stands immaculately clean, shining brilliantly white in the Aegean sunlight, ready for the celebration.

THE VERNACULAR RESPONSE

COLLECTIVE FORTIFICATION

SIKINOS

Kastro Transformed



Sikinos island. Strategically located at high points, three windmills underscore the diachronic presence of the winds of Aeolus in the daily life of Sikinos Kastro.



Sikinos island: Chora on the left and Kastro on the right crown an endless number of upward-leading terraces

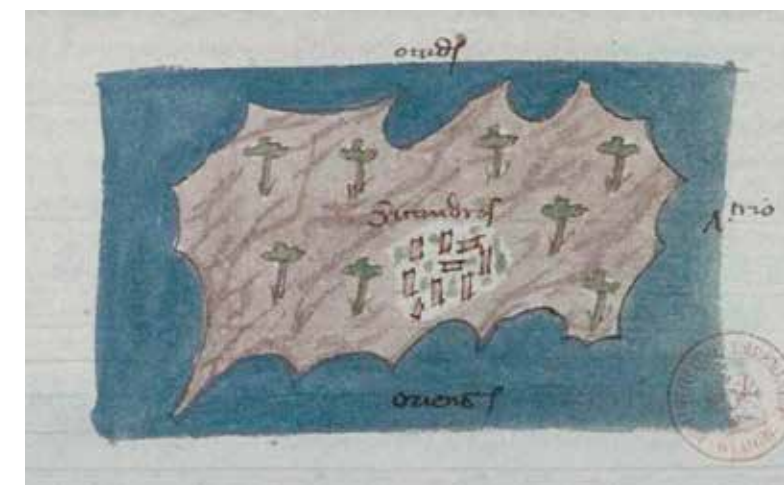
SIKINOS

Kastro Transformed

Sikinos provides a rare, if not unique, Cycladic island example where a more recent town unfolds as expected around the periphery of a medieval Kastro. And yet, a short distance from the original Kastro is a Chora, which has a clearly separate physical existence. There are no historical records to account for this phenomenon. Today, only the site, an extended hilltop ridge where both Kastro and Chora sit in a linear relationship to each other, provides some clue to this apparent puzzle of proximity and separation.

Among the smaller of the Cycladic islands, Sikinos, at forty-one square kilometers, is hemmed in by Ios and Folegandros and lies directly south of Antiparos. On a clear day, to

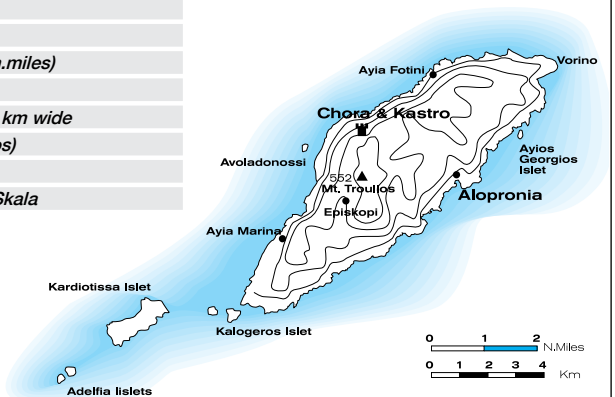
the northwest of Sikinos Kastro, Sifnos Kastro appears in the horizon forty kilometers distant. Capped by a 552-meter high point, the rocky and mountainous terrain of the island of Sikinos is tempered by a multitude of retaining walls and terraces. Common in all Aegean islands, these terraces, locally called pezoules, over the centuries conserved the precious soil of the island and provided for a moderate agricultural wealth. The population they sustained never exceeded several hundred.

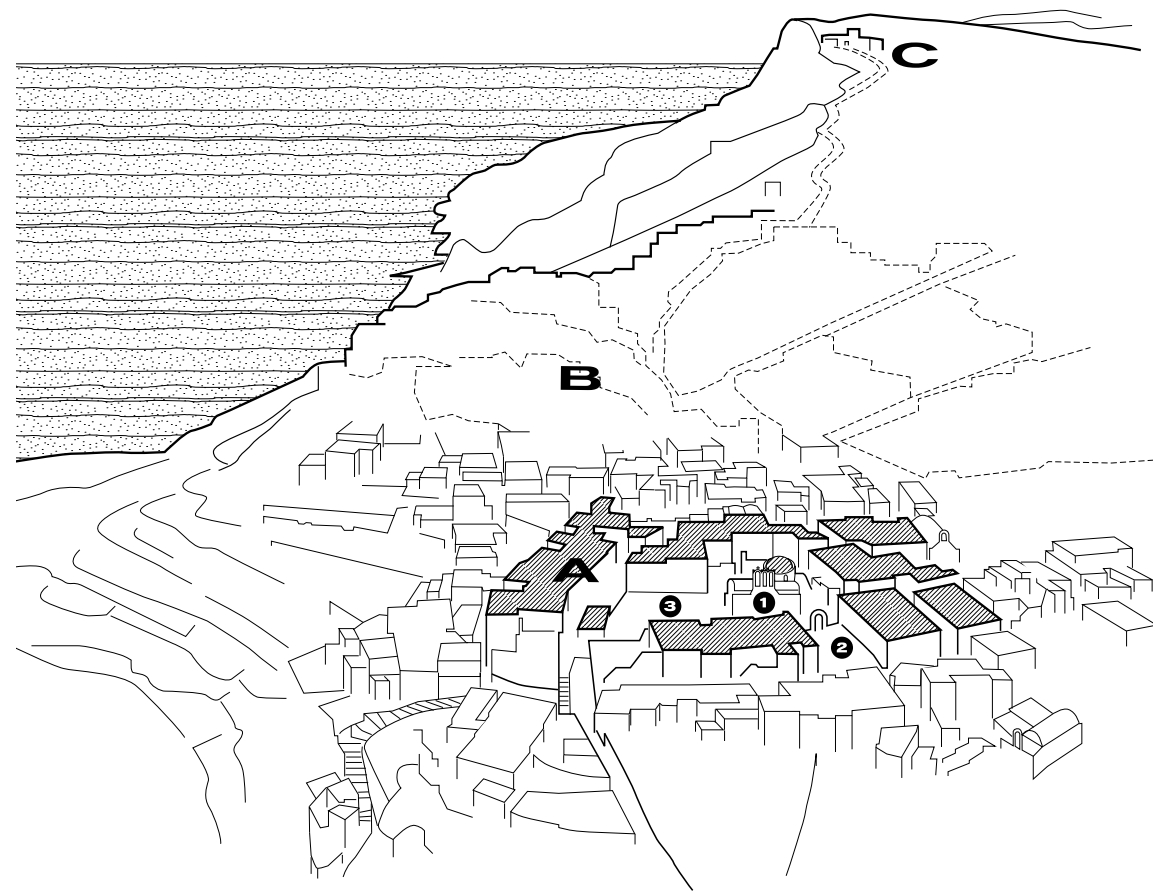


Cristoforo Buondelmonti, *Liber insularum Cycladorum*, Bibliotheque Nationale de France, Paris. Fifteenth-century manuscript map of Sikinos.

SIKINOS ① GENERAL INFORMATION

| | |
|-----------------------|--------------------------------|
| Prefecture | Cyclades |
| Location (Kastro) | 36° 41' 38" N 25° 06' 48" E |
| Distance from Piraeus | 209 km (113 n.miles) |
| Area | 41,676 km ² |
| Dimensions | 14 km long, 5 km wide |
| Highest Elevation | 552 m (Troullos) |
| Permanent Population | 238 (2001) |
| Port | Alopronia or Skala |





SIKINOS KASTRO: DIAGRAM

- A. Original Kastro
 - 1. Pantanassa church
 - 2. Missing dwelling unit
 - 3. Enclosed space, missing rows of dwelling units
- B. Present-day town
- C. Zoodochos-Pigi monastery

Helicopter-based view of Sikinos Kastro. Note the similarity of the natural and man-made landscape of Sikinos Kastro to that of neighboring Folegandros Kastro. Coloring the outside surface of a church dome blue, as depicted here for Pantanassa church, is a vernacular practice of recent years.

Built during the years of the Duchy of the Archipelago, perhaps only decades after the Antiparos Kastro, the Sikinos Kastro is another inspiring application of the collective fortification building system prevalent at the time. The west wall of the strategically located four-sided enclosure asserted a commanding view of the sea 270 meters immediately below.

The Kastro's east side oversaw the land approaches from the present-day port of Alopronia. Missing dwelling units have created substantial gaps in the old external fortification walls. Surviving parts, however, allow a clear understanding of the geometry of the original Kastro.

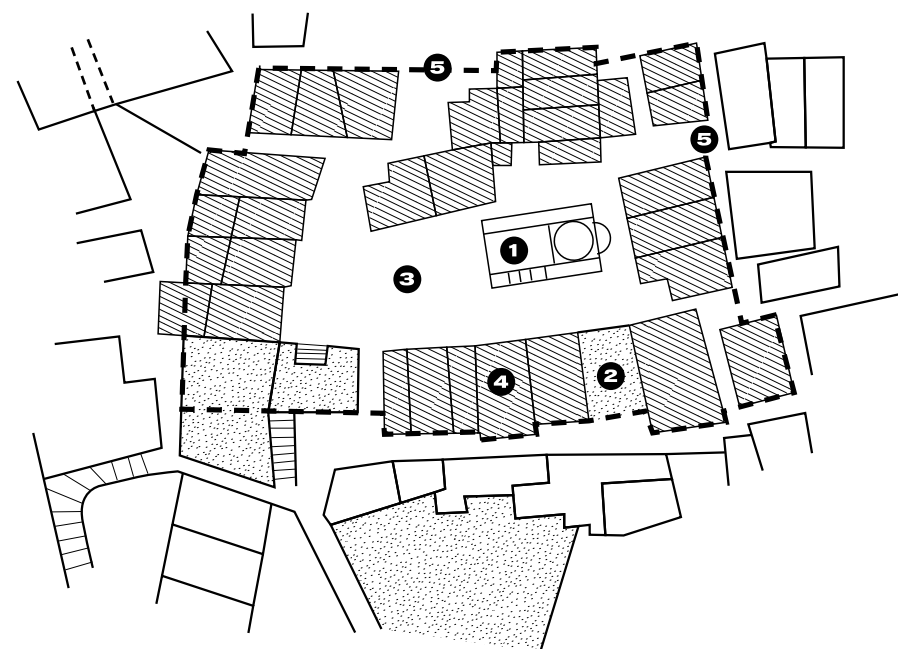




Sikinos Kastro, Pantanassa church. The bell tower casts a shadow on the barrel-vault surface. Enclosed space of Kastro, shown on upper left corner of photograph, includes a war memorial.

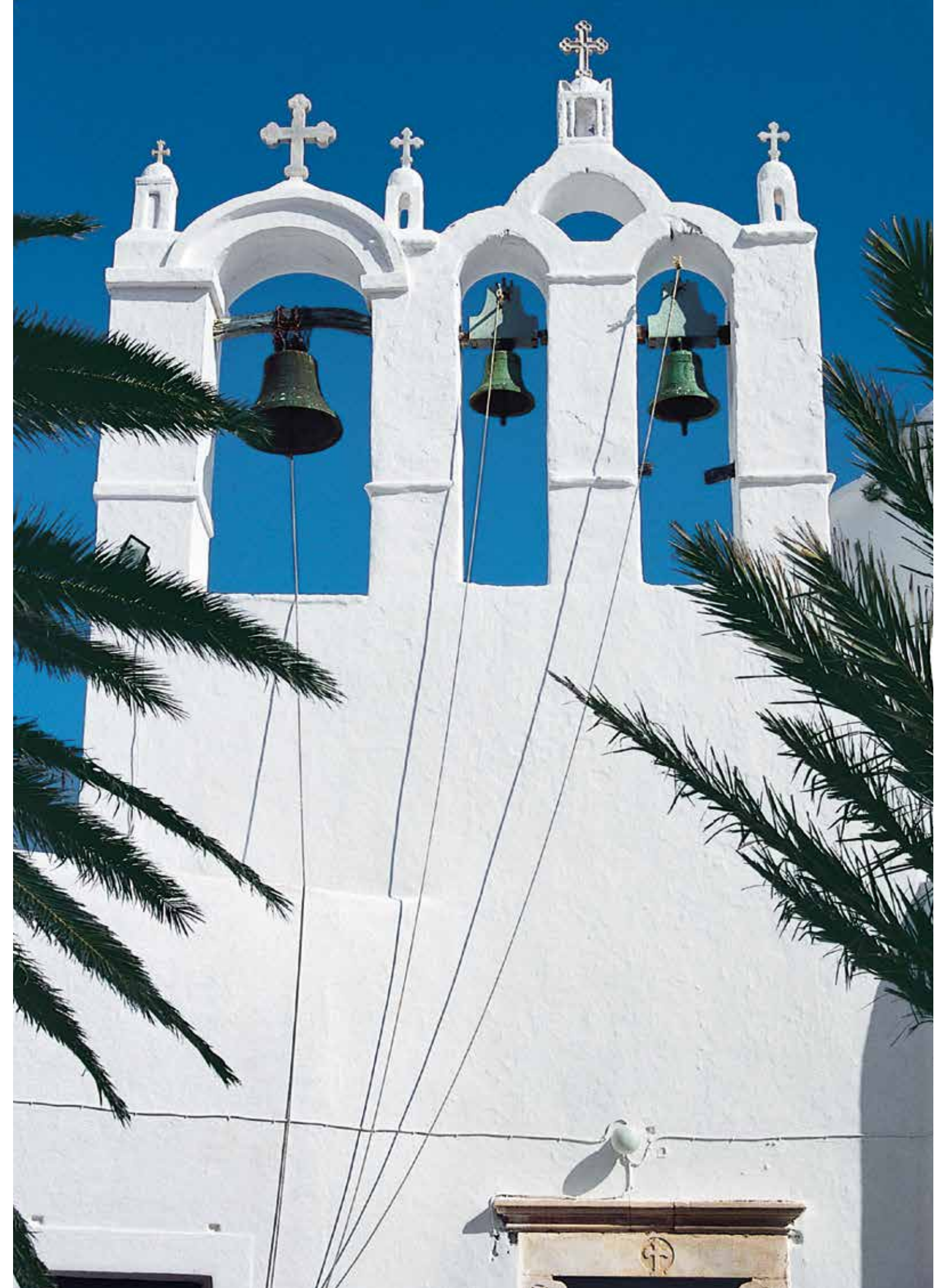
In contrast to those of a typical Aegean Kastro, the dimensions of the enclosed space at Sikinos Kastro are excessively large, indicating the removal of internal rows of dwelling units. This demolition probably occurred in coordination with the erection of the church of Pantanassa, which dates to 1787. An obvious addition to the original bell tower of the Pantanassa suggests that the church in its present form might not have been erected in one stage. As with Antiparos Kastro, Northern Italian architectural prototypes very likely guided the building of the original Sikinos Kastro. The replacement of the internal rows of housing units by the church of Pantanassa brings to mind the image of a Greek Orthodox monastery court surrounded by cells, with the Katholikon standing free in the center. This image originated in buildings extant in the Aegean littoral during the early years of the Duchy of the Archipelago. The pattern was very much in the mind's eye of the vernacular architecture builders of the eighteenth-century archipelago and apparently likewise so in the eyes of those in charge of the eighteenth-century transformation of the Sikinos Kastro.

Today, Sikinos Kastro continues a vibrant existence. In addition to its exhibition space and war memorial, it houses offices for the community administration and the local archaeological authority. Such uses underscore how a living architectural organism has transformed itself throughout the years in the service of the citizens of Sikinos.



SIKINOS KASTRO: SCHEMATIC PLAN

1. Pantanassa church
2. Missing dwelling unit
3. Enclosed space, missing rows of dwelling units
4. Extant units
5. Probable footprint of original Kastro



Sikinos Kastro, Pantanassa church. The arch and bell were later additions to the left of the original tower. They support the exuberant mini-cupolas crowned with crosses atop the expanded bell tower inside Kastro. The palm trees in front of the tower are a reminder that the islands of the Cyclades lie in the same latitude as the north coasts of Algeria and Tunis.



Sikinos Kastro.
The door frame (top) incorporates decoration themes common to most Aegean island towns. The window frames illustrated on the immediate left may have been used as prototypes in the later building of Kimolos Kastro.



Sikinos Kastro, enclosed space



Sikinos Kastro village, interior path

SIKINOS MEDIEVAL CHRONICLE

1204 The army of the Fourth Crusade sacks Constantinople. Fragmentation of Byzantine territories

DUCHY OF THE ARCHIPELAGO - SANUDI

1207 **MARCO I SANUDO** First Duke
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1227 **ANGELO SANUDO** Second Duke

1262 **MARCO II SANUDO** Third Duke

BYZANTINE RECOVERY

1269 **LICARIO**
Licario, a knight from Vicenza, under the Byzantine flag recovers for the Emperor several Aegean islands including Sikinos.

Da COROGNA FAMILY

1307 **JANULI da COROGNA**
Januli da Corogna, an adventurer of Spanish origin, and a member of the Knights Hospitaller, seizes Sikinos, together with Sifnos and Folegandros, renounces his allegiance to the Order, and declares himself an independent sovereign.

1317 **ANTONIO da COROGNA**

1340 **JANULI II da COROGNA**

NICOLO da COROGNA

1347 **The Black Death.** Ships from the Genoese trading colonies in the Crimean peninsula pass through the Aegean Sea and bring the Black Death to Italy.

1374 **JANULI III da COROGNA**

1453 Constantinople falls to the Ottoman Turks.

GOZZADINI FAMILY

1464 **NICOLO GOZZADINO - (MARIETTA da COROGNA)**
Nicolo Gozzadino, son of another Latin fief-holder, marries Marietta da Corogna, last descendant of the da Corogna family, and joins Sikinos, Sifnos, and Folegandros, under his rule. Sifnos Kastro becomes the capital of this tiny state.

JANULI II GOZZADINO

ANGELO II GOZZADINO

The Gozzadini family continues to rule Sikinos until 1537.

TOURKOKRATIA (TURKISH RULE)

1537 **KHEIREDDIN BARBAROSSA**
Sailing out of the Golden Horn, the Turkish admiral descends upon the Aegean islands. All are taken and devastated including Sikinos, Folegandros, and Sifnos, where he expels the Gozzadini.

1566 **DON JOSEPH NASI** Twenty-second Duke
Sultan Selim II, heir to Suleyman the Magnificent, names as duke Don Joseph Nasi, a Portuguese-Jewish banker and his financial adviser. Nasi, the last person to hold the title of duke, never visits the islands.

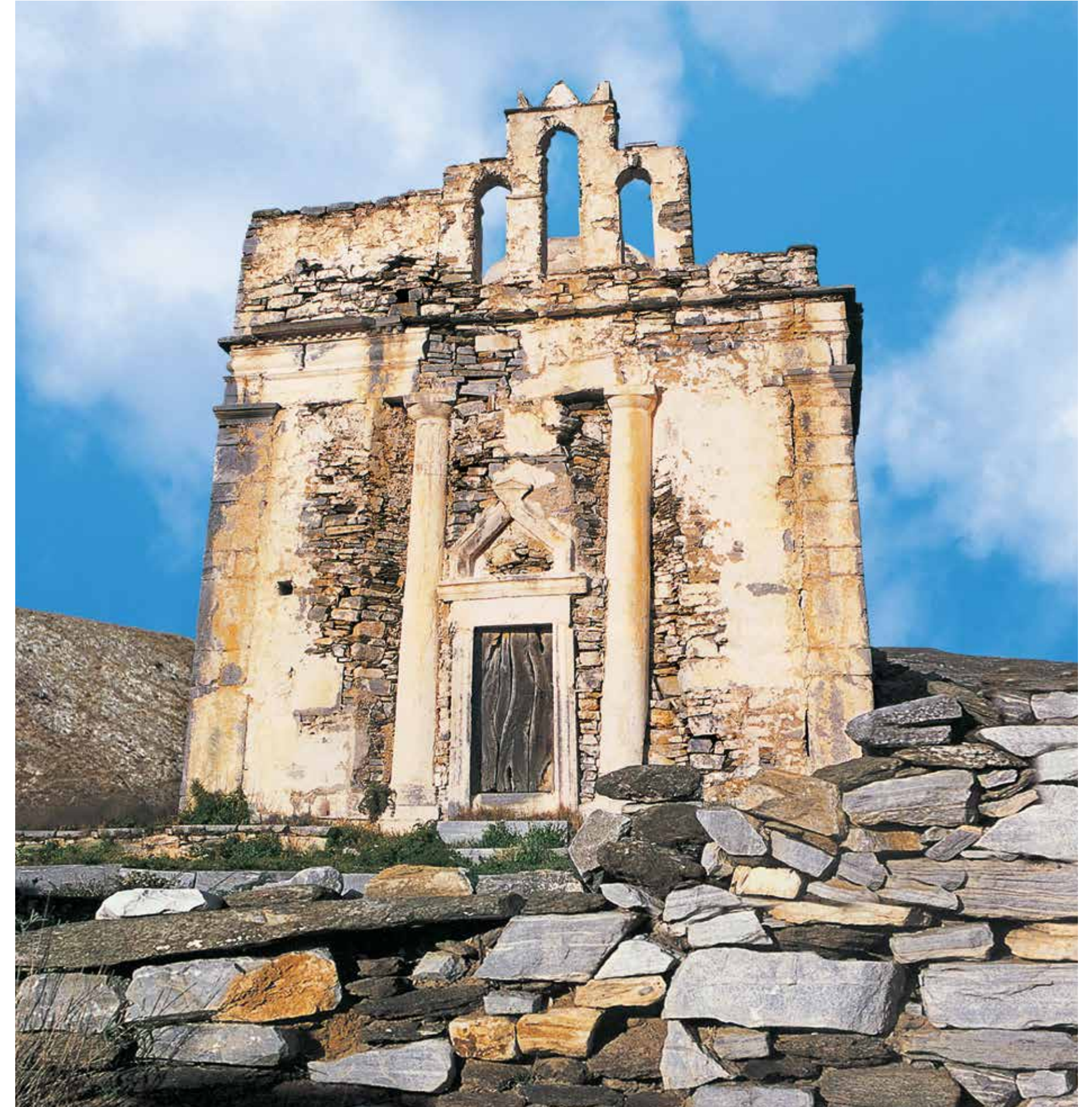
1568 It seems that the Gozzadini family rules Sikinos, Folegandros and Sifnos again, while paying taxes to the Sublime Port.

1617 The latest date by which the Gozzadini are allowed to rule Sikinos, Folegandros and Sifnos as Turkish tributaries.

1830s **End of the era of piracy.** Sikinos becomes part of the new Greek state.



Sikinos Chora. Two single-nave chapels are frequently joined into one building, as the examples on this page illustrate. Some scholars believe that the double-nave, single chapel building originated during the reign of the Duchy of the Archipelago, when the strong Latin Roman Catholic presence in the islands may have prompted a simultaneous double liturgy designed to meet the religious needs of a mixed community. The photograph at the top, looking west during early morning hours, brings to mind Le Corbusier's definition of architecture as "the masterly, correct, and magnificent play of masses brought together in light".



Sikinos island, Monastery of Episkopi. In the context of recycling architectural parts and functions, the island of Sikinos provides a unique and remarkable example in the monastery of Episkopi. Its surviving Katholikon was originally a Roman mausoleum. The front two unfluted columns of the structure were later enwalled to provide enclosure for a Christian church. Still later a distinctly Aegean vernacular bell tower was added to crown this facade. All together these adaptations compose an astounding architectural encapsulation of diachronic geopolitical developments in the archipelago.

THE VERNACULAR RESPONSE

COLLECTIVE FORTIFICATION

NAXOS

Kastro, The Capital of an Insular State



The Naxos Kastro is at the center of this helicopter-based photograph. The tiny island of Palatia is on the right side and the island of Paros appears in the background.

NAXOS

Kastro, The Capital of an Insular State

Naxos, at 443 square kilometers, is the largest and among the most fertile of the Cycladic islands. The one-thousand-and-four-meter tip of Mount Zas dominates the Cycladic landscape and seascape. In contrast to the typical small and rocky one-town Aegean island, Naxos has historically supported tens of settlements, thanks to its size and the richness of its soil. In fact, size and richness of soil, as well as its central location in the south Aegean Archipelago, have determined much of the history of the island. That Naxos was important in early times is evident from its role in Greek mythology: Dionysos was said to have been born on the island and an ungrateful Theseus abandoned Ariadne there.

In antiquity the island was capable of putting a remarkable eight thousand heavy armed infantry in the field. In the Middle Ages, soon after the Latin conquest of Constantinople in 1204, Naxos attracted the acquisitive attention of Marco Sanudo who recognized strategic and economic potential of the island. Gathering around him a band of equally young and adventurous warriors to whom he had promised rich fiefs in the El Dorado of the Aegean, Sanudo captured seventeen Aegean islands including Naxos, making its main city, also called Naxos, the capital of his duchy. He set out erecting a major fortification in the form of a castle on top of the ancient city, a site rich in immediately available building materials. In addition, after improving the harbor by the construction of a mole, Sanudo built a new fleet, thereby promoting himself to a powerful ruler and causing many other Latin chieftains in the region to seek his attention.



NAXOS ⓘ GENERAL INFORMATION

| | |
|-----------------------|--------------------------------|
| Prefecture | Cyclades |
| Location (Kastro) | 37° 06' 32" N 25° 22' 53" E |
| Distance from Piraeus | 190.75 km (103 n.miles) |
| Area | 443 km ² |
| Dimensions | 33 km long, 24 km wide |
| Shoreline | 148 km |
| Highest Elevation | 1004 m (Mount Zas) |
| Permanent Population | 17.357 (2001) |
| Port | Naxos (Chora) |



"Naxiotes" (Men and Women of Naxos), Joseph Pitton de Tournefort, engraving, 1717



Naxos Kastro. Pedestrian path

| NAXOS MEDIEVAL CHRONICLE | |
|--|---|
| 1204 | The army of the Fourth Crusade sacks Constantinople. Fragmentation of Byzantine territories |
| DUCHY OF THE ARCHIPELAGO • SANUDI | |
| 1207 | MARCO I SANUDO First Duke Marco Sanudo captures seventeen Aegean islands, most of them undefended. Fighting occurs only at Naxos, which is seized from a band of Genoese adventurers. Sanudo founds the Duchy of the Archipelago and distributes islands among his friends, to be held as fiefs of the duchy. |
| 1227 | ANGELO SANUDO Second Duke |
| 1262 | MARCO II SANUDO Third Duke |
| 1303 | GUGLIELMO SANUDO Fourth Duke |
| 1323 | NICOLO I SANUDO Fifth Duke |
| 1341 | GIOVANNI I SANUDO Sixth Duke |
| 1347 | The Black Death. Ships from the Genoese trading colonies in the Crimean peninsula pass through the Aegean Sea and bring the Black Death to Italy. |
| 1355 | War with Genoa. While the galleys of Naxos are away, a Genoese force storms the city and carries Giovanni prisoner to Genoa. The peace concluded between the rival republics allows Giovanni to return to his impoverished domain. |
| 1361 | FIorenza SANUDO Seventh Duchess |
| 1364 | NICOLO SANUDO-SPEZZABANDA Eighth Duke |
| 1371 | NICOLO III DALLE CARCERI Ninth Duke |
| 1383 | Nicolo III is murdered by Francesco Crispo, who usurps the dukedom, and founds the dynasty of the Crispi. The Sanudi outlast the Villehardouins and the de la Roches as the longest-lived dynasty in Frankish Greece. |
| DUCHY OF THE ARCHIPELAGO • CRISPI | |
| 1383 | FRANCESCO CRISPO Tenth Duke |
| 1397 | JACOPO I CRISPO Eleventh Duke |
| 1418 | GIOVANNI II CRISPO Twelfth Duke |
| 1431 | In retaliation for Venetian attacks in Chios, the Genoese admiral Pedro Spinola assaults and occupies Naxos. Following negotiations and payment of ransom, Spinola departs. |

| | |
|------------------------------------|---|
| 1433 | JACOPO II CRISPO Thirteenth Duke |
| 1447 | GIOVANNI JACOPO CRISPO Fourteenth Duke |
| 1453 | GUGLIELMO II CRISPO Fifteenth Duke Constantinople falls to the Ottoman Turks. During Guglielmo's reign the Turks also overthrow the Greek Despotate of the Morea and the Florentine Duchy of Athens |
| 1463 | FRANCESCO II CRISPO Sixteenth Duke |
| 1463 | JACOPO III CRISPO Seventeenth Duke |
| 1480 | GIOVANNI III CRISPO Eighteenth Duke The lordship of Skaros in Santorini is in dispute between the Crispi and the Pisani. Giovanni Crispo occupies Skaros and compensates the Pisani. His ruthless rule causes a popular revolt in Naxos in 1494, from which he is saved by the ships of the Knights Hospitaller of Rhodes. Eventually Venice takes over and rules the Duchy for the next six years. |
| 1500 | FRANCESCO III CRISPO Nineteenth Duke |
| 1517 | GIOVANNI IV CRISPO Twentieth Duke |
| TOURKOKRATIA (TURKISH RULE) | |
| 1537 | KHEIREDDIN BARBAROSSA Sailing out of the Golden Horn, the Turkish admiral descends upon the Aegean islands. All are taken and devastated including Naxos, where Giovanni Crispo surrenders and retains his title as a Turkish tributary. |
| 1564 | JACOPO IV CRISPO Twenty-first Duke Jacopo continues as a Turkish tributary but is eventually expelled as a result of a popular revolt against his rule. |
| 1566 | DON JOSEPH NASI Twenty-second Duke Sultan Selim II, heir to Suleyman the Magnificent, names as duke Don Joseph Nasi, a Portuguese-Jewish banker and his financial adviser. Nasi, the last person to hold the title of duke, never visits the islands but sends Francesco Coronello as his representative in Naxos. Save for a brief interruption caused by the return of Jacopo Crispo in 1571, Coronello retains his position in Naxos until 1579. |
| 1579 | Joseph Nasi dies. The sultan transfers Naxos and a number of other islands of the former duchy to Suleyman Bey for an annual rental of 40,000 ducats. |
| 1830s | End of the era of piracy. Naxos becomes part of the new Greek state. |

With this vigorous beginning, the Sanudi family led the Duchy of the Archipelago for nearly 180 years. During the second half of the fourteenth century, near the end of the Sanudi line, the drama of the second marriage of Fiorenza Sanudo, heiress to the duchy, illuminates the duchy's relative independence from Venice and the vital and continuous commercial and strategic interests of the Serenissima Repubblica in the archipelago.

The prospect of the remarriage of Fiorenza, a young widow with a small son who was heir to the duchy, became a source of local friction. Growing concerned that she would choose a non-Venetian Latin suitor as her husband, Venice sent a naval commando force to Naxos to abduct the duchess and carry her off to the safe harbors of Venetian Crete. There she was told that she would not be permitted to return home to Naxos unless she agreed to marry her cousin, Niccolo Sanudo, whom Venice considered reliable in promoting its interests. Fortunately, the duchess fell in love with Niccolo, a huge, personable fellow and an accomplished warrior whose exploits had earned him the nickname "Spezzabanda," loosely translated as "Host Disperser" or "The Man Who Routs Armies." In the event, Spezzabanda made an admirable duke and for Venice all went well in the archipelago for a good number of years.

This vignette of ducal life and marriage in Naxos sketches the political maneuvering, intrigue, and diplomacy practiced in running a small state sitting on important commercial sea-lanes in the fourteenth century Aegean archipelago. The action and resolution occurred within the physical context of a ducal palace of much greater architectural complexity and sophistication than any other Kastro of the duchy.



Naxos Kastro and the town and port of Naxos from the sea



Naxos Kastro looking west. The island of Paros is in the background



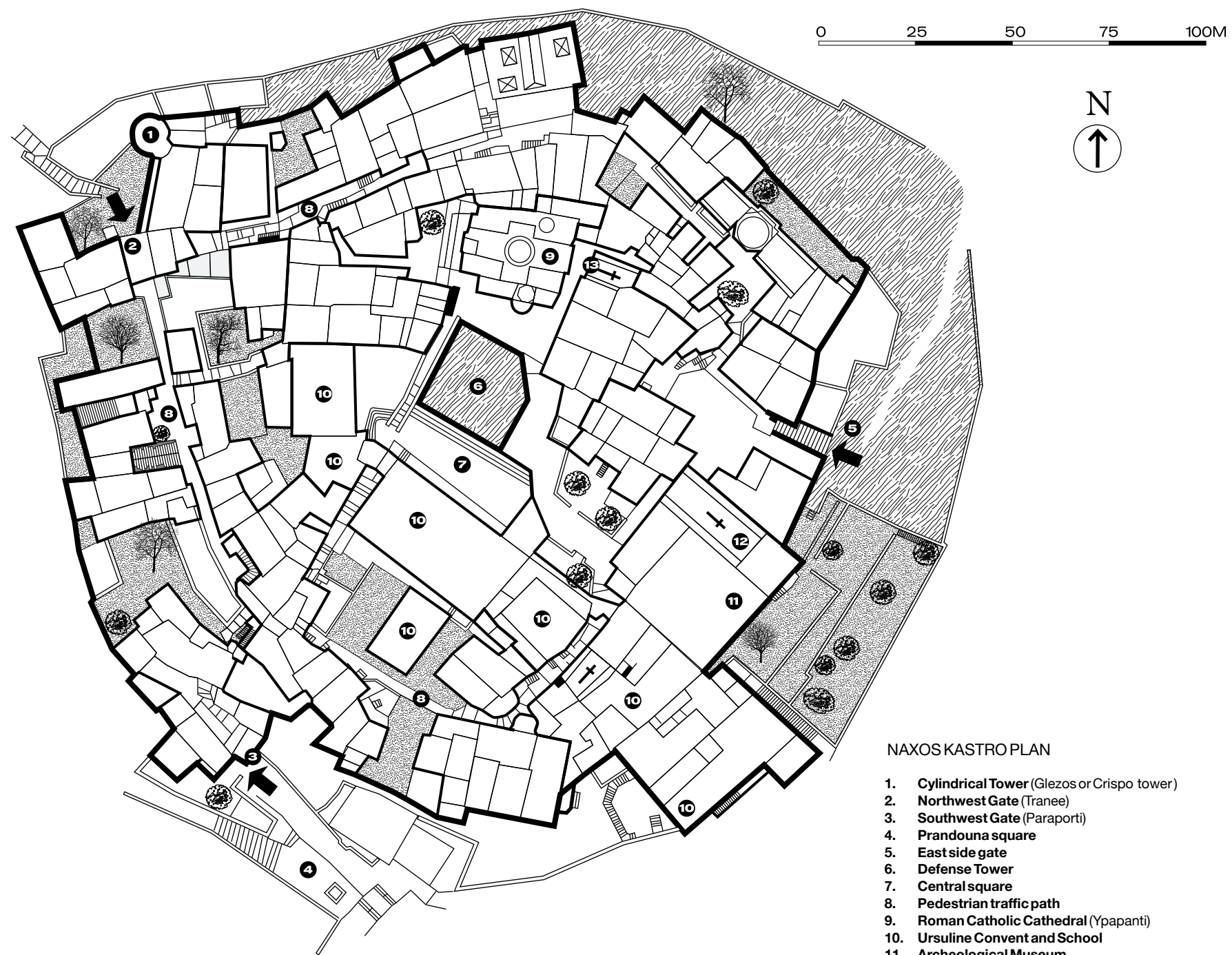
Naxos Kastro, enclosing periphery, south section



Naxos Kastro, enclosing periphery, east section



Naxos Kastro, enclosing periphery, south section



NAXOS KASTRO PLAN

1. Cylindrical Tower (Glezos or Crispo tower)
2. Northwest Gate (Tranee)
3. Southwest Gate (Paraporti)
4. Prandouna square
5. East side gate
6. Defense Tower
7. Central square
8. Pedestrian traffic path
9. Roman Catholic Cathedral (Ypapanti)
10. Ursuline Convent and School
11. Archeological Museum (Former French School of Commerce)
12. Capella Casantza (Roman Catholic church)
13. Theoskepasti (Greek Orthodox church)



Naxos Kastro, enclosing periphery, west section



Naxos Kastro, enclosing periphery, south section, stepped pedestrian path



Helicopter-based photograph of Naxos looking west



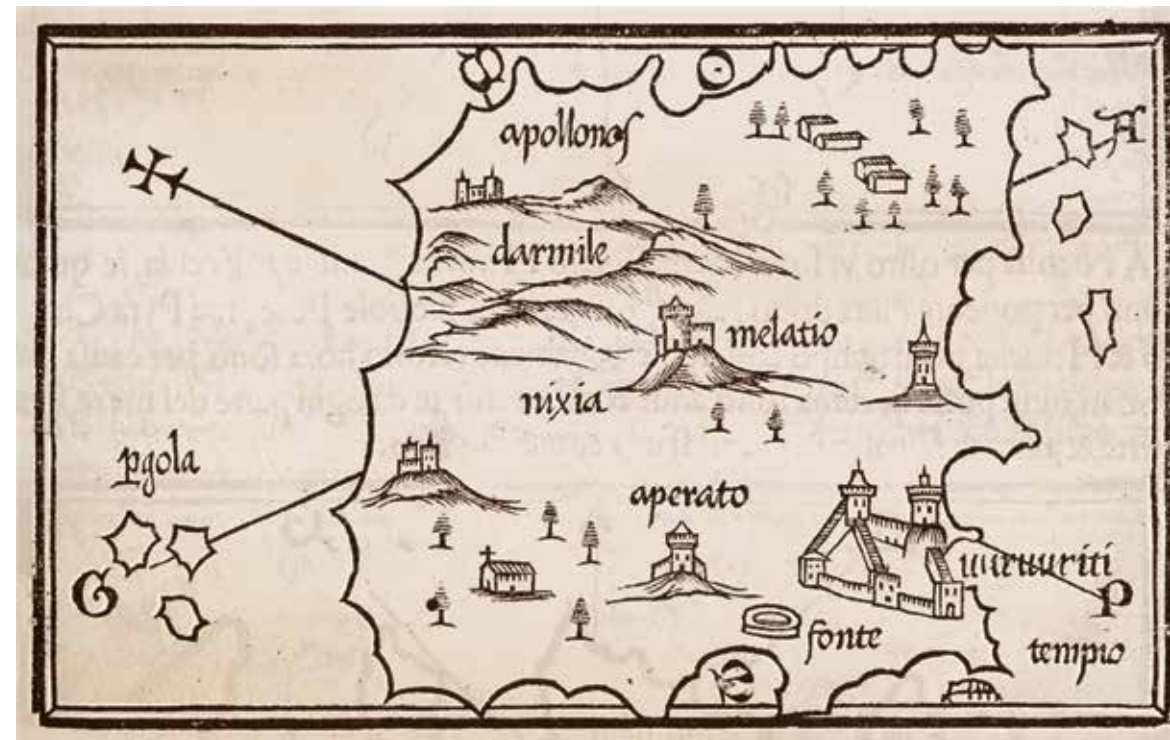
Naxos Kastro. Glezos or Crispo cylindrical tower on the left of the illustration

NAXOS KASTRO

Naxos Kastro was built on the west coast of the island on a hill commanding the harbor and the strait between Naxos and Paros, another island with great presence in the Duchy of the Archipelago. The modern town of Naxos surrounds the hilltop Kastro, with parts of both built over an ancient acropolis. Visually, the relationship of the Naxos Kastro to the town is reminiscent of a situation on the island of Patmos, where the massive forms of the Monastery of St. John the Theologian hover protectively over the town below. Indeed, the erection of the Patmos monastery predates that of Naxos Kastro by more than one hundred years.

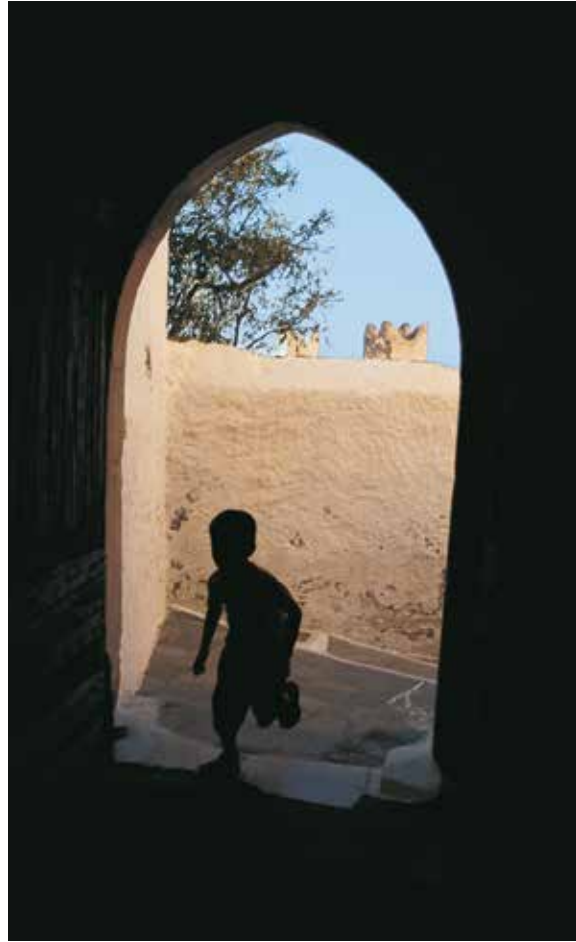


"I. Naxos, Nixia" (Naxos Island). Cristoforo Buondelmonti, *Liber Insularum Archipelagi*, Gennadius Library, Athens, Greece. Fifteenth-century manuscript map of Naxos.



Benedetto Bordone, *Map of Naxos*, woodblock print from "*Libro...de tutte l'isole del monto*," Venice, 1528. The exceptional size and impressive defense towers delineated in the fifteenth-century Buondelmonti manuscript maps, and in this sixteenth-century Bordone print, underscore the physical and historical importance of the Naxos Kastro as the capital of the Duchy of the Archipelago.

As with all Kastro of the Aegean islands, Naxos Kastro was built for defense, but from the beginning it served in an additional capacity as the capital of a dispersed insular state. To accomplish both purposes, the erection of Naxos Kastro followed principles commonly used for Aegean Kastro but interpreted in this instance by an architectural building program and scale appropriate to the political purposes of Marco Sanudo and, as the time proved, his successors.



Tranee gate located at a northwest point of the defense enclosure. Note the surviving heavy timber door.



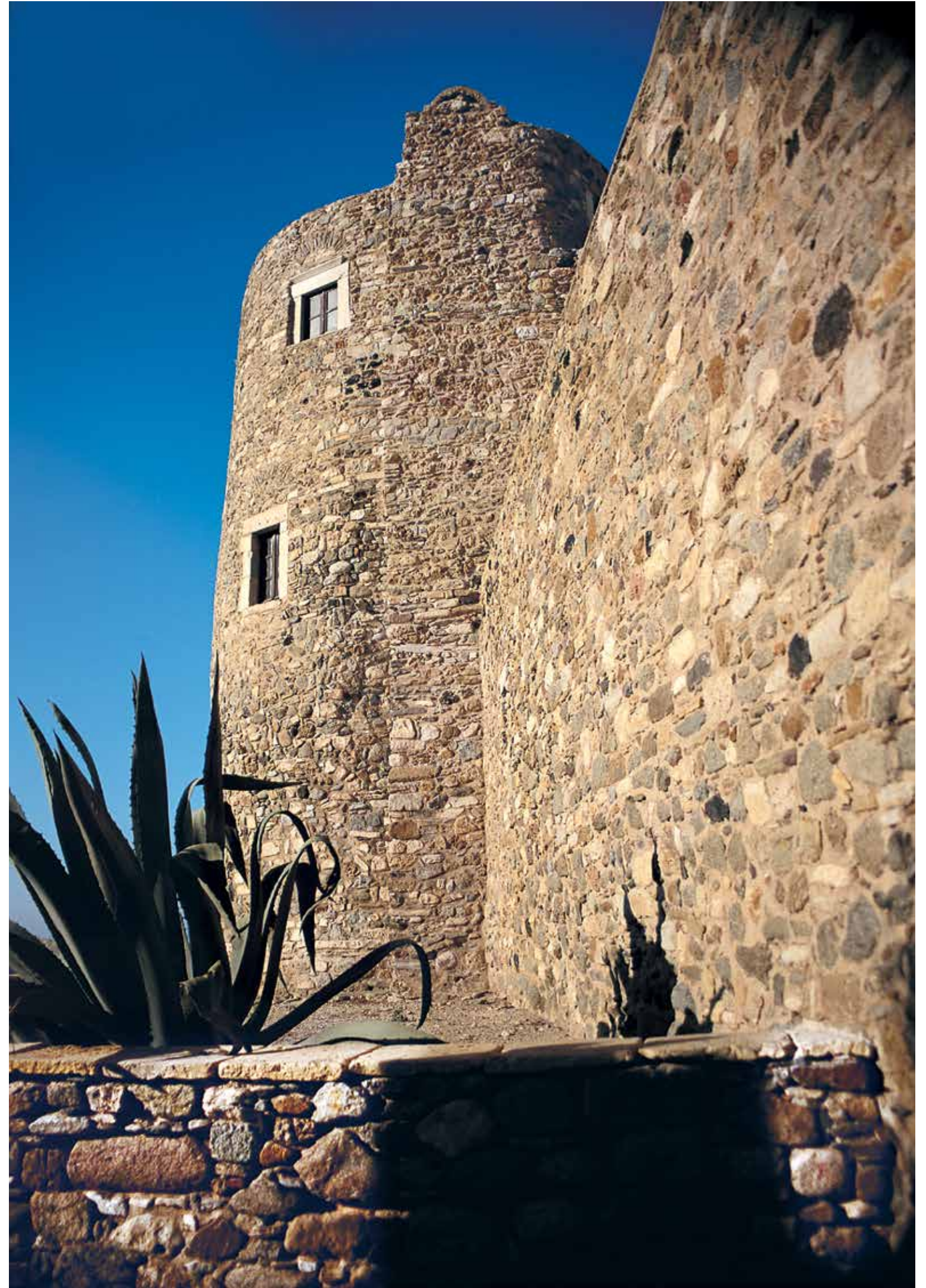
Medieval features are no longer present at this gate located along the east exposure of Naxos Kastro



Paraporti gate, located at a southwest point of the defense enclosure, near Plateia Prandouna, illustrated on the right



Still traceable, the enclosing periphery of the Naxos Kastro sits on a hill thirty meters above sea level. Twelve towers attached to critical points of this periphery reinforced its medieval defenses. Only one, known as the Glezos or Crispo tower, survives today at a northwest point of the enclosure. This cylindrical tower protected a gate. Still in use and now known as Tranee, this gate was the main entry from the port to the Naxos Kastro. Two more gates without protective towers continue to provide access to the interior of the compound. One located at a southwest point of the enclosing periphery and known as Paraporti near "Plateia Prandouna" retains most of the features characteristic of a medieval gate. Such features are no longer present at the third gate, which is located along the east exposure of the Kastro.



Glezos or Crispo tower



VUE DE LA VILLE DE NAXIA.

A.P.D.R.

Left page: View of the Town of Naxos, engraving from "Voyage Pittoresque de la Grece," a 1782 publication of the work of Choiseul-Gouffier. Note the central defense tower extending above the enclosing periphery of Naxos Kastro.

On the right: With its upper part demolished the lower part of the defense tower illustrated in the Choiseul-Gouffier engraving on the left page survives today near the center of Naxos Kastro and appears on the left half of the illustration. The domes of the Roman Catholic cathedral of Ypapanti are in the background.

A massive tower of a nearly square plan stands at the very center of Naxos Kastro. Once apparently a stronghold for observation and last resort defense, it survives today in truncated form, its upper part long demolished. The tower appears in Choiseul-Gouffier's eighteenth-century etching of Naxos and represents another architectural element relatively common in Cycladic Kastro. Similar towers contributing to the defense of other Kastro are known to have existed in Antiparos, Sifnos, and Astypalaia. However, smaller islands with very limited resources, such as Folegandros and Sikinos, apparently could not afford the added expense of a defense tower in their own Kastro.



Coat of arms enwalled along pedestrian paths inside Naxos Kastro.



On both pages: Stepped pedestrian paths, covered passages, entry doors, and coats of arms from Naxos Kastro.



A labyrinthine network of paths allows for pedestrian traffic within the Kastro. Functioning in favor of medieval defenders by disorienting potential enemies who might have penetrated the external defenses, these narrow and stepped paths continue to defend the scale and character of the settlement against modern-day intruders of the four-wheeled variety, although the battle against aggressive and noisy motorcycles has been lost. As expected in a Kastro housing nobility, coats of arms of resident families are enwalled all along these pedestrian paths.

By contrast to most other Cycladic settlements, Naxos Kastro provides a rare instance where written references to its planned building exist.

According to these sources, soon after his conquest of the island Marco Sanudo proclaimed that Latins, both nobles and others, could build their own residences inside Naxos Kastro following plans set by a town engineer. As a result, sizeable and ambitious residences rather than the typical monochora of other settlements (for example, Kimolos Kastro) contribute to the unique urban fabric of Naxos Kastro. Many churches, monasteries, schools, and institutional buildings, appropriate to the seat of a state government comprise the rest.





The Ursuline convent forms part of the enclosing defense periphery of Naxos Kastro. Below, detail from the convent door



Naxos Kastro with its peripheral enclosure, gates, and towers, defended the Latin nobility and command of the duchy not only from external enemies but also from the local Greek peasantry who, under oppressive feudal conditions, were cultivating the fertile land of the island for the benefit of their Latin lords. Naxian Orthodox Greeks were allowed to settle in an area north of the Kastro known as Bourgo, but this did not prevent the Roman Catholics of the upper town from looking down contemptuously upon them, first as feudal lords and later on, during the Tourkokratia, as aristocratic landlords.



The Roman Catholic cathedral of Ypapanti. Tradition holds that Marco Sanudo built it during the first half of the thirteenth century

On the left of this illustration is the building of the Archaeological Museum of Naxos that used to house the French School of Commerce. The enwalled marble plaque confirms Nikos Kazantzakis's presence in the building as a student in 1896.

On the right of the illustration is the Capella Casantza, the ducal chapel and part of the eastern perimeter of the Naxos Kastro.

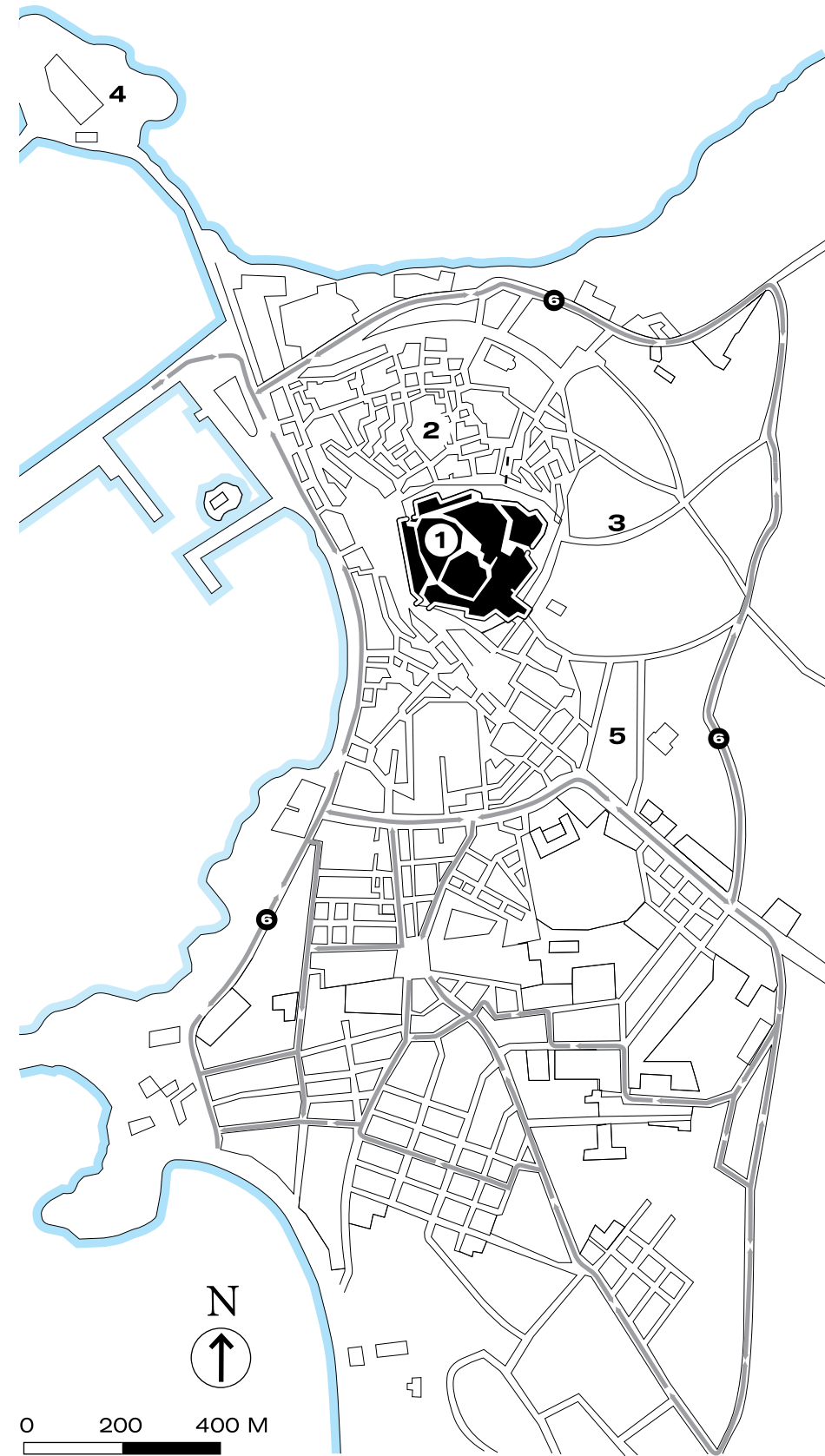




Coat of arms enwalled above the entry door to the Ursuline convent



Coat of arms of the French Jesuits enwalled above the entry door to the former French School of Commerce which now houses the Archaeological Museum of Naxos.



NAXOS TOWN AND KASTRO

- 1. Kastro
- 2. Bourgo
- 3. Evriaki
- 4. Palatia
- 5. Expansion of the 1920's
- 6. Major Vehicular Arteries



Naxos town looking west. Naxos Kastro is at the upper right side, and the island of Palatia at the upper left side of this helicopter-based photograph.

Attached to Bourgo is a neighborhood northeast of the Kastro known today as Evriaki, meaning "of the Hebrews." The Jewish presence in Naxos dates to Byzantine times and before. This presence was enhanced during the second half of the sixteenth-century when Joseph Nasi became the Turkish-appointed Duke of the Archipelago, a position that would decline after the Russo-Turkish war of 1768-74. In general there were no Turkish settlements in the Cyclades. Surprisingly, a 1568 firman (that is, an administrative order issued by the Ottoman Turkish Sultan) forbade the settlement of Moslem soldiers or civilians on Naxos. Whether this was in any way related to Nasi's appointment as duke two years earlier is unclear. In more recent times the town of Naxos experienced two additional periods of enlargement and transformation. The first stemmed from the settlement of Asia Minor refugees at an area south of the Kastro following the disastrous Greco-Turkish War of 1921-22. The second took place after the 1960s when tourism emerged as an important part of the economy of the island, generating additions and improvements to the existing building stock as well as the expansion of the road network around the town and throughout the island.

Although planned in the thirteenth-century, the Naxos Kastro we experience of today is also the outcome of building additions and reconfigurations occurring continuously throughout the 350-year-long life of the duchy and the ensuing period of Tourkokratia. Indeed some of the prominent buildings contained in Kastro today were built after the collapse of the duchy and during the Tourkokratia period to serve the needs of the resident Roman Catholic population and eventually to include the

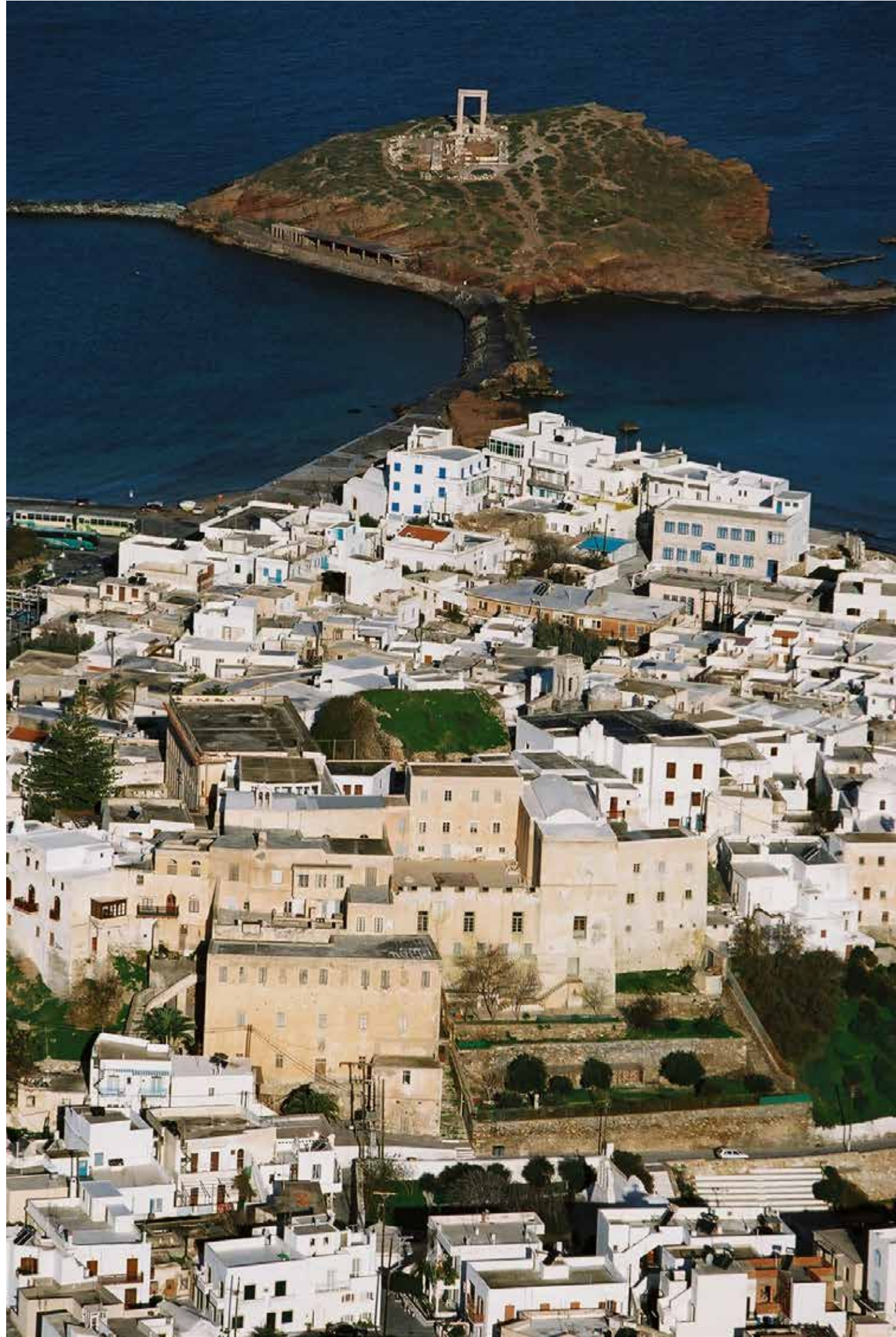
Greek Orthodox population. The Ursuline convent and school, established in 1672, lasted for 300 years, providing a superb education to Naxian girls and at the same time underscoring the important presence and the waning power of the Roman Catholic Church in the region. During the first half of the seventeenth-century, the French school in Naxos had the unique distinction of having had its charter approved by both a Catholic Pope and an Ottoman Sultan. Nikos Kazantzakis - a Cretan, the author of Zorba the Greek, and a giant of modern Greek literature - referred to his education as a teenager in Naxos, at the French School of Commerce in 1896, as one of the most important influences in his youth.

Today the Naxos Kastro confirms the versatility of the Aegean collective fortification building system, which, in addition to fulfilling the defense needs of small islands such as Folegandros and Astypalaia, could also be adapted to interpret the more demanding needs of a capital city of a small semi-independent state such as the Duchy of the Archipelago.

PALATIA

A colossal marble doorway nearly eight meters high, including the lintel, has for many centuries been a commanding sight on Palatia, a tiny island connected by a causeway to the modern harbor of Naxos. This impressive architectural remnant, the door to the cella of an archaic Ionic temple, dates from about 530 B.C., forty years prior to the battle of Marathon. Belonging to a temple possibly dedicated to Apollo but never finished, this doorway, also known locally and lovingly as Portara ("Big Door"), provides a persuasive connection between present-day Naxos and its own antiquity. In recent years Portara has become a symbol for the island, appearing on book covers and posters and in other literature about Naxos.

Portara attracted the attention of Thomas Hope when he visited Naxos during his late-eighteenth-century travels in the Aegean islands. (Hope included in his collection the extremely informative drawing of Skaros in Santorini, discussed in the Piracy Section of this volume.) In Naxos he produced a sepia drawing and a watercolor, both titled "View of the Town through the Gate of the Archaic Temple," and now belonging to the Hope Collection of drawings kept at the Benaki Museum in Athens. His exceptional abilities of observation and his understanding of the relationships between site and subject are evident in both illustrations.



Palatia island and Portara appear at the top of this helicopter-based photograph. Naxos Kastro is at the foreground

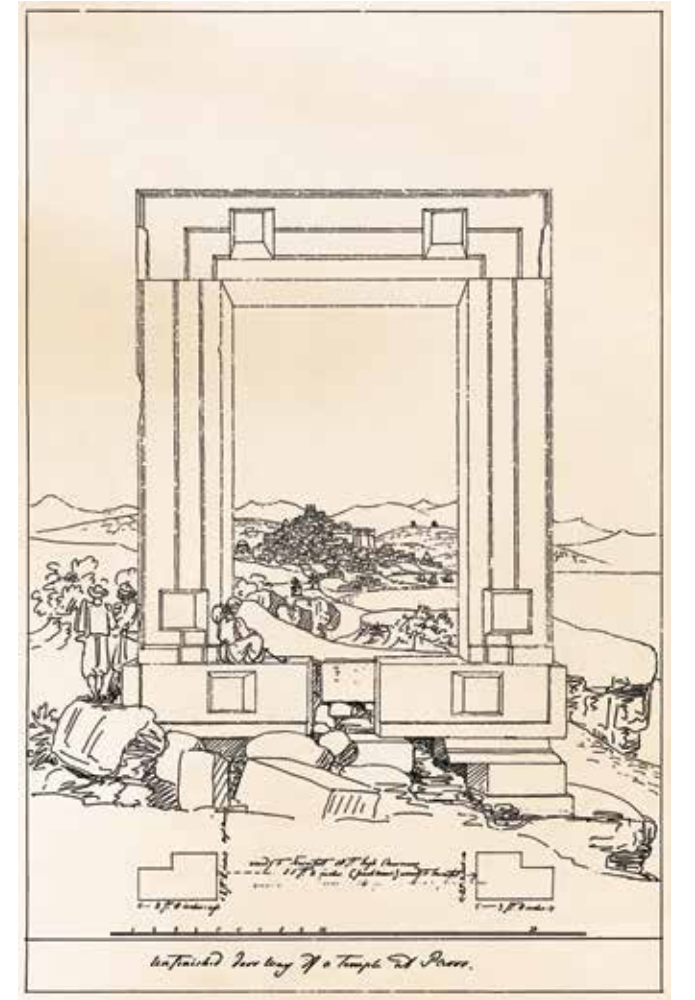
As did most Grand Tourists of his generation, Hope traveled to Greece to enhance his understanding of Greek classical antiquity. During his visit, however, he also encountered contemporary Greece, its people and the vernacular architecture they had produced, for which he had the open-mindedness and sensitivity to observe: "In bestowing (which few architects ... can be supposed to have done) equal attention on the principle of most different and most opposite styles of architecture, I think I have learned to entertain for none an exclusive predilection, founded on ignorance and prejudice. Each species that has a distinct character of its own, also may display beauties of its own, provided that character be preserved."

This train of thought and vision allowed Hope to record the town of Naxos and its eighteenth-century vernacular architecture framed within the archaic Ionic temple doorway that represented the antiquity he had come to study. By merging in one illustration two architectural genres, the vernacular and the formal, Hope noted their coexistence in a mutually supportive relationship. The importance of this achievement is underscored when the two illustrations on the right are compared to the engraving also on the right of Joseph Pitton de Tournefort, the French scientist and botanist, who had visited the same Naxos site eighty years earlier.

Overwhelmed by the formal architecture of Portara and its message about Greek antiquity, Tournefort neglected to notice and record in his engraving the contemporary vernacular architecture of Naxos just behind as Hope did. In this light Thomas Hope stands out as the earliest observer and recorder, if not the discoverer, of the vernacular architecture of the Aegean island towns.



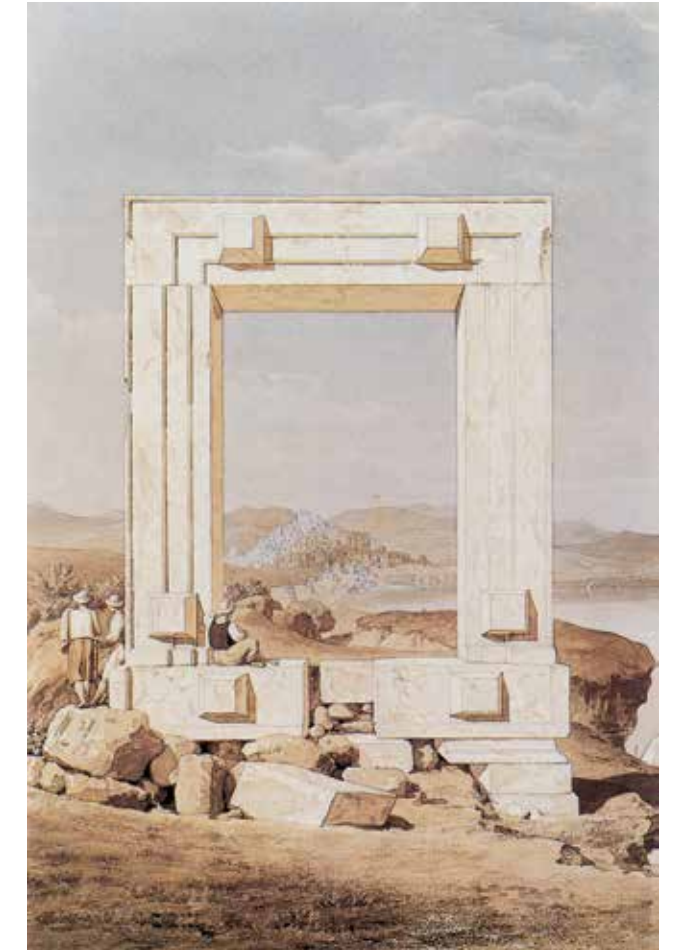
"Portara," Joseph Pitton de Tournefort, engraving, 1717



"View of the Town through the Gate of the Archaic Temple," Thomas Hope, sepia drawing, 1787-1799. Hope writes on the drawing incorrectly "Paros" instead of "Naxos."



View of the town of Naxos through Portara, looking southeast

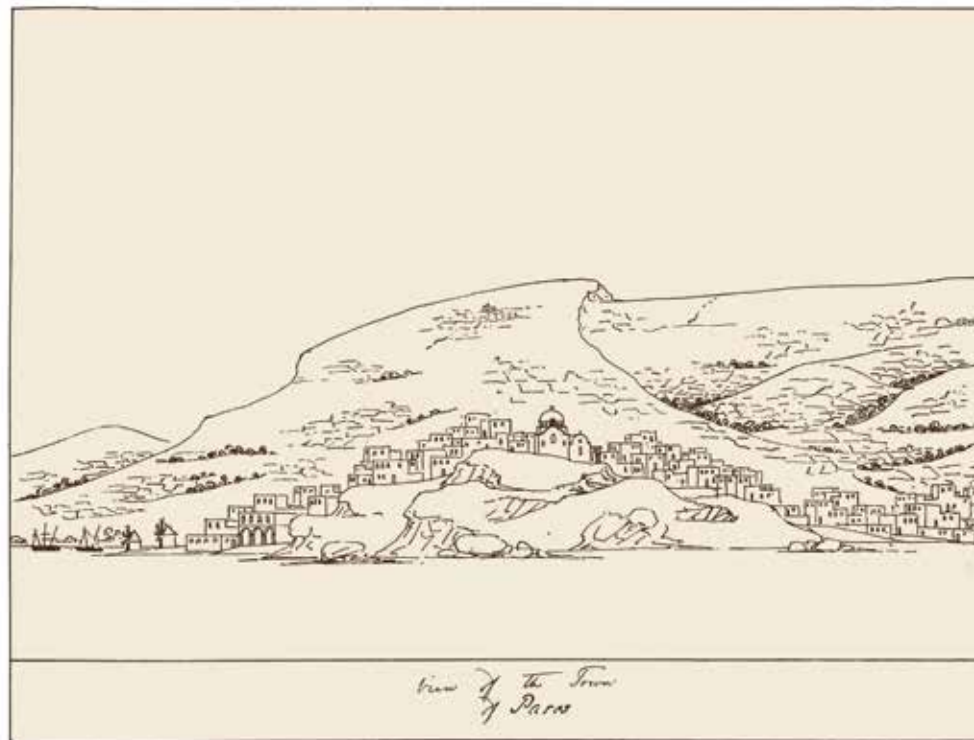


"View of the Town through the Gate of the Archaic Temple," Thomas Hope, watercolor, 1787-1799

THE VERNACULAR RESPONSE

PAROS

Paroikia Kastro, Naoussa Kastro and an Unexpected Basilica



"View of the town of Paros,"
Thomas Hope, sepia drawing,
1787-1799

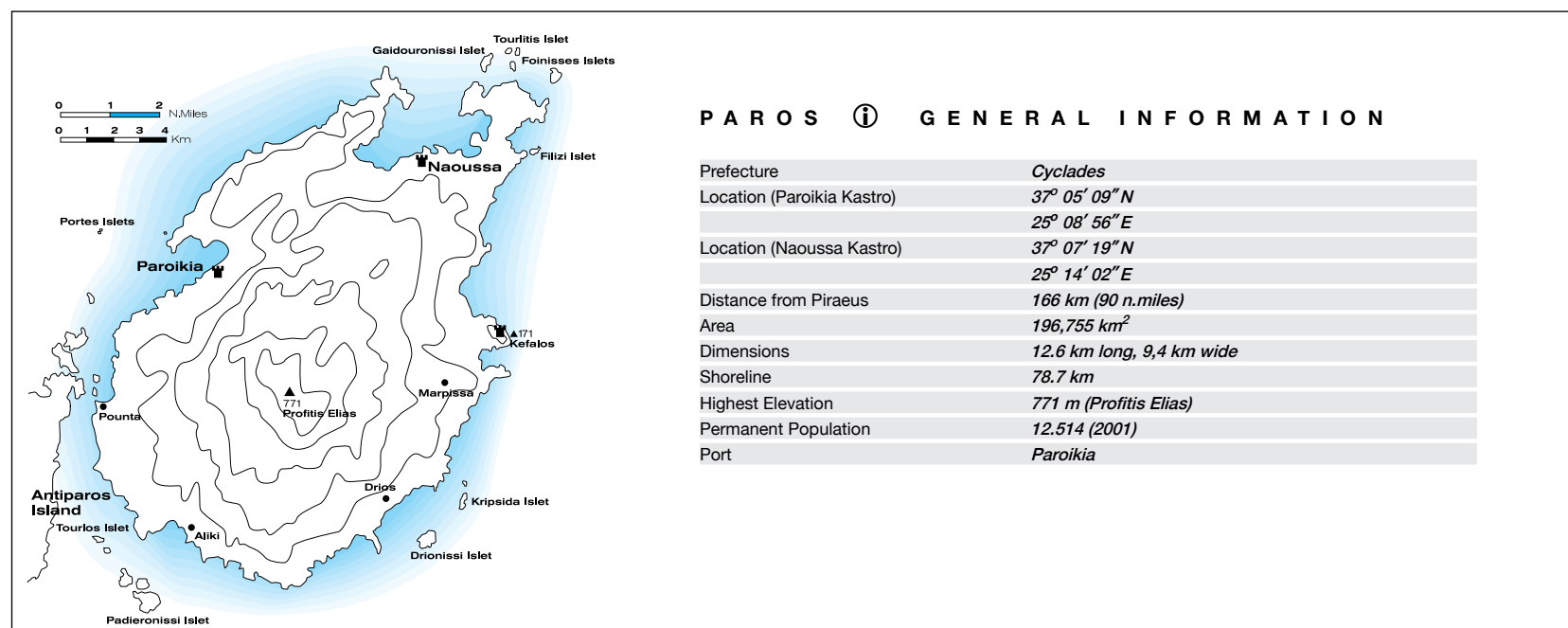
Paroikia Kastro, Naoussa Kastro and an Unexpected Basilica

Within its oval outline, Paros encloses a surface of nearly 197 square kilometers. Among the largest islands of the Cycladic group, it lies immediately west of Naxos, the largest of the Cyclades, from which it is separated by a channel about ten kilometers wide. A single mountain, Profitis Elias, a likely name for the highest point on any Aegean island, dominates the topography of Paros. From this 771-meter-high peak, the land slopes evenly in all directions towards a maritime plain that completely rings Paros. The presence of this extensive plain explains the relative fertility of the island in contrast with most other dry, rocky, and largely barren Cyclades. Both of the island's main settlements house Kastras from the Duchy of the Archipelago days: the Paroikia Kastro and the Naoussa Kastro, located on the northwest and northeast sides, respectively.

The bay of Naoussa in the north of Paros served as the anchorage and headquarters of the first Russian fleet to enter Mediterranean waters during Catherine the Great's first war with the Ottoman Turks. The Russians, under Alexei Orlov, incited

and supported a revolt in Greece, resulting in disastrous consequences for the Greek people and the Aegean islanders when the Russians departed and the Turks returned. Nevertheless, Paros and the wide and well-protected bay of Naoussa contributed to major changes in the balance of political and military power in the eighteenth-century Mediterranean. The strategic location of the bay of Naoussa was also appreciated during the Duchy days and, together with the relatively richer resources of the island, provided for the building of a second Kastro on the island, the Naoussa Kastro.

The presence on Paros of Panayia Katapoliani, an early-Christian-era basilica pre-dating and postdating the Duchy of the Archipelago, has marked the island with a permanent historical and architectural importance.



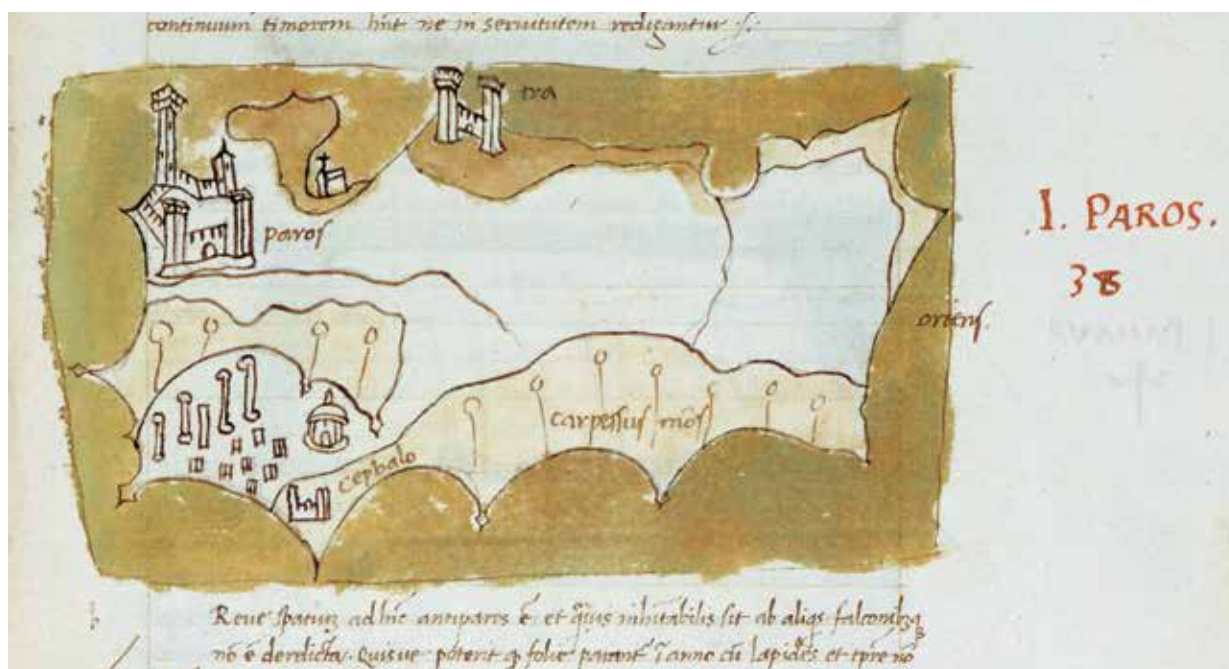
The Paroikia Kastro and the church of Ayios Konstantinos appear on the right side of this helicopter-based photograph. The port of Paros and the Panayia Katapoliani basilica are on the upper left.



The extant eastern half of the Paroikia Kastro is at the center of this helicopter-based photograph. Ayios Konstantinos and its three-arched portico appear on the upper left of the photograph while the medieval fortification tower is located at a short distance to the right.



Paroikia and Kastro. The helicopter-based photograph, above, and the schematic site plan, below, underscore the intimate physical relationship between the medieval fortification and the present-day town of Paroikia.

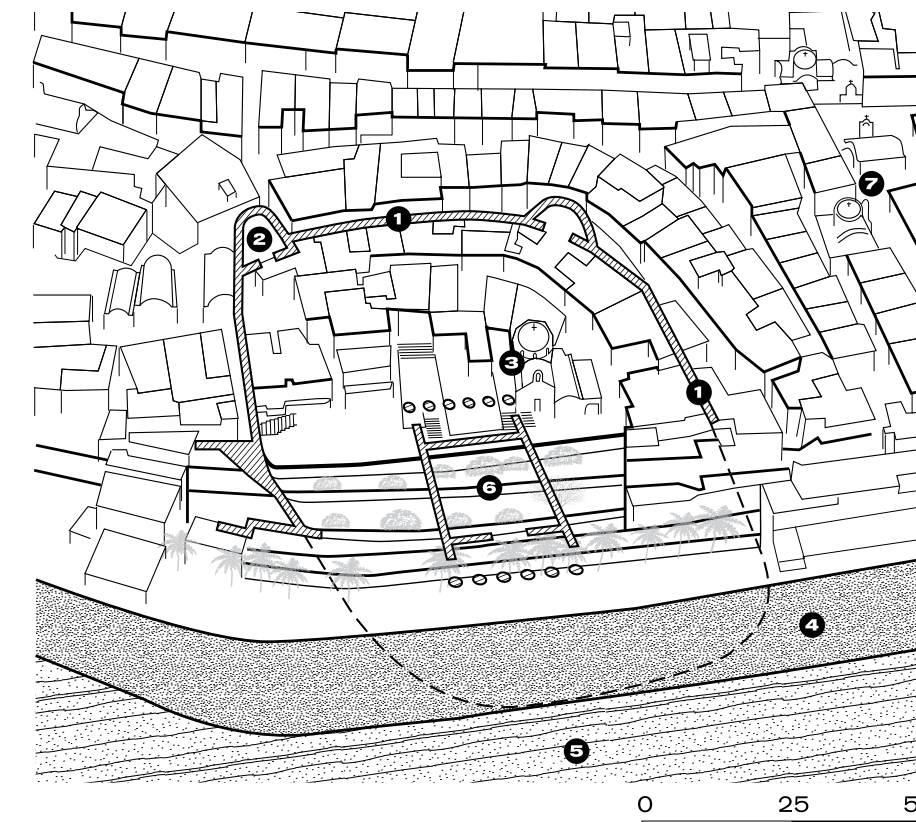


"I. Paros" (Paros Island), Cristoforo Buondelmonti, *Liber Insularum Archipelagi*, Gennadius Library, Athens, Greece. Three fortifications appear on this fifteenth-century manuscript map: Paroikia ("paros"), Naoussa and Kefalos ("cephalo"), each delineated in order of importance to the defenses of the island.

PAROIKIA KASTRO

The Paroikia Kastro is typical of the vernacular collective fortifications of the Duchy of the Archipelago in that it was built as a defensive enclosure out of dwelling units sharing party walls in the manner of Sifnos Kastro, Folegandros Kastro, and others. And yet, for a couple of reasons, the site itself causes the Paroikia Kastro to appear today as a unique example among all other Duchy fortifications.

First, the medieval Kastro was built on the same location as an ancient Greek temple, its periphery encompassing the temple's area. Dedicated to Athena, the temple was dismantled during the thirteenth century, its architectural parts used as building blocks for the construction of the east defensive enclosure wall, the nearby remarkable tower of the medieval Paroikia Kastro, and apparently more that has not survived to our day. The wall and the tower allow the Paroikia Kastro to deviate from the typical vernacular collective fortification and imitate in part a fortification wall system that is completely detached from the urban fabric, like that of Rhodes, for example. The limited resources of the Duchy and its fiefs



PAROIKIA KASTRO SCHEMATIC SITE PLAN

1. Medieval fortifications
2. Medieval tower
3. Ayios Konstantinos
4. Road
5. Beach
6. Ancient Greek Temple
7. Paroikia town

would not ordinarily permit the erection of such a detached-wall fortification.

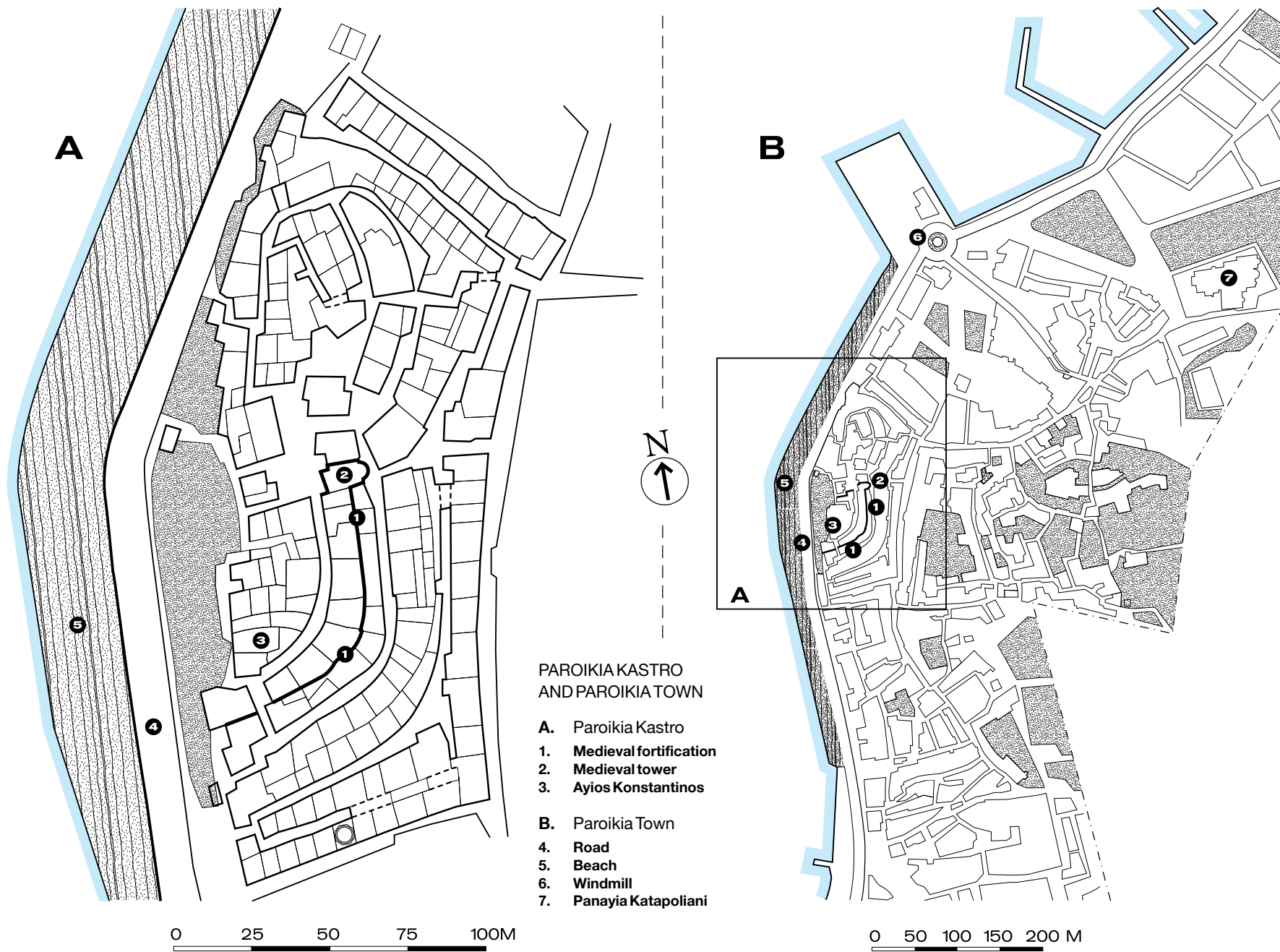
Secondly, the Paroikia Kastro we see today is only the eastern half of the original. Four retaining walls and a recently constructed road mark the site of the western half, which has collapsed towards the sea, obviously a result of an undated earthquake, a frequent occurrence in the region. In an exceptional demonstration of architectural continuity the curvature of the wall has been imprinted in the memory of the urban fabric of the post-Duchy and contemporary town of Paroikia, reappearing too in an additional ring of buildings hugging the eastern part of the medieval defense enclosure.



Paroikia and Kastro. This aerial photograph dates from the 1960s. Note the absence of parked cars along the seashore drive.



Paroikia and Kastro. Topped by the dome of Ayios Konstantinos, the four layers of retaining walls support the surviving eastern half of the medieval Kastro.



Paros, Paroikia. In addition to identifying the locations of Ayios Konstantinos and the medieval fortification tower, this helicopter-based photograph reveals with clarity the imprint of the medieval fortification enclosure on the urban fabric of the town of Paroikia.



The medieval tower, left, and Ayios Konstantinos, right, from the north.

A landmark and an important point of reference in understanding the architectural development of the still-inhabited site is the church of Ayios Konstantinos. The top of its blue-painted dome, observable from any direction, is the highest point on the site. Its foundation walls lie near or on top of the location of the ancient Greek temple. The short distance of both from the medieval tower points to the manageable task of transporting the heavy marble architectural components of the temple from one location to the other.

The collapse of the Duchy of the Archipelago in the late sixteenth century, initiated the Tourkokratia period, during which the Sublime Porte tolerated island autonomy. With autonomy came economic revival and opportunities for the reassertion of the Greek Orthodox faith of the islanders. This geopolitical context explains the region's widespread erection of great numbers of the typical domed small churches, of which Ayios Konstantinos is a graceful example.



Ayios Konstantinos, looking northeast. In front, its four-arched portico

Ayios Konstantinos is an architectural assembly of three parts: the fully articulated domed chapel, an attached barrel-vaulted side chapel, and, most distinctively, a three-columned, four-arched portico on its south side. One of the arches is at the end of a stepped and ascending path from a lower point of the site. The unifying Aegean horizon appears in a stunning view west of the portico, while a path leading east follows the curvature of the inner ring of the Paroikia Kastro.



Paroikia Kastro inner steps leading to the Ayios Konstantinos four-arched portico



Three illustrations in sequence along a curved path from Ayios Konstantinos towards the medieval tower.



Ayios Konstantinos seen from the sea level road. On the right, looking west from a location south of the Ayios Konstantinos portico. The view from the stylobate of the ancient Greek temple or from the center of the medieval Paroikia Kastro would have been identical.



Ayios Konstantinos. The entry doorjamb and lintel decorations, as well as the bell tower embellished with a feline-like head, confirm the special status the Paroikia community has conferred on this small church.





Paroikia. Architectural parts of the nearby ancient Greek temple were reassembled during the thirteenth century to produce the medieval defense tower of Kastro. The houses on the left sit on top of the medieval defense enclosure. The church of Ayia Anna and its small front patio incorporate architectural fragments. The medieval tower in the background, as well as the pedestrian path on the right, also speaks eloquently of the integration of Paroikia Kastro parts into the urban fabric of the contemporary Paroikia town.



Details from the medieval tower including triglyphs and an astragal.

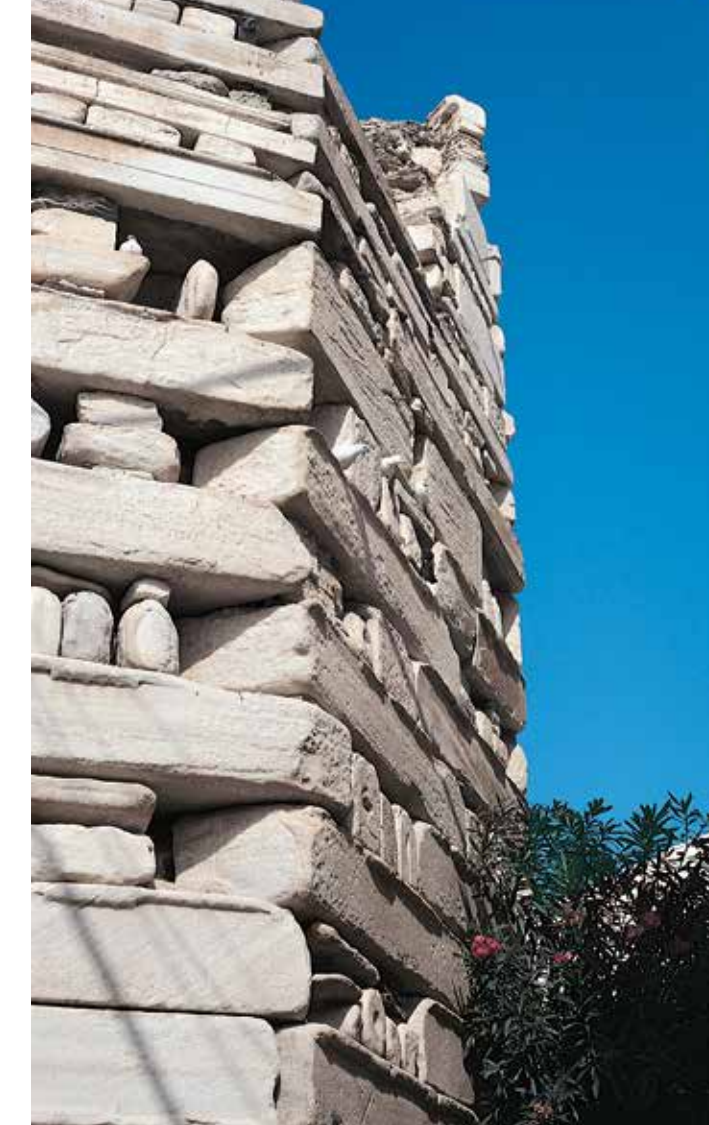


Paroikia. Located in the courtyard of the Paros Archaeological Museum, a funerary stele and its inscription give Parian marble both soul and a name.

Geologically, Paros is mostly composed of marble, although other minerals are also present. Parian marble, white, translucent, with superb texture, has been historically the main source of fame and wealth to the island. Used in antiquity by Praxiteles, and quarried subterraneously by the light of a lychnos (oil lamp), Parian marble was known as lychnites, a term compatible with the translucency of this precious material. Marble, extremely durable under normal atmospheric conditions, was used in Greek antiquity to build the architectural monuments of Paros, parts of which were recycled seventeen hundred years later into the fortifications of the Duchy of the Archipelago, extant in our days. Parts of the same monuments may also have been used for the building of the nearby Antiparos Kastro in the 1440s.

Recycling of building parts has been widely practiced throughout the Mediterranean littoral and indeed throughout the Aegean archipelago. Buildings constructed in antiquity of solid marble blocks, mechanically rather than chemically bonded, became obvious and accessible quarries for later centuries.

With its high quality marble, Paros represents a rare example of the dismemberment of an ancient Greek temple and the reassembly of its parts nearby as fortification walls and a citadel tower during the era of the Duchy of the Archipelago. The remains of a marble temple that once stood on the site of Paroikia Kastro survive today in recognizable form even after their reassembly into a thirteenth-century defense tower. Column drums, segments of the architrave, the stylobate, and the cornice are not difficult to identify, so that, in theory at least, an enthusiastic admirer of Greek antiquity could pull the tower apart and reassemble its parts in their original temple positions.



Paroikia. Parts of an ancient Greek temple recycled into the thirteenth century tower.

NAOUSSA KASTRO

Except during the late eighteenth century when it enjoyed great geopolitical importance in the region, Naoussa, in population and size, always remained second to Paroikia in Paros.

Protected by a round edifice at the end of a jetty, a snug little rectangular port is adjacent to the present-day town of Naoussa. Little is known about the doughnut-shaped edifice. What look like gun emplacements inside the building date its erection and use as having followed the introduction of artillery warfare in the Aegean during the early 1500s. The jetty provides the fourth side of the port, which is crowded with fishing boats and small caiques tied to the other three sides. An incredibly small port surface, measuring only forty by sixty meters, determines the "residential" character of the port.

NAOUSSA SITE PLAN

1. Medieval Kastro
2. Present day town
3. Port
4. Jetty
5. Round edifice

0 10 20 30 M



Naoussa bay, the town of Naoussa, and in the background the mountains of Naxos. The "cathedral-like" church rising above the town is an example of architectural neoclassical intrusions alien to Aegean vernacular forms, emanating from the capital city of the new nineteenth-century Greek state.



The bay of Naoussa. The whitewashed chapel identifies the location of the command post of the Russian fleet present in the island during Catherine the Great's first war with the Ottoman Turks, in 1768-74.



Naoussa, helicopter-based view.



Naoussa, helicopter-based view. The "residential scale" character of the port becomes apparent.



Naoussa. The covered passage and the bell tower appearing in both illustrations are located within the area of the medieval Kastro that is also the core of the present-day town of Naoussa.



Naoussa, helicopter-based view.

Attached to the west quay of the port is a small urban area not much larger than the port itself, defined by concentric contours of minimal rise. This is where the core of the initial Naoussa Kastro is located. Narrow labyrinthine streets, blocks of steps leading to upper floors, two-storey densely built dwellings, party walls, covered street passages, and domestic scale churches are all present, confirming the existence of a medieval Kastro.

In addition, the distinguishable overall collective-fortification form of a Kastro emerges convincingly from the air, as the illustrations on these pages confirm. The pedestrian paths and the dwelling units, which ring the central core, were either original parts or later additions. Either way, their presence is consistent with the vernacular tradition of building small, collectively fortified towns in the Aegean islands during the Duchy of the Archipelago days.

Composing an enclosure, the first ring of dwelling units at its east end might have been attached to the high wall on the jetty reaching the round edifice at the entry of the port. It is not apparent, however, how the fortification might have enclosed the other end, if at all.

In his map of Paros, Buondelmonti delineates Naoussa as a fortified town, and in his description he mentions the existence of a sweet water spring within the fortified enclosure, an important asset for survival in times of siege. There are indications that this spring survived until recently, just as in the example of the Antiparos Kastro.



Naoussa port, looking east. Buildings, colors, light and shade, and an opening to the Aegean horizon compose a theme that might have inspired Giorgio de Chirico.



Paros. This photograph of the maritime plain that rings the island illustrates the fertile terrain of Paros, a rarity for the Cyclades.

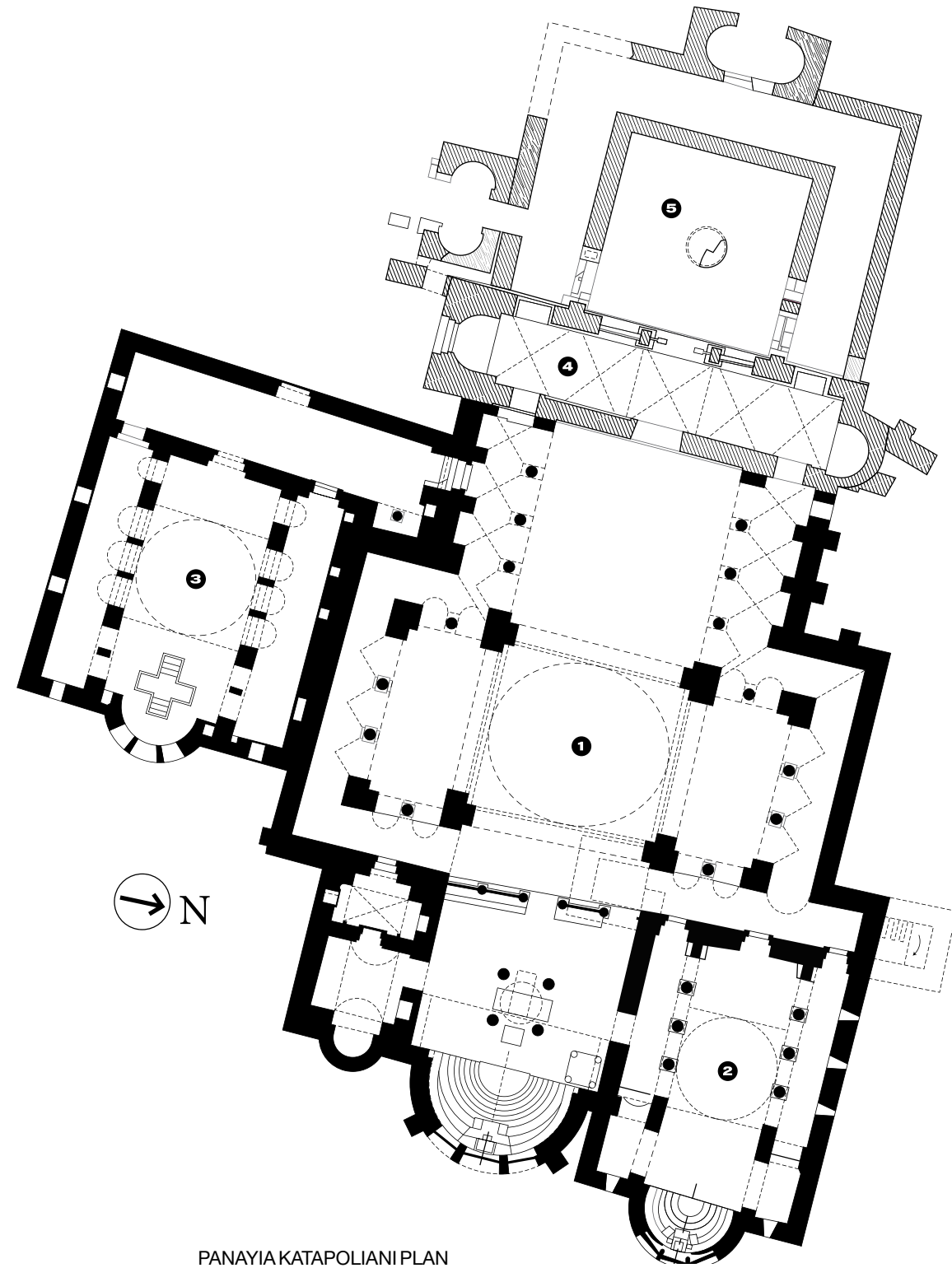
PANAYIA KATAPOLIANI,
AN UNEXPECTED BASILICA

Its size, antiquity, and restoration make the church of Panayia Katapoliani, on the island of Paros, the most significant early-Christian-era building in the archipelago, comparable in importance to the basilicas of Ayios Dimitrios and the Acheiropoietos (or “not-made-by-hand”) in Thessaloniki. Panayia Katapoliani is not a single building but a complex. Three discrete but attached buildings emerge as its most important components: the chapel of Ayios Nikolaos at the northeast corner, the larger church of Panayia Katapoliani at the center, and the Baptistry on the south side.

The present-day chapel of Ayios Nikolaos, a basilica with a dome, was built in 326 A.D. when, according to ecclesiastical tradition, Ayia Eleni (or Saint Helena) set out for Jerusalem in search of the Holy Cross and stopped in Paros along the way to visit the chapel. There she prayed and promised to build a larger church dedicated to the Virgin Mary when she concluded her journey. Her early death meant that the fulfillment of the promise fell to her son, the Emperor Constantine the Great. As a votive offering, the larger church of Panayia Katapoliani is apparently the first in a long line of such churches and chapels built in the Aegean archipelago.



Panayia Katapoliani. This 1948 photograph shows how the Aegean vernacular builders contributed to the architecture of Katapoliani through additions, maintenance and repair work, evident here in the bell towers, whitewash, and the shape of the dome. Restoration work in the 1960s, sought to recapture the glory of the Justinian church of the sixth century A.D. by clearing away vernacular intrusions of the last few centuries.

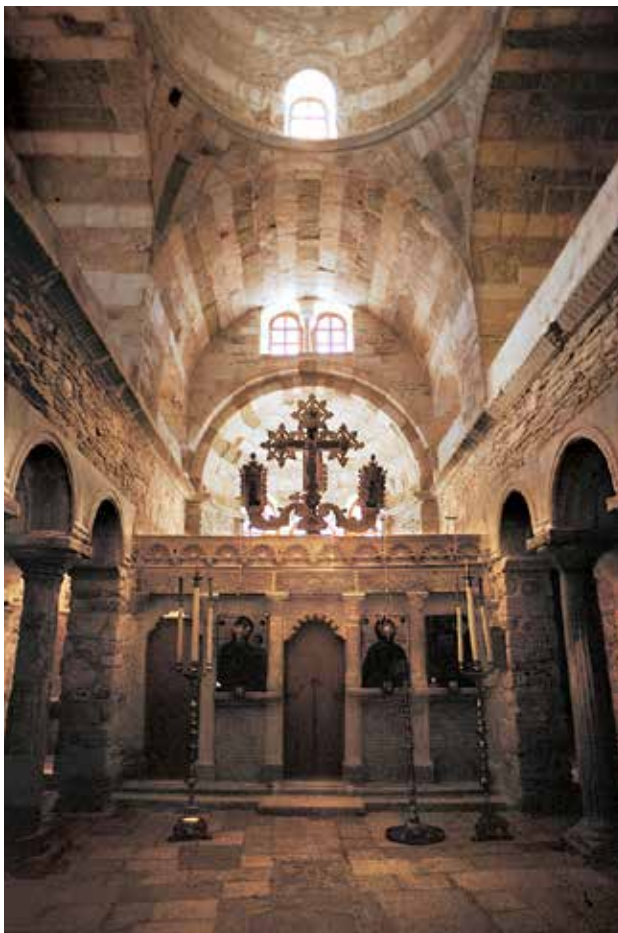


PANAYIA KATAPOLIANI PLAN

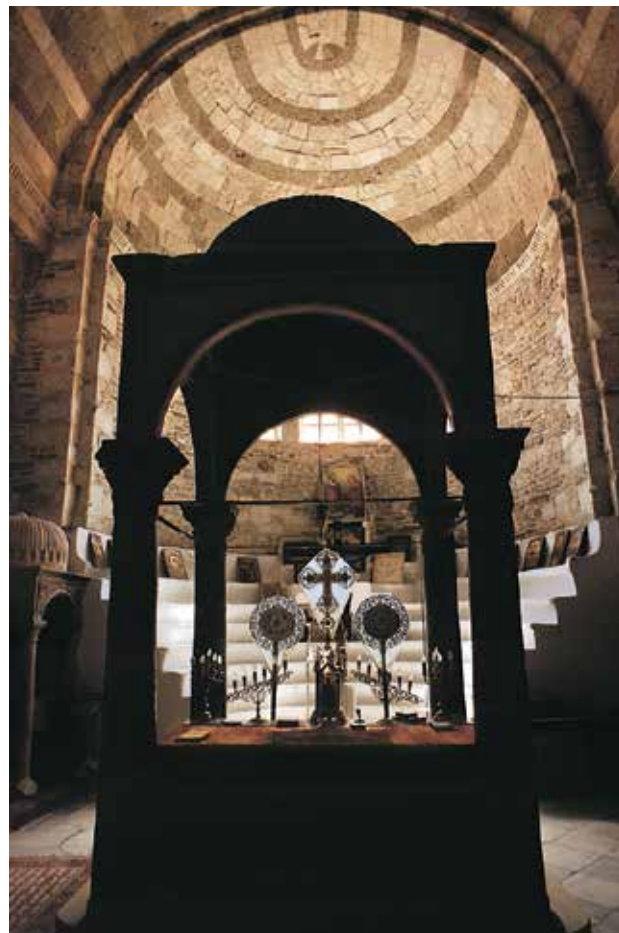
1. Panayia Katapoliani
2. Ayios Nikolaos
3. Baptistry
4. Narthex
5. Atrium

Panayia Katapoliani. Attached to a more “recent” part of the Katapoliani complex of buildings, the two bell towers at the upper part of the illustration were not included in the restoration project of the 1960s, and have retained their vernacular character.

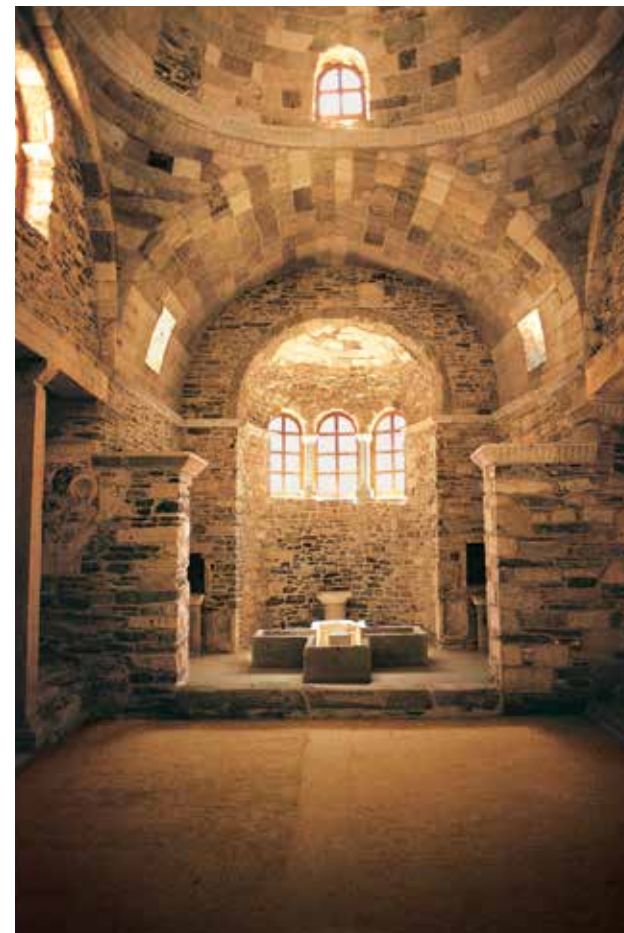




Ayios Nikolaos, dome and interior



Panayia Katapoliani, dome and interior. Ciborium in front and Synthronon in the background confirm the uniqueness and antiquity of the basilica



Baptistry, dome and interior.



Baptistry. Detail from the photograph at the lower right of page 198. Adult baptism, practiced in this cruciform font, dates the building from the Early Christian era.

The Baptistry, comprising another basilica with a dome, is a rare and evocative building. The cruciform baptismal font for adult baptism indicates that the building dates from before the age of Justinian (527-65 A.D.), when infant baptism was instituted in the Church. The baptismal font also brings human architectural scale to a building filled with abstract symbols.

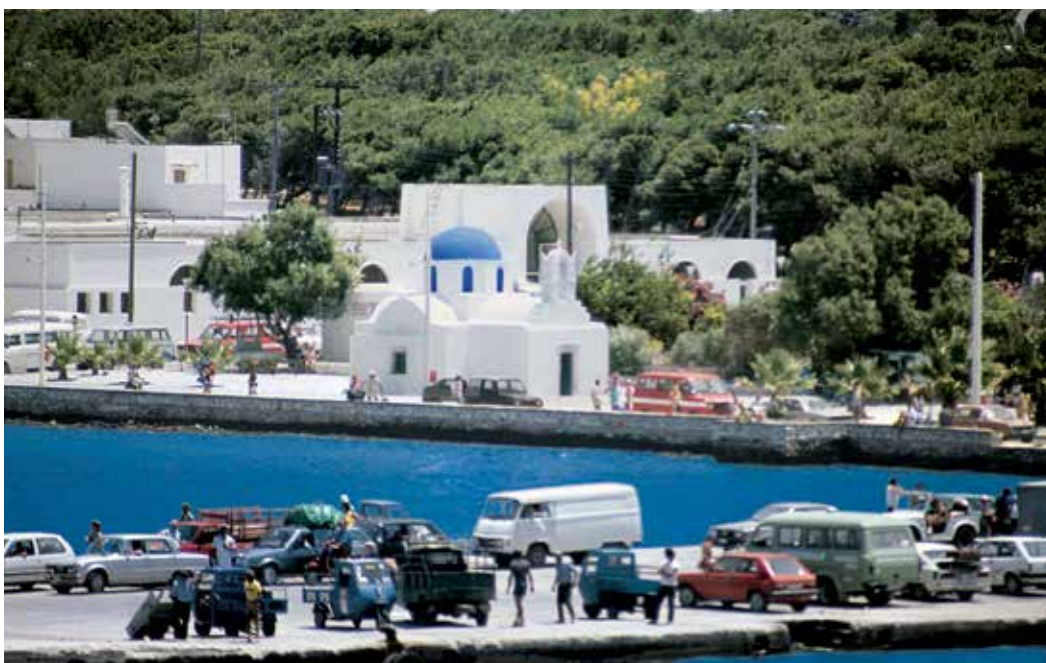
Early basilicas were roofed with timber trusses whose size determined the width of the nave. But timber roofs were vulnerable to fire and were therefore replaced by barrel vaults and domes in the age of Justinian. The space within the four pillars supporting the dome of Panayia Katapoliani is not the expected square enclosing a circle. Instead, its north-south

dimension exceeds that of its east-west by about five feet, rendering the base of the dome elliptical rather than circular.

Neither earthquakes nor poor workmanship created this odd shape: rather, the elliptical form is evidence of the change from the earlier timber-covered Constantinian building, which apparently burned down, to the domed, barrel-vaulted basilica rebuilt during the reign of Justinian. In the process of rebuilding, the unequal widths of the nave and transept were fused into the elliptical base of the dome. Panayia Katapoliani was restored to its Justinian form in the early 1960s.



Dedicated to Ayios Nikolaos, the small church that appears in all three illustrations on the left is typical of the great number of similar churches all over the Aegean islands. This church, however, enjoys an exceptional location, between the port of Paros and Panayia Katapoliani. The photograph at the top, a product of telescopic lenses, highlights the issues of architectural size and scale, as the dome of Panayia Katapoliani hovers above that of Ayios Nikolaos. The photograph in the middle dates from 1960. The bottom one, taken in 1987, records the great shift in the economy and the character of the island resulting from the development of tourism.



Panayia Katapoliani, helicopter-based view

Often called Hecatontapyliani - "the basilica of one hundred gates" - to underscore its extraordinary size within the Aegean context, Panayia Katapoliani is clearly an example of formal rather than vernacular building, as is shown by the historical evidence and by its architecture. Its inception, plan, and execution were initiated by the imperial capital of Constantinople and inspired by architectural forms popular there.

Over the centuries, the building suffered earthquakes as well as normal wear and tear. In the absence of an imperial Byzantine presence after the fifteenth century, repairs were conducted using local resources, materials, and workmanship. Sizable buttresses, the internal massive reinforcements of walls and columns, the blocking of windows, and the repair of the damage inflicted by the destructive earthquake of 1733 degraded and obscured the building's original formal architectural character. (It is unclear whether the same earthquake damaged the Paroikia Kastro.) The repair and maintenance work that followed gradually infused it with the manners and techniques of post-Byzantine Aegean vernacular architecture. The layers of whitewash on the exterior walls, the erection of three typically Cycladic bell towers on the west wall, and other elements of the Aegean vernacular vo-

cabulary dominated the church's architecture from the eighteenth century on.

This shift in architectural vocabulary makes Panayia Katapoliani another example of the intimate and mutually supportive relationship between formal and vernacular architecture. The intent of the restoration of the Panayia Katapoliani in the early 1960s resembled that of the Acropolis of Athens in the 1830s. Just as the medieval and Tourkokratia buildings were removed to recapture the citadel's fifth century B.C. glory, the Panayia Katapoliani renovation secured the church against further damage from earthquakes but also removed the vernacular architecture intrusions, structural and otherwise, to recapture the glory of the Justinian church of the sixth century A.D.

PAROS MEDIEVAL CHRONICLE

- 1204** The army of the Fourth Crusade sacks Constantinople. Fragmentation of Byzantine territories
- DUCHY OF THE ARCHIPELAGO**
- 1207 MARCO SANUDO** First Duke
 Marco Sanudo captures seventeen Aegean islands, most of them undefended. He founds the Duchy of the Archipelago and distributes islands among his friends, to be held as fiefs of the duchy. Paros becomes part of the duchy an affiliation that continues through Sanudo's many successors.
- 1347 The Black Death.** Ships from the Genoese trading colonies in the Crimean peninsula pass through the Aegean Sea and bring the Black Death to Italy.
- SOMMARIPA FAMILY**
- 1389 GASPARI SOMMARIPA**
 Gaspari Sommaripa marries Maria Sanudo, daughter of Nicolo Sanudo Spezzabanda. The Sommaripas become lords of Paros.
- 1411 CRUSINO I SOMMARIPA**
 Cyriacus of Ancona records a discussion about local antiquities with his host, lord of Paros, Crusino I Sommaripa, perhaps in the Paroikia Kastro. Like Cyriacus, Crusino was a man of Renaissance tastes who took pride in showing his visitor some Greek statues he had excavated.
- 1440** Andros is awarded by Venice to Crusino I Sommaripa, lord of Paros. The Sommaripas become lords of Paros and Andros.
- 1453** Constantinople falls to the Ottoman Turks. During Guglielmo II Crispo's reign as Duke of the Archipelago, the Turks overthrow the Greek Despotate of the Morea and the Florentine Duchy of Athens.
- 1462 DOMENICO SOMMARIPA**
- 1466 GIOVANNI SOMMARIPA**
- 1468 CRUSINO II SOMMARIPA**
- 1500 NICOLO SOMMARIPA**
- 1506 FRANCESCO SOMMARIPA**
 All five rule as lord of Paros and Andros. Francesco is the last of the dynasty.
- 1507 VENETIAN ADMINISTRATION**
 A period of instability caused by quarrels between various claimants, at times involving Venice, brings in Cecilia Sagredo, wife of Bernardo Sagredo.
- 1531 CECILIA SAGREDO**
- 1535 BERNARDO SAGREDO**
 Last lord of Paros.
- TOURKOKRATIA (TURKISH RULE)**
- 1537 KHEIREDDIN BARBAROSSA**
 Sailing out of the Golden Horn, the Turkish admiral descends upon the Aegean islands. All are taken and devastated. From Kefalos Kastro, Sagredo effectively resists Barbarossa at the beginning but is finally forced to surrender. In Naxos, Giovanni Crispo surrenders and retains his title as a Turkish tributary.
- 1562** The name Katapoliani appears for the first time in an official ducal report.
- 1564 JACOPO IV CRISPO** Twenty-first Duke
 Jacopo, Duke of the Archipelago and a Turkish tributary, is soon expelled from Naxos as a result of a popular revolt against his rule.
- 1566 DON JOSEPH NASI** Twenty-second Duke
 Sultan Selim II, heir to Suleyman the Magnificent, names as duke Don Joseph Nasi, a Portuguese-Jewish banker and his financial adviser. Nasi, the last person to hold the title of duke, remains in Constantinople and never visits the islands.
- 1579 Joseph Nasi dies.** The sultan transfers Naxos and a number of other islands including Paros to Suleyman Bey for an annual rental of 40,000 ducats.
- 1579 Joseph Nasi dies.** The sultan transfers Naxos and a number of other islands including Syros to Suleyman Bey for an annual rental of 40,000 ducats.
- 1830s End of the era of piracy.** Paros becomes part of the new Greek state.



Kefalos looking south. The island of Naxos is on the left of this helicopter-based photograph.

The monastery of Ayios Antonios sits on the top of Kefalos, a prominent conical hill over one hundred meters tall, located on the east coast of Paros facing Naxos. In addition to the monastery there are ruins of an early sixteenth-century fortification built by the Sommaripa family. This is where Bernardo Sagredo and his wife, Cecilia Venieri, offered the last resistance on Paros to Kheireddin Barbarossa, whom historian William Miller has called a "terrible scourge."

In 1537 Barbarossa had already devastated and depopulated most Aegean islands includ-

ing Paros. Sagredo's final surrender in Kefalos marks the end of the Duchy of Archipelago suzerainty on Paros. The evacuation of both Paroikia Kastro and Naooussa Kastro and Sagredo's last defense on Kefalos, illuminates the point that the vernacular collective fortifications of the Aegean were built to defend against piracy or low-level acts of war between feuding local rivals rather than to offer effective resistance to formidable naval forces like those commanded by the Turkish Sultan and Kheireddin Barbarossa.

THE VERNACULAR RESPONSE

COLLECTIVE FORTIFICATION

MYKONOS

Kastro and Panayia Paraportiani



MYKONOS

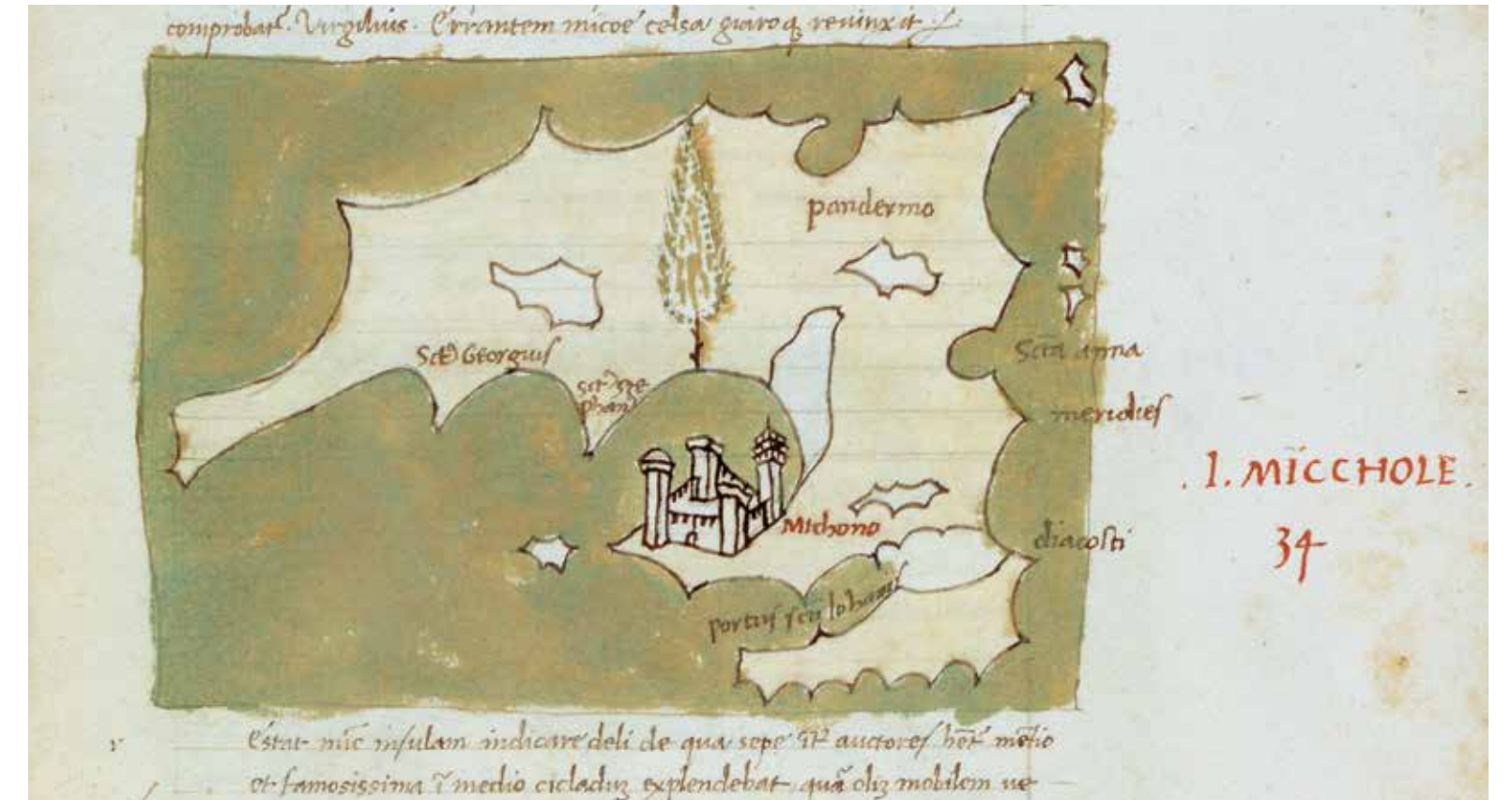
Kastro and Panayia Paraportiani



Mykonos has been touted by the travel industry as a place to experience a temporary leap back into history because of its proximity to the island of Delos, one of the most famous archaeological sites in Greece. While this line of thought may be persuasive, it would be fair to expand it to place Mykonos in a wider geographic and historical context, balancing the island between the antiquity of Delos and the presence of Tenos, another nearby island. Tenos is the site of a major annual pilgrimage of Greek Orthodox Christianity that on August 15 honors the Virgin Mary. All three islands – Mykonos, Tenos, and Delos – retained

their unity as a fief during the 350 years of the Duchy of the Archipelago. Mykonos Kastro, built on the collective fortification principle, became an important part of the defenses of the Duchy and another equally important font of the vernacular architecture of the Aegean islands as exemplified today by the remarkable complex of churches of Panayia Paraportiani.

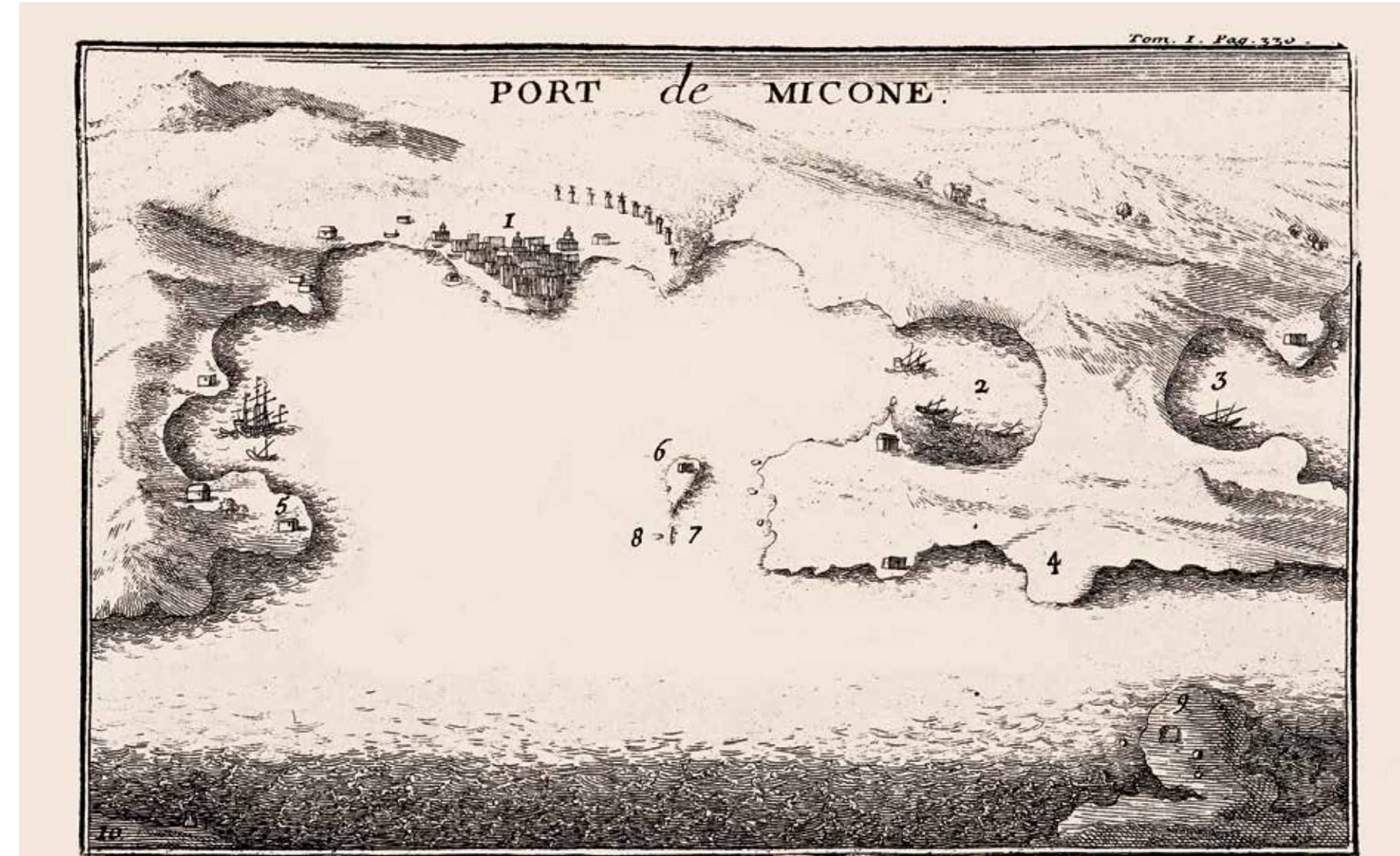
Mykonos Chora, helicopter-based view



"I. Miccholo (Mykonos Island). Cristoforo Buondelmonti, Liber Insularum Archipelagi, Gennadius Library, Athens, Greece. Fifteenth-century manuscript map of Mykonos.

MYKONOS ① GENERAL INFORMATION

| | |
|-----------------------|----------------------------------|
| Prefecture | Cyclades |
| Location (Kastro) | 37° 26' 44" N 25° 19' 43" E |
| Distance from Piraeus | 174 km (94 n.miles) |
| Area | 86,125 km ² |
| Dimensions | 13,8 km long, 11 km wide |
| Shoreline | 80 km |
| Highest Elevation | 372 m (Profitis Ilias Vorniotis) |
| Permanent Population | 9.274 (2001) |
| Port | Mykonos Hora |



"Port of Mykonos," Joseph Pitton de Tournefort, engraving, 1717.
 The numbers marked on this "wide-angle" map indicate: 1. Kastro, 2. Korfos Bay, 3. Ornos Bay, 4. Ayios Ioannis Bay, 5. Ayios Ioannis, 6. Ayios Georgios Islet, 7. Kavouras Islet, 8. Islet, 9. Delos Island, 10. Tinos Island.

| MYKONOS MEDIEVAL CHRONICLE | |
|-----------------------------|--|
| 1204 | The army of the Fourth Crusade sacks Constantinople. Fragmentation of Byzantine territories. |
| GHISI FAMILY | |
| 1207 | GEREMIA and ANDREA GHISI The Ghisi brothers, seize Mykonos, Tenos, and Delos. The same year Marco Sanudo captures seventeen Aegean islands, most of them undefended and founds the Duchy of the Archipelago. Separate from the Duchy, Tenos, Mykonos, and Delos remain a fief of the Ghisi for the next 180 years. |
| 1259 | BARTOLOMEO I GHISI |
| 1286 | Antagonism between the Ghisi and the Sanudi flares up in the War of the Ass. |
| 1303 | GIORGIO I GHISI |
| 1311 | The Catalan Grand Company annihilates the Frankish knights of Greece in the battle of Kephissos in Boeotia and takes possession of the Duchy of Athens. Giorgio Ghisi, lord of Tenos and Mykonos, is killed during the Kephissos battle. |
| 1315 | BARTHOLOMEO II GHISI |
| 1324 | Nicolo I Sanudo attacks, plunders Mykonos and takes prisoner the wife of Bartholomeo II Ghisi. |
| 1341 | GIORGIO II GHISI |
| 1347 | The Black Death. Ships from the Genoese trading colonies in the Crimean peninsula pass through the Aegean Sea and bring the Black Death to Italy. |
| 1315 | BARTHOLOMEO II GHISI |
| 1358 | GIORGIO III GHISI |
| 1390 | The Ghisi die out. Mykonos, together with Tenos and Delos, goes to Venice. |
| VENETIAN ADMINISTRATION | |
| 1391 | Venice attempts to sell Mykonos and Tenos by public auction. |
| 1397 | Venice appoints a number of rettori (administrators) for Tenos and Mykonos, the first of whom is Niccolo Vincivera. |
| 1453 | Constantinople falls to the Ottoman Turks. |
| TOURKOKRATIA (TURKISH RULE) | |
| 1537 | KHEIREDDIN BARBAROSSA Sailing out of the Golden Horn, the Turkish admiral descends upon the Aegean islands. All are taken and devastated including Mykonos, which is now separated from Tenos and comes under Turkish rule. Mykonos suffers depopulation as large numbers of its citizens find refuge in nearby Venetian Tenos. Dolfino was the last of the Venetian rettori of Tenos and Mykonos. |
| 1830s | End of the era of piracy. Tenos becomes part of the new Greek state. |

Mykonos Chora. Helicopter-based view of the medieval Kastro area.

Indeed, when Marco Sanudo established the Duchy of Archipelago in 1207, he distributed islands among his friends to be held as fiefs of the Duchy. At that time the Ghisi brothers seized Mykonos, Tenos, and Delos, and the islands remained in the family hands until the Ghisi family died out in 1390 and Venice had to take control. As a commercial empire, Venice always avoided the expense of running Aegean islands. Mykonos provides a specific example of this policy, for it is mentioned in the June 16, 1391, record of the Venetian Senate, which announces that during the following December "there will be sold to the highest bidder the islands of Tenos and Mykonos [including Delos]; the price will be payable over ten years."

Following a short period of misgovernment by Giovanni Querini, lord of Astypalaia, Venice acceded to the wishes of the inhabitants of Tenos and Mykonos and took direct charge, appointing a provveditore, or rector. As the Ottoman Turks became paramount in the region, the survival of the Duchy depended on the goodwill of the Turkish Sultan, a beneficence sustained by payment of tribute. This arrangement lasted until 1537 when, during the reign of Suleyman the Magnificent, Kheireddin Barbarossa made his savage raids upon the Aegean islands including Mykonos, which from that time on passed under Ottoman Turkish control.

There is no firm evidence as to when Mykonos Kastro was first built. But because of the enterprising presence of the Ghisi brothers, it is reasonable to assume that Mykonos Kastro was built during the early days of the Duchy of the Archipelago.

The illustrations of Buondelmonti and Tournefort confirm its existence during the first half of the fifteenth century and the first half of the eighteenth century, respectively. Although very schematic, these illustrations do not suggest much change in size or in use during the nearly three-hundred-year period they define.



Mykonos Kastro and Chora. Historic development.



Mykonos Chora. Venetia, including the surviving west wall of the original medieval Kastro

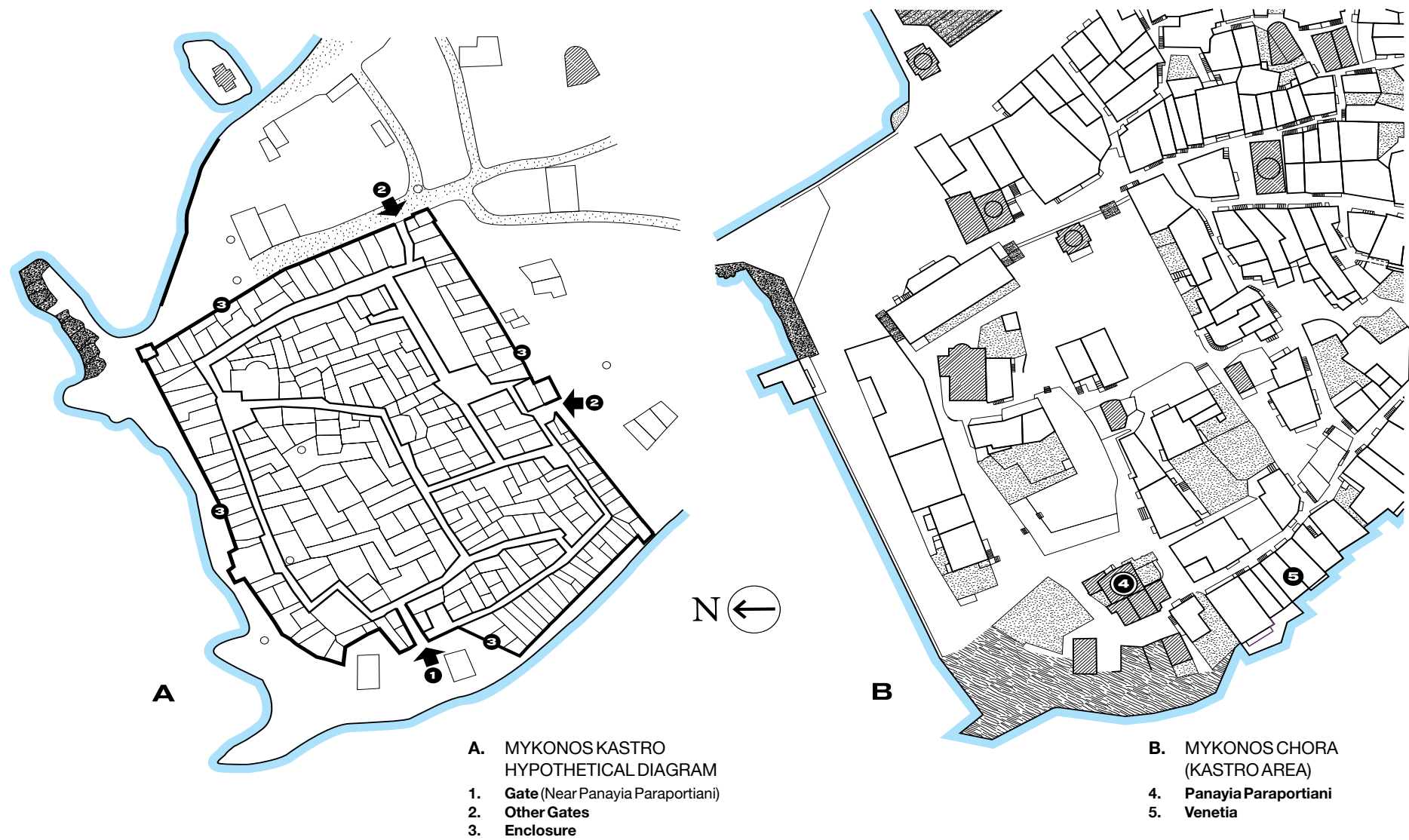
Located on the west coast of the island, at the center of a shallow, sheltering bay, the medieval Mykonos Kastro sits on a small and hesitant peninsula, surrounded by Chora. Not much has survived from the original Kastro save for two specific parts: the area known as Venetia at the western edge of the peninsula bordering on the sea and a segment of the Panayia Paraportiani complex of churches, one of which was apparently built on the foundation walls of a tower guarding a gate to Kastro.

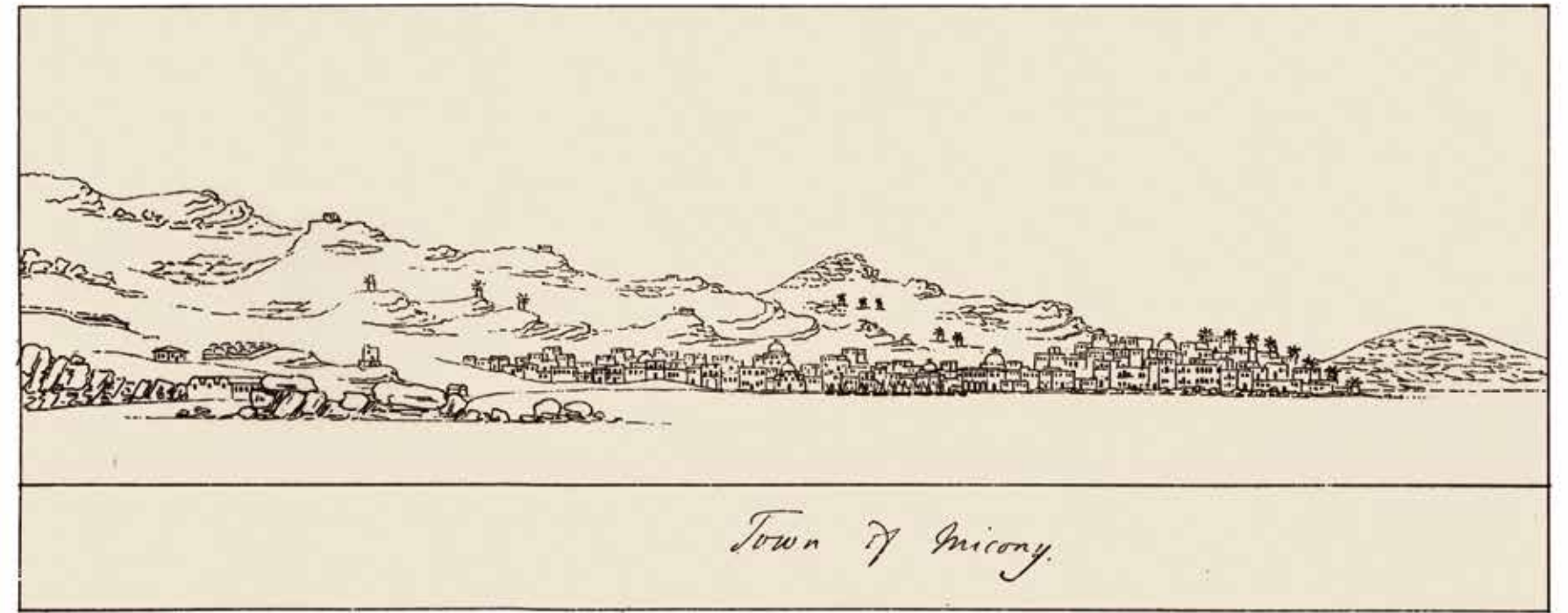
The first of the two parts, Venetia most likely takes its name from its proximity to the water. The area exhibits the characteristics of an external defense wall of a typical Cycladic Kastro: narrow-fronted, two-story dwelling units, attached to each other along the sides, covered with flat roofs, nearly identical in size and scale to the units comprising Sifnos and Folegandros Kastro. Their outward façades have lost their solid-wall defense posture, for windows and balconies were opened to meet the needs of occupants during the last century. It is safe to assume that the Venetia row of units contains part of the original medieval Mykonos Kastro, defining, indeed, one of its four sides.



Mykonos Chora. Helicopter-based view of the Kastro area. Panayia Paraportiani and Venetia area appear at the lower right.

0 25 50 75 100M





"Town of Mycony" (Mykonos), Thomas Hope, sepia drawing, 1788-99. The windmills on the right side of the drawing are apparently the same as those illustrated in the photograph below.



Mykonos Chora. The abundance of wind power in the Aegean archipelago led to the windmill becoming an internal part of island communities, in both form and function. The illustration above portrays the urban fabric of Mykonos crowned by the "Kato Myloi" windmills, confirming the point. The same windmills, are a point of reference in the excellent sepia drawing of Thomas Hope, illustrated above, but also in Tournefort's engraving on page 209.

Both Buondelmonti and Tournefort outline convincingly the immediate geographic context of Mykonos Kastro. Today's maps confirm these outlines with much greater accuracy. Mykonos island, with an eighty-six square kilometer surface, is a mid-sized Cycladic island.

No point on the island rises more than 372 meters above sea level, and with perhaps fifty percent of the island surface lying below a one-hundred-meter elevation, Mykonos offers a reasonable amount of land for cultivation. As with most Cycladic islands of

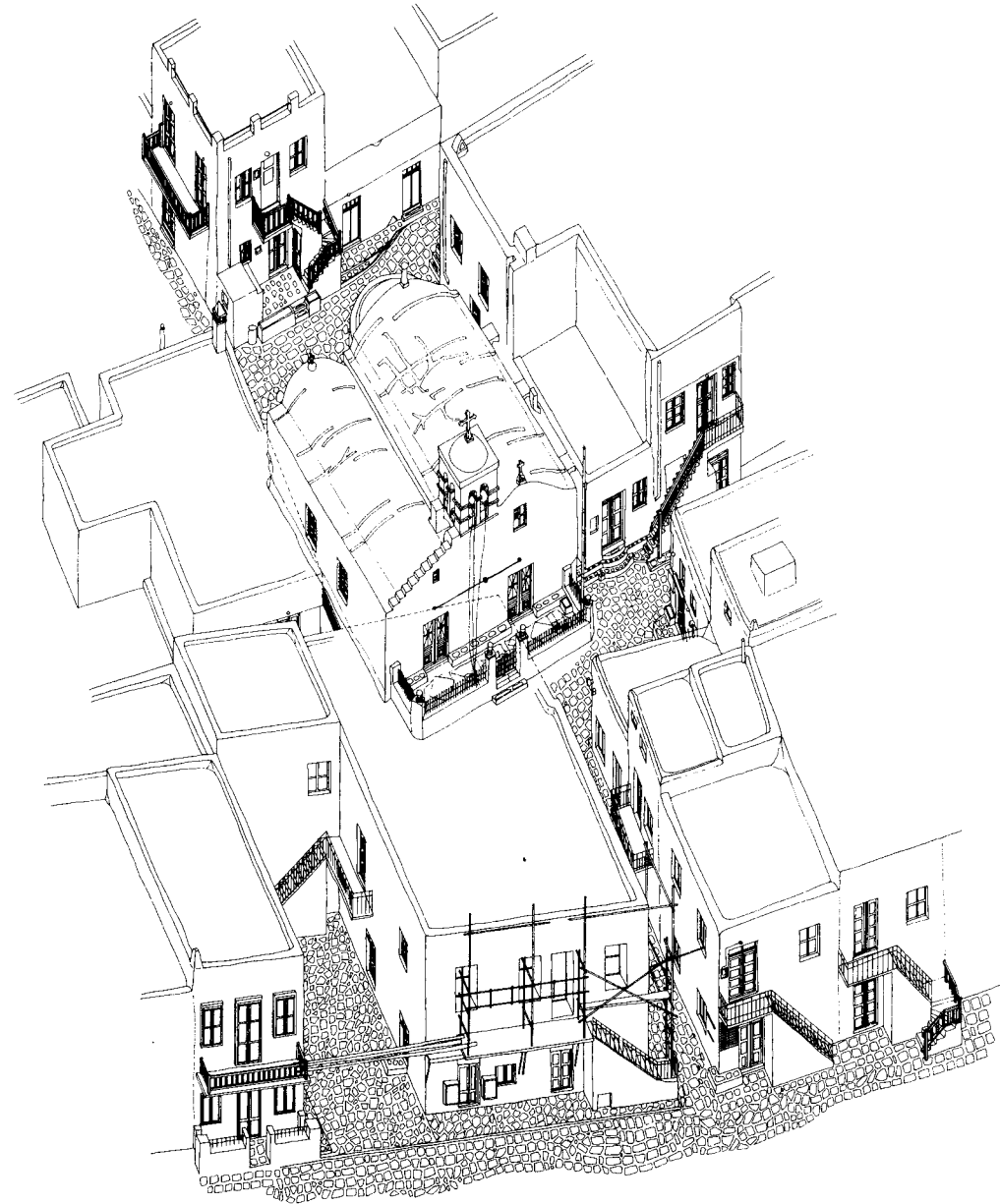
Mykonos's size, its local resources historically provided adequate support for only one town on the island. Then came the recent "discovery" of Mykonos as a Mecca of international tourism, which increased the permanent population of the island, expanded the size of Chora, and added buildings all over the island. The result was the creation of what might be called a second town in Ano Mera.



Mykonos Chora. Urban fabric.



Mykonos Chora. Most likely erected as a private chapel to fulfill a personal vow, the two-nave, barrel-vaulted 17th century basilica of Panayia Panachrandou is lucidly depicted in this bird's eye, axonometric drawing, part of the research work of Professor Soichi Hata of Shibaura Institute of Technology, Tokyo, Japan. The photograph of the church is of the west façade of the building.



Mykonos Chora. An infinite variety of detail – steps and balconies, doors and windows, color and whitewash – humanizes the urban fabric of the island towns and establishes an archipelago-wide architectural vocabulary. This vocabulary provides architectural unity while also allowing for the expression of uniqueness, shown here in the brightly colored handrails of Mykonos.

On the lower steps that lead to an upper level dwelling, a door frame mounted between wall and handrail creates a physical, but not a visual, separation between the public and private domains. The door's attachment to the wall allows only one decorative element to project from the free side of the neoclassical pediment. The door's paneled structure and its round bronze handles suggest urban sophistication, but the outward-opening door without a landing would give any fire marshal in the United States apoplexy. See related example in Astypalaia on page 113.





*Panayia Paraportiani, looking north.
Ayia Anastasia chapel on the right.*



Panayia Paraportiani, looking south



Panayia Paraportiani helicopter-based photograph

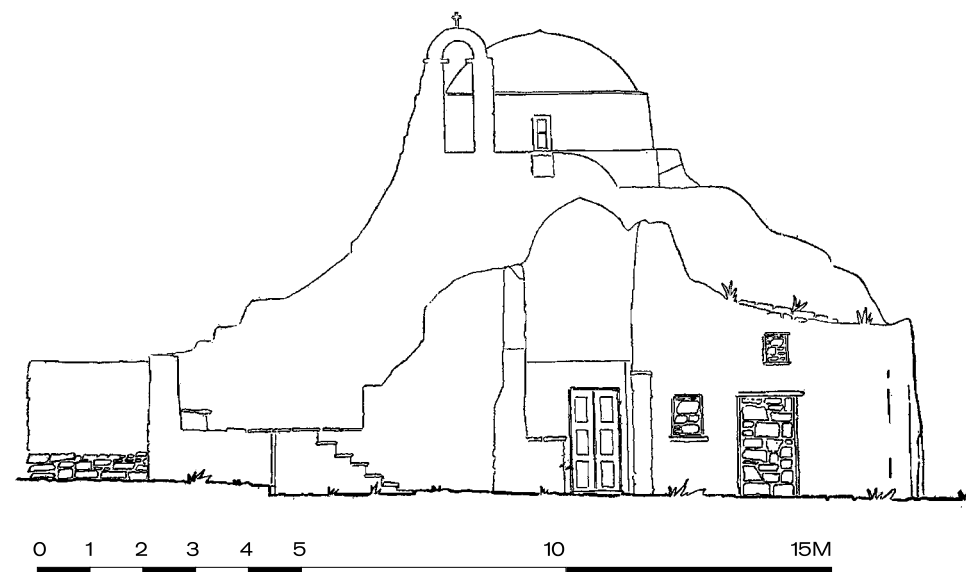
PANAYIA PARAPORTIANI

Panayia Paraportiani contains the other surviving part of Mykonos Kastro. The church is a synthesis of five chapels built in vertical and horizontal attachment over a period longer than one lifetime. No one “designed” the complex; rather, time and circumstances worked together to produce an Acheiropoietos (or “not made by hand”) church, which is also an inspiring building and an edifice that vivifies Le Corbusier’s definition of architecture as “the masterly, correct, and magnificent play of masses brought together in light.”

To the general public the Paraportiani complex stands as perhaps the most familiar and attractive example of Aegean vernacular architecture. It is helpful to think of the complex as having two parts, the western and the eastern. Three single-space, single-nave, monochoro-type chapels have been attached to form the western half and are dedicated to Ayia Anastasia, Ayioi Anargyroi, and Ayios Sozos. Separate barrel vaults cover each of the three chapels, which were apparently built at different times. Since the east end of each of the chapels is attached to the western half of the complex, the apses are absorbed into the wall instead of projecting out. The west entry elevations of the same three chapels employ a familiar Aegean theme. Each wall extends upward and at the same time steps in from both sides to reach a minimal width crowned by a cross at the top. In the middle chapel this receding-steps theme becomes a bell tower.



*Panayia Paraportiani, west elevation.
(Elevations, plans and section based on: Vassiliades, D.
“To Acheiropoieto Symplegma tes Paraportianes Mykonou”*



Panayia Paraportiani, east elevation



Panayia Paraportiani looking west



Panayia Paraportiani, looking southwest



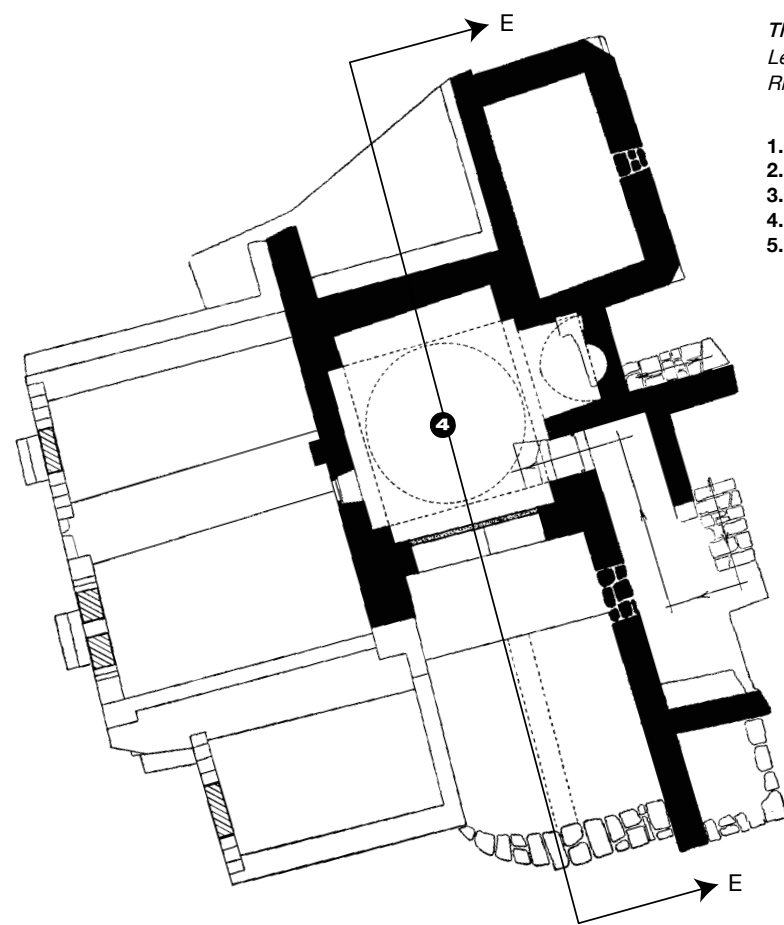
Panayia Paraportiani, looking northwest

Seen from all four sides, the much taller, two-level eastern half produces the main volumes that constitute the familiar image of the complex. Entered from the east side, the lower level is unlit and encloses a small narthex that runs parallel to a similarly sized chapel dedicated to Ayios Stathis. A flat roof of wood beams serves as the floor for the space above.

Essentially space left over from an earlier time, with no known use, the lower level provides a platform for the chapel space above and its crowning jewel, the dome. Taller than either of its horizontal dimensions, the chapel encloses a dimly lit space in the Byzantine tradition of an "inscribed cross with a dome"; it is dedicated to Panayia Paraportiani (or the "Virgin Mary by-the-gate"), the name used to identify the complex. In this particular church the barrel vaults under the inscribed cross are

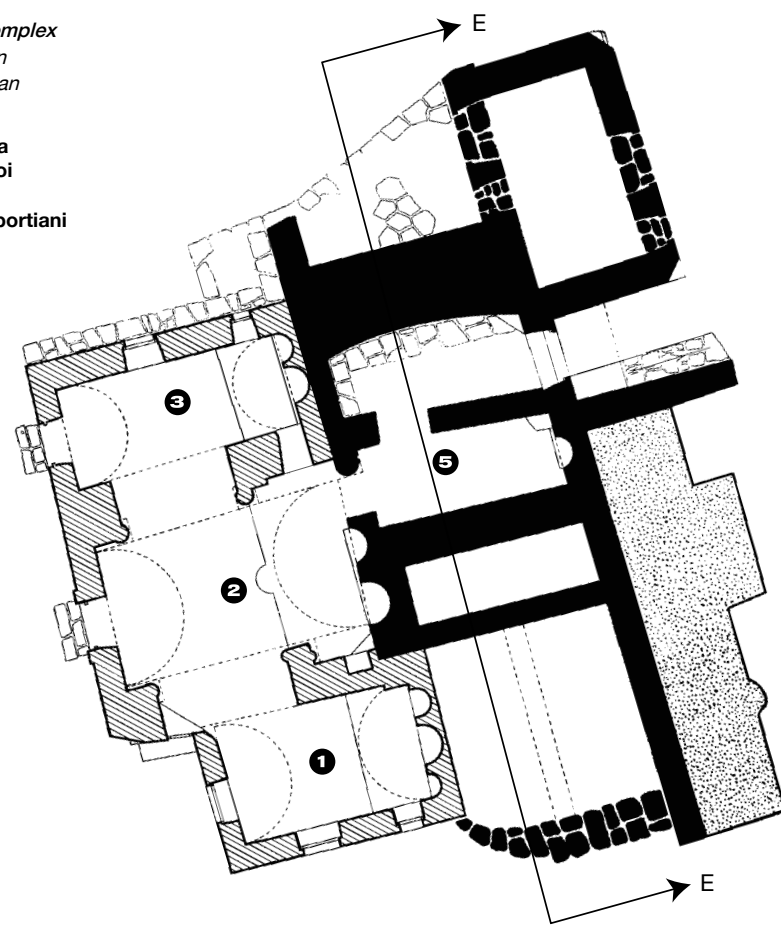
reduced to the width of the arches on all four sides. A drum supports the dome, a distinction that is visible from the outside; from inside, however, the drum and the dome merge into a half-sphere.

Uncharacteristically, the main space is entered directly through a door next to the off-center apse, which is screened by a wall and reached by two sets of steps and three turns. This complicated access route apparently resulted from originally unforeseen changes in the life and use of the complex.



*The Paraportiani complex
Left: Upper level plan
Right: Lower level plan*

1. Ayia Anastasia
2. Ayioi Anargyroi
3. Ayios Sozos
4. Panayia Paraportiani
5. Ayios Stathis



0 1 2 3 4 5 10 15M



Panayia Paraportiani, helicopter-based photograph.



The Paraportiani complex. Section E-E noted on plans.

0 1 2 3 4 5 10 15M

The five intact chapels, together with other parts of the Panayia Paraportiani complex now virtually in ruins, contribute powerfully to the present three-dimensional and sculptural form of the complex. In the absence of either historical data or a reliable oral tradition, we can only hypothesize that the partially collapsed north-south wall that leads upward to the bell tower formed part of an enclosure that related to the church of Panayia Paraportiani. And we can only guess that the two-level, roofless rectangular building at the northeastern corner of the complex served domestic uses and belonged to a larger set of now-defunct buildings. Indeed, it has been suggested that the Panayia Paraportiani complex was a distinctive part of the periphery of the Mykonos Kastro: the walls of Ayioi Anargyroi, the middle of the three chapels in the western half of the complex, are exceptionally thick and might once have served as the base of a tower attached to the defense perimeter that guarded a gate to the town. (Building a Greek Orthodox church on the foundations of a defense tower of the Duchy of the Archipelago era is not a rare occurrence. Astypalaia Kastro provides a similar example.) Ayios Sozos, the northernmost of the three chapels and a later addition to the complex, probably conceals a fortification gate positioned where the apse of the chapel is now located. If so, it would help to explain the unusual narthex space of Ayios Stathis.

This narthex could previously have been a gate with heavy doors at both of its narrow ends, an easily recognizable fortification design that resembles that of the gates of Sifnos Kastro. The presence of a gate on the spot could also help explain the word Paraportiani, a combination of para (next to) and portiani (of the gate) that produces the name of the complex, the "Virgin Mary by-the-gate."



The dome of Paraportiani, looking west



The dome of Paraportiani, looking west



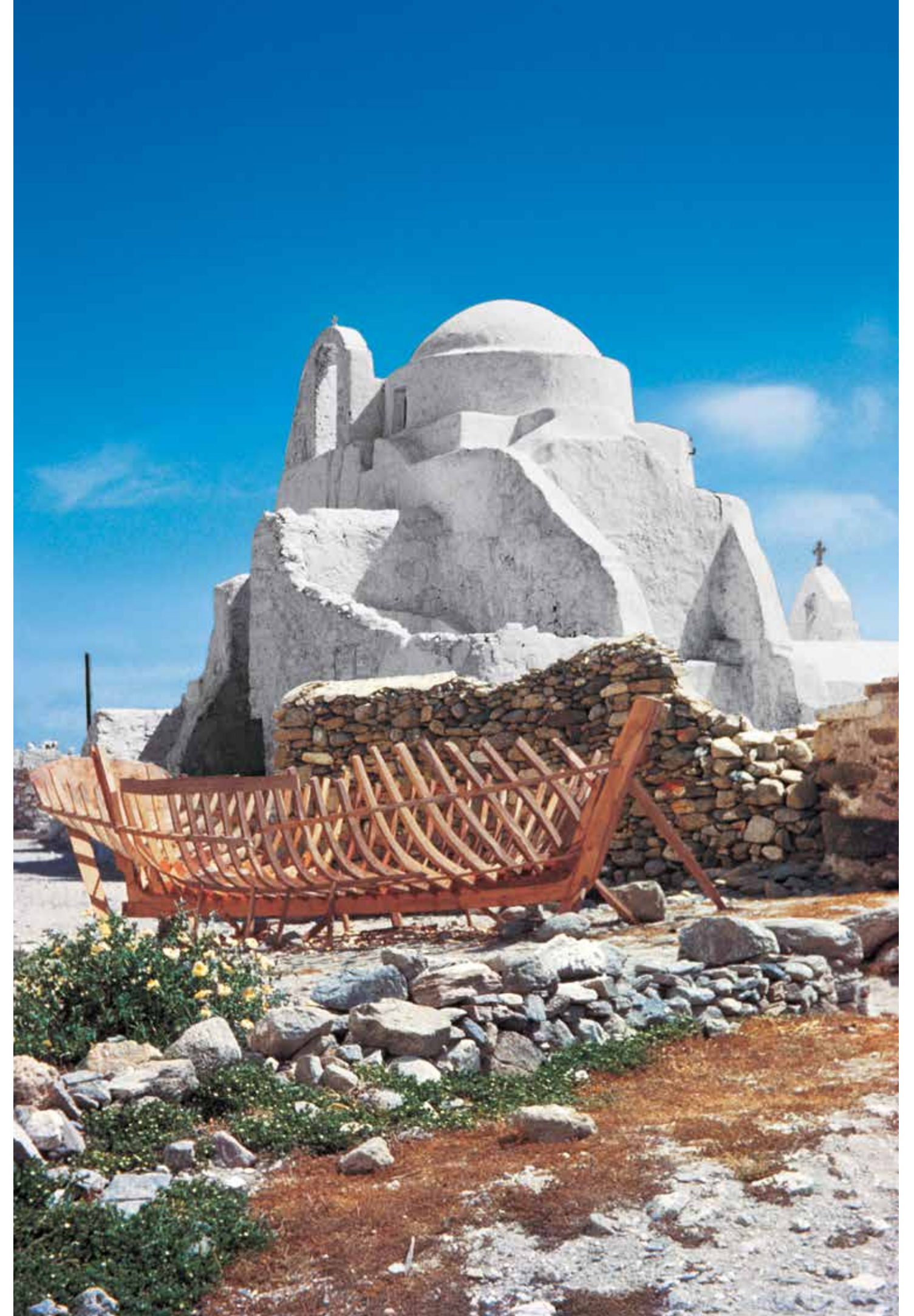
The dome of Paraportiani, looking northeast



Paraportiani, looking north

Panaya Paraportiani is a remarkable assembly of solids and voids; of such architectural parts as walls, buttresses, barrel vaults, and a dome; and of spaces in use or abandoned. Time has eroded some parts and fused others. Some of the building material has been removed for other uses, and the actions of the sun, the wind, and the salt of the sea, together with benign neglect, have aged the building's exterior with wrinkle-like marks. But none of these factors and processes has contributed as much to the building's present form as the annual whitewashing of the complex. Whitewash endlessly applied has created the present monolithic, seamless form, so strikingly revealed by the clear sunlight of the Aegean archipelago.

This illustration of the church of Paraportiani dates from the summer of 1960. Its major interest lies in the juxtaposition of the church with the boat being built in front of it, a coincidence not likely to be repeated. Church and boat stand for different approaches to the art of building, the monolithic and the analytical. The church's years of wear, collapse, and repair, together with its multiple layers of whitewash, have caused its walls, buttresses, drums, and domes to lose their individual architectural identities and merge into a single, continuous monolithic shell. The boat, on the other hand, is the product of an analytical vision within which the keel, the ribs, and the planks retain their identities even when, together, they constitute the completed vessel. The two approaches to building, the monolithic and the analytical, are mutually informing and have produced, respectively, the fortified citadels and the sailing ships that constituted the two pillars of Aegean society in the eighteenth and nineteenth centuries.



THE VERNACULAR RESPONSE

COLLECTIVE FORTIFICATION

SYROS

Ano Syros and Ermoupolis



The port of Syros looking north.
Ano Syros is on the left; in front and on the right of the illustration is Ermoupolis.

SYROS

Ano Syros and Ermoupolis

The emergence in the 1830s of a modern Greek state incorporating all the Cycladic islands of the Aegean archipelago, together with the geographically symmetrical French conquest of Algiers, brought to a final end the era of Mediterranean piracy. These two major geopolitical events affected decisively the physical and architectural character of the Aegean Kastro: with piracy a threat of the past, most Aegean settlements expanded beyond their former constricted defense perimeters. Astypalaia Kastro illustrates this point. Released from defense restrictions as well, other settlements relocated themselves to more accessible sites nearby. The disappearance of Skaros Kastro in Santorini over a period of years is an appropriate illustration for this observation.

Ano Syros and Ermoupolis respectively predate and postdate these two major geopolitical events of the 1830s. Providing a uniquely paired example of Aegean settlement development, they form the capital city of the island of Syros, Ano Syros (Upper Syros), the medieval part of the town, is at the left of the port as one arrives, sitting on a pronounced hill topped by the Roman Catholic Cathedral of St. George, known locally as San-George-is. On the right side of the harbor and at a lower eleva-

tion, Ermoupolis developed following the successful conclusion of the Greek War of Independence. History and site unite and, at the same time, separate these two distinct parts of the urban fabric of the island of Syros.

At eighty-four square kilometers, about the same size as Mykonos, Syros is among the smaller of the Cycladic complex. A rocky island with the most important harbor in the region and a high elevation point of 442 meters, Syros today supports the highest concentration of urban population in the Cyclades, most of which is located at Ermoupolis. Breaking the rule of one settlement per small island, Syros is inundated with tens of small villages, some of which predate Ermoupolis.

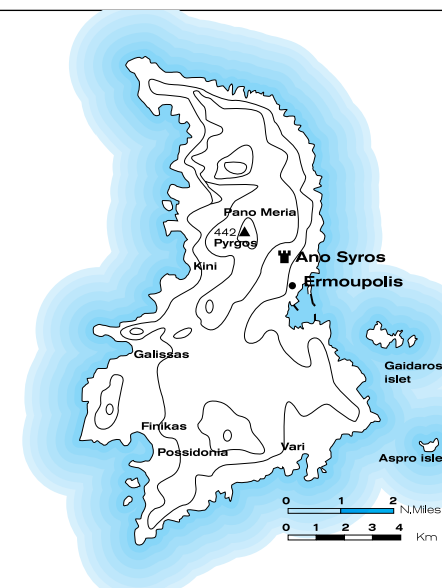
Ano Syros, helicopter-based photograph, looking northeast. The Roman Catholic Cathedral of St. George tops the hill of Ano Syros.



SYROS ① GENERAL INFORMATION

| | |
|-----------------------|--------------------------------|
| Prefecture | Cyclades |
| Location (Ano Syros) | 37° 27' 00" N 24° 56' 08" E |
| Distance from Piraeus | 154 km (83 n.miles) |
| Area | 84,069 km ² |
| Dimensions | 17 km long, 10 km wide |
| Shoreline | 87 km |
| Highest Elevation | 442 m. (Pyrgos) |
| Permanent Population | 19,793 (2001) |
| Port | Ermoupolis |

Left: I. Svda" (Syros Island). Cristoforo Buondelmonti, *Liber Insulareum Archipelagi, Gennadius Library, Athens, Greece.* The name SVDA on the map was in Latin use during medieval times and could be a misreading of the Greek characters in ΣΥΡΑ.

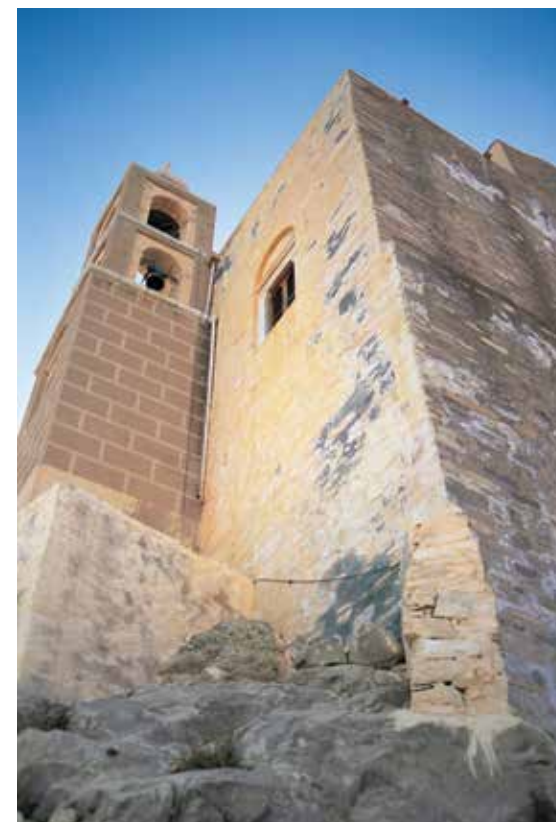




VUE DE LA VILLE ET DE L'ILE DE SYRA



Above: "View of Ano Syros and the Island of Syros." Engraving from "Voyage Pittoresque de la Grece," of Choiseul-Gouffier illustrating economically the mission of the citadel and its relationship to the harbor and landscape of the island. Immediate right: Ano Syros, looking southeast. Note how the hilltop drops precipitously on the side away from the port, thus prohibiting building. The port of Syros appears immediately beyond. Right: Ano Syros. The northwest edge of the hilltop.

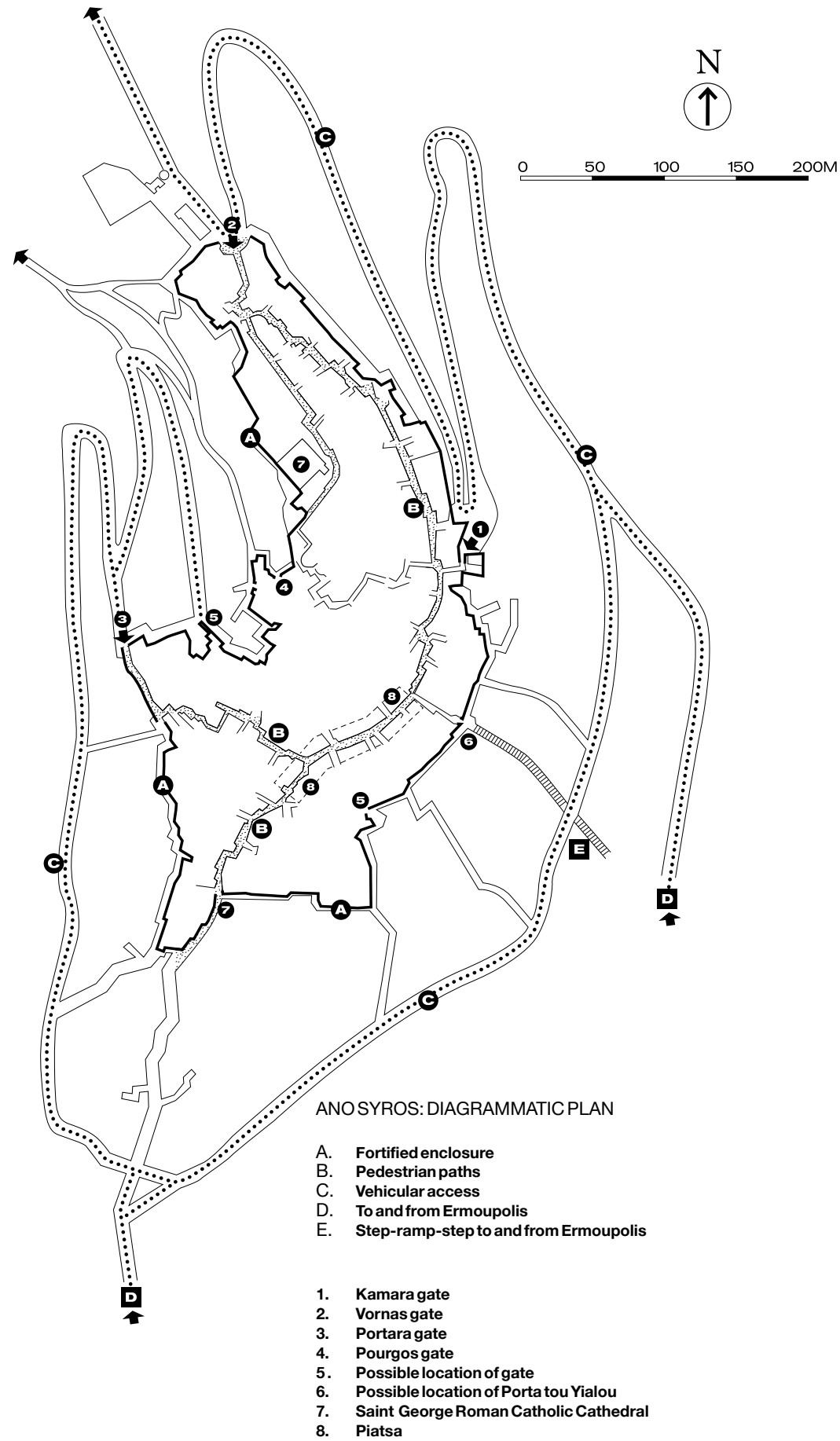


Ano Syros. The Roman Catholic Cathedral of St. George is at the center of this helicopter-based photograph, above. Note the dramatic difference in massing and scale between the institutional building on the upper left and the residential buildings on the lower right, a phenomenon encountered among Cycladic Kastras only in Syros and Naxos. An enlarged version of the blue-painted cupola on the left of the photograph appears on page 237, and a detail of the St. George bell tower appears on the left.

Syros was among the seventeen islands incorporated into the Duchy of the Archipelago by Marco Sanudo following his conquest of Naxos in 1207. Ano Syros, built as the Kastro of the island, remained the only settlement on Syros until the early nineteenth-century. A Choiseul-Gouffier engraving dating from the 1780s illustrates convincingly the mission of the citadel and its relationship to the harbor and the landscape of the island.

Ano Syros encompasses all the physical characteristics of a Kastro. However, the hilltop's double advantage of early enemy observation and defense from high ground contributed the most in determining its memorable and impressive urban and architectural form. Given the excellent visibility prevailing in the Aegean archipelago, any enemy or corsair intent on assaulting Ano Syros would have been likely observed from its heights.

Early detection provided precious warning to the islanders and perhaps discouraged would be attackers. Had enemy bands nonetheless landed, the defenders' ability to observe their movements from the heights would still have been a major defense advantage. With the attackers expending considerable energy marching uphill, the defenders would have met them, rested, at the top of their defensive walls and behind their secured gates.



Ano Syros. Kamara gate.



Ano Syros. Kamara gate, immediate neighborhood and vehicular access.



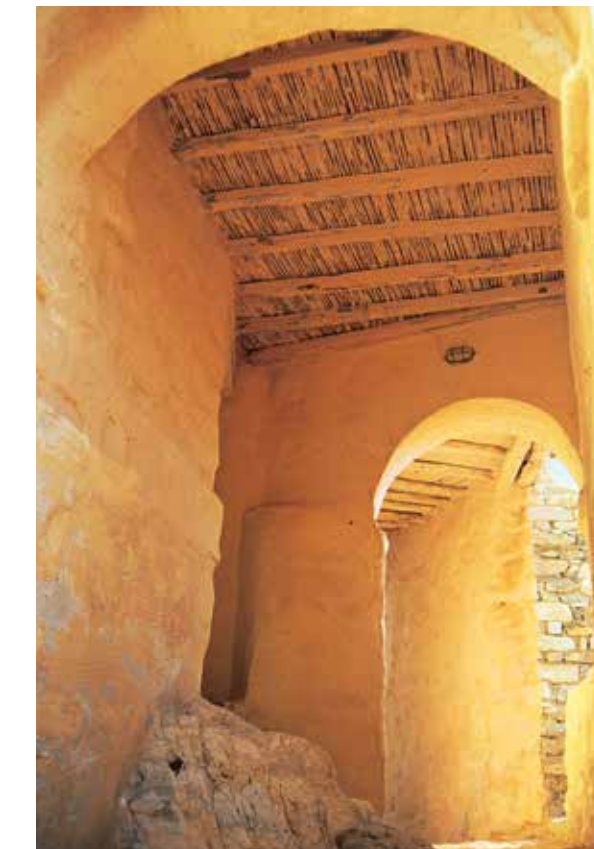
Ano Syros. Portara gate and neighborhood.



Ano Syros. Pourgos gate.



Ano Syros. Pourgos gate.



Ano Syros. Pourgos gate.



Ano Syros. Step-ramp-step pedestrian and beast-of-burden path to Pourgos gate.

Successive rings of dwelling units that share party walls, allowing no gaps, emerge from the natural form of the site, which is conical toward the south and the harbor. The rings of dwelling units underscore the guiding presence of the principles of Cycladic Kastro collective fortification organization in the building of Ano Syros.

Found here are the familiar Aegean Kastro vernacular architecture features such

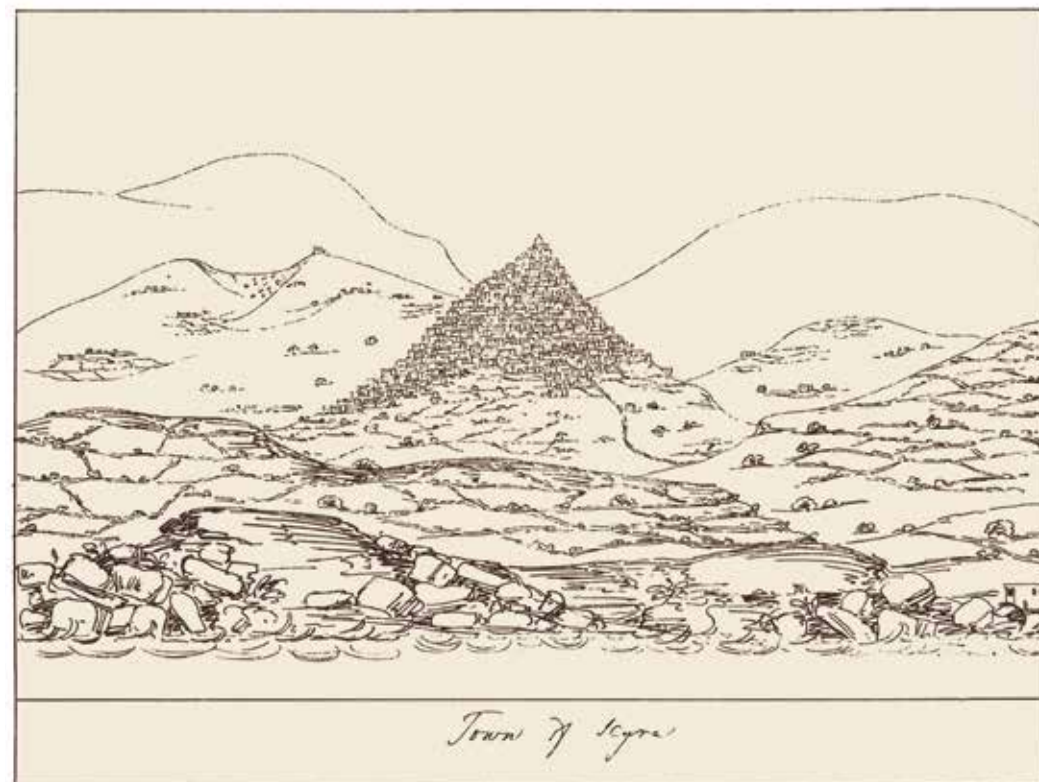
as narrow labyrinthine pedestrian paths, high building density, and upper floors arched over streets. A precipitous drop of the hilltop site has prohibited building on the northwest side, not visible from the port.

Remnants of entry gates to the Ano Syros medieval Kastro (as many as eight have been mentioned) are spread along the fortified enclosure indicated on the diagrammatic plan. It might be reasonable to assume that over the centuries the geometry

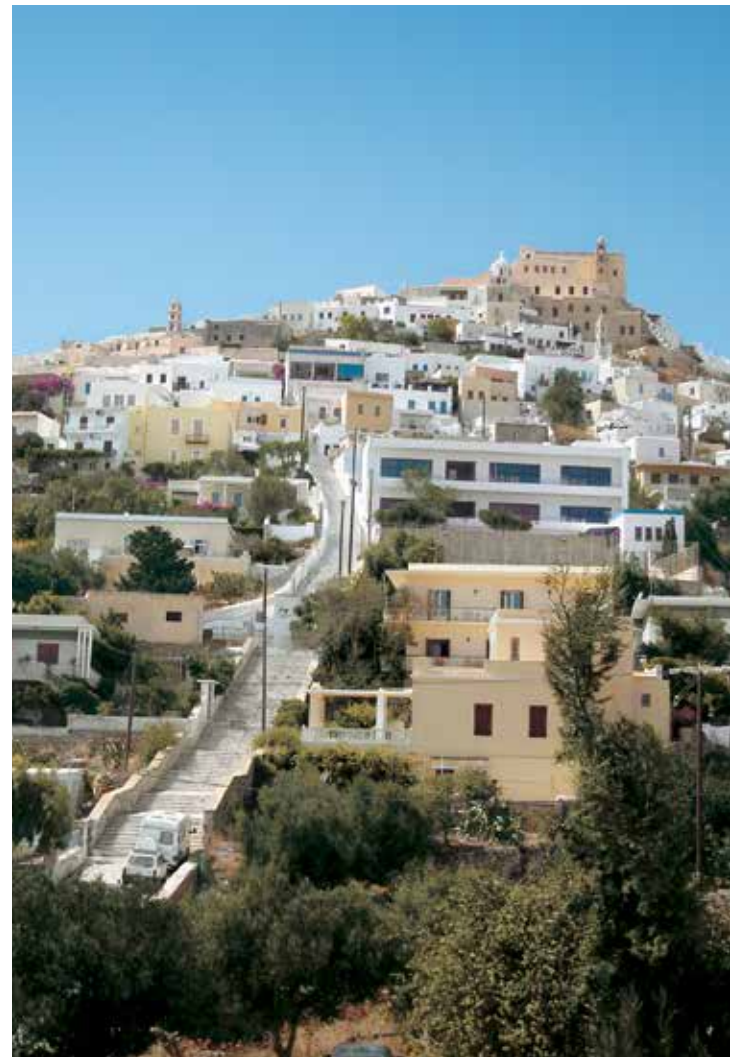
of this enclosure kept adjusting to the needs of the settlement, as well as the topography of the site as it descended towards to the sea. Today, more than any other, Pourgos gate retains medieval defense features.

Equally convincing is Kamara gate, which the asphalt road nearly touches, as its architectural features stand ready to prohibit the entry of four-wheeled intruders to its interior pedestrian world. Devoid of architectural features, other gates remain

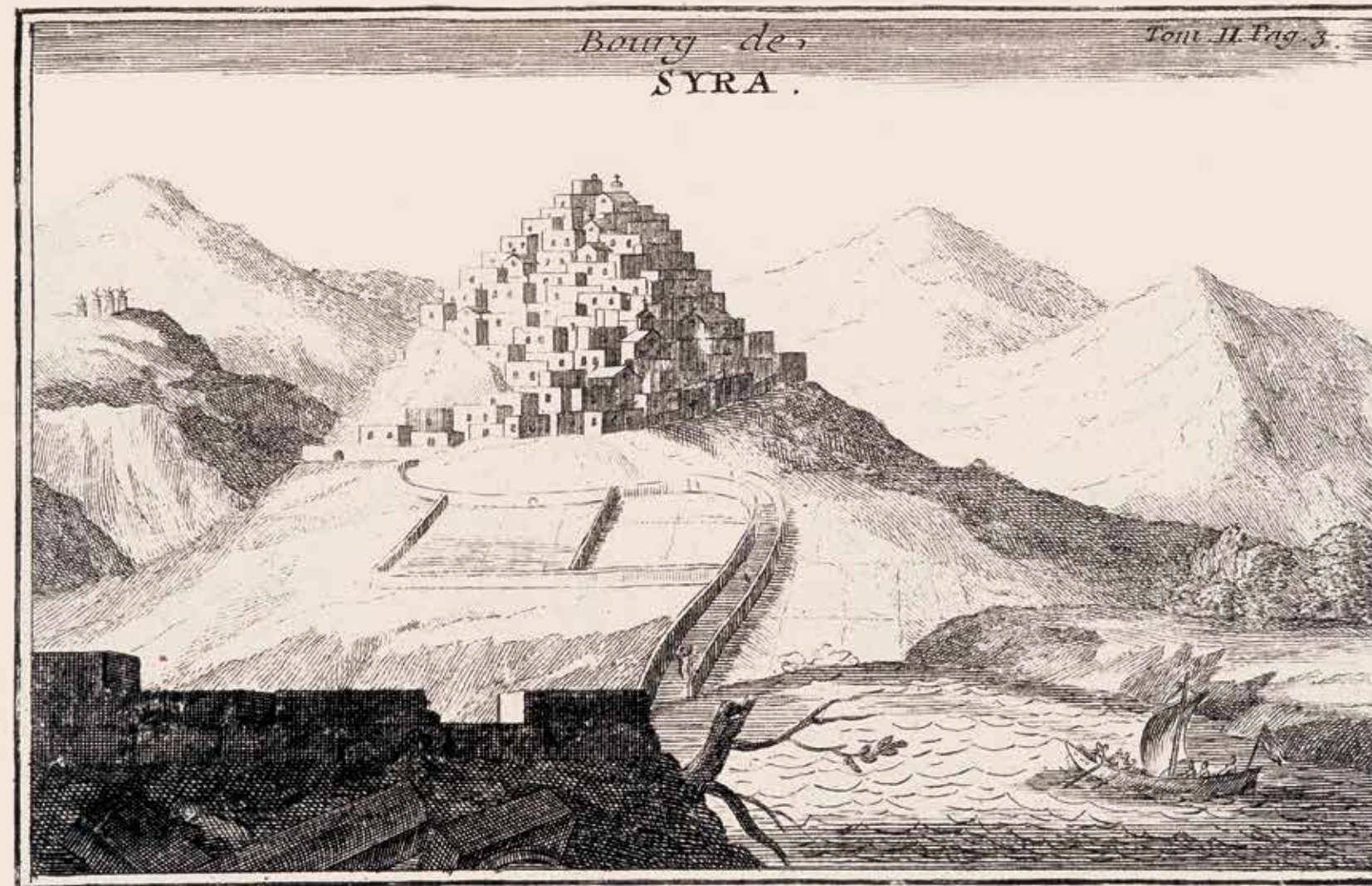
as points of pedestrian and beast-of-burden access to the interior of Kastro. The concentration of four gates along the northwest side of the enclosure could be explained by the existence nearby of a spring of water. Centrally located within the fortified enclosure, "Piatsa" still serves as the public space of Ano Syros.



"Town of Scyra" (Syros), Thomas Hope, sepia drawing, 1787-99. The powerful image of the merged forms of the citadel of Ano Syros and the conical shape of its site, in the context of a desolate wider landscape has attracted the attention and evidently the admiration of visitors such as Tournefort (page 231), Choiseul-Gouffier (page 226), and Thomas Hope.



Ano Syros. The step-ramp-step pedestrian path in the center of the photograph connects Ermoupolis and Ano Syros.



"Town of Syra," Joseph Pitton de Tournefort, engraving, 1717.

| SYROS MEDIEVAL CHRONICLE | |
|--|---|
| 1204 | The army of the Fourth Crusade sacks Constantinople. Fragmentation of Byzantine territories |
| DUCHY OF THE ARCHIPELAGO • SANUDI | |
| 1207 | MARCO I SANUDO First Duke Marco Sanudo captures seventeen Aegean islands, most of them undefended. He founds the Duchy of the Archipelago and distributes islands among his friends, to be held as fiefs of the duchy. Syros becomes part of the duchy, an affiliation that continues through Sanudo's many successors. Guglielmo Sanudo, nephew of Marco, becomes the first captain of Syros. The Roman Catholic bishops play an important role in the administration of the island. Syros remains outside of the feudal system of land cultivation as practiced in the duchy. |
| 1227 | ANGELO SANUDO Second Duke |
| 1262 | MARCO II SANUDO Third Duke |
| 1286 | GUGLIELMO SANUDO Guglielmo, captain of Syros, eventually becomes fourth Duke of the Archipelago. The squabble regarding the theft of the prized donkey and involving the Ghisi of Tenos occurs during his captaincy. |
| 1323 | NICOLO I SANUDO Fifth Duke |
| 1341 | GIOVANNI I SANUDO Sixth Duke |
| 1347 | The Black Death. Ships from the Genoese trading colonies in the Crimean peninsula pass through the Aegean Sea and bring the Black Death to Italy. |
| 1361 | FIorenza SANUDO Seventh Duchess |
| 1364 | NICOLO SANUDO-SPEZZABANDA Eighth Duke |
| 1371 | NICOLO III DALLE CARCERI Ninth Duke |
| DUCHY OF THE ARCHIPELAGO • CRISPI | |
| 1383 | Syros, together with Andros, becomes the dowry of Petronilla Crispo upon her marriage to Pietro Zenno. |
| 1398 | PETRONILLA CRISPO Following the death of her husband, Petronilla Crispo becomes Lady of Syros. |
| 1420 | NICOLO CRISPO Nicolo, captain of Syros, is the brother of Jacopo Crispo, eleventh Duke of the Archipelago. |
| 1450 | FRANCESCO II CRISPO Francesco II, captain of Syros and son of Nicolo Crispo, eventually becomes the sixteenth Duke of the Archipelago but reigns for only one year before his death. |
| 1453 | Constantinople falls to the Ottoman Turks. |
| 1463 | ANTONIO CRISPO In 1469, during Antonio's captaincy, Syros is raided by the Turks. |
| 1480 | GIOVANNI III CRISPO Eighteenth Duke In 1494, his ruthless rule causes a popular revolt in Naxos. Eventually Venice takes over and rules the Duchy for the next six years. |
| 1500 | FRANCESCO III CRISPO Nineteenth Duke |
| 1517 | GIOVANNI IV CRISPO Twentieth Duke |
| TOURKOKRATIA (TURKISH RULE) | |
| 1537 | KHEIREDDIN BARBAROSSA Sailing out of the Golden Horn, the Turkish admiral descends upon the Aegean islands. All are taken and devastated. In Naxos, Giovanni Crispo surrenders but retains his title as a Turkish tributary. |
| 1564 | JACOPO IV CRISPO Twenty-first Duke Jacopo continues as a Turkish tributary but is eventually expelled as a result of a popular revolt against his rule. |
| 1566 | DON JOSEPH NASI Twenty-second Duke Sultan Selim II, heir to Suleyman the Magnificent, names as duke Don Joseph Nasi, a Portuguese-Jewish banker and his financial adviser. Nasi, the last person to hold the title of duke, remains in Constantinople and never visits the islands. |
| 1579 | Joseph Nasi dies. The sultan transfers Naxos and a number of other islands including Syros to Suleyman Bey for an annual rental of 40,000 ducats. |
| 1617 | ALI CELEBI Ali Celebi, Kapudan Pasha, raids the island of Syros to punish the Roman Catholic bishop, Ioannis Andrea Carga. He arrests and hangs the bishop, loots the settlement, burns the archives, and enslaves the inhabitants |
| 1830s | End of the era of piracy. Syros becomes part of the new Greek state. The city of Ermoupolis is built. |

The threat of piracy demanded that gates close at sundown. It was the community castellan's responsibility to ring a bell for the closing of the last gate, the Porta tou Yialou, or seashore gate, at nine o'clock in the evening. Later on, as piracy disappeared, the nine o'clock bell ringing was adopted by the churches of Ermoupolis, a custom that continued until the beginning of War World II.

By contrast to other Cycladic Kastras, Ano Syros is physically topped by a complex of Roman Catholic Church buildings of monastic and administrative use. The massive volume of the ecclesiastic forms of St. George completes the conical formation of Ano Syros in an inspiring composition of natural and man made parts. These buildings and many others identify the uniqueness and oddity of a settlement whose population is overwhelmingly Roman Catholic in a nation almost uniformly Greek Orthodox.

The origins of Ano Syros as part of the Duchy of the Archipelago, along with the effective work of Jesuit and Capuchin missionaries, made Syros known as the Pope's island during the long years of Tourkokratia. By signing treaties with Turkish sultans, French kings earned the right to protect Roman Catholics in the Ottoman Empire. Syros was a beneficiary of these treaties for nearly three hundred years, including the 1820s when the Greek War of Independence was fought. The consequence of the latter for Syros was the building of Ermoupolis.

Two incidents taking place on Syros illuminate the purposes and capabilities of an Aegean Kastro. During the Duchy of the Archipelago centuries, islands passed from one Latin family to another by marriage, inheritance, dynastic intrigue, oft-disputed succession and, occasionally, war. Fortified against pirates, the island Kastras were sometimes besieged by the miniscule army of a neighboring island. Competition between island lords for land and power was so fierce that open warfare could erupt over even minor incidents. For example, in 1286, corsairs carried off a valuable donkey belonging to a Ghisi of Tenos. The donkey, bred for carrying distinguished riders over the rough island tracks, was then sold to a member of the Sanudi family of Syros. Marked with the owner's initials, the prized donkey was clearly stolen goods and provoked an invasion and siege of Syros by the Ghisi. Feudal law brought in a French admiral and his fleet, forcing the Ghisi to raise the siege. Venetian arbitration

eventually reconciled the feuding families and restored peace in the duchy, but only after considerable energy and treasure, "more than 30,000 soldi," had been frittered away in the hostilities. Apparently, there were no casualties, indicating that the Ano Syros Kastro fortifications were indeed effective in keeping the small forces of opposing clans at a safe distance from one another. There is no record, however, of the fate of the donkey!

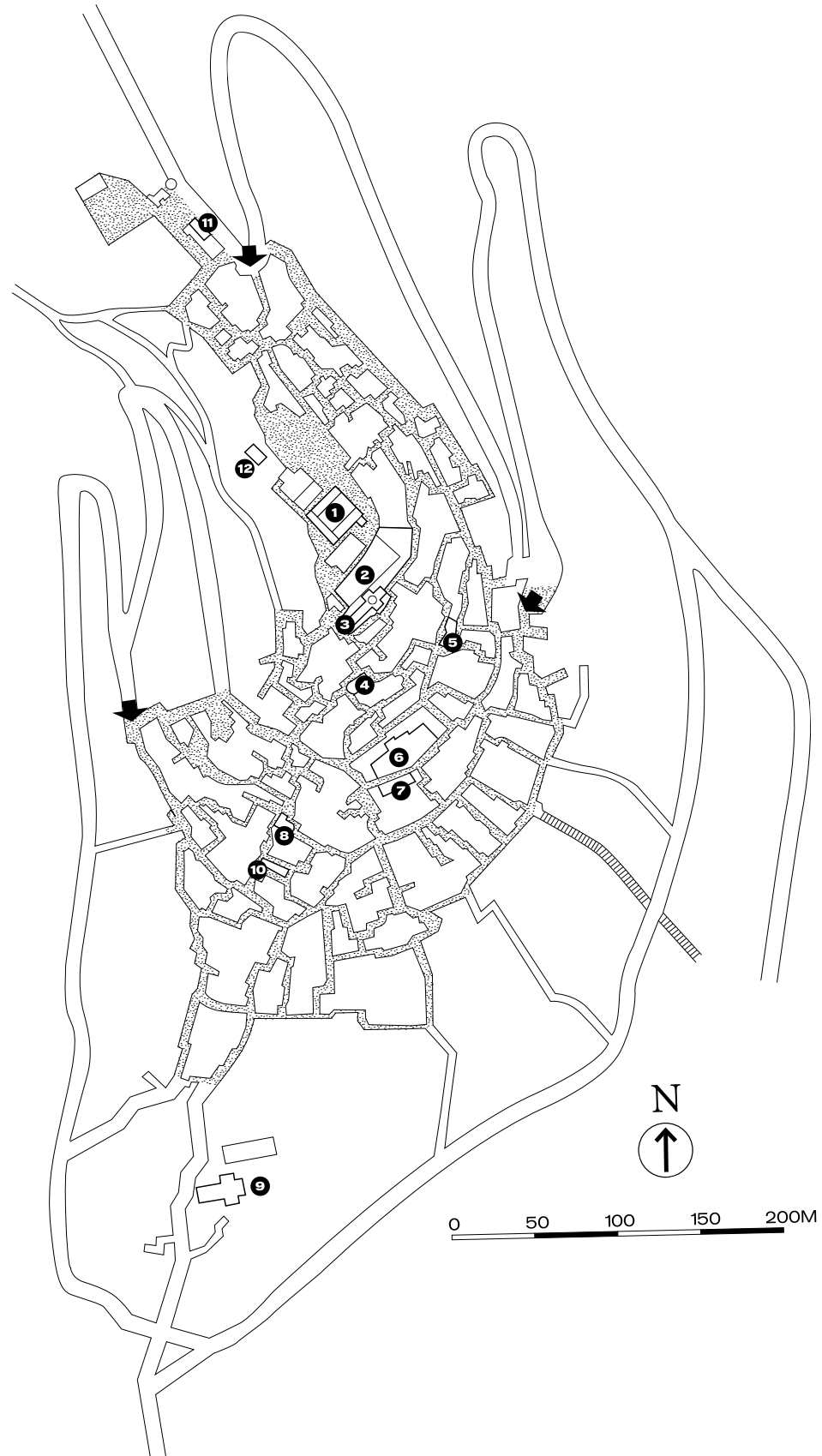
A second incident occurred centuries later, in 1617, during the Tourkokratia period that followed the collapse of the Duchy of the Archipelago era. Involved in the incident was the Roman Catholic bishop of Syros, Ioannis Andreas Carga. After allowing the visit and provision of victuals to warships of the Neapolitan fleet, the bishop was accused of treason by the Ottoman Turks. To punish him, Ali Celebi, Kapudan Pasha, Admiral of the Ottoman fleet, raided the island of Syros, invaded Ano Syros, arrested and hanged the bishop, looted the settlement, enslaved the inhabitants and burned the archives. A comparison of this catastrophic event in the history of Syros, with the victimless one of the thirteenth-century indicates that the Aegean Kastro, while capable of protecting the inhabitants from pirate bands and the small forces of neighboring islands, was indeed defenseless against the overwhelming firepower of a formally constituted military force like the Turkish fleet.



Ano Syros. Pedestrian paths. Typical Aegean Kastro vernacular architecture features are present, such as a forty-five-degree corner cut to accommodate beast-of-burden traffic (upper left), rainwater collection systems (lower middle), covered passages and others.



Opposite page: Ano Syros. Steps and ramps lead from Kamara gate to Platsa.



ANO SYROS, CHURCES and MONASTERIES

1. **Ayios Georgios** (St. George Roman Catholic Cathedral known locally as San-George-is)
2. **Jesuit Monastery**
3. **Panayia of the Carmelite Order**
4. **Ayios Antonios**
5. **Ayios Nikolaos Ton Ftochon**. (Of the poor)
6. **Capuchin Monastery**
7. **Ayios Ioannis**
8. **Ayia Triada** (Holy Trinity)
9. **Sa - Bastias** (Saint Sebastian)
10. **Kioura** (Dedicated to Virgin Mary. Kioura is a local version of Kyra: Lady)
11. **Kioura tes Plakas** (chapel)
12. **Ayios Michael Taxiarchis** (St. Michael Archangel)

Note: All churches are Roman Catholic except Ayios Nikolaos and Ayia Triada, which are Greek Orthodox.



Ano Syros, looking southeast. The Roman Catholic Cathedral of St. George (San-George-is) crowns the site.



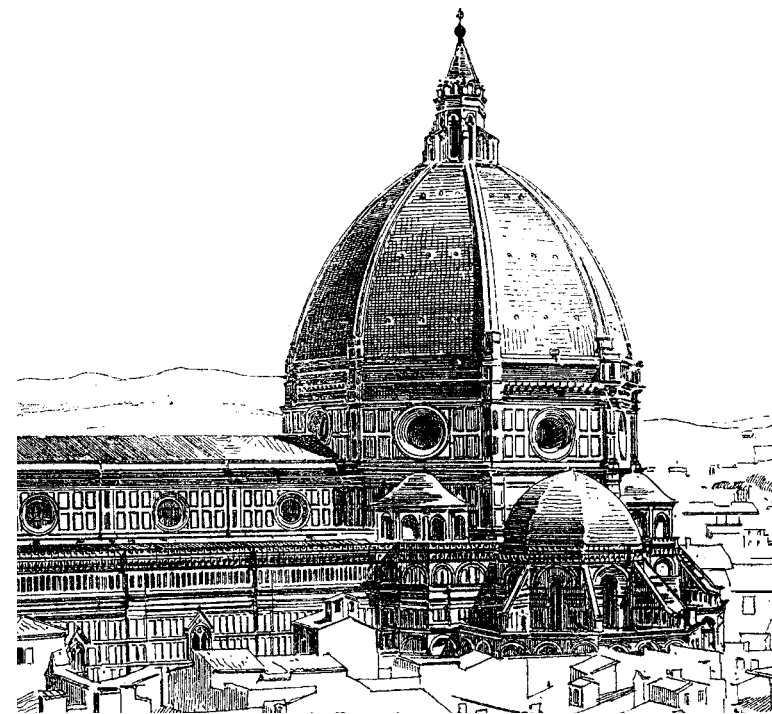
Ano Syros. Helicopter-based photograph revealing the architectural and urban structure of Kastro. The precipitous drop of the northwest half of the site is in shade on the left.



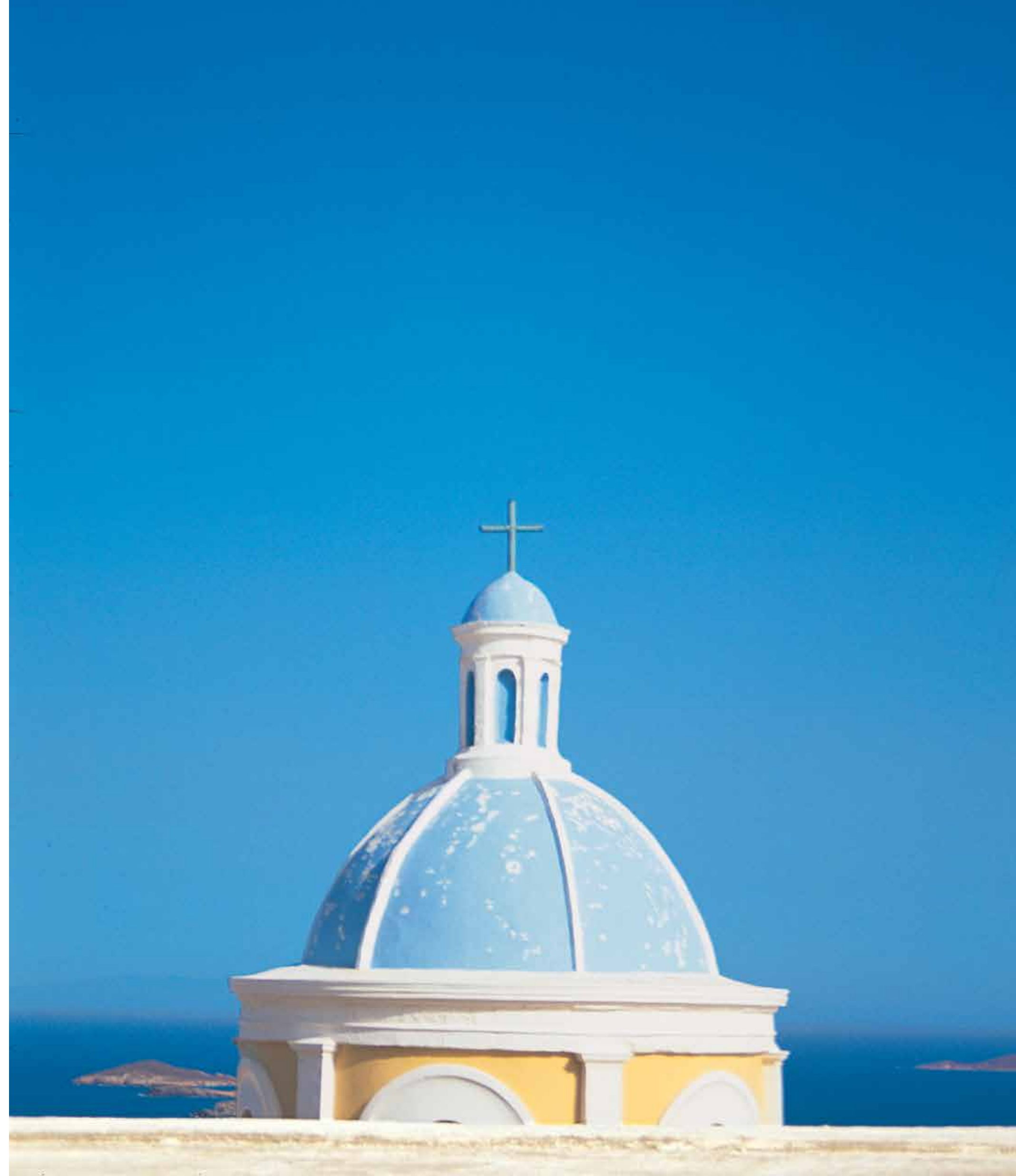
Ano Syros. Bell towers of (from left to right): *Ayia Triada*, *Ayios Antonios* and *Ayios Nikolaos Ton Ftochon*. Incorporated into the urban fabric, bell towers become neighborhood landmarks.

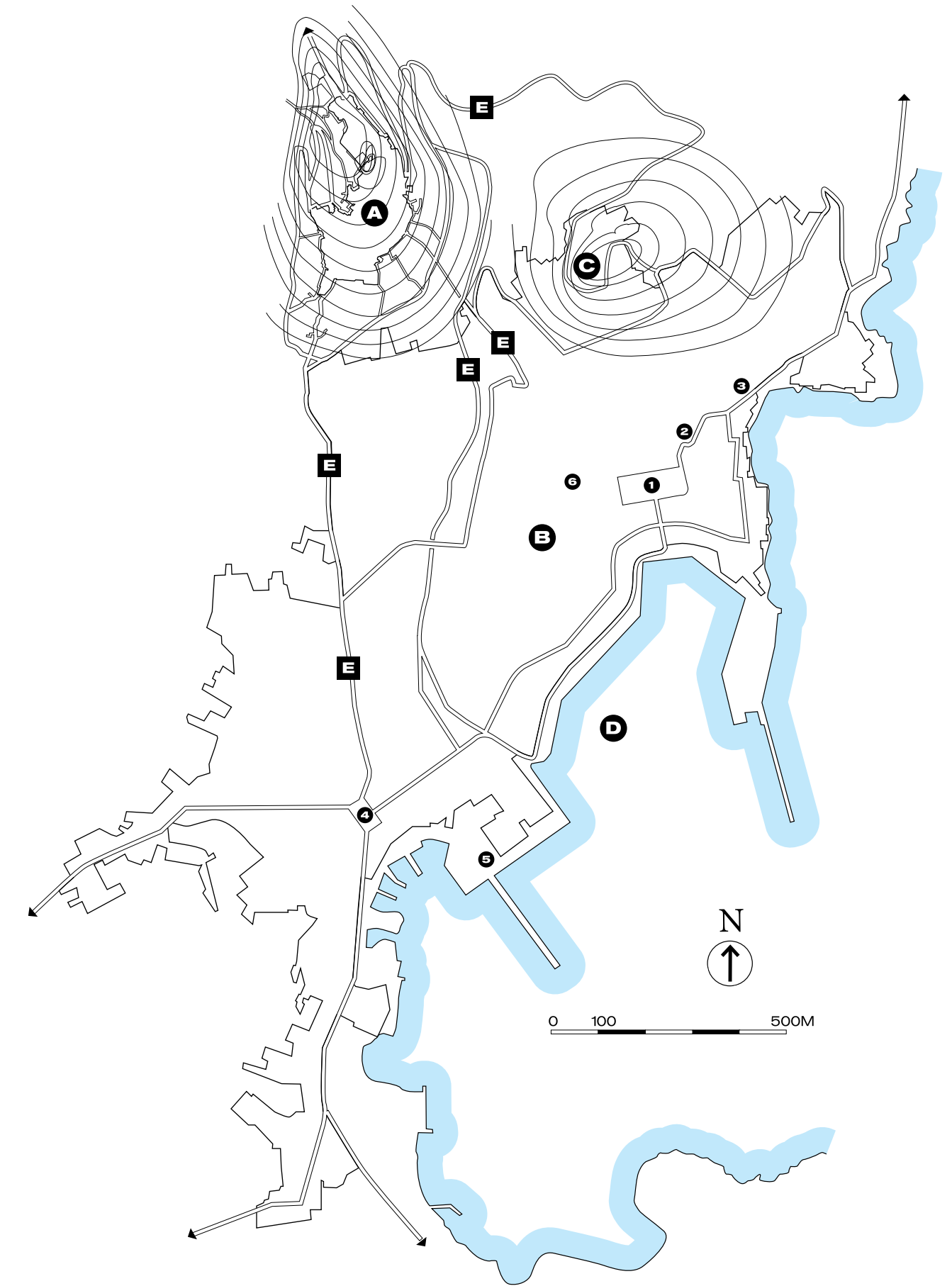


Ano Syros. Capuchin Monastery on the left attached to *Ayios Ioannis* church on the right. A covered pedestrian path separates the two buildings.



Ano Syros. Illustrated on the opposite page is the dome of the Church of *Panayia* of the Carmelite Order. The important architectural presence of this dome in the urban fabric of Ano Syros is revealed by the helicopter-based photographs on pages 225, 227, and 235. The lantern and the ribs, decorative rather than structural, are the architectural features of the dome by which Roman Catholic churches identify themselves in the region (a rare example of a lantern on top of a Greek Orthodox church dome appears in *Ayios Menas*, in *Fira*, Santorini. See pages 270 and 271.) Much less ambitious, the *Panayia* Carmelite dome echoes that of *Florence Cathedral* by Brunelleschi built between 1420 and 1436, outlined in the drawing above. Sitting on a neoclassical frieze and pilasters, the dome of the Church of *Panayia*, acknowledges the architectural ideology of the location, presenting the viewer with a masterful mix of divergent architectural traditions.





ERMOUPOLIS

In the 1830s the small, war-devastated village that was Athens was dominated, physically and spiritually, by the imposing combination of the natural landscape and the man-made buildings of the Acropolis, with their reminders of Periclean glories. Given the ardent pan-European admiration for Greek antiquity and the important roles played by the major powers Britain, France, and Russia in liberating Greece from Ottoman rule, it was virtually inevitable that Athens would become the capital of the reborn state. A parallel devotion to Greek antiquity was also evident in the political and architectural ideologies of the new state, with advocates interested in reclaiming the land's glorious heritage, which was admired by the powers not only supporting its rebirth but also protecting its fragile, early existence. Following King Otho's official entry into Athens on December 1, 1834, the city became the administrative and cultural capital of the emerging state, and was planned and

built in the spirit of neoclassicism that prevailed across the Western European world of the period.

Public buildings such as the Royal Palace – now the Parliament Building – the Academy, the University, the National Library, the National Technical University and the Arsakeion are not the only examples of contemporary neoclassicism. Countless private buildings, ranging from upper-class mansions in the city center to unpretentious houses dispersed throughout, also partook of the neoclassical spirit well into the twentieth century, as did buildings throughout the Aegean archipelago.

Syros. Ano Syros is located on the lower half of this helicopter-based photograph, Ermoupolis on the upper half and the port of Syros on the upper right corner.

SYROS PORT, ERMOUPOLIS AND ANO SYROS. DIAGRAMMATIC PLAN

- A. Ano Syros
- B. Ermoupolis
- C. Hill and church of Anastasis
- D. Port of Ermoupolis
- E. Vehicular access to Ano Syros

Ermoupolis key points

1. Plateia Miaouli and City Hall
2. Apollo theatre
3. Ayios Nikolaos Orthodox church
4. Platia Iroon
5. Neorion Shipyards
6. Metamorphosis Cathedral



Syros, Ermoupolis, City Hall.



Syros, Ermoupolis, Apollo Theater.

The formal culture emanating from the capital of the Moslem Ottoman Empire was always alien to its Greek Christian population. During the long period of Tourkokratia, therefore, the culture and architecture of the Aegean island towns developed independently of the Ottoman capital and, indeed, autochthonously. The emergence of the Greek state, with Athens as its capital, ended this disjunction and served to establish cultural homogeneity along with institutional avenues for disseminating the formal culture of the capital throughout the realm, including the Cycladic islands. Thus, neoclassicism became the architectural language and vocabulary of the buildings, the city halls, and the schools that the new state built to promote the official national culture and its functions in the towns of the archipelago.

Centuries-long French protection and the island's autonomy under Ottoman Turkish rule kept Syros out of actual Greek revolutionary activity in 1821. Instead, taking advantage of the French protection, Syros offered precious help to the revolutionary cause by becoming a sanctuary for other islanders and residents of coastal towns of Asia Minor fleeing Turkish reprisals against the Greek uprising. Refugees from the massacres of Chios, in 1822, and Psara, in 1824, were the most numerous arrivals, and their business skills, commercial connections, and capital built Ermoupolis (also spelled Hermoupolis), the city of Hermes, protector of commerce.

In contrast with the earlier medieval Ano Syros, Ermoupolis was a planned city built with great ambition as a commercial, manufacturing, and maritime center within the borders of the new state of Greece. Very much in tandem as well as in competition with Athens, it also adopted neoclassicism as its urban and architectural expression, producing public places of civic importance, such as Plateia Miaouli, and buildings of exquisite architecture and civic content, such as the City Hall, the Orthodox Church of Ayios Nikolaos, the Apollo theater (built using the Teatro alla Scala of Milan as a prototype) and a good number of private mansions of note. The City Hall was the work of the Bavarian architect Ernst Ziller who also designed the still extant, downtown Athens mansion of Heinrich Schliemann, the discoverer of Troy.



Syros, Ermoupolis. Plateia Miaouli and the City Hall appear in the center and Ano Syros on the upper left of this helicopter-based photograph.



Syros. Ermoupolis

Built after 1848, the exquisite Ionic columns of Ayios Nikolaos, a Greek Orthodox church, underscore the concerted efforts of the new state and society to identify itself with fifth century Greek antiquity, sidestepping its deeply rooted Byzantine Orthodox church traditions.

While demonstrating its devotion to Hermes and antiquity, Ermoupolis during the second half of the nineteenth-century became the manufacturing, shipbuilding, and maritime center through which the Industrial Revolution of Western Europe finally reached Greece, just liberated from backward Ottoman rule. However, the oddity of a commercial and manufacturing center located on a small island without railroad connections and at a distance from better-located competitors began to surface during the first half of the twentieth century, and Syros lost its preeminent position. Much of the culture and architecture of the island, however, made it

through recent decades, and, today, a revived shipbuilding industry, together with tourism and administrative activity – Syros is the capital of the Cyclades prefecture – promises a stable future.

Sitting at a comfortable distance from one another, the vernacular and improvised architecture of Ano Syros and the formal and planned architecture of Ermoupolis represent different geopolitical conditions articulated by the extraordinary events of the 1830s, and in an inspiring way they underscore continuity as well as change in the broader Hellenic cultural space.



Syros. Ermoupolis. The Orthodox Church of Ayios Nikolaos, north and west elevations. Note the Ionic columns at the front façade of the Church.



Syros. Ermoupolis. Neoclassic forms are part of the fabric and express the architecture of the city.



THE VERNACULAR RESPONSE

COLLECTIVE FORTIFICATION

SANTORINI

The Island of Five Kastras



SANTORINI

The Island of Five Kastr

Architects use plans to communicate ideas about buildings. Architectural plans speak of building outlines, circulation patterns, room sizes, structural concepts, and other related issues. But most architects find vertical sections more exciting to their minds' eyes. Together with two-dimensional plans, a vertical section exposes the third dimension of a building and thus reveals architecture in the most appropriate light. The magnificent natural section through the caldera on Santorini sets the island apart from all other Aegean islands. Its awe-inspiring site, the product of prehistoric volcanic activity, appears today as a colossal cut that slices through both the land and the sea, a vertical section that far exceeds the limits of any architectural section. On a scale similar to that of Grand Canyon in the United States, this vertical rift

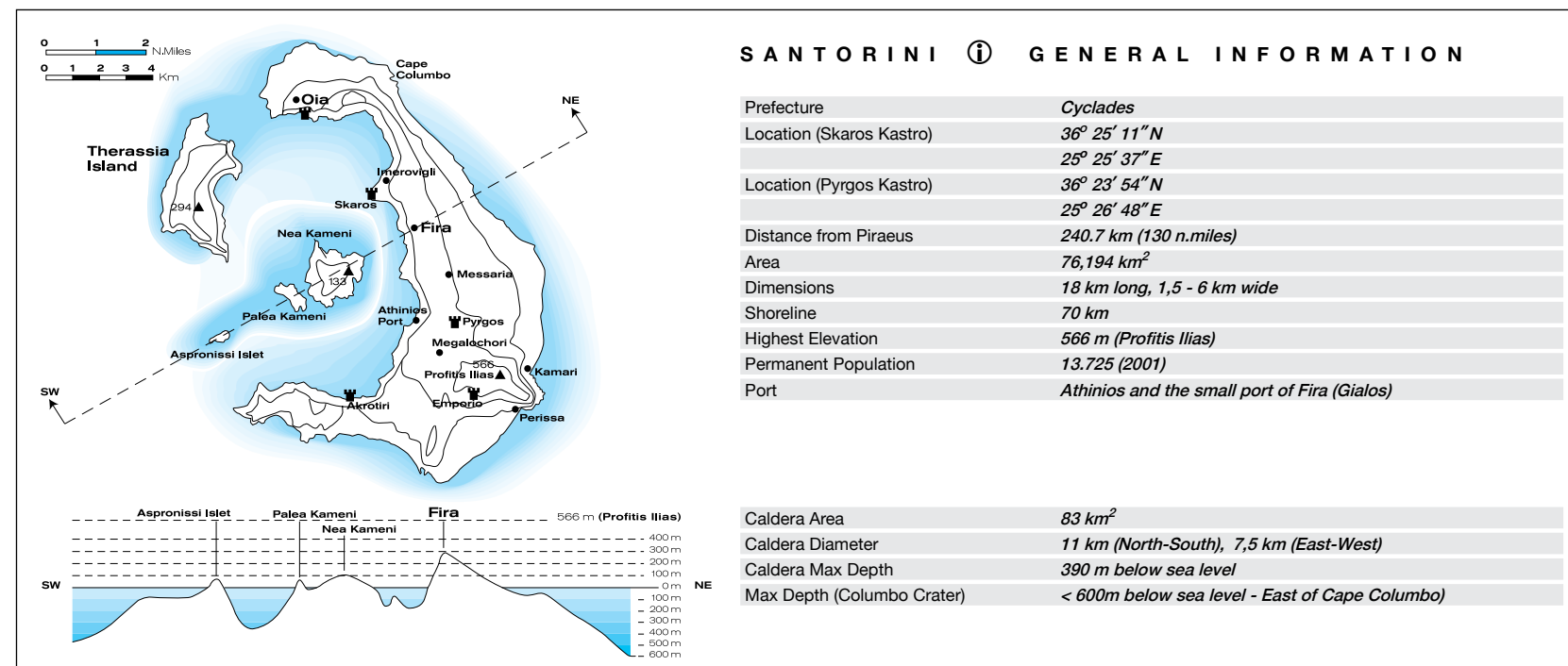
dramatically fuses Aegean geology and Aegean history at the unique site of Santorini.

Today, the island is known officially as "Thera," a name that originated in Greek antiquity. Santorini, a corruption of "Santa Irene," derives from the era of the Duchy of the Archipelago, and in the perspective of this book, "Santorini," rather than "Thera," seems a more fitting name to use.



Santorini, helicopter-based photograph. Merovigli (left) and Fira, the present-day descendants of the medieval fortified settlements of the island, sit 250 meters above the water surface of the caldera. The steps and ramps connecting Fira and the historical port of Santorini appear on the right. Opposite page, top, Santorini, drawing by the author, 1951

Island on the left should be labeled "Therasia Island."



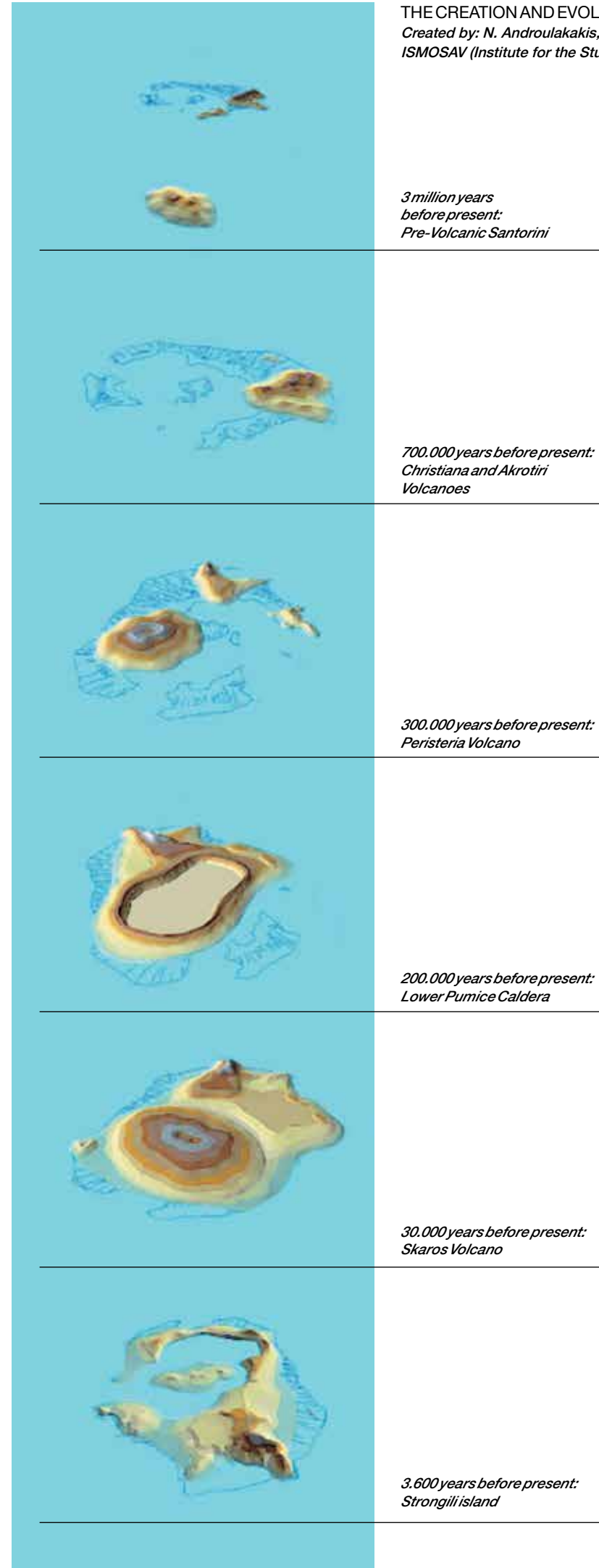
The largest of three islands that also include Therasia and Aspronisi, all located in close proximity, Santorini is at the southeastern periphery of the Cyclades Islands and lies about one hundred twenty kilometers north of Irakleion (Candia of Venetian times), in Crete, a location with historic or, better, prehistoric significance for both Santorini and Crete. The island is of average size within the Cyclades group and comprises seventy-six square kilometers, compared with Sifnos's seventy-three.

According to the 2001 census, Santorini was home to 13,725 people, the same number of inhabitants as in 1940, the island having lost population after the destructive earthquake of 1956. As Santorini emerged as a major tourist attraction in the 1970s, it gradually regained its pre-1956 population. Currently, for several weeks during the summer tourist season Santorini's population more or less doubles.

Santorini's history spans three major periods of development – the prehistoric, the Greek-Hellenistic, and the contemporary, which dates from the era of the Duchy

of the Archipelago. Extensive prehistoric volcanic activity produced Santorini's unique site and will be discussed below, but the significant remains from the Greek-Hellenistic period located in Mesa Vouno in the southeastern part of the island fall outside the scope of this book. The contemporary period that dates from the early thirteenth century produced a number of fortified settlements including Skaros, which was discussed earlier in the chapter about piracy. Today these two periods, the prehistoric and the contemporary, merge physically, since, seen from the sea below, Fira, Merovigli and Oia, the present-day descendants of the medieval fortified settlements, seem to form white eyebrows over the polychrome face of the caldera cliffs.

THE CREATION AND EVOLUTION OF SANTORINI VOLCANIC FIELDS
 Created by: N. Androulakakis, G. Vougioukalakis, IGME (Institute for Geological Studies), ISMOSAV (Institute for the Study and Monitoring of the Santorini Volcano)



Herodotus called Santorini “Strongyle.” The “the circular island” he described was around sixteen kilometers in diameter with a centrally located summit of perhaps sixteen hundred meters and a circumference that included all three present-day islands. Although still traceable, the original circular outline has been ruptured, and three fragments – Santorini, Aspronisi, and Therasia – have replaced what was once one circular island.

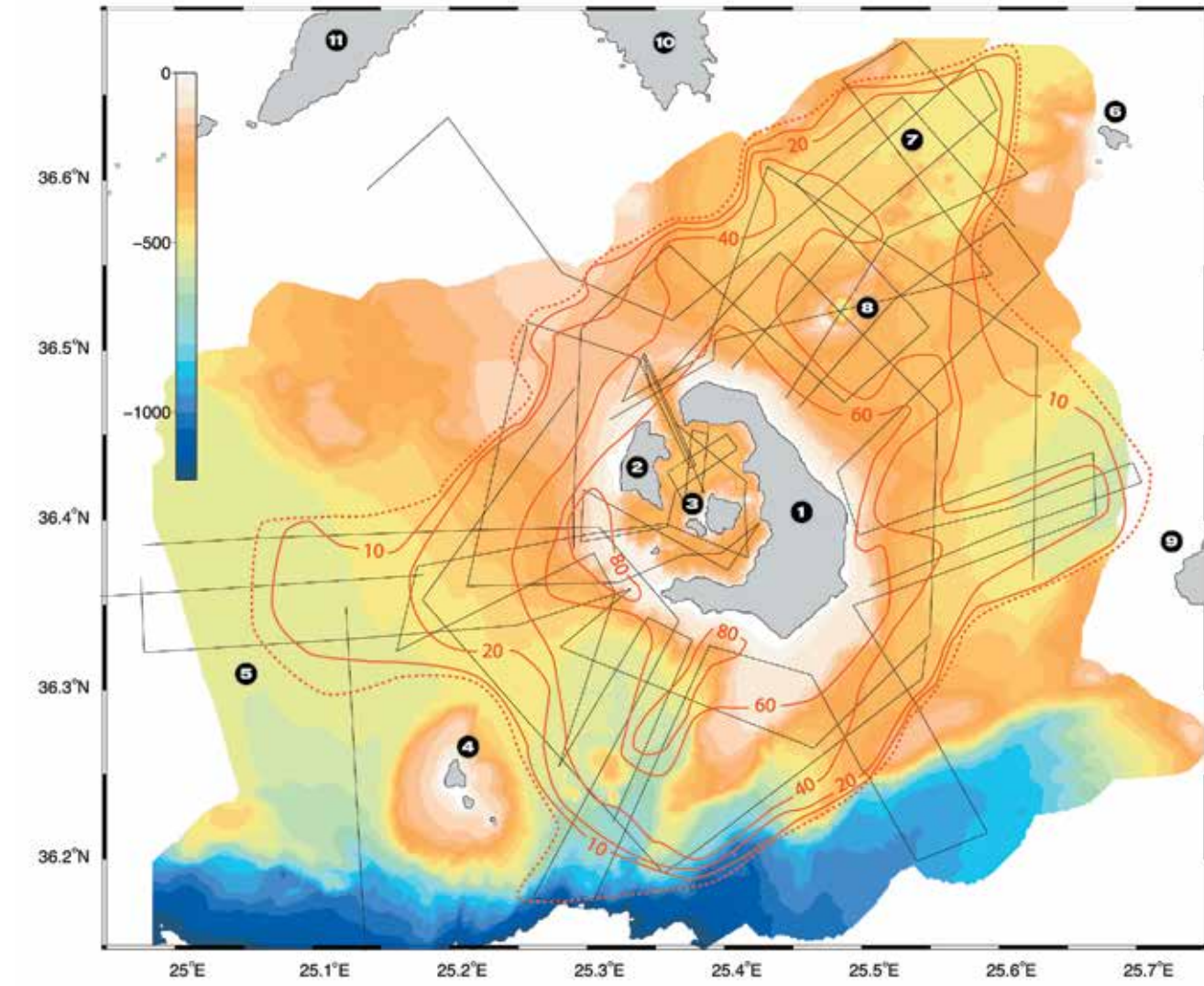
The largest fragment, which is crescent-shaped, is today’s Santorini or Thera. Therasia is a smaller fragment that has two diminutive settlements and lies to the northwest of Santorini. Aspronisi, “the white island” much smaller than the other two, is uninhabited, a characteristic shared by a great number of Aegean islands of similar size. All three islands are covered in layers of white ash and pumice as thick as fifty-five meters and encircle a crater filled by a large body of water, or caldera. With depths reaching four hundred meters, the caldera marks the location of the collapsed Strongyle summit.

A great volcanic eruption or, more likely, a series of eruptions, demolished Strongyle during the Late Bronze Age, perhaps about 3600 years ago, as more recent research suggests. As Floyd W. McCoy, Professor of Geology and Oceanography at the University of Hawaii indicates, this was not its first eruption: “A previous cataclysmic eruption had occurred about 18,000 years before, about the usual geological pace for these mega-eruptions, with quieter and smaller eruptions in the intervening periods. Unlike previous eruptions, however, the volcano now had a populated landscape with towns and a city, country villas, ports, and agricultural fields.” Beginning in the second century B.C. and continuing to expand as late as the 1956 eruption, two distinct island masses emerged above sea level in the center of the caldera. These islands, Palea Kameni and Nea Kameni, “the burnt islands,” constitute the dome of the volcano.

Pozzolana, a material used to make hydraulic cement, was in great demand when the Suez Canal was being built in the 1860s, and it happened to be available in quantity in Santorini’s layers of volcanic ash. The quarrying of pozzolana from Santorini for the canal brought to light buried prehistoric buildings more than three millennia old. After World War II the work of the Greek Archaeological Society in Akrotiri uncovered a thriving city with strong Minoan-Cretan features, as evidenced by the utensils of everyday life found there and by its architecture, pottery, and wall painting. Remarkably, the two- and three-story houses excavated in Akrotiri parallel Santorini’s present-day settlements in planning and in scale and underscore the continuity of human habitation on the island through the millennia. The walls of these houses are reinforced with wooden tie beams that serve as seismic protection and show an impressive early understanding of the relationship between building and site. Stone staircases lead from floor to floor. Wall paintings of remarkable sophistication in theme and execution are the earliest known large-scale paintings in Greece.

In recent decades the excavations at Akrotiri, together with other archaeological evidence and the work of geologists, volcanologists, and oceanographers from all over the world, have begun to suggest what might have happened to the inhabitants of Strongyle and their prehistoric city during the great, Late-Bronze-Age volcanic eruption.

The first outburst of the volcano must have produced a fall of pumice large enough to prompt the citizens of Akrotiri to evacuate: “So few skeletons and valuables have yet been found that it seems as if the inhabitants had enough warning to collect some of their belongings and make a getaway,” according to J. V. Luce whose “Lost Atlantis: New Light on an Old Legend” provides an inspiring interpretation of the Atlantis myth. A period of relative calm followed. Later came the major blast, here described in all its devastating detail by Professor McCoy:

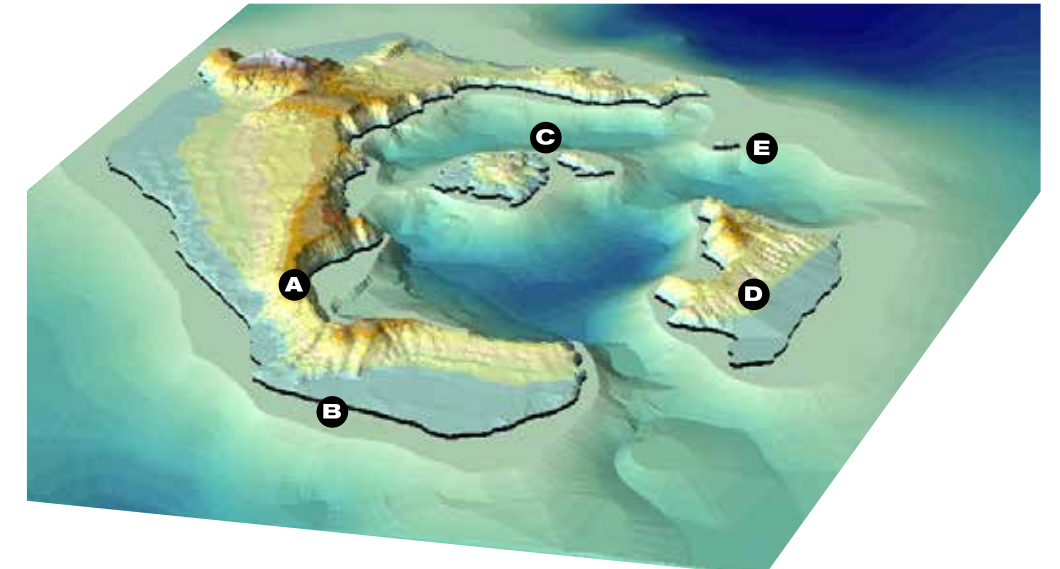


THE MINOAN SUBMARINE PYROCLASTIC DEPOSITS

Map showing the Santorini caldera, the Kolombo submarine volcano, and the distribution of the Minoan submarine pyroclastic flow deposits. The black dashed lines outline seismic surveys. The red lines represent contour lines in meters defining the form of the Minoan submarine deposits. The dashed red line indicates the outer limits of the deposits from the eruption.
 Illustration courtesy of Haraldur Sigurdsson, Steven Carey, Matina Alexandir and Katy Croff. National Oceanic and Atmospheric Administration, US Department of Commerce.

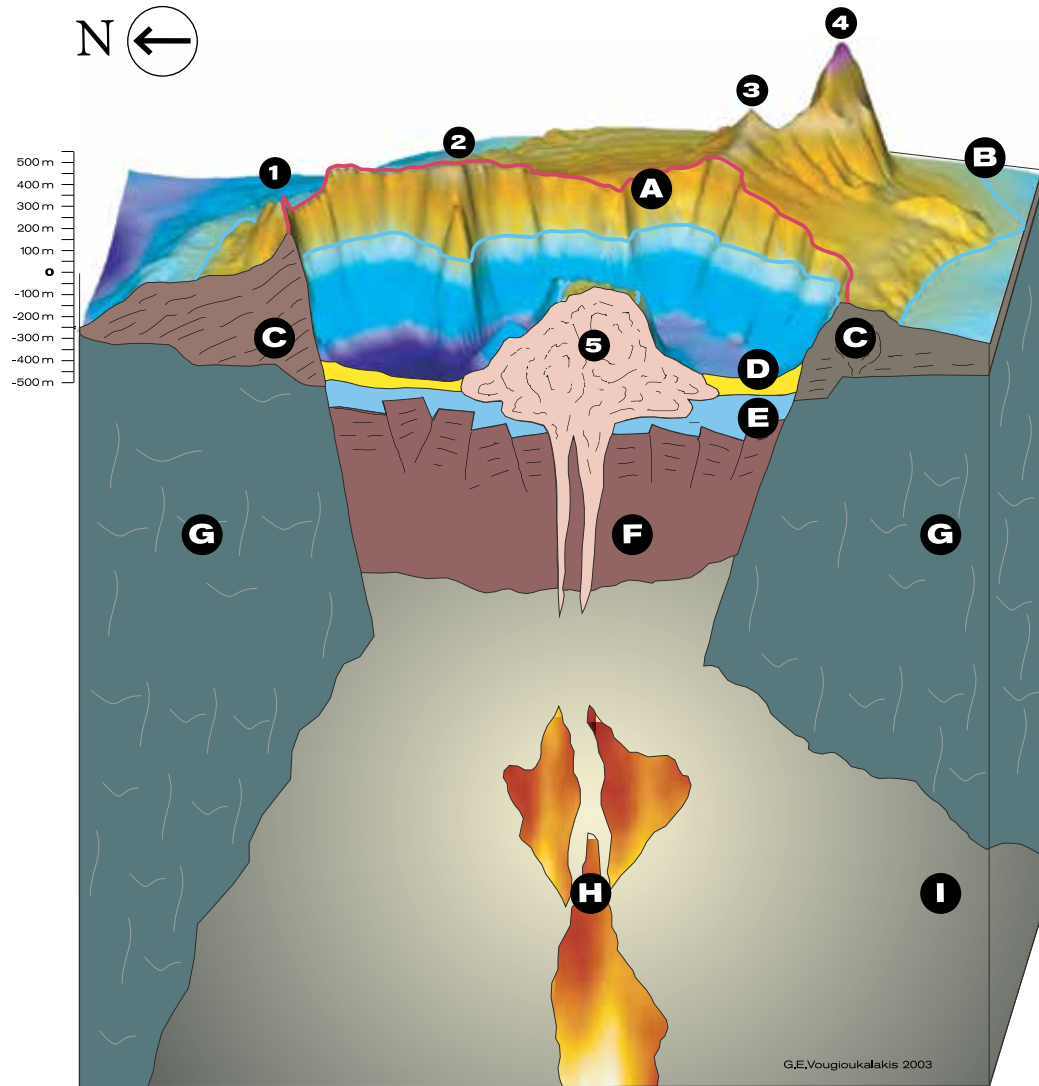
- 1. Santorini island
- 2. Therasia island
- 3. Nea and Palea Kameni post-Minoan intracaldera centers
- 4. Christiana islet
- 5. Christiana basin
- 6. Anydros islet
- 7. Anydros basin
- 8. Kolombo crater
- 9. Anafi island
- 10. Ios island
- 11. Sikinos island

“Huge earthquakes, a dense gas plume charged with pumice and ash rose as much as 36 km into the stratosphere, warm pumice rained down everywhere accumulating as rapidly as 3 cm/minute. That triggered quick evacuation of anyone remaining on the island. . . . Roofs collapsed from loading of pumice and buildings were buried up to their second and third floors: the entire Late Bronze Age landscape was gently covered. Then it got nasty. The entire center of the island collapsed. . . . Sea water entered the vent. Simply stated: water and magma do not mix; rather, they explode. . . . And then there were the volcanic bombs – huge lithic [stone] boulders blasted out from the vent that were deeply buried upon impact with the tephra [ash]. More destruction of buried buildings occurred. Over the next few days, the shape of the island was completely changed – the northern center of the island was either vaporized (this was the site of the vent) or had collapsed to form a huge caldera 400 meters deep and flooded by the ocean; the coastlines were extended outward around the periphery of the island; the surviving land was buried in as much as 55 meters of pumice and ash. What had been a single large island were now three smaller islands. An eruption of such magnitude – one of the largest known, twice that of Krakatoa or Krakatau in 1883 – must have caused great havoc in the region. Ash fell from the Nile Delta to the Black Sea with thickest accumulations towards the east of almost a meter on Rhodes and Kos. . . . Tsunami, dozens of them, radiated out in all directions. . . . Rafts of pumice floated throughout the Aegean and eastern Mediterranean Seas for years, providing a source of material for tools and construction material.” Silence then reigned for centuries.



SANTORINI TODAY
 3D topo map created by:
 N. Androulakakis, G. Vougioukalakis - I.G.M.E., ISMOSAV (Institute for the Study and Monitoring of the Santorini Volcano)

- A. Caldera rim of the “Minoan” eruption
- B. Shoreline
- C. Nea and Palea Kameni post-Minoan intracaldera centers
- D. Therasia island
- E. Aspronisi



Santorini. The explosion of 1925-26.

Opposite page: Santorini, Merovigli. This helicopter-based photograph captures the architectural uniqueness of Santorini: Contemporary settlements in a symbiotic relationship with sites formed by prehistoric volcanic activity.

SANTORINI VOLCANO SECTION
(Created by: G. Vougioukalakis - IGME (Institute for Geological Studies), ISMOSAV (Institute for the Study and Monitoring of the Santorini Volcano))

- | | |
|----------------------------|-------------------|
| A. Caldera rim | 1. Mesa Vouno |
| B. Shoreline | 2. Skaros |
| C. Volcanics | 3. Pyrgos |
| D. Recent deposits | 4. Profitis Elias |
| E. Minoan pumice | |
| F. Fragmented volcanics | |
| G. Pre-volcanic basement | |
| H. Magmatic chambers | |
| I. Thermometamorphic rocks | |

Plato's legend of Atlantis (c. 400 B.C.) says that a great ancient civilization "disappeared in one terrible day and night." Recent scholarship has led to a growing belief that Minoan Crete was Plato's Atlantis and that the extremely violent eruption of the volcano at Thera/Santorini, a Minoan outpost, destroyed Minos's thalassocracy, or maritime supremacy, and led to the transfer of power in the Aegean from the Minoans to the Mycenaean Greeks. While a detailed discussion of Plato's legend of Atlantis and its current interpretations is beyond the scope of this book, suffice it to say that more than two thousand books have been written on the subject over the last one hundred fifty years and that dozens of television programs have been broadcast on the search for Atlantis.

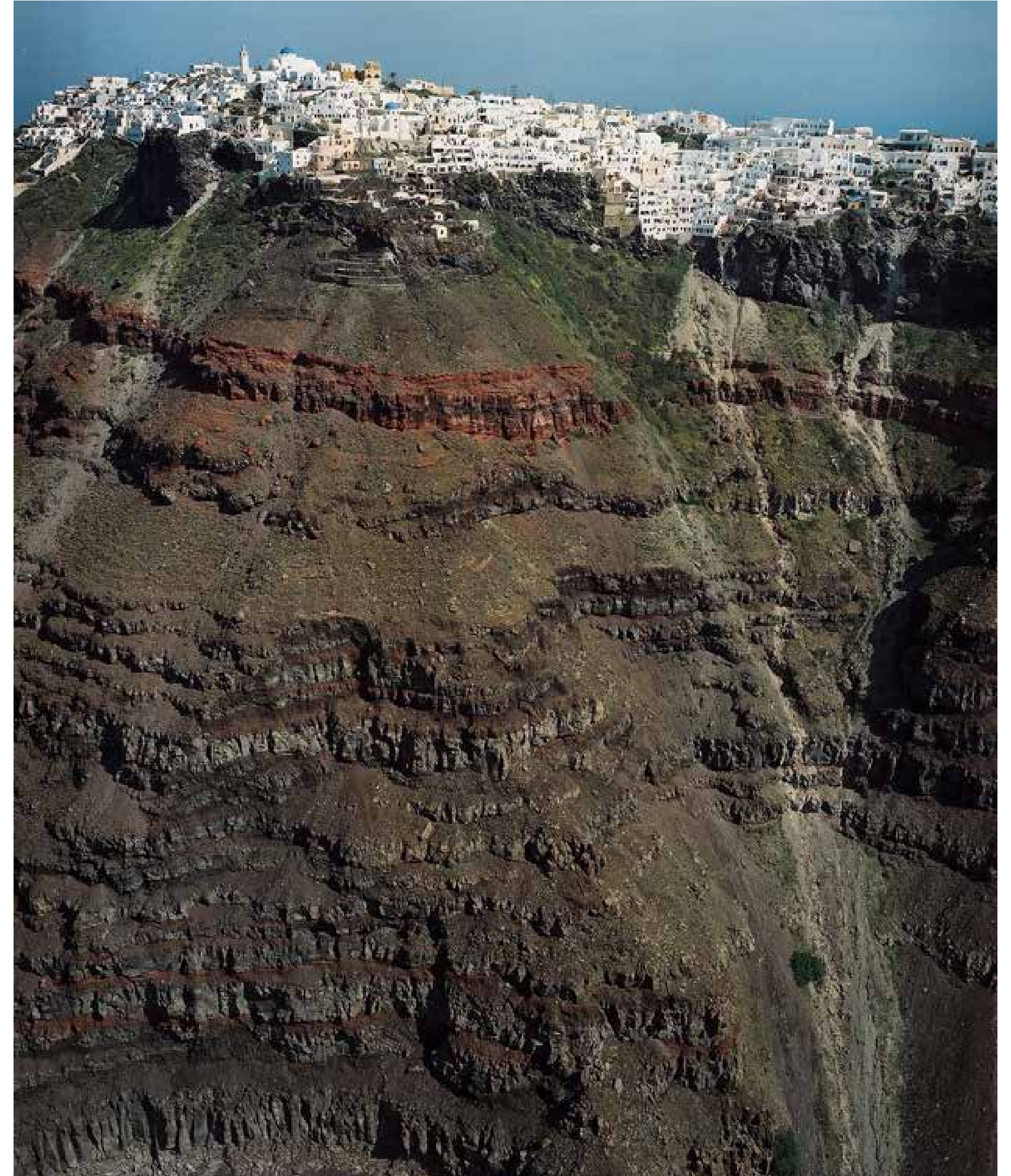
The inhabitants of Greek-Hellenistic settlements in Santorini at Mesa Vouno were apparently unaware of the earlier existence of the nearby Late-Bronze-Age Akrotiri. Save for brief references in Homer, the rest of classical Greece had also forgotten the Minoan thalassocracy. But memories of the Thera/Santorini eruption persist in Greek mythology and in Plato's Atlantis legend, which comes to us from Egyptian sources. From the rich spectrum of Greek mythology come two myths about the Aegean landscape/seascape of the area that are particularly poignant, the stories of Delos the floating island and of Talos of Crete, the bronze giant. Both resonate in our time.

The seed for the Delos story may lie in the pumice blown from the mouth of the Thera/Santorini volcano, which gathered into floating island-sized concentrations that perhaps, years after the eruption, were seen by Aegean sailors as unexplained visual phenomena that interfered with their familiar navigational routes. Their search for an explanation may be responsible for Delos's mythical beginning as the island that drifted through the Aegean until Apollo was born there, when it put down roots and became Delos, the "clear island."

The story of Talos, meanwhile, derives from the Argonaut saga, which probably represents an attempt to rationalize the early Greek voyages of exploration in the Aegean, the Black, and the Mediterranean seas. However, the story may also have connections to the Thera/Santorini eruption. In the saga the Argonauts are trying to land on Crete when they are confronted by the solid bronze giant Talos, who has been given to Europa by Zeus and made the guardian of the island. Moving fast on his legs of brass, Talos begins throwing boulders at the invaders. Terrified by the assault, the Argonauts are fast retreating when Talos, preparing to hurl another of his boulders, scratches his ankle, his one weak spot, on a pointed rock. The break in his skin causes the ichor (an ethereal fluid in the veins of the gods) to flow from him

like molten lead. Losing strength rapidly, Talos falls from his rocky crag with a thunderous noise. Perhaps, as J. V. Luce suggests, the Talos story embodies a residual memory of the Thera/Santorini volcanic eruption: "Thera guards the northern approaches to Crete which would have been used by the early Mycenaean sailors. His frame of unbreakable bronze represents the wall of the newly formed crater on the mountain peak of Thera as it then was. The rocks which he throws are the bombs shot from the vent of the volcano. [Talos's heel] is a subsidiary volcano on the coast of the island, like Cape Kolumbo or Cape Mavrorachidi. He collapses and becomes quiescent when all his ichor has flowed out like molten lead—a reminiscence of the cooling off of lava streams after the end of an eruption."

These two legends offer a glimpse of the important physical and metaphysical roles the Thera/Santorini eruption played in the formation of Greek culture and consciousness. The Atlantis myth suggests that the catastrophic eruption destroyed the infrastructure of Minoan Crete and allowed the Mycenaean Greeks from the mainland to extend their power to Crete, which led to a remarkable interpenetration of the two cultures: Minoan religion left a lasting impress on Greek polytheism. Perhaps the most potent symbol of the cultural conquest is still to be seen in the great relief over the Lion Gate at Mycenae. There the royal lions of the house of Atreus support themselves against a Minoan pillar standing on a Minoan altar base.



SANTORINI MEDIEVAL CHRONICLE

1204 The army of the Fourth Crusade sacks Constantinople. Fragmentation of Byzantine territories

DUCHY OF THE ARCHIPELAGO

1207 JACOPO BAROZZO

Marco Sanudo captures seventeen Aegean islands, most of them undefended. He founds the Duchy of the Archipelago and distributes islands among his friends, to be held as fiefs of the duchy. Santorini is awarded to the Barozzi as a fief.

BYZANTINE RECOVERY

1265 LICARIO

Licario, a knight from Vicenza, under the Byzantine flag recovers for the Emperor several Aegean islands including Santorini.

DUCHY OF THE ARCHIPELAGO

1296 JACOPO II BAROZZO

Giacopo II Barozzo returns and seizes Santorini

1323 NICOLO I SANUDO Fifth Duke

Nicolo I expels the Barozzi

1336 Akrotiri Kastro is handed over to the Gozzadini.

1341 GIOVANNI I SANUDO Sixth Duke

1347 The Black Death. Ships from the Genoese trading colonies in the Crimean peninsula pass through the Aegean Sea and bring the Black Death to Italy.

1361 FIORENZA SANUDO Seventh Duchess

1364 NICOLO SANUDO-SPEZZABANDA Eight Duke

1371 NICOLO III DALLE CARCERI Ninth Duke

DUCHY OF THE ARCHIPELAGO - CRISPI

1383 FRANCESCO CRISPO Tenth Duke

1397 JACOPO I CRISPO Eleventh Duke

1413 Duke Jacopo I, attempts to fathom the caldera but fails.

1415 NICOLO CRISPO Brother of Jacopo I

1420's Buondelmonti map illustrates Skaros Kastro as the only fortification on the island.

1450 FRANCESCO II CRISPO Fourteenth Duke in 1463

1453 Constantinople falls to the Ottoman Turks. During Guglielmo's reign the Turks also overthrow the Greek Despotate of the Morea and the Florentine Duchy of Athens

1457 Eruption of the Santorini volcano

1463 JACOPO III CRISPO Seventeenth Duke

1479 FIORENZA CRISPO Daughter of Jacopo III

1480 DOMENICO PISANI

Domenico Pisani becomes lord of Santorini at the Skaros Kastro. The "heavy shower of stones" episode between the Crispi and the Pisani occurs soon after. Giovanni Crispo occupies Skaros and compensates the Pisani.

1480 GIOVANNI III CRISPO Eighteenth Duke

1485 Bartolomeo dalli Sonetti map identifies three Kastro on SANCTO ERINI: scharo, apanomera, and acortiri.

1500 FRANCESCO III CRISPO Nineteenth Duke

1517 GIOVANNI IV CRISPO Twentieth Duke

TOURKOKRATIA (TURKISH RULE)

1537 KHEIREDDIN BARBAROSSA

Sailing out of the Golden Horn, the Turkish admiral descends upon the Aegean islands. All are taken and devastated including Santorini. In Naxos, Giovanni Crispo surrenders and retains his title as a Turkish tributary.

1563 Piracy has devastated most Aegean islands. A Venetian report mentions that only Santorini and four other islands of the duchy are populated.

1566 DON JOSEPH NASI Twenty-second Duke

Sultan Selim II, heir to Suleyman the Magnificent, names as duke Don Joseph Nasi, a Portuguese-Jewish banker and his financial adviser. Nasi, the last person to hold the title of duke, remains in Constantinople and never visits the islands.

1579 Joseph Nasi dies. The sultan directs that the Ahname of Chios apply to Santorini also.

1617 The latest date by which the Gozzadini are holding on to the Akrotiri Kastro as Turkish tributaries.

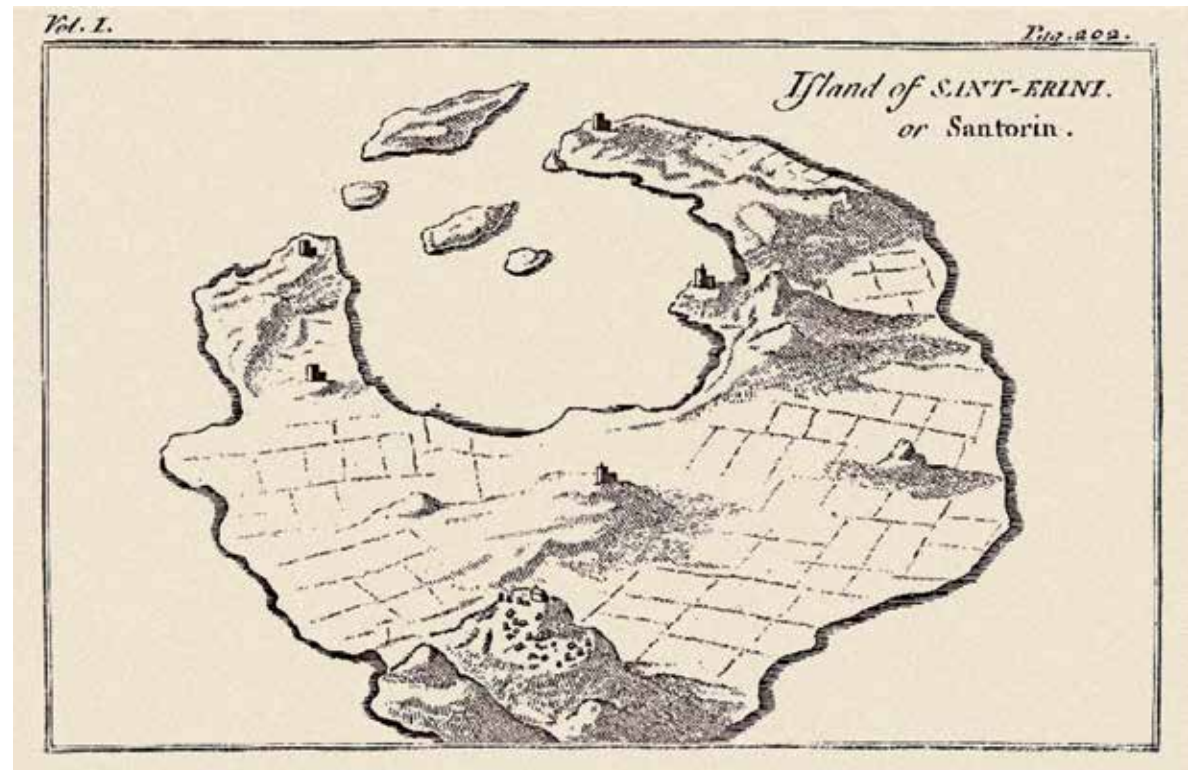
1650 Eruption of Cape Kolumbo volcano

1717 Tournefort map illustrates five Kastro on the island.

1830s End of the era of piracy. Santorini becomes part of the new Greek state.



Bartolomeo dalli Sonetti, Manuscript map of Santorini, from Isolario, Venice, c. 1485



Map of Santorini, Joseph Pitton de Tournefort, engraving, 1717. Note the five drawn and geographically correct but unlabeled fortifications, clockwise from the top: Espano Meria (Oia), Skaros, Pyrgos, Emporio and Akrotiri.

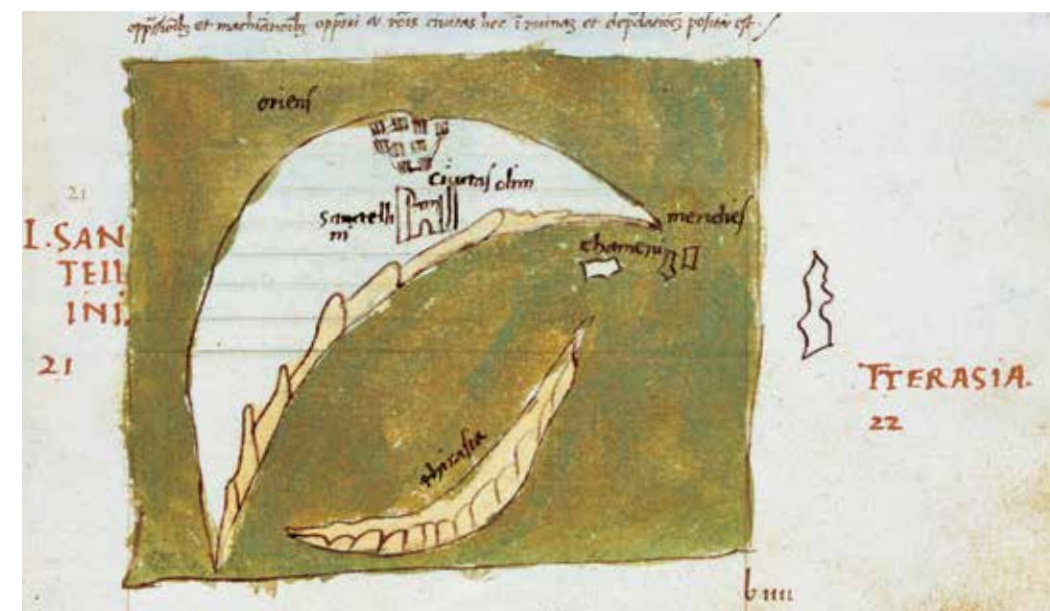
The Santorini settlements we see today lie atop tens of meters of volcanic ash and pumice. Some of them, like Fira, Merovigli, and Oia, are located 250 meters above the water surface of the caldera and have origins traceable to the days of the Duchy of the Archipelago. In general, Santorini's history resembles that of the other Aegean islands controlled by the duchy. Marco Sanudo, the first duke, kept a number of islands besides Naxos for himself and gave others to his comrades-in-arms as sub-fiefs. Santorini was granted to Jacopo Barozzi. Soon after, the island reverted to Byzantine rule but was regained at the end of the thirteenth century by the Barozzi family who built the Skaros Kastro. Two other Latin families, the Pisani and the Crispi, possessed the island in whole or in part during the duchy period. As part of the complex relationships between the leading families of the Duchy of the Archipelago, the Barozzi, who lived most of the time on their estates in Venetian Crete rather than on Skaros, never got on well with their duchy overlords, first the Sanudi and later the Crispi.

Duke Jacopo III gave Santorini away as his daughter's dowry on the occasion of her marriage to Domenico Pisani in 1480. The young couple was introduced to their island at a festive ceremony held at Skaros. Pisani received the key to the fortification and the homage of the Gozzadini family who were lords at the Akrotiri Kastro, one of the four other fortifications on Santorini.

When Jacopo III died, Giovanni III, who was opposed to Santorini being given away from the Crispi, succeeded him, taking immediate action to reverse his predecessor's generosity by landing on the island and occupying Skaros Kastro.

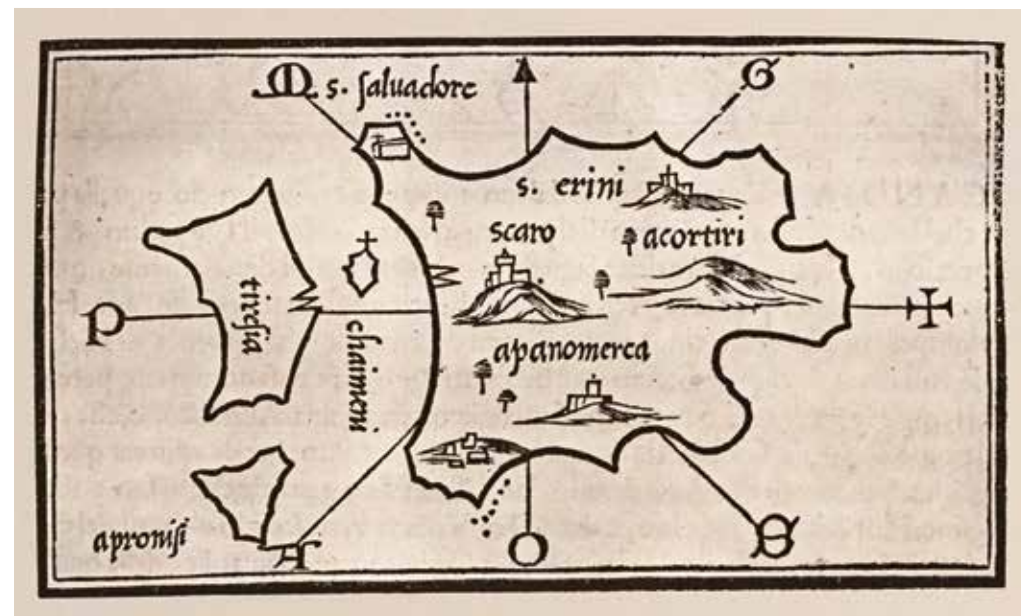
William Miller describes the Pisani effort to recover Skaros as follows: "But when [the Pisani] emissaries arrived at Santorini, they found that John III [Giovanni III] had strengthened the defenses of Skaros, and were compelled to retire ignominiously under a heavy shower of stones." Giovanni was finally allowed to keep Santorini when he agreed to provide compensation to Pisani.

The above incident occurred sometime after the Pisani wedding of 1480, and illustrates the limited means and weapons (stones!) used in the defense of Skaros, a collective fortification built as the vernacular response to the challenge of warding off attacks. For contrast, the incident should be compared with the first siege of the nearby city of Rhodes, which was taking place almost simultaneously during the summer of 1480.



"I. Santellini, I. Therasia" (Santorini and Therasia Islands). Cristoforo Buondelmonti, Liber Insularum Archipelagi, Gennadius Library, Athens, Greece. On this fifteenth-century manuscript map, Skaros Kastro, appears as the only fortification on the island of Santorini. This map of Santorini, including Therasia and Kameni, displays the author's understanding of the volcanic activity that produced the complex, and abstractly but confidently delineates the great rise of the caldera's cliffs, the most impressive diachronic feature of the landscape of this unique island. Another Santorini and Therasia map from a different graphic variation of a Buondelmonti manuscript appears on page 32.

There the detached and up-to-date fortifications of the Knights Hospitaller, built as the formal response to the challenges of defense, withstood successfully the eighty-nine-day-long bombardment of the artillery of the sizeable armies under the standard of Sultan Mehmet II, as described in some detail in the chapter "Rhodes: Fortifications and Sieges."

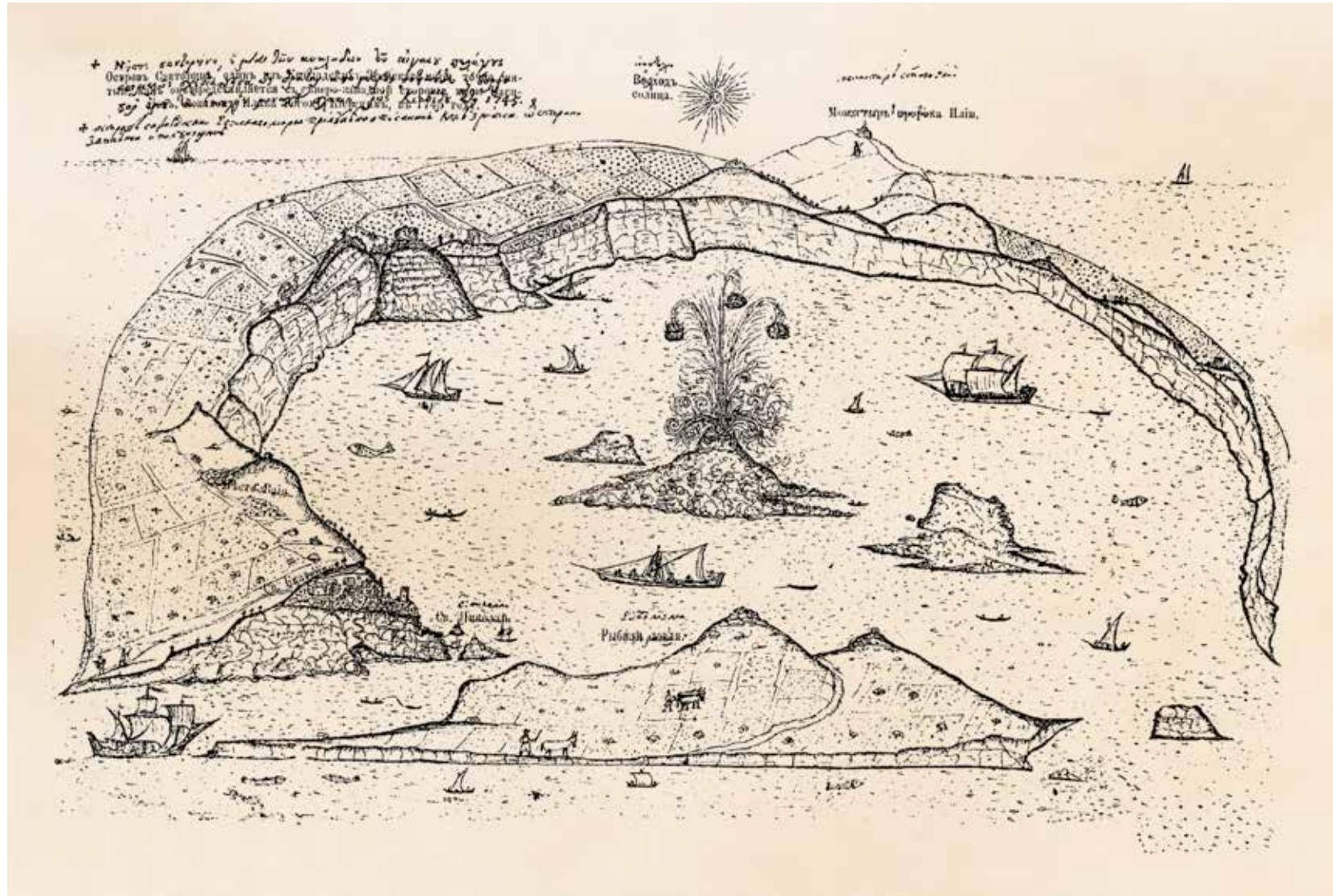


Benedetto Bordone, Map of Santorini, woodblock print from "Libro...de tutte l'isole del monto," Venice, 1528.

Five Kastro on the island make Santorini the host of more medieval fortifications than any other Cycladic island. Three historic maps provide a time reference regarding this unusual phenomenon. The manuscript map of Buondelmonti, dated around 1420, illustrates Skaros Kastro as the only fortification on Santorini, confirming that the Barozzi built it sometime during the thirteenth century. Six or seven decades later, Bartolomeo dalli Sonetti identifies pictorially and in written form three fortifications: Scharo (Skaros), Apanomera (Epano Meria, today's Oia), and Acortiri (Akrotiri). A fourth fortification is illustrated but not specifically labeled.

Much later in a map published in 1717, Tournefort indicates five fortifications on the island. Although the fortifications are not specifically labeled, their correct placement on the geography of Santorini makes it easy to identify them, clockwise from the top, as Epano Meria (Oia), Skaros, Pyrgos, Emporio, and Akrotiri.

Kastelia (plural of Kasteli) is another term for Kastro exclusively used in Santorini. Goulas (or Goulades in plural), unique to the island and dating from the era of the duchy, is a fortified building located either inside a Kasteli or freestanding. Kastelia and Goulades were reserved for the Latin overlords until the duchy collapsed, when they either remained or became the residences of prominent island families adhering to either Roman Catholic or Greek Orthodox Church rites. The peasantry, by contrast, lived in dugout houses in the countryside – houses also unique to Santorini and made possible by the island's layers of volcanic ash, which could easily be carved out to provide habitable, interconnected living spaces.



Vasily Gregorevich Barsky, drawing, "Santorini and the Volcano," 1745. Gennadius Library, Athens, Greece.

Skaros, Santorini's preeminent Kasteli, is discussed at length in the chapter about piracy and in the context of Papadiamantis's story "Ftochos Ayios." Skiathos Kastro, where the story is set, and Skaros Kastro, are examples of Aegean collective fortifications that were deserted in the nineteenth century after piracy declined. A mid-seventeenth-century visitor to Santorini described Skaros thus: "There are five citadels at Santorini. The first is called Kastro. This is where the Dukes and the governors of the island lived prior to Tourkokratia. The Ducal palace was also located there. Today Kastro is the seat of the Latin bishop. Kastro is at a high location and it takes half an hour to reach its external walls. The gates were shut when an enemy invasion was feared. A huge rock rises in the middle of it where two hundred houses had been built. Now they have been deserted and are slowly collapsing." Tournefort, whose very telling drawing of Andros Kastro we will encounter later, visited Skaros at the outset of the eighteenth century during Tourkokratia. His impressions are not very different from those of the earlier visitor, as Eric Forbes-Boyd notes in his "Aegean Quest": "He found there a small town in which most of the gentry lived. In addition to the castle, there were the residences of the Greek bishop, the Latin bishop, the French consul, and a house of the Jesuits." But Forbes-Boyd goes on to say that today it is very difficult to conceive that so much existed here, for practically everything has fallen into the sea, and the rock itself is decaying into red ruin."

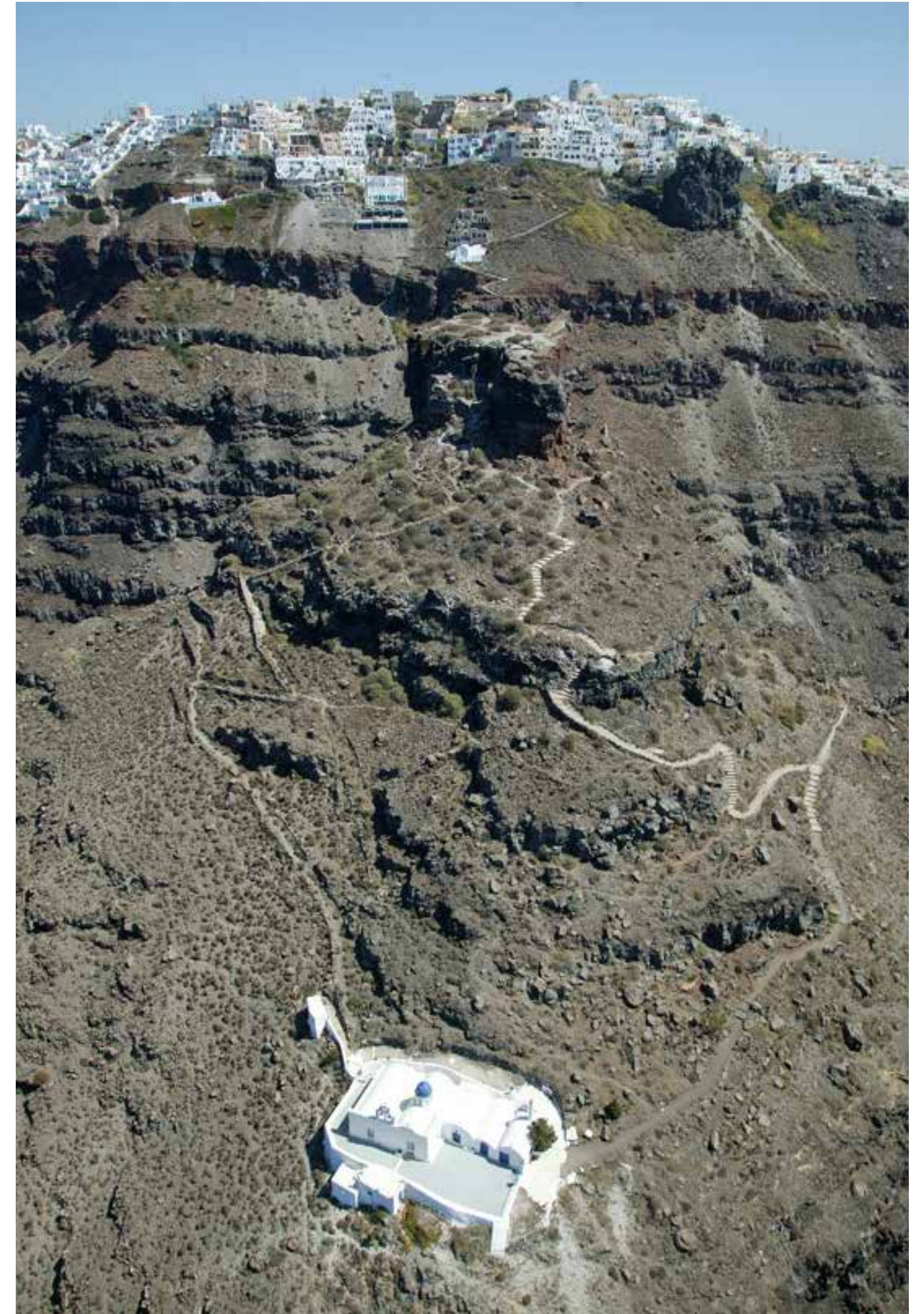
Before Thomas Hope visited Santorini at the end of the eighteenth century and acquired the pencil drawing discussed in the piracy chapter, there were apparently two fortifications on Skaros. The older one, Epano Kastro ("upper citadel"), or Roka, was built on the flat space atop the massive rock; the newer and larger one, Kato

Kastro ("lower citadel"), was built at the base of the same rock, where it faced the hazard of rocks falling from above.

Vasily Gregorevich Barsky (1701-47), the Russian monk whose drawing of the Patmos monastery appears later on, also visited Santorini. Dated 1745, a drawing of the island was rendered in Barsky's characteristic bird's-eye perspective and was executed in his typical "see-think-record" manner. It identifies the promontory of Skaros as well as the Kastro on its summit and a Goulas farther south.

Barsky labeled the spot where today's settlement is as "Fyra" and indicated vineyards and related structures that supported the production of wine. We know that Barsky's intentions were more descriptive than artistic and that, in general, he was quite accurate in drawing what he saw. We can therefore assume that the citizens of Skaros had not moved their permanent residences to Fira in 1745, a shift that would apparently be completed several decades later.

Santorini. The promontory of Skaros is at the foreground and the settlement of Merovigli is at the top of this helicopter-based photograph.





Santorini. The medieval Kastro is located at the center of the contemporary settlement of Pyrgos. At 566 meters, the summit of Profitis Elias, the tallest point on the island, forms the background of this helicopter-based photograph pointed towards the southeast.



Santorini. Pyrgos Kastro, helicopter-based view.

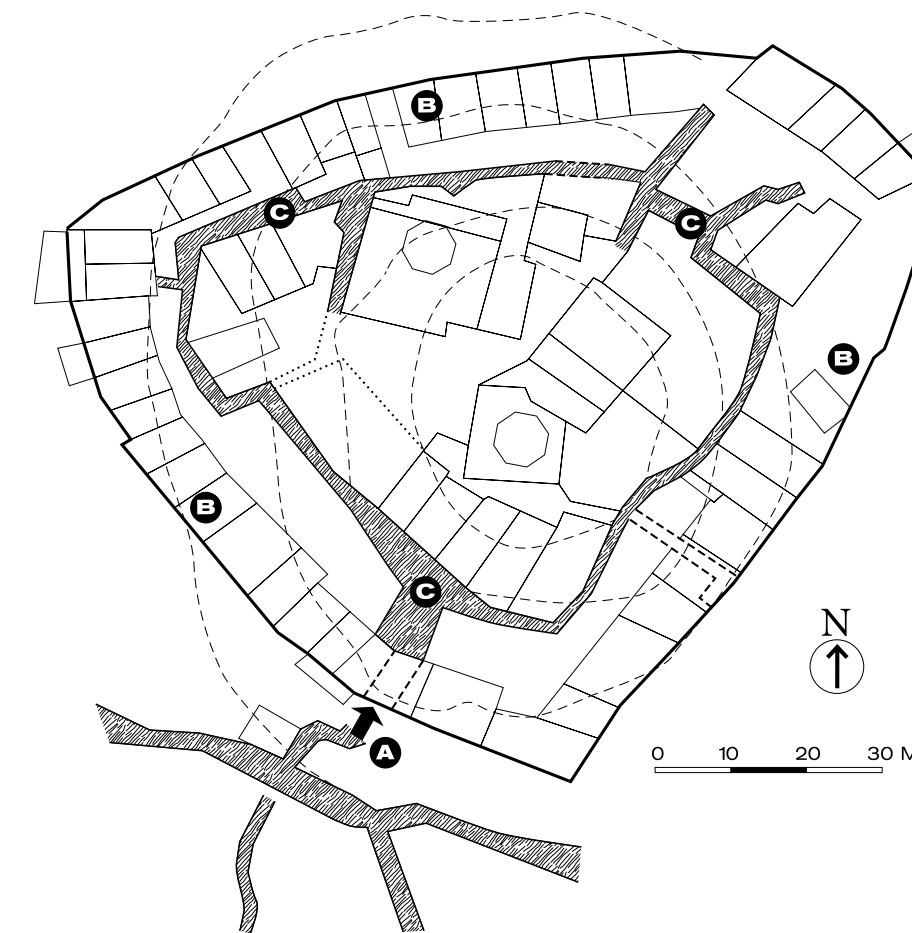


Santorini. Fira from Pyrgos

We can visit and be awed by its extraordinary site, but very little of the physical substance of Skaros Kastro is available to us today. By contrast, Pyrgos Kastro, another of the five Kastelia of the island, is partially inhabited and although damaged by the earthquake of 1956, is in good enough shape to allow us to visit profitably this application of the collective fortification principle in Santorini. Built on an inland site and a hilltop, Pyrgos Kastro was probably completed in two stages, a process reminiscent of the staged building of the earlier Sifnos Kastro. The first stage of Pyrgos consists of a core made up of houses and two churches, one of which replaced

PYRGOS KASTRO DIAGRAMMATIC PLAN

- A. Gate
- B. Second building stage
monochocho units
- C. Stone-surfaced footpath



a central defense tower torn down circa 1735. This replacement reflected the political shift from Latin overlordship to the autonomy tolerated by the Sublime Porte, and it is a phenomenon we see repeated in the Kastro of Kimolos and Astypalaia, respectively predating and postdating the replacement occurring at Pyrgos.



Santorini. Pyrgos Kastro, helicopter-based view pointing towards the coast of Perissa.



Santorini. Pyrgos Kastro, helicopter-based view. The Akrotiri peninsula pointing to the west is in the background.



Santorini. Pyrgos Kastro, gate. Steps and donkey serve respectively as permanent and momentary scaling elements.

The second stage of Pyrgos Kastro is composed of monochoro units attached to one another, forming a ring around the original core and allowing for a single-gated access to the complex on the west side. Behind the gate a narrow stone-surfaced footpath, concentric with the core, provides direct access to each of the monochoro units in the external wall. The roughly triangular plan of Pyrgos Kastro, as outlined by curved walls, responds to the hilltop site of the original collective fortification. A small chapel incorporated into the external wall and part of the second stage of the development of Pyrgos apparently dates from the fourteenth century and provides a possible reference for determining the age of the settlement. However, the oldest surviving written reference to the Kasteli of Pyrgos was made in 1584, a date that fits loosely between the testimonies of the Santorini maps of Bartolomeo dalli Sonetti (c. 1465) and the Tournefort publication of 1717.



Santorini. Inside Pyrgos Kastro. The illustration on the right focuses on a detail from that of the left.

Repeating the general pattern of eighteenth- and nineteenth-century development in the Aegean archipelago and on Santorini in particular, Pyrgos expanded westward and northward beyond the confines of the original collective fortification.

Available historical data, which are sparse, and the incomplete physical evidence regarding the other three Kastelia of Santorini does not seem to contradict what we understand from the investigation of Skaros and Pyrgos Kastro.



Two views of Oia, etchings from "Voyage Pittoresque de la Grece," which Choiseul-Gouffier identifies below as "Apanomeria." Note his depiction of the remnants of the medieval Goulas and fortifications of the settlement in both engravings. Helicopter-based photographs on pages 226, 268 and 269 include the same remnants.



Detail from the "Map of the Gulf and the Volcanic Islands of Santorini." The contemporary Apanomeria settlement of Oia is identified as "San Nicolo" and its promontory as "Apanomeria" (Epano Meria). Another detail from the same map appears on page 32.



Santorini, Oia. Helicopter-based view of the northwestern tip of the island.

Located at the north end of the island, remnants of the fortification of Epano Meria, today's Oia, also known during the Duchy of the Archipelago era as Ayios Nikolaos, are merged and concealed under that unique agglomeration of barrel-vaulted houses, dugouts, ruins, steps, and whitewash, all assembled over a severely inclined colored earth site, a jumbled cluster that would delight the vision of an anarchist.

The 1745 drawing by Barsky and the 1782 Choiseul-Gouffier etching, shown on these pages, identify a fortification, strategically located as a lookout too, at the extreme western tip of Oia. This is also the site where remnants of a Goulas could be identified today.

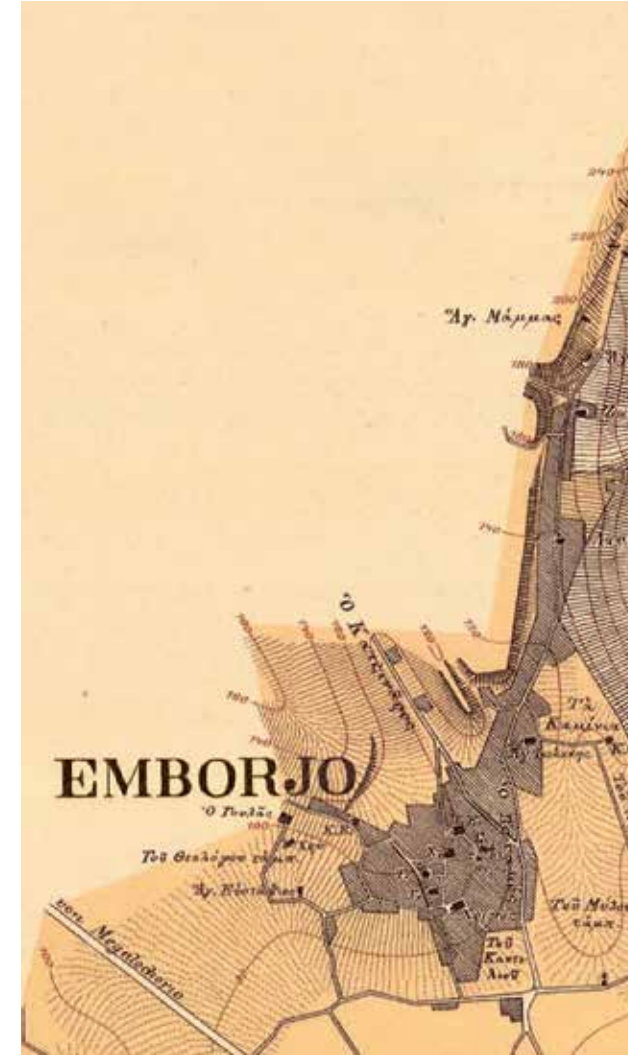
The sparse historical information about the Kastro of Epano Meria (Oia, or Ayios Nikolaos) includes the presence of its D'Argenta lords in 1480 on Skaros Kastro

during the marriage celebration of Domenico Pisani. More recently, Oia saw days of prosperity and physical expansion as the seaborne trade of the island grew during the eighteenth century and afterwards. Today the western and most precipitous edge of Oia, site of the medieval fortification, provides a platform to watch peaceful and magnificent sunsets over the horizon of the Aegean archipelago. Healing the dramatic damages of the 1956 earthquake, the crowds of international visitors attending these joyful sunset-watches have brought back economic prosperity to the island, albeit not without unintended consequences.



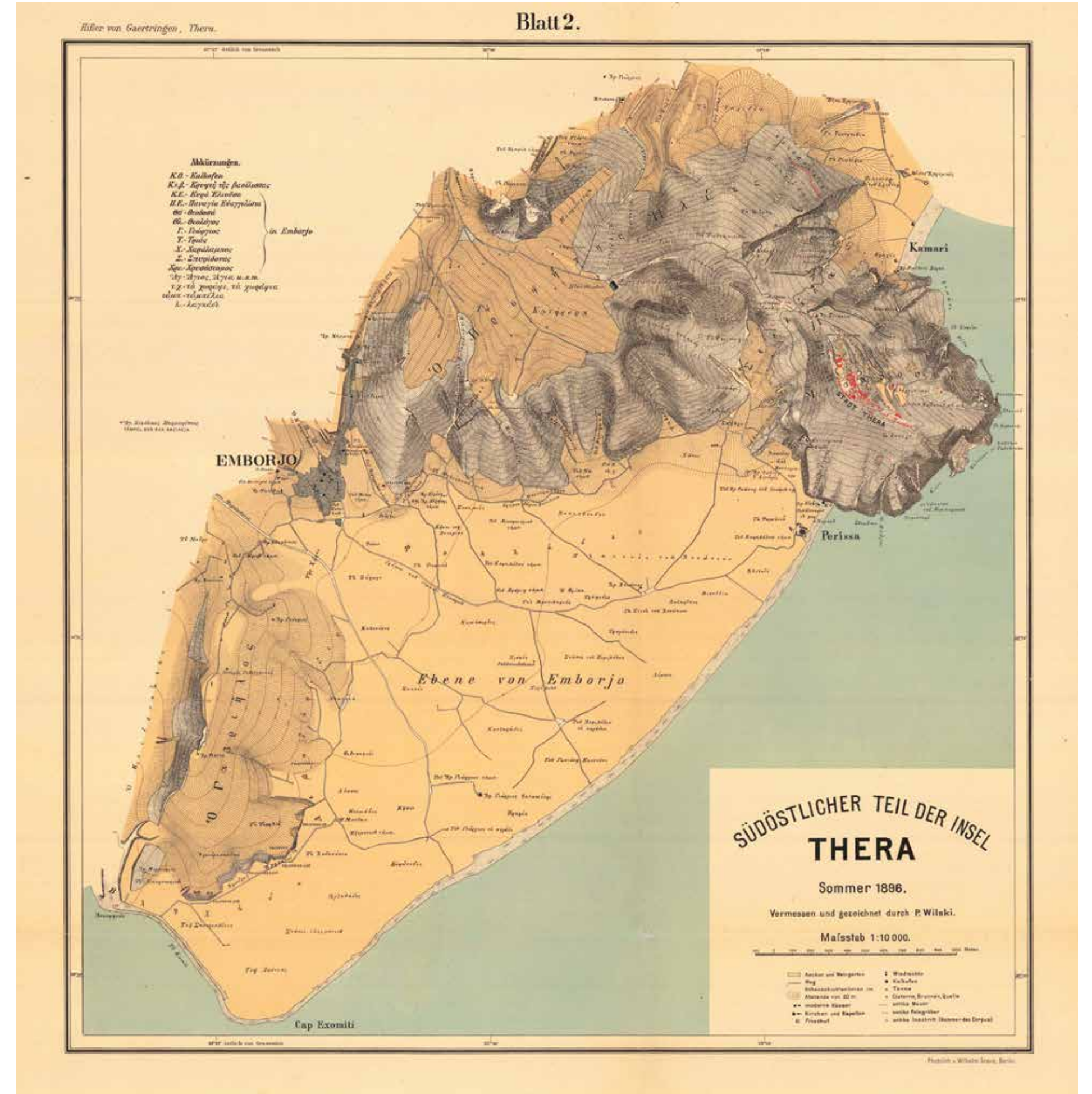
Left: Emporio Kastro, looking south. The medieval fortification is at the center of the photograph, while the contemporary expansion of the settlement appears on the left.

Below: Santorini, Emporio Kastro. Detail from the illustration on the left. Professors Michael Romanos and Carla Chifos of the University of Cincinnati School of Planning have provided all photographs of Emporio and Akrotiri appearing on these pages. Professor Romanos is the Director of the Center for Research in Urban Development, which focuses on sustainable development.



Least studied and with fewer available historical references, Emporio Kastro is reminiscent of Pyrgos Kastro with regard to its basic defense organization. Located south of Pyrgos, Emporio has also expanded beyond its medieval defense perimeter in more recent years.

About as south as Emporio but further west than the other four Kastelia of Santorini, the Akrotiri Kastro is also the nearest to the excavation site of Akrotiri, which in recent decades has revealed the prehistoric Minoan settlement of Thera/Santorini discussed in the early part of this chapter. Less than two road kilometers apart, the two sites bear the same toponym but are separated in occupancy by millennia.



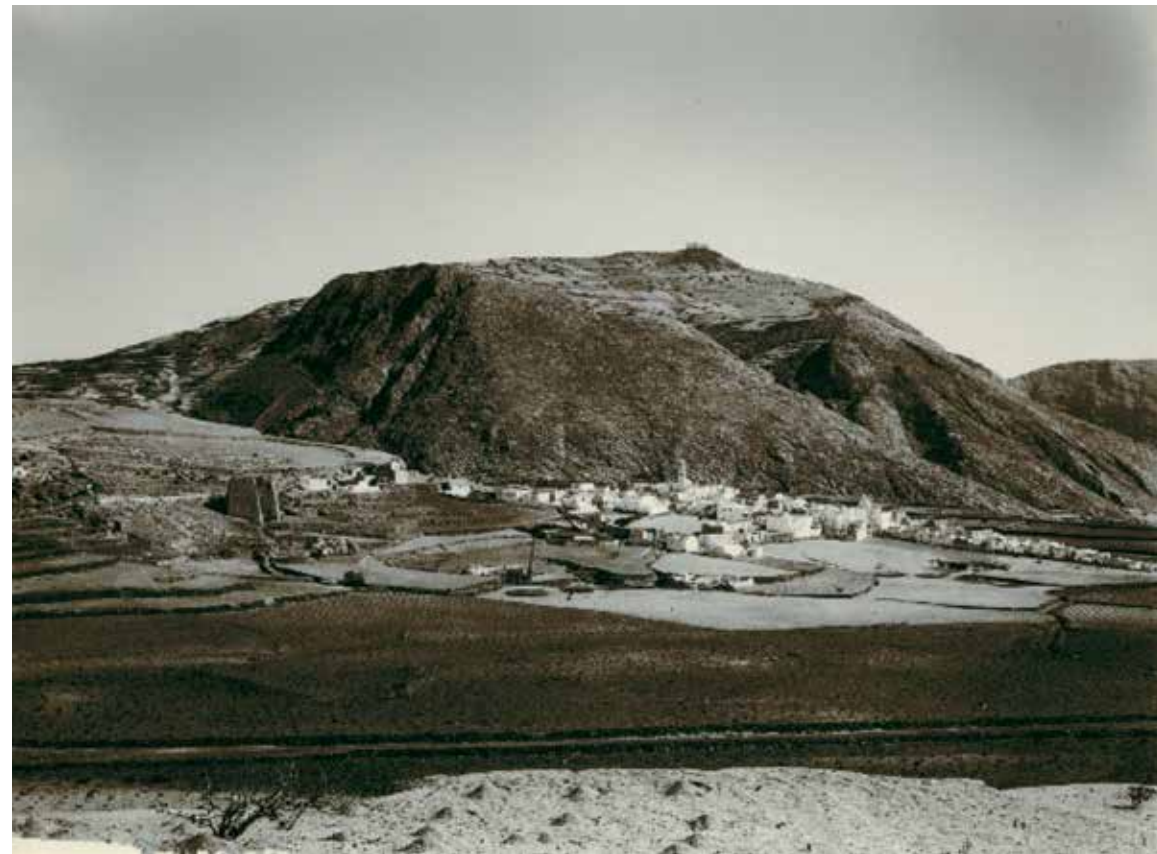
Map of the Southeast coast of Santorini, from Hiller von Gaertringen, 1896. From the collection of the Cyprus American Archaeological Research Institute. Detail from the area of Emporio Kastro is on the left page.



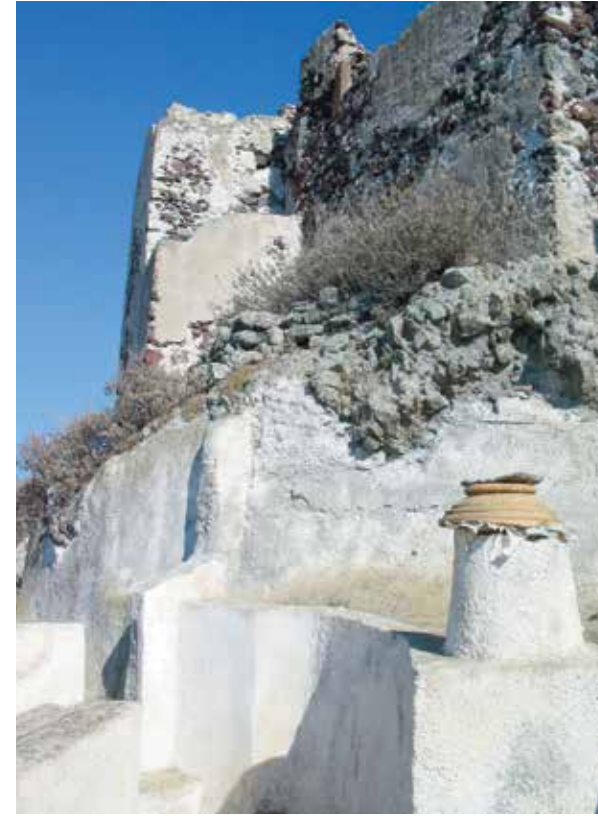
Santorini, Emporio Kastro, pedestrian paths. All three illustrations confirm the high building density characteristic of a medieval Aegean collective fortification.



Santorini, Emporio Kastro and its immediate site, looking south.



Santorini, Emporio Kastro and its immediate site, photograph by the Hiller von Gaertringen mission, 1895-98. German Archaeological Institute, E. Lygnos Collection.



Santorini, Akrotiri Kastro.



Santorini, Akrotiri Kastro.



Santorini, the Goules of Akrotiri and its immediate site, photograph by the Hiller von Gaertringen mission, 1895-98. German Archaeological Institute, E. Lygnos Collection.

Niccolo I Sanudo, duke of the archipelago, granted Akrotiri Kastro to the Gozzadini in 1336. The Gozzadini were still the lords of Akrotiri in 1480 when they offered homage to Domenico Pisani in Skaros Kastro.

Together with the rest of the duchy, Santorini went to the Ottoman Turks in 1566. Despite this radical change of regime, the Gozzadini, in an extraordinary example of feudal rule durability in the Aegean archipelago, held on to Akrotiri Kastro until the year 1617. Confirming further their longevity and also their diplomatic prowess, the Gozzadini held on to the islands of Sifnos, Kimolos, Folegandros, and Sikinos, together with Akrotiri Kastro, as Turkish tributaries until the same early seventeenth century date.

The Bartolomeo dalli Sonetti map of 1485 identifies Akrotiri but not Pyrgos Kastro. We may assume then that the Akrotiri Kastro defense layout, based on a core and

perimeter, served as a prototype to the erection of Pyrgos Kastro. A Goulas in the center of Akrotiri was preserved in good form until the earthquake of 1956. Today, the settlement continues to preserve convincingly its original defense character.

However, the argument that the strength of the Akrotiri Kastro discouraged the Turks from assaulting it even after they had taken over Santorini is not convincing: none of the five Kastelia of Santorini were built to withstand the power of the Turkish artillery which proved so effective in the capture of the heavily fortified city of Rhodes in 1522.



Located in the upper right of this helicopter-based photograph are the remnants of the medieval fortification depicted in the 1782 Choiseul-Gouffier etchings (page 260).



Indispensable elements of the vernacular architecture of the Aegean islands, steps and ramps, mediate ground elevation differences and introduce human scale. The examples are from Serifos, Symi, Sifnos, and Astypalaia.

Following the collapse of the Duchy of the Archipelago, the development of Santorini's economy was fostered by the religious and administrative autonomy permitted by the millet system under Tourkokratia, as discussed earlier. Professor Apostolos E. Vacalopoulos of the Aristotle University of Thessaloniki mentions that after Don Joseph Nasi died in 1579, the sultan directed that the "ahname" (sultan's decree) of Chios, issued earlier, should also apply to the government of the Cycladic islands including Santorini. Among the ahname articles were these stipulations, as recounted by Vacalopoulos: First, "the inhabitants would continue to pay the head tax, but would otherwise be exempt from forced labor." Second, "they might repair their churches." Third, "neither bey nor cadi (titles of Ottoman officials) had the right to molest the inhabitants by depriving them or their descendants of any of their belongings." Fourth, "those who had to go to work carrying torches and lanterns might circulate freely at night."

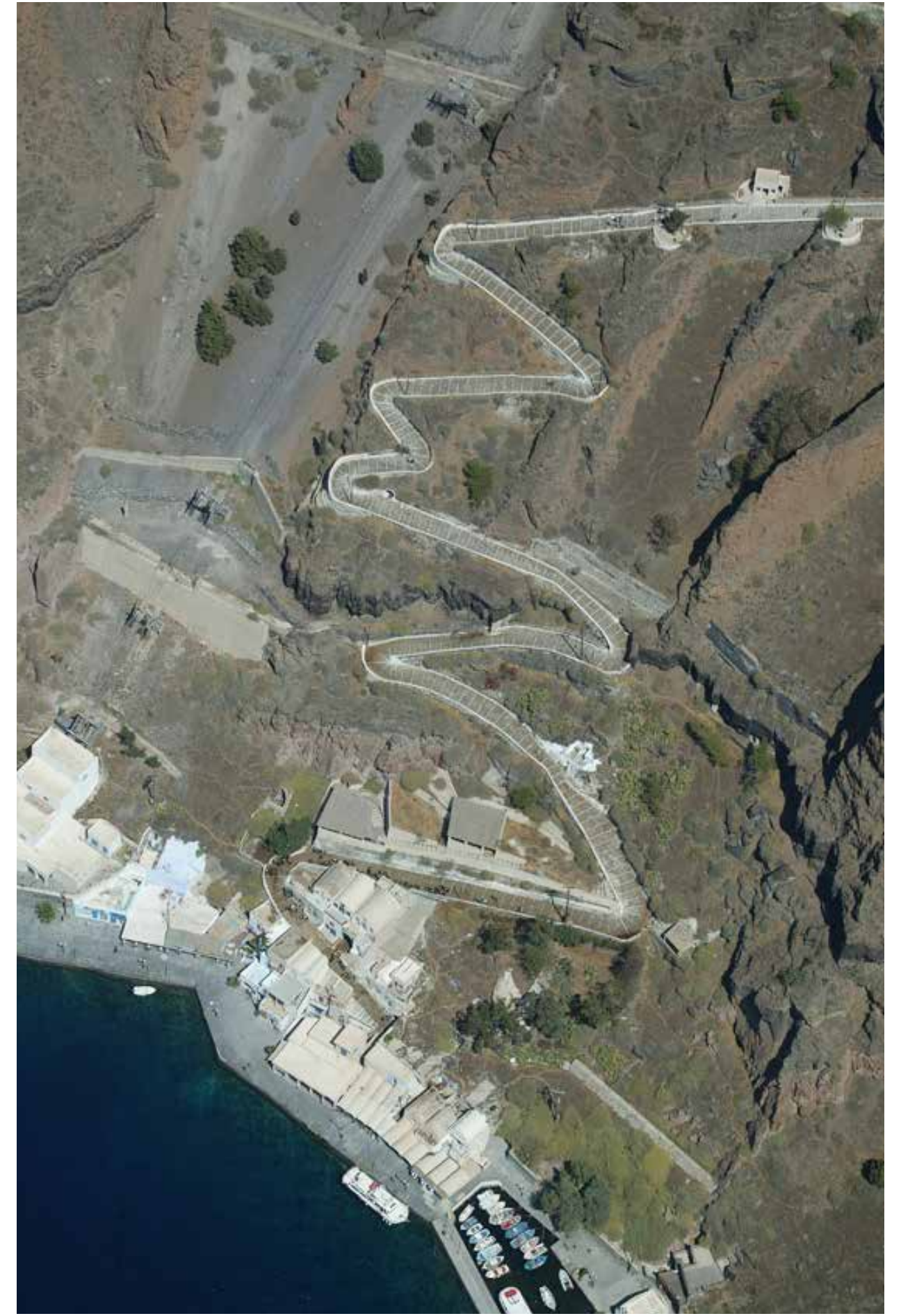
Fifth, "tax-collectors were not to take more than was prescribed by law and custom, nor forcibly confiscate the fodder of horses." Finally, those who had complaints against [Ottoman officials] or even against their own people were to be allowed, if they so wished, to journey to the Sublime Porte itself and seek redress of their grievances there.

The existence of local products for export, primarily prized wines, and the availability of shipyards led Santorini to develop its inter-Aegean trade early on. Eventually the commercial opportunities opened up by the Ottoman conquest in the area during the late sixteenth century led the islanders to develop a substantial merchant fleet that traded in most Mediterranean ports. Commercial activity in Santorini was so extensive by the mid-seventeenth century that France opened a consulate there in 1650. England followed suit in 1706. Russia, Holland, Austria, and Sweden eventually did likewise. By the outbreak of the Greek War of Independence in 1821, Santorini's merchant fleet was the third largest in

the islands, exceeded in size only by those of Hydra and Spetsai.

Not bound by the constraints of a collective fortification, and for reasons of topography, Fira developed during the nineteenth and twentieth centuries as a linear settlement along the edge of the volcanic cliffs, providing its residents breathtaking views of the caldera below. While some citizens of Skaros Kastro were moving to Fira, others were moving to the apparently contemporary and likewise linear settlement of Merovigli, located next to Skaros. Today Fira, whose northern edges touch Merovigli, is the major population center, and in effect the capital of the island.

Starting from about the middle of the length of Fira, a path led to the bay below where sailing ships were loaded with the island's major export, wine, a commercial activity that apparently attracted residents to Fira and that in turn led to its current prominence. Another distinct and admirable part of the vernacular architecture of Santorini, the long downward path comprises a series of nearly six hundred steps and ramps that zigzag, hug, embrace, negotiate, and adjust gracefully to the sloping cliffs of the caldera. The path, a simple linear architectural form, descends the 250 meters of the caldera cliff to engage its immediate site in an architectural conversation of indisputable fluency and elegance.



Santorini. Six hundred steps and ramps lead from the historical port of the island to Fira on the upper right beyond the edge of this helicopter-based photograph. A funicular lift built in recent decades, is on the left of the steps.



Santorini, Oia. At the center of this helicopter-based photograph is the location of a fortification and a Goulas, depicted in the 1745 drawing by Barsky (page 254), and the 1782 Choiseul-Gouffier etchings (page 260)



Santorini. Drawing from "Mediterranean Villages," a book by Steven and Cathi House, two thoughtful and talented architects, practicing in San Francisco, California.

As noted earlier, two building types have determined the urban forms of Aegean island towns: dwelling units and religious structures, namely churches and chapels. It will be remembered that rectangular building forms normally enclose dwelling units, and curvilinear forms enclose churches and chapels.

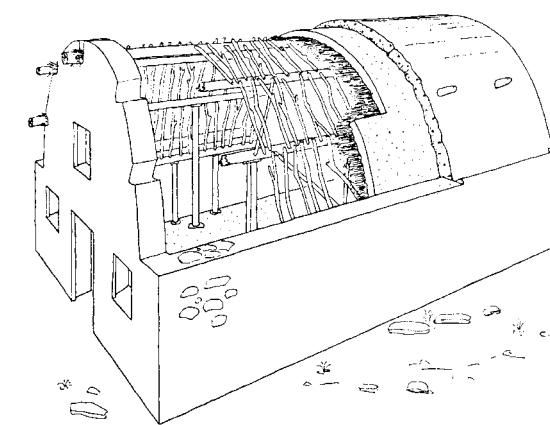
Santorini is a notable exception to this general rule, since curvilinear forms are used there to cover both dwelling units and religious structures. A pivotal reason for this difference is the local abundance of pozzolana and volcanic ash. "Easily quarried, with exceptional hydraulic qualities," as Professor Dimitri Philippides of the National Technical University of Athens notes, this "Theran earth," intelligently used, has generated the typical Santorini barrel vault, a structural element distinctive to the vernacular architecture forms of the island. Mixed with other building materials, pozzolana forms a particularly strong concrete that, when poured over formwork, can span upwards of twelve to fourteen feet without steel reinforcing.

The structural properties of this Theran earth have produced another architectural form found only on Santorini, the dugout mentioned earlier. Dugout rooms at the scale of the monochoro have been tunneled into the vertical face of the pozzolana layers, their upper parts forming a barrel vault. A regular façade wall including a door and three windows controls access to the dugout's interior. The barrel-vaulted geometry of a dugout or of an "above-the-earth" building provides extra ceiling height at the center of the room and creates an elegant elevation on the short side of the monochoro, where two windows flank a door with a third over it in the form of a skylight. Combinations of barrel-vaulted dugouts and "above-the-earth" buildings comprise larger houses and even whole neighborhoods. And as a seventeenth-century visitor noted, the citizens of Santorini cleverly turned a dugout into a church to avoid breaking the sultan's prohibition on building new Christian churches in the Ottoman Empire.



Santorini, Oia. The foundations of the fortification and Goulas mentioned in the preceding page are at the upper part of this helicopter-based photograph.

Axonometric representation of a typical Santorini barrel-vault under construction. Note the door and three-window composition on the short side of the monochoro in the drawing and the photograph on the right. The axonometric is from: Papas, Constantin. "L'urbanisme et l'architecture populaire dans les Cyclades." Paris: Dunod, 1957. The photograph is by the young architect Mitsuru Hamada of Tokyo, Japan, winner of the 2006 Steedman Competition, Washington University in St. Louis.



As they did throughout the archipelago, neoclassical architectural elements made inroads in nineteenth-century Santorini. Rows of pilasters, pairs of columns, and crowning pediments, combined with surfaces of local red volcanic stone, were used in the impressive façades of captains' houses and reflected the prosperity and sophistication of the island's inhabitants and its vernacular builders. In "Kanaves" Professor Philippides explains the reason for Santorini's flourishing economy: "The spread of viticulture on Santorini began in the eighteenth century and reached its peak in the last quarter of the nineteenth. The island's sweet red wine traveled well and so the sizeable mercantile fleet of sailing vessels was born, supplying markets in Greece and abroad. The ship-owners-skipper (kapetanaioi) were usually vine-growers and wine producers, as well as merchants who acquired wine from other producers and promoted it in the market. The organization of viticulture was adapted to the island's peculiarities. A cottage-industrial system prevailed, covering the needs of the family and generating a surplus for trade.

The small farmers formed coalitions with large producers in order to supply the merchants with this surplus. The sailing ships docked in the sheltered coves inside the caldera and the muleteers brought the wine down to them in wineskins, from which it was emptied into barrels."

Collecting wine from across the island at a single location established Fira as the commercial capital of Santorini. The use of mules to transport the wine from Fira down to the sailing ships below demonstrated the need for the town's long sequence of steps and ramps, a construction wonderfully adapted to its spectacular site. Today, with wine production at a minimum, the step-and-ramp system has been superannuated: a cable car runs beside it, and there is a new port farther south in the caldera where car ferries land. Only those fun-loving tourists willing to risk a mule ride now brave the once-indispensable steps and ramps.

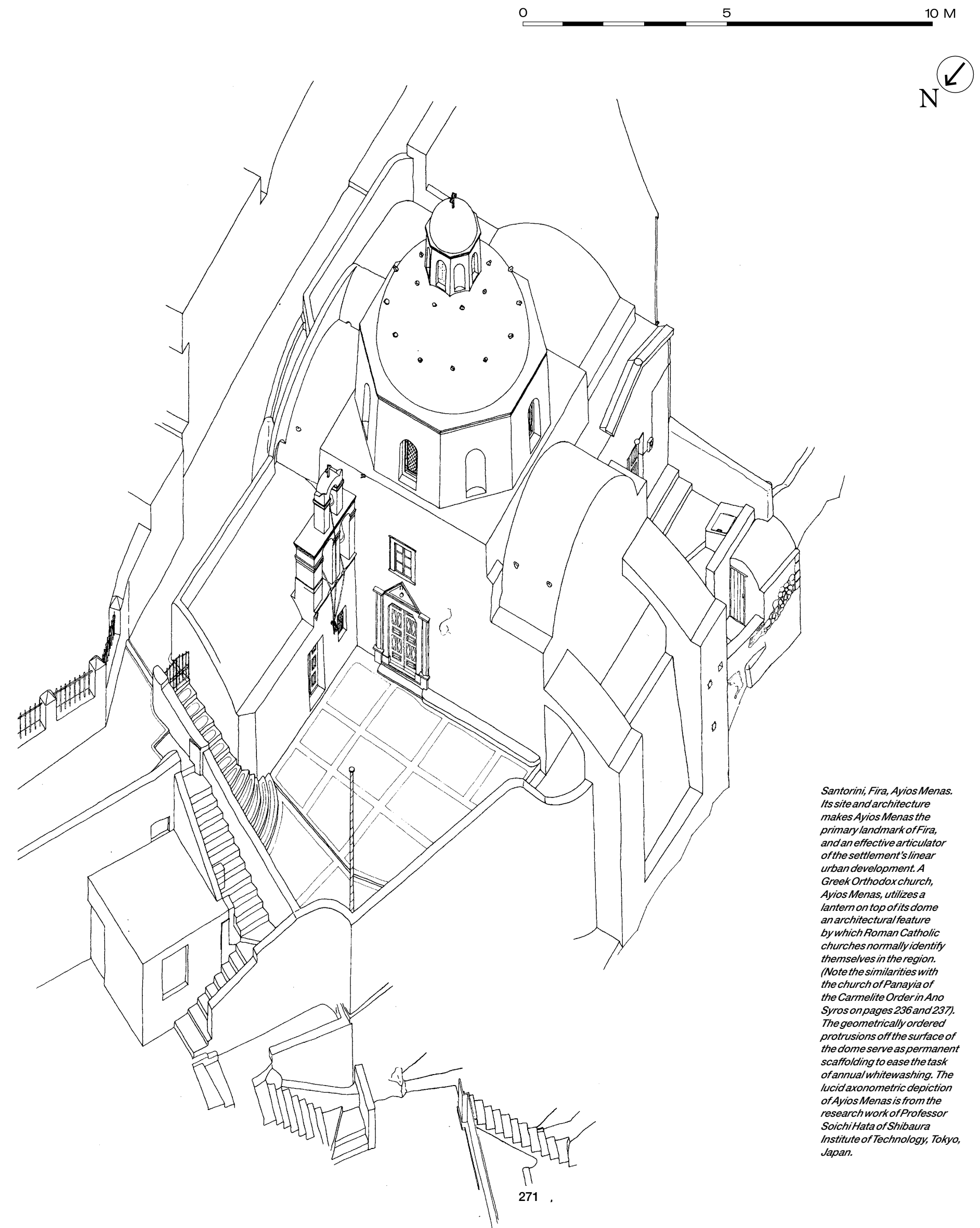
Santorini's fleet continued to flourish after the island became part of the newly established Greek state. In the 1840s the islanders owned more than one hundred fifty vessels of various types and sizes, manned by more than fifteen hundred sailors. The introduction of steamships marked the beginning of a decline, although shipping continued to employ a substantial majority of the island's population as recently as the beginning of World War II. A number of island families eventually came to own merchant fleets operating on an international scale.

The systematic extraction and export of volcanic ash containing pozzolana began during the second half of the nineteenth century and became an important part of Santorini's economy. But the degradation of the island's landscape that the mining caused was incompatible with the emergence of tourism as the island's major industry in the 1970s. This incompatibility made the demise of the mining industry inevitable, and the last quarry finally closed down at the end of 1989.

As if to remind Santorini's inhabitants of the island's volcanic origins, a catastrophic earthquake struck in 1956. In addition to damaging Kastelia, Goulades, and contemporary settlements, the earthquake dealt a severe blow to the island's traditional economy, and as a result the population declined precipitously. Recovery and regeneration, however, began soon. Less than two decades after the earthquake's devastation, the islanders' entrepreneurial instincts and hard work, along with the island's natural attractions and the international appeal of its vernacular architecture, had placed Santorini on the road to recovery and transformed the island into a major Aegean and Mediterranean tourist destination.



Santorini, Fira, Ayios Menas.



Santorini, Fira, Ayios Menas. Its site and architecture makes Ayios Menas the primary landmark of Fira, and an effective articulator of the settlement's linear urban development. A Greek Orthodox church, Ayios Menas, utilizes a lantern on top of its dome an architectural feature by which Roman Catholic churches normally identify themselves in the region. (Note the similarities with the church of Panayia of the Carmelite Order in Ano Syros on pages 236 and 237). The geometrically ordered protrusions off the surface of the dome serve as permanent scaffolding to ease the task of annual whitewashing. The lucid axonometric depiction of Ayios Menas is from the research work of Professor Soichi Hata of Shibaaura Institute of Technology, Tokyo, Japan.

THE VERNACULAR RESPONSE

COLLECTIVE FORTIFICATION

KIMOLOS

The Last-Built Kastro



KIMOLOS

The Last-Built Kastro

The building typology of Kimolos Kastro falls into the category of medieval Collective fortification. Here, as is typical, dwelling units share party walls, forming an external defense perimeter penetrated by only two entry gates. What makes it unique in the category, however, is that it was chronologically last to be built following the disappearance of the Duchy of the Archipelago as an independent political entity, and on the initiative of a Greek Orthodox sea captain instead of a Roman Catholic landlord.

A round island with a diameter of seven kilometers, Kimolos has several traits in common with Antiparos, which is visible twenty-five miles to its northeast. The two islands possess typical serrated Aegean shorelines, and both are small, Kimolos measuring thirty-seven square kilometers, and Antiparos thirty-five. Kimolos's high point is 358 meters, Antiparos's, 300. With only a single town each, both islands are nearly attached to, and have developed in the shadow of, their larger neighbors, Melos in the case of Kimolos, and Paros in the case of Antiparos. (Melos embraces a large, deep and sheltered bay frequently used as a first stop by sailing ships entering the Aegean archipelago from the western Mediterranean and Paros known since antiquity for its high-quality marble, is agriculturally one of the richer islands of the Cyclades). Kimolos produces "Kimolian earth," or chalk, known to every schoolboy and schoolgirl in Greece as kimolia. Kimolos and its neighboring Poliaegos island are covered with volcanic rocks geologically contemporary with and similar in composition to those of Melos.

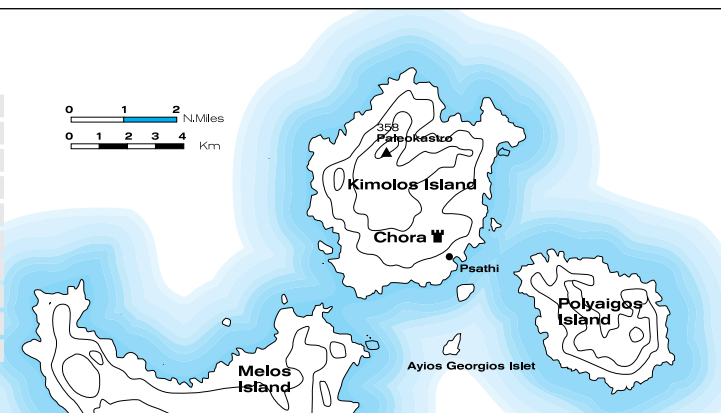
Located about one kilometer from the port of Psathi and seventy meters above sea level, Kimolos Kastro, with its commanding view of the sea and the port below, offered its inhabitants the advantage of higher ground for fighting a landed corsair raiding party. In contrast to other Cycladic Kastro, Kimolos Kastro is not built on the

site of an ancient town, since the island's only such specimen lies mostly under sea at a northwest point of the island, apparently a result of volcanic activity.

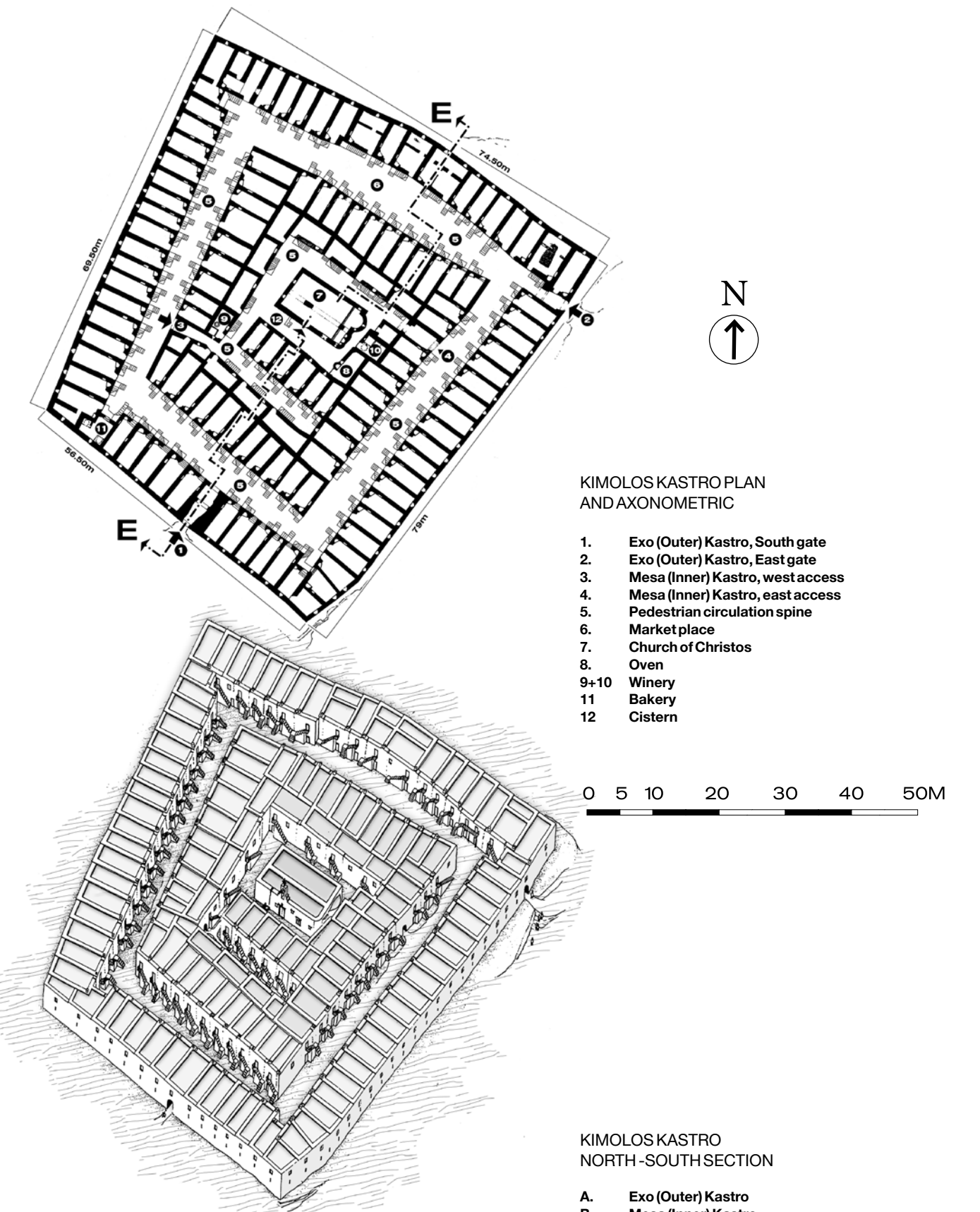
Since the emergence in the 1830s of the modern Greek state incorporating all the Cycladic islands, the town of Kimolos has grown beyond the protective walls of the medieval Kastro. In more recent times, building outside the Kastro has occurred at the expense of the original fortification, as in Astypalaia, for example. Indeed, the Kimolos Kastro, unlike the Antiparos Kastro, ceased long ago to function as the core of the present town and is, instead, in the last stages of a long process of abandonment by its inhabitants. Particularly in the inner core, roofs have caved in, walls have collapsed, and windows and doors have rotted away. Sad as the situation is, enough physical evidence survives to allow for a fairly accurate understanding of the Kastro's likely origins as an application of the collective fortification principle. Built approximately one hundred fifty years after the Antiparos Kastro, in its conception and application Kimolos illustrates continuity as well as change in the vernacular architecture character of the Cycladic Kastro.

KIMOLOS ⓘ GENERAL INFORMATION

| | |
|-----------------------|--------------------------------|
| Prefecture | Cyclades |
| Location (Kastro) | 37° 47' 29" N 24° 34' 31" E |
| Distance from Piraeus | 166 km (89 n.miles) |
| Area | 37,426 km ² |
| Dimensions | 7,5 km long, 7 km wide |
| Shoreline | 38 km |
| Highest Elevation | 358 m (Paleokastro) |
| Permanent Population | 838 people (2001) |
| Port | Psathi |



Opposite page: Kimolos, Kastro. Helicopter-based photograph. North is on the left. The town of Kimolos has grown in all four directions around the medieval Kastro.



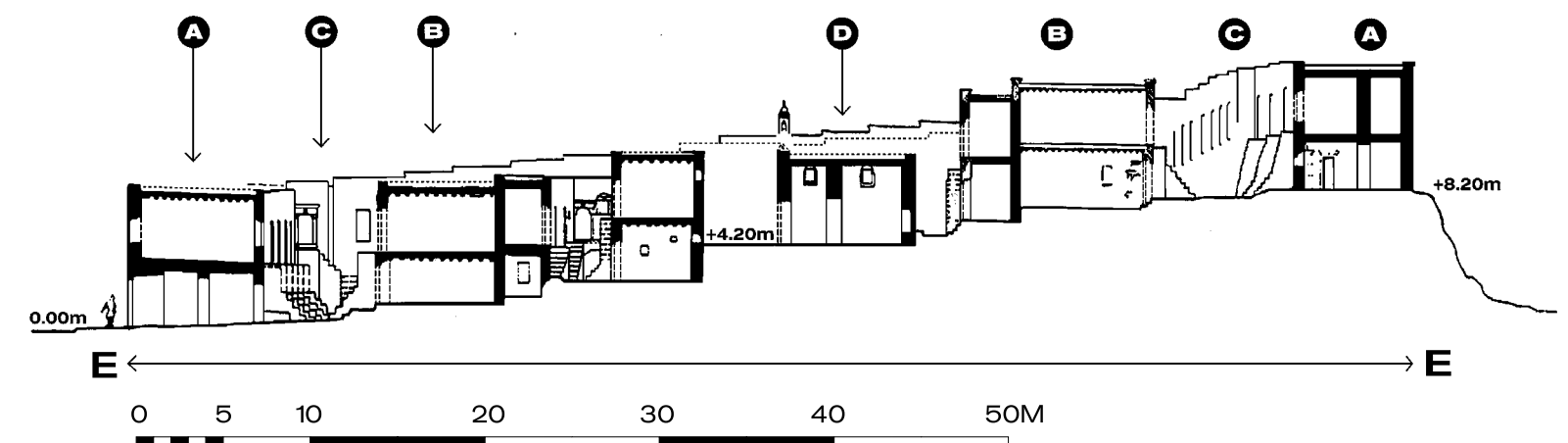
Attached to each other by their long sides, the 123 units of horizontal habitation on each of the two levels of the Kimolos Kastro compose two concentric quadrilateral building blocks. Defined by imperfect lines, the four unequal sides of the external building block form an enclosure whose longest side measures seventy-four and one-half meters and its shortest, fifty-six and one-half. The external enclosure, or Exo (outer) Kastro, is the defining element of this collective fortification and allows entry through two gates, one on the east wall, the other on the south. Both gates lead to a four-sided, open-air space, a public street that mediates between the two concentric building blocks. This street functions as an internal pedestrian circulation spine for the fortification, as it provides access to dwelling units on all four of its sides. Massive masonry steps become the “joints” that connect the spine to the upper-level horizontal units.

Completing the plan of the fortification is the Mesa (inner) Kastro, comprising four sides of dwelling units and an appendix-like element of six units and the church of Christos standing free at the center of a small internal enclosure. As it mediates between the two concentric building blocks, the public street, together with the

masonry steps on both sides, gives credence to the observation that the Kimolos Kastro was built in one stage rather than two, as the Exo (outer) Kastro and Mesa (inner) Kastro definitions might appear to suggest.

The topography of the site is the primary cause of the irregularities in the external and internal long walls of the Kastro. The inclined site drops eight meters from its north to its south side, contributing significantly to the architectural character of the fortification. An axonometric reconstruction explains the three-dimensional form of the Kimolos Kastro by outlining the roofs of individual units as they descend to follow the slope of the site. The north wall, which rests on the edge of a precipitous three-meter drop, would have been least vulnerable to assault.

Kimolos, Kastro. Helicopter-based photograph looking northwest. Roofs have caved in and walls have collapsed in the Mesa (inner) Kastro, while dwelling units on three sides of the Exo (outer) Kastro are still inhabited. The church of Christos in good repair and lovingly whitewashed is at the center of Kastro.

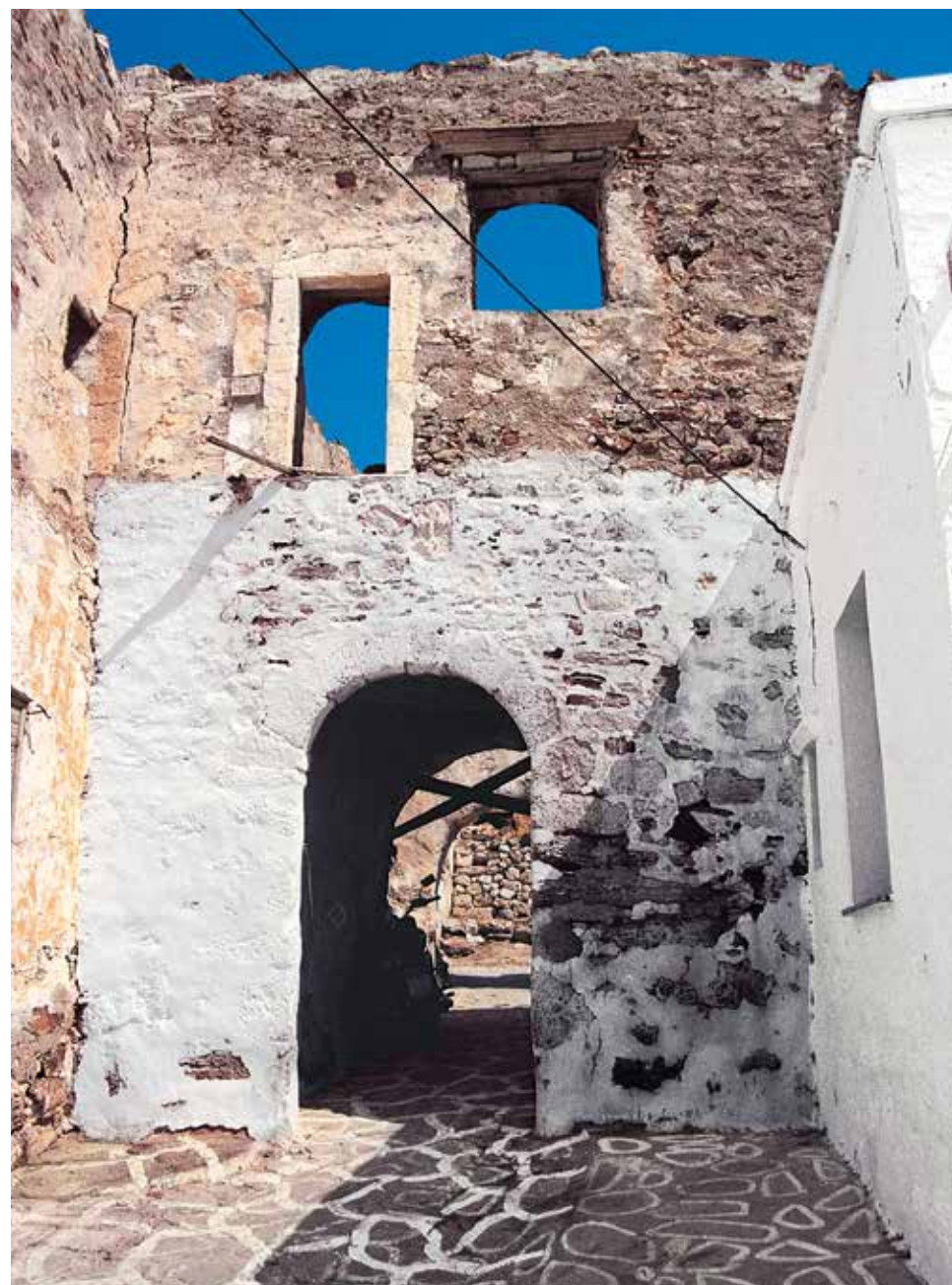




Kimolos, Kastro. South gate c. 1914



Kimolos, Kastro. Rafos family escutcheon dated 1616.



Kimolos, Kastro. South gate



Kimolos, Kastro. East gate



Kimolos, Kastro. East gate from inside the Kastro

Kimolos Kastro, like Antiparos Kastro, is the work of knowledgeable builders. Ordinarily, peripheral walls that are unequal in length and not exactly rectilinear might suggest a less competent execution, but here they are indicative of the Byzantine building tradition, which did not greatly value the perfection of straight lines and exact ninety-degree corners. For example, this tolerance for inexactitude is demonstrated in the plan of the Katapoliani basilica on the nearby island of Paros. Katapoliani had been a building with a major architectural presence in the archipelago since the sixth century age of Justinian and was almost certainly a sight familiar to the eyes and minds of the vernacular architecture builders of the Aegean islands.

What seem to be the builders of the Kimolos Kastro inability to construct straight peripheral walls of equal length may in fact reveal a rather sophisticated understanding of defense. Invaders hoping to breach the defenses of an Aegean Kastro could actually be helped along by the geometric clarity established by a perfectly square enclosure with gates at the mid-point of each side and streets corresponding to those gates. An irregular, non-geometric internal town organization, on the other hand – one characterized by a labyrinth of hidden accesses and unexpected turns, a feature common to all Cycladic Kastro – had the potential to confuse attackers and thus heighten the defenders' chance to repulse the enemy. A maze of irregular streets, cul-de-sacs, and dead ends well known to the locals but unfamiliar to the invaders is the most prominent feature of the urban structure of Aegean Kastro. Without having been specifically planned, it worked well for defense. Thucydides certainly thought so. In his description of the outbreak of the Pelopon-

nesian War he tells of a Theban force, making an armed entry into Plataea, while it was still peacetime and no sentries were on guard:

Now the Theban troops marched into the marketplace and grounded arms there.... As for the Plataeans, when they realized that the Thebans were inside their gates and that their city had been taken over... they were ready enough to come to an agreement... . But while negotiations were going on they became aware that the Thebans were not there in great force and came to the conclusion that, if they attacked them, they could easily overpower them...

They decided therefore that the attempt should be made, and, to avoid being seen going through the streets, they cut passages through the connecting walls of their houses and so gathered together in numbers... . When their preparations were as complete as could be, they waited for the time just before dawn, when it was still dark, and then sallied out from their houses against the Thebans. Their idea was that if they attacked in daylight their enemies would be more sure of themselves and would be able to meet them on equal terms, whereas in the night they would not be so confident and would also be at a disadvantage through not knowing the city so well as the Plataeans did. They therefore attacked at once...

As soon as the Thebans realized that they had fallen into a trap, they closed their ranks and fought back... . Twice and three times they succeeded in beating off the assault, and all the while there was a tremendous uproar from the men who were attacking them, and shouting and yelling from the women and slaves on the roofs, who hurled down stones and tiles; at the same time it had been raining hard all night.

Finally they lost heart and turned and fled through the city, most of them having no idea, in the darkness and the mud, on a moonless night at the end of the month, of which way to go in order to escape, while their pursuers knew quite well how to prevent them from escaping. The result was that most of them were destroyed....

Such was the fate of those who entered the town.

A description of fighting inside the breached walls of a small Aegean island town of the seventeenth century would probably differ only in lacking Thucydides's eloquence.

A very high percentage of the dwelling units, the basic building blocks comprising the Kastro, are of the monochoro, or single-space, type. Long and narrow, and articulated by thick stone masonry walls enclosing less than two hundred square feet of living space per family, these units met the need to house and protect the maximum number of people within the minimum amount of space and thus keep the perimeter as short as possible for more effective defense. Indeed, the Kimolos Kastro, which, unlike that of Sifnos, was built in one stage, was conceived to accommodate many more inhabitants than the Antiparos Kastro – 800 as opposed to 250 for Antiparos.

The geometry of the external enclosure of the Kimolos Kastro dictated the architectural plans of the irregular dwelling units at the four corners. Four units on the north side of the enclosure were deliberately made larger than the rest. Privileged by their size, three of them also assumed prominence by their orientation towards the sun,

the sea, and the widest part of the pedestrian circulation spine – also a privileged public place, since it was apparently the marketplace for the Kastro.

Instead of a central tower as at the Antiparos Kastro, an Orthodox church, that of Christos, was built in the geometric center of the Kimolos Kastro in appropriate architectural scale. This centralized placement of an Orthodox church is symbolic of a major political and cultural change taking place in the Aegean islands by the end of the sixteenth century: the diminishing presence of the Roman Catholic Venetian overlords and their replacement by native Greek Orthodox families.



Kimolos, Kastro. Reconstruction drawing of the pedestrian circulation spine.

Left, Kimolos, Kastro. The pedestrian circulation spine appears on both illustrations.



The Kimolos Kastro was completed after the 1580 treaty that brought Kimolos and a number of other Aegean islands under the control of the Ottoman Turks, who replaced the Venetian feudal system with a measure of autonomy for the island, including such privileges for the Orthodox Church as the right to repair buildings and to ring church bells. In distinction from Melos, Kimolos after 1580 remained nominally the property of the Gozzadini of Sifnos, who nevertheless did not have a presence on the island. The Gozzadini were paying taxes to the Ottoman Turks until 1617 when their ownership role ended as the remaining Cycladic islands except Tenos came under the direct rule of the Sublime Porte.

Seventeenth-century travelers consistently describe Kimolos as a pirate port where goods and money changed hands quickly. At this time, indeed, Kimolos was also known as Argentiera (silver-island), a reference either to the money that circulated constantly in its marketplace or to minor deposits of silver on the island, but perhaps to both. The island offered corsairs a well-protected bay, where their ships could be beached for repair and cleaning, and proximity to Melos with its busy port at the southwestern entry to the Aegean archipelago. These assets, together with the island's newly granted autonomy, allowed local leaders to rise to prominence as sea merchants and, eventually, to build the Kimolos Kastro.



Detail from icon below. Kimolos Kastro and its south gate appear at the center

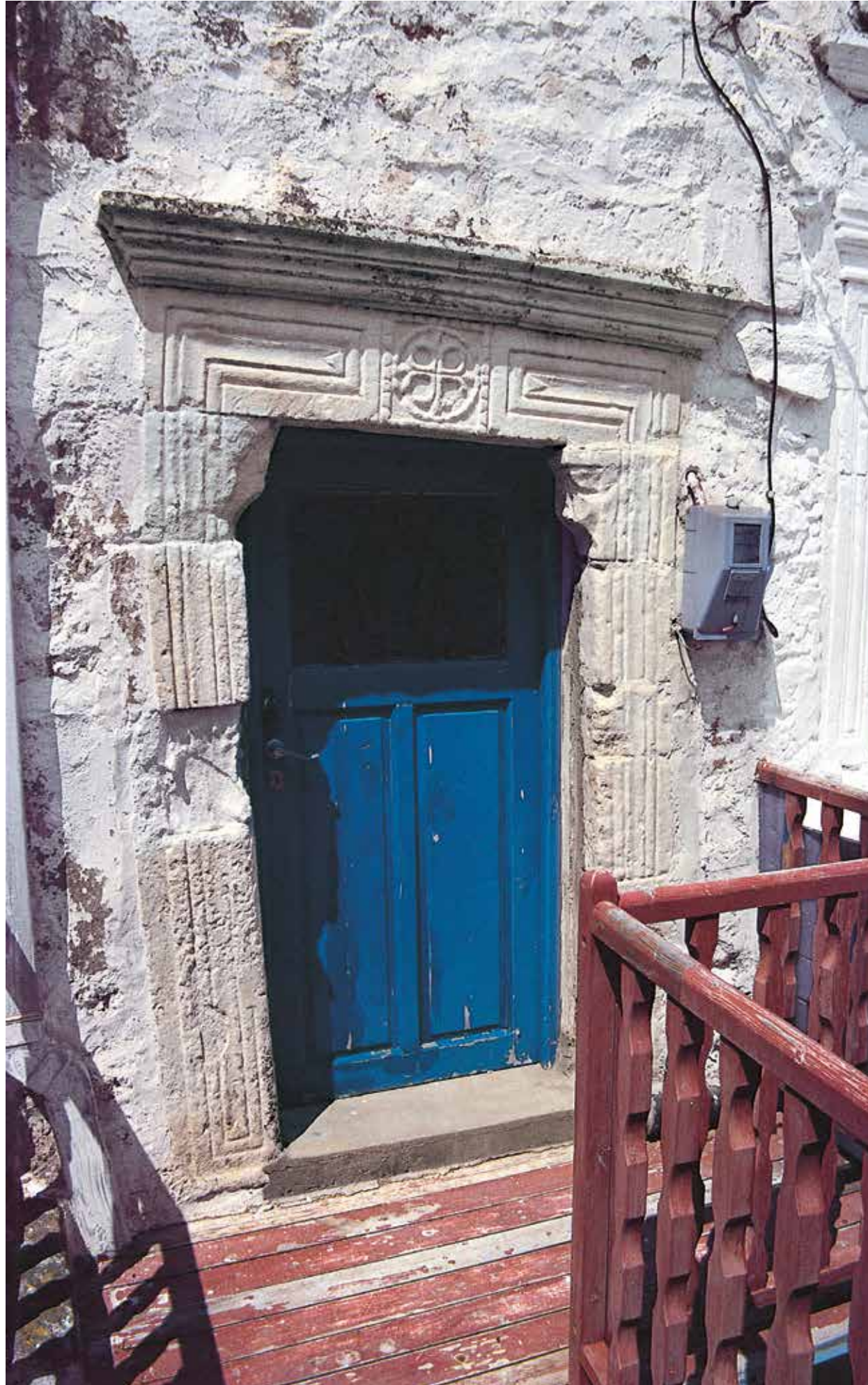
Below, Icon, enthroned Christ with Virgin Mary and Saint John the Theologian in a prayer and dedicatory scene. Byzantine Museum, Athens

A well-researched and persuasive article by W. Hopfner and H. Schmidt from the Bulletin of the German Archaeological Institute presents important information about when the Kimolos Kastro was built and the identity of its builder. Apparently, the Kastro was completed by the end of the sixteenth century and probably by 1592 – that is, before the end of the Elizabethan era in England. The builder of the Kimolos Kastro, so similar in planar form to Antiparos's, was Ioannis Rafos, a Greek merchant from Kimolos who seems to have had strong ties to the Greek Orthodox Church.

An icon from the collection of the Byzantine Museum in Athens that measures 27 x 32,5 centimeters is instructive on Kimolos Kastro and the life of Ioannis Rafos. An enthroned Christ flanked by the Virgin Mary and Saint John the Theologian are depicted in the upper half of the icon. The lower half, the dedicatory part of the icon, is occupied by Ioannis Rafos himself, kneeling in prayer. An impressive galley in front of him, flanked by steps leading to an indispensable windmill, is crowned by the façade of Kastro, the church of Christos on top of the south gate, and the inscription ΚΥΜΩΛΟΣ (a misspelling of ΚΙΜΩΛΟΣ).

Commonly used in dedicatory icons, instruments of navigation are displayed behind Rafos, thus confirming his profession. Island tradition makes it likely that the icon was commissioned by Rafos himself to underline his status as a well-to-do merchant and ship owner as well as the founder of Kimolos Kastro, and to emphasize his Orthodox faith by beseeching Christ, the Virgin Mary, and Saint John the Theologian to protect the island, Kastro, and his ships.





Kimolos, Kastro. Entries to dwelling units are illustrated on the left and on the next page.



Read in the context of Kimolos's shift from Venetian to Ottoman control, the icon also helps to explain the rapid building of a sizable and complete edifice like the Kimolos Kastro. Apparently it served to keep Rafos's crews together during the winter months of inaction by offering them a safe and protected residence. Kastro also kept Rafos's crews assembled and ready to sail at the first sign of spring weather. The units of Kimolos Kastro, more tightly packed than those at Antiparos, suggest that the occupants spent a good part of the year at sea. The four larger units on the north wall may have been assigned to ship captains. The largest of these, closest to the northwest corner, displays above its entry door a coat of arms drawn in the Venetian manner but including in its design a cross of the type associated with the Orthodox Church. This dwelling may well have housed Rafos himself. The western dress he wears in the picture on the icon, as well as the decoration of doors and window jambs in the Kastro's interior façades, reflects northern Italian tastes and implicitly asserts legitimacy by suggesting continuity with the years of Venetian rule. The relative size of Rafos's house, if it was his, and

its incorporation within the main block of dwelling units rather than in a separate tower indicate the change in rule represented by the building of Kimolos Kastro. Rafos, a native Greek rather than a Latin lord, lived within, rather than apart from, the community, a version of the more egalitarian relationship of an Aegean ship's captain to his crew than that of a feudal lord to his serfs. Since pirates were still present on the island, we must assume that Rafos and his crews cooperated with them, an illustration of the blurred line between merchant and pirate in the seventeenth-century life of the Aegean archipelago.

By portraying the Kimolos Kastro, its founder, his galley, and navigational instruments, this icon provides illuminating information on the building of Cycladic Kastro. It may also have captured the earliest moment of what in subsequent centuries became the meteoric rise in presence and strength of Greek merchant fleets in Mediterranean and worldwide waters.

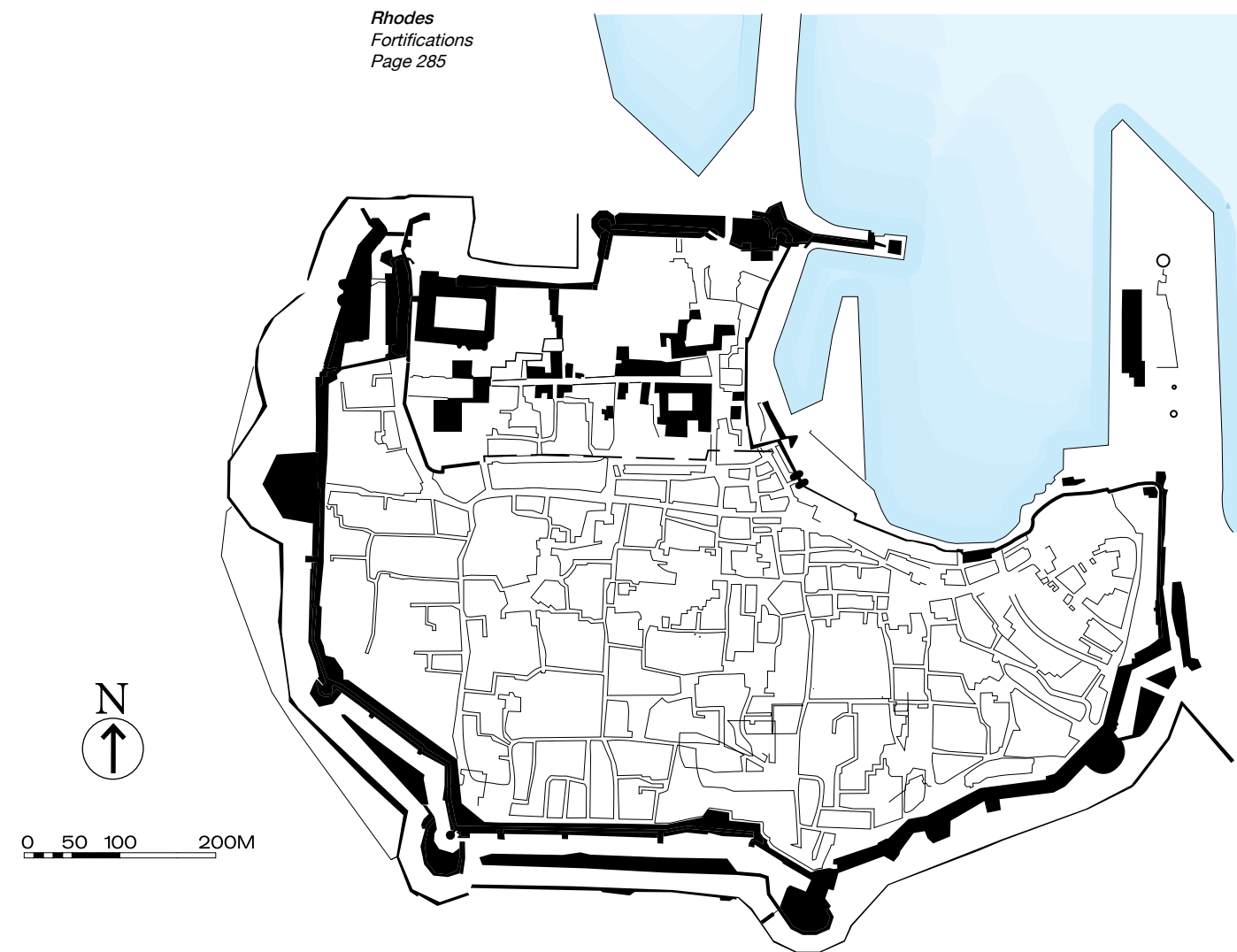
KIMOLOS MEDIEVAL CHRONICLE

| | |
|------------------------------------|--|
| 1204 | The army of the Fourth Crusade sacks Constantinople. Fragmentation of Byzantine territories |
| DUCHY OF THE ARCHIPELAGO | |
| 1207 | MARCO I SANUDO First Duke Marco Sanudo captures seventeen Aegean islands, most of them undefended. He founds the Duchy of the Archipelago and distributes islands among his friends, to be held as fiefs of the duchy. Kimolos becomes part of the duchy an affiliation that continues through Sanudo's many successors. |
| 1347 | The Black Death. Ships from the Genoese trading colonies in the Crimean peninsula pass through the Aegean Sea and bring the Black Death to Italy. |
| TOURKOKRATIA (TURKISH RULE) | |
| 1537 | KHEIREDDIN BARBAROSSA Sailing out of the Golden Horn, the Turkish admiral descends upon the Aegean islands. All are taken and devastated including, apparently, Kimolos. The Gozzadini of Sifnos are allowed to rule Kimolos, as Turkish tributaries. |
| 1566 | DON JOSEPH NASI Twenty-second Duke Sultan Selim II, heir to Suleyman the Magnificent, names as duke of the Archipelago Don Joseph Nasi, a Portuguese-Jewish banker and his financial adviser. Nasi, the last person to hold the title of duke, never visits the islands. |
| 1580 | Kimolos remains the property of the Gozzadini of Sifnos, who do not have a presence on the island however. Travelers also know the island as Argentiera. |
| 1592 | Probable date for the completion of Kimolos Kastro |
| 1617 | The latest date by which the Gozzadini are allowed to rule Kimolos, Sifnos, Folegandros, and Sikinos as Turkish tributaries. |
| 1638 | Pirates plunder and burn Kimolos. |
| 1683-1699 | French pirates are continuously present on Kimolos during the latter years of the Turkish-Venetian war for Crete. |
| 1830s | End of the era of piracy. Kimolos becomes part of the new Greek state. |



THE FORMAL RESPONSE
DETACHED FORTIFICATION
WALLS

Rhodes
Fortifications
Page 285





Rhodes, Amboise gate. Located at the northwest corner of the detached fortifications of the city, and near the Palace of the Grand Masters, the gate bears an inscription with a date MDXII (1512).

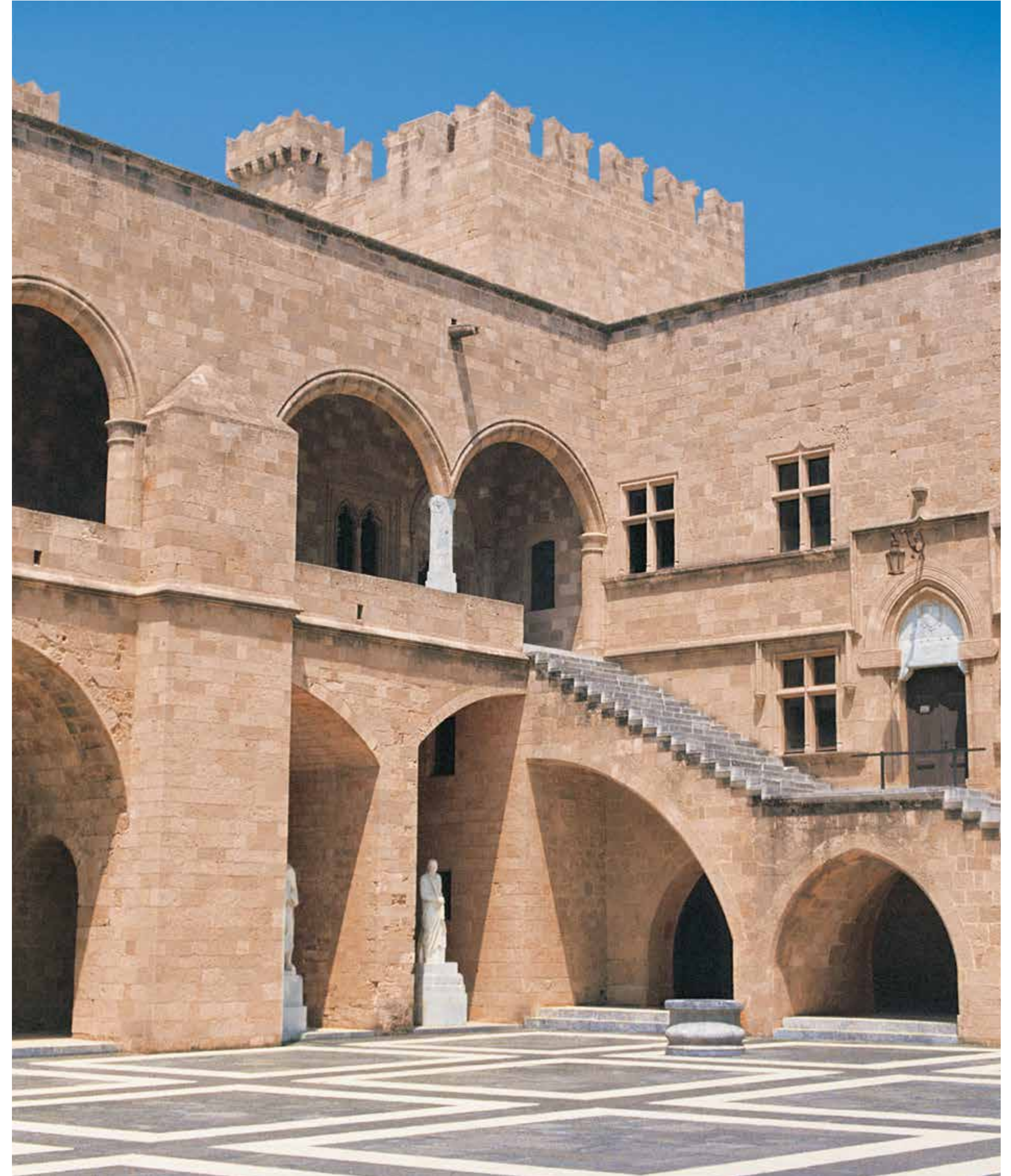
Opposite page: Rhodes, Palace of the Grand Masters, northeast corner of the central courtyard. The result of extensive Italian restoration work of 1937-40, the present building differs substantially from that of medieval times.

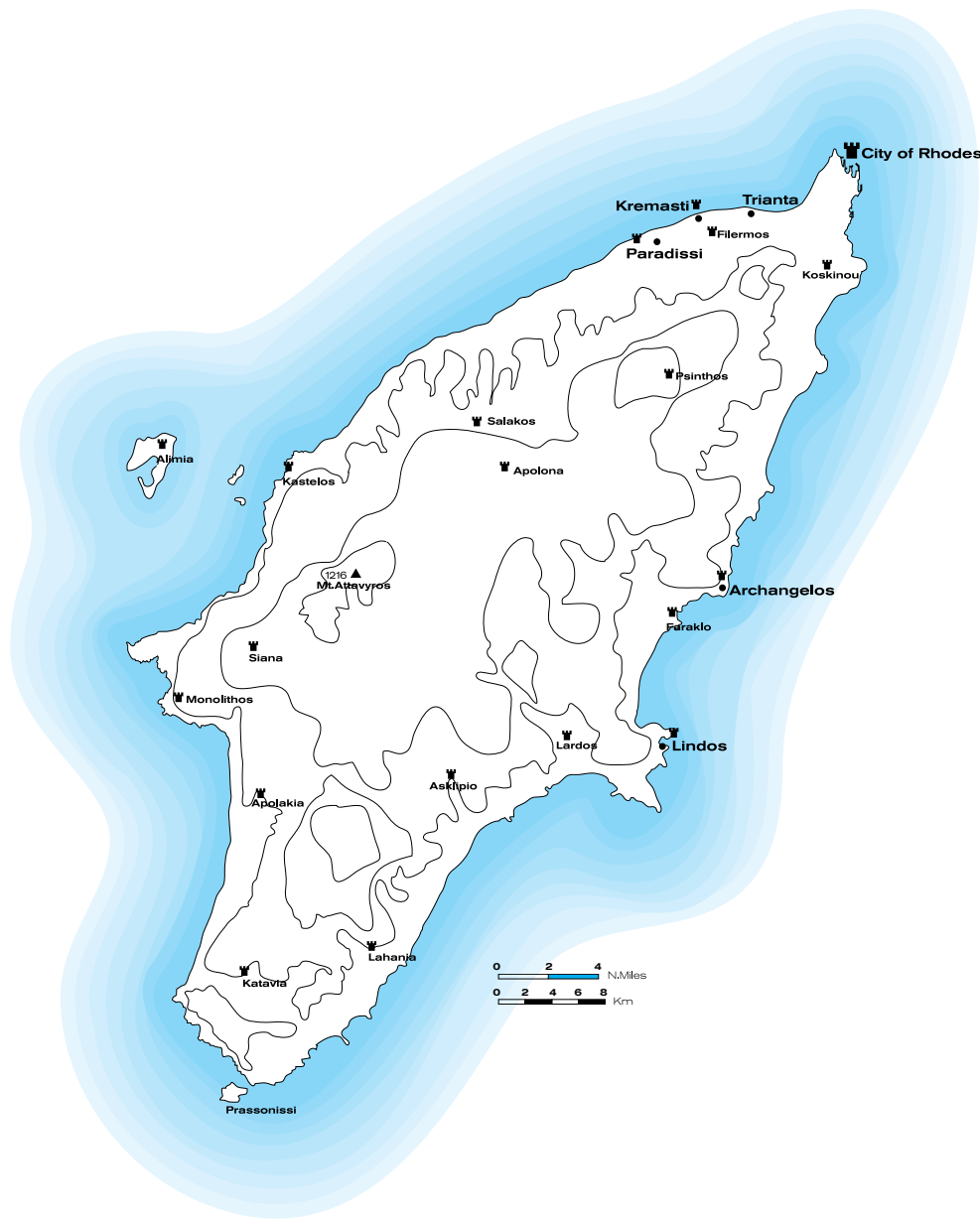
RHODES

Fortifications and Sieges

At 1,398 square kilometers Rhodes is by far the largest island considered in this volume. Its size, together with its many current and historical settlements, places Rhodes at the other end of the spectrum from the typical small Aegean island capable of sustaining only one settlement. As it transverses Rhodes from southwest to northeast, a mountain range rises to the high point of Mount Attavyros, 1,216 meters, located near the middle of the island. Moderately elevated hills cover the rest of the island and provide plenty of fertile soil for cultivation. The rich flora and fauna and the mild climate of this well-watered island contributed to its image as "a green paradise," one from which the Knights Hospitaller regretted being expelled in 1522, particularly when, soon after, they were to live for the next centuries on the small, treeless, and parched island of Malta. All these physical assets, however, have been surpassed in importance by the strategic location of Rhodes close to the Asia Minor coast, astride the sea-lanes crossing in and out of the Aegean archipelago towards the eastern Mediterranean Sea.

Late in the fifth century, and specifically in 408-07 B.C., Lindos, Ialysos, and Kamiros, three Rhodian cities of Homeric fame, pooled their resources to build the city of Rhodes at the northern tip of the island. Planned by Hippodamos of Miletos, the new city followed the orthogonal grid pattern in which straight streets intersect each other at right angles to outline building blocks. The Hippodamian plan underlies the city of today and is revealed in the medieval, but still in use, Street of the Knights. Well-equipped harbor facilities contributed to the importance and prosperity of the island during classical and Hellenistic antiquity.





Cristoforo Buondelmonti, Liber Insularum Cycladum, Bibliotheque Nationale de France, Paris. Fifteenth-century manuscript map of Rhodes. Based in Hospitaller Rhodes, Buondelmonti, a Florentine monk, visited most of the Aegean islands during the first decades of the fifteenth century, possibly under commission to purchase Greek manuscripts. In 1422, as a record of his travels, he produced a manuscript titled "Liber Insularum Archipelagi" ("Book of the Islands of the Archipelago") and enriched his descriptions with a great number of island maps thirteen of which are reproduced in the book at hand. Widely circulated, this manuscript rekindled the interest of the contemporary scholarly community in the Aegean Archipelago. Translated from Latin into several languages, including Greek, the manuscript remained the basis of geographical knowledge of the Aegean archipelago until the end of the eighteenth century.

RHODES **GENERAL INFORMATION**

| | |
|-----------------------|---|
| Prefecture | Dodecanese |
| Location (Kastro) | 36° 20' 26" N 28° 00' 58" E |
| Distance from Piraeus | 456 km (246 n.miles) |
| Area | 1398 km ² |
| Dimensions | 77 km long, 35 km wide |
| Shoreline | 208 km |
| Highest Elevation | 1216 m (Mt Attavyros) |
| Permanent Population | 110.000 (2001) |
| Port | Rhodes |
| Fortifications | Spread all around the island and marked on the map |

The walls of the Hellenistic city of Rhodes resisted successfully the siege of Demetrios Poliorketes, nearly twenty years after the death of Alexander the Great, in 304 B.C. The siege and the erection there, immediately afterwards, of the Colossus of Rhodes, one of the Seven Wonders of antiquity, earned the city a permanent place of distinction in Mediterranean history. Demetrios, son of Antigonos, one of Alexander's generals and successors, won the sobriquet Poliorketes ("the Besieger") for his original use of inventive siege machinery. Tortoise-like battering rams, giant catapults, and a fearsome and much celebrated wheeled tower named Helepolis ("the taker of cities") failed, however, to overcome the spirited defenses of the Rhodians. Ordered by his father to other tasks, the departing Demetrios, in appreciation of their valiant defense, presented the Helepolis tower to the citizens of Rhodes, who used the material and the proceeds of the sale of some

of its parts to erect the Colossus of Rhodes, commemorating the siege and their deliverance.

Representing the Sun-God Helios, protector of Rhodes, the thirty-five-meter-tall statue of Colossus, work of the sculptor Chares from Lindos, was supported by an internal structural skeleton covered by a bronze outer skin, reputedly causing a shortage of bronze during the twelve years it took to erect. Visible to ships approaching the port, the Colossus offered tangible evidence of the prestige and commercial power of Rhodes. It remained so, however, for only sixty-five years when, in 224 B.C., a powerful earthquake toppled the statue. Warned by an oracle not to rebuild it, the Rhodians let the pieces of the statue lay where they fell for centuries, until Arab invaders captured and sold the scrap metal to merchants



"View of the Port of Rhodes," engraving from "Voyage Pittoresque de la Grece," a 1782 publication of the work of Choiseul-Gouffier.

in Syria to be melted down for other uses. There are those who wonder whether the melted metal returned to Rhodes centuries later in the form of Turkish cannonballs fired against the city in the siege of 1522.

When, in 1307, the Hospitaller Knights of Saint John arrived in Rhodes from the east via Cyprus, they found a Byzantine provincial capital important enough to the commerce and communications of the empire to be strongly fortified. Anticipating the inevitable Moslem reprisals for their planned seafaring activities, the knights determined to augment the defenses of their newly acquired kingdom.

Adapting to the context of the Aegean archipelago their previous Holy Land experience with concentric fortification, the knights erected or restored about thirty castles and strong points throughout the island and, more importantly, extended their military presence to a number of the smaller Dodecanese islands, making them in effect the outer defenses of the city of Rhodes. Telos, Kos (referred to by the knights as Lango), Kalymnos, Leros to the north, and Kastellorizo to the east provided them with valuable lookout points for centuries. Indeed, this outer defense perimeter was extended to the Asia Minor coast where

the knights leading a fleet of the Holy League in 1344, including Venetians, Genoese, and the Lusignan King of Cyprus, captured Smyrna, which was to be held by them until it fell to Timur Lenk (also known as Tamerlane) in 1402.

The loss of the outpost of Smyrna was compensated by the erection of the great fortress of Saint Peter further south on the coast across the sea from Kos, on the site of the ancient Greek city of Halicarnassos. The fortress and the town became known as Petroumion (Petroumi in Greek), producing the modern Turkish name of Bodrum.



Repair of fortifications, an illustration from Guillaume de Caoursin's history of the siege of 1480, "Obsidionis urbis Rhodice descriptio." Bibliotheque Nationale de France, Paris.

Rebuilding Rhodes itself and augmenting its existing fortifications were also important to the plans of the knights. The Byzantine governor's palace overlooking the port was reconstructed and became the grand master's residence. The walled Byzantine city in the north, much smaller than the original Hippodamian city, was emptied of the local population and became the convent, or Collachium, of the Order. Inherited from the fifth century Hippodamian plan, the present-day Street of the Knights, a straight east-west avenue became the spine of the Collachium, facilitating traffic between the Order's various inns and its hospital. The arsenal and other related facilities developed on the eastern end of the Collachium near the town port.



"View of the Street of the Knights," Rhodes, by P. J. Witdoeck, 1825. Lithograph from "Monumens de Rhodes," Brussels, 1828
On the right, Rhodes, the two-hundred-meter-long Street of the Knights, looking west.





THE MEDIEVAL CITY OF RHODES

- A. City
 - B. Collachium
 - C. Fortifications (Detached from the city fabric)
 - D. Commercial harbor
 - E. Mandraki harbor
- 1. Grand Master's Palace
 - 2. Street of the Knights
 - 3. Hospital
 - 4. Private Knight Residences
 - 5. D'Amboise Gate
 - 6. St. Antony's Gate
 - 7. St. George's Gate and tower
 - 8. Tower of Spain
 - 9. Tower of the Virgin
 - 10. St. Athanassios Gate
 - 11. St. John's Gate
 - 12. Tower of Italy (Caretto Tower)
 - 13. Akandia Gate
 - 14. St. Catherine's Gate
 - 15. Tower of the windmills (Tower of France)
 - 16. Sea Gate
 - 17. Naillac Tower
 - 18. St Paul's Gate
 - 19. Freedom Gate
 - 20. St. Peter's Tower

Although the Byzantine walls were effective in defending the city from infantry assaults utilizing catapults, battering rams, and the like, the introduction of gunpowder and firearms beginning in the fourteenth century radically altered warfare and rendered earlier fortifications useless. The cannon was invented in the fourteenth century. When iron cannonballs came into general use towards the end of the fifteenth, the cannon became a devastating weapon, as evidenced in 1494 when the French troops of Charles VIII, armed with cannon and cannon balls, smashed through the strongest medieval walls of Italian cities. The new weapon introduced new parameters into the continual contest between defense and offense and dictated fundamental changes in fortification design. As Horst de la Croix, a city planning and fortification scholar, pointed out in the 1970s: "The urgency with which the problem [of the cannon] was viewed is indicated by the fact that not only military men, but artists, architects, and humanistic scholars eagerly applied themselves to the task of finding an answer to the threat."



"Plan of the City and the Ports of Rhodes," from "Voyage Pittoresque de la Grece," a 1782 publication of the work of Choiseul-Gouffier. Note the wall separating the Collachium of the Knights from the rest of the city delineated on this engraving more than two hundred and fifty years after the surrender of Rhodes to the Ottoman Turks.



The Hospital of the Knights. The central courtyard, the architectural core of the building, is illustrated on the left. Part of the four-sided upper level gallery enclosing the courtyard is on the right. This well proportioned, disciplined and convincing building was completed in 1489 to serve the original mission of the Hospitaller Order. Dating from the Hellenistic past of the city, the lion sculpture and the stone projectiles in the courtyard are contemporary exhibits of the Archaeological Museum of Rhodes, which is now housed in this magnificent medieval building.



In this helicopter-based photograph looking north, the medieval fortification walls, massive, extensive, and detached from the city fabric, still dominate the urban landscape of Rhodes. The Collachium is at the green area in the center, with the Carreto tower at the lower right corner of the illustration.



VUE DE LA TOUR SAINT NICOLAS À RHODES.

"View of the Tower of Saint Nicholas in Rhodes," from "Voyage Pittoresque de la Grece," a 1782 publication of the work of Choiseul-Gouffier. The tower illustrated in this engraving, however, is not that of Saint Nicholas, as indicated, but rather of Naillac (brought down by an earthquake in 1863).

Opposite page: The fortified City of Rhodes under attack from an anchored Ottoman fleet and army encampment, an illustration from Guillaume de Caoursin's history of the siege of 1480, "Obsidionis urbis Rhodice descriptio," Bibliotheque Nationale de France, Paris. Published within a few years of the event, including the vivid and informative illustrations of Caoursin, a vice-chancellor of the Order and an eyewitness of the siege, the history spread the fame of the Knights all over Europe and became a very successful instrument of recruitment for the future defense of the island. Note the fortification walls as they are detached from the fabric of the city of Rhodes.

Histories of the Sovereign Military Order of Saint John of Jerusalem, Rhodes, and Malta refer to three major sieges. The first two took place in Aegean Rhodes, the third in Mediterranean Malta, all three occurring within a span of eighty-five years, a period of relentless and unstoppable expansion of Ottoman power in the Balkans and the eastern Mediterranean littoral. The following paragraphs, which outline the two sieges of Rhodes, rely primarily but not exclusively on the informative and well-researched and -written: "The Two Sieges of Rhodes," by Eric Brockman.

Apparently, the young Sultan Mehmet II, "the Conqueror," had set himself two major tasks: the capture of Constantinople, the weak remnant of the Byzantine empire, and the destruction of the Knights Hospitaller fortress and power in Rhodes, thus ending their aggressive and detrimental conduct to Ottoman commerce and interests. The alarm sounded for the knights when, in May 1453, the sultan accomplished his first task by capturing Constantinople. A period of intense preparations for combat followed, which, beyond diplomatic exchanges, included positioning of stocks of grain, powder, shot, and reinforcements for the outer defenses in St. Peter's and the outlying islands. To provide the enemy with as little cover as possible, authorities ordered the clearing and leveling of all buildings and gardens in the approaches to the city walls of Rhodes. In an act of conciliation between the Latin and the Greek churches in a time of external danger, the miraculous icon of Our Lady of Philereos was brought into the city from the monastery of Koskino.

All preparations occurred under the extraordinary leadership of Pierre d'Aubusson who had arrived in Rhodes at the age of twenty-one in 1444. Accepted into the Langue of Auvergne he was elected grand master of the Knights in 1476, in time for the Turkish siege of 1480. An extensive network of spies kept Aubusson informed of Turkish activities so there was no surprise when the armada was sighted on a course towards the island in late May 1480. Assembled under the standard of Sultan Mehmet II and led by Misac Palaeologos, a pasha from the noble Greek Palaeologos family, a force of perhaps 70,000 marched overland from Constantinople, with the siege cannon traveling by sea. After reclaiming the cannon at a port on the Asia Minor coast across the strait from Rhodes, the invading forces eventually landed on the island at the sheltered bay of Trianda.

The day after their arrival, they began heavy cannon bombardment of both the Tower of Saint Nicholas, a stronghold guarding the port, and the city of Rhodes itself, twenty-seven years after cannon was first used by Sultan Mehmet II to breach the walls of Constantinople.



Accompanying the Turkish forces was a German military engineer and artillery expert named George Frapan, better known as “Master George,” who was held in high esteem for his services. He had boasted that “no wall yet built could resist the fire of his artillery.” The early bombardment of Rhodes seemed to bear him out. It was of great surprise to the defenders, then, to see him desert his Moslem employers to offer his services to the knights his fellow Christians. Aubusson received him courteously but cautiously. Suspected for his real loyalty and questioned under torture, Master George admitted, he still had allegiance to Misac. His hanging ended a rather bizarre episode of the siege, which serves to remind us that battle lines between religions in the fifteenth century were not as impenetrable as we might want to think of them today. The siege’s eighty-nine-day slaughter ended with the Turkish failure to capture the city; it was, a contemporary said, as if the all-conquering sword of Mehmet II “had broken on the walls of Rhodes.” The knights’ victory also affected the future of Latin Europe.

When Rhodes was besieged, Sultan Mehmet II had also landed troops in Italy, ravaging Apulia and capturing Otranto. His failure in Rhodes caused these troops to be withdrawn. The following year, while leading another expedition bound for Rhodes, Mehmet II died suddenly, perhaps of dysentery. His death delayed the second siege for forty-two years. A prolonged dynastic quarrel between the two sons of Sultan Mehmet II also contributed to this delay. Following Mehmet’s death, his elder son Bajazet was proclaimed sultan in Constantinople. The younger son Djem (also known in the west as Prince Zizim), however, was not happy with the arrangement and challenged his brother for the throne. It is worth noting that Djem’s claim to the Ottoman throne was based on Byzantine custom, that of being porphyrogenitos, born in porphyra, that is after his father’s accession. After Bajazet proved victorious Djem eventually sought the protection of his old acquaintance Aubusson. In July 1482, Djem was received in Rhodes with well-prepared imperial honors, underscoring the importance and strength of the city of Rhodes and the self-confident diplomacy of the knights. Aubusson’s hospitality to Djem introduced an unexpected period of reversed relations with Bajazet, in which the Ottomans by treaty became tributaries of Rhodes, paying an annual compensation for the damage inflicted by the siege of 1480 and a hefty subsidy for the upkeep of Djem. In addition to gaining time, the Djem episode provided much needed funds for the speedy restoration and improvement of the fortifications of Rhodes. This strange period in the diplomatic relations between the Ottomans and the knights came to an end with Djem’s death in 1495 in Italy, where he had earlier been transferred.

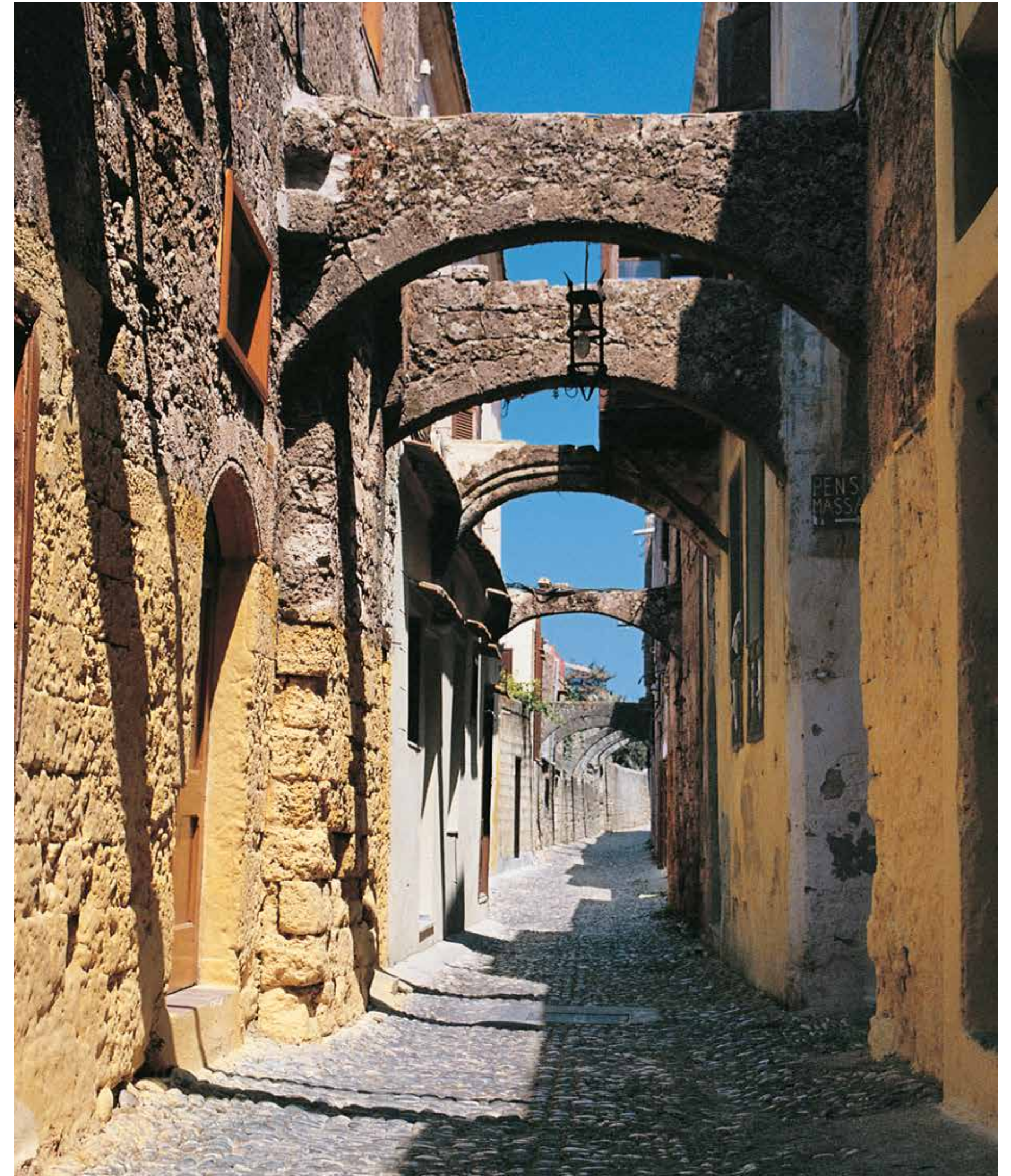
Momentous events in the history of western civilization occurred during the relatively short period between the two sieges of Rhodes, including the discovery of the New World, the opening of new sea routes to the Indian Ocean, the maturation of the Italian Renaissance, and the Reformation of Martin Luther. However, more significant to the future of Rhodes and the “Holy Religion,” as the knights preferred to call themselves, was the Ottoman conquest first of Syria in 1516, and then of Egypt in 1517.

In both campaigns Turkish cannon shattered the resistance of the Mamelukes of Egypt who considered artillery a dishonorable weapon. Sultan Selim returned from Egypt and the Arabian Desert with the enormous prestige of the Commander of the Faithful, escorted by his bodyguards who now had the privilege of carrying the green banner of the Prophet.

In geopolitical terms, the expansion of Ottoman presence to Egypt meant that the land barrier between the Indian Ocean and western Christendom had been consolidated. At the same time the commerce of the growing metropolis of Constantinople and the agriculturally rich regions of Syria and Egypt came under unified political control, while the sea-lanes connecting the two were exposed to the predatory “corso” conducted by the knights based in Rhodes, a situation intolerable to the Ottomans.

R H O D E S M E D I E V A L C H R O N I C L E

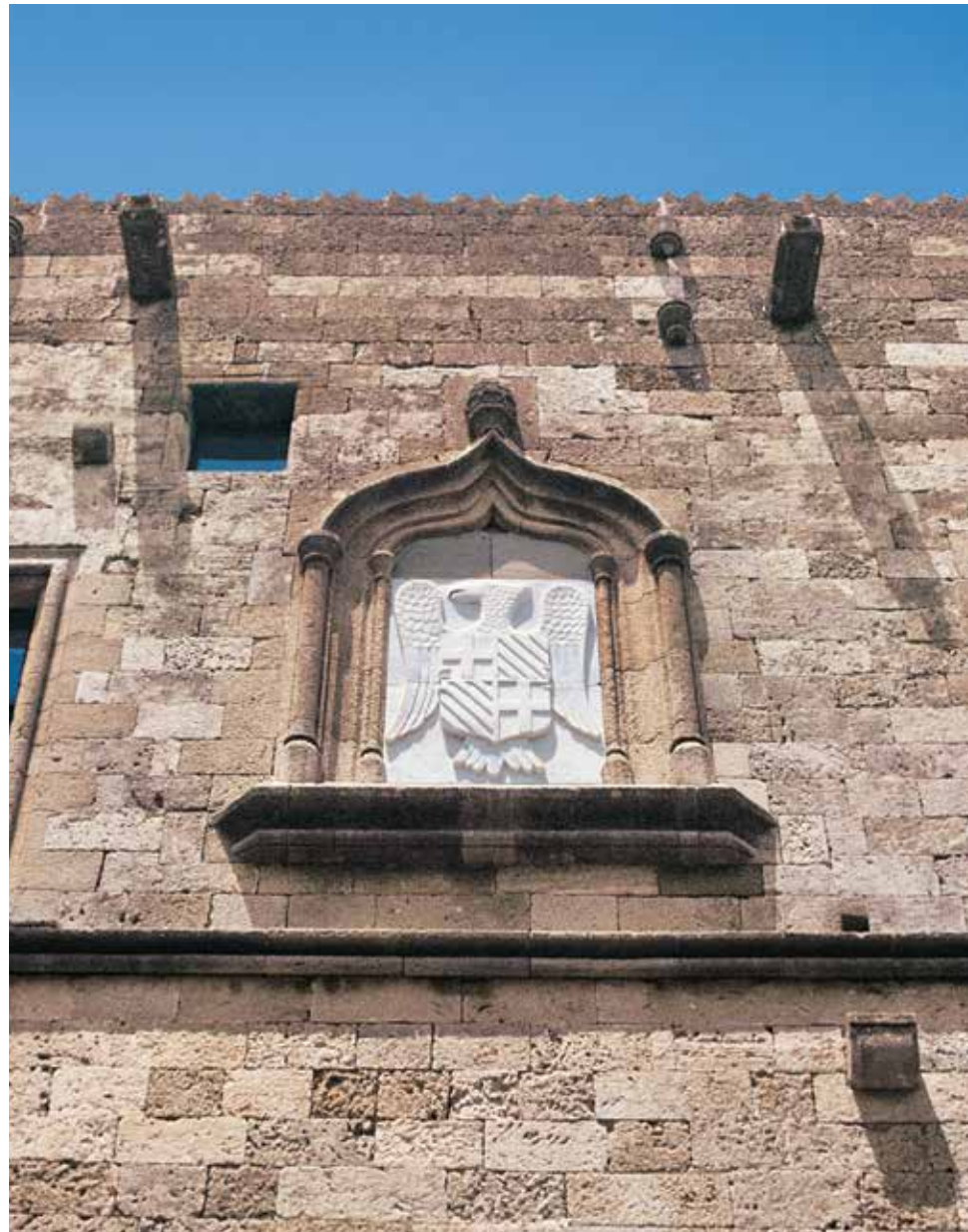
- 1204** The army of the Fourth Crusade sacks Constantinople. Fragmentation of Byzantine territories
- 1207** Marco Sanudo captures seventeen Aegean islands and founds the Duchy of the Archipelago
- 1305** **Fouliques de Villaret** elected Grand Master of the Hospitaller Knights of Saint John.
- 1306** The Venetians, after seizing the islands between Crete and Rhodes, look at Rhodes with interest. In a joint operation with Vignolo de’ Vignoli, a pirate, Villaret and his knights land on Rhodes.
- 1307** The Pope grants the island to Villaret who at the same time becomes an independent sovereign.
- HOSPITALLER KNIGHTS OF SAINT JOHN**
- 1309** The city of Rhodes falls to the knights.
- 1310** The island of Rhodes comes under the full control of the Order.
- 1319** **Helion de Villeneuve** elected grand master. The knights hold all Dodecanesian islands as far north as Leros, thereby protecting the Duchy of the Archipelago from raids originating from the Turkish coast. Deer introduced to the island to satisfy the knights’ love of hunting.
- 1344** Leading the Holy League, the knights capture Smyrna on the Asia Minor coast, holding the city until 1402.
- 1346** **Dieudonné de Gozon** elected grand master.
- 1347** **The Black Death.** Ships from the Genoese trading colonies in the Crimean peninsula pass through the Aegean Sea and bring the Black Death to Italy.
- 1353** **Pierre de Corneillan** elected grand master.
- 1355** **Roger de Pins** elected grand master.
- 1365** **Raymond Berenger** elected grand master.
- 1374** **Robert de Juilly** elected grand master.
- 1377** **Juan Fernandez de Heredia** elected grand master.
- 1383** **Riccardo Caracciolo** elected grand master.
- 1396** **Philibert de Naillac** elected grand master.
- 1421** Completion of the Tower of Naillac, named after Philibert de Naillac. The 150-foot-tall tower protects the naval dock next to the arsenal. The same year **Antonio de Fluvia** elected grand master.
- 1437** **Jean de Lastic** elected grand master.
- 1453** Constantinople falls to the Ottoman Turks.
- 1454** **Jacques de Milly** elected grand master.
- 1461** **Raimundo Zacosta** elected grand master.
- 1467** **Giovan Battista Orsini** elected grand master. The Tower of St. Nicholas is completed. With walls twenty-four-feet thick the tower withstands artillery fire during the siege of 1480.
- 1476** **Pierre d’ Aubusson** elected grand master.
- 1480** **First siege of Rhodes** by the Ottoman Turks.
- 1480s** **Guillaume Caoursin**, an eyewitness, promotes his illustrated report on the siege all over Europe.
- 1482** Aubusson receives Djem, or Prince Zizim, in Rhodes with imperial honors.
- 1489** Pope Innocent III confers on Aubusson a cardinal’s hat. Known from the twelfth century, the title of grand master begins to be used with regularity.
- 1503** **Emery d’Amboise dit Claumont** elected grand master
- 1512** **Guy de Blanchefort** elected grand master.
- 1513** **Fabrizio del Carretto** elected grand master. In preparation for the expected Turkish attack, the walls of Rhodes are continuously strengthened.
- 1516** Ottoman conquest of Syria.
- 1517** Ottoman conquest of Egypt.
- 1521** **Philippe Villiers de l’Isle Adam** elected grand master.
- 1522** Leading a force larger than that of 1480, Suleyman lands in Rhodes. L’Isle Adam surrenders Rhodes on December 26.
- TOURKOKRATIA (TURKISH RULE)**
- 1523** The Knights Hospitaller leave Rhodes on January 1.
- 1537** Sailing out of the Golden Horn, the Turkish admiral **Kheireddin Barbarossa** descends upon the Aegean islands. All are taken and devastated.
- 1566** Don Joseph Nasi is the last person to hold the title of Duke of the Archipelago.
- 1830s** **End of the era of piracy.** Rhodes remains part of the Ottoman Empire after all Cycladic islands join newly independent Greece.



Opposite page: Rhodes, street within the medieval town. Masonry arches brace the two sides of this narrow street, offering protection against earthquakes.



Rhodes. The tower and bulwark of Italy also known as the Fabrizio del Carreto tower, named after the Italian grand master (1513-1521), was part of the defense improvements built in preparation for the second Turkish siege of 1522. Located at the southeast periphery of the detached fortifications of the city, the tower contributed to making Rhodes the most modern fortress of the time.



Rhodes. On the north side of the Street of the Knights, the coat of arms of Fabrizio del Carreto is enwalled above the entry to the Inn of the Tongue of Italy.

By 1520, Suleyman – known in the west as “the Magnificent” and to his people as Kanuni (“Lawgiver”) – had succeeded his father, Selim, to the Ottoman throne. At the age of twenty-six, Suleyman was at the head of a vigorously expanding empire. He would lead campaigns to capture Belgrade to secure an Ottoman presence along the Danube River and would lay siege to the city of Rhodes to destroy its “Christian nest of vipers” in a move to eliminate the knights’ plunder of the trade between Constantinople and Alexandria and secure Ottoman control of the Aegean sea-lanes.

Determined to ignore the then-usual limitation of campaigns to summertime and good weather and to lay siege until Rhodes fell, Suleyman raised an army much larger than that which had besieged the city in 1480 and landed on the island in July 1522. The effective use of artillery by the Turkish armies necessitated continuous improvements in the fortifications of Rhodes. To design the improvements, Fabrizio del Carreto, the Order’s Italian grand master, hired Basilio dalla Scuola, the chief military engineer to the Emperor Maximilian I. Carreto’s Tower of Italy, a round tower with surrounding bulwarks, the last word in the northern Italian art of fortification, resulted from Basilio’s designs. The walls of Rhodes were again thickened and the ditch around them enlarged and the escarps revetted with masonry. The new and formidable bastion of Auvergne in front of the Gate of Saint George was completed in 1521 and formed part of the final preparations for the expected Turkish attack. Many believe the bastion of Auvergne to be the first true example of bastion design and the model for one of the cardinal elements of fortress architecture for the next three centuries. At the time of Grand Master Fabrizio del Carretto’s death in 1521, Rhodes could claim the most modern fortifications in the Christian world.

When Suleyman, who was also the great-grandson of Mehmet, “the Conqueror,” appeared before the gates of Rhodes, he was in command of 200,000 troops of whom 60,000 were skilled miners. Even if these figures are inflated, it was a formidable force. The defenders’ numbers were very small by comparison: 550 knights, 1,000 mercenary soldiers, and 500 Rhodian militia. With the odds clearly against them, the defenders based their hopes for successful resistance on their cutting-edge fortifications, bastions, ditches, and massive walls, as well as their ample provisions and munitions enough to hold out for a year.

Suleyman’s strategy was to attack the city from the land side. He was aware of the recent and major improvements in the fortifications, which, in addition to artillery, he planned to overcome with mining. For that purpose he had brought along the large force of expert sappers mentioned above, recruited from his Bosnian and Wallachian territories. Anticipating the threat, Grand Master L’Isle Adam sent to Venetian Crete asking for the services of Gabriele Tadini da Martinengo, one of the most accomplished military engineers of his day. Against the orders of the Serenissima, Tadini eagerly joined the cause of the knights and reached Rhodes days before the landing of the Ottoman troops on the island. Next to L’Isle Adam, Tadini was the individual whose leadership and ingenuity offered a great deal to the defense of Rhodes. He trained Rhodians in the use of his mine detector device, a stretched parchment diaphragm with small bells attached that warned of every vibration caused from enemy tunneling. By the use of this device, many Turkish mines were detected and neutralized by Tadini’s countermines. But there were successful mines too, which, combined with the incessant bombardment and breaches in the walls, the vast superiority in Ottoman numbers, and the heavy losses on both sides during the September battles, began to exhaust the defenders. “For two months we had drunk nothing but water,” wrote an observer who with sixteenth century considerations in mind regarded wine as a necessity and water dangerous to health, indicating dwindling food supplies and a weakening resolve for continuous resistance.

Rhodes, Palace of the Grand Masters. The horseshoe twin towers framing the gate are the part of the palace least altered by the Italian restoration work of 1937-40.





Rhodes, Saint Paul gate. Located on the northern periphery of the fortifications near the site of the Naillac tower, the gate connects Mandraki and Commercial ports.

A truce in December produced three meetings between the sultan and the grand master and on Christmas Eve, Suleyman offered peace with honor, meaning that the knights and any Rhodians who wished to join them could leave the city unmolested. On December 26 L'Isle Adam went back to offer his submission and as he left, Suleyman is reported to have turned to his Vezir, his prime minister, saying: "It saddens me to be compelled to cast this brave old man out of his home." The following day, Suleyman returned the grand master's call, riding into Rhodes without his guard, saying, "My safety is guaranteed by the word of a grand master of the Hospitallers, which is more sure than all the armies in the world." And so it was that on January 1, 1523, the survivors of the siege left Rhodes permanently, as it turned out, taking with them their arms, their belongings, and the archives of the Order. Eventually, Malta became their new home as the knights, emerging victorious from the third siege in 1565, this time in Malta, continued to war against their religious rivals for another two and a half centuries.

The presence of both the Duchy of the Archipelago and the Knights Hospitaller in the Aegean and the Mediterranean seas are outlined in earlier pages of this volume. The above paragraphs have focused on Rhodes and its fortifications during the two sieges by the advancing Ottoman forces.

In the Mediterranean context, the Knights Hospitaller predated and outlasted the Duchy. In the Aegean archipelago just the opposite occurred. At first suspicious of the newcomers, the Duchy cooperated with them as the occasion demanded to eventually share mutually profitable cultural and military relations. The most engaging aspect of this relationship, however, appears in the vernacular and formal architecture forms created by each realm within the larger family of the Aegean island towns.

In the case of the Duchy of the Archipelago, building dependent on limited local means and resources for addressing pressing defense issues at the local scale; its architecture, therefore is represented by the vernacular collective fortification architectural forms that were

Opposite page: Rhodes, Palace of Grand Masters, looking south. Mandraki port and the New Market building constructed during the Italian presence on the island (1912-43) are in front.

integrated into the urban fabric of the towns of Sifnos, Astypalaia, Antiparos, Folegandros, Sikinos, Naxos, Paros, Mykonos, Syros, Santorini, and Kimolos and others presented in the preceding pages. By contrast, the Knights Hospitaller of Rhodes drew their inspiration and strength from power and wealth originating outside the Aegean region. Their presence is recorded in the formal architecture of the fortifications of the city of Rhodes. Detached from the fabric of the city, the walls of Rhodes were and built to the designs of architects and engineers well versed in the art of fortification as practiced in Latin Europe. Massive and extensive, the fortifications of Rhodes addressed issues of warfare at the scale of the great powers of the day. The up-to-date sophistication of these fortifications allowed the small numbers of well-trained and disciplined knights to resist effectively the greatest military power of the day during the first siege of 1480 and to inspire the Emperor-elect Charles V to comment at the end of the second siege of 1522 that "nothing in the World was ever so well lost."

Both forms of fortification, however, vernacular-integrated and formal-detached, meaningfully express the harsh and unrelenting conditions of life that prevailed in the post-Byzantine archipelago.





THE HYBRID RESPONSE

SHARING LESSONS



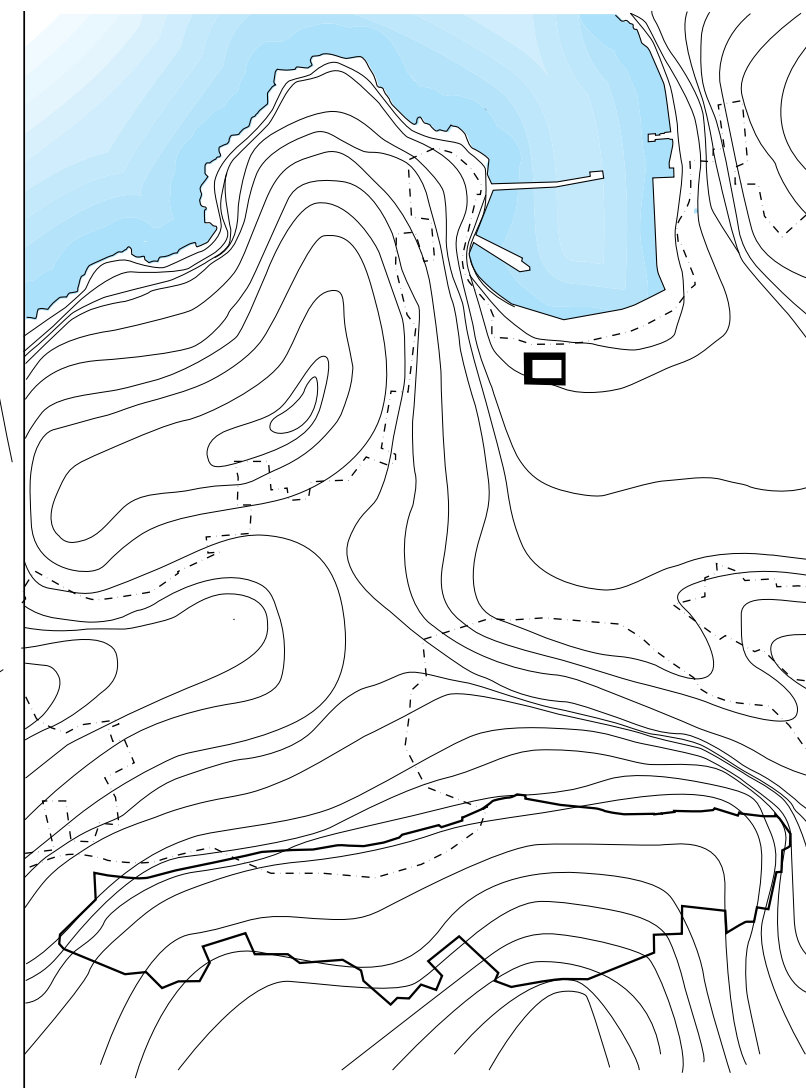
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Patmos
Saint John the Theologian monastery
Page 307

Andros
Mesa Kastro, Kato Kastro
Page 327

Tenos
Xoburgo Kastro
Page 339

Hydra
Kiafa and the present-day town
Page 357



THE HYBRID RESPONSE
SHARING LESSONS

PATMOS
Monastery and Chora



PATMOS

Monastery and Chora

While evidence suggests that builders of Aegean Kastras took much of their inspiration from northern Italian prototypes, when it came to an architectural organizational diagram they also looked closer to home, to the Byzantine monastery. Because of similar defense needs and occupant numbers, the Kastro came to resemble a Byzantine monastery in size and architectural character and scale. In this light, Patmos offers a unique variation on the usual pattern. Instead of pairing itself with a Kastro, as on many other Aegean islands, the Patmos Chora developed alongside a monastery.

The massive architectural volume of the Monastery of Saint John the Theologian is, in the words of Lawrence Durrell, “grimly beautiful in a rather reproachful way.” It sits on a 190-meter ridge on the south half of the island, hovering protectively over the successive rings of houses and churches that comprise the Chora.

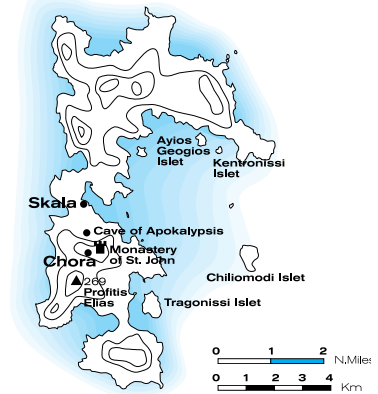
Like most of the Aegean islands, Patmos is small—thirty-four square kilometers, about the same size as Antiparos. Part of the Dodecanese complex, the island is elongated with a deeply indented coast that is mostly bare and rocky and rises to

a height of 269 meters. Monastery-Chora and Skala, the two major settlements of today, have a combined population of about twenty-five hundred. The younger of the two settlements, Skala (meaning “ladder” or “landing place”), is four and a half kilometers from the Chora. It sits at the deep end of the bay that divides the island into two nearly equal halves and serves as its port.

The remoteness and insignificance of Patmos probably prompted the exile there of Saint John the Theologian in 95 A.D. He wrote the Book of Revelation in a cave on the island and thereby put Patmos on the map. Yet it took nearly one thousand years for this important event in ecclesiastical history to be celebrated by a Byzantine imperial act that allowed for the erection of a monastery on Patmos, then a deserted island subject to forays by pirates.

PATMOS ① GENERAL INFORMATION

| | |
|----------------------------------|--------------------------------|
| Prefecture | Dodecanese |
| Location (Monastery of St. John) | 37° 19' 14" N 26° 32' 28" E |
| Distance of Paros from Piraeus | 301 km (163 n.miles) |
| Area | 34 km ² |
| Dimensions | 12 km long, 02 -7 km wide |
| Shoreline | 63 km |
| Highest Elevation | 269 m (Profitis Elias) |
| Permanent Population | 2993 (2001) |
| Port | Skala |



Opposite page: Patmos, Sitting on a high ridge, the Monastery of Saint John the Theologian hovers protectively over the much younger Chora.





Patmos. Atop massive walls the battlements confirm the military and formal architecture character of the exterior of the Monastery of Saint John the Theologian. The alternating solid parts and openings are, respectively, merlons and crenels.

In 1088 a papal bull established the Monastery of Cluny, soon to be a notable center of French Catholicism from which the First Crusade would be proclaimed. The same year also saw the chrysobull ("imperial decree"), issued by the Byzantine Emperor Alexios I Comnenos, which gave permission for the Monastery of Saint John the Theologian to be built on Patmos. As Helen Glykatzis-Ahrweiler points out:

"Apart from the coincidence of date, this makes it possible to make common reference to the evolution of the two now rival Christian worlds. Cluny represents the vigour and aggression of the Latins, Patmos the resistance and struggle for survival of Byzantine Orthodoxy."

With Cluny and Patmos representing competing Christian worlds, the clash between the two dominated life and architecture--formal and vernacular--in the Aegean archipelago until well after the period of the Ottoman Turkish conquest.

Along with comprising a history of the monastery, the archives of the Monastery of Saint John the Theologian are a reliable record of the vicissitudes of life on the island. The monastery itself is today one of the archipelago's oldest religious buildings in continuous occupancy, uninterrupted even by piracy. "The one place in the Aegean which the Mussulmans never molested was the Monastery of Patmos, whose monks were on the best of terms with them," William Miller pointed out in 1921. The original imperial chrysobull of 1088 is now exhibited in the monastery's gallery-museum. In this document the Emperor Alexios I Comnenos granted Patmos to the monk Christodoulos, an important figure in the history of Byzantine asceticism, and made him and his successors absolute rulers of the island in perpetuity.

Indeed the promulgation of this and other supporting imperial documents made Patmos in essence a monastic republic in the, by then, one-hundred-year-old tradition of Ayion Oros. And by a provision with lasting consequences, the monastery was given the right to own ships, a privilege the island retained under Turkish rule and which eventually made Patmos a major maritime power in the eastern Mediterranean.



"I. Patinos" (Patmos Island). Cristoforo Buondelmonti, *Liber Insularum Archipelagi*, Gennadius Library, Athens, Greece. While identifying the location of the Monastery of Saint John the Theologian on the island, this fifteenth-century manuscript map also delineates the defensive nature of the building.

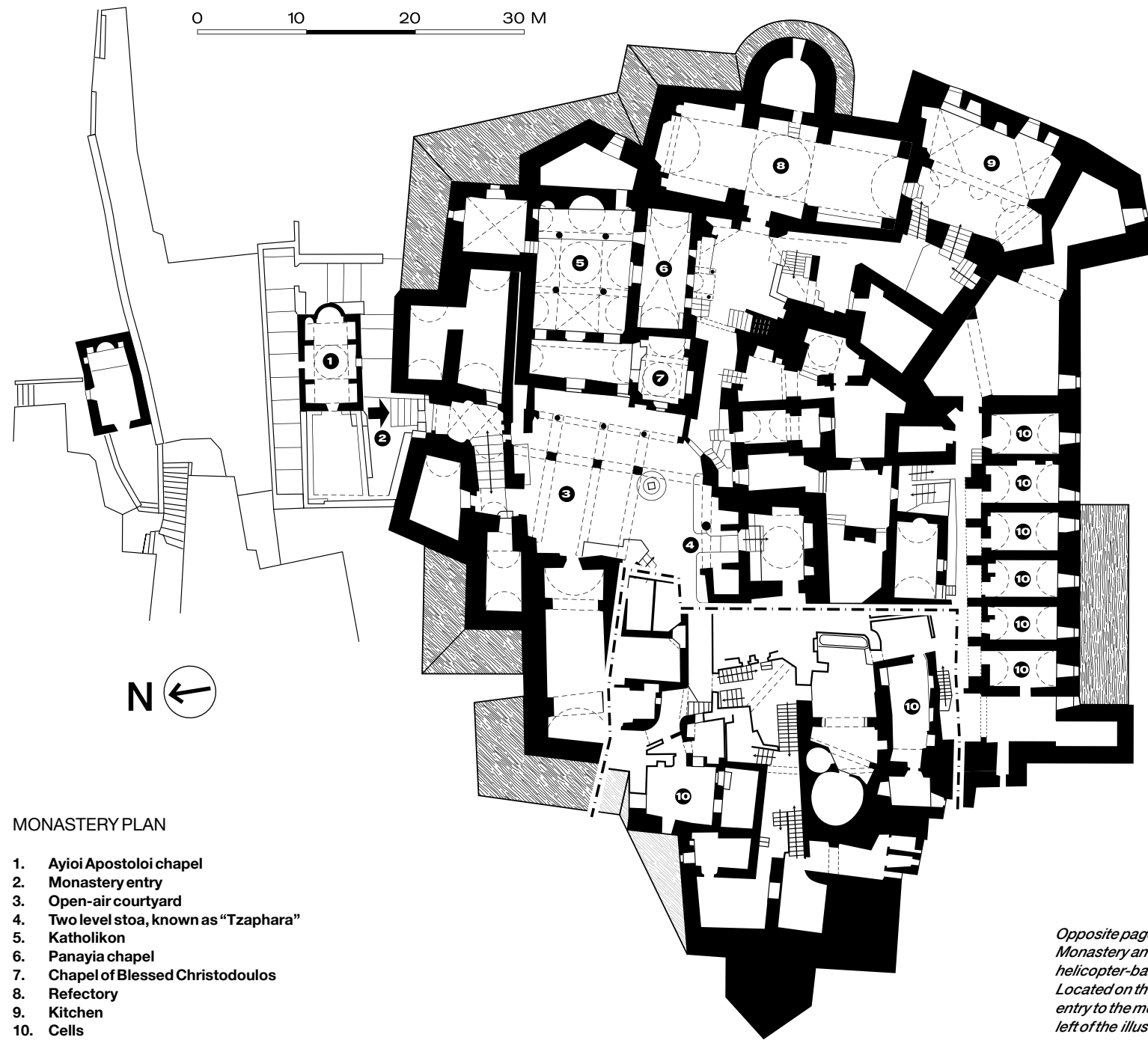


Patmos. Monastery of Saint John the Theologian. On the right of the illustration, the bell tower and the chapel of Ayioi Apostoloi, the Holy Apostles, identify the location of the only gated entry situated on the north side of the monastery.

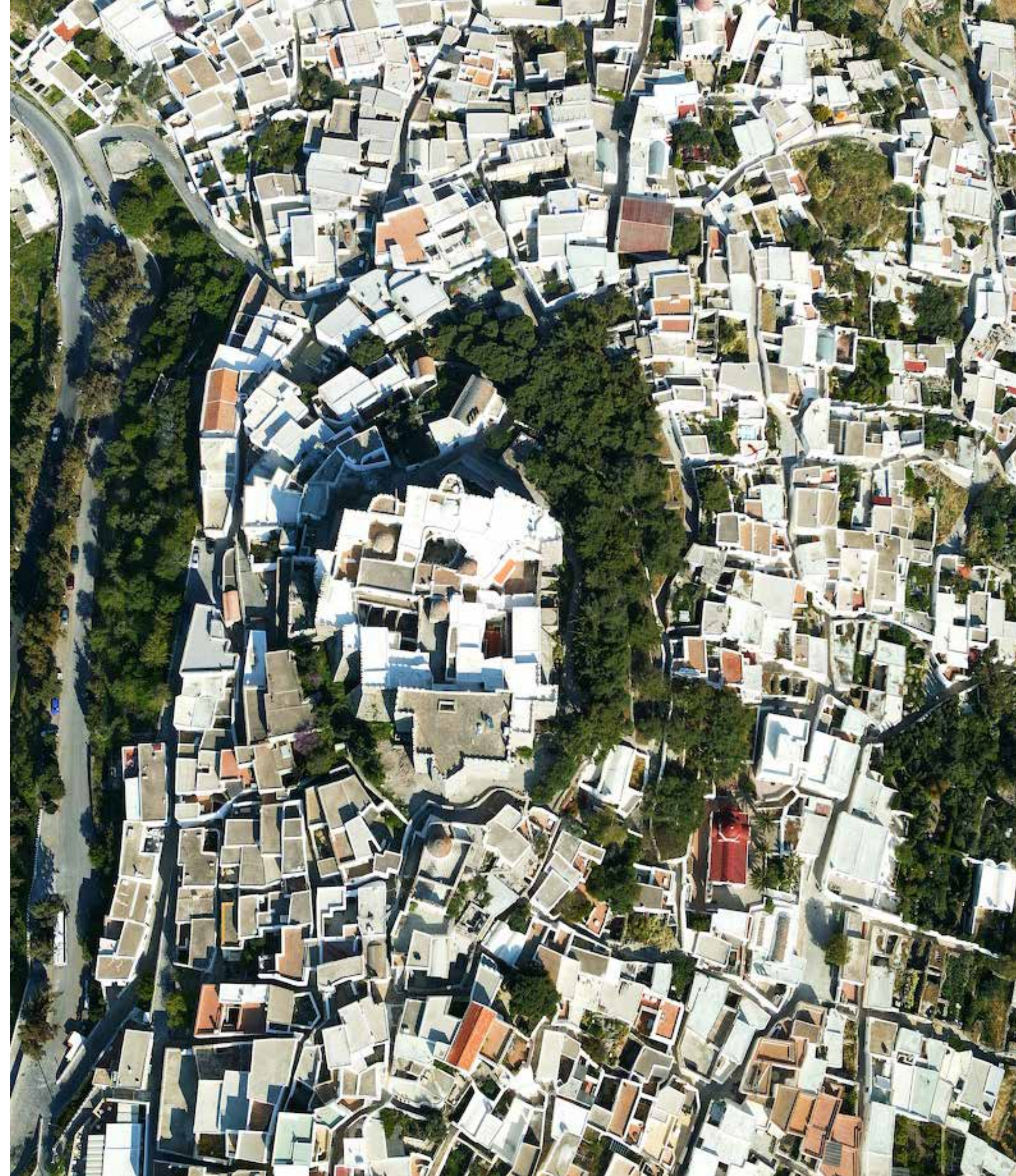
The monastery was originally less massive than the building we see today, with the first phase of its construction being completed in extremely adverse conditions. The hardships stemmed from the strong, chilling north winds characteristic of Patmos; the lack of water at the hilltop location, and the long distance between the stone quarries and the work site. Another complicating factor was the need to import all the foodstuffs for the monks, the workmen, and their families. Moreover, the governing spirit of strict all-male asceticism required that the workmen's wives and children remain at a distance from the monks and the building site in a location vulnerable to a pirate raid. Despite such challenges, the monastery walls went up quickly, forming an enclosure to protect its occupants not only from a sinful world but also from the corsairs. With this initial completion, however, there began a nine-hundred-year period of intermittent demolition, replacement and restoration, accompanied by internal carving and external additions--a process very much in the tradition of Byzantine monastic architecture whose present-day structures are "evolved" versions of the original edifices.



Right: Patmos. The exterior wall masonry and the interior roof beams (the later built of the ever-present fitches; a local tree of the juniper family) offer samples of the architectural finishes and textures of the Monastery of Saint John the Theologian.



Opposite page, Patmos. Monastery and Chora, helicopter-based view. Located on the north side the entry to the monastery is on the left of the illustration.



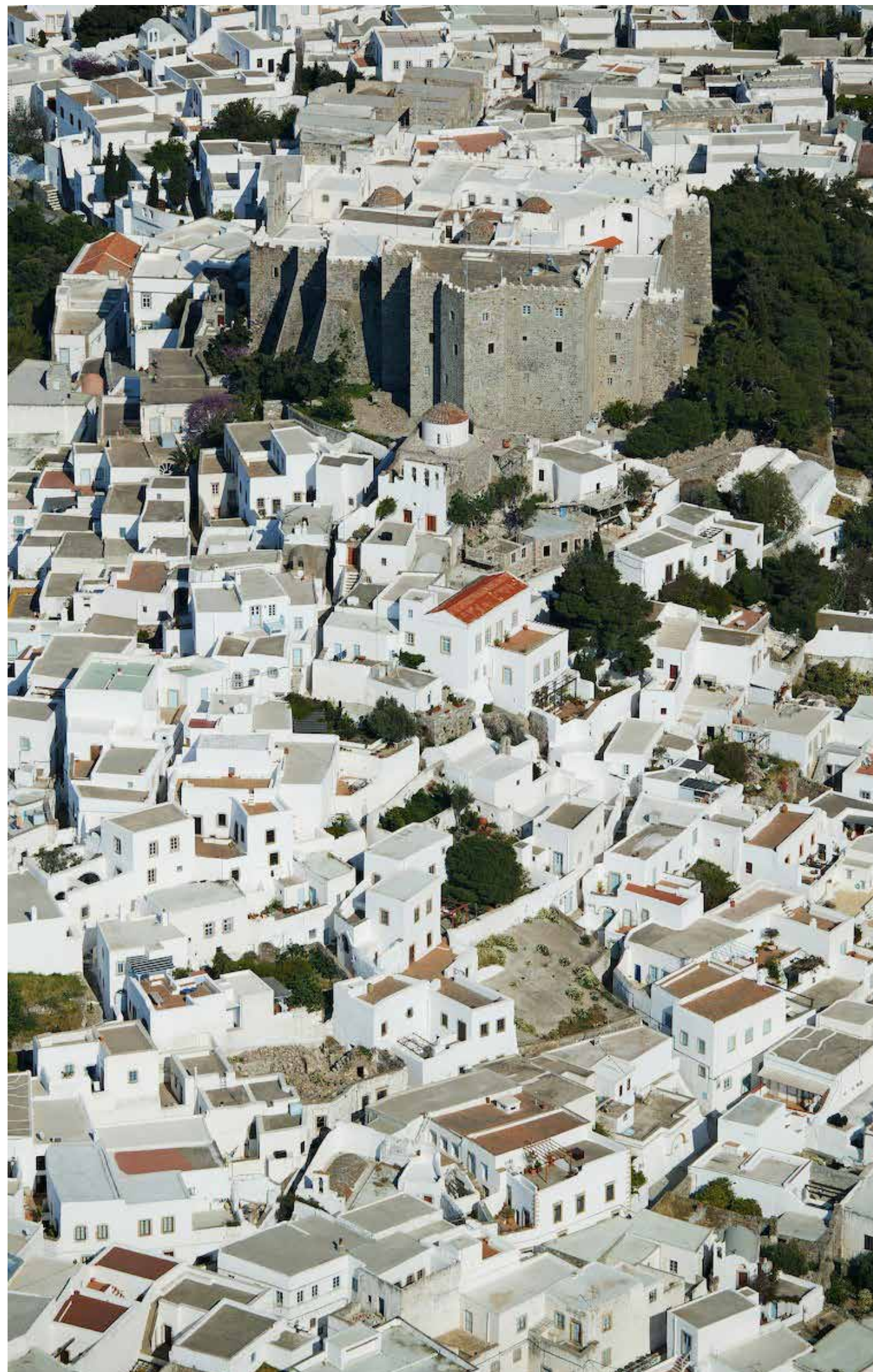
Although much scholarly work remains to be done, particularly in identifying and dating the various segments of the tightly assembled complex, some observations on the monastery building can nonetheless safely be made. In its evolution over a nine-hundred-year time span, Saint John the Theologian has by and large followed the typical diagram of a Greek Orthodox Byzantine monastery, which centers on a fortress-like enclosure entered through a single well-guarded gate leading to an open-air courtyard. Normally the monastery church, the Katholikon, is freestanding in the open-air courtyard, but Patmos is an exception, its Katholikon being attached to the northeast corner of the enclosure.

Besides this unusual arrangement, Patmos also defies the clarity of the diagram, which typically lines up all the rooms with their backs to the exterior wall. Instead, the Saint John Monastery locates cells, chapels, and supporting spaces off a labyrinth of passages and corridors at various levels, articulating a network of spaces very much in the vein of an Aegean island settlement. A reason for this idiosyncratic plan may be found in the organizational character of the Patmos monastery which, as Charalambos Bouras has stated, was organized at an early date for separate idiorhythmic (living separately) rather than cenobitic (living in community) living.

The distinctive interpretation of the monastery diagram made by the builders of Saint John is an example of formal and vernacular architecture coexisting in a mu-

tually supportive use: formal, in that the building's intent and concept originated in the imperial capital of Constantinople; vernacular, in that its interpretation on the Patmos site evolved in the local Aegean context and adopted Aegean vernacular practices.

True to these practices, the monastery also abounds in recycled architectural parts, the variety of which reinforces the inference that they come from different sources perhaps at the same site, possibly including a temple to Artemis and an early Christian basilica both said to have predated the monastery at the site. Last but not least, the monastery has terraces which provide places for contemplation that also offer singular and commanding views of most of the island's landscape and of its sea approaches. In times of need, these terraces could be transformed into ramparts and serve as the monastery's outer defenses.



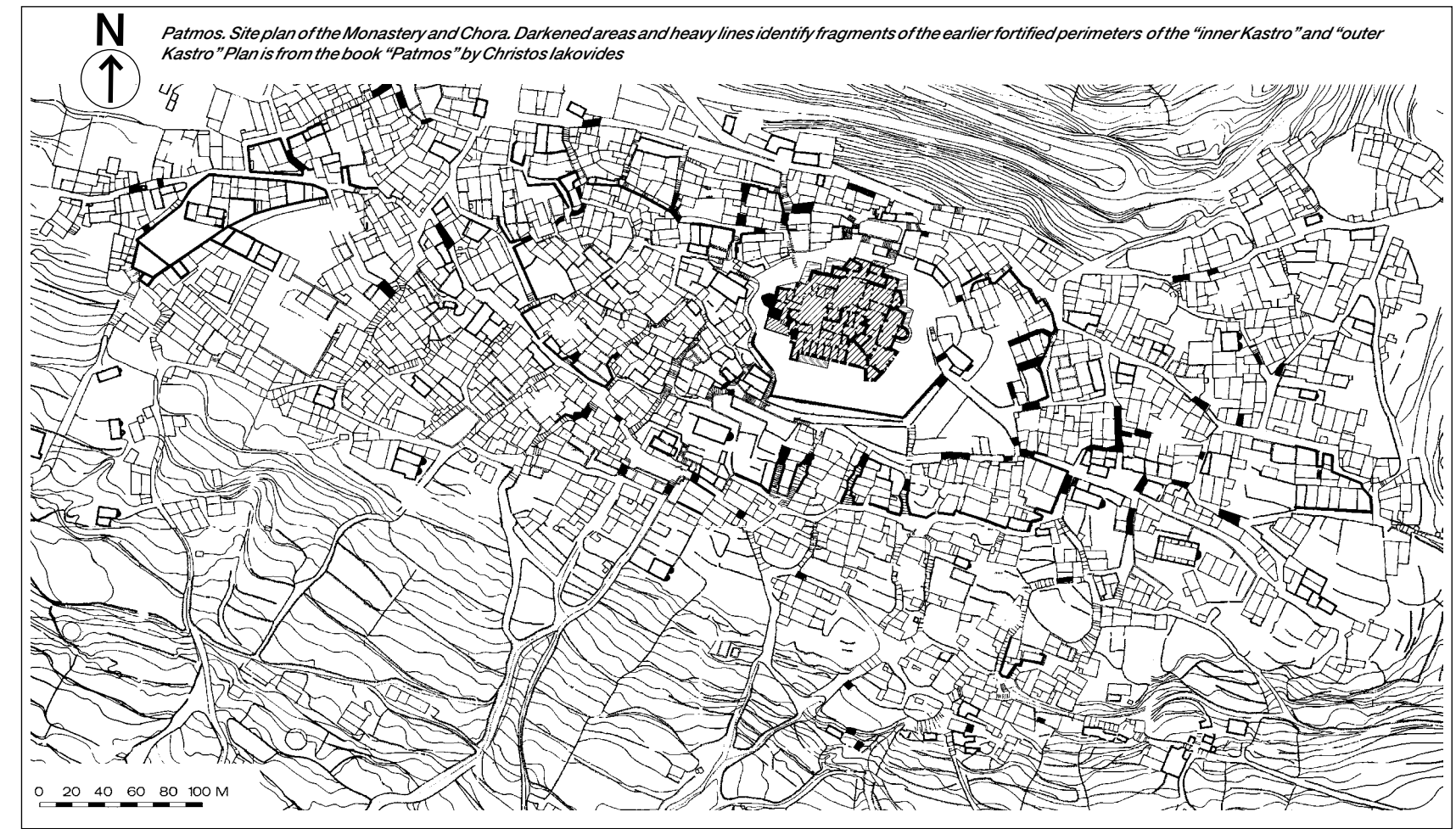
P A T M O S
MEDIEVAL CHRONICLE

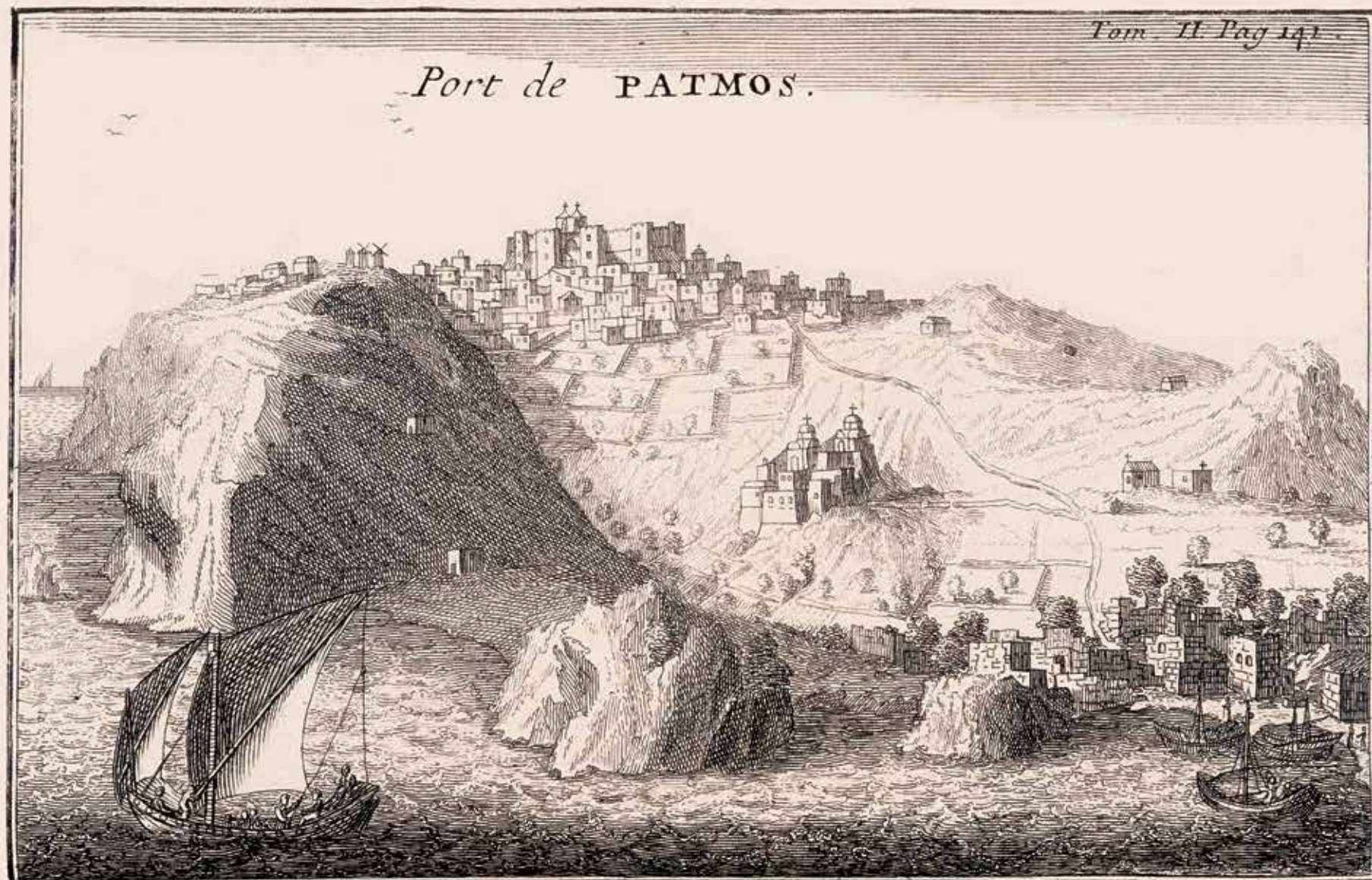
- 1088 Byzantine Emperor Alexios I Comnenos issues a chrysobull permitting the erection of the Monastery of Saint John the Theologian. Coincidentally in the same year a papal bull establishes the Monastery of Cluny in France.
- 1132 Relaxing its rules, the Monastery of Saint John permits the building of Chora to accommodate and protect the lay population of Patmos.
- 1204 The army of the Fourth Crusade sacks Constantinople. Fragmentation of Byzantine territories
- 1207 Marco Sanudo captures seventeen Aegean islands and founds the Duchy of the Archipelago.
- 1310 The island of Rhodes comes under the full control of the Knights Hospitaller of Saint John.
- 1319 The knights hold all Dodecanese islands including Patmos.
- 1347 **The Black Death.** Ships from the Genoese trading colonies in the Crimean peninsula pass through the Aegean Sea and bring the Black Death to Italy.
- 1453 Constantinople falls to the Ottoman Turks.
- 1500s **Era of prosperity for Patmos.** The commercial fleet of the island numbers forty ships, trading in the Black Sea, Egypt, and Italy.
- 1522 Patmos becomes part of the Ottoman Empire as Rhodes surrenders to Suleyman.
- 1537 Patmos is left untouched by the island raids of Kheireddin Barbarossa.
- 1566 Don Joseph Nasi is the last person to hold the title of Duke of the Archipelago.
- 1600s Building of the port of Scala.
- 1646 Major earthquake recorded on the island.
- 1659 **Morosini's punitive raid.** Patmian fleet is destroyed, Chora is plundered but the monastery is left untouched.
- 1700s The monastery cedes the northern half of the island to lay ownership, contributing to the recovery of the island economy.
- 1713 Patmian School, "the University of the Aegean," established
- 1731 Vasily Gregorevich Barsky visits Patmos and returns in 1737 for a seven-year stay.
- 1774 Island records show a population of 2,000. Patmos comes under Russian occupation during the Russo-Turkish war of 1768-74.
- 1830s **End of the era of piracy.** Patmos, together with Rhodes, remains part of the Ottoman Empire after all Cycladic islands join newly independent Greece.

Patmos. Monastery and Chora, helicopter-based view looking east.

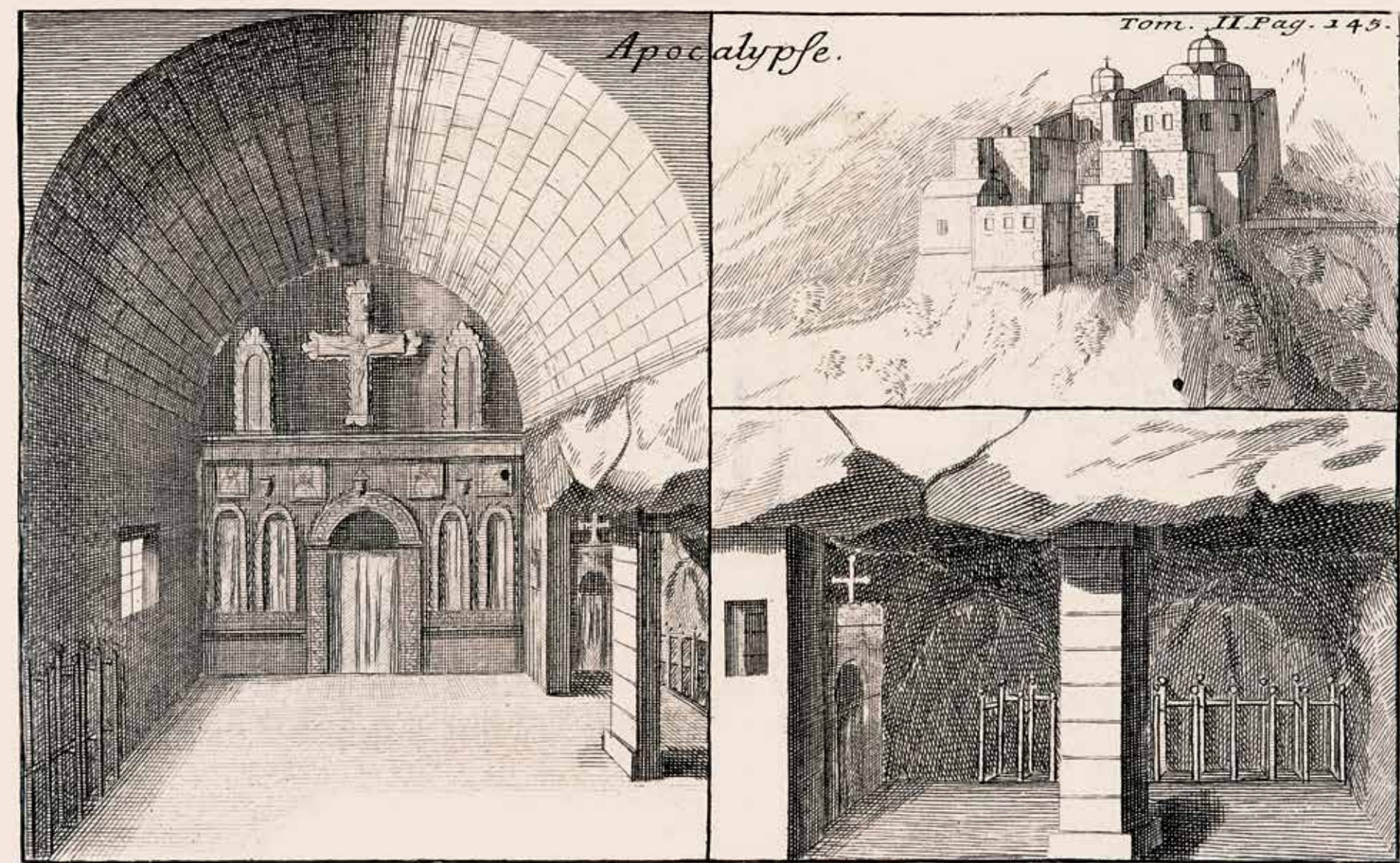


Patmos. Monastery and Chora from the air. The roof of the monastery includes an unruly assembly of small, domestic-scale buildings and reveals the vernacular soul of a building with formal architectural beginnings. The entry to the monastery is on the left side of the photograph dating from 1971.





"Port of Patmos," Joseph Pitton de Tournefort, 1717. This engraving of early eighteenth century Patmos includes the indispensable windmills, retaining walls and terraces near the Monastery and Chora, the beginnings of Skala in the lower right corner, and in the center of the illustration, what is certainly the monastery of the Apocalypse.



"Apocalypse," Joseph Pitton de Tournefort, engraving, 1717. The importance of the grotto of the Apocalypse in Christian tradition has attracted and impressed visitors to Patmos, including Tournefort.



Patmos. Monastery of Saint John the Theologian and Chora, looking east. Two hundred and eighty years later, this photograph confirms the vision of Tournefort's engraving.

The Monastery of Saint John the Theologian stood alone on its site for the first forty-five years of its existence, supporting a monastic life of isolation, contemplation, and prayer. Chora, the secular part of the urban agglomeration on Patmos, did not come into existence until 1132, when the monastery relaxed its ascetic rules and invited the lay population of the island to build quarters in its immediate, protective vicinity: indeed, attached to its massive walls.

The beginnings of the town of Chora allowed the monks fully to implement the imperial chrysobull, which endowed the monastery with metohia—that is, farmland—in Crete and on neighboring islands and gave them the right to own ships as well. These endowments required farmers and sailors in numbers larger than the monks could themselves provide. Hence, the monastic republic's need to develop a parallel secular settlement to supply the manpower needed to enhance the value of its endowment. Physical proximity between the Monastery and Chora—the religious and secular components of life and architecture in Patmos—was the basis for the development of the settlement, which provided the springboard for a long lasting, mutually supportive, and beneficial relationship.

Two distinct historical periods define the development of the monastery/Chora urban agglomeration on Patmos. The first and longest lasting, from the erection of the monastery to 1659, was the era of the monastic republic, when the island's governance was in the hands of the abbot. Then after six decades of unrest, a second period started that lasted from 1720, when the governance of Patmos passed to the citizens of Chora, to 1912, when the Italian administration of Patmos and the Dodecanese began. In both periods there were ups and downs: prosperity followed penury and calamity, and vice versa. But by the beginning of the eighteenth century, Patmos was larger and more populous than ever and boasted 800 houses and 250 churches. Island records show a population of 2,000 in 1774 at the time of the Rus-

sian occupation of Patmos and other Aegean islands during the Russo-Turkish war of 1768-74.

The eminence of the Patmos monastery and the protection it afforded attracted refugees and settlers from areas of Ottoman Turkish expansion in the Balkans and elsewhere in the Aegean archipelago. The fall of Constantinople in 1453 brought a group of urban refugees, which, though its size is in dispute, was large enough to establish its own neighborhood, Alloteina, in the area immediately west of the monastery.

The refugees' origin and the urban culture they brought with them enhanced the status of the Chora citizenry, and helped to break down the social and educational barriers between monks and workers. According to Christos Iakovides, the new arrivals were soon to provide monks and abbots for the monastery. Traces of a contemporary "inner Kastro," a fortified perimeter around the new Alloteina neighborhood, are still detectable today.



Patmos. Monastery of Saint John the Theologian. All four illustrations portray the roof of the Monastery and reveal the delicate domestic architectural scale of its buildings, in contrast to the robust scale of the enclosing walls. Housing five bells, the tower, located over the entry (see preceding pages), is a prime marker of the identity of the building, visually and acoustically. Enriching the gray stone bell tower a marble Ionic capital, an architectural fragment recycled from an earlier unknown building, appears in the lower illustrations. The capital has been placed correctly both with regard to its original purpose and the architectural composition of the present-day bell tower.



Patmos. Chora viewed from the battlements of the Monastery. The port of Skala, located at the deepest end of the bay dividing the island in two, appears on the right side of the photograph. A major incident in the life of Patmos is described on the following page. It is possible that the monk who recorded this destructive mid-seventeenth century event observed the incident from the safety of the roof of the monastery and from a place not far from the battlements pictured here.

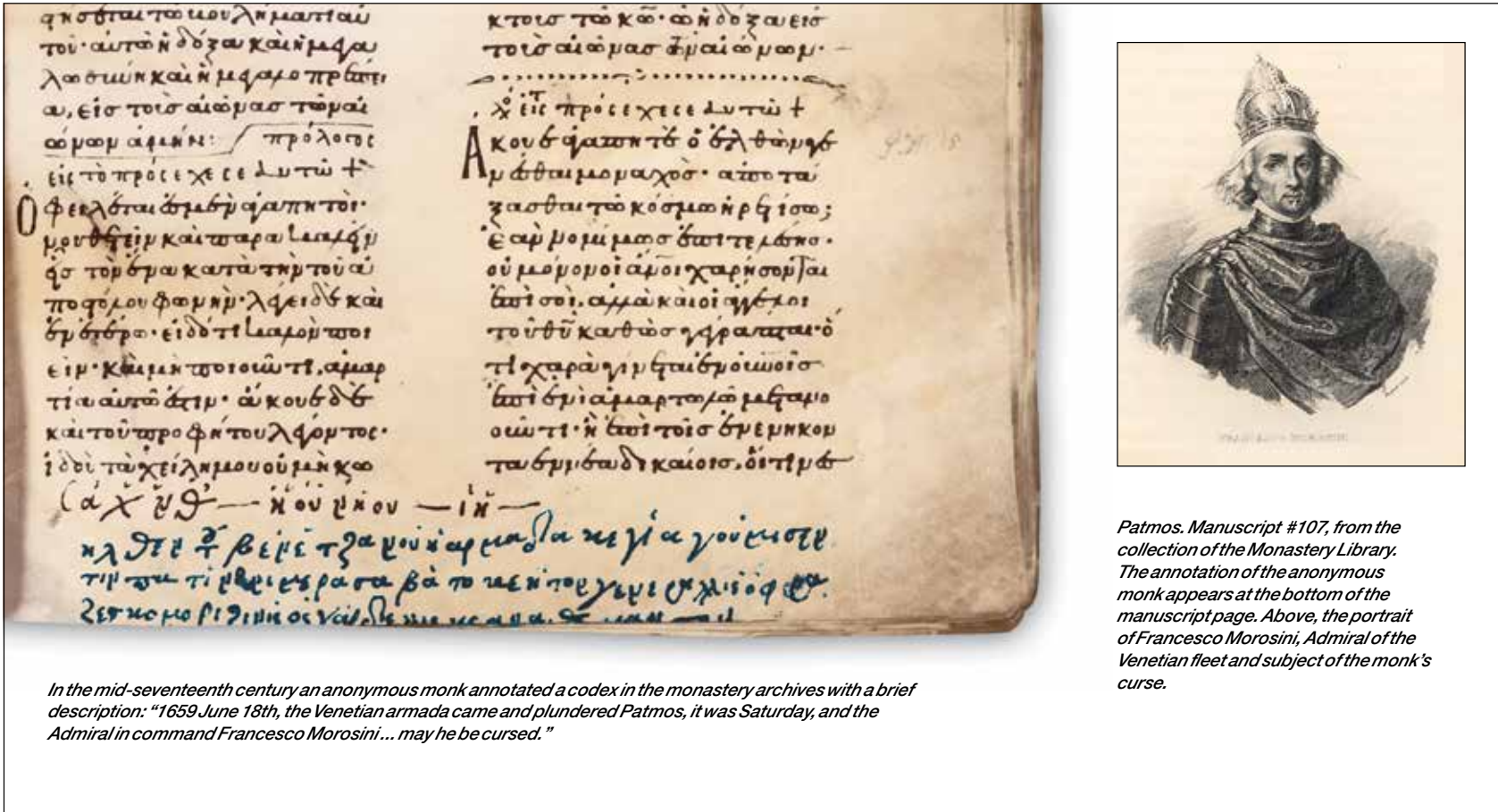
The years from 1522, when Suleyman the Magnificent expelled the Knights Hospitaller of Saint John from Rhodes, to 1669, when Candia in Crete fell to the Ottoman Turks, bracket an era of upheaval in the southeastern Aegean, which produced another wave of refugees, some of whom settled on Patmos. Over the one hundred years that followed the fall of Rhodes, these refugees built a number of self-contained compounds—each sheltering an extended family, perhaps a “clan”—whose primary task was farming.

These new compounds enlarged Chora mostly on the eastern and western sides of the monastery and eventually produced an “outer Kastro,” a much-enlarged fortified perimeter that oral tradition says included seventeen gates.

These additions to Chora gave the present-day town an urban fabric that exhibits all the physical characteristics of a Kastro and of the vernacular architecture of the Aegean islands: high building density; narrow, labyrinthine streets; adaptation to a specific site; and upper floors that arch over the streets. Many examples of these four characteristics survive today. However, the monochoro dwelling unit of Sifnos and Folegandros Kastras, which defines the substance and geometry of the external defensive walls there, is not clearly present in the Patmos Chora.

The era that saw an infusion of refugees was one of prosperity on Patmos. Neither earthquakes, including a major temblor in 1646, nor the intermittent wars for Aegean supremacy between the Venetians and the Turks seem to have interfered with this prosperity. Indeed, the monastery succeeded so well in its worldly enterprises that the patriarch of Alexandria reprimanded the monks for it. The reprimand fell on deaf ears, and three decades later, the commercial fleet of Patmos numbered forty ships trading between Italy, the Black Sea, and Egypt. The port of Skala was created in the early-seventeenth century, establishing what might be described as bipolar settlements.

Port and market facilities were concentrated in Skala while the monastery/Chora complex retained its monastic and residential character even as it strengthened its defenses. In an attempt to minimize the chance that raiders might scale its walls, the monastery tore down the dwelling units that had been attached to its defense perimeter from early days. Added escarpments enhanced the visual impact of the edifice.



Patmos. Manuscript #107, from the collection of the Monastery Library. The annotation of the anonymous monk appears at the bottom of the manuscript page. Above, the portrait of Francesco Morosini, Admiral of the Venetian fleet and subject of the monk's curse.

In the mid-seventeenth century an anonymous monk annotated a codex in the monastery archives with a brief description: "1659 June 18th, the Venetian armada came and plundered Patmos, it was Saturday, and the Admiral in command Francesco Morosini... may he be cursed."

Destruction of the Parthenon, 1687, from Francesco Fanelli, *Atene Attica*, Venice, 1707.



Those who would later engage in the rediscovery of Greece with the Acropolis of Athens as the focus should certainly have wished that the Patmian monk's curse had had an immediate effect on Morosini. For it was he who, while leading another Venetian army against the Ottoman Turks, besieged the Acropolis twenty-eight years after the Patmos disaster. Informed by a deserter that the Turks were using the building for ammunition storage, on September 26, 1687, one of Morosini's artillery lieutenants trained his fire on the Parthenon, exploding the stored gunpowder and inflicting maddening damage on this incomparable building, which had survived intact for more than two thousand years.



Patmos, Monastery of Saint John the Theologian. This interior corridor is part of the labyrinth of passages leading to cells, chapels and auxiliary spaces.



Patmos, Monastery of Saint John the Theologian. Open-air courtyard. The "Tzaphara" interior elevation, at the south side of the courtyard, dates from the late seventeenth century.

To defend Venetian Crete from a Turkish invasion, Admiral Francesco Morosini had ventured north to disrupt Ottoman communications. From Patmos he extracted support and supplies. In the hope of distancing itself from the conflict, the monastery secretly communicated its predicament to the Turks. But the written message fell into Morosini's hands, and he decided to punish the monks for their disloyalty. His revenge was swift and merciless. The Patmian fleet was destroyed; all the ships in Skala were sunk. Chora was plundered. There is no indication that the town was burned or that its buildings were vandalized but all commercial stores and foodstuffs, including olive oil, grain, and wine, were destroyed. The monastery itself was not touched, a reprieve that allowed our anonymous monk to record his observations, perhaps from the safety of the monastery's ramparts.

Morosini's plunder of Patmos illuminates again the geopolitical realities of defense on the islands of the archipelago at the time. The Aegean Kastras had been conceived and built to defend against corsair raids, the inhabitants could not protect themselves against an assault by regular naval forces as formidable as the Venetian fleet. The ease with which Morosini destroyed the goods and commerce of a prosperous community, apparently in a single day, is a grim reminder of the dangers to which all the Aegean islands were exposed and of the fate of the unlucky.

In the context of the Orthodox Church's struggle for survival, the Patmos Monastery of Saint John the Theologian had elicited and received papal protection as early as the thirteenth century. Pope Pius II (1458-64), who never ceased to preach crusades against the Turks, threatened to excommunicate anyone attacking the monastery. Standing papal orders in later centuries forbade the ecclesiastical dependents of the pope, the Knights Hospitaller of Malta, to attack Christian shipping, a prohibition that was by and large respected. When it was not, that same prohibition provided some protection for Aegean captains who, when their goods were wrongfully seized at sea, could pursue and sometimes win restitution in the courts of Malta. Morosini could invoke military considerations to defend his destruction of the economy of Chora. But given papal protection and the threat of excommunication that would have followed a direct attack on the monastery, Morosini apparently thought it politic not to offend the pope by vandalizing the monastery itself.

Patmos took several decades to recover from Morosini's devastation, but the recovery itself has been characterized as Patmos's second renaissance, which lasted from 1720 to 1821, the year the Greek War of Independence began. A new regime, the product of a new relationship between the monastery and the secular community of the island, underlay this renaissance. The monastery ceded the northern half of the island to lay ownership, and an enterprising class of ship captains responded by claiming an important stake in Mediterranean trade for Patmos. In 1713 the Patmian School, sometimes called the "university of the archipelago," was established to teach Greek, philosophy, rhetoric and logic. It attracted students from all over the Hellenic diaspora. From this urban, merchant-class community—educated, well-traveled, and exposed to liberal European ideas—Emmanouil Xanthos emerged, who with others formed the Philiki Etairia (or "Friendly Society"), a secret revolu-

tionary organization that laid the groundwork for the liberation of Greece from the Ottoman yoke, which would culminate in the establishment of the modern Greek state in 1830.

The people of Patmos were therefore disappointed when they remained outside the borders of the new state and under the benign neglect of the Ottoman empire until 1912. The year before, Italy had declared war on Turkey, and the islanders greeted the invading Italian troops as liberators. But ultimately they fell victim to Mussolini's dreams of empire after World War I. Union with Greece was delayed until Italy's defeat at the end of World War II, when Patmos and the Dodecanese complex together with all the other Aegean islands, came under a single national and political administration that emphasized development and tourism. New port facilities were built in Skala in the early 1970s to allow ships to dock and to make both Chora and the monastery more accessible to the outside world. So far this new accessibility has not eroded the island's traditional isolation and solitude, and perhaps it portends a third renaissance for Patmos.

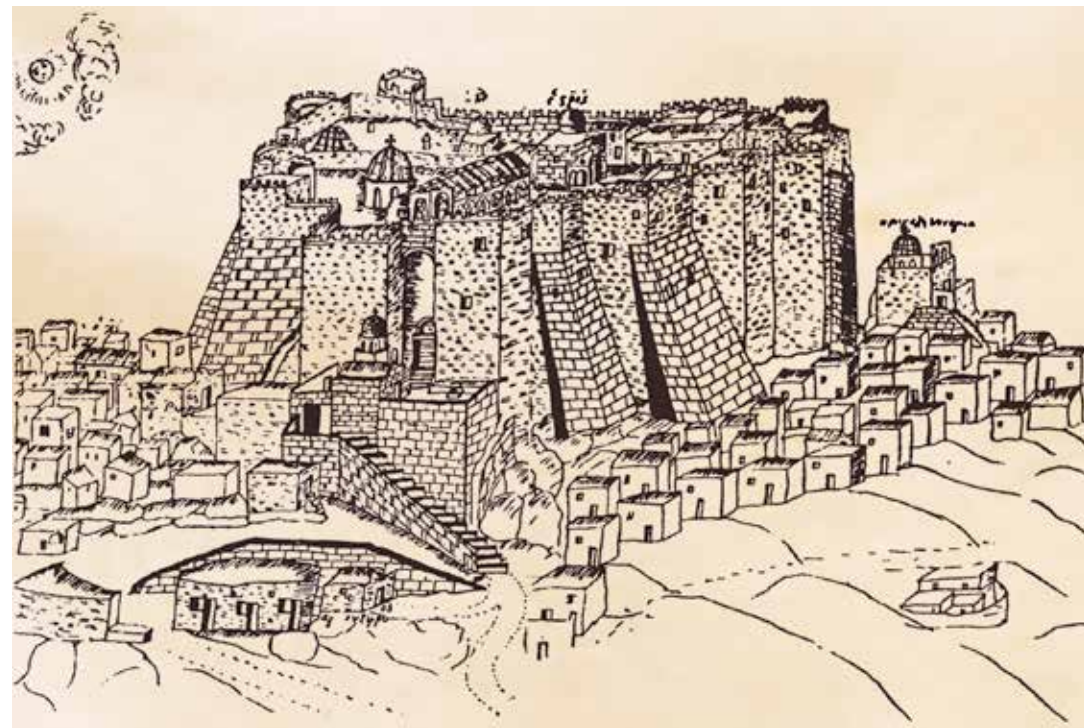


Patmos. Monastery and Chora.

Today, visitors to the monastery see a building of massive and impressive architectural volume. It owes much of its bulk to the repeated addition of escarpments during the seventeenth century, which strengthened the monastery's defenses and reinforced the external walls against earthquakes.

Observations about the monastery building and its relationship to the surrounding rings of residential units were charmingly recorded by Vasily Gregorevich Barsky (1701-47), a penniless Russian monk who, motivated by religious devotion, traveled through Greece and wrote about his experiences. Barsky, better known for his descriptions of life in the Ayion Oros monasteries, together with his drawings of them, visited Patmos in 1731. He returned to the island in 1737 for a seven-year stay while he studied at the Patmian School. It is most likely that the drawing shown dates from his second visit.

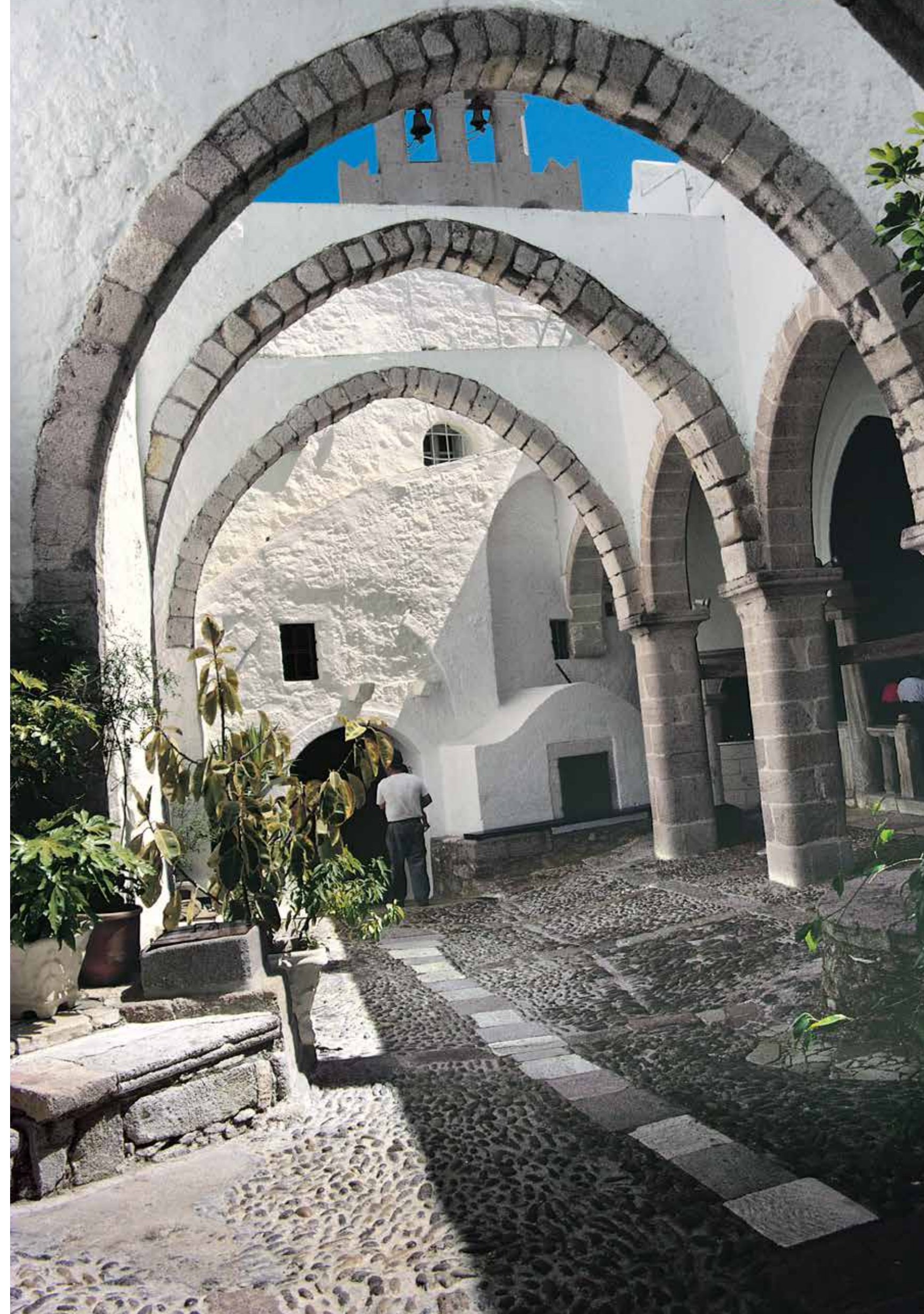
Barsky had had no formal instruction in drawing, but his unaffected representations and characteristic bird's-eye views provide rare, informative, and non-romantic mid-eighteenth-century documentation of the architecture of the archipelago. The Patmos drawing delineates the relationship between monastery and Chora with directness, an intuitive understanding of architectural scale and proportion, and a discriminating sense of appropriate detail. The mix of lettering used to identify buildings and orientation in the drawing is a reminder that Barsky's ambitions were descriptive rather than artistic. In the drawing, Barsky observes and records the architecture of the roof of the monastery. Behind the uniform ramparts, the roof of this robust building with its formal Constantinopolitan origins reveals itself as an Aegean vernacular architecture composition with a plethora of volumes at a domestic scale. These volumes, attached to each other with chapels



Vasily Gregorevich Barsky, drawing. Patmos, Monastery and Chora, c. 1740.

and domes scattered among them, recall the image of Chora as it appears at the foot of the monastery. Barsky's drawing thus tells us that much of the monastery/Chora composition has not changed appreciably since the 1740s.

Patmos. Monastery of Saint John the Theologian. Open-air courtyard. Part of the bell tower housing five bells located over the entry to the monastery appears between the arches. The Katholikon is on the right. The cut-stone piers and arches of the courtyard, including the "Izaphara", seem to echo the architecture of nearby Rhodes, the capital city of the Knights Hospitaller. Indeed, monastery records identify a number of the master builders of this period as Rhodian.





Patmos, Chora. The six illustrations on the opposite page are representative of the urban fabric of Chora and exhibit the characteristic features of the vernacular architecture of the Aegean islands, such as high building density, narrow, winding pedestrian paths, adaptation of building to the particular feature of a site, upper floors over public access paths, etc. Two of the illustrations, together with that of ΔΗΜΑΡΧΕΙΟΝ (City Hall) on the right, also confirm the nineteenth century intrusion of neoclassical architectural forms into the urban fabric of Chora.

As in other Aegean island towns, neoclassical forms and manners have intruded into the vernacular architecture of Patmos in public buildings like the city hall and its ship owners' mansions. That this occurred on Patmos, an island that remained under Ottoman Turkish jurisdiction even after the 1830s, suggests that the unity and strength of the nineteenth-century vernacular architecture of the Aegean archipelago transcended national borders.

Dating from the early-seventeenth century, the settlement of Skala exemplifies the growing naval strength of Patmos and the development of sufficient self-confidence to build near the water, despite the continuing pirate infestation of the Aegean Sea. After piracy died down, Skala continued to grow well into the twentieth century. Its greatest growth occurred after the 1970s when Patmos's attractions became more accessible with the building of the new port facilities. Despite the functional interdependence between the monastery/Chora complex and the port of Skala, the distance of four and one-half kilometers between them and the nature of the terrain are likely to keep the two from physically merging in the foreseeable future. A similar relationship between a hilltop town and a satellite port exists on Astypalaia between Chora/Kastro and Pera Yialos. There, the physical distance between the two is much shorter and

the step-ramp-step formation connecting the hilltop town and the port below creates, at human rather than vehicular scale, a connector, or a spine, that constitutes a truly vibrant architectural element.

THE HYBRID RESPONSE
SHARING LESSONS

ANDROS

Mesa Kastro, Kato Kastro and Chora

ANDROS

Mesa Kastro, Kato Kastro and Chora

Although geographically and historically part of the Cyclades islands, Andros is empowered by its natural and man-made landscape to differ from the rest of its group. And so it is with Andros Kastro, which on its own terms employs and translates Cycladic collective fortification principles over a unique site.

The most northernward of the Cyclades and the second largest after Naxos, the topography of Andros is characterized by mountain ranges – the tallest reaching 997 meters – that run perpendicular to its nearly forty kilometers northwest-southeast length. Andros is the only Cycladic island that has traditionally exported bottled mineral water from its springs. Between those mountain ranges, the same springs water verdant valleys leading to beaches, bays, and small ports on both the east and west coasts of the island. The east coast, where the Andros Kastro is located, looks to the open northern Aegean Sea and lies eighty kilometers from the island of Chios and its medieval fortified settlements of Mastichochoria.

Most of the Cycladic islands were appropriated by Marco Sanudo to create his Duchy of the Archipelago. Other islands of the complex, including Andros, were reserved as fiefs for his principal followers.



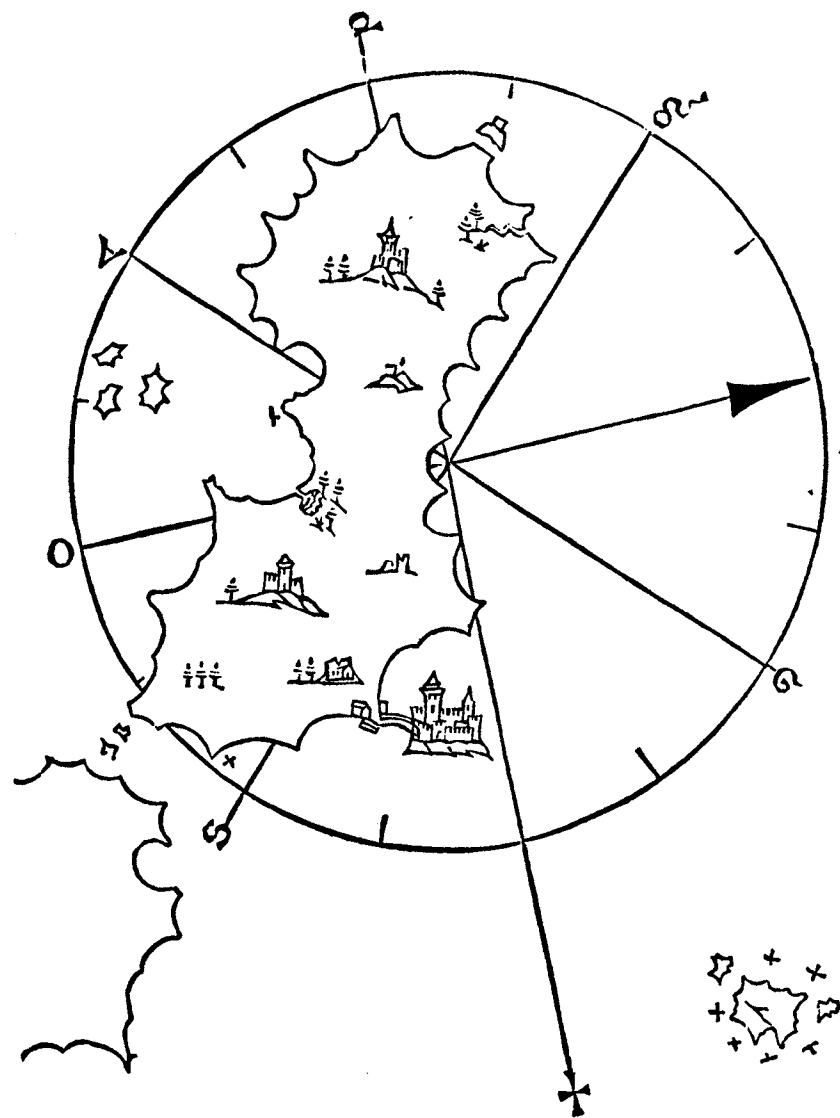
Andros, Chora, looking northwest. Kato Kastro is at the center of this helicopter-based photograph and Mesa Kastro is at the extreme right of the peninsula. Behind both is Nimborio bay and the Andros Chora port.

ANDROS ① GENERAL INFORMATION

| | |
|-----------------------|--------------------------------|
| Prefecture | Cyclades |
| Location (Kastro) | 37° 50' 20" N 24° 56' 30" E |
| Distance from Piraeus | 164.83 km (89 n.miles) |
| Distance from Rafina | 66.68 km (36 n.miles) |
| Area | 383.022 km ² |
| Dimensions | 39 km long, 14.5 km wide |
| Shoreline | 119.5 km |
| Highest Elevation | 997 m (Kouvara, Mt. Petalo) |
| Permanent Population | 9,285 (2001) |
| Port | Gavrio |

One of these followers, Marino Dandolo, nephew of the old Doge Dandolo, the strategist of the Fourth Crusade, became the first Latin lord of Andros in 1207. The island provided Dandolo a self-contained, insular domain with its own port and preexisting fortifications in a geographic location perfectly suited for an adventurous seafaring life. Furthermore, and again as in all other Cycladic islands, the local sailors and tillers of the soil found in Dandolo and his associates a greater measure of security than they had enjoyed under the collapsing Byzantine empire. Andros

remained in Latin hands until 1566 when the whole duchy, weakened by the devastating Barbarossa raids of 1537, was absorbed into the Ottoman empire.



Bartolomeo dalli Sonetti, map of Andros, wood engraving c. 1485. Below, "I. Andros" (Andros Island) manuscript map of the island, Cristoforo Buondelmonti, Liber Insularum Archipelagi, Gennadius Library, Athens, Greece. The Buondelmonti map dated from the 1410s and 1420s is the earliest known manuscript map of Andros. Repeating the same geographical information, a number of handmade copies were reproduced, utilizing individual graphic variations, and are now parts of various library collections. Also based on the original Buondelmonti information, the Bartolomeo dalli Sonetti map appearing several decades later is the first printed map of the island and was thus reproduced without the individual variations of a manuscript map. Bartolomeo dalli Sonetti is the pseudonym of a Venetian sailor who accompanied his maps with explanatory rhymes or sonnets, hence his pseudonym. The same comments apply to Buondelmonti and Bartolomeo dalli Sonetti island maps appearing in other pages.



Perhaps more than any other Cycladic island, Andros suffered from dynastic disputes and quarrels about its ownership. When Marino Dandolo died heirless, Geremia Ghisi, lord of nearby Tenos and Mykonos, grabbed the whole island in a dispute with Marino's widow, an act leading to an appeal to Venice and causing a deadlock that lasted decades and that was eventually resolved diplomatically when the island was taken over by the Sanudi of Naxos. Pietro Zeno, to whom Andros was bestowed in 1384, was one of the better-known diplomats of his day. An impressive example of Zeno's diplomatic initiatives was his 1404 visit to England, where he went to ask Henry IV for aid against the Ottoman Turks, who were then threatening to overwhelm the Duchy, an initiative which confirms William Miller's note that "The baronies of the Archipelago became a school for the governors and diplomatists whom the republic of St Mark required in the Levant."

Two generations after Zeno, another inheritance dispute brought in a very willing Venice to rule Andros. During this three-year period of governance by the Serenissima, all claimants to the rich prize the island offered went to Venice to plead their cases. As a result Andros, in 1440, was awarded to Crusino I Sommaripa, lord of Paros, whom we encountered earlier as the individual of Renaissance tastes who took particular pride in showing his visitor in Paros, Cyriacus of Ancona, some of the Greek statues he had excavated. This Venetian adjudication and award brought in a long line of the Sommaripa family to the lordship of Andros, a governance lasting until the Barbarossa raids and the passing of the island as part of the duchy to Joseph Nasi.



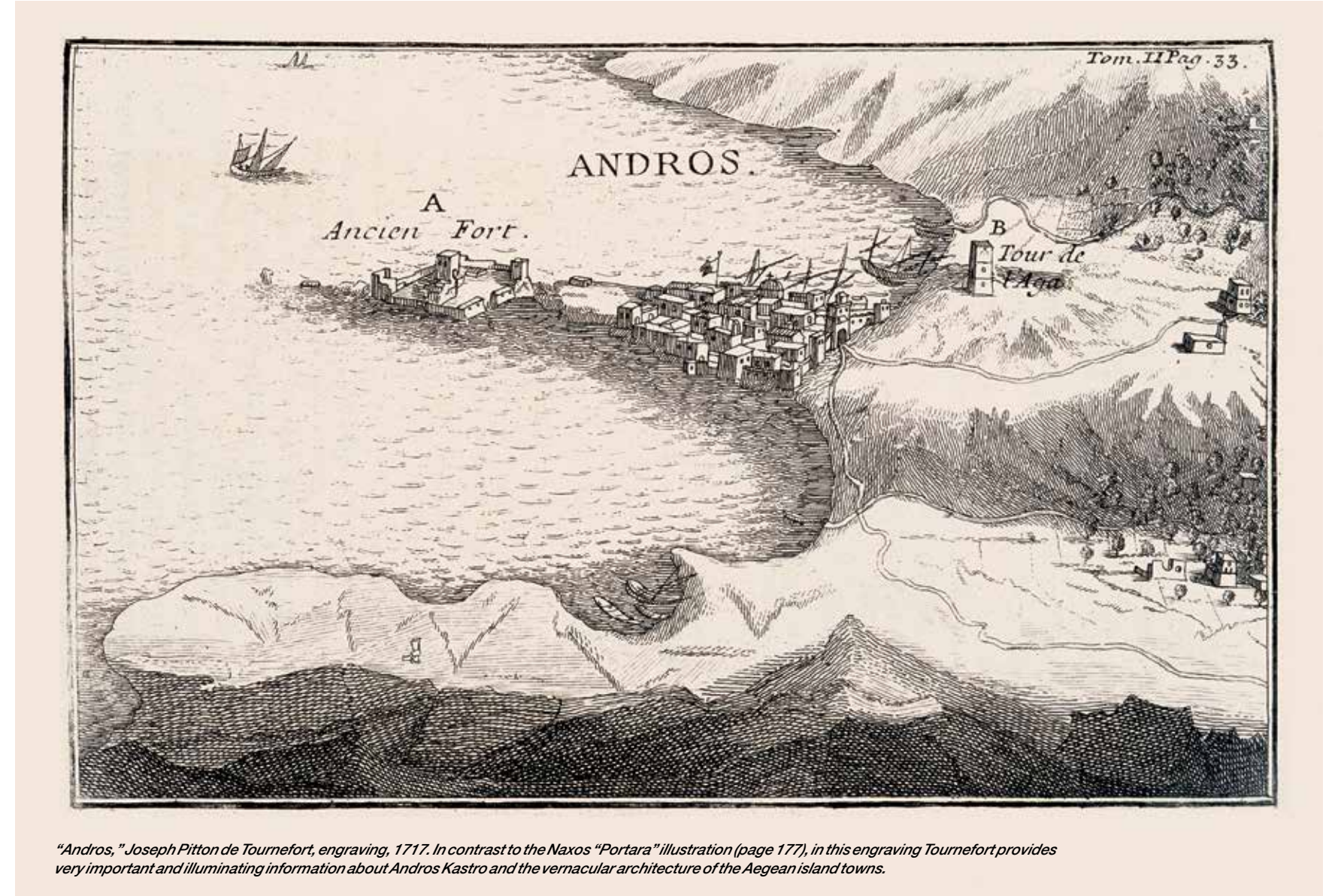
Andros, Chora. The remnants of Mesa Kastro and the Marino Dandolo central tower.

ANDROS MEDIEVAL CHRONICLE

| | | | |
|------------------------------------|---|--|--------------------------|
| 1204 | The army of the Fourth Crusade sacks Constantinople. Fragmentation of Byzantine territories | | |
| 1207 | MARINO DANDOLO Marino Dandolo captures Andros, which is holding as fief when Marco Sanudo seizes seventeen Aegean islands and founds the Duchy of the Archipelago. | | |
| 1233 | GEREMIA GHISI Marino Dandolo dies without leaving any successors. Geremia Ghisi takes over Andros. | | |
| DUCHY OF THE ARCHIPELAGO | | | |
| 1251 | ANGELO SANUDO Second Duke Following the death of Geremia Ghisi, and long dynastic disputes, Angelo Sanudo seizes Andros with the consent of Venice. Andros becomes part of the duchy, an affiliation that continues through Sanudo's many successors. | | |
| 1347 | The Black Death. Ships from the Genoese trading colonies in the Crimean peninsula pass through the Aegean Sea and bring the Black Death to Italy. | | |
| 1384 | PIETRO ZENO Pietro Zeno, a Venetian diplomat, becomes ruler of Andros. Zeno visits England to ask for aid against the Ottoman Turks. | | |
| 1404 | ANDREA ZENO | | |
| 1427 | ANDREA ZENO | | |
| 1431 | In retaliation for Venetian attacks in Chios, the Genoese admiral Pedro Spinola assaults and occupies Andros for a short period. | | |
| 1437 | VENETIAN ADMINISTRATION | | |
| SOMMARIPA FAMILY | | | |
| 1440 | CRUSINO I SOMMARIPA Andros is awarded by Venice to Crusino I Sommaripa, lord of Paros. Crusino hosts Cyriacus of Ancona in Paros. | | |
| 1453 | Constantinople falls to the Ottoman Turks. During Guglielmo II Crispo's reign as Duke of the Archipelago, the Turks overthrow the Greek Despotate of the Morea and the Flo- | | |
| | | | rentine Duchy of Athens. |
| 1462 | DOMENICO SOMMARIPA | | |
| 1466 | GIOVANNI SOMMARIPA Giovanni Sommaripa, grandson of Crusino, is killed in 1468 fighting during a Turkish raid, which ends with the enslavement of hundreds of islanders. The island population is reduced to 2,000. | | |
| 1468 | CRUSINO II SOMMARIPA | | |
| 1500 | NICOLO SOMMARIPA | | |
| 1506 | FRANCESCO SOMMARIPA | | |
| 1507 | VENETIAN ADMINISTRATION | | |
| 1514 | ALBERTO SOMMARIPA | | |
| 1523 | CRUSINO III SOMMARIPA | | |
| TOURKOKRATIA (TURKISH RULE) | | | |
| 1537 | KHEIREDDIN BARBAROSSA Sailing out of the Golden Horn, the Turkish admiral descends upon the Aegean islands. All are taken and devastated including Andros. Crusino III Sommaripa is allowed to continue ruling Andros as a Turkish tributary. | | |
| 1539 | GIANFRANCESCO SOMMARIPA The last of the Sommaripas ruling Andros as a Turkish tributary. | | |
| 1566 | DON JOSEPH NASI Twenty-second Duke Sultan Selim II, heir to Suleyman the Magnificent, names as duke Don Joseph Nasi, a Portuguese-Jewish banker and his financial adviser. Nasi, the last person to hold the title of duke, remains in Constantinople and never visits the islands. | | |
| 1579 | Joseph Nasi dies. The sultan transfers Naxos and a number of other islands including Andros to Suleyman Bey for an annual rental of 40,000 ducats. | | |
| 1670 | Hugues Creveliers, a French pirate and Byron's "Corsair," pillages Andros. | | |
| 1700s | Joseph Pitton de Tournefort, who visits Andros during the very early 1700s, provides a rare and credible record of the physical appearance of the Andros Kastro. | | |
| 1830s | End of the era of piracy. Andros becomes part of the new Greek state. | | |



Andros, Chora. The expansion of Andros Chora southwest of the original peninsula settlement appears on the upper right. The western limits of Tournefort's eighteenth century settlement are still detectable on this helicopter-based photograph.



"Andros," Joseph Pitton de Tournefort, engraving, 1717. In contrast to the Naxos "Portara" illustration (page 177), in this engraving Tournefort provides very important and illuminating information about Andros Kastro and the vernacular architecture of the Aegean island towns.

Joseph Pitton de Tournefort, the learned French botanist, visited the island of Andros (along with many other Aegean islands including Naxos, Patmos and Santorini) during the very early part of the eighteenth century and wrote very credibly about Andros Kastro and its peninsular site, thus providing a record of their appearance during the long Tourkokratia period. In a bird's-eye-view drawing Tournefort delineated a narrow and long peninsula which thrusts like a dagger toward the open sea. Characterized by a nearly forty-meter-high ridge, the peninsula separates a sandy beach in practically equal halves, and provides a distinctive site for a medieval fortified port settlement. The eighteenth century drawing and the helicopter-based photographs on these pages illustrate the centuries-long physical development of the medieval Andros Kastro into what is known today as Andros Chora, still the capital of the island. This physical development was tightly controlled by the converging edges of this rocky peninsula but would incorporate the island's two fortifications, the Mesa Kastro and the Kato Kastro.

In this drawing Tournefort identifies a rocky site at the eastern end of the peninsula, shaped like the dot of an exclamation point, as "Ancien Fort." Walls forming a rectangular enclosure reinforced by two towers at the corners and one free standing in the middle define the fort, with its assembly and character of architectural elements providing satisfactory evidence that the edifice must be the Mesa Kastro, the fortified residence and command post built by Marino Dandolo, the first Latin lord of Andros, in the early thirteenth century.

While the drawing depicts the "Ancien Fort" as in ruins and deserted, a densely built settlement west of it, next to an active port, appears occupied. Delineating single room dwellings attached to one another with flat roofs and diminutive windows, together with the exterior rural paths leading to an arched gate, the drawing identifies

an Aegean collective fortification, the early eighteenth century Kato Kastro, predecessor of today's Chora of Andros.

Three hundred or so years later, helicopter-based photographs show that the rocky site of Mesa Kastro has been eroded and the rectangular enclosure and corner towers on top have disappeared. Only the remnants of the Marino Dandolo central tower, or keep, still stand. A stone arch hesitantly spans the small gap between the two parts of the peninsula, possibly replacing a drawbridge of medieval times. Today's Chora, the descendant of the fortified settlement Tournefort describes, is a culturally sophisticated and prosperous small town built on the historic pattern of Kato Kastro. Expanded westwards beyond the confines of the defense wall housing the eighteenth century gate, Andros Chora has also incorporated into its urban fabric the site of the Aga tower, the "Tour de l'Aga" of the Tournefort drawing.



Andros, Chora, looking west from the peninsula ridge.

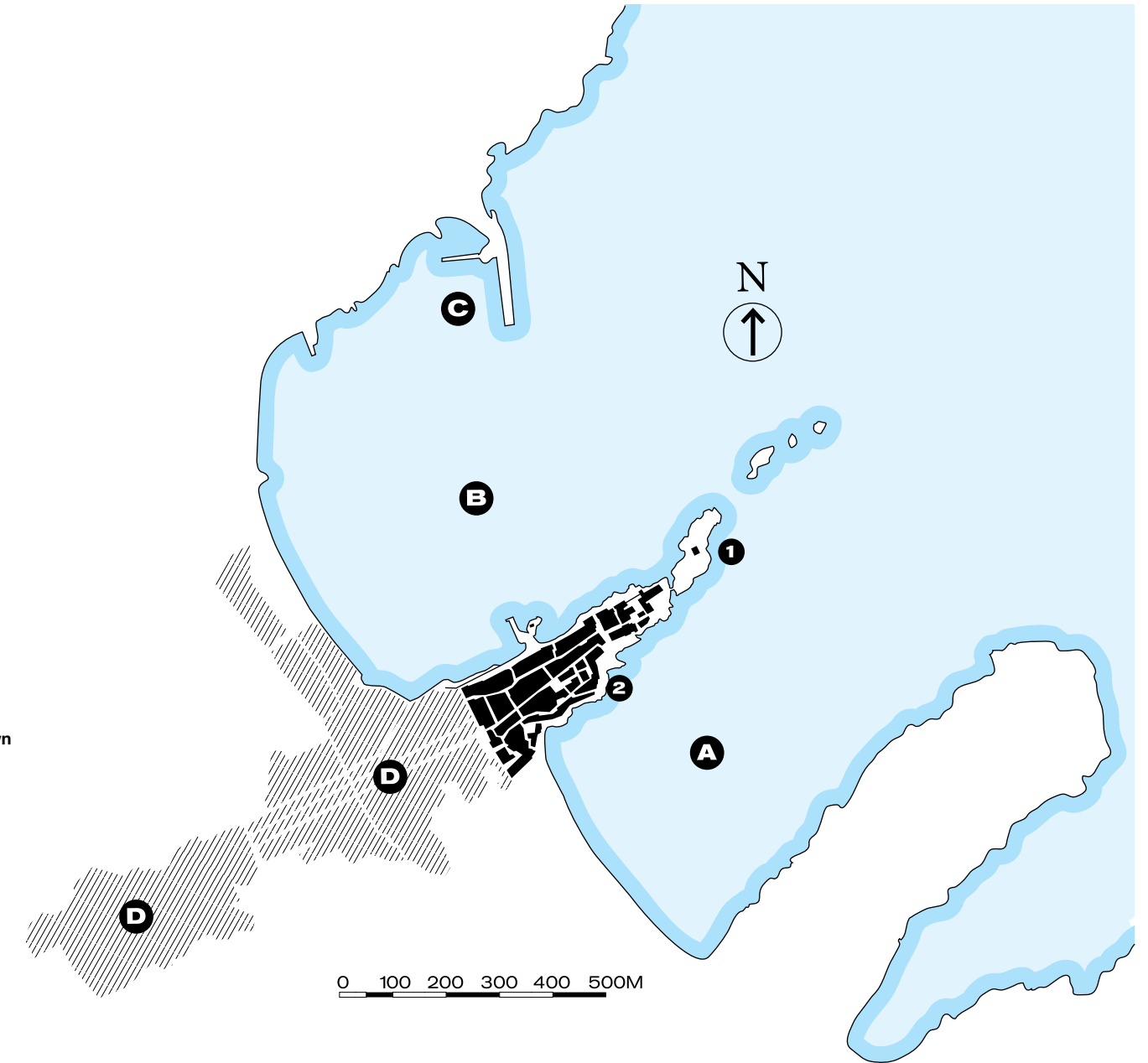
ANDROS KASTRO SITE PLAN

1. Mesa Kastro
2. Kato Kastro
3. Possible medieval fortifications (heavy lines)
4. Possible line of fortification according to Tournefort drawing
5. Riva neighbourhood
6. Plateia Kairi



ANDROS KASTRO SITE PLAN

1. Mesa Kastro
2. Kato Kastro
- A. Paraporti bay
- B. Nimborio bay
- C. Andros port
- D. Andros Chora present town



Today the east-west street of the Chora, which traces the peninsular ridge, forms a traffic spine for Kato Kastro. Stepped pedestrian paths lead away from the spine and down towards the sea on both sides of the peninsula. The flat roofs of the Tournefort drawing have been almost totally replaced by tiled roofs, contributing to an apparent transformation of the settlement. An explanation of this transformation might be sought in the major geopolitical event of the eastern Mediterranean area, the emergence of the new Greek state in the 1830s with Athens as its administrative and cultural center. Liberated from Tourkokratia, and in an effort to reconnect with the glory of its past, Greece had its capital of Athens planned and built in the spirit of neoclassicism that prevailed across Europe at the time.

Architectural façades expressing this spirit, topped by the indispensable neoclassical tiled roofs, trickled down from Athens to most Aegean island towns. Andros and Hydra are the most pronounced examples of this distinct architectural phenomenon and transformation.

Regarding site and internal organization the medieval Andros Kastro is reminiscent of that of neighboring Tenos.

Both were built on sites with distinctive physical characteristics: Tenos Kastro on the massive granitic rock of Xobourgo, Andros Kastro on a dagger-like peninsula.

In both examples there is an articulate physical separation between the "civilian" and "military" parts of the fortification: in Tenos between the "Habitato" and "Castello" of the Francesco Basilicata illustration, and in Andros between Kato Kastro and Mesa Kastro.

Both "Habitato" and Kato Kastro had to be entered and crossed for "Castello" and Mesa Kastro to be reached. Tenos Kastro was destroyed and its inhabitants dispersed following the 1715 events. In contrast, Andros Kastro experienced continuous development on the same site, which brought today's Chora of Andros to a high level of cultural and urban sophistication.



Andros island. Miles of dry stonewalls outline properties and define animal pens throughout the Aegean islands. Schist, which is widely and almost exclusively available in Andros, produces large surface slabs that are unusually set upright to form dry stonewalls known locally as stimata. Stimata cover the countryside of Andros and have become a distinctive feature of the vernacular architecture character of the island. The illustrations on these two pages present some of the great variety of applications of stimata in Andros.



THE HYBRID RESPONSE
SHARING LESSONS

TENOS

The Last Venetian Island in the Aegean



TENOS

The Last Venetian Island in the Aegean

Rhodes surrendered in 1522, the Duchy of the Archipelago collapsed in the 1560s, and Candia (modern day Irakleion), the last Venetian stronghold on the island of Crete finally fell to the Ottoman Turks in 1669 after a twenty-two year long siege. Tenos an island in an Ottoman sea, surrounded by Ottoman lands remained exceptionally and remarkably a Venetian possession until 1715.

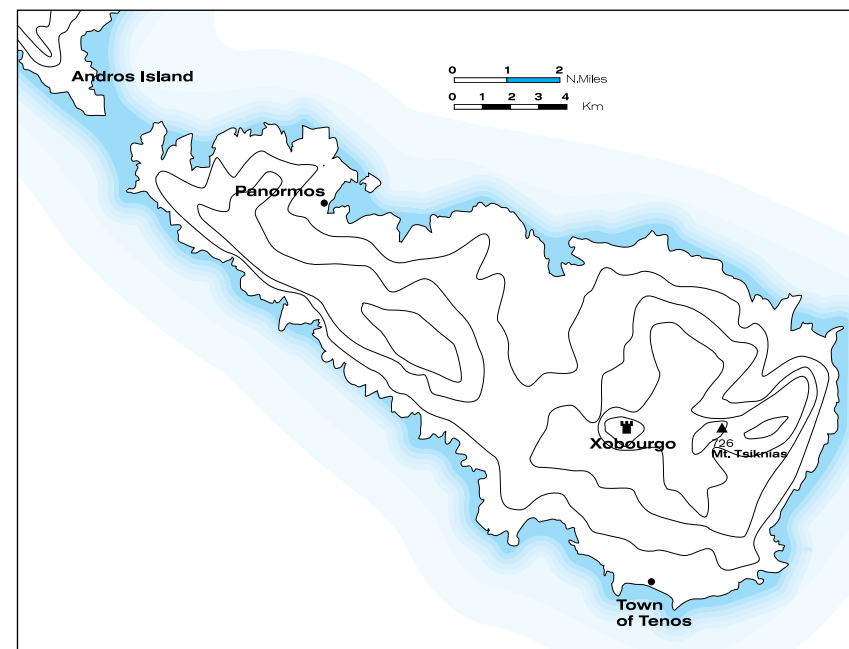
There are those who believe that the impregnability of the fortifications of Tenos in a location known as Xobourgo contributed to keeping the island in Venetian hands for so much longer than any other Aegean island. A good part of this is true. But events beyond the reach of the few cannons of the Tenos Kastro, such as the wars between the Ottoman Empire and the Republic of Venice and its allies leading to the peace Treaties of Karlowitz in 1699, and Passarowitz in 1718, also dictated the fate of Tenos.

Third in size of the Cycladic islands, after Naxos and Andros, Tenos, resembles in plan an isosceles triangle pointing northwest. The physical form of the island is also determined by a series of high points, the tallest known as Tsiknias reaches 726 meters above sea level. Not as tall at 540 meters, is the granitic rock of Xobourgo, visually and historically the preeminent sight of the island. The 197 square kilometers of the island of Tenos contain today a population of 8.115 (census of 2001), the

majority residing throughout the island in more than 40 settlements, some claiming fewer than a dozen inhabitants.

By contrast to other Cycladic islands, Tenos, is well watered and about one third of its surface is appropriate for cultivation. In the circular disposition of the Cyclades, Tenos, occupies part of the northeastern periphery exposing the island and particularly its north coast to intense north winds. Common to the Aegean, these winds interrupt sea traffic and isolate islands from one another and from the mainland often for days at a time.

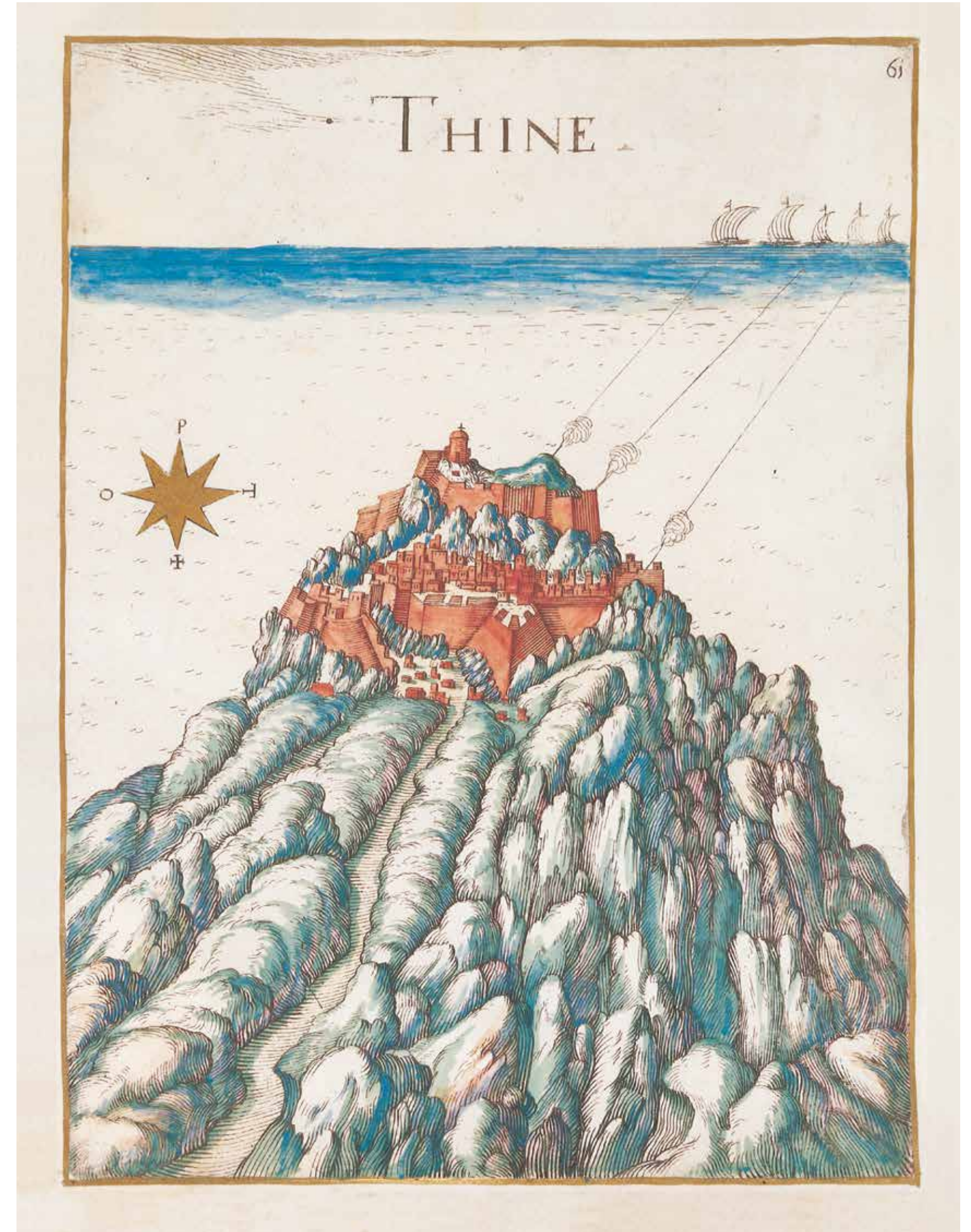
Tenos is the site of a major annual pilgrimage of Greek Orthodox Christianity that on August 15, honors the 1823 discovery of the miraculous icon of Our Lady, now housed in the Church of Panayia Evangelistria. A plethora of gold, silver and precious stone votive offerings attached to the icon confirm the widespread belief in the healing power of Panayia Megalohari, or Our Lady of Infinite Grace.

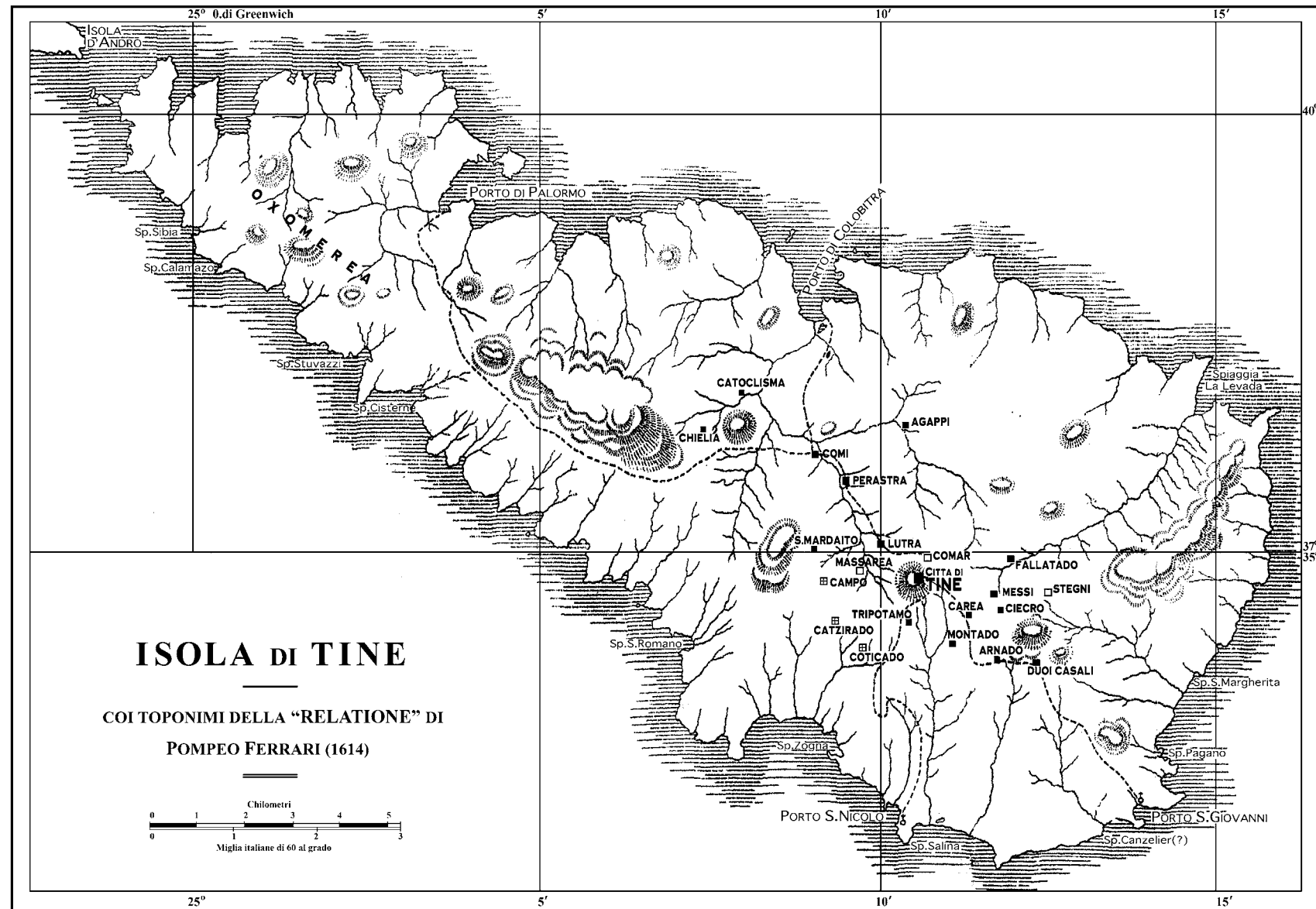


TENOS ① GENERAL INFORMATION

| | |
|-----------------------|--------------------------------|
| Prefecture | Cyclades |
| Location (Kastro) | 37° 34' 50" N 25° 10' 30" E |
| Distance from Piraeus | 159.27 km (86 n.miles) |
| Distance from Rafina | 118.52 km (64 n.miles) |
| Area | 197.044 km ² |
| Dimensions | 27 km long, 11 km wide |
| Shoreline | 76 km |
| Highest Elevation | 726 m (Mt Tsiknias) |
| Permanent Population | 8.115 (2001) |
| Port | Tenos port |

Opposite page: "Thine," hand-colored engraving from Marco Boaschini, "Il Regno tutto di Candia," 1651, Gennadius Library, Athens, Greece. This inspiring representation of Tenos Kastro depicts in precise and economical terms the commanding position of Kastro and its artillery over enemy ships, while also conveying the interplay of the rough natural landscape and the formidable man-made fortifications. Meant as a demonstration of the capabilities of Tenos Kastro, it very likely acted to discourage potential attackers.





Mario Magnani, "Isola di Tine." The map is reproduced from the book of Ermanno Armao, *Venezia in Oriente: La "Relatione dell' Isola el Citta di Tine di Pompeo Ferrari Gentil'huomo piacentino,"* 1938. Listed below are the names of the 1614 island settlements appearing on the map, paired with the equivalent present-day names.

- *Agapi* Agapi
- *Arnado* Arnados
- *Carea* Karia
- *Campo* Campos
- *Catoclisma* Kato Klisma
- *Catzirado* Chatzirados
- *Ciecro* Kechros
- *Chielia* Kellia
- *Citta di Tine* Xobourgo
- *Comar* Kumaros
- *Comi* Komi
- *Coticado* Ktikados
- *Duoi Casali* Dio Choria (2 Villages)
- *Fallatado* Falatados
- *Lutra* Lutra
- *Massarea* Messaria
- *Messi* Messi
- *Montado* Muntados
- *Perastra* Perastra
- *S.Mardaito* Smardakito
- *Stegni* Steni
- *Tripotamo* Tripotamos
- *Porto di Colibitra* Colimpithra
- *Porto di Palermo* Panormos
- *Porto S. Nicolo* Town of Tenos
- *Porto St. Giovanni* Ayios Yannis Porto
- *Sp. Calamazzo* Kalamaki
- *Sp. Canzelier (?)* Ayios Sostis
- *Sp. La Levada* Livada
- *Sp. S. Romano* Ayios Romanos
- *Sp. S. Margherita* Santa Margarita
- *Sp. Pagano* Pachia Ammos
- *Sp. Salina* Passakrotiri
- *Sp. Cisterne* Istermia
- *Sp. Zogna* Kionia

In 1207, Marco Sanudo captured Naxos, Paros, Melos, Syros, Kythnos, Sifnos, Sikinos, Ios and Amorgos, declaring himself duke of the Archipelago. Other islands became fiefs for his principal followers. The most aggressive and acquisitive young Venetians among the group were the Ghisi brothers, Andrea and Geremia, who established themselves in Tenos and Mykonos (the former), and Skyros, Skiathos and Skopelos (the latter), in the northern Aegean. In feudal law the Ghisi brothers remained independent of the Sanudi and Tenos and Mykonos did not become part of the Duchy of the Archipelago.

Seven generations of Ghisi ruled as lords of Tenos and Mykonos until 1390 when the last of the dynasty Giorgio III, upon his death without descendants, bequeathed the two islands to Venice. For the next 325 years (1390-1715) Tenos was administered as a direct dependency of the Serenissima under variable configurations. After the Barbarossa raids of 1537 and the treaty of 1540 ending one of the many Venetian-Turkish wars, Mykonos and all other Aegean islands were ceded to the Sublime Porte, leaving Tenos as the sole Venetian possession in the Aegean archipelago.

Today, the name Xobourgo (also known as Exobourgo) identifies the massive granitic rock on top of which stood the medieval capital of the island, the Tenos Kastro. Settlement on Tenos in antiquity and Byzantine times most certainly took advantage of the physical attributes of the site. What we see today at Xobourgo however, are the ruins of fortifications dating from the Duchy of the Archipelago era and later.

In the absence of specific documentation, we might assume from parallel examples in the region that one of the earliest tasks of the Ghisi brothers in 1207, was to protect the islanders who were producing the wealth enhancing the value of the fief, by improving the existing Byzantine era fortifications. The resulting Kastro of Tenos became the base of operations of the Ghisi, who as lords of Tenos and Mykonos, were continuously and aggressively involved in expeditions and warfare in alliance or against other Latin lords in Peloponnesos and other parts of the Greek peninsula. The poor relations



VUE DU BOURG DE SAN-NICOLO DANS L'ILE DE TINE

Prise du côté du Couchant.
A. P. D. R.

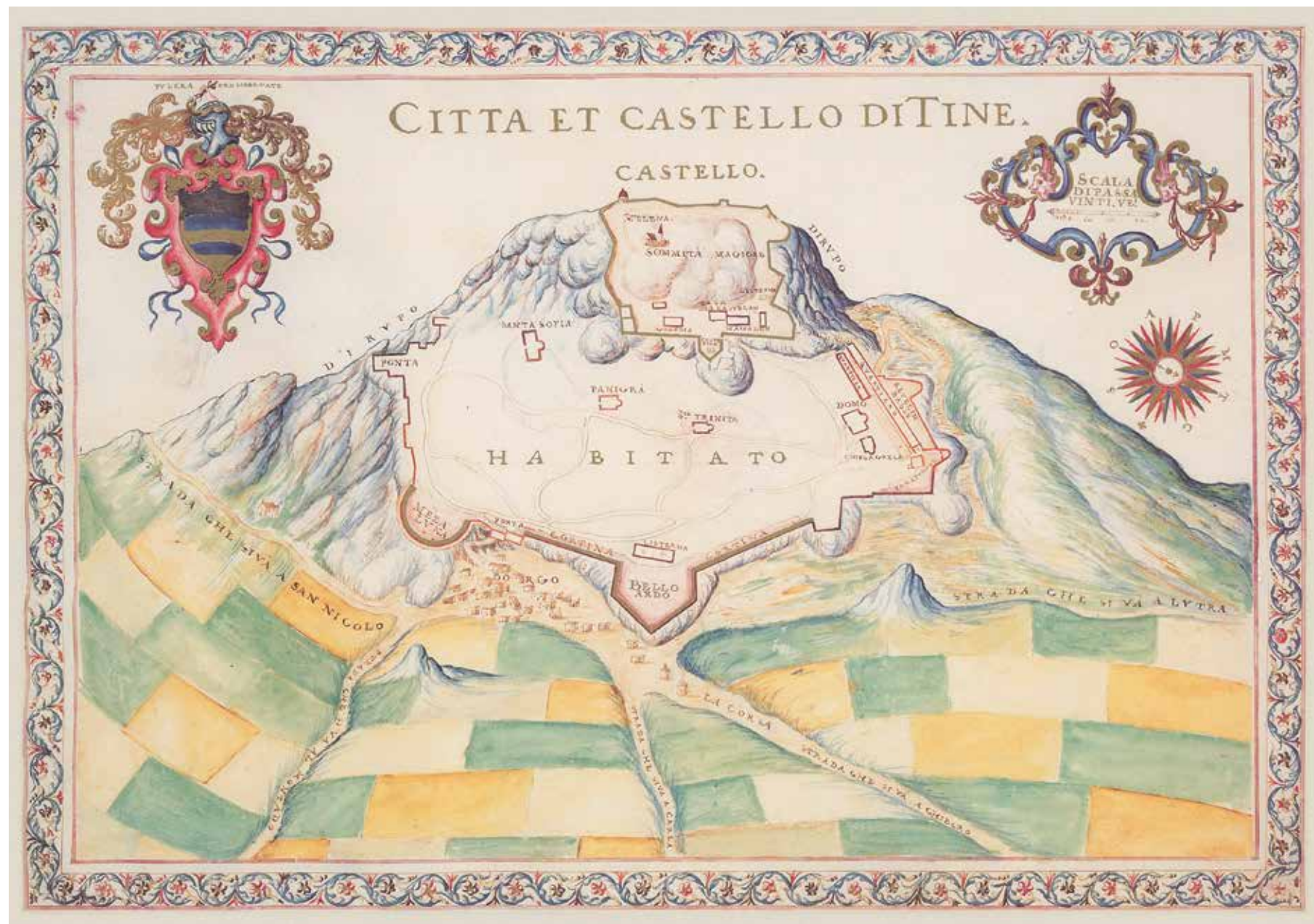
"View of the Town of San-Nicolo on the island of Tenos," from "Voyage Pittoresque de la Grece," a 1782 publication of the work of Choiseul-Gouffier. San Nicolo of this engraving is today the town of Tenos, the capital of the island.

with their immediate neighbors the Sanudi of the duchy, were characterized by the 1286 incident, described in the Syros chapter, involving a stolen valuable donkey, an incident that historians have called facetiously the War of the Ass.

Following the 1204 sack of Constantinople, and the establishment of a Latin empire on Byzantine territory, the Aegean islands were parceled out to Venetian citizens to run as personal fiefs, saving the Republic the administrative and defense expense of direct rule. The fiscal wisdom of this Venetian policy became apparent nearly two hundred years later when the last of the Ghisi bequeathed Tenos and Mykonos to the Republic, as salary needs for the Venetian bureaucracy could not be met by the taxes raised on the island. In addition, funds had to be provided by Venice for the upkeep and improvement of the defenses of the Tenos Kastro that by the end of the fifteenth century needed a major updating in order to meet the challenges posed by the introduction of artillery to Aegean warfare.



Town of Tenos. The Panayia Megalohari church complex.



"City and Fortification of Tenos," Francesco Basilicata. The map is part of "Regno di Candia, Atlante Corografico," 1618, Bibliotece di Museo Correr, Venice, Italy.



Tenos, Xobourgo, looking south. The remnants of the medieval fortified town of Tenos are at the center of this helicopter-based photograph. The present-day town and port of Tenos appear at the upper left of the illustration.

"Citta Et Castello Di Tine," Town and Castle of Tenos, a map by Francesco Basilicata, dated 1618, shown above, provides a very informative and reliable illustration of the Tenos Kastro, at a time following the additions and improvements of the middle of the sixteenth century that brought the fortification very close to its final 1715 form. Viewed from the northeast, four major elements compose the Basilicata map: the landscape of the island, the fortified town of Tenos, the Kastro of Ayia Eleni and the rock of Xobourgo.

The irregular pattern of five roads leading to various settlements on the island including that of "San Nicolo" or Ayios Nikolaos, the port and main town of the island today, are superimposed on the geometric pattern of cultivated land colored green and orange. All five roads converge on a place designated as "Borgo." Father Markos Foscolos whose published scholarly work has been very helpful to writing this chapter, mentions that two churches, and ninety-eight buildings containing houses and shops, were the components of Borgo. The shops of Borgo were the market of the town of Tenos, their owners residing inside the walled town, while the

rest of the Borgo inhabitants were farmers cultivating the fields around Xobourgo. In times of danger detected by observation from Kastro, both farmers and shopkeepers sought refuge inside the walled area designated on the map as "Habitato." Windmills, omnipresent on Aegean islands, appear just outside the settlement at the point where one of the five roads leading away from Borgo originates. It appears from the map that the physical relationship of Borgo to the massive fortifications of Tenos Kastro immediately above was not unlike that of Chora to the Monastery of Saint John the Theologian on the island of Patmos.

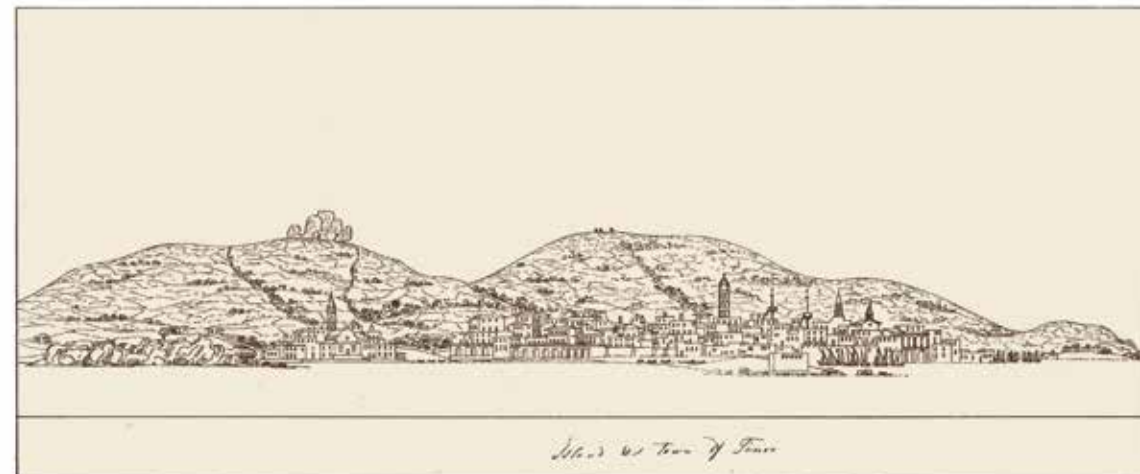
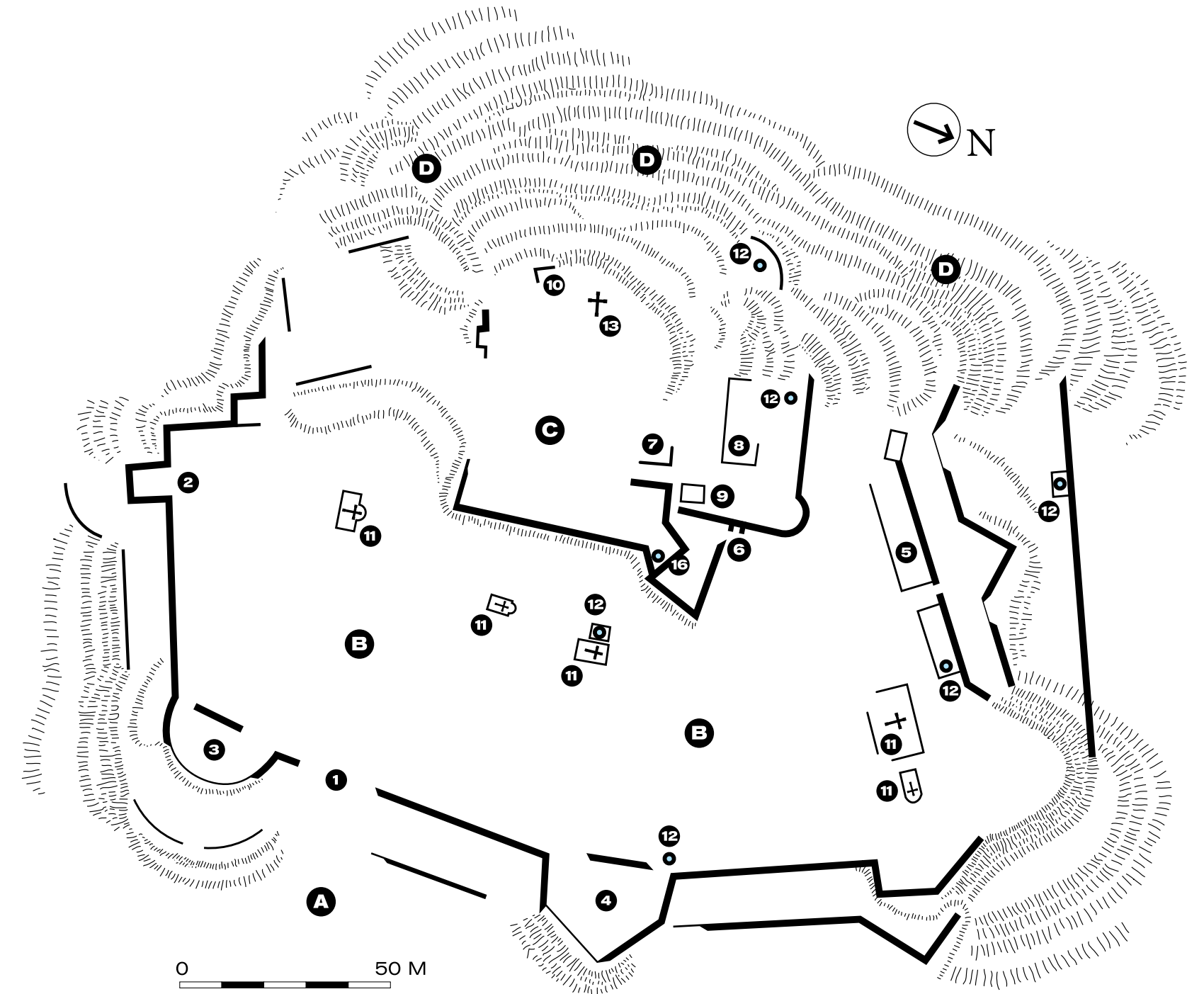
A path led from the upper reaches of Borgo towards "Porta" the guarded main gate to Tenos Kastro and beyond that to "Habitato," the civilian inhabited part of Kastro. A formidable wall, physically detached from the houses it protected, embraced the civilian town on its vulnerable sides. Apparently designed by military engineers the wall had its defense potential enhanced by a number of strong points: the "Ponta" serving as an observation tower over the approaches to the port of Ayios Nikolaos below, the "Meza Luna," or half moon and the "Bello Ardo" the pointed bastion, a preeminent element of defense and gun emplacement, the ruined base of which

survives today in recognizable form. A long building on the west side of the enclosed space designated as "Quartiero" or barracks reminds the viewer that the town of Tenos was also a garrisoned military post.

Winding pedestrian paths, compact residential areas, churches and cisterns in the Francesco Basilicata map allude to the vernacular architecture character of a densely built Aegean island town.

Accessible by crossing the town of Tenos and through a gate squeezed between two rock formations, "Castello," occupies the highest point of the rock, as Francesco Basilicata reminds us by marking on his map "Sommita Maggiore." Under-scoring its military rather than civilian functions, this citadel is completely encircled by defense walls enclosing a house for the castellan, a building for the guard, a magazine for military stores and the sine qua non cisterns. Also enclosed, a small chapel dedicated to "St. Elena" or Ayia Eleni, may predate the Ghisi era and relate to the ecclesiastical tradition, which in the fourth century A.D. brings Ayia Eleni to the neighboring island of Paros on her way to Jerusalem (see Paros chapter).

Last but not least is the formidable rock of Xobourgo, which in the illustration embraces the Kastro of Ayia Eleni, as the "Castello" was also known. Noting "Dirupo" on both sides, Francesco Basilicata wants to impress us with the steepness of the rock and the impregnability of the fortification.



Left: "Island and Town of Tinos" (Tenos), Thomas Hope, sepia drawing, 1787-99, and view of the town of Tenos from the sea (right). Note the peak of Xobourgo on both drawing and photograph.

Tenos. Xobourgo, looking west. This helicopter-based photograph should be read together with the Kastro site plan on the right. "Bello Ardo," the pointed bastion, item 4 on the site plan, is at the center of the photograph. The site plan is based on information from the book *Venezia in Oriente*, by Ermanno Armao, Italian diplomat and a devotee of Tenos. Published in 1938 in Rome, Italy, the book includes a description of the fortified town of Tenos and the Kastro of Ayia Eleni by Pompeo Ferrari who, on behalf of Venice, visited Tenos around 1614. The measured drawings that produced the plan on the Armao book were the work of Mario Magnani, an architect and collaborator of Armao.

TENOS KASTRO SITE PLAN 17th CENTURY REMNANTS
(Names in quotation marks as in Francesco Basilicata map on page 344)

- | | |
|------------------------------|----------------------------------|
| A. "Borgo", | 1. "Porta," main gate |
| B. "Habitato," civilian town | 2. "Ponta" |
| C. "Castello," citadel | 3. "Meza Luna" |
| D. "Dirupo," steep rock | 4. "Bello Ardo," pointed bastion |
| | 5. "Quartiero," barracks |
| | 6. Gate to citadel |
| | 7. Castellian house |
| | 8. Guard house |
| | 9. Magazine |
| | 10. Chapel of Ayia Eleni |
| | 11. Churches |
| | 12. Cisterns |
| | 13. "Sommita Maggiore" |



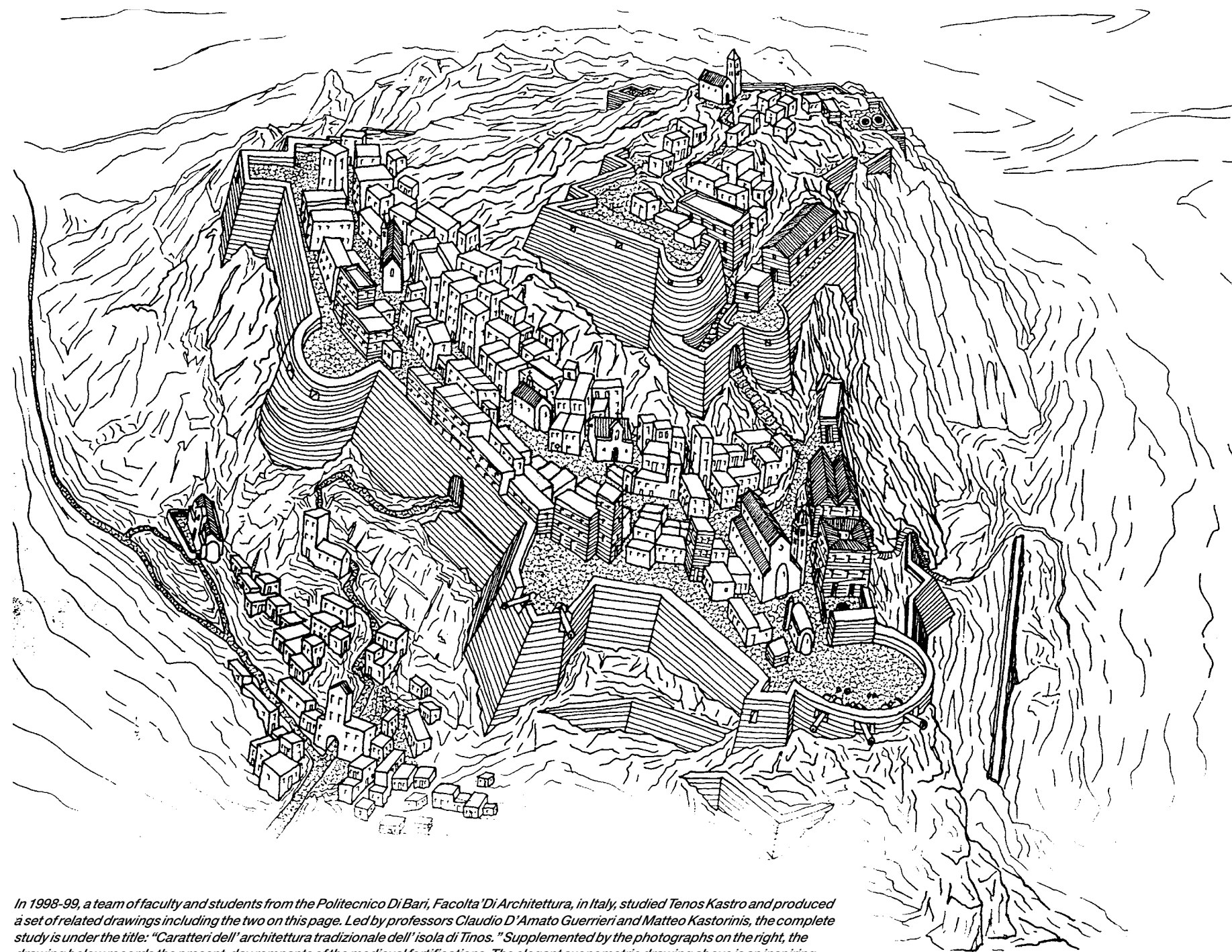
Tenos. Xobourgo, looking north. The settlement of Tripotamos is on the foreground.



Tenos island. Illustrations from various settlements of the island describe the compact residential areas and the winding, stepped pedestrian paths of a typical Aegean island town. Had its urban fabric survived, the illustrations could well have described "Habitato," the civilian inhabited part of Tenos Kastro, as designated by Francesco Basilicata in his 1616 map.

TENOS MEDIEVAL CHRONICLE

- 1204 The army of the Fourth Crusade sacks Constantinople. Fragmentation of Byzantine territories.
- GHISI FAMILY**
- 1207 **GEREMIA and ANDREA GHISI**
The Ghisi brothers, seize Tenos, Mykonos, and Delos. The same year Marco Sanudo captures seventeen Aegean islands, most of them undefended and founds the Duchy of the Archipelago. Separate from the Duchy, Tenos, Mykonos, and Delos remain a fief of the Ghisi for the next 180 years.
- 1259 **BARTOLOMEO I GHISI**
- 1286 Antagonism between the Ghisi and the Sanudi flares up in the War of the Ass.
- 1303 **GIORGIO I GHISI**
- 1311 The Catalan Grand Company annihilates the Frankish knights of Greece in the battle of Kephissos in Boeotia and takes possession of the Duchy of Athens. Giorgio Ghisi, lord of Tenos and Mykonos, is killed during the Kephissos battle.
- 1315 **BARTHOLOMEO II GHISI**
- 1341 **GIORGIO II GHISI**
- 1347 **The Black Death.** Ships from the Genoese trading colonies in the Crimean peninsula pass through the Aegean Sea and bring the Black Death to Italy.
- 1358 **BARTHOLOMEO III GHISI**
- 1384 **GIORGIO III GHISI**
- 1390 **The Ghisi die out.** Tenos, together with Mykonos and Delos, goes to Venice. Privileges and customs of the people of Tenos dating from Byzantine times are retained as a condition of the island's surrender to Venice.
- 1391 Venice attempts to sell Tenos and Mykonos by public auction.
- VENETIAN ADMINISTRATION**
- 1397 Venice appoints a number of rettori (administrators) for Tenos and Mykonos, the first of whom is Niccolo Vincivera.
- 1413 Giovanni (also known as Zuanne) Querini, lord of Astypalaia and one of the rettori of Tenos and Mykonos, begins deporting people to repopulate Astypalaia. Venice objects to this forced migration and Querini is compelled to return the people to Tenos and Mykonos.
- 1453 Constantinople falls to the Ottoman Turks.
- 1470 The combined population of Tenos and Mykonos is 3,000.
- 1537 Sailing out of the Golden Horn, the Turkish admiral **Kheireddin Barbarossa** descends upon the Aegean islands. Tenos survives intact but soon harbors large numbers of refugees from Turkish-held Mykonos.
- 1540 **Peace made between Venice and the Ottoman Empire.** Tenos remains the only Venetian possession in the Aegean.
- 1570 Turks raid Tenos but fail to take Tenos Kastro. A similar raid takes place in 1572.
- 1645-69 During the siege of Candia in Crete, the Venetians sue for peace and offer Tenos to the Turks. The offer is rejected. The Ottoman fleet raids Tenos in 1652 and in 1654, failing each time to take Tenos Kastro.
- 1674-76 According to traveler Jacob Spon's account, Tenos is the best cultivated, the most prosperous, and the most densely populated of the Cyclades.
- TOURKOKRATIA (TURKISH RULE)**
- 1715 A vast Turkish armada lands 25,000 troops on the island. Tenos Kastro is surrendered and completely destroyed. Antonio Badoero is the last of the Venetian rettori of Tenos.
- 1718 **Treaty of Passarowitz** awards Tenos to the Sublime Porte.
- 1830s **End of the era of piracy.** Tenos becomes part of the new Greek state.



In 1998-99, a team of faculty and students from the Politecnico Di Bari, Facolta' Di Architettura, in Italy, studied Tenos Kastro and produced a set of related drawings including the two on this page. Led by professors Claudio D'Amato Guerrieri and Matteo Kastorinis, the complete study is under the title: "Caratteri dell' architettura tradizionale dell' isola di Tinos." Supplemented by the photographs on the right, the drawing below records the present-day remnants of the medieval fortifications. The elegant axonometric drawing above is an inspiring effort at presenting a reconstruction of the fortified town of Tenos, and the Kastro of Ayia Eleni, comfortably adjusting on the awe-inspiring massive granitic rock of Xobourgo.



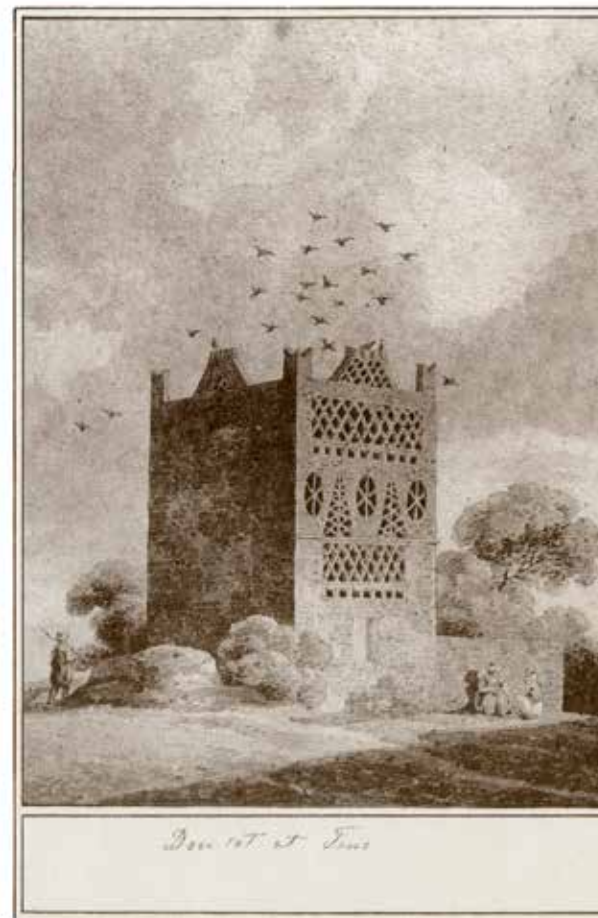
Tenos, Xobourgo, looking east. Note the natural rock formation, which guarantees the impregnability of Tenos Kastro from this side.



Indeed, on June 5, 1715 a vast Turkish armada appeared before Tenos and landed 25.000 troops on the island. Overwhelmed by the circumstances, the Venetian commander Antonio Badoero supported by the "provveditore" Bernardo Balbi a Venetian inspector recently arrived from Venice, together with the people of Tenos who were providing the small guard of Tenos Kastro surrendered on the promise that the defenders would not be molested. The transition of authority occurred peacefully, however, Balbi upon his return to Venice was found guilty of treason and died in prison. Once surrendered the impregnable and legendary Tenos Kastro its walls and bastions, together with the town it protected for centuries, was completely destroyed by the new masters its citizens dispersed around the island most of them moving eventually the port of Ayios Nikolaos, the present-day capital of the island known as the town of Tenos.

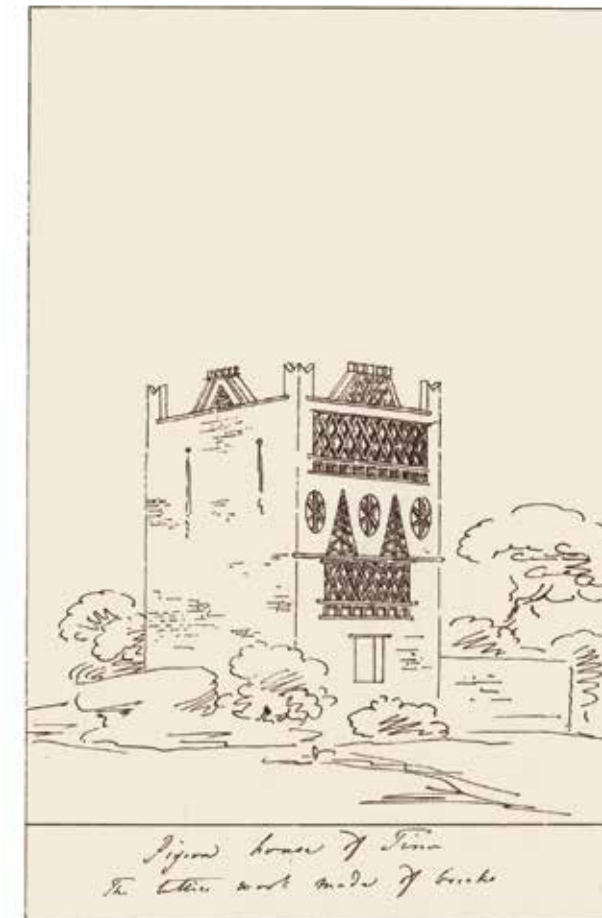
During the long Venetian presence on the island, Tenos Kastro went through ups and downs, with regard to the extend of the population it enclosed and protected, the size and preparedness of its professional military guard, the competence of its commander, the maintenance of its fortifications and the condition of its military equipment. Visitor reports confirm these variations. From the same reports it appears that the paid military guard of Tenos Kastro was always small, numbering no more than 50 professional soldiers. Citizens were required to contribute their unpaid labor for the building and repair of the fortifications. In times of hostilities or a siege all able-bodied male citizens were expected to bear arms and supplement the permanent guard in defense of Tenos Kastro.

In contrast to the vernacular collective fortification of all other Cycladic islands, walls detached from the urban fabric, place Tenos Kastro in the same typological category with Rhodes and its detached fortifications. Furthermore, the physical relationship of the military and civilian segments of the Tenos Kastro (respectively "Castello," and "Habitato," on the Francesco Basilicata map), echo the physical relationship of the Collachio and the civilian inhabited medieval town of Rhodes. This is however where the similarities end. Brought to completion earlier Tenos Kastro is a much less sophisticated edifice than that of Rhodes, reflecting the limited local resources and the marginal resources the Republic of Venice judged appropriate to invest in its defense. By contrast, the sophisticated fortifications of Rhodes represented both the sovereign power of the Knights Hospitaller exercised locally and the European wealth that supported them.



Dovecote at Tino

"Dovecote at Tino," Thomas Hope, watercolor on paper, 1787-99. The human figures present in this illustration (but not in the drawing at the right) might have been added later on to inject human scale. People drawn with Turkish headgear were perhaps intended to enrich the exotic in the forms and decorations of the dove-cotes.



Pigeon house of Tino

"Pigeon house of Tino. The lattice work made of bricks," Thomas Hope, sepia drawing, 1787-99. The observation "made of bricks" is incorrect. The geometric patterns of openings and ledges were made of stone or marble used edgewise.



Tenos island. Dovecote near the settlement of Tarambados. Note the similarity of the geometric system of decoration and openings between this dove-cote and the one recorded by Hope two hundred years earlier.

Tenos island. Dovecote near the settlement of Isternia

DOVECOTES

The events of June 1715, on one hand, obliterated the preeminence of the medieval Tenos Kastro on the political life of the island, and on the other, created the social circumstances for the emergence of a different building type not meant for human occupancy: the dove-cote. Repeated in great numbers, dove-cotes or "peristeriones" (from peristeri or "dove," "pigeon") exist on only a small number of Aegean islands. Nearly twelve hundred of them, a surprisingly large number are located on Tenos; neighboring Andros and Mykonos have respectable numbers as well. Sifnos, farther away from Tenos, boasts only a few. Not many dove-cotes are in use today. Some have been preserved, but many are in disrepair. But regardless of condition, they all testify to the islands' social and economic history and are unique examples of artistic expression in vernacular architecture.

Erected to shelter pigeons, a dove-cote is rectangular in plan, with the height always the largest of its three dimensions. Stone masonry external walls enclose a

single interior space without partitions. The lower part of this enclosure has often been used to store agricultural tools and the like, reserving the space above for the pigeons. To protect the birds from the relentless island winds, depending on the orientation of the dove-cote, two and occasionally three of the external walls are built without openings. The remaining wall provides ledges on which the pigeons can land and perch and openings for them to enter the enclosed space where they build their breeding nests; these nests are incorporated either into the internal surface or into the one-meter-thick walls.

The materials and methods of construction of these dove-cotes are rough and rustic, but the apparent lack of sophistication is compensated by their extensive and delightful geometric systems of decoration. These decorative systems, which incorporate pigeon ledges, perches, and openings, cover the lee side of every dove-cote and offer their vernacular builders nearly infinite opportunities to invent variations on traditional decorative themes. Hundreds of small, similarly sized pieces

of flat stone are used edgewise to form squares, triangles, diamonds, and circles, shapes abstracted from such typical Aegean vernacular decorative themes as the cypress tree, the sun, and the stars. Repeated in horizontal bands or in vertical formations and executed in a multitude of inventive combinations, these façades render each dove-cote unique. Thus the formal architectural emphasis on both unity and variety—unity in the small number of decorative elements used (triangles, diamonds, and circles) and variety in the numberless ways these elements are assembled—is once again addressed masterfully and inventively by a plethora of anonymous builders. Occasionally a dove-cote's sidewalls are extended, buttress-like, for additional protection and screening from the wind rather than to bolster the structure of the dove-cote. Extended across the walls, the geometric decorations enrich the architecture of the "peristeriones" and provide additional perches for the pigeons.

The sculptures often placed on the flat roofs at the corners of the dove-cotes raise the persistent architectural question of how a building meets the sky. These exuberant and playful dove-cote sculptures seem inspired by the "acroteria" of classical Greek temples. Some architects, however, see them either as landmarks to guide the birds in their return home or as talismans to ward off birds of prey.

Set apart from the high-density building of the island towns, dove-cotes were erected in the splendid isolation of cultivated and terraced fields, where seeds and fruit were immediately available to the pigeons, and their droppings could be recycled as a rich fertilizer for the fields. This link between food and fertilizer thrived on the better-watered islands, which may account for the proliferation of dove-cotes on Tenos and on neighboring Andros, which are much greener than most of the other islands in the Cyclades.



Tenos island. Dovecote attached to a house near the settlement of Triandaros

Because no systematic research on dovecotes exists, it is difficult to trace the origin and development of this unique building type in the Aegean archipelago. We know that the Venetian lords brought the privileges of the medieval European aristocracy to the islands, including the so-called “droit du colombier,” or the right to keep doves, which allowed only fief holders to maintain dovecotes. Since this privilege continued to attach to nobility and wealth and passed to prominent native families after 1715, it is reasonable to assume that the “droit du colombier” produced only a limited number of dovecotes during the centuries long Venetian presence on the island of Tenos. The collapse of Venetian rule and the democratization of living conditions in the nineteenth century, however, allowed the common citizens of the island to exercise their new freedom by building dovecotes by the hundreds. This explanation corroborates local testimony that the majority of the dovecotes seen today on Tenos and the other islands were built after the eighteenth century.

Raising pigeons for their meat has a long and widespread history. During the eighteenth and nineteenth centuries, every island farmer dreamed of owning a dovecote. As a result, dovecotes became numerous enough to be included in the Turkish taxation lists together with beehives as “industrial workshops,” each liable to annual taxation. Since pigeons were expensive to raise, pigeon meat was not part of the daily diet of the poor.

Pigeon raising on Tenos at first augmented the diet of the aristocracy. Later, pigeons became an export item. In the nineteenth century, pigeons were fed and fattened during the summer to be slaughtered in the fall, pickled in oil and vinegar, and shipped in earthenware jars to the markets in Smyrna and Constantinople as sought-after and expensive delicacies.



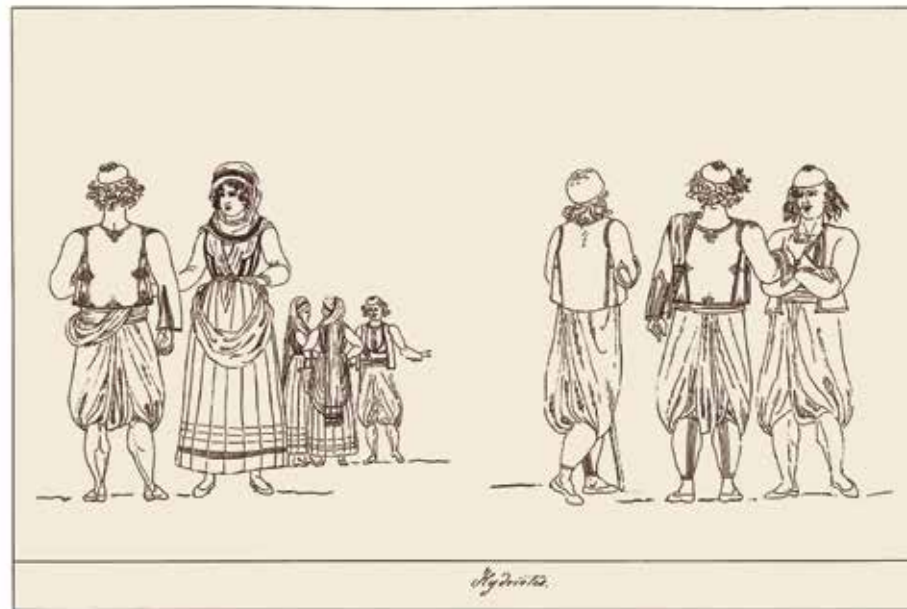
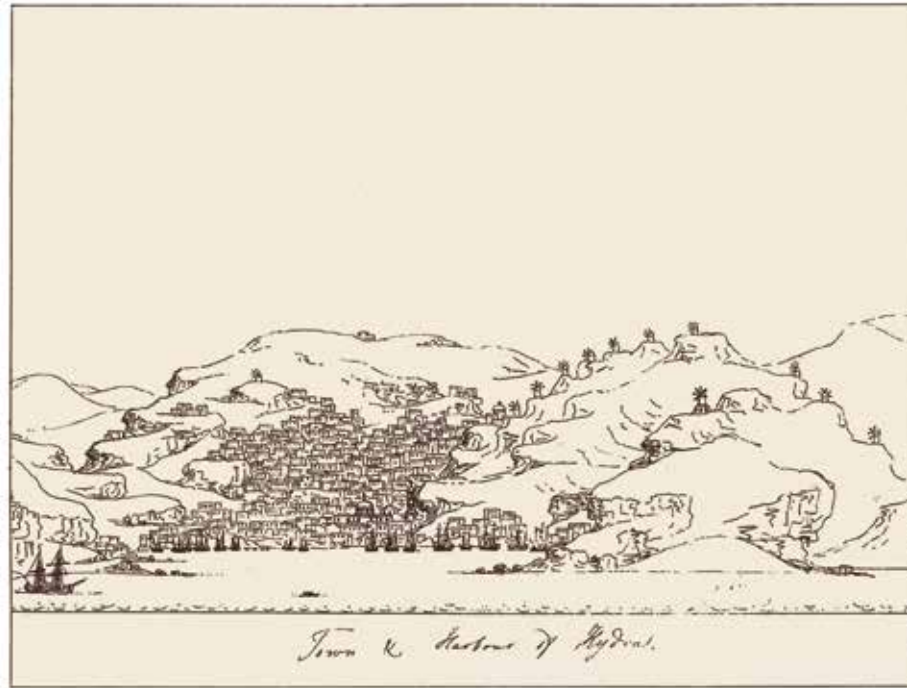
Tenos island. Dovecote near the settlement of Tarambados. On the right of the photograph is the cylindrical body of a windmill.

The social and economic conditions on Tenos after 1715 enabled the dovecote, a specialized building type, to be built in large numbers. Its existence adds to our understanding of the evolution of the archipelago’s islands within their wider geopolitical context. In the hands of extraordinarily gifted builders, the dovecote, a simple unassuming edifice not meant for human habitation, became an inspiring example of Aegean vernacular architecture.

THE HYBRID RESPONSE
SHARING LESSONS

HYDRA

Kiafa and the Present-Day Town



"Town and Harbour of Hydra" and "Hydriotes" (Men and Women of Hydra), Thomas Hope, sepia drawing, 1787-99.

HYDRA

Kiafa and the Present-Day Town

An Aegean island, Hydra (pronounced "ee-dra") hugs the northeast coast of Peloponnesos at a distance of more than sixty kilometers from the nearest island of the Cycladic complex. Hydra was not inhabited during the Duchy of the Archipelago era. Indeed, the town of Hydra, the only town on the island, was first built during the seventeenth century, decades after the Duchy had collapsed into the arms of the omnipotent Ottoman Empire. Building Hydra, however, and specifically Kiafa, as the original settlement was named, meant borrowing extensively from the available wisdom of Cycladic Kastras. Choosing high ground for early enemy observation and advantaged defense, building high-density housing articulated by narrow, stepped pedestrian paths, and integrating these with all

other familiar characteristic features of the urban fabric of Cycladic Kastras led to the present-day Hydra town, which provides another unique interpretation of the site-versus-town relationship essential and characteristic of a Cycladic Kastro.

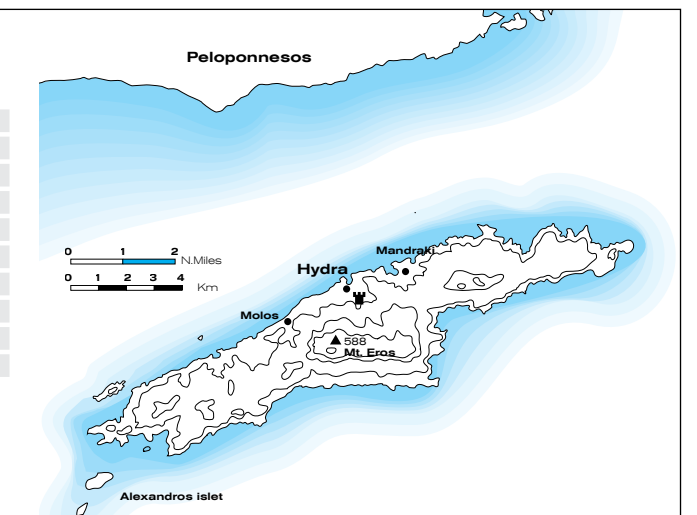
Hydra's meteoric rise to naval power in the eastern Mediterranean during the late eighteenth and early nineteenth centuries resulted in the transformation of the initial small defensive settlement to a self-confident town, owner of a sizeable and armed merchant fleet plowing Mediterranean waters. That history, coupled with its current well-preserved and protected existence, offers additional and precious understanding of the theme of this book.



Hydra. The original settlement of Kiafa, the present-day town, and the port appear on an upper left to lower middle sequence, on this helicopter-based photograph

HYDRA ① GENERAL INFORMATION

| | |
|-----------------------|--------------------------------|
| Prefecture | Piraeus |
| Location (Kiafa) | 37° 20' 45" N 23° 27' 50" E |
| Distance from Piraeus | 68.5 km (37 n.miles) |
| Area | 49.6 km ² |
| Dimensions | 20.5 km long, 4.5 km wide |
| Shoreline | 55 km |
| Highest Elevation | 588 metres (Mount Eros) |
| Permanent Population | 2719 (2001) |
| Port | Hydra |

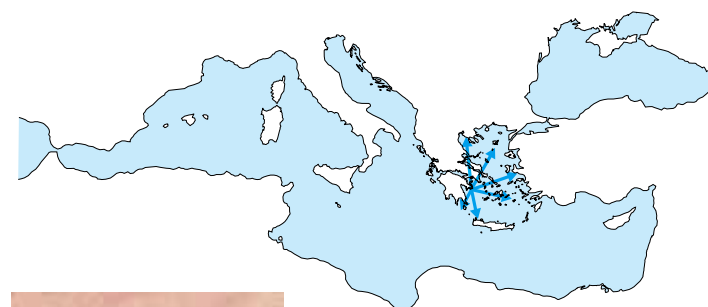
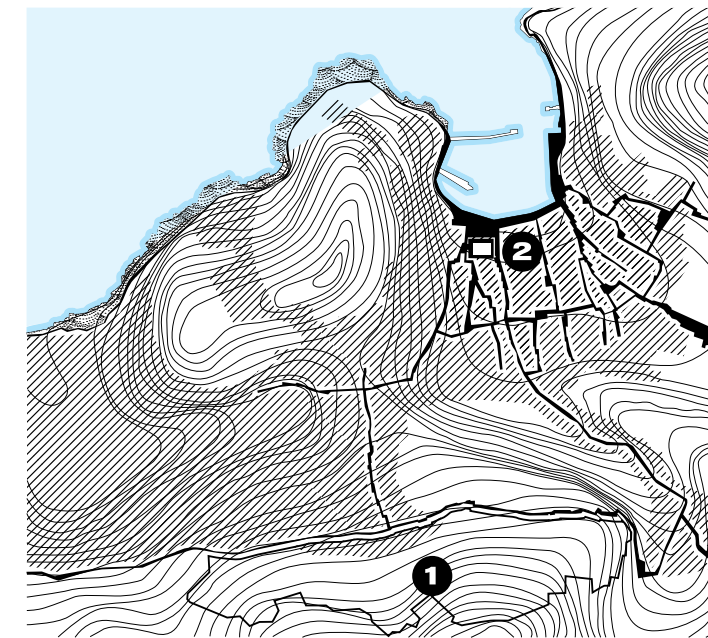
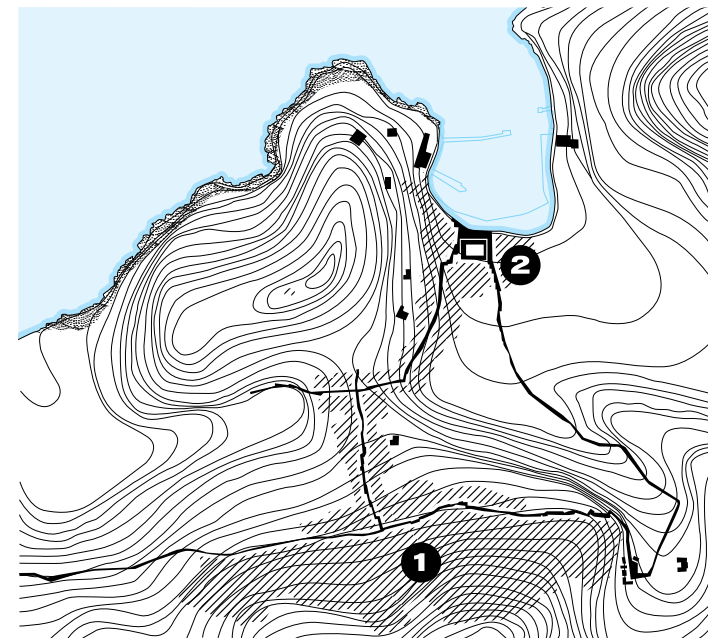
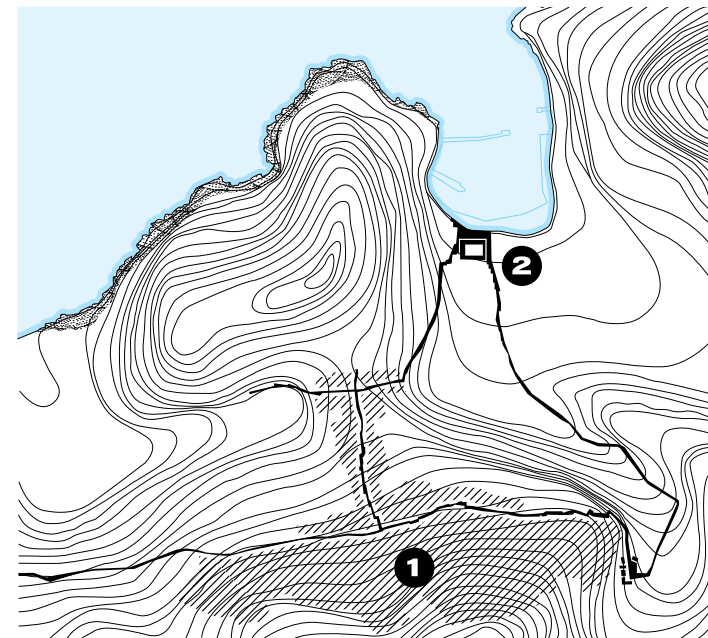
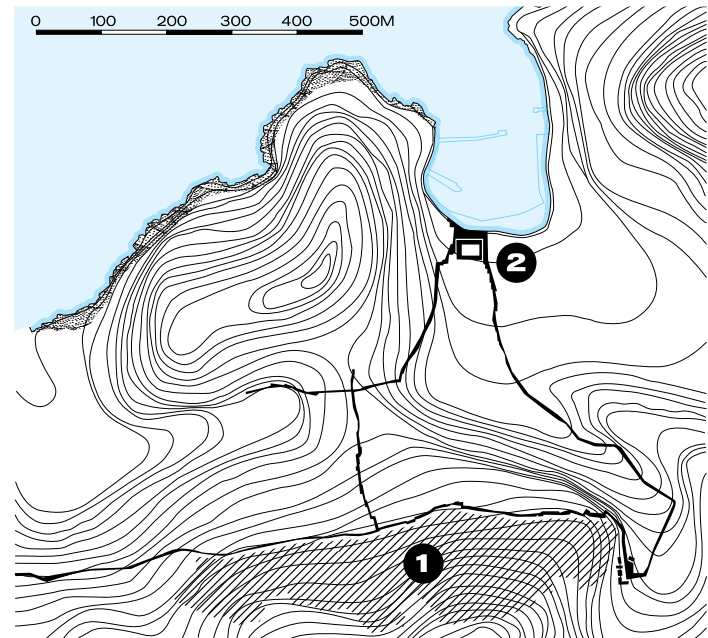


A craggy, nearly treeless ridge of an island, Hydra is eighteen kilometers long and between three and six kilometers wide. Formed of stony, precipitous hills and outlined by a rocky coastline, the island is crowned by the 588-meter summit of Mount Eros. There, in sailing ship days, a guard scanning the approaches to the island could report suspicious or friendly activity at sea within a radius of several kilometers.

The island's poor soil and limited pasture land caused the early settlers – shepherds and farmers fleeing upheavals on the mainland – to turn to the sea, first as a source of subsistence and later as an avenue for commerce with the outside world. This transformation occurred over a period of several generations and eventually

brought the island to seafaring prominence during the second half of the eighteenth century.

Besides the island's limited resources and the islanders' enterprising spirit, other factors also led to the emergence of Hydra's merchant marine. By the middle of the eighteenth century, despite its small size, Hydra found itself affected by the major events of contemporary Mediterranean and European history and with an important role to play in the internal life of the Ottoman Empire as well.



HYDRA, 1650-1750



HYDRA, 1750-1774



HYDRA, 1774-1815

The three sets of diagrams on the left outline the successive stages of Hydra's development, indicating the spread of travel, the predominant type of vessel used, and the probable extent of the town during the period shown. The diagram above outlines the present-day town. All diagrams identify the location of Kiafa (1) and the Monastery (2).

After the Turkish conquest in 1715 of the remaining Venetian possessions in southern Greece and the Aegean Sea including Tenos, Hydra and the other islands of the archipelago were placed under the jurisdiction of the Kapudan Pasha, the commander-in-chief of the Ottoman fleet. This administrative arrangement, together with Turkish taxation that required the islanders to serve in the imperial fleet, made Hydra and the other islands of the archipelago into prime recruiting arenas for the Ottoman navy. Both sides gained as a result. The Sultan recompensed the island for losses suffered by crews from Hydra in Turkish war service by allowing the island to collect its own taxes, which spared it the rapacity and corruption of the Ottoman system of government and gave it a degree of independence that was important to the future commercial and physical development of the island. To protect against corsairs, the captains of Hydra were also given permission to arm their ships. Yet the Sultan, foreseeing the events of the Greek Revolution of the 1820s, limited their tonnage, lest their size and number become a serious threat to Ottoman authority.

Russia's eighteenth-century elevation to the status of a major European power prompted her to attempt to expand towards the Mediterranean Sea. The immediate obstacle to such expansion was the Ottoman Empire, which controlled egress to the Mediterranean. In her efforts to defeat the Ottoman Turks, Catherine the Great (1729-96) understood the important role that the Christian subjects of the Ottoman Empire, and particularly the Greeks, might play in implementing her strategies. Impressed by Russia's geopolitical achievements and attracted by the religious affinity they shared (since the Russians, too, were Orthodox Christians), the Greek people began to look to Saint Petersburg as a possible source of help in their efforts to shake off Ottoman rule.

In 1768 Russia and Turkey went to war. As the war progressed, the Russian Baltic Sea fleet sailed around Western Europe to enter Mediterranean and Aegean waters for the first time in history. When the Russians arrived, most of the islands in the Aegean archipelago revolted against Ottoman rule and were taken over by the Russian forces. Indeed, the bay of Naoussa on the north shore of the island of Paros in the Cyclades became the Russian fleet's anchorage for the duration of the war.

Russian successes on both sea and land resulted in the conclusion of the war by the treaty of Kuchuk-Kainardji, signed in July 1774, which, according to a historian, was "far more important than the war which preceded it" for the Ottoman Empire and its captive Christian Greek Orthodox population. Supplemented by a commercial convention in 1783, the treaty gave the seafaring Aegean islanders the privilege of trading under the protection of the Russian flag. With the added protection against Turkish interference that affiliation with Russia offered, the merchant fleets of Hydra and the other islands grew rapidly and extensively.

Napoleon did not fail to note this extraordinary growth. In his continuous search for short-lived strategic alliances, in the summer of 1806 he sent General Horace-Francois Sebastiani, another soldier-diplomat, as ambassador to the Sublime Porte. Sebastiani's instructions, which Napoleon personally dictated, included the following: My unswerving objective in policy is to make a triple alliance between myself, the Porte, and Persia, aimed directly or indirectly against Russia ... All our negotiations must seek these points: (i) closure of the Bosphorus against the Russians...;

(ii) forbidding Greeks from sailing under the Russian flag;

(iii) arming every fortification against the Russians;

(iv) subduing anti-Ottoman rebels in Georgia and re-asserting the Porte's absolute rule over Moldavia and Wallachia.

I do not want to partition the empire of Constantinople; even were I offered three-quarters of it, I should refuse to do so. I wish to strengthen and consolidate this great empire and to use it, as it stands, against Russia.

The impressive development of the merchant fleets of the Aegean islands was aided by the decline and, in some instances, the complete disappearance of other flags from Mediterranean waters. Venetian possessions in the eastern Mediterranean and the Aegean seas were lost one by one to the Turks, and the republic's importance as a naval power steadily declined. Napoleon's invasion of northern Italy and the treaty of Campo Formio, which concluded his campaign in October 1797, ended the independent existence of the Republic of Venice. By this treaty, Austria acquired sovereignty over Venice and recognized French sovereignty over the Ionian Islands of western Greece.

The French merchant marine fleet had been an important player in Mediterranean commerce during the eighteenth century. But the French Revolution and its aftermath diminished its importance. When the Venetian republic disappeared, much of Venetian and French commerce fell to the Aegean islanders.



"Athena", brig of Captain Tsamados, oil on canvas, 1871. Note town and port of Hydra on the lower right.



Hydra, port. Helicopter-based photograph, looking south.

The Napoleonic wars themselves were also good for Hydra. By breaking the British blockade of French-controlled ports, the island's captains amassed sizable fortunes. The island's archives show extraordinary yearly profits from 1810 to 1815, followed by a sharp decline immediately after the Napoleonic wars ended. Breaking the British blockade, however, involved great risks. Ships from Hydra were often captured and confiscated by the British, as can be seen again in the archives, which contain correspondence about the capture of several of Hydra's ships. One letter is addressed to the admiral of the Turkish fleet, asking for his mediation to secure the release of a captured vessel. Another letter about the same ship was addressed directly to Admiral Nelson. Both documents illustrate Hydra's autonomy and the islanders' self-confidence in addressing geopolitical as well as marine problems. Other documents from the same archive contain evidence that ships were specially designed for speed that would enable them to break the British blockade.

Thus, exceptional opportunities for commercial expansion opened up at the end of the eighteenth century and the beginning of the nineteenth for Hydra and all the other islands of the Aegean archipelago. These opportunities were enhanced by a series of other fortuitous events, as when Ukrainian wheat was brought to the Black Sea after the Russian conquest of its north shore, and when the treaty of Kuchuk-Kainardji opened the Straits of Bosphorus, the Sea of Marmara, and the Dardanelles to free passage by merchant ships under the Russian flag. Aegean captains could now fly that flag.

As the Napoleonic wars ended, normal life resumed in Europe. The Western European merchant fleets began to recover their prewar importance in Mediterranean commerce. This renewed competition brought Hydra difficult times. Many of its ships were moored and its sailors unemployed. But the Greek Revolution of 1821 and the long war of independence that followed radically changed Hydra's fortunes and destiny as, together with the other Aegean islands, it enlisted its navy in the

cause of the revolution. The wealth accumulated by the community and its prominent seafaring families was generously committed to the revolutionary struggle. At the end of the war, Hydra found itself part of an independent Greece, its privileged autonomy under Turkish rule exchanged for the fulfillment of its national identity.

Although Hydra's prominent families continued to play an important role in the political affairs of the new nation, the island never again saw the prosperity it had enjoyed at the turn of the century. Indeed, as other commercial centers like Ermoupolis in Syros grew, Hydra's population declined. Unemployment increased and the islanders began to move to Piraeus and Athens. By the end of the nineteenth century, the displacement of sail by steamship had devastated the economy of the island. Sponge diving offered a brief but modest economic revival during the first half of the twentieth century.

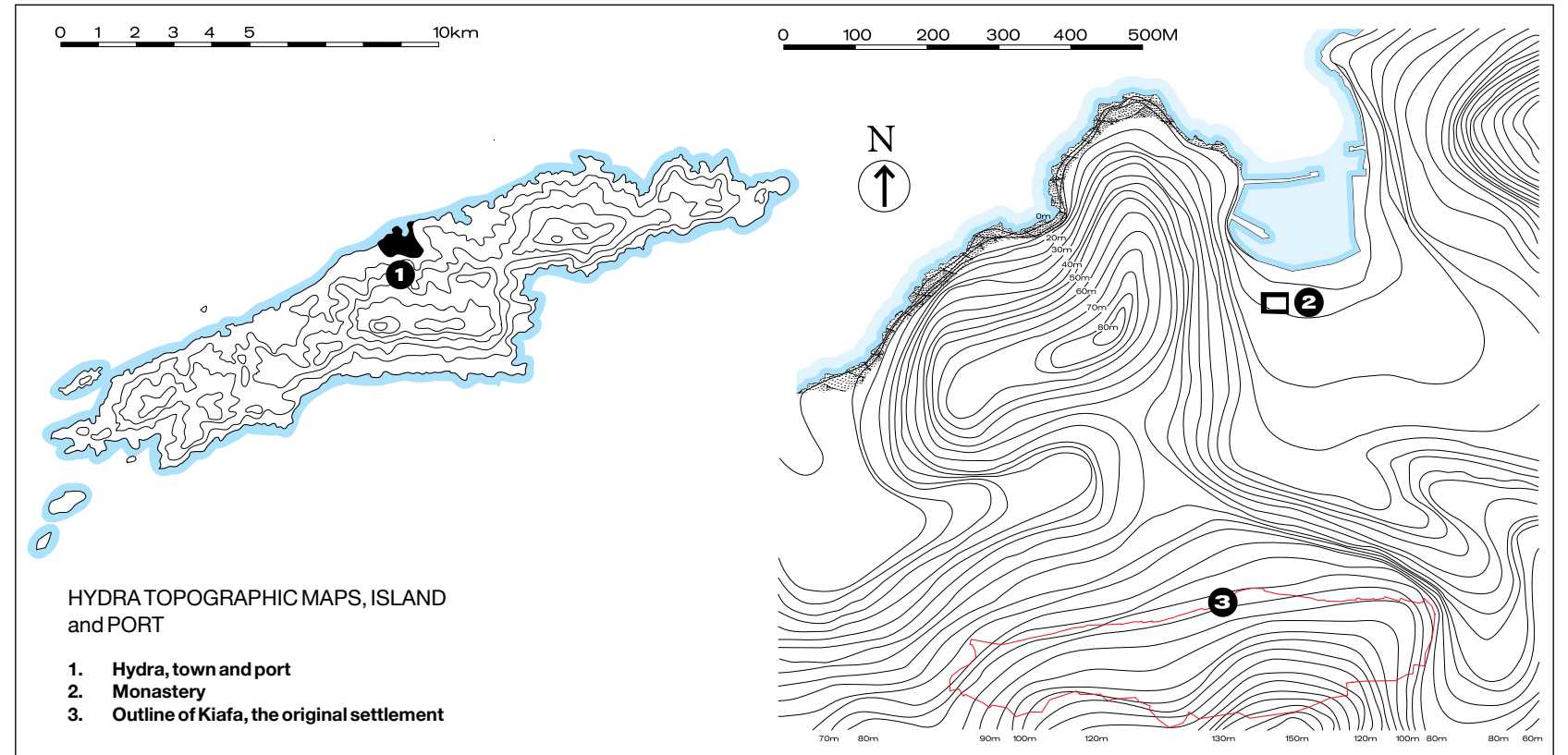
A period of new prosperity was ushered in during the 1950s, when international tourism "discovered" Hydra, transforming the island's economy for the next half century and causing dramatic physical and social change, as it did in most of the Aegean island towns and in Greece as a whole.



Hydra, northeast coast.



Hydra, monastery, paved court. Katholikon is on the right.



URBAN DEVELOPMENT

A topographic map of the island reveals a rocky, precipitous, and exposed south shore that does not lend itself to a port settlement. The north side provides a number of alternatives, none of them ideal.

The seventeenth century choice of the site for the present town was apparently influenced by its location on the island, its geographic features, and its specific topography. It was also reinforced by the location of a monastery built in the 1640s at the deepest point of the natural port, a building whose existence would have drawn

attention to the site. No record remains to explain why the monastery was built at this location, although it is known that a nun from the nearby island of Kythnos founded it. Given the threat of piracy, building by the water's edge would have been risky, suggesting perhaps Hydra's insignificance and relative isolation at that time from the insular world of the Aegean sea.



Hydra, town. Helicopter-based photograph, looking north

The gradual slope of the terrain as it ascended from the bay offered a protective distance from the shore as well as a defensive height, both important considerations for the survival of any seventeenth century Aegean settlement. The disadvantages of the port's northern exposure were apparently disregarded in favor of the assets of the site. In the light of later developments this choice seems eminently justified.

Kiafa, the original settlement, consisted of 370 houses in about 1680. Given five persons per family and one family per house, the town's population would have been about 1,850, a respectable size by Cycladic Kastrá standards. Kiafa was almost deserted by the early 1960s, as the town had gradually moved to the lower parts of the site. But the foundation walls and other ruins of Kiafa correspond to eighteenth- and nineteenth-century descriptions and illustrations: this old part of the town of Hydra shared features common to other contemporary settlements in the Aegean archipelago – party walls, flat roofs, a limited number of openings in the outside walls of houses, and controlled entrances to the town, all of which underscore the defensive character of the settlement of Kiafa.

The path that connects Kiafa with the port follows the principle of minimum effort. It descends the hill where the slope is most gradual, and as it reaches the land saddle southwest of the port, it turns east, again following the most gradual slope, towards

the west wall of the monastery, its traditional entrance. Another important path originates at the water source below the east edge of Kiafa and leads down to the east side of the monastery; it was apparently used to carry water to supply the ships there.

These two paths run parallel to the east and west sides of the monastery and converge in the area north of the building to form an important space through which ships loaded and unloaded and commercial transactions took place. Since this space adjoined the most important public building in the town, it was also destined to form the nucleus of the town's future civic center.

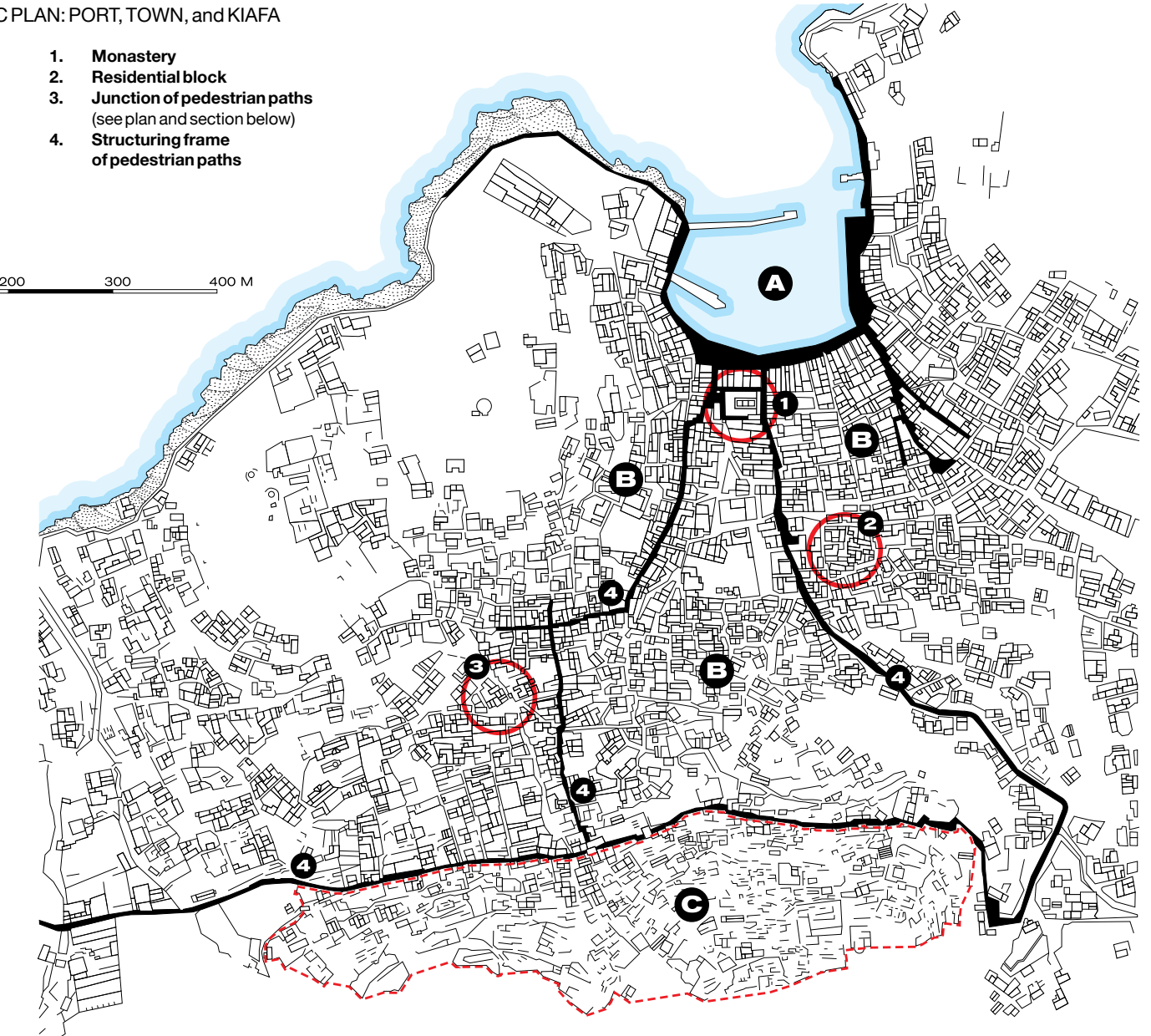
Successive waves of refugees to the island arrived during the first half of the eighteenth century to increase the population to 604 families, or about 3,000 persons in 1750, when the original settlers had become a community of seafarers.

The settlement's development now took a different direction. To accommodate the increase in population, the town had to expand. At the same time, more men available to man more ships led to the expansion of Hydra's sea power. This combination of circumstances inevitably led to the dilution of the original, primarily defensive character of the settlement. A town of 3,000 with a prospering and powerful navy was not likely to fall easy prey to a corsair raid. This newly acquired sense of confidence and security allowed the old settlement to expand beyond its original protective enclosure, and

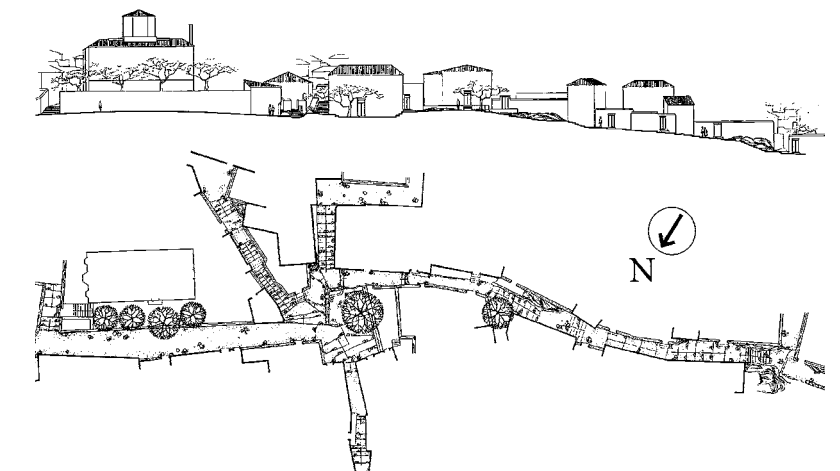
HYDRA DIAGRAMMATIC PLAN: PORT, TOWN, and KIAFA

- A. Port
- B. Present day town
- C. Kiafa
- 1. Monastery
- 2. Residential block
- 3. Junction of pedestrian paths (see plan and section below)
- 4. Structuring frame of pedestrian paths

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HYDRA, JUNCTION OF PEDESTRIAN PATHS: SECTION AND PLAN

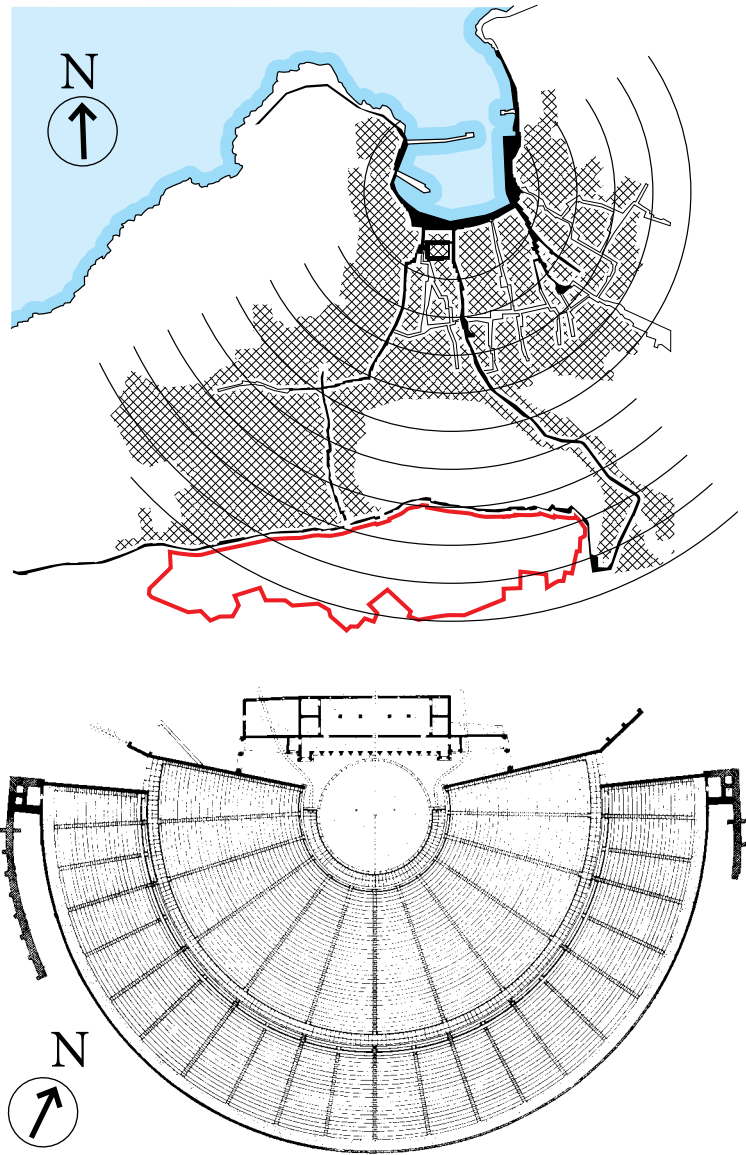


as more and more of the town's life accommodated its increasing commercial activities, the expansion took place towards the port.

The population of the town in 1770 was 706 families, or about 3,500 persons. The census of 1794, which reflected the large influx of refugees from the Russo-Turkish War of 1768-74, showed 2,235 houses and a population of more than 11,000.

Hydra's great economic boom occurred during the forty-one-year period between 1774, when the treaty of Kuchuk-Kainardji was signed, and 1815, the year the Napoleonic wars ended. The prosperity of these years essentially produced the town's present form.

Two other important changes occurred, however, before the consolidation of Hydra's town form of the second half of the twentieth century. First, there was the partial development of the area known as Kaminia, west of the port, probably the result of a population overspill during the years of the Greek War of Independence when another influx of refugees swelled the population of the town to its high of 28,500. Second, there was the near-abandonment of Kiafa for lower elevations near the port as the need for defense from a high point diminished. In a remarkable reversal, however, Hydra's current prosperity and the related physical changes of the last decades have brought substantial building activity back to the previously abandoned area of Kiafa.



The ancient Greek theater of Epidauros, c.300BC
 Top left: Hydra, diagrammatic plan – port, town, and Kiafa
 Left: Plan of the theater of Epidauros



Hydra, helicopter-based photograph. Note the size of the ferry compared to the port.



Hydra, stepped pedestrian paths



Theater of Epidauros

Diagrams of Hydra's growth over time indicate that the developments described earlier – the building of the monastery near the port, the choice of Kiafa as the original site, and the network of paths created by the inter-relationship between these two centers of activity – produced an armature, or a structuring frame, which the growing town followed as it filled in the delineated areas. The result of this filling-in is the present form of the town, with its strong resemblance to the form of the classical Greek theater.

Of all the building types of antiquity, the Greek theater was the one best adapted to

its site conditions. The Greek temple, by comparison, was designed to separate the natural landscape from its man-made architecture.

The very form of the theater evolved from site considerations. Originally, religious rites required a flat place for dancing, with a slope that rose above it to accommodate onlookers. Yet the final form of the Greek theater, with its geometric articulation, stepped seats, proscenium, and so forth, resulted from a secularization of the building's content that occurred even as it continued to respond to site conditions.

Similarly, site considerations were paramount from the beginning in Hydra, too. The present form of the town developed as its society underwent a period of economic and social transformation, but this present form is as much the result of site considerations as was the original form. Site considerations, too, are the prime reasons today for excluding vehicular traffic from the town. Every step taken to build the town over the years conformed to this basic theme and contributed to the overall image. Indeed, the very important architectural process of adjusting the building to the site and the site to the building has been a preeminent form-giving device, certainly for the town of Hydra but also for all the island towns of the Aegean archipelago.

The sea dominated life in the town of Hydra at all its stages of development. Hydra has always been a port town but one that never served an inland region, and, as such, did not develop as an industrial, manufacturing, or transportation center. Neither did it develop such features of a typical port town as warehouses, inland communications, and so on, the absence of which allowed its society to continue more or less unchanged through the drama of the boom of the last decades of the eighteenth century and the first decades of the nineteenth. Few ships from elsewhere used the port, which meant that Hydra served as a dormitory, a recruitment and retirement center for local crews, and a site for shipbuilding, maintenance, and repairs for its own fleet. Its shipyards filled only orders for Hydra's entrepreneurs; its manufacturing facilities produced food supplies, ropes, sails, and so forth, only for Hydra's ships.

During the Greek War of Independence the naval power of Hydra and French protection for Syros led to these two islands becoming safe havens for a great number of refugees from other parts of the Ottoman Empire fleeing Turkish reprisals against the Greek uprising.

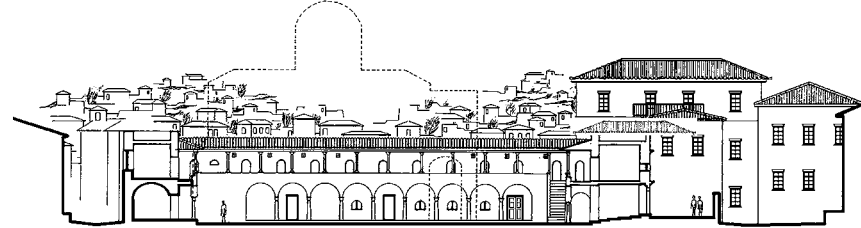
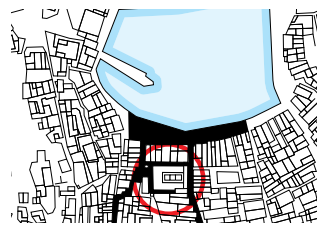
For the duration of the war, refugees were accommodated in site-restricted Hydra, causing building expansion toward the area of Kaminia located around a shallow bay west of the town port. In Syros, the existence of the smaller settlement of Ano

Syros, together with available open land, a good port, and a privileged geographic location, allowed the building of a new town, Ermoupolis. When both islands became parts of an independent Greece, Ermoupolis, unlike Hydra, developed into a major manufacturing and maritime center serving regional and national needs. Both the unplanned Hydra and the planned Ermoupolis, however, adopted neoclassicism as their language and vocabulary of architectural expression, applied to buildings both formal and vernacular.

Hydra owed its rise to fame and importance to the extraordinary historical circumstances described earlier. When these circumstances changed, the island lost its prominence in Mediterranean life but retained its dignified form. This form has survived, sustaining and sustained by an extremely successful tourist industry that has been built on Hydra's attractiveness as an example of both urban scale and human use. Most architects today endorse the Modernist dictum that architectural form follows function, or more precisely, that form and function interact. The town of Hydra supports the notion that a strong and dignified form can remain so even when its original functions have given way to new ones.



Hydra, monastery, bird's-eye-view looking east. The Katholikon dome and the west entry bell tower are gracefully captured in the Thomas Hope sepia drawing on page 63.



TOWN COMPONENTS

Hydra's urban form is sustained by the quality of its component parts. Indeed, the form of the town emerges as the sum of its complementary parts: the structuring armature, discussed earlier, is informed by the organization of the typical house, the formation of streets and paths, the generation of public spaces, and the way in which streets are paved, windows framed, stones laid, doors painted, color used, and so on. In other words, Hydra is an organic whole, none of whose parts could be removed without diminishing the whole.

Extracted from earlier studies, two of these components are presented on the following pages: the monastery of Hydra and a residential block. The latter is examined in a photographic essay along its periphery, offering testimony to the recent architectural evolution of the town of Hydra.

THE MONASTERY

Dedicated to Panayia (Virgin Mary), the monastery of Hydra has occupied the same site since before the 1640s. But most of the present-day buildings were built between 1774 and 1776 to replace those destroyed by an earthquake in 1769. Parts were added later, including the narthex of the church in 1870. Not much information about the monastery survives for the period from the 1640s to 1769, but it seems certain that the buildings the earthquake destroyed were not parts of the original monastery.

Monasteries were built to provide for a life detached from worldly affairs. In Hydra, however, the location of the monastery in what is now the center of town made it indispensable to urban life. The monastery church was originally used as a parish church and eventually became the cathedral, and non-clerical representatives from the town helped to administer the monastery's affairs. Numerous individual donations confirm the loyalty and affection the citizens of Hydra felt for the monastery over the years.

During the Greek War of Independence of the 1820s, the monastery's refectory was used as a meeting room by the sea captains and town leaders who were planning revolutionary strategy. Today, the same room is used for the meetings of the town council, while the rooms and cells immediately adjacent serve as the city hall's offices. Other cells house a variety of community and ecclesiastical offices. This double identity of the monastery building as both the religious and governmental center of the island should also be understood within the context of the traditionally close relationship between church and state in Greece and the Aegean archipelago.

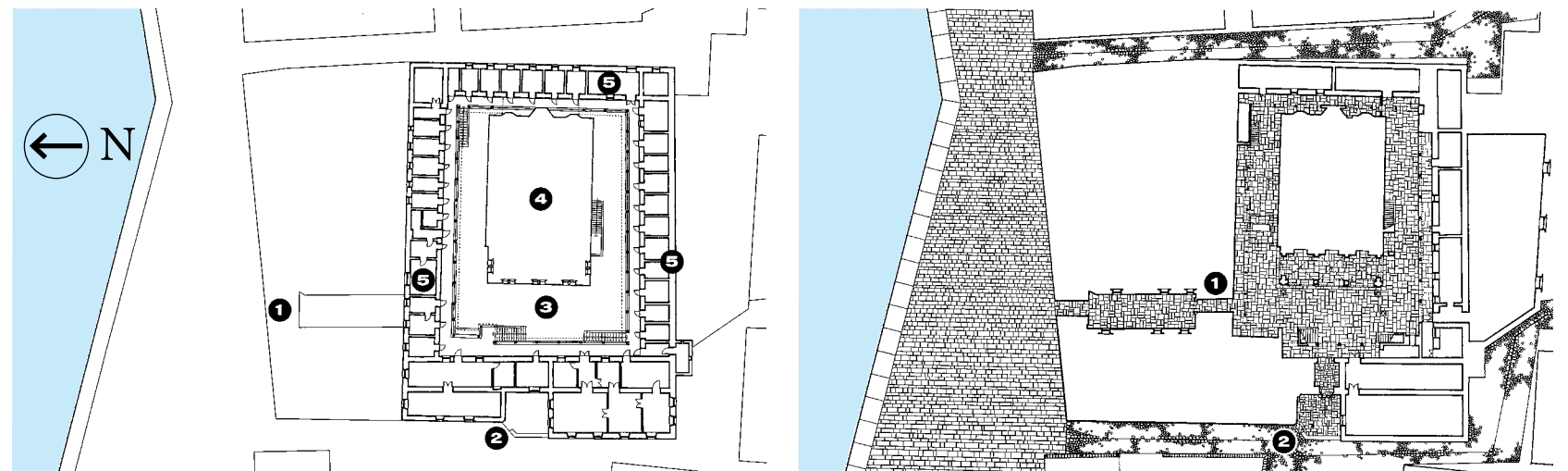
Organized according to the traditional diagram discussed in the Sifnos chapter, the monastery encloses a paved court where the Katholikon, the monastery church, stands free. This court is enclosed on all four sides by two tiers of cells. The old entry to the court on the west wall is still in use, while a newer entry through the north side is a late-nineteenth century concession to the daily uses of the quay. This second entry establishes continuity between the various parts of the town's civic center, which includes the area of the port.



Hydra, monastery, paved court and cells



Hydra, monastery, west entry



HYDRA MONASTERY PLANS (left: upper level, right lower level)

- 1. North entry
- 2. West entry
- 3. Paved court
- 4. Katholikon
- 5. Cells

The drawing showing a longitudinal section through the monastery illustrates the physical relationship of the court to the rest of the town and explains why the monastery complex lacks an exterior facade. The two-story arcade in front of the cells is a time-honored architectural element gracefully executed. With prototypes that can be traced back to Greek antiquity, this arcade serves as an architectural transition space between the small and dimly lit cells and the large and brightly lit open court and effectively bridges the difference between their corresponding levels of natural light. The heavy masonry arches at the ground level of the arcade are elegantly related to the lighter wood structure of the level above. The direct and unpretentious manner that governs the locations of the massive staircases in various parts of the court is matched by the equally unpretentious placement of the marble columns in both the lower and upper arcades.

The monastery building has been lovingly preserved for both daily and festive uses. Repair work, whitewashing, painting, the replacement of worn and damaged parts, and restoration work on the ground floor have all been accomplished with sensitivity and respect for the architectural character and quality of this most important building of Hydra. Today, the monastery, a dignified architectural form, similar in organization and size to an Aegean Kastro, serves as a strong reminder of the town's origins and a reference to its physical evolution.



Hydra, residential block, location 1, left 1963, right 2007

Hydra, residential block, location 2, left 1963, right 2007



Hydra, residential block, location 3, left 1963, right 2007



Hydra, residential block, location 4, left 1963, right 2007



Hydra, residential block, location 5, left 1963, right 2007

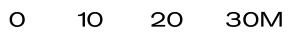
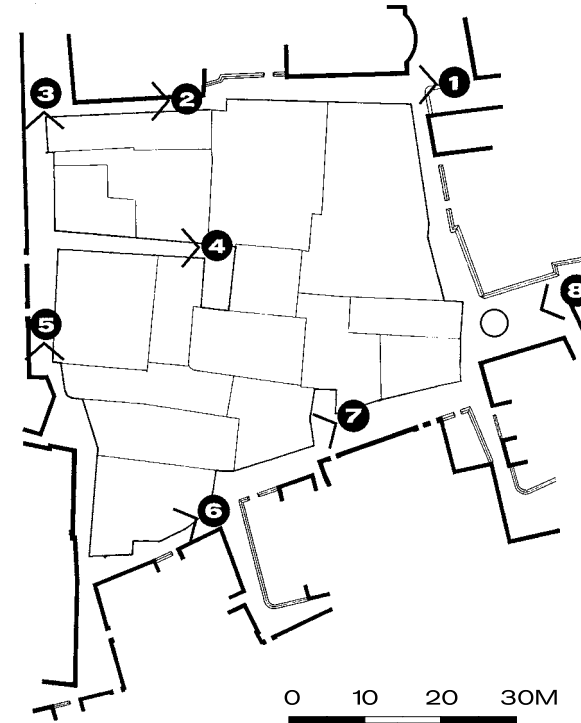
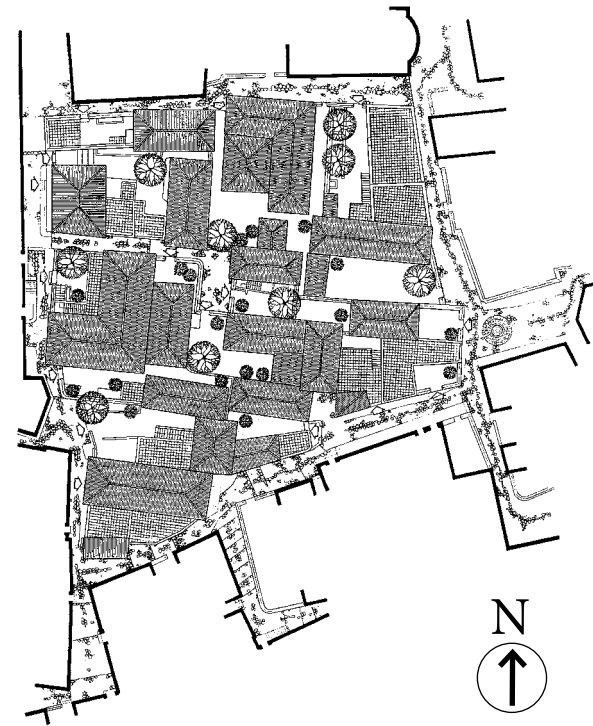


Hydra, residential block, location 6, left 1963, right 2007



HYDRA RESIDENTIAL BLOCK

Location plan (above), section (below), roof plan and photo location diagram (right).



A RESIDENTIAL BLOCK: CONTINUITY AND CHANGE SINCE THE 1960s

Formed during the last stage of Hydra's development in the nineteenth century, this residential block occupies a nearly flat site. Four streets in roughly rectilinear relationship to one another delineate and contain this block of sixteen residential units. At approximately forty-five by fifty meters, the block covers about twenty-three hundred square meters.

The two-level building type prevalent in the block is typical of houses to be found throughout the town of Hydra, although some single-level houses are also present. Three-level houses, responding to the dictates of an inclined site, are absent from this residential block.

To the thousands of travelers who visit the island each year, Hydra seems an untouched nineteenth-century town frozen in time, characterized by its perfect, unadulterated vernacular architecture. A careful analysis, however, reveals the inaccuracy of this stereotype. The casual observer, for example, might easily overlook the ongoing changes in building density, vegetation, color, the utility wirescape, and other elements that only a systematic scrutiny can reveal. A comparison of color photographs from 1963 with those from 2007 shows that although Hydra's vernacular architecture has been widely assumed to be fixed and unchanging, it

has, in fact, undergone a significant evolution during this forty-four-year period. But since the evolution has occurred by and large in sympathy with the established fabric and scale of the town, the man-made landscape of Hydra appears to have remained unchanged.

When it became part of Greece in the 1830s, Hydra, like the other Aegean island towns, surrendered some of its distinctiveness to the emerging national culture and the ideology of the new Greek state. The role played by prominent families of the island in the struggle for national liberation, and these families' equally important role in the politics of the new state, made Hydra's nineteenth-century adoption of neoclassical forms more rapid and widespread than that of any other Aegean island. The town's proximity to the port of Piraeus and Athens must have added to this phenomenon.

Since the early 1960s, new and powerful intrusions into Hydra's vernacular manners and forms have occurred as the result of national and international tourism and related economic development. The effect of this has been dramatic social change on the island, as elsewhere in Greece. Hydra's status has become international, a transformation paralleled in other areas of life, including patterns of employment,

gender relationships, and education. While the island's year-round population has remained steady at about twenty-five hundred, seasonal waves of temporary visitors bring it to many times that number. During this period of great change, Hydra has been recognized as an architectural treasure and has come under a strict national preservation law.

The architectural changes that have accompanied these developments are recorded in the eight photographs taken in 1963 along the periphery of the residential block, paired with a set of photographs of the same locations from 2007. The pairs of photographs allow the reader to note the changes that have occurred along the streets defining the residential block over a period of forty-four years. The juxtapositions reveal the impact of recent affluence upon the vernacular architecture of Hydra as expressed in new construction and new building methods and materials. The observations that follow identify and summarize these changes.

ELECTRICITY POLES, WIRES, AND ANTENNAS

The increasing use of electricity, telephones, and television since 1963 has profoundly affected Hydra's skyline, particularly since the rocky terrain of the town's site makes subterranean conduits prohibitively expensive. The resulting proliferation of electricity poles, overhead wires and antennas has a startling visual impact,

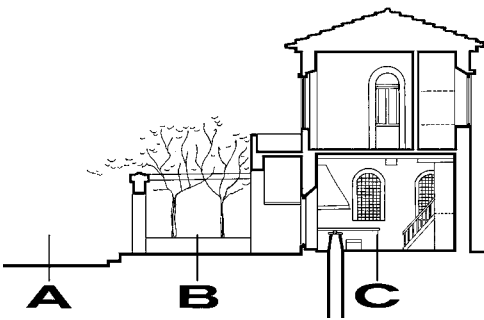
particularly on an observer who knew Hydra before their appearance. The photographs of locations 1, 4, 6, 7 and 8 make clear the difference. Electricity poles, in particular, appear to have been installed erratically, with no concern for how they might affect the architecture of the area.



Hydra, residential block, location 7, left 1963, right 2007.



Hydra, residential block, location 8, left 1963, right 2007.



HYDRA RESIDENTIAL BLOCK

Representative two-level dwelling unit, section

- A. Public street
- B. Private uncovered space (entry court)
- C. Private covered space

HYDRA MEDIEVAL CHRONICLE

| | | | |
|------------------------------------|--|-----------------------------------|--|
| 1204 | The army of the Fourth Crusade sacks Constantinople. Fragmentation of Byzantine territories | 1757 | First large ship of 250 tons built by Hydriotes |
| TOURKOKRATIA (TURKISH RULE) | | | |
| 1537 | Kheireddin Barbarossa raids the Aegean islands, including nearby Aegina. Uninhabited Hydra is not on Barbarossa's list. | 1774 | Treaty of Kuchuk-Kainardji |
| 1640s | Monastery erected at the deepest point of what later becomes the port of Hydra. | 1783 | Aegean islanders, including Hydriotes, begin to trade under the protection of the Russian flag. |
| 1650 | First abortive attempt by an Hydriot to build a ship | 1794 | Census reflects a large influx of refugees and indicates a population of 11,000. |
| 1680 | Kiafa, the original settlement, consists of 370 houses or about 1,850 residents. | 1774-1815 | Forty-one-year period of great economic expansion |
| 1715 | Final Ottoman Turkish conquest of Venetian possessions in the region, including Tenos. Hydra is placed under the jurisdiction of Kapudan Pasha, the commander-in-chief of the Ottoman fleet. | PART OF INDEPENDENT GREECE | |
| 1750 | A captain from Hydra sails to Venice and brings back the island's first compass. Hydra town consists of 604 families of about 3,000 people. | 1821-1830 | Greek War of Independence. Hydra enlists its navy in the cause of the revolution, and at the end of the war the island becomes part of the newly independent Greece. End of the era of piracy. |
| | | 1844 | Hydra granted the privilege of sending three representatives to the Greek National Parliament |
| | | Late 19th C. | Hydra's population and economy decline. |
| | | 1950s | International tourism "discovers" Hydra causing dramatic physical and social changes on the island. |

DENSITY, MASSING, & ARCHITECTURAL SCALE

Building density has increased greatly during the period under consideration. Vacant buildings have been reoccupied, remodeled, or enlarged. Empty lots have been built on. In the process, traditional materials have usually been replaced by industrially produced ones. In general, however, the building activity has been kept within the traditionally established architectural scale of the town, and happily, no multistory hotel has pierced the skyline of Hydra. Buildings with reinforced concrete frames and hollow brick infill walls seem to imitate or, better, attempt to interpret the vernacular architecture forms of the past and their massive stone masonry walls. The massing and architectural scale of recent construction thus merges comfortably with those of the past, as seen in the before-and-after photographs of locations 2, 3 and 4.

ARCHITECTURAL ELEMENTS AND MATERIALS

The new construction's sympathetic scale and massing of architectural elements, such as windows and doors, and building materials such as roof tiles and stucco, have contributed to a sense of continuity with Hydra's vernacular past. The recent introduction of certain nineteenth-century features that were found in other parts of Greece but not in Hydra should also be noted. These include the shutters shown in the photographs of locations 3 and 5. Such elements, although foreign to the island vernacular, have been allowed by the regulatory authorities as being in keeping with the town's architectural character.

VIEWS

Some of the distant views that were visible in 1963 have been blocked by increased building density, as is confirmed by the pairs of photographs of locations 2, 3, and 4.

The sense of enclosure in the experience of a pedestrian is thus enhanced, but the eclipse of well-known landmarks decreases the walker's sense of orientation.

VEGETATION

One of the most surprising and welcome changes in Hydra during the last three decades has been the extensive increase in vegetation, as shown in the pairs of photographs of locations 7 and 8. Water has always been a precious commodity in Hydra. But the importation of water and the building of a water distribution system have had a profound effect on vegetation.

Trees, climbing vines, and flower beds and pots are present in great abundance now, softening the outlines of buildings and providing shade from the harsh sun and relief from the blinding glare of the whitewash. Where water is concerned, another transformation can be observed in the photographs of location 8, which show a well in the foreground. In 1963, the well provided brackish, nonpotable water for domestic use.

By 1998, the movable well cover of 1963 had been replaced by a concrete slab to prevent the use of the now polluted water.



Hydra, helicopter-based photograph. From left to right: port, present-day town, and Kiafa, the original settlement

COLOR

The photographs on these pages also document another important change: the increased presence of color throughout the town of Hydra. The traditional custom of whitewashing is still widely followed, as it is associated with status, cleanliness, maintenance, and disinfection. Color added to the whitewash is now widely used to enliven the exterior, public aspects of houses and, more recently, to celebrate the newfound prosperity of the island. By contrast, the only color available to the islanders in the late 1940s was war-surplus battleship gray. Applied everywhere, it suited the mood of a town emerging from the ravages of World War II and a vicious foreign occupation.

The vernacular architecture of the Aegean archipelago has evolved continuously in response to local considerations and distant influences from the capital and beyond. Developments in Hydra between 1963 and 2007, recorded by the paired photographs shown on pages 370-372, illustrate this evolution.

It is of interest to note that this forty-four-year period compares in time-length with Hydra's spectacular growth between 1774 and 1815. Laws and regulations meant to preserve the island's vernacular architecture and character have controlled recent changes. As a result, change has been less detrimental to the overall architectural character of Hydra than those made in other, less protected areas of Greece. However, issues beyond controlled change, such as the wider use of color and the growth of trees, vines, and flowers made possible by the greater availability of water, have enriched the traditional architecture of the town in many ways. To a degree, all have also acted to soften the unwelcome impact of electricity poles, overhead wires, and television antennas.

Important aspects of the architectural character of Hydra maintain a distinct sense of continuity. The scale, size and proportions of new buildings remain compatible with past structures, despite the introduction of such non-traditional materials as reinforced concrete and hollow-core brick in place of the massive stone masonry walls of the past. The profusion of overhead wires and antennas is the innovation most dissonant with the vernacular architectural forms of the town. Granted, the cost of burying cables underground is prohibitive, but even so, electricity poles have been placed haphazardly, with disappointingly little respect for the architectural qualities of the town.

Another subtle but important shift has been the incorporation of nineteenth-century architectural elements foreign to the island into the town's preservation regulations. This practice is currently innocuous, but if applied too widely, it will tend to erode the very sense of authenticity that characterizes the town and constitutes its greatest attraction. These injurious changes are additional evidence that what appears an unchanged environment to the casual observer is in truth subtly fluid, and, as a consequence, vulnerable. While the architecture and urban forms of Hydra seem to have absorbed the assault of the tourist trade with dignity so far, concerns for the course of future development persist.

EPILOGUE

As the example of the eleven islands presented in “The Vernacular Response: Collective Fortification” chapter demonstrates, each Kastro adheres to a shared concept of organization – dwelling units attached to one another forming an enclosure – but interprets this concept in the context of its own particular site. Such individual site interpretations confirm the versatility of the collective fortification architectural building type in providing unity of concept and variety in application.

Inspired by local as well as imported prototypes (the monasteries of Ayion Oros and the northern Italian hill towns, respectively), Kastro, are admirable examples of architectural accomplishment in judiciously balancing the inhabitants’ need for security versus the limited resources available for the construction of collective fortifications. This delicate balance between need and resources is illuminated by the events of the summer of 1480 occurring in Skaros, Santorini, and in Rhodes during the first siege of the city.

As an architectural building type, Kastro developed its own distinctive urban character based on the inseparable and mutually supportive relationship between the monochoro dwelling unit and its enclosing periphery. Defining this distinctive urban character are a number of components: high building density; labyrinthine, narrow, and winding paths for pedestrians and beasts of burden; forty-five-degree corner cuts to accommodate street traffic; massive masonry walls; small and scanty openings into buildings; and near-universal use of whitewash. When the threat of piracy diminished and eventually disappeared after the 1830s, the same components were utilized in the expansion of the settlements beyond the protective periphery of a Kastro, providing new challenges and opportunities for the creative genius of the builders of what we identify today as the vernacular architecture of the Aegean islands.

As the examples of Sifnos, Antiparos, Folegandros, Sikinos, and others confirm, Kastro have been continuously inhabited for several centuries – rare among buildings in daily, secular use and nearly unique in the Greek cultural space with its turbulent geopolitical history. This continuous habitation has been informed by the theme of continuity and change.

Successive generations of dwellers have modified the features of the Kastro monochoro, transforming the overall edifice into an adaptable, perpetually evolving, living organism. That adaptability of the vernacular allowed Andros, Hydra,

Syros, Santorini, and other islands to absorb the nineteenth-century neoclassical messages emanating from the capital of Athens, which was politically and ideologically committed to Periclean antiquity. The tiled roofs of Andros and Hydra, the planned city of Ermoupolis in Syros, the pilasters on the facades of the captains’ houses in Fira, Santorini, and the hundreds of neoclassical house portals throughout the islands testify convincingly to the ability of the vernacular architecture of Kastro to appropriate and absorb architecture forms originating elsewhere in time and space. This ability to absorb and reinterpret is of the utmost importance and promise today, when the Aegean island settlements have come under intense pressure from Athenian, European, and other international sources to develop and recast their traditional forms.

The interplay between continuity and change is an important theme in architecture, be it vernacular or formal. The vernacular architecture builders of the Aegean archipelago have managed that interplay skillfully, an accomplishment that offers both hope and promise for the future.

Kastro protected life and sustained culture in the Aegean archipelago during adverse times.

Following the unification of the region under Ottoman Turkish rule, Kastro became the springboards for launching an extraordinary measure of seaborne commercial activity extending to every part of the non-Moslem Mediterranean littoral. That activity brought back riches, together with Enlightenment ideas about citizenship and national freedom that led to the War of Independence and the emergence of the modern Greek state in the 1830s. That centuries-long geopolitical process might have originated in the building of Kimolos Kastro.

GAZETTEER

The alphabetical list below has been prepared to ease the difficulty in transliterating from Greek the names of islands, island towns, geographic groups of islands, and the related locations that are mentioned in the pages of "Kastrá." Most lines contain four entries: the first entry spells the name of a place as it appears in the book. If an alternate spelling is in frequent use elsewhere, it appears as a second entry. The next major entry is the Greek spelling of the place name in capital letters. The geographic location of each entry is given last.

| | | | |
|--------------|--------------|-------------|-----------------------------|
| Acropolis | Akropolis | ΑΚΡΟΠΟΛΙΣ | Athens |
| Aegean | | ΑΙΓΑΙΟ | Aegean Sea |
| Aegina | Aigina | ΑΙΓΙΝΑ | Saronic Gulf |
| Akrotiri | | ΑΚΡΩΤΗΡΙ | Santorini, Cyclades Islands |
| Amorgos | | ΑΜΟΡΓΟΣ | Cyclades Islands |
| Andros | | ΑΝΔΡΟΣ | Cyclades Islands |
| Antikythera | Antikythira | ΑΝΤΙΚΥΘΗΡΑ | Southern Aegean |
| Antiparos | Andiparos | ΑΝΤΙΠΑΡΟΣ | Cyclades Islands |
| Aspronisi | Aspronesi | ΑΣΠΡΟΝΗΣΙ | Santorini, Cyclades Islands |
| Astypalaia | Astipalea | ΑΣΤΥΠΑΛΛΙΑ | Dodecanese Islands |
| Ayion Oros | Aghion Oros | ΑΓΙΟΝ ΟΡΟΣ | Northern Greece |
| Chalki | Halki | ΧΑΛΚΗ | Dodecanese Islands |
| Chios | Hios | ΧΙΟΣ | Northern Aegean Sea |
| Chora | Hora | ΧΩΡΑ | most islands |
| Crete | Kriti | ΚΡΗΤΗ | Southern Aegean Sea |
| Cyclades | Kyklades | ΚΥΚΛΑΔΕΣ | Central Aegean Sea |
| Delos | Dilos | ΔΗΛΟΣ | Cyclades Islands |
| Dodecanese | Dodekanisos | ΔΩΔΕΚΑΝΗΣΑ | Dodecanese Islands |
| Emporio | | ΕΜΠΟΡΕΙΟ | Santorini, Cyclades Islands |
| Ermoupolis | Hermoupolis | ΕΡΜΟΥΠΟΛΙΣ | Syros Island |
| Fira | Phira | ΦΗΡΑ | Santorini, Cyclades Islands |
| Folegandros | Pholegandros | ΦΟΛΕΓΑΝΔΡΟΣ | Cyclades Islands |
| Hydra | Ydra | ΥΔΡΑ | Northeast Peloponnesos |
| Ios | | ΙΟΣ | Cyclades Islands |
| Irakleion | | ΗΡΑΚΛΕΙΟΝ | Crete, Southern Aegean Sea |
| Ithaca | Ithaki | ΙΘΑΚΗ | Ionian Islands |
| Kalymnos | Kalimnos | ΚΑΛΥΜΝΟΣ | Dodecanese Islands |
| Kameni | | ΚΑΜΕΝΗ | Santorini, Cyclades Islands |
| Karpathos | | ΚΑΡΠΑΘΟΣ | Dodecanese Islands |
| Kassos | | ΚΑΣΟΣ | Dodecanese Islands |
| Kastellorizo | Kastelorizo | ΚΑΣΤΕΛΟΡΙΖΟ | Dodecanese Islands |
| Kastro | | ΚΑΣΤΡΟ | most islands |
| Kimolos | | ΚΙΜΩΛΟΣ | Cyclades Islands |
| Kos | Cos | ΚΩΣ | Dodecanese Islands |
| Kythera | Kythira | ΚΥΘΗΡΑ | Southwest Aegean Sea |
| Kythnos | Kithnos | ΚΥΘΝΟΣ | Cyclades Islands |
| Lemnos | Limnos | ΛΗΜΝΟΣ | Northern Aegean Sea |
| Lepanto | Nafpaktos | ΝΑΥΠΑΚΤΟΣ | Corinthian Gulf |
| Leros | | ΛΕΡΟΣ | Dodecanese Islands |
| Melos | Milos | ΜΗΛΟΣ | Cyclades Islands |
| Merovigli | | ΜΕΡΟΒΙΓΛΙ | Santorini, Cyclades Islands |
| Mykonos | Mikonos | ΜΥΚΟΝΟΣ | Cyclades Islands |
| Naoussa | | ΝΑΟΥΣΣΑ | Paros Island |
| Naxos | | ΝΑΞΟΣ | Cyclades Islands |
| Oia | la | ΟΙΑ | Santorini, Cyclades Islands |
| Paros | | ΠΑΡΟΣ | Cyclades Islands |
| Paroikia | Parikia | ΠΑΡΟΙΚΙΑ | Paros, Cyclades Islands |
| Patmos | | ΠΑΤΜΟΣ | Dodecanese Islands |
| Poliaegos | Polyaegos | ΠΟΛΥΑΙΓΟΣ | Cyclades Islands |
| Poros | | ΠΟΡΟΣ | Saronic Gulf |
| Psathi | | ΨΑΘΙ | Kimolos, Cyclades Islands |
| Pyrgos | Pirgos | ΡΥΡΓΟΣ | Santorini, Cyclades Islands |
| Rhodes | Rodos | ΡΟΔΟΣ | Dodecanese Islands |
| Santorini | | ΣΑΝΤΟΡΙΝΗ | Cyclades Islands |
| Serifos | Seriphos | ΣΕΡΙΦΟΣ | Cyclades Islands |
| Sifnos | Siphnos | ΣΙΦΝΟΣ | Cyclades Islands |
| Sikinos | | ΣΙΚΙΝΟΣ | Cyclades Islands |
| Skaros | | ΣΚΑΡΟΣ | Santorini, Cyclades Islands |
| Skiathos | | ΣΚΙΑΘΟΣ | Northern Aegean Sea |
| Skopelos | | ΣΚΟΠΕΛΟΣ | Northern Aegean Sea |
| Skyros | | ΣΚΥΡΟΣ | Northern Aegean Sea |
| Symi | Syme | ΣΥΜΗ | Dodecanese Islands |
| Syros | | ΣΥΡΟΣ | Cyclades Islands |
| Telos | Tilos | ΤΗΛΟΣ | Dodecanese Islands |
| Tenos | Tinos | ΤΗΝΟΣ | Cyclades Islands |
| Thera | Thira | ΘΗΡΑ | Cyclades Islands |
| Therasia | Thirasia | ΘΗΡΑΣΙΑ | Santorini, Cyclades Islands |

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