KASTRA
ARCHITECTURE AND CULTURE IN THE AEGEAN ARCHIPELAGO
CONSTANTINE E. MICHAELIDES
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Work for “Kastra: Architecture and Culture in the Aegean Archipelago” began in Greece several years ago. Research and writing for the book were at that time assisted by the inspiring helicopter-based photography of Nikos Daniilidis and the talents of Dimitris Plivouris who, as art director, eloquently composed text, photographs, and diagrams on its pages.

For this digital publication, I am indebted to Andrew Rouner, Director of the Digital Library at the Washington University Libraries in St. Louis, and to his staff, Emily Stenberg and Micah Zeller, for guiding graciously the transformation of a traditional “manuscript” into an electronic one.

A partial subsidy for this digital publication has been provided by the Hellenic-Karakas Family Foundation Professorship in Greek Studies, International Studies and Programs, University of Missouri-St. Louis. For this subsidy, as well as their continuous interest in this work, I am indebted to Professor Michael Cosmopoulos and Associate Provost Joel Glassman.

Financial support was also generously provided by our colleague in the Washington University Libraries, Jeff Huestis, Associate University Librarian Emeritus, to whom I am also very thankful.

Early discoveries of the lessons of the Aegean islands vernacular architecture took place during the author’s student days at the Polytechneion, the National Technical University of Athens (NTU) under the inspiring guidance of Professor Dimitris Pikionis. These discoveries were further enhanced at the Graduate School of Design, Harvard University, with the encouragement of Professor Eduard Sekler. I remain greatly indebted to both.

Although “Kastra” was written following my retirement, the book indeed emerged from the creative environment of Givens Hall, the home of the School of Architecture at Washington University in St. Louis. To the countless students who have listened to my lectures and participated in my seminars over the years and to my faculty colleagues, I am deeply grateful for their attentiveness, encouragement and support.
The word “Kastra” derives from the Latin “Castrum,” and stands in Greek for “castle,” or “fortress.” Its plural form is Kastra. In the Aegean, the term is a somewhat pejorative, but not necessarily derogatory, term found in the Byzantine and the post-Byzantine periods. It is used to refer to the capital or main town of the island. The term is still in use in a good number of islands including Naxos and Sikinos, where both the main town and the capital of the island is known to have owned a copy.

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 volume, large-scale publication of drawings defining the style, unprece-dented in the wake of the French Revival movement in Britain and the thought of 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 in the eighteenth century. The Acropolis, the drawing provides an instance of conflation 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 initial form. A similar sharpening of the relationship between these two genres of architecture occurred more than a century later in the Cycladic architectural space when the basilica of Panayia Kato Poli, on the island of Thera, 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 preceding centuries. Between the early thirteenth and 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, presence, and influence, both military and commercial, contributed most to the development, differentiation, the vernacular and formal architecture of Kastra. The story of the arrival of these two groups, which were later synopsized in the first two chapters of the volume, the Ottomans conquest in the sixteenth century established Turkish rule, and unified the region politically and commercially. That portion of the chapter reviews Turkish rule, with particular attention to the “tulos” system and the toleration of Island garrison and self-government by the Ottoman Turks. That section, along with the description of the architecture during the centuries following the sack of Constantinople in 1204, emerges as the most potent force of destruction of vernacular architecture in the archipelago in the fourteenth and the fifteenth chapters of the book.

Complementing the geography of the previous chapter, “The Aegean Archipelago” reviews the landscape and seascape of the region and its distinctive physical and cultural environment of visible islands and invisible networks of sea-lanes. Adaptation
of the typology and materials utilized in the building of Kastra, 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 Kastra. Eleven islands (home to sixteen Kastra, 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 Kastra 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 Hospitaler 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 heavily from the vernacular building experience of the region. The unique topography of the periclino site of Andros Kastra 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 Kastra have been written so that each one can stand alone. Reading them all together, however, allows for commonalities to emerge that tie individual Kastra to a cultural and architectural framework particular to the Aegean archipelago. Kastra 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 Kastra 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 Kastra, and, in turn, to illuminate a remarkable cultural and architectural heritage that technology and globalization have now made accessible to all.
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 the 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, it was the medieval vernacular collective fortifications we observe today, 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 to its original destination, leading to the sackings 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 Kastra 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.
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 prophecy 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 Kastra, bas-reliefs of the Lion of Saint Mark, holding a book inscribed with the angel’s greeting, “PAX TIBI MARCE EVANGELISTA MEUS,” 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 Muslim 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 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: “Primo semo Veneziani et 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.
Thus, Doge Enrico Dandolo led the Fourth Crusade to Constantinople, a city that accorded to John Julian Norwich. “If ever was not the brightest 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 rivalry 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 politics, 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 naivety, gaining the most in land and commercial privilege and retaining it for longer. Indeed, Dandolo’s political intuition led him to recognize that the resources of the Venetian Republic were limited in contrast to the burdens of managing the captured territories; therefore, retaining Crete, he parcelled 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 theirs 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 overlords 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 successors, 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 assemble 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 Sarrazins, 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 the duchy’s formal allegiance to Venice.

In addition to Naxos, Sanudo kept for himself the islands of Amorgos, Ioa, Kythnos, Melos, Paros, Sithnos, 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 Ghisi brothers took Tenos and Kimolos, a Foscolo with Anafi, and a Gustiniani with Serifos. The Ghisi brothers took Tenos and Mykonos from the Cyclades, as well as Skiros, Sifnos, and Serifos 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.
The Venetian magnanimity towards Sanudo in this instance illustrates the willingness of the Latin lords to take a Greek bride. By taking a Greek bride, Sanudo set a pattern of intermarriage between Latins and Greeks that over the centuries has brought the Latin Venetian overlords to be respected 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 the Greek subjects by allowing the Greek Christians to worship in their own monasteries and church buildings. However, he brought the Roman Catholic Church into the duty to attend to the religious needs of the remaining core of Latin residents producing in the Aegean a sense of separating faith.

The existence of these parallel religious institutions may explain the numerous double-walled, single-chapel buildings common of the Byzantine period. 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 350 years, and until the sixteenth century imposition of Ottoman rule. The heirs 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 intermarriages, or conquest.

The principal town and seat of the feudal rule of each island had to be fortified. The Naos in Sitia is one of the few remaining examples of collective fortifications that were nearly intact and still existed today, as seen fortifications only slight improvements in the forms of Antiparos, Apokoronas, Palekastro, and Sitia. The Naos of Kea, although smaller, is an interesting example of recolonization of an island, the Kastro itself being protected to the new inhabitants who to work were to enhance the value of the Antiparos fort.

The adventuring, seafaring lifestyle of Marco Sanudo and his comrades was supported by the geography of the Cycladic islands and the limited resources and small size of the islands, which forced the lords to make use of their war galleys and forces to protect themselves against their neighbors. The Naos of Sitia, the prominent town and seat of the feudal rule of Syros, is an interesting example of recolonization of an island, the Kastro itself being protected to the new inhabitants who to work were to enhance the value of the Antiparos fort.
Insecurity made life nearly intolerable on the islands. In the 1480s matters came to a climax under the rule of Duke Giovanni IV. 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 sultan to impose even heavier taxes or to overstep the bounds of protection. In 1484 a revolt led by the Archbishops 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 folktales of the Aegean. Expelling the barons of most of the islands, including those of Andros and Santorini, Barbarossa sacked and depopulated Paros, land key to Naxos, and compelled the dukes 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 refugee Greek nobleman. As such, 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 rulers, but when Giacomo IV succeeded his father as duke in 1544, 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. According to Venetian scholars, 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.
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, the battle ended with the loss of Jerusalem and the suspension of the crusades 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 rethinks 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 an institution 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 Order of Saint John expanded its 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 1140, the awesome Crac des Chevaliers, described as “a hagstone and thorn of the castle of the Hospitallers” and “a stone 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 predecessors and 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.
The 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.
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.

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.

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 Europe, who filled all major military and administrative offices, including that of the grand master of the order. Each Tongue ruled with the consent of a council, the general assembly, which elected the grand master. The grand master selected the council, which then elected the grand master for life. 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.
## GRAND MASTERS OF RHODES

<table>
<thead>
<tr>
<th>Year</th>
<th>Name</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>1305</td>
<td>Foulques de Villaret</td>
<td>Great Provence</td>
</tr>
<tr>
<td>1319</td>
<td>Helio de Villeneuve</td>
<td>Lesser Provence</td>
</tr>
<tr>
<td>1324</td>
<td>Deauville de Graces</td>
<td>Great Provence</td>
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<tr>
<td>1353</td>
<td>Herve de Curnies</td>
<td>Lesser Provence</td>
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<tr>
<td>1355</td>
<td>Roger de Piza</td>
<td>Great Provence</td>
</tr>
<tr>
<td>1365</td>
<td>Raymond Bonavier</td>
<td>Lesser Provence</td>
</tr>
<tr>
<td>1374</td>
<td>Robert de Jolly</td>
<td>France</td>
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### Notes

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 their 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 person hanging in the breach to add his weight to the battering rams. The two-handed sword with its crushing double-edge, the crossbow, and harquebusiers supported the knight by firing from his sides against the advancing enemy. Full armor was apparently still worn onboard, where a breastplate and helmet allowed greater freedom of movement. The fortified city and the islands of Rhodes, together with the many smaller islands and castles around them, served as a base for the military operations of the knights against their Muslim 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 areas of the knights’ operations in Rhodes and the vicinity. Not as well known is the presence of the knights in the Greek peninsula as extensive free holders in the Morea (Peloponnese), or as the owners of the castle of Sycamor near Corinth, facing the mouth of Evoboea from the mainland. In league with the Venetians, the knights raised the castle of Kanalla on the north shore of the Aegean, an inviting location for piracy, as the important caravan route from Constantinople to Morea was along the coast.

Around 1300, the knights, together with Greek and Venetian forces, caught a raiding Turkish fleet off Megara unprepared and burned thirty 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, leading a small army into the Peloponnese, he ambushed and took prisoner by John Bisou 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 events 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 Valletta on Malta. Research into the material in the archives conducted by Professor Zacharias N. Nipirkeas 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,

### Images

- **Foulques de Villaret**, the first Grand Master of Rhodes, Italian portrait of the 1400s.
- **Kalamnos, Perastikas, a gigantic rock and natural fortress in the middle of the largest and most productive valley of Rhodes. Literally invited the building of a knight hospitaler fortification as part of the outer defenses of the city of Rhodes. The detached structure was off the mainland of Rhodes, while the destroyed tower has stood above Chorio below, a development to be echoed later on neighboring Astypalaia. Eleven chapels among the ruins are still cared for by the original owner’s descendents who reside in Chorio. The figures below are against the backdrop of the 1970s Whitewashed photograph of Kalamnos.**
was the official language of the Turkish sultans. Between the knights and the Ottoman Turks were written in Italian as well as Greek, which mats. Interpreters were certainly needed, as important fifteenth-century peace treaties to Rhodes to take up administrative positions within the Order as interpreters and diplo-

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 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 rite but were in com-
munation 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 the Roman Catholic masters.

According to Elias Kollias, ephor of Byzantine antiquities in Rhodes, the Oder’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 selling their own vessels to other Mediterranean ports. While the knights were in power, Rhodes emerged not only as a manu-
ufacturing center between East and West but as a manufacturing center, 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 rite but were in com-
munation 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 the Roman Catholic masters.

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 fiftieth, 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 recriminations, 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 rite but were in com-
munation 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 the Roman Catholic masters.

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 the women 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 of urban Rhodians who embraced the new Western way of life became Uniates, which meant that they retained their Orthodox rite but were in com-
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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 fiftieth, 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 recriminations, 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 rite but were in com-
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Modern 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 to the west 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 sixteenth 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 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 origins.

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 Orthodox 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, as it was in the thirteen years of the reign of Selim II, the patriarchs were the first victims.” Thus, in 1572, during the reign of Selim II, the patriarch, Eustratios, was executed in circumstances of particular brutality.

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 origins.
he 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 was a major source of Ottoman revenue, the Sublime Porte, as the Ottoman government was known, avoided mass conversions to Islam of its non-Islamic subject.

Ottoman 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 an entity independent of the administration of the ruling power but also enjoyed the protection of the Sultan. The death of the Koinotist or headman was deemed to be the equivalent of the death of a Turkish official. Non-Moslems were not as devastated as the devsirme was to the mainland. Yet the hardships or privations, including the inhuman and insatiable exactions of the Ottoman state, meant that considerable loss of life was attributable to this particular form of taxation. 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 an entity independent of the administration of the ruling power but also enjoyed the protection of the Sultan. The death of the Koinotist or headman was deemed to be the equivalent of the death of a Turkish official. Non-Moslems were not as devastated as the devsirme was to the mainland. Yet the hardships or privations, including the inhuman and insatiable exactions of the Ottoman state, meant that considerable loss of life was attributable to this particular form of taxation.
x 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 Moslem alike, with or without the excuse of war and often with the clearest of conscience.” This chapter looks at piracy as a distinctly Mediterranean institution—one that challenged the very existence of the Aegean Island theme. 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 homogeneity of the Mediterranean appeared to have been achieved. 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 that was practiced by rich and poor alike across the Mediterranean. 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. “Piracy” and “privateering,” “pirates” and “corsairs” are different terms suggesting different natures, albeit often related 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.

A

piracy

rather than hero of thousands, which became known as the corsair, 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 shot. Those who surrendered survived and were sold as slaves if poor; or held for ransom if rich. The corsars plundered at random; they did not care who they did harm. In theirding, they could not rely on the protection of higher authorities for redress. Long coast exposure, the Aegean islands paid a heavy price in corsair depredations. After being plundered, many of the islands were abandoned, apparently for long periods.

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Indeed, the Italian term "corsair" identifies a person who is a seaman 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, a tailor, or a baker. The corsair was more than either a roving privateer or a diplomatic representative, although his activities might sooner become a corsair captain and go on to invest his profits in commerce, banking, and land. The corsair was on the high seas, and his mind was trained for the command of ships that were as restless as he.

The preeminence of the Barbary Coast and Maltese corsos was eventually challenged as other flags increasingly penetrated Mediterranean waters. The growth of English, Dutch, and French trade after 1700 was paralleled by an increase in these nations' naval strength. Commercial rivalries among the newcomers led them to negotiate treaties with the Barbary Coast corsos, which obligated the former to pay tribute, offer armaments and other armaments paid as tribute actually enabled corsair attacks on or with merchant marines, yielding an additional commercial advantage to those paying the tribute.

The young United States was soon caught up in this web of tributary payments and trade rivalries. As early as 1798, the British encouraged the Algerian emir to declare war on the United States in the hopes of drawing American commerce to the Barbary Coast and occupying the traditional corsair strongholds. After the war, the United States signed a treaty in 1815 with Tripoli, and the following year with Algiers, France, Spain, and later with Morocco. By the end of the century, U.S. relations with the Barbary corsos had changed from a struggle for national independence.

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 high value. 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 the islands' proximity made it possible for corsairs to winter at their home bases, and corsAir activity continued all year round.

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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 ships. In the context of the war against the Modern Infidels, 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’ cause. But under the new conditions, the Maltese corsairs began to challenge the Greek Orthodox corsairs as a threat to the success of the papacy’s protection and thus to Maltese corsair dependencies. In this continued situation, although the Latin corsairs retained some scruples against attacking ships with Greek captains or crews, they continued to stop and inspect any ship and to demand heavy cargoes as tribute.

In such cases, the only remedy for Greek captains was normally to lay by the courts of Malta, the records of which indicate that Greek sailors 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.

The citadels 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 Kastra, of the islands of Ægina and Antiparos have been continuously inhabited. Chora, a settlement beyond the fortifications, now extends the life of the abandoned enclosure of Kastra on the island of Ægina. But only the powerful character of the site and the overgrown foundation walls convey the presence of fortified settlements in Skaros on Santorini and in Kastra on the northern Aegean island of Ægina, 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 Kastra.

Alexandroff Papadopamitros (1831–1911), 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. Papadopamitros did for his island what Thomas Hardy... did for [his] homeland," as Elizabeth Constantinides observes in “Tales From A Greek Island.” Papadopamitros describes Kastra 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 sunrise, lowering it again after sunset.
Papadiamantis's island tales were not illustrated, but there is a picture of a settlement similar to the Skalos 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 art-dealers. Seven were ringed masts on proud crag and teeth next to the stones, turned gold by abundant light during the sunset,drenched in the winter by the waves,agitated and crushed by the furious north wind which plowed relentlessly through and around the old fortification, the sea, 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.

Fetochos Ayios, Kastro. The Hall Photograph confirms the accuracy of the drawing by including the outline of the large boulders, the horizon line, and the delineation of the sea 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, the sea’s water to the site, combined with the fortifying topography and fortified by the unexpected (natural) fortess of the settlement, the Skaros of the Venetians and the Turks crowned and piled them up on this naturally unconquerable rock.” But as Papadiamantis explains, there was a “pressing need to do so: the fear of the Barbary corsairs and of the Venetian and Turkish galleys. Today’s visitor to the site, confronted by the fortifying topography and surrounded by the unexpected enormity of the settlement, would readily agree with Papadiamantis that it is “a wonder” that people “managed to live on this waterless and inhospitable rock.”
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 Perissa 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 constraining the size of the individual dwelling units, which were similar to those comprising the external defense walls of the Sifnos, Antiparos, and Astypalaia Kastra. 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—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 accurate measurement and the portrayal of both the natural landscape and of man-made architecture forms.

At the 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” where the shepherd rushes to warn the gatekeeper of the corsairs’ appearance on the island.
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 the gatekeeper warns him 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 Betsy’s 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.

Papadiamantis’s captivating prose and vivid descriptions paint a literary portrait of the vicissitudes of life in the Skiathos Kastro in the eighteenth century. Thomas Hope’s drawing “A View of Skaros,” by a talented artist from another culture, gives reliable visual testimony of the architecture that sheltered a life much like that Papadiamantis portrays at the end of the same century. Through different artistic means Hope and Papadiamantis offer converging testimony to the effects of piracy in the Aegean Sea during the post-Byzantine centuries.

The capture of Malta by Napoleon and the French landings in Algiers eradicated piracy from the Mediterranean Sea. Freed from the need to defend against it, the inhabitants of Skiathos Kastro and Skaros Kastro, now parts of a newly independent Greece, descended from the fortified towns to more accessible locations closer to the sea. Today these two medieval fortifications are in ruins, but legends and drawings remain to testify to the harsh conditions of their earlier existence.

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 in this essay are mine.
T
he 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—boulders transformed into islands—among the islands of the Aegean. Geologically, it is one of the youngest. Its numerous islands provide physical evidence of the Aegean Sea’s geology.

The Aegean islands and Crete nurtured the great civilizations of antiquity from which much of contemporary European culture derives. The islands comprised the eastern-most landmass, and the Dodecanese complex serving as its southeastern-most geographical points of the European Union for the last two decades.

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, he loved son’s return, Aegeus spied the black sail and in desperation flung himself into the sea, which has been known as the “Aegean–Pelagos,” (the Sea of Aegeus) ever since. Another version of the etymology of the word deriving from “Aegae,” (i.e. waves), suggests an image of this great body of water as eternally moving and continually self-renewing. This visual and aural image inspired Odysseus (Etolia 1931: 96), the “poet of the Aegean” and the 1979 Nobel laureate, whose verse, as Yiorgos Yiatromanolakis of the University of Athens notes, celebrates the “uniqueness of the 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 Greek “arkhipelagos,” (i.e. islands). Etymologists have speculated that, rather than coming directly from the Greek “arkhipelagos,” the Italian term “archipelago” is derived ultimately from the combination of the Greek “arkhi” (chief) with “pelagos” (sea). Erythraean 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. Chauveau–Guillewe, 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 interconnected with one another. 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. Those with a relatively large number of islands are grouped around the Italian Peninsula and include the Dalmatian coastal islands and the Ionian islands off the west coast of Greece. An encircled archipelago, the Aegean Sea boasts the largest number of islands in the region, grouped into such distinctive clusters as the Cyclades and the Dodecanese. Kastra, or collective fortifications, built on these two groups of islands provide the focus for this book. Writing in the 1930s, Kar Curly–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 part 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 favored two things: the sea, which has left little room for other creatures. This retreat of flora and fauna eventually handicap human activities rather than help them.”

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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. These ridges rise above the floor; these ridges provide the larvae foundation for the islands that now lie above the surface as island chains. The chain of Kythera, Antikythera, Crete, Kassos, Karpathos and Rhodes is one that can be readily identified on the map. Almost touching Attica and Evvia, the Cyclades extend south and then easterly 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 Kastra (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 invisible
ible network of sea-lanes. These two networks have historically facilitated the trade 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 landscapes/seascape. A similar ratio of shoreline to encircled 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 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 breeze 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.
In the days of sailing ships, the Aegean winds determined the maritime calendar. Mild weather in May began the season for trade, coin, or birth; to avoid winter storms, the sailing season ended in late October. Ernle Bradford, a historian of the region, suggests that the “meltemi” (a northerly wind) was often described as “mistral-like” and “turbulent.” The information on the population of the Aegean islands during the Tourkokratia, or Turkish rule, periods 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, a townof Kastra, was estimated 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 Ottoman fleet consisted of only 5,000 ships. Historically, most of the islands possessed only “moderate agricultural wealth.” 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.

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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 Georgios K. Yiangoulas. This figure includes islands in both the Ionian and the Aegean sea, 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 500,000, Crete is unique among the group. Of the 115 inhabited islands, eighty-three lie in Aegean waters and constitute such geographic and administrative groupings 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 increase. 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, Patmos, 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 5,000 to 9,800, 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 one virtually part of metropolitan Athens. It has experienced an overall thirty-five percent increase in population, from 11,900 to 16,000, 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 increase. 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, Patmos, 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 5,000 to 9,800, during the same forty-year period.

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 treeweed terrain covered by the typically Mediterranean macchia – that is, shrub and evergreen bushes – on donkey trails and occasionally on cobbled paths, ends in a rewarding, uplifting, and rewarding experience, acoustically, spatially, and visually.

The islands’ summits are almost always windy. The most 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 carves the sounds of people, animals, and machines from the island. 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, as dramatically altered the physiognomy of the country.
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: 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 the 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.
The typical proportions of the monochoro plan are close to a 1:2 ratio, yielding an eight-to-ten-meter depth. The party walls are blind. For defense reasons, the windows on the back wall are small, but Nonetheless, they are adequate for cross-ventilation. In addition to access for external access to each of the combined monochoro units is almost always retained. 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 monochoro dwelling unit above is accessed directly from the public street 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 fortification. 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 uniting 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.

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 tums and deceptively arranged step placements, with narrow treads and steep risers, in the interest 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, Aegina, and others would confirm.

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Local stone and poor-quality wood, mostly "kithes," were the basic building materials of the monochoros. 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 "kithes," with a spanning capacity that does not ordinarily exceed four to five meters. One of the short sides of the rectangle becomes 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 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 monochoroses, its constituent dwelling unit, developed an inseparable and mutually supportive architectural relationship, crucial to life and culture in the medieval Aegean archipelago.

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 deceptively arranged step placements, with narrow treads and steep risers, in the interest 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, Aegina, and others would confirm.

For defens reasons, the windows on the back wall are small, but Nonetheless, they are adequate for cross-ventilation. In addition to access for external access to each of the combined monochoro units is almost always retained. Variations in the configuration of the monochoro dwelling unit appear as early as the Antiparos Kastro. There, the units are placed with their long axes 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 monochoro dwelling unit above is accessed directly from the public street 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 fortification. 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 uniting 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.
CHURCHES AND CHAPELS

Churches and chapels are important components of the urban fabric of Kastri. 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 Kastri or20


twisting 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 and cultural components of the island’s urban fabric is underscored today by the examples of Astypalaia and Kimolos Kastro. In the former, the chapel of Ayios Georgios has outlived the abandonment of the Astypalaia Kastri. It stands free, lovingly whitewashed and maintained by the citizens of Kastro, who in the late 1940s moved to Chora below. Built during the fourteenth century, Panagia church, also in Astypalaia Kastri, sits on the base of a medieval stone 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 site of a pre-existing Late Byzantine church. Symbolically replacing the Latin leseip 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 itself.

Enclosed by two-foot-thick heavy masonry walls, the majority of these chapels are constructed on the single-space, single-apse, monochord 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 doors located on the opposite, or western, side 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 building. A barrel vault spans the width of the chapel, which normally measures between three and four meters and rarely exceeds five. Often, and in Simos in particular, a flat-roof construction is used instead of the typical barrel vault that is more prevalent in the rest of the Cycladic islands. In each flat-roof building, 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 Simos Kastro eloquently demonstrates. Plan proportions are likely to be 1:2, with one for width and one for length. Openings, which are few and modest in size, allow only a modicum of natural light into the interior so as not to overwhelm the permanent cardinally within. The architectural scale and materials that fill the wall openings, including doors and windows, integrate each chapel into the urban fabric of Kastri.

Two single-nave chapels have frequently been joined into one. Two spaces at the east end confirm the origin 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-folding designed to meet the religious needs of a mixed community.

In addition to the barrel-vaulted or flat-roofed single-nave chapel, the Aegean island’s church typology also includes single-nave and -apse chapels, one of which appears inside Simos Kastro. These chapels are larger in plan and in volumetric scale than the domes, yet other features, including the heavy stone masonry, the apex projection on the east side, the domical-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 type. The domes 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, appear smaller.

The political life of the mainland 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, 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, Spenser Vavrus writes, “the effect of Turkish forms on the Byzantine legacy was decapitation on the formal level and accretion on the folk level.” The Aegean archipelago was initially shocked by the combination of “decapitation” with “isolation.” But its eventual recovery is eloquently demonstrated by the architecture of the churches and chapels presented on these pages.
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 Katapoliani 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 scale and scope 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 worldly 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.

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

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.

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. Unusual features present in the Aegean island chapels, the building's cutters, or additio- nal to the barrel vaults, the typical cavity of chapels, including thick masonry walls, small openings, and whitewash.

 Joined together, two single-nave chapels stand free in the landscape of Mykonos Island. The encompassing drawing of these two chapels is borrows from the extensive study of Cycladic vernacular architecture by Professor Soichi Hata.
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 Kastra, 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 reference to windmills dates 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, 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, fertile land 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."
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.
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 millstones. 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.

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.

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 windshaft 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.
Dovecotes, Monasteries and Whitewash

Dovecotes exist only on a small number of islands, and notably on Tenos. A detailed presenta-
tion 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 Kastra. 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 Kastra as well. Indeed, with populations in the hundreds, Cylindrical Kastra developed an architectural scale and size that came to resemble those of Ayion Oros monasteries. De-
tails 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 and incorporated into an urban setting.

Santo’s Baroni whitewashed dovecote, Skaros

Whitewash, the most distinctive feature of the vernacular architecture of the Ae-
egean 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 points to the application of whitewash as a recent practice. Scholars who disagree point to the reliability of 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 whitewashed from top to bottom so that they might appear white, as they are, and can be easily seen from a distance.” To reconcile these views one might speculate that whitewashing in the Aegean archipelago began inside the densely populated Kastra of Chios and other islands 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

Thevenot, Annabogus

The absence of sewers, with street drain-
surfaced and curving site, Ayion Oros

Surfaces, whether vertical or horizontal, heavily textured or smooth, stuccoed or not, and other traditional motifs done in whitewash on poured concrete street surfaces express some residents’ desire to list the houses of the old and whitewashed citadel of the old cobbled streets and at the same time represent a fresh and bright layer of whitewash also impressively increases the heat-

Whitewashing and coloring site, Ayion Oros

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.

Street surfaces from: Folegandros and Sifnos

Repeated applications of whitewash over stuccoed masonry or stone and mortar protect the exterior walls of buildings 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-

Santorini, whitewashed

The functional uses of whitewash continue today, but social and aesthetic consider-
ations 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 com-

Sifnos, whitewashed

petition with the neighbors. When the schoolchildren of Folegandros whitewash the pave-
ment 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, folk, and other traditional motifs done in whitewash on poured concrete street surfaces express some residents’ desire to list the houses of the old and whitewashed citadel of the old cobbled streets and at the same time represent a fresh and bright layer of whitewash on the streets and in the same time represent a fresh and bright layer of whitewash to the streets and in the same time represent an act of civic and national pride.

Successive layers of whitewash applied annually on buildings of variable typology – even

Tinos, Whitewashed

W

and external 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-

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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)raglia, 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 settlements of the island. They were built after 1830, when the last of the Barbary pirates disappeared from the Mediterranean Sea. The settlements of Xambela, Kato Orosi, Apollonia (present-day capital of the island), Pano Petali, Kato Petali, Artemonas, and A. Loukas are all located on the 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.

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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.
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 Kastra 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 fortifications.

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 earlier 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.
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 tends 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 as a private rather than a public function. Restrict-
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 the 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 Kastra. Their presence and use introduce subtly but firmly a domestic scale into the public space and urban fabric of the Sifnos Kastro.
Above: Kastro from the west. The cemetery discussed on page 80 appears at the lower right corner of the illustration.

Below: As in other Kastra 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 foundations of houses. 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 at 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 these, the 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 towers.

The domestic scale of this church, its flat roof, and the unpretentious composition of its south façade merge comfortably with the secular building tops 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.

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. Nicholas

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.
St. John Theologos bell tower, elevation drawing. Bell towers from libros 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.
**SIFNOS % MEDIEVAL CHRONICLE**

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

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. 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 Hospitaler, seizes Sifnos, renounces his allegiance to the Order, and declares himself an independent sovereign.

1317 **ANTONIO da COROGNA**
1340 **JANULI II 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**
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.

1537 **JANULI II GOZZADINO**
1549 **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 Porte.

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.

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Panagia Eleousa in Mesa Kastro. The carved column in Mesa Kastro.

Enwalled commemorative column in Mesa Kastro. The carved inscription includes the name of Iacopo da Corogna.
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.

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. 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, effectively uses external walls to protect the inner place of prayer from the secular world as well as from the powerful winds blowing 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.

PROFITIS ELIAS MONASTERY

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

Dionisiou Monastery in Ayion Oros (Katholikon plan, below; monastery photograph, on the right).
T he 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 of 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. Built to keep out the secular world and to protect the inner place of prayer, this massive wall remains the most impressive architectural feature of the monastery. In a manner that reinforced the outer building of the Aegean island towns, the living quarters, including cells, refectory, and storerooms, were attached to the interior surface of this enclosing wall. Such a design insured an economy of materials and gave greater structural strength to the integrated peripheral fortress.

A guarded barrier (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.

In the post-Byzantine period, these generic building types were transformed into a manifold series of architectural interpretations of this basic tripartite diagram. Such factors, in turn, account for the variations of the Byzantine as well as the post-Byzantine monastery.

The varying sizes of the parts, along with their proportion, materials, and details, account for the manifold architectural interpretations of these basic tripartite diagrams. Such factors, in turn, account for the uniqueness of the monastery as a generic building type.
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 other 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

**The Querini Kastro**

### GENERAL INFORMATION

- **Prefecture**: Dodecanese
- **Location (Kastro)**: 36° 32' 38'' N, 26° 21' 20'' E
- **Distance from Piraeus**: 313 km (169 n.miles)
- **Area**: 96,85 km²
- **Dimensions**: 16.5 km long, 13.5 km wide
- **The island itself comprises two rock masses which are joined by an approximately 110 meter wide isthmus** (Ayios Andreas Isthmus)
- **Shoreline**: 110 km
- **Highest Elevation**: 482 m (Vardia)
- **Permanent Population**: 1,246 (2001)
- **Port**: Pera Yalos or Skala
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. Ctesiphon was an island settlement that lasted from the eleventh century to 1538, but the Venetian presence continued until 1541. 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 application of the collective fortification system employed in most other islands of the neighboring Cycladic complex.

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 foundation and walled in one stage, the Kastro is another inspiring site-specific formation and erected in one stage, the Kastro is another inspiring and site-specific masterpiece of the period of Byzantine territories that was achieved in the sixteenth century. They show abstractly the essence of the islands' past, hope antithetical, artistic achievements, and the people of the period.

**ASTYPALAEA - MEDIEVAL CHRONICLE**

- **Sailing out of the Golden Horn, the Turkish admiral descends upon the Aegean islands. All are taken and devastated including Astypalaia.**
- **The Black Death. Ships from the Genoese trading colonies in the Crimea continue their route through the Aegean Sea and visit the island.**
- **The Astypalaia Kastro starts to take its present form.**
- **Don Joseph Nasi, a Portuguese-Jewish banker and Nasi, the last person to hold the title of duke, never visits the island.**
- **The population of Astypalaia does not exceed four hundred.**
- **End of the era of piracy.**
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 formidable 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 Kastra.
Astypalaia, Kastro and Chora. Although disused, these clustered windmills, with their whitewashed and robust cylindrical forms, remain an indispensable part of the urban fabric of Chora.
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, 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 the surrounding landscape 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 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 Indexia whitewashed elder 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.
Amidst the ruins of the Astypalaia Kastro, two white-washed 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.

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 west 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—were added in 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 architectural elements into the vocabulary of vernacular architecture.

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 architectural elements into the vocabulary of vernacular architecture.
Astypalaia Kastro, Chora and port.

Site plan

Middle 18th cent. - Middle 19th cent. - 1912 - 1948 - today


Astypalaia Kastro and Chora. Six stages of development.
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.

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. 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.
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 Portaitissa, 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.
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).
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 participated 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 apex 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, Chora. Six-chapel complex, west elevation and iconostasis of Panayia Leimonetria. Situated fourth from the north and centered on an approach path, this chapel’s west facade observed from a greater distance than any other provides a rare opportunity to observe when the shadow of the sun is cast at various times. A small opening near the roof reveals a wall finished with stone veneer pieces, apparently recycled from an earlier unidentified building dedicated to Panayia Lemontrea, or the “Merciful Virgin.” A deep, elaborately carved wooden door to the upper part of the iconostasis has obviously been recycled, probably from a sailing ship. Both sailing ships and religious spaces have been adapted, reinterpreted, and recontextualized to express a united yet diverse community of shared religious and cultural attitudes.
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.”
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, already 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 fourteenth-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 fortification enclosure, provides water for the present community.
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 east 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**

1207 NARDI D’AMARO

Marco Sanudo captures seventeen Aegean islands, most of them undefended. He founds the Duchy of the Archipelago, and distributes islands to his sons and other supporters, including Antiparos. The island is one of the many inherited as part of the duky’s defunct constitution.

1247 The Black Death. Ships from the Genoese trading colonies in the Crimea carry the plague to Italy.

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

1389 Gaspari Sommaripa marries Maria Sanudo, daughter of Nicolo Sanudo Speciazzone. 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.

**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.

**Tourkocracy**

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 least in line to 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 southwest. A recent structure houses water-pumping equipment on top of an older round foundation. This lower foundation may have supported a distant defense tower during the medieval past of Kastro.

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. Dwelling units in current use. Note: Illustration on the right of the similarity in lock-access steps with equivalent configurations in Sifnos or Folegandros Kastro.
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, anxiety, introspection, and 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, retained the integrity of the original edifice, focused on defense.
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 enclosures 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, interconnected by way of Venetian overlords or the stronghold towers of the nearby Ayio 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 modular (0.30 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 sunken-in 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 Kastro. On the domestic scale typical of the Aegean islands, this baroque-vault and dome-covered church 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.
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.
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 Kastra, 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.
An application of the collective fortification building system in use during the Duchy of the Archipelago era, Folegandros Kastro is distinguished from other Aegean Kastra by its triangular plan. Fully inhabited today and in excellent status of preservation, the Kastro locates 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 Kastra, 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 the pedestrian path a revealing sense of human and architectural scale.
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 Portiki, 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 west 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**

*The army of the Fourth Crusade sacked Constantinople. Fragmentation of Byzantine territories.*

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1204</td>
<td>The army of the Fourth Crusade sacked Constantinople, fragmenting Byzantine territories.</td>
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**The Medieval Chronicle**

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<tr>
<th>Date</th>
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<th>Event</th>
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<tbody>
<tr>
<td>1207</td>
<td>Marco I Sanudo</td>
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<tr>
<td>1227</td>
<td>Angelo I Sanudo</td>
<td>Second Duke</td>
</tr>
<tr>
<td>1232</td>
<td>Marco II Sanudo</td>
<td>Third Duke</td>
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</table>

**Licario**

Licario, a knight from Vicenza, under the Byzantine flag seizes Folegandros and becomes part of the duchy.

**The Duchy of the Archipelago**

Marco Sanudo, one of the crusaders, captures seventeen Aegean islands, most of them undefended. He founds the Duchy of the Archipelago and enwalls his island among his friends. He is held as high as the duchy. Folegandros becomes part of the duchy.

**Deposition of the Duchy**

<table>
<thead>
<tr>
<th>Date</th>
<th>Duke</th>
<th>Event</th>
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<tbody>
<tr>
<td>1269</td>
<td>Licario</td>
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</tr>
<tr>
<td>1269</td>
<td>Marco I Sanudo</td>
<td>First Duke</td>
</tr>
<tr>
<td>1277</td>
<td>Angelo I Sanudo</td>
<td>Second Duke</td>
</tr>
<tr>
<td>1282</td>
<td>Marco II Sanudo</td>
<td>Third Duke</td>
</tr>
<tr>
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</tr>
<tr>
<td>1282</td>
<td>Marco II Sanudo</td>
<td>Third Duke</td>
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**Byzantine Recovery**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tr>
<td>1269</td>
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<td>Marco II Sanudo</td>
</tr>
<tr>
<td>1269</td>
<td>Licario</td>
</tr>
<tr>
<td>1269</td>
<td>Marco I Sanudo</td>
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<tr>
<td>1277</td>
<td>Angelo I Sanudo</td>
</tr>
<tr>
<td>1282</td>
<td>Marco II Sanudo</td>
</tr>
</tbody>
</table>

**The Gozzadini Family**

Nicolo Gozzadino, son of another Latin fief-holder, marries Maretta da Corogna, and becomes part of the duchy. Folegandros becomes part of the duchy. The Gozzadini family continues to rule Folegandros until 1557.

<table>
<thead>
<tr>
<th>Date</th>
<th>Duke</th>
<th>Event</th>
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<tbody>
<tr>
<td>1464</td>
<td>Nicolo Gozzadino</td>
<td>Twenty-second Duke</td>
</tr>
<tr>
<td>1487</td>
<td>Janulli II Gozzadino</td>
<td>Duke</td>
</tr>
<tr>
<td>1517</td>
<td>Angelo II Gozzadino</td>
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<td>1527</td>
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<tr>
<td>1537</td>
<td>Janulli II Gozzadino</td>
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<tr>
<td>1547</td>
<td>Janulli III Gozzadino</td>
<td>Duke</td>
</tr>
<tr>
<td>1557</td>
<td>Janulli III Gozzadino</td>
<td>Duke</td>
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**Tourkokratia (Turkish Rule)**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>1537</td>
<td>Kheireddin Barbarossa</td>
</tr>
<tr>
<td>1566</td>
<td>Don Joseph Nasi</td>
</tr>
<tr>
<td>1768</td>
<td>The latest date by which the Gozzadini are allowed to rule Folegandros, Sikinos and Sifnos as Turkish tributaries.</td>
</tr>
<tr>
<td>1830s</td>
<td>End of the era of piracy. Folegandros becomes part of the new Greek state.</td>
</tr>
</tbody>
</table>
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.

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

**GENERAL INFORMATION**

<table>
<thead>
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<th>Value</th>
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<tbody>
<tr>
<td>Population</td>
<td>238 (2001)</td>
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<tr>
<td>Port</td>
<td>Alopronia or Skala</td>
</tr>
<tr>
<td>Area</td>
<td>41,676 km²</td>
</tr>
<tr>
<td>Highest Elevation</td>
<td>552 m (Troullos)</td>
</tr>
<tr>
<td>Distance from Piraeus</td>
<td>209 km (113 n.miles)</td>
</tr>
<tr>
<td>Location: Kastro</td>
<td>36° 41’ 38” N 25° 06’ 48” E</td>
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</tbody>
</table>

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 overlooks 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.
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.

The door frame (top) incorporates decorative 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.

DUCHY OF THE ARCHIPELAGO

* SANUDI

1207 MΑRCO 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. Sikinos becomes part of the duchy.

1237 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

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.

1477 KHEREDSONI BARBAROSSA

Sailing out of the Golden Horn, the Turkish admiral descends upon the Aegean islands, 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.

1577

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 simultaneous dual chapels, 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 “vivacity, 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. The Parthenon temple columns of the structure were later reused to provide enclosure for a Christian church. Still later a distinctly Aegean vernacular bell tower was added to crown the facade. All together these adaptations compose an astoundingly architecture encapsulated in 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, 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 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 later 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, Sarus captured seventeen Aegean islands including Naxos, making its main city, also called Naxos, the capital of his duchy. He set out wanting a major fortification in the form of a castle on top of the ancient city, as it is rich in immediately available building materials. In addition, after improving the harbor by the construction of a mole, Sarus built a new fleet, thereby promoting himself to a powerful ruler and causing many other Latin chieftains in the region to seek his attention.
With this vigorous beginning, the Sanudo family led the Duchy of the Archipelago for nearly 180 years. During the second half of the fourteenth century, near the end of the Sanudo 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 whom she was to carry to the duchy, became a source of local friction. Grievously 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 offshore fort of Venetian Crete. There it 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 Frangipane, a handsome, noble Venetian officer and 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, intrigue, and diplomacy practiced in running a small state sitting on important commercial sea-lanes in the fourteenth-century Aegean archipelago.
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. Urnan Convent and School
11. Ursuline Convent and School
12. Capella Casantza (Roman Catholic church)
13. Theoskepasti (Greek Orthodox church)
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 predated that of Naxos Kastro by more than a hundred years.

As with all Kastra 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 Kastra 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.
Still traceable, the enclosing periphery of the Naxos Kastri 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 Kastri. 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 Kastri.
A massive tower of a nearly square plan stands at the very center of Naxos Kastra. 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 Kastra. Similar towers contributing to the defense of other Kastra are known to have existed in Antiparos, Serifos, and Ios. 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 Kastra.
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 encased all along these pedestrian paths.

By contrast to most other Cycladic settlements, Naxos Kastro provides a rare instance where written references to its planned buildings 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 Ippapanti. 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. On the right is the Roman Catholic cathedral of Ippapanti, built during the first half of the thirteenth century.

On the right of this illustration is the Capella Casantza, the ducal chapel and part of the eastern perimeter of the Naxos Kastro.
1. Kastro
2. Bourgo
3. Evriaki
4. Palatia
5. Expansion of the 1920's
6. Major Vehicular Arteries

Attached to Bourgo is a neighborhood northeast of the Kastro known today as Euriali, 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 Naxos-Turkish war of 1766-74. 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) barred the settlement of Muslim soldiers or civilians on Naxos. Whether this 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 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 Turkish rule. Indeed some of the prominent buildings contained in Kastro today went up after the collapse of the duchy and during the Turkish 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 superior 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 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 defensive 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 perspicuous 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.

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 an open-mindedness and sensitivity to observe. “To bestow (which few architects ...can be supposed to have done) equal attention on the principles 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 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.

Palatia island and Portara appear at the top of this hand-colored photograph of the site, courtesy of Athletic Images.
THE VERNACULAR RESPONSE

PAROS
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 two 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 plan 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 Kastra 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 islands 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 post-dating the Duchy of the Archipelago, has marked the island with a permanent historical and architectural importance.

Paroikia Kastro, Naoussa Kastro and an Unexpected Basilica

**Paros General Information**

- Prefecture: Cyclades
- Location (Paroikia Kastro): 37º 05' 09" N, 25º 08' 56" E
- Location (Naoussa Kastro): 37º 07' 19" N, 25º 14' 02" E
- Distance from Piraeus: 166 km (90 n.miles)
- Area: 196,755 km²
- Dimensions: 12.6 km long, 9.4 km wide
- Shoreline: 78.7 km
- Highest Elevation: 771 m (Profitis Elias)
- Permanent Population: 12,514 (2001)
- Port: Paroikia

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

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

Paroikia Kastro
1. Medieval fortification
2. Medieval tower
3. Ayios Konstantinos

Paroikia Town
4. Road
5. Beach
6. Windmill
7. Panayia Katapoliani

PAROIKIA KASTRO AND PAROIKIA TOWN
A. Paroikia Kastro
  1. Medieval fortification
  2. Medieval tower
  3. Ayios Konstantinos
B. Paroikia Town
  4. Road
  5. Beach
  6. Windmill
  7. Panayia Katapoliani

Paroikia: Paroikia tradition in identifying the location of Ayios Konstantinos and the medieval fortification towers; this helicopter-based photograph reveals with clarity the imprint of the medieval fortification enclosure on the urban fabric of the town of Paroikia.
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 has 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.

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. Details are shown on top of the medieval defense enclosure. The church of Ayia Anna sits on top of a small medieval architectural fragment. The medieval tower in the background, as well as the pedestrian path on the right, also incorporate architectural elements from the ancient temple and its parts into the urban fabric of the contemporary Paroikia town.

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 smooth textures, 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 lychnites (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 dismantlement 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.
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 caisques backed to the other three sides. An incredibly small port surface, measuring only forty by sixty meters, determines the "residential" character of the port.

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 war with the Ottomans (1768-74).

The bay of Naoussa. The "cathedral-like" church rising above the town is an example of architectural neoclassical intrusion into Aegean vernacular forms, emanating from the capital city of the new nineteenth-century Greek state.
Naoussa. Helicopter-based view. The "residential scale" character of the port becomes apparent.

Naoussa. The covered passage and the bell tower appear in both illustrations. They are located within the area of the medieval Kastro that is also the core of the ancient city of Naoussa.
Attached to the west quay of the port is a small urban area not much larger than the port itself, delineated 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, helicopter-borne view.

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.
In 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 Baptistery on the south side.

The present-day chapel of Ayios Nikolaos, sửaelice with a dome, was built in 324 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 to Christ and vowed to the Virgin Mary that if she lived to see the restoration of the Temple of Jerusalem, she would build a larger church dedicated to the Virgin Mary when she concluded her journey. Her early death meant that the fulfillment of her vow 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 the Aegean vernacular builders contributing to the collection 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. 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. Ciborium in front and Synthrone in the background confirm the uniqueness and antiquity of the basilica.

Baptistry, dome and interior. 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 the 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 the 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. Stabile 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 vocabulary dominated the church 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.
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 their 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 including Paros. Sagredo’s last surrender in Kefalos marks the end of the Duchy of Archipelago suzerainty on Paros. The evacuation of both Paroikia Kastro and Naoussa 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 honours 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 GENERAL INFORMATION

- **Prefecture:** Cyclades
- **Location (latitude):** 37° 26’ N, 25° 19’ E
- **Distance from Piraeus:** 174 km (94 n.miles)
- **Area:** 86,125 km²
- **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

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

"Mykonos Chora, helicopter-based view"
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.
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 Kastra. These 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.
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. 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.


An infinite variety of detail – steps and balconies, doors and windows, color and whitewash – humanizes the urban fabric of the island’s 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 framed between wall and handrail creates physical, but not visual, separation between the public and private realms. 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 bronze handle suggest urban sophistication, but the outward-opening door without a landing would give any American fire marshal in the United States apoplexy. See related example in Astypalaia on page 113.
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 validates 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.
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 levels are unlit and enclose 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 arched 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 unexpected changes in the life and use of the complex.

Panayia Paraportiani, looking southwest

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 up 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 use 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.

The 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 gate of Sifnos Kastro. The presence of a gate on the spot could help to explain the word Panayia, a combination of para (next to) and portiani (of the gate) that produces the name of the complex, the “Virgin Mary by-the-gate.”

Panayia Paraportiani, looking northwest

Panayia Paraportiani, looking southwest
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 end- lessly 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. These two approaches to building, the monolithic and the analytical, are mutually informing and mutually transforming, reflecting the two pillars of Aegean society in the eighteenth and nineteenth centuries.
THE VERNACULAR RESPONSE

COLLECTIVE FORTIFICATION

SYROS

Ano Syros and Ermoupolis
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 areas nearby. The disappearance of Skaros Kastro in Santorini over a span 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 elevation, 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 in Ermoupolis. Breaking the rule of one settlement per small island, Syros is inundated with tens of small villages, some of which predate Ermoupolis.

SYROS

The port of Syros looking north.

Ano Syros is on the left in front and on the right side of the illustration is Ermoupolis.

SYROS

SYROS

SYROS GENERAL INFORMATION

<table>
<thead>
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<th>Feature</th>
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<td>Prefecture</td>
<td>Cyclades</td>
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<td>Location (Ano Syros)</td>
<td>21° 27' 00&quot; N 24° 56' 08&quot; E</td>
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<tr>
<td>Distance from Piraeus</td>
<td>212 km (131 miles)</td>
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<td>Area</td>
<td>17 km long, 10 km wide</td>
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<td>Highest elevation</td>
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<td>19,793 (2001)</td>
</tr>
<tr>
<td>Port</td>
<td>Ermoupolis</td>
</tr>
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</table>

Left: I. Sviđa (Syros Island). Cristofore Buondelmonti, Liber Insulareum Archipelagi, Gennadius Library, Athens, Greece. The name Sviđa on the map is in Latin use during medieval times and could be a misreading of the Greek characters in ΣΥΡΟΣ.
Above: "View of Ano Syros and the Kastro 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. Notice the hilltop's precipitous drop 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. 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. 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.

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.
Sucessive 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 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.
The thread of piracy that demanded their close attention. In 1207, under the aegis of the Fourth Crusade, the army of the Crusaders sacked Constantinople. The fifteenth Duke of the Archipelago, Marco Sanudo, was the last person to hold the title of Duke, and he ruled the Duchy for the next six years. The sultan of the Ottoman Empire, however, took control of the Duchy and appointed his own officials to govern. In 1422, the Ottoman Turks conquered Constantinople and established the Ottoman Empire as a major force in the region. Syros remained under Ottoman control for nearly three hundred years, including the 1820s when the Greek War of Independence was fought. The consequence of the Treaty of Kastoria for Syros was the building of Ermoupolis. 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 Treaty of Kastoria for Syros was the building of Ermoupolis.

Two incidents that took place in the 17th century illustrate the purpose 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, and disputed succession and, occasionally, war. Fortified against pirates, the island Kastra 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 between island lords for land and power was so fierce that open warfare could erupt. For example, in 1622, the Greek War of Independence was fought. The consequence of the Treaty of Kastoria for Syros was the building of Ermoupolis.

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The events described in this passage occurred in the 17th century, and the text provides a detailed account of the history of Syros during this period. Syros was a beneficiary of the treaties that established the Duchy of the Archipelago, but it also suffered under the rule of the Ottoman Turks, who took control of the Duchy and appointed their own officials to govern. The consequence of the Treaty of Kastoria for Syros was the building of Ermoupolis.

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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 Kamaras gate to Platia.
ANO SYROS, CHURCHES and MONASTERIES

1. Ayios Georgios (St. George Roman Catholic Cathedral known locally as San-George-is)
2. Jesuit Monastery
3. Parish of the Carmelite Order
4. Panayia of the Carmelite Order
5. Ayios Antonios
6. Ayios Nikolaos Ton Ftochon (Of the poor)
7. Capuchin Monastery
8. Ayia Triada
9. Sa - Bastias
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 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 also 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 Brunelleschi’s Florence Cathedral dome (1420-1436). 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.
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 Acropolis 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.
The formal culture emanating from the capital of the Muslim 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.
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.
THE VERNACULAR RESPONSE

COLLECTIVE FORTIFICATION

SANTORINI
The Island of Five Kastra
The Island of Five Kastra

Architecture 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

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 seventy kilometers north of Malea (Cherub 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 nineteenth 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.

Santorini should be labeled “Therasia Island.”

- Cyclades
- Location (Ilioupolis)
  - 36° 33’ 07”
- Location (Pyrgos Kastro)
  - 36° 33’ 08”
- Distance from Piraeus
  - 240.7 km (130 n.miles)
- Area
  - 76,194 km²
- Dimensions
  - 18 km long, 1,5 - 6 km wide
- Shoreline
  - 70 km
- Highest Elevation
  - 566 m (Profitis Ilias)
- Permanent Population
  - 13,725 (2001)
- Port
  - Athinios and the small port of Fira (Gialos)
- Caldera Area
  - 83 km²
- Caldera Diameter
  - 11 km (North-South), 7,5 km (East-West)
- Caldera Max Depth
  - 389 m (eastern wall)
- Max Depth (Columbo Crater)
  - > 600 m below sea level - East of Cape Columbo
and 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 fragmented, and three fragments—Santorini, Askold, and Thera—have replaced what was once a circular island.

The largest fragment, which is crescent-shaped, is today’s Santorini or Thera. Thera is a minor fragment that has two destructive settlements and lies to the northwest of Santorini. Askold, “the white island” much smaller than the other two, is unfortified, a characteristic shared by a greater 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 eroded crater lakes filled with a large body of water, or caldera. With depths reaching four hundred meters, the calderas mark 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 3200 years ago, as more recent research suggests. As Floyd R. McCoy, Professor of Geology and Oceanography at the University of Hawaii indicates, this was not its first eruption. “A previous caldera-like eruption had occurred about 18,000 years before, about the usual geological pace for these megaeruptions, with 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 first century B.C., the island’s population moved above sea level in the center of the calderas. These islands, Palaikastro and Nea Kameni, “the burnt islands,” constitute the dome of the volcano.

Possibly, 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 manipulation of pumice from Santorini for the canal brought to light buried prehistoric buildings more than three millennia old. After World War Two the work of the Greek Archaeological Society on Santorini 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 served 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 volcanographers from all over the world, have begun to suggest what might have happened to the inhabitants of Strongyle and another prehistoric city during the great Late Bronze Age volcanic eruption. The first outburst of the volcano must have produced a flood 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: a Search for mystery and meaning in the Santorini Volcano” provides an inspirational interpretation of the Atlantic myth, a period of relative calm followed. Later came the major blast, here described in all its devastation by Professor McCoy.

A huge earthquake, a dense cloud of pumice charged with pumice ash and ice as much as 35 meters into the atmosphere, warm pumice rammed down everywhere accumulating as quickly as 3 cm per minute. That triggered quick evacuation of anyone remaining on the island. . . . Rocks 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 (thick) stone boulders blasted out from the vent that were deeply burried in impact with the water, leaving 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 pariphery of the island; the surviving land was buried in as much as 50 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, note that 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 Kuse . . . Tsunamis: dozens of them, radiated out in all directions. . . . Pumice flows floated throughout the Aegean and eastern Mediterranean Seas for years, providing a source of material for tools and construction material.” Silence then reigns for centuries.
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 island of Thera/Santorini, as well as the subsidiary volcanoes on the coast of the island, like Cape Kolombo or Cape Monomorpha. His collapse and becomes quiescent when his ichor has flowed out like molten lead—a remembrance 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 this 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.
The army of the Fourth Crusade sacked Constantinople, Fragmentation of the Byzantine empire.

The duchy captured seventeen Aegean islands, most of them undefended, from the Latin overlords who had established castles or ‘Kastelia’ on each island. 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, the Barozzi family who built the Skaros Kastro. Two other Latin families, the Giustiniani and the Gozzadini, were reserved for the Latin overlords until the duchy collapsed, when they either remained or became the residences of prominent families 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.

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Santorini’s preeminent Kastro, 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. Thomas Hope’s 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 Santorini shows 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 Pirgos by 1745, until that would apparently be completed several decades later.
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.

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 Kastoria 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 a central defense tower torn down circa 1725. 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 Kastra of Kimolos and Astypalaia, respectively predating and postdating the replacement occurring at Pyrgos.
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 topography 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 castle of Pyrgos was made in 1584, a date that fits loosely between the testimonies of the Santorini maps of Bartolomeo dall’Sonetti (c. 1465) and the Tournefort publication of 1717.

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.

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 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 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.
East 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.

Left: Emporio Kastro, looking south. The medieval wall is in the foreground of the photograph while the contemporary expansion of the settlement appears on教导.

Below: Santorini, Emporio Kastro. Detail from the illustration on the left. Photographs provided by the University of Cincinnati School of Planning, which focus on sustainable development.

Left: Emporio Kastro, looking south. The medieval wall is in the foreground of the photograph while the contemporary expansion of the settlement appears on the left.

Santorini, Emporio Kastro and its immediate site, looking south.

Santorini, Emporio Kastro, pedestrian paths. All three illustrations confirm the high building density characteristic of a medieval Aegean collective fortification.


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.

Santorini, the Goulas of Akrotiri Kastro, photograph by the Hiller von Gaertringen mission, 1895-98. German Archaeological Institute, E. Lygnos Collection.

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 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 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 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. White stone buildings of Skaros Kastro were moving to Fira, others were moving to the apparently contemporary and likewise linear settlement of Megalochori, located next to Skaros. Today Fira, whose northern edge touches Megalochori, 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, 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, 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 is a notable exception to this general rule, since linearm linear forms are used there to cover both dwelling units and religious structures. Here the use of a 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 a number of Santorini barrel-vault, an architectural form usually reserved for religious structures in the Ottoman Empire.

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 impressively facades of captains’ houses and reflected the property and sophistication of the island's inhabitants and its vernacular buildings. 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 ship-owners—skippers (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 sailing ships docked in the sheltered coves inside 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.
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 its being 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 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.

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 Kastra, 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 Antiparos, for example. Indeed, the Kimolos Kastro, unlike the Antiparos Kastro, ceased long ago to function as the core of the present town and is, indeed, in the last stages of a long process of abandonment by its inhabitants. Particularly in the inner core, 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 core’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 Kastro illustrates continuity as well as change in the vernacular architecture character of the Cycladic Kastra.
Attached to each other by their long sides, the 123 units of horizontal habitation on each of the two levels of the Kimolos Kastro comprise 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 monovariate 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. Rafos family escutcheon dated 1616.

Thucydides certainly thought so. In his description of the outbreak of the Peloponnesian War he tells of a Thelian force, making an armed entry into Plataea, while it was still peace-time and sentries were on guard:

how the Thelian troops marched into the marketplace and grounded arms there... As for the Plataeans, when they realized that the Thelian 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 Thelian 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... 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 Thucydidean 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 to be 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 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.
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.

A well-researched and persuasive article by W. Hoppner 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 1582—that is, before the end of the Elizabethan era in England. The builder of the Kimolos Kastro, so similar in plan 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 up to an indispensable windmill, is crowned by the façade of Kastro, the church of Christos on top of the south gate, and the inscription KYMOYΛO (a misspelling of KIMΩΛΟΣ).

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 shipowner as well as the founder of Kimolos Kastro, to emphasize his Orthodox faith by beseeching Christ, the Virgin Mary, and Saint John the Theologian to protect the island, Kastro, and his ships.
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 Kastra. 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, Kastro. Entries to dwelling units are illustrated on the facing page.

1204

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

1207

First Duke

1207 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

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

1537-1565

Sailing out of the Golden Horn, the Turkish admiral descends upon the Aegean islands. All are taken except the island of Kimolos. The Gozzadini of Sifnos are allowed to rule Kimolos, as Turkish tributaries.

1566

Twenty-second Duke

Sultan Selim II, heir to Suleyman the Magnificent, names 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 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.
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 to the eastern Mediterranean Sea.

Late in the 5th century, and specifically in 408-07 B.C., Lindos, Ialysos, and Kamiros, three Rhodesian 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.

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Rhodes, one of the Seven Wonders of antiquity, earned the city a permanent place of distinction in Mediterranean history. 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, commemorating the siege and their deliverance. Indeed, this outer defense perimeter was extended to the Asia Minor coast where the north, and Kastellorizo to the east provided them with valuable lookout points for centuries. 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.

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 Petronium (Petrounion in Greek), producing the modern Turkish name of Bodrum.

Adapting to the context of the Aegean archipelago their previous Holy Land experience with coastal fortifications, the knights erected or restored 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 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

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 the Holy Roman Emperor. In 1422, as a record of his travels, he produced a manuscript entitled "Liber Insularum Cicladorum" (Book of the Islands of the Archipelago) extensively illustrated with a great number of islands drawn with a compass and a perfect representation of the natural appearance of each island. 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.

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 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.

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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.

THE MEDIEVAL CITY OF RHODES

A. City
B. Colonna
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. Southern Bay (Caretto Tower)
13. Tower of the Virgin
14. St. Colombe’s Gate
15. Tower of the Dolphins (Tower of France)
16. Sea Gate
17. Shepherd’s Gate
18. Tour de la Paix (St. Paul’s Gate)
19. Naillac Tower
20. St. Peter’s Tower

THE MEDIEVAL CITY OF RHODES

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.”

The Hospital of the Knights. The central courtyard of this building is illustrated on the left. Two of the four-sided upper level galleries enclosing the courtyard on the right. This well-proportioned, disciplined and cohesive building was completed in 1489 to serve the spiritual needs of the Hospitaller Order. Dating from the medieval past of the city, the lion sculpture and the stone sculptures illustrated on the cover are contemporary exhibits of the Archaeological Museum of Rhodes, which is now housed in this magnificent medieval building.

“Plan of the City and the Ports of Rhodes.” From “Voyage Pittoresque de la Grèce,” a 1782 publication of the work of Choiseul-Gouffier. Note the wall separating the Colonna of the Knights from the rest of the city delineated on this engraving more than two centuries after the surrender of Rhodes to the Ottoman Turks.
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 Colchium is at the green area in the center, with the Carreto tower at the lower right corner of the illustration.
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 century of relentless and unstoppable expansion of Ottoman power in the Balkans and the eastern Mediterranean Island. 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.

Apparantly, 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. Peters 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 Phileremos 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.
The situation intolerable to the Ottomans.

Under unified political control, while the sea-lanes connecting the two were of Constantinople and the agriculturally rich regions of Syria and Egypt came that the land barrier between the Indian Ocean and western Christendom had

In geopolitical terms, the expansion of Ottoman presence to Egypt meant the legate of carrying the green banner of the Prophet.

Turned from Egypt and the Arabian Desert with the enormous prestige of the Khedive of Egypt who considered artillery a dishonorable weapon. Sultan Selim re-

In both campaigns Turkish cannon shattered the resistance of the Mamelukes of Egypt and the Arabian Desert with the enormous prestige of the Khedive of Egypt who considered artillery a dishonorable weapon. Sultan Selim re-

However, more significant to the future of Rhodes and the “Holy Religion,” as 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.

The Pope grants the island to Villaret who at the same time becomes an independent sovereign.

The city of Rhodes before the knights.

The island of Rhodes comes under the full control of the Order.

National Villeneuve elected grand master.

The knights built the mosques that stand still in Brusa and Izmir today.

The younger son Djem (also known in the west as Prince Zizim), 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), following Mehmet’s death, his elder son Bajazet was proclaimed sultan in Constantinople.

It is worth noting that Djem’s claim to the Ottoman throne was based on his youth. To strengthen his claim, Djem had the body of Mehmet II disinterred and displayed on the walls of Constantinople. 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), following Mehmet’s death, his elder son Bajazet was proclaimed sultan in Constantinople.

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When Rhodes was besieged, Sultan Mehmet II had also landed troops in Italy, attacking Aquapulco and capturing Otranto. Its 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), following Mehmet’s death, his elder son Bajazet was proclaimed sultan in Constantinople.

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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 assert Ottoman control of the Aegean seas.

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 Bartolomeo Scibilia, 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 widened and the escarp 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 Carreto’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, 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 saw fit for Suleyman to turn 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.” On January 1, 1523, the survivors of the siege left Rhodes permanently, 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 integrated into the urban fabric of the towns of Sifnos, Astypalea, Antiparos, Fololepontos, Skinos, 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 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 far reaching and 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.
While evidence suggests that builders of Aegean Kastri 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
### GENERAL INFORMATION

<table>
<thead>
<tr>
<th>Prefecture</th>
<th>Dodecanese</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location (Monastery of St. John)</td>
<td>37° 19' 14&quot; N, 26° 32' 28&quot; E</td>
</tr>
<tr>
<td>Distance of Patmos from Piraeus</td>
<td>301 km (163 n.miles)</td>
</tr>
<tr>
<td>Area</td>
<td>34 km²</td>
</tr>
<tr>
<td>Dimensions</td>
<td>12 km long, 02 -7 km wide</td>
</tr>
<tr>
<td>Shoreline</td>
<td>63 km</td>
</tr>
<tr>
<td>Highest Elevation</td>
<td>269 m (Profitis Elias)</td>
</tr>
<tr>
<td>Permanent Population</td>
<td>2,993 (2001)</td>
</tr>
<tr>
<td>Port</td>
<td>Skala</td>
</tr>
</tbody>
</table>
I n 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 Glykatzi-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 its own right. 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 swiftly, forming an encasement to protect the 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.

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 swiftly, forming an encasement to protect the 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.

"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. The exterior wall masonry and the interior roof beams (the later built of the ever-present fithes; a local tree of the juniper family) offer samples of the architectural finishes and textures of the Monastery of Saint John the Theologian.

Patmos. A monk stands at the battlements admiring the valley and the architecture of the exterior of the Monastery of Saint John the Theologian. The alternating solid parts and openings are respectively merlons and crenels.
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, with the Katholikon being attached to the northeast corner of the enclosure.

Besides the usual 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 mutually 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 abounds in recycled architectural parts, the variety of which underscores the inference that they come from different sources perhaps as late as the same site, possibly including a temple to Artemis and an early Christian basilica both said to have predated the monastery on 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 landscapes and of its sea approaches. In times of need, these terraces could be transformed into ramparts and serve as the monastery’s outer defenses.
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.

Relaxing its rules, the Monastery of Saint
John permits the building of Chora to accom-
mmodate and protect the lay population of Patmos.

The army of the Fourth Crusade seizes
Constantinople, fragmenting the Byzantine
Empire.

Marco Sarcio captures seventeen Aegean
islands and founds the Duchy of the Archipelago.

The island of Rhodes comes under the
full control of the Knights Hospitaller of Saint John.

The knights hold all Dodecanese islands
including Patmos.

The Black Death. Ships from the Geno-
ese trading colonies in the Crimea pass
through the Aegean Sea bringing the Black Death to Italy.

Constantinople falls to the Ottoman
Turks.

The commercial role of the island numbers fifty
ships, trading in the Black Sea, Egypt, and Italy.

Patmos becomes part of the Ottoman
Empire as Rhodes surrenders to Suleyman.

Don Joseph Nasi is the last person to
hold the title of Duke of the Archipelago.

Building of the port of Scala.

Major earthquake recorded on the island.

Monasteries lose their purview. Patmos falls
under the Ottoman Empire.

The monastic code is weakened.
Patmos remains as a monastery.

The monastery codes northern half of the island to lay ownership, contributing
to the recovery of the island economy.

Patman School, "the University of the Aegean," established.

Vasily Gregorevich Barsky visits Patmos and
returns in 1737 for a seven-year stay.

Island records show a population of 2,000. Patmos comes under Russian oc-
cupation during the Russo-Turkish war of
1768-74.

End of the era of piracy. Patmos, to-
gathered with Rhodes, remains part of the
Ottoman Empire after all Cycladic islands join newly independent Greece.
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 local population of the island to build quarters in its immediate, protective vicinity instead of 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 needed 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 up 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 Russian 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 contemporaneous "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 history 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 position not far from the battlements pictured here.

The years from 1522, when Süleyman 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 old 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 Kastra, 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 influx 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 defensive perimeter from early days. Added exceptions enhanced the visual impact of the defences.
Tolentino, the Venetian fleet and subject of the monk’s annotation. Standing papal orders in later centuries forbade the ecclesiastical defrocking of a monk who, while leading another Venetian army against the Ottoman Turks, was captured. In the fall of 1686, Francesco Morosini had led his army against the island of Chios and had captured it. In 1687, he returned to the Aegean with a larger force and captured Patmos.

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 defrocking of a monk who, while leading another Venetian army against the Ottoman Turks, was captured. When his goods were wrongfully seized at sea, could prosecute and sometimes even restitution in the courts. In addition, Morosini could raise military consideration to its defense in the economy of Chios. But given papal protection and the threat of a crusade, the Turks would have followed a direct attack on the monastery.

Those who would engage in the rediscovery of Greece with the Acropolis of Athens as the focus should certainly have visited the Patmos Monastery of Saint John the Theologian. This interior corridor is part of the labyrinth of passages leading to cells, chapels and auxiliary spaces.

In the contest 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 defrocking of a monk who, while leading another Venetian army against the Ottoman Turks, was captured. When his goods were wrongfully seized at sea, could prosecute and sometimes even restitution in the courts. In addition, Morosini could raise military consideration to its defense in the economy of Chios. But given papal protection and the threat of a crusade, the Turks would have followed a direct attack on the monastery.

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 1730 to 1812. The year the Greek War of Independence began. A new region, the product of a new relationship between the monastery and the secular community of the island, underlying this renaissance. The monastery stood the northern half of the island by ownership, and an interesting class of ship captains responded by claiming an important role in Mediterranean trade for Patmos. In 1713 the Patmos School, sometimes called the “university of the shipwrights,” was established to teach Greek, philosophy, rhetoric and logic. It attracted students from all over the Aegean islands. From this urban, merchant-class community—educated, well-traveled, and exposed to Hellenic and European ideas—Emmanouil Xanthos emerged, who with others formed the Philiki Etaireia (or “Friendly Society”), a secret revolutionary 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.

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The year 1830. 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 came 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.
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 Gregorevitch 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 a Aegean vernacular architecture composition with a plethora of volumes at a domestic scale. These volumes, attached to each other with chapels 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.
Aegean island towns, neoclassical forms and manners have intruded into the vernacular architecture of Patmos in public buildings like the city hall and its shipowners’ 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.

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 topographic features of site, upper floors over public access paths, etc. Two of the illustrations, together with that of ΔΗΜΑΡΕΙΟΝ (City Hall) on the right, also confirm the intrusion of neoclassical architectural forms into the urban fabric of Chora.
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 northerly 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 northeast-southwest 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 resilient valleys leading to beaches, bays, and small ports on both the eastern and western 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 to his principal followers.

One of these followers, Marino Dandolo, nephew of the old Doge Dandolo, the strategat 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, weakened by the devastating Barbarossa raids of 1537, it was absorbed into the Ottoman empire.
Perhaps more than any other Cycladic island, Andros suffered from dynastic disputes and quarrels about its ownership. When Marino Dandolo died childless, Geremia Ghisi, lord of near-Andros, seized and occupied Andros for a short period. In retaliation for Venetian attacks in Chios, the Genoese admiral Pedro Spinola assaults Andros and occupies it for a short period.

A N D R O S  T H E M E D I E VAL C H R O N I C L E

1204 The army of the Fourth Crusade sacks Constantinople. Fragmentation of Byzantine territories.
1227 MARRINO DANDOLO
Marino Dandolo captures Andros, which is held as safe when Marino Sanudo seizes seventeen Aegean islands and founds the Duchy of the Archipelago.
1233 GERNERIA GHISI
Marino Dandolo dies without leaving any successors. Geremia Ghisi takes over Andros.

1347
PIETRO ZENO
Pietro Zeno, a Venetian diplomat, becomes ruler of Andros.
1384 PIETRO ZENO
Pietro Zeno visits England to ask for aid against the Ottoman Turks.
1404 ZENO VISITS ENGLAND
Venetian diplomat Pietro Zeno visits England to ask for aid against the Ottoman Turks.
1427 ANDREA ZENO
Andrea Zeno, Pietro Zeno’s son, becomes ruler of Andros.
1462 DOMENICO SOMMARIPA
Giovanni Sommaripa, lord of Paros, whom we encountered earlier as the individual of Renaissance tastes who took particular pride in showing his visitor in Paros,田园. Cypressus of Ancona, some of the Greek statues he acquired in the Levant.
1466 GIOVANNI SOMMARIPA
Giovanni Sommaripa, lord of Paros, whom we encountered earlier as the individual of Renaissance tastes who took particular pride in showing his visitor in Paros,田园. Cypressus of Ancona, some of the Greek statues he acquired in the Levant.
1468 CRUSINO II SOMMARIPA
Giovanni Sommaripa, lord of Paros, whom we encountered earlier as the individual of Renaissance tastes who took particular pride in showing his visitor in Paros,田园. Cypressus of Ancona, some of the Greek statues he acquired in the Levant.
1475 CRUSADED BY THE OTTOMANS
Sailing out of the Golden Horn, the Turkish admiral descends upon the Aegean islands. Andros becomes part of the Duchy of the Archipelago, the Turks overthrow the Greek Despotate of the Morea and the Florentine Dukedom of Athens.
1486 DOMENICO SOMMARIPA
Pietro Zeno, a Venetian diplomat, becomes ruler of Andros.
1500 NICOLO SOMMARIPA
Nicolò Sommaripa, lord of Paros, whom we encountered earlier as the individual of Renaissance tastes who took particular pride in showing his visitor in Paros,田园. Cypressus of Ancona, some of the Greek statues he acquired in the Levant.
1539 GIANFRANCESCO SOMMARIPA
Gianfrancesco Sommaripa, lord of Paros, whom we encountered earlier as the individual of Renaissance tastes who took particular pride in showing his visitor in Paros,田园. Cypressus of Ancona, some of the Greek statues he acquired in the Levant.
1579 JOSEPH NASI
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.
1586 1596
During the War of the Venetian Succession, the sultan’s navy attacks the Aegean islands. Andros is occupied by the Turks.
1590 1670
The sultan transfers Naxos and a number of other islands including Andros to Sultan Mustafa II, before leaving for a war in Paros. Andros is returned to the Venetians.
1670
The Turkish admiral descends upon the Aegean islands.
1700s
The sultan transfers Naxos and a number of other islands including Andros to Sultan Mustafa II, before leaving for a war in Paros. Andros is returned to the Venetians.
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 this page. The helicopter-based photograph on these pages and the bird’s-eye-view drawing by Tournefort 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” 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, as a culturally sophisticated and prosperous small town built on the historic pattern of Kato Kastro. Expanded seaward 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 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. Other
6. Plateia Kairi

ANDROS KASTRO
SITE PLAN

1. Mesa Kastro
2. Kato Kastro
3. A. Paraporti bay
   B. Nimborio bay
   C. Andros port
   D. Andros Chora present town

Today the west-east 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 peninsular flatland. The Tournefort drawing has 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 Ottoman rule, 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. Andros Chora present town

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Andros Island. Miles of dry stone walls define properties and delineate areas throughout the Aegean islands. Schist, which is widely and almost exclusively available in Andros, produces large surface slabs that are actually set upright to form dry stone walls 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
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 northwestern periphery, exposing the island and particularly its north coast to intense north winds. Common to the Aegean, these winds infrequently 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.
In 1207, Marco Sanudo captured Naxos, Paros, Melos, 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 Syros, Sikinos, Skiatos, and Skopelos (the latter), in the northern Aegean. In fratricidal war the Ghisi brothers maintained independence of the Sanudo 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 Barrattaridax 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 Exibourgo) 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 cape. 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 islands 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 Patmos, Naxos, and other parts of the Greek peninsula. The poor relations with their immediate neighbors the Sanudo of the duchy, were characterized by the 1268 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 in Byzantine territory, the Aegean islands were parcelled 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.
“Città 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 the 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 defensive 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 rocky formations, “Castello,” occupies the highest point of the rock, as Francesco Basilicata reminds us by marking on his map “Sommaira Magione.” Underlining its military rather than civilian functions, this citadel is completely enclosed 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).
Tenos, 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, archivist for Venice, visited on the Armao book were the most significant. 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. "Porta"
1. "Porta," main gate
2. "Porta"
3. "Bello Ardo," pointed bastion
4. "Bello Ardo," pointed bastion
5. "Quartiero," barracks
6. "Sant'Ugo"
7. "Castellan house"
8. "Castellan house"
9. "Magazine"
10. "Church of Ayia Eleni"
11. Churches
12. Cisterns
13. "Sommita Magiore"
Reclaiming the inevitable Francesco Morosini, surrendered Candia and the island of Crete to the Ottoman Turks on September 6, 1669, an event that effectively ended the centuries-long ruling presence of Venice in the eastern Mediterranean. Accused of treason when he returned to Venice, Morosini emerged unscathed by the accusations and determined to be avenged. Following the Turkish defeat before the walls of Vienna in 1683, and still recovering from the loss of Crete, Venice joined the Hapsburgs of Austria against the Turks, in an attempt to reclaim her eastern Mediterranean possessions. Venetian forces again under the command of Morosini landed in Peloponnesos (also known as Morea), conquering the territory by the end of summer in 1686. Success in Peloponnesos led to the invasion of Attica, the siege of the Acropolis and the bombardment and tragic destruction of Parthenon in the battle of Zenta ended the war by the Treaty of Karlowitz, signed on January 26, 1699. The treaty awarded Venetian Peloponnesos, the proximity of which together with its strong fortifications bors large numbers of refugees from Turkish-held Mykonos.

Historians believe that the Treaty of Karlowitz marks the decline of Ottoman power.

Still, the Sublime Porte could muster enough resources to engage in another war. Convinced of the necessity of keeping the Turks at bay, Venice appoints a number of rettori (administrators) for Tenos and Mykonos, the last of the islands conquered by the Fourth Crusade.

1715 A vast Turkish armada lands 25,000 troops on the island. Tenos keerts or Minos, the last of the Venetian islands to fall, surrenders and completely destroys. Antonio Badoerο is the last of the Venetian rettori of Tenos.

1718 Treaty of Passarowitz awards Tenos to the Sublime Porte. Tenos becomes part of the new Greek state.

1718 July 21, 1718 awarded both Peloponnesos and Tenos to the Sublime Porte.

1715 A vast Turkish armada lands 25,000 troops on the island. Tenos keerts or Minos, the last of the Venetian islands to fall, surrenders and completely destroys. Antonio Badoerο is the last of the Venetian rettori of Tenos.

1674-76 Tenos remains the only Venetian possession in the Aegean. Privileges and customs of the people of Tenos dating from Byzantine times are retained as a condition of the island’s surrender to Venice.

1672. Tenos descends upon the Aegean islands. Tenos survives intact but soon har -
In 1998-99, a team of faculty and students from the Politecnico Di Bari, Facolta’ Di Architettura, in Italy, under 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 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 to present a reconstruction of the fortifications of Tinos, and the Kastro of a barbarous civilization, conforming on the awe-inspiring massive granite rock of Kibusurgo.

Indeed, on June 5, 1715 a vast Turkish armada appeared before Tinos and landed 25,000 troops on the island. Overwhelmed by the circumstances, the Venetian commander Antonio Badrero supported by the “provveditore” Bernardo Balbi, a Venetian inspector recently arrived from Venice, together with the people of Tinos 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. The Venetian command over the island was handed over to the Sultan and the fortifications of Tenos Kastro and the Kastro of Ayia Eleni were completely destroyed by the new masters of the island. In 1716 the last citizen was expelled from the island, most of the population moving eventually to the port of Ayios Nikolaos, the present-day capital of the island.

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 preparation 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 unprepared labor for the building and repair of the fortifications. In times of hostilities or 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 relationships 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 defenses. By contrast, the sophisticated fortifications of Rhodes represented both the sovereign power of the Knights Hospitaller exerted locally and the European wealth that supported them.
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 dovecote. Repeated in great numbers, dovecotes or “peristeriones” (from peristeri or “dove,” “pigeon”) exist on only a small number of Aegean islands. Nearly two hundred of them, according to one account, were built on Tenos in a short period of time. 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 dovecotes 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 vernacular architecture.

Erected to shelter pigeons, a dovecote 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 dovecote, 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 nesting nests; these nests are incorporated either into the internal surface or into stone-made thin walls.

The materials and methods of construction of these dovecotes 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 dovecote 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 motifs render each dovecote 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 dovecote’s sidewalls are extended, buttress-like, for additional protection and screening from the wind rather than to bolster the structure of the dovecote. 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 dovecotes raise the persistent architectural question of how a building meets the sky. These exuberant and playful dovecote 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, dovecotes 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 dovecotes on Tenos and on neighboring Andros, which are much greener than most of the other islands in the Cyclades.
Because no systematic research on dovecotes exists, it is difficult to trace the origin and development of the 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 the 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.

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
Acrab, nearly level ridge of an island, Hydra is eighteen kilometers long and between three and six kilometers wide. Formed of stone, precipitous cliffs and outlined by 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.

A Aegean island, Hydra (pronounced “ee-dra”) hugs the northeast coast of the 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 Kastra. 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 Kastra 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
Kiafa and the Present-Day Town

HYDRA  GENERAL INFORMATION

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prefecture</td>
<td>Piraeus</td>
</tr>
</tbody>
</table>
| Location (Kiafa) | 37° 20' 45"
N 23° 27' 50" E |
| Distance from Piraeus | 68.5 km (37 n.miles) |
| Area           | 49.6 km²  |
| Dimensions    | 20.5 km long, 4.5 km wide |
| Elevation      | 588 m (Mount Eros) |
| Permanent Population | 2719 (2001) |
| Port           | Hydra     |

“Town and Harbour of Hydra” and “Hydra, Kiafa and Eros, Bernard Picart, copperplate engraving, 1739-46.

“Kiafa, the original settlement of Hydra, the present-day town, and the harbor appear on the right-hand page.”
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 Ottoman Empire, and particularly the Greeks, might play an important role 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 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

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 Nauplion on the north shore of the island of Peloponnese in the Cyclades became the Russian fleet's anchorage for the duration of the war. 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, Russia acquired sovereignty over Venice and recognized French sovereignty over the Ionian Islands of western Greece. The French merchant marine fleet had become 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 islands. 

Athena”, brig of Captain Tsamados, oil on canvas, 1871. 

Athena”, brig of Captain Tsamados, oil on canvas, 1871.

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 Hydra (1) and the Monastery (2).
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 problems that could have been more serious. 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 Bosporus, 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's difficulties. Many of the 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 generally concentrated in the revolutionary struggle. At the end of the war, Hydra found itself part of an independent Greece, its privileged autonomy under Turkish rule changed 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 islands and in Greece as a whole.

Hydra, port. Helicopter-based photograph, looking south.

Hydra, northeast coast.

HYDRA TOPOGRAPHIC MAPS, ISLAND and PORT
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 Kastra 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 in 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 west edge of Kiafa and leads down to the west 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 a small area that has been an important agora 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 and beyond its original protective enclosure, and 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 an 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 spurt of changes of the last decades have brought substantial building activity back to the previously abandoned area of Kiafa.
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 interrelationship 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 spectators. 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 the original plan. Site considerations, too, are the prime reason 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 permanent 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. Rather, it developed 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 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 neo-classicism as their language and vocabulary of architectural expression, applying 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 preeminence in Mediterranean life but retained its dignified form. This form has survived, sustained and sustained by an extremely successful tourist industry that has 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 even when its original functions have given way to new ones.
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 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.

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 at the level above. The direct and unpretentious manner in which 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 purpose to an Aegean Kastro, serves as a strong reminder of the town’s origins and a reference to its physical evolution.
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 in the form 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. 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.
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 371-372, illustrate this evolution.

One of the most surprising and welcome changes in Hydra during the last three decades has been the increase in vegetation, as shown in the pairs of photographic illustrations 7 and 8. Since 1963, there has been a profusion of vegetation in Hydra. But the importation of water and the building of a water distribution system have had a profound effect on the vegetation.

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, are foreign to the island into the town’s preservation regulations. But the profusion of overhead wires and antennas is the innovation most dissonant with the vernacular architectural forms of the town. Granted, the walls of the past. The profusion of overhead wires and antennas is the innovation most dissonant with the vernacular architectural forms of the town.

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 new non-traditional materials as reinforced concrete and hollow-core brick in place of the massive stone masonry walls of the past. The proliferation of overhead wires and antennas is the innovation most dissonant with the vernacular architectural forms of the town. Granted, the walls of the past. The profusion of overhead wires and antennas is the innovation most dissonant with the vernacular architectural forms of the town.

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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 mutilary has ever marred the skyline of Hydra. Buildings with modern, concrete frames and hollow brick still allow owners to modify or, better, attempt to interpret the vernacular architectural forms of the past and their massive stone masonry walls. 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 371-372, illustrate this evolution.

One of the most surprising and welcome changes in Hydra during the last three decades has been the increase in vegetation, as shown in the pairs of photographic illustrations 7 and 8. Since 1963, there has been a profusion of vegetation in Hydra. But the importation of water and the building of a water distribution system have had a profound effect on the vegetation.

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, are foreign to the island into the town’s preservation regulations. But the profusion of overhead wires and antennas is the innovation most dissonant with the vernacular architectural forms of the town. Granted, the walls of the past. The profusion of overhead wires and antennas is the innovation most dissonant with the vernacular architectural forms of the town.

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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—dwellings 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), Kastra, 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, Kastra 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 Kastra monochoros, transforming the overall within into an adaptable, perpetually evolving, living organism. That adaptability of the vernacular allowed Andros, Hydra, Syra, 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 Syra, the palazzos on the facades of the captains’ houses in Fira, Santorini, and the hundreds of neoclassical house portals throughout the islands tellingly convincingly, to the ability of the vernacular architecture of Kastra to appropriate and absorb architectural 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, and in 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.

Kastra protected life and sustained culture in the Aegean archipelago during adversities. Following the unification of the region under Ottoman Turkish rule, Kastra became the springboards for launching an extraordinary measure of seaborne commercial activity extending to every part of the non-Muslim Mediterranean. 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.
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 “Kastri.” 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.

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