

Archeologia protobizantina a Kos

La città e il complesso episcopale

a cura di
Isabella Baldini e Monica Livadiotti



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ARCHEOLOGIA PROTOBIZANTINA A KOS

La città e il complesso episcopale

a cura di
Isabella Baldini, Monica Livadiotti

presentazione di Giuseppe Sassatelli

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PRESENTAZIONE

Giuseppe Sassatelli

Nel 2011 è stato pubblicato nella Collana “Studi e Scavi” dell’ex Dipartimento di Archeologia il volume sulle ricerche nell’area suburbana di S. Gabriele (*Archeologia proto bizantina a Kos. La basilica di S. Gabriele*, a cura di Isabella Baldini e Monica Livadiotti), frutto delle ricerche effettuate tra il 2006 e il 2009 in collaborazione con il Politecnico di Bari.

A quel lavoro, già importante e prezioso, si aggiunge ora questo volume che si incentra sulla topografia urbana di Kos attraverso una serie di contributi che consentono di comporre il quadro complessivo durante la tarda antichità. Si conferma in questo modo l’immagine di una città che mantiene un notevole tono urbano sia per estensione che per impegno monumentale. E questa è già una novità importante negli studi dell’Isola.

In questo stesso volume si pubblicano i risultati delle campagne archeologiche, di rilievo e studio, effettuate tra il 2007 e il 2013 nell’area delle Terme Occidentali, dove dall’età giustiniana si impianta un nuovo e ampio complesso episcopale in uso almeno fino all’VIII secolo.

Le ricerche condotte e qui rese note con una notevole ricchezza di documentazione portano nuovi apporti metodologici con particolare riguardo all’analisi della stratigrafia muraria e dei materiali, al rilievo come passaggio conoscitivo, ai progetti di fruizione delle aree archeologiche. E oltre a tutto questo mettono in campo anche nuovi dati e nuovi punti di riferimento sul piano cronologico. Svincolandosi dall’impostazione tradizionale degli studi, sulla base delle ricerche condotte a S. Gabriele e nell’episcopio, si è proposta una diversa scansione delle fasi di sviluppo urbano e un prolungamento della vita della città ben oltre il termine tradizionale delle invasioni arabe del VII secolo. Questo non potrà non avere conseguenze nella concezione della realtà archeologica locale e nella continuazione degli studi, che nei prossimi anni si prevede di allargare all’intero territorio dell’isola.

L’importanza delle ricerche dell’Università di Bologna nel Dodecaneso prosegue tra l’altro una lunga tradizione di studi ben radicata nel nostro Dipartimento (prima Dipartimento di Archeologia e ora Dipartimento di Storia Culture Civiltà con una Sezione di Archeologia). Luciano Laurenzi, uno dei protagonisti delle indagini a Kos e anche Soprintendente alle Antichità di Rodi, è stato docente dell’Ateneo bolognese per un ventennio, dal 1946 al 1966. La storia del sito, quindi, è anche un po’

la storia della nostra cultura. Al di là delle vicende politiche, l'Italia è stata presente a Kos in maniera esemplare e ancora oggi viene positivamente ricordata dagli abitanti dell'Isola. Il piano regolatore di Kos, pionieristicamente concepito già nel 1934, fu elaborato con prospettive di tutela archeologica, nel pieno rispetto sia delle aree scavate che della fruibilità della città moderna.

L'ultimo, ma non meno importante, aspetto positivo di questo volume è la partecipazione di molti giovani nelle ricerche sul campo e anche nella pubblicazione dei risultati. Ancora una volta, e secondo una tradizione largamente consolidata all'interno del Dipartimento, l'attività didattica, complementare alla ricerca, si esplica pienamente con la partecipazione piena di studenti, dottorandi e allievi della Scuola di Specializzazione alle attività di scavo in Italia e all'estero, partendo dalle presenze sui cantieri e arrivando fino alla pubblicazione dei risultati, che vengono così messi a disposizione della comunità scientifica.

Il merito principale di questa articolata e complessa operazione va a Isabella Baldini e Monica Livadiotti, che hanno saputo coordinare le attività sul campo, quelle più strettamente legate alla ricerca e anche quelle di edizione e stampa con grande disponibilità e impegno e soprattutto con grandi qualità scientifiche e organizzative.

INTRODUZIONE

Isabella Baldini
Monica Livadiotti

Nel corso del IV secolo, a Kos il santuario di Asklepios, sede delle pratiche religioso-terapeutiche celebri in tutto il Mediterraneo antico, viene abbandonato. La cristianizzazione dell'isola porta ad una sostituzione dei centri aggregativi della vita pubblica, spesso tuttavia senza che si verifichi uno spostamento degli abitati. Anche in città è attestata una sostanziale continuità d'uso dell'impianto di età romana: gli isolati continuano ad accogliere spazi adibiti alle funzioni comuni e dimore private, spesso decorate con pavimentazioni a mosaico e a tarsie marmoree.

L'elemento di novità, nel periodo tardoantico, è la costruzione di nuovi edifici di culto: soprattutto tra il V e il VI secolo il vescovo di Kos, per le proprie prerogative religiose e per le possibilità di investimento economico, promuove un'intensa attività edilizia in un centro che costituisce la sosta obbligata sulla rotta che portava il grano egiziano verso Costantinopoli. Centro di questa monumentalizzazione urbana è il complesso episcopale analizzato in questo volume.

Si è voluto cercare di contestualizzarne lo sviluppo considerando il rapporto con il pregresso (il ginnasio ellenistico e le grandi terme dei quartieri occidentali) e con il contesto insediativo di riferimento. Nelle Terme Occidentali di età imperiale si insediò, infatti, tra il V e il VI secolo una vasta e articolata struttura cristiana comprendente due basiliche, un battistero, un triclinio monumentale, corridoi pavimentati con mosaici e con lastre di marmo, un piccolo ma lussuoso edificio termale per il clero, ambienti residenziali e di servizio. Le dimensioni e la decorazione dell'edificio mostrano anche in questo caso lo sviluppo del ruolo vescovile nella vita politica e sociale dell'isola. Il maggiore impegno monumentale e decorativo sembra potere essere assegnato all'età giustiniana, ma il monumento continuò ad essere utilizzato e ristrutturato per secoli, secondo il quadro complessivo che via via emerge per tutta l'isola. Proprio la prospettiva generale dello sviluppo del territorio costituirà, speriamo, l'impegno per i prossimi anni.

Dopo il volume sulla basilica suburbana di S. Gabriele (missioni 2006-2009), edito nel 2011, questo sulla città di Kos e sul complesso episcopale delle Terme Occidentali rappresenta il risultato di alcuni anni di ricerca (2007-2013) svolta nella consueta collaborazione tra gli archeologi del Dipartimento di Storia, culture, civiltà (DISCI) dell'Università di Bologna e gli architetti e storici dell'architettura del Dipartimento di Scienze dell'Ingegneria Civile e dell'Architettura (DICAR) del

Politecnico di Bari. L'opera rientra in un più ampio progetto di studio sistematico dei monumenti di Kos scavati nel Dodecaneso dagli archeologi italiani durante i primi decenni del secolo scorso, e che non poterono essere pubblicati in forma esaustiva a causa degli eventi bellici. Nella consapevolezza che i risultati di quelle ricerche costituisce ancora oggi una base di partenza imprescindibile, il nostro intento è anche quello di contribuire a colmare questo debito scientifico.

Il quartiere delle Terme è infatti noto grazie alla documentazione elaborata dagli archeologi italiani in servizio a Kos nei primi decenni del secolo scorso, in particolare gli archeologi Luciano Laurenzi e soprattutto Luigi Morricone, coadiuvati dall'ingegnere Hermes Balducci. La zona, ancora prima di completare lo scavo, fu oggetto inoltre di un innovativo progetto di sistemazione d'area, ad opera dell'architetto Giovanni Battista Ceas, che si inseriva nell'ambito di quel Piano Regolatore del 1934 in base al quale la città post terremoto del 1933 sarebbe dovuta diventare una vera e propria "città archeologica". L'attività di scavo procedeva man mano che la redazione del Piano urbano prendeva forma e ne dettava i vincoli, in una prassi di integrazione tra ricerca archeologica e progettazione urbana che fa della Kos di quegli anni un vero e proprio laboratorio di sperimentazione. A quel progetto, attento nel dettaglio e nel proporre un efficace rapporto tra le emergenze archeologiche e la città contemporanea, si ispira in ideale continuità l'elaborazione di un progetto di valorizzazione del complesso archeologico, pure presentato in questo volume.

Basilare, per lo svolgimento delle attività sul campo, è sempre stata la collaborazione con la 4^a Eforia Bizantina del Dodecaneso, grazie alla costante disponibilità del suo direttore, dott. Maria Michailidou. Un sentito ringraziamento va anche alle responsabili di zona, Vasso Christopoulou, prima, e Maria Chalkiti, più recentemente, le quali hanno agevolato in ogni modo la nostra permanenza a Kos.

A Sua Eminenza Nathanail, Metropolita di Kos e Nysiros, siamo debitori di un'accoglienza cordiale e di un interesse fattivo, costante e partecipe nei confronti delle nostre attività.

Nel corso della ricerca, diverso materiale documentario è stato reperito presso l'Archivio del TAPA del Dodecaneso, e presso la Biblioteca, dove è confluito il patrimonio librario e documentario della Soprintendenza alle Antichità di Rodi e dell'Istituto Storico-Archeologico FERT: ringraziamo quindi vivamente i direttori dell'Istituto Archeologico di Studi Egei, Aggeliki Giannikouri, prima, e Pavlos Triantaphyllidis, poi, per averne sempre permesso l'ampia consultazione. Altro materiale proviene dall'Archivio del Comune di Kos, pubblicato in un'interessante mostra documentaria recentemente allestita nei restaurati locali della "Mascalcia" italiana. Infine, dobbiamo al direttore della Scuola Archeologica Italiana di Atene, prof. Emanuele Greco, la possibilità di accedere agli archivi SAIA in cui molta documentazione è attualmente conservata.

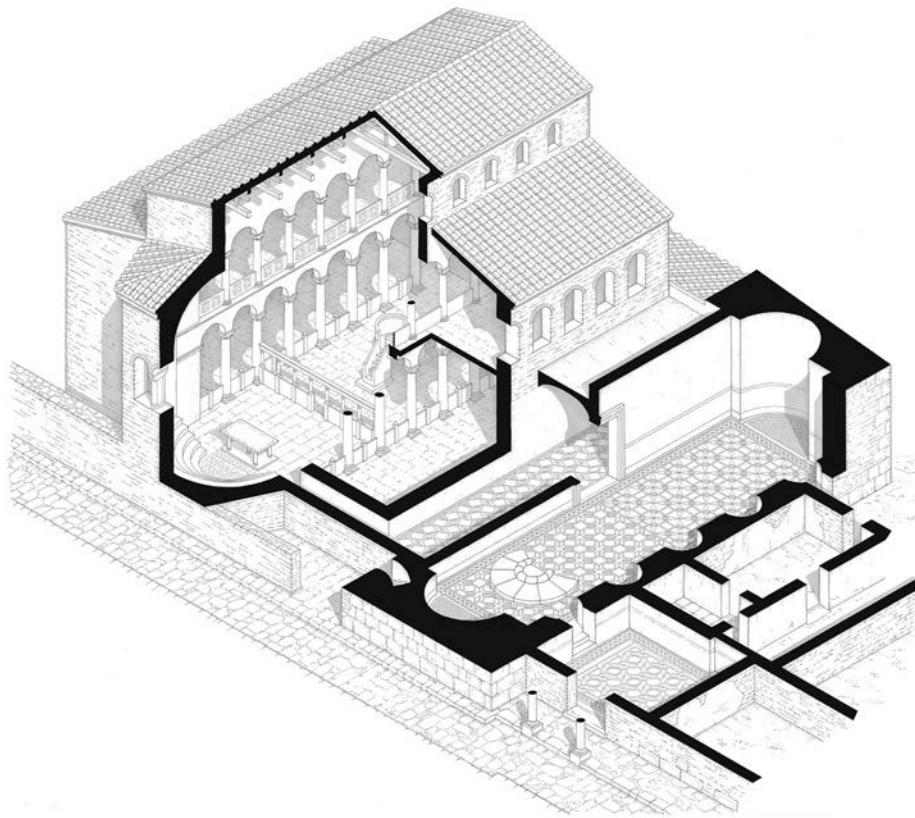
Il sostegno degli atenei di provenienza, grazie ai due direttori Giuseppe Sassatelli e Claudio D'Amato Guerrieri, è stato fondamentale per riuscire a dare continuità al lavoro. Questo è stato supportato finanziariamente, oltre che dal DISCI e dal Politecnico di Bari, che si ringraziano sentitamente, anche dal Ministero degli Affari Esteri – Direzione Generale per la Promozione del sistema Paese (DGSP) e dalla Dumbarton Oaks Foundation di Washington (Project Grant 2012-2013).

Come per il volume precedente, abbiamo scelto di presentare i risultati delle ricerche in forma collettiva, sperando che l'integrazione tra i diversi testi possa rispecchiare almeno in parte la totale condivisione del lavoro pratico e delle idee che ha contraddistinto questi anni di attività. In aggiunta a quello dei colleghi co-autori dei testi, un apporto fondamentale, scientifico e umano, è venuto dagli studiosi più giovani, per alcuni dei quali il lavoro a Kos ha accompagnato una lunga carriera universitaria, dalla laurea al dottorato, anche attraverso lavori di tesi.

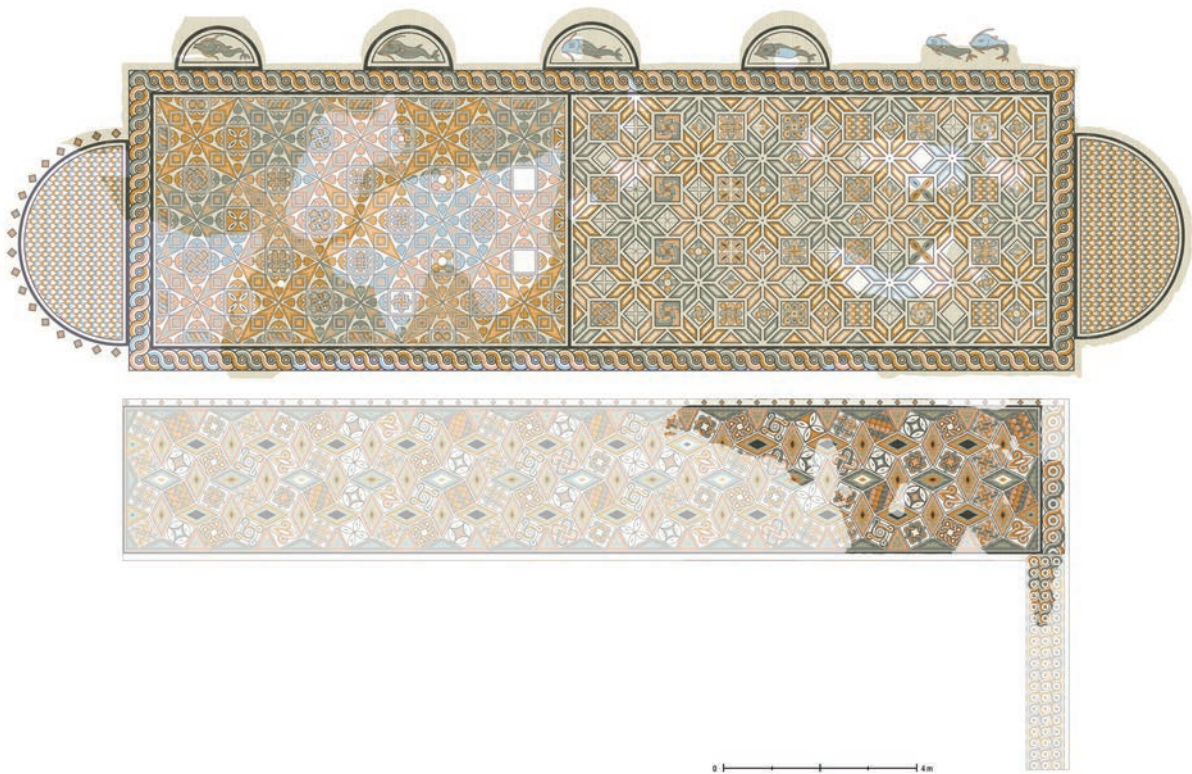
Ringraziamo quindi tutti i collaboratori, a vario titolo, di questi anni. Per il DISCI: Paolo Baronio, Giulia Bersellini, Veronica Casali, Stephanie Casadei, Dario Daffara, Giuseppe De Santis, Silvia Donadei, Francesca Fecoli, Francesca Frasca, Fernando Giannella, Federico Giletti, Simona Giorgetti, Saveria Lo Ioco, Giulia Marsili, Giuseppe Mazzilli, Federica Pannuti, Lucia Orlandi, Roberta Patrignani, Debora Pellacchia, Elia Rinaldi, Rita Schiaffino, Francesco Veronesi, Federico Zoni.

Per il DICAR: Simona Belmondo, Francesca Chiarappa, Giusy Dantes, Tiziano De Venuto, Maria Demauro, Teresa Demauro, Fabiana Dicuonzo, Antonello Fino, Giorgia Floro, Daniele Garofalo, Giovanna Gaudio, Federica Gotta, Alessandra Guzzoni Iudice, Alberto La Notte, Alessandro Læra, Claudia Lamanna, Claudia Laricchia, Giuseppe Loiudice, Daniele Mallardi, Rossella Martino, Marco Masiello, Madia Mastrolonardo, Luigia Cristiana Mastrorocco, Maria Laura Muciaccia, Maria Teresa Nardulli, Daniela Nicolai, Francesca Papa, Alessandro Picuno, Maura Pinto, Livia Piombaro-
lo, Sabina Piscopo, Valentina Santoro, Alessia Scola, Maria Cristina Tagarelli, Simona Tassiello, Sara Antonella Zaccaro.

Un sentito grazie è doveroso anche per la famiglia Anastasiou, che ha permesso, con disponibilità fuori dal comune e grande amicizia, che diverse volte l'anno il proprio albergo diventasse una vivace base operativa per le attività archeologiche e di rilievo. Basilica A, Area presbiteriale



Basilica A, II fase, ricostruzione assonometrica (dis. P. Baronio). Immagine tratta dal § II.4.



Ricostruzione in scala del mosaico degli ambienti 6 e 7 (Politecnico di Bari, elaborazione grafica vano 6, D. Nicolai; elaborazione grafica vano 7, S.A. Zaccaro). Immagine tratta dal § II.4.8.

VI. ABSTRACTS

a cura di
Rita Sassu

I. Kos and the role of the episcopal institution

I.1. The archaeological data

I.1.1 The Greek-Roman phase (*G. Rocco, from p. 1*)

Among the 4th c. BC urban foundations, Kos (**Fig. I.1.1.1**) is undoubtedly the more completely reconstructed model. The urban plan is defined by the regularity of the orthogonal grid of streets and blocks and by the strict application of the principles of zoning, aimed at the rational definition of public and private spaces, and urban sanitation, probably borrowed from the prescriptions of Hippocrates. The town was founded in 366 B.C., as a result of a *synoicism*, not far from the important extra-urban sanctuary of Asklepios and around a natural harbour, along an important maritime route from the south-east Mediterranean to the north Aegean. The new city was soon protected by a strong fortification wall. The harbour quarter was also defended by an independent wall circuit, realized by two different arms of walls, which surrounded the gulf and closed the port, like other defensive systems in Thasos, Rhodes, Knidos and Alikarnassos. Inside the urban walls, the residential areas were located especially in the southern and eastern part of the city, while public buildings surrounded the acropolis' hill. In the south and south-eastern districts the system is based on a grid of rectangular blocks oriented north-south, while the western part instead shows a directional change by fitting the orography of the acropolis, on this side delimited by a retaining wall; already in the 3rd c. B.C. the eastern steps of a stadium lean against this retaining wall. The stadium in turn determines the orientation of a gymnasium, located just to the west.

The harbour district has a different distribution: there, all the public buildings - the sanctuaries of Aphrodite *Pandamos* and *Pontia* (**Fig. I.1.1.4**) and Heracles *Kallinichos* connected by a monumental stoa, an *emporion* on the port and the military ship sheds - are oriented around the inlet. Using terracing that raised the buildings above the level of the quay, these architectural complexes constituted a set scenographically prepared to offer a privileged view to those who came from the sea, a fact confirmed by Strabo.

The agora, about 350 m long, occupied the space of sixteen blocks of the urban grid. Its creation is the result of the succession of different constructive moments: in fact, the 4th c. BC square, located near the central *plateia*, which must be identified as the route of the main religious processions, between the end of the 4th and the beginning of the 3rd c. BC was joined by a further square to the *emporium* at the port (**Fig. I.1.1.2**). The main political and religious structures of the agora, the *archeia* cited by epigraphic documents, had to be placed precisely in the southern agora, the ancient one. After the earthquake of 198 BC, concurrently with a time of considerable wealth of the *polis* referred to the transformation of the *Asklepieion* in a Panhellenic sanctuary (242 a.C.), the main monuments were completely reconstructed in white local marble. Although retaining the general lines of the original urban plan, the restructuring affected all the public buildings,

including the Doric porticoes of the agora, rebuilt in a much more rich and monumental form (**Fig. I.1.1.3**). The Ptolemies and, since the 2nd c. BC, the Attalids participated as donors to this rich reconstruction. In the same period, just south of the agora, a gymnasium was built, interesting for its location near the centre, which recalls the gymnasia of Miletus or Alexandria. In the harbour districts, the shrines of Aphrodite and Heracles were also reconstructed in a more monumental way, while, in the west zone, the gymnasium built between 4th and 3rd c. was enlarged during the 2nd c. with an enormous porticated courtyard, one of the largest in the ancient world, entirely built of marble.

In Roman times the general urban scheme did not suffer strong alterations. The more meaningful ones are certainly connected with the realization of several bath buildings: in fact, between 1st and 2nd c. AD, Kos was endowed with many public facilities, which arose mainly in connection with the ancient *gymnasia*. Even the agora was partially restored, creating further south a monumental *tholos*, perhaps dedicated to the Tyche of the city like in the *agorai* of Side and Perge. The severe earthquake of 142 AD provided an opportunity to restructure all the old bath buildings, with a clear adaptation to more advanced models inspired by the Imperial achievements. The theatre was also enlarged, reaching a dimension only slightly smaller than that of Ephesus, while the theatrical buildings were completed with the construction of an *odeion* down the central *plateia*. This urban transformation, occurred between the second half of the 2nd and first half of the 3rd c., is also demonstrated by the enlargements and restructurings of the rich residences of Kos, who renewed their decorative apparatus. The earthquake provoked serious destructions also in the agora, which hence required adequate and prompt reparations. Dismantling the north city wall, a new access was then realized, like a monumental façade raised on a high terrace, accessible by a broad stairway (**Fig. I.1.1.5**). It was a monument of representative type, in keeping with the provincial imperial constructions due to the evergetism of the Emperors.

Seismic episodes of the late 3rd and 4th c. determine further renovations not only in private households but also in the bath buildings, adapting in this period to changes in social behaviours, with the progressive obliteration of the *palestrae* of the previous *gymnasia*, occupied now by large *basilicae thermarum*.

Despite everything, however, even in the late imperial period the urban system seems to have remained in its general lines the one outlined at the time of the founding, demonstrating the validity of a project that has managed over time to meet the requirements of a rich and socially complex *polis*.

I.1.2. The Christian city (*I. Baldini, from p. 12*)

The town of Kos is characterized by a strong persistence in Late Antiquity, reflected by the continuity in the use of the roads, of the most important monumental areas, of the harbour storehouses, of many private buildings. As in other cases, the effects of the earthquakes did not cause drastic breaks in the life of the settlement, rather providing the opportunity for a renewal of the settlement according to updated models and lifestyles.

Although it is not yet possible to reconstruct the entire urban profile, the example of the religious complex of St. Gabriel (outside the city and with a substantial persistence from the 5th to the 10th c. despite the Muslim raids), seems to reflect a situation also widespread in the central districts, affected throughout Late Antiquity by a continuous use of the buildings. Two main factors underlie this capacity of building renewal: on the one hand, the economic conditions of the city, as the result of the maintenance of the commercial role of Kos along the Mediterranean routes. On the other hand, the survival of a social élite, able to last against the negative events with organizational and economic resources: after the 4th c. a number of governors and members of the local church, in fact, constantly intervene in the reconstruction and upgrading of the buildings, offering new architectural decorations or mosaics (see for example the rich house of odos Hagiou Nikolaou or the building activity in Casa Romana). Several elements indicate an uninterrupted survival of the city even after the 6th c.: levels of the 7th c. have been discovered in the coastal warehouses, in houses and other buildings; the agora shows signs of a long continuity; pottery is produced and marketed until the 8th and early 9th c.; some inscriptions date back to 9th-10th c.

The archaeological documentation is sometimes difficult to understand and partial, as the example of the Praetorium built by a prominent Tauros shows, a building (hypothetically located close to the agora) which is known only from an inscription. The process of Christianization involves a selection of the public investment. After the middle of the 5th c. this process is evident, for example, in the large complex of the Baths of the Harbor (**Fig. I.1.2.1,47**) and in the Northern and Western Baths, where the building activities highlighted by the archaeological researches may have been caused by the inability to keep in use such large complexes after the earthquake of 469, but with the intent of rationalizing the resources and reusing - and not abandoning - those monuments. The Central Baths continue to survive until the 6th c., presumably for their connection to the agora. It is not easy to determine the chronological term of the abandonment of other public buildings: in the Odeion, for example, a gathering of statues in good condition seems to show a deliberate pagan action in order to safeguard and custody the sculptures, some of which were related to the cult of Asclepius. In the process of Christianization, the ecclesiastical architecture progressively engages most of the available resources. Above the destruction layers of the Sanctuaries of the Harbor, in the 5th c. one of the largest churches in the city was built, together with a baptistery and other appurtenances, including baths and perhaps a *xenodochion*. To the same phase might belong also the complex Epta Vimata (**Fig. I.1.2.1,31**), in the south-west of the city, of which only the baptistery survives. The architectural development of the complexes of Epta Vimata and of the Harbor seems to correspond to the development of St. Gabriel, where a first phase of

the 5th c. Christian and a significant phase of the second half of the 6th c. were found. The area of the Western Baths shows a similar development: that area became firstly property of the local Church in the 5th c., when a Christian basilica was built in the northern sector of the district. Lately, in the second half of the 6th c., the episcopal seat moved from a previous place, unfortunately still unknown, which was probably irreparably damaged by the earthquake of 554.

An important religious complex was discovered in 1936 in odos Stavrou, a monastic bath (**Figs. I.1.2.1,9** and **I.1.2.6**) with mosaic floors and an important epigraphic document which remembers the *igoumenos* Kyros.

Late Antique architecture of Kos confirms the image of a continuously flourishing city: it has abandoned the pagan character that for centuries had contributed to its notoriety, maintains a high urban quality and increases its monumental heritage thanks to the local elites and to the local Church. The road system and the public squares are used, although with sporadic invasions of roadways. A downsizing of the town occurs only after the 7th c., and a strong reduction probably takes place in a subsequent phase, as the archaeological results of the recent decades seem to show.

I.1.3. The public areas (*M. Livadiotti, from p. 28*)

The vast agora of Kos seems to have preserved its ancient configuration still in the 4th c.; the datum is attested by continuous restorations of the eastern portico (**Fig. I.1.3.1**), damaged by some seismic event. This aspect is particularly remarkable because confirms the long duration of the porticoes and the square itself. Only after the Arab invasions of the mid-seventh c., the city seems to contract, with the big square gradually abandoned and converted to agricultural zone. Indications in this regard comes from the exploration of the central sector, where in recent years the Greek Archaeological Service and the Archaeological Institute of Aegean Studies have found materials that confirm the long period of frequentation of the agora as a public area.

A phase of transformation must have occurred after the earthquake of the second half of the 5th c., which involved a strong elevation in the levels of frequentation, now at 4.16 m circa above sea level, whilst the levels in the Hellenistic period were at or near 3:20 m above sea level. The same altitude of 4.16 m would have also obliterated the *krepis* of the *stoai* of the agora, surpassing the medium level of the stylobate, equal to ca. 4:00 m above sea level. In this phase a large building, probably public, was built in the southwest corner of the square (**Figs. I.1.3.2-3**), using materials taken from marble monuments of Hellenistic-Roman period now destroyed.

Across the *plateia-decumanus*, the great Southern Stoa which since the 3rd c. B.C. had constituted the limit on this side of the agora, was destroyed. From the 4th c., it seems that the central part of the Stoa had been already demolished to make way for an advance toward north of the Central Baths, now renovated. Later, the western sector of the Stoa, in front of the so-called 'Casa Romana', presents a reusing phase, demonstrated by the construction of several rooms, built in the space once occupied by the rear compartments of the Stoa and raised on its residual structures (**Figs. I.1.3.4-5**). Their scheme, albeit at a reduced size, reproduces the original layout, defined in a large vestibule which leads to two smaller inner compartments. At the moment the function remains uncertain, although it has been suggested a possible continuity of the public role of the Stoa itself, which was undoubtedly linked to the complex requirements of the *polis* civic life. In the central sector of the agora, at the current state of research, it is unclear whether the *tholos* built in imperial times (cfr. **Fig. I.1.1.1**) was still visible, or, more likely, had already been destroyed by the earthquakes of 5th- 6th c. and then despoiled. Recent excavations in the area have nevertheless highlighted sewers and drainage, continually rebuilt up to a late age, proof of a long usage of the place as a public area.

At the north end of the agora, as early as the 2nd c., the northern walls had been largely demolished, to build a monumental front on the harbour (cfr. § I.1.1). The complex must have lived a long time, as attested by subsequent layers of frequentation and the artisan installations built in the rear rooms of the Eastern Stoa. Even within the vaulted passages of the northern front traces of occupation are visible, reflecting the fact that their collapse must have occurred fairly late, maybe because of the earthquake of 554, according to Morricone. Other installations for the production of glass objects, used until the mid-sixth c., were brought to light near the south-east sector of the agora.

In the Early Byzantine city, at the port, restored again after the devastating earthquake of mid-sixth c., the commercial square near the dock, the old *emporium*, must have been still frequented. The mercantile vocation of the square must also have remained for long if right here the medieval *Porta tou Forou*, the western access to the fortification of the *chora*, and the church of *Panagia tou Forou* arose. Given their location (**Fig. I.1.3.8**), the *Forum* to which these toponyms refer, more than in the civil agora - that must have retained official and representative functions until it was progressively abandoned - must be rather recognized in the commercial square in the harbour district. The existence of a commercial agora and a port still in regular use in the 5th- 6th c. is an interesting point, because it shows that in Late Antiquity one of the principal factors of the economic growth of Kos derived from the activity of its maritime trade, ensured by the position on an important commercial route, the *annonna* route between Alexandria and Constantinople.

I.1.4 The eastern harbour quarter (*D. Pellacchia, from p. 35*)

The Harbour Basilica is located in the north-east of the city and was discovered in 1936, during the demolition of the medieval centre of Kos, the "Città Murata" (Walled City, or Chora: **Fig. I.1.4.1**), close to the Mosque of the Lodge. It is

a large church with three naves, preceded by a narthex and an atrium, with a baptistery. The basilica, consisting entirely of reused materials coming from the spoliation of the near Hellenistic and Roman monuments, is now preserved only at the level of the foundation (Figs. I.1.4.3-4).

The building appears to have at least two construction phases, the second of which dated to the mid-sixth c. A small thermal building dating to the 5th-6th c., of which a room with *suspensurae* and the *praefurnia* are still preserved (Fig. I.1.4.11), is located not far from the Basilica, on the ruins of the Hellenistic sanctuary dedicated to Hercules. In the same area there are the remains of a residential building dating to the 5th-6th c., built on the *propylaea* of the *Aphrodision*, decorated with impressive mosaics (Figs. I.1.4.12-14). Remains of a small shrine of uncertain attribution, characterized by several phases of construction, are situated south east of the church. It has an apse on the west side, a division into three naves by continuous walls and a narthex on the eastern side (Figs. I.1.4.15-18).

I.1.4.1 Fragments of a Carian-type ambo (P. Baronio, from p. 54)

Recent researches focused on the 6th c. ambos of the so called "Carian type" can help us to define the spread of these artefacts in the limited geographical area of the region (Fig. I.1.4.1.1), where the most significant number of finds is recorded around the Bodrum peninsula. The analysis carried out on two staircases of ambo, which are preserved in the Kastro museum of Kos and which are hypothetically ascribed to the liturgical furniture of the large basilica near the harbour, allows to reconstruct a Carian-type ambo with two ramps, about 3.3 meters in length (Figs. I.1.4.1.4-5). We can assume that these remains belonged to a small pulpit, which is hardly compatible with the huge harbour basilica. Instead, it can find dimensional and decorative comparisons with ambos found in several towns of the Carian coast (Fig. I.1.4.1.3).

I.1.5 The Epta Vimata complex (L. Orlandi, from p. 57)

The monument is located in the southern-western area of the city (cf. Fig. 1.2.1.1,31), and is still in use as a cemetery church, dedicated to St. John the Baptist. The first, although partial, investigations in the area, were due to the local Office of the Italian Superintendence and led to the discovery of a portion of the narthex and of mosaic pavements, to the west and to the north respectively. These remains (Figs. I.1.5.3-4) may attest the existence of an ancient religious complex of great dimensions and major importance on the island, built around a huge basilica, of which Epta Vimata was likely the baptistery. The original layout of the latter (mid 5th-beginning of the 6th c.) consisted of three adjacent bodies (Figs. I.1.5.18): two symmetrical wings and a central squared room, with four entrances, a circular internal section and four semi-circular apses in the corners, and an inner *ambulatio* defined by a semicircular peristyle and a fence. This three-room structure might have corresponded to the three-step baptismal liturgy, composed by exorcism, bathing and anointing with the *chrismon*. The existence of the baptismal font hasn't been confirmed yet, however significant evidence has been inferred from the photographs of a sample, dug at the center of the church in 1997. The great basilica must have been seriously damaged, although not destroyed, by the 554 earthquake. As the basilica was abandoned, the surviving central room of the baptistery, of considerable dimensions, may have determined its transformation into a church. Through the centuries, the building underwent many restructuring (interventions): amongst the more relevant, the addition of an eastern circular apse and a later polygonal one, and the placing of a new floor covering (ca. 9th c.), which has hidden the remains of the font. We can witness analogous cases of this functional evolution: for example, the baptistery of the episcopal complex in Xantos (Lycia) became a church in the 11th c. The continuity in cultural use of Epta Vimata may be due to its position, detached from the city center, and to the cemeterial function, which can date back to a quite far antiquity. The comparison of the original phase of the monument with other coeval baptisteries within the Mediterranean area has highlighted a significant similarity of our case to some of the major examples in Asia Minor and in southern Mediterranean: both the baptisteries of St. John the Baptist *martyrion* in Ephesus (4th-5th/5th c.) and of the Eastern Basilica in Abu Mina's Sanctuary (beginning of the 5th c.) are characterized by the imposing size and the three-room layout. The reason of this can be traced in the historical and cultural proximity within the latter areas and Kos, thanks to the commercial links between the sides of Mediterranean, assured by the Koan navy between the 4th and the 7th c.

I.1.6 Housing and other features of urban landscape (R. Patrignani, G. Bersellini, L. Orlandi and S. Casadei, from p. 79)

Despite the fact that the residential function of the buildings cannot be confirmed in every case, the archaeological data from the urban center of Kos provides one of the most complete overview of late antique housing in an insular urban context. It consists mostly of structures built within the first and middle imperial period, with a continuity of use in time. Other buildings date back to the 3rd-4th c., and to the 5th. There aren't many examples of houses erected *ex novo* in the Late Roman period: furthermore, those examples do not seem to show significant typological renovations, highlighting instead a trend to preserve the traditional architectural forms. During Late Antiquity, high status features must have characterized the area of Quartiere del Serraglio, Halvagià, Amygdalona and the *Decumanus*. Amongst the interventions dated to the early Byzantine period, which were identified in Roman imperial contexts, it is possible to note, on the one hand, the maintaining of the mosaic pavements, sometimes with huge and highly refined solutions, on the other hand, a frequent "subdivision" phenomenon together with a worsening of building techniques.

Considering topographical layout, in general late antique buildings respect the previous urban setting: the most relevant structures in size and decor continue to be located along the major urban streets. According to the remains found in the neighbourhood of Epta Vimata and of the Western Bath Complex, but also to the rests of a probable religious building identified in the central-eastern area of the city, it is likely that through the centuries the religious centers have become major poles of social gathering, during the development of a new hierarchy in urban quarters.

I.1.7 La cultura materiale e le produzioni ecclesiastiche (*S. Didioumi, from p. 95*)

Tra il III e il IV sec. d.C., Kos era diventata una città tanto espansa che le sue mura già nel II secolo erano state abbattute. Gli scavi hanno evidenziato che larghi settori dell'originario impianto urbano ippodameo sono rimasti in uso fino al VII secolo, con poche variazioni alla griglia stradale. L'area del porto, con la costruzione di una grande basilica all'estremità orientale e strutture commerciali nella parte più interna dell'insenatura, continua ad essere frequentata nel periodo proto-bizantino e in tutta l'area urbana, compresa l'acropoli, i materiali di scavo confermano l'ininterrotta occupazione del sito fino al VII sec. d.C.

Il Cristianesimo iniziò a Kos con l'arrivo di S. Paolo, ma, nonostante la presenza di un vescovo già nel IV secolo, ancora per diverso tempo si mantenne l'antica devozione per Asclepio e per le divinità ctonie della tradizione pagana (**Fig. I.1.7.1a,b**), come per altro conferma il ritrovamento nelle necropoli fuori le mura di sepolture di III e IV secolo pertinenti a ricche famiglie pagane. D'altro canto, allo stato attuale, nelle stesse necropoli a sud-ovest della città e sulla strada per l'Asklepion, non si registrano alla stessa data sepolture cristiane, che dovevano quindi essere altrove.

Nel VI secolo la città, che ha visto ormai la costruzione di grandi complessi basilicali, è invece largamente cristiana, come testimoniano i materiali rinvenuti (**Fig. I.1.7.2**) che in qualche caso richiamano, attraverso la circolazione di contenitori per reliquie (**Fig. I.1.7.3-5**) e memorabilia, i contatti di Kos con i maggiori centri di pellegrinaggio dell'epoca, come Efeso. A parte gli oggetti direttamente connessi al culto cristiano, gli scavi hanno rivelato anche oggetti di uso quotidiano – vasellame da tavola in ceramica e in vetro, ceramica comune, contenitori di ferro e bronzo, ma anche accessori per l'abbigliamento, spilloni d'osso, conchiglie marine (**Fig. I.1.7.6**), dadi da gioco (**Fig. I.1.7.7**) - databili tra VI e VII secolo. Una serie di gioielli, trovati in un magazzino e contenuti in un piatto di Africana ARS (**Fig. I.1.7.8**) databile tra la fine del VI e VII secolo, attesta la ricchezza e la prosperità della città (**Fig. I.1.7.9-10**). Nello stesso contesto sono state trovate bilance di precisione in bronzo (**Fig. I.1.7.11**) che, insieme ai gioielli, confermano l'ipotesi che il proprietario fosse un mercante.

Altri ritrovamenti attestano le ramificate attività commerciali di Kos in questo periodo: dalla stadera in bronzo con contrappeso in forma di busto di Atena (**Fig. I.1.7.12**), datata alla prima metà del V secolo, alla ceramica di importazione, in particolare le anfore LRA 1B, LRA 2B (**Fig. I.1.7.13**) e LRA 3B4 (**Fig. I.1.7.14**) rinvenute in livelli datati tra la seconda metà del VI e i primi anni del VII secolo. Lucerne provenienti dall'Asia Minore, del tipo Yassi Ada L1-2, sono emerse da livelli più tardi, della prima metà del VII secolo e oltre (**Fig. I.1.7.15 a, b**). I contatti con il Nord Africa sono invece attestati da ceramica di importazione datata tra la metà del VI (cfr. **Fig. I.1.7.8**) alla seconda metà del VII (**Fig. I.1.7.16**).

La produzione locale di ceramica, ben nota fuori dal centro urbano, è in città attestata più raramente. I rari esemplari includono un'anfora da Mastichari (**Fig. I.1.7.17**) e ceramica comune in strati tra la metà del VI e la seconda metà del VII. Inoltre, continua a Kos la produzione di oggetti in vetro: un laboratorio, attivo per circa un secolo dalla seconda metà del V, è stato identificato presso la zona centrale dell'agorà (**Fig. I.1.7.18**).

Per quanto riguarda infine i ritrovamenti numismatici, il *corpus* redatto nel 2005 registra che a fronte di una circolazione molto attiva nel IV secolo (il 56% del totale), nei periodi successivi avviene un notevole declino, con un 18% del totale agli inizi del V, che scende fino al 6% nel corso dello stesso secolo, recuperando una percentuale del 10% nel VI e VII secolo. Le monete coprono un arco temporale che termina con l'ultimo anno di regno di Eraclio (640/1).

I ritrovamenti nel complesso indicano che il *floruit* di Kos è da porre alla metà del VI secolo e durante il VII e che il terremoto del 554 provocò danni ingenti ma non la totale devastazione. Non ci sono inoltre molti dati per determinare l'estensione della città dopo l'invasione araba alla metà del VII; tuttavia, contrariamente a quanto si pensava fino a poco tempo fa, le ricerche recenti mostrano una continuità di vita che si protrae fino alla fine del secolo in tutta l'estensione dell'abitato. L'importanza strategica di Kos è d'altra parte confermata dalla presenza delle truppe di Eraclio durante le campagne contro i Persiani e dal trasferimento della flotta nell'Egeo sud-orientale voluto da Costante II.

I.2 Episcopacy and society in Kos between 4th and 8th century (*S. Cosentino, from p. 105*)

The spreading of Christianity in Kos must have taken place without episodes of violent confrontation with the cults of the Hellenistic-Roman religion. The reception of the anti-pagan legislation probably got a full application on the island, since it was located on a major sea route linking the Near East with Constantinople. In the contribution, the relations between bishops and society are investigated primarily through a certain number of inscriptions dating from the 5th to the 7th century. In it, it is emphasized that the urban life of Kos experienced a continuity after the 7th century, although the state of research does not allow yet to specify the characters of the Koan urbanism in the middle Byzantine age.

I.2.1 Appendix. Two unpublished inscriptions for early Byzantine Kos (*S. Cosentino, from p. 117*)

Two unpublished inscriptions are added to the contribution. The first concerns a *hégoumenos* named Kyros, who was responsible for the renovation of a bath within a monastic structure; it can be dated to the second half of the 6th century. The second inscription, concerns the building activity of a certain Demetrios styled as *phyloktistēs*, and it is attributable to the 7th century.

II. The archaeological area of the Western Baths: from the Gymnasium to the episcopal complex

II.1 The Italian research in the area of the Western Baths (*M. Livadiotti, from p. 123*)

In Kos, after the first research of the German mission of R. Herzog, to whom we owe the discovery of the sanctuary of Asclepios and the first explorations of the western districts of the city, the Italian research, started immediately after the military occupation, took on a systematic character only after the arrival of the archaeologist Luciano Laurenzi, SAIA alumnus and fellow of the Historic-Archaeological Institute FERT of Rhodes. He had been recently appointed Inspector of the new branch office of Kos of the Royal Superintendence of Dodecanese, and remained in the island until the summer of 1934, when was called to Rhodes to direct the head office. Afterward, the research was carried out by Luigi Morricone, who remained in Kos until 1941, when in turn was appointed regent of the Superintendence in Rhodes.

In the south-west the medieval town, where Laurenzi began the first excavations, there was a little settlement, known as Porta Nuova district (Yeni Kapu), formed not before the middle of the 19th c., along one of the routes from the chora and its port to the hinterland. The neighbourhood appears in fact in the city map drawn by the Italian Military Geographical Institute (IGM) in 1926 (**Fig. II.1.2**), before the earthquake of 1933, which imposed in 1934 the creation of a Master Plan that radically changed the character of the area. It does not appear yet, however, in a map of 1838 drawn up by the English Admiralty (**Fig. II.1.1**). A few years before 1926, the agricultural area south of this district had been crossed from east to west by a new avenue, Viale di Circonvallazione (currently odos Grigoriou V), an important road (**Fig. II.1.3**) built in order to connect the capital with the other centers of the island. As clarified by later excavations, the modern road replicated almost exactly the route of the ancient *plateia / decumanus*. Research by Laurenzi in this area led to the discovery, south of the new avenue and near the crossroads of Porta Nuova, of an *odeion* and several mosaic floors; the findings led the archaeologist to understand the extent of the ancient city, much larger than the medieval and modern one. In the context of these explorations, in 1930 Laurenzi discovered in the garden of the Mahmud Bey property some thermal rooms, corresponding to the large south *calidarium* of the Western Baths. Due to the presence of modern buildings and private properties, the excavation was not, however, extended and the exploration was abandoned and resumed only years later by L. Morricone, when, with the earthquake of 23 April 1933, it was possible to demolish some damaged buildings in order to broaden the search. In 1936, the area north of the Laurenzi's excavation was deeply explored, beyond a Turkish fountain and the embankment on which this arose, discovering the northern basilica which insisted on the cold rooms of the Baths (**Figs. II.1.5, II.1.7**). The excavation was then extended to the east, where a paved road in excellent condition came to light, the so-called *cardo* (**Fig. II.1.10-11**). To the east of the road, a monumental latrine-nymphaeum was also discovered. In 1937 Morricone continued even the digging of Laurenzi south of the Turkish fountain, extending it further to discover a second bath building, of smaller size, which in the early Christian period hosted a baptistery and an episcopal residential quarter (**Fig. II.1.6**).

To complete the Master Plan, which meanwhile had realized modern living quarters in all the surrounding areas, works of restoration and enhancing were initiated throughout the archaeological area on the basis of a draft drawn up by the Italian architect G.B. Ceas (**Fig. II.1.8**). The project, however, was only partly implemented and then changed, because in 1938 the discovery, south of the Baths, of the *plateia / decumanus* (**Fig. II.1.13**) entailed the decision to expand the excavation area to join it with an eastern zone where in the meantime important *domus* as the House of the Rape of Europe and the House of Silenus had been discovered. In order to highlight the entire road, the Plan was modified and the Viale di Circonvallazione slightly deviated to the south. Meanwhile, intense restoration activities had been initiated throughout the area, involving almost all the major recovered monuments. In the bath building the mosaic floors, drawn in 1936 in beautiful watercolors by H. Balducci, were all consolidated and all the eastern outer wall, along the *cardo*, and the perimeter wall of the *basilica thermarum* were entirely rebuilt to contain and protect the same floors. Other works regarded the portal of the baptistery, which was reconstructed (**Fig. II.1.14**), and the rebuilding of a buttress arches which reinforced the front of the latrine-nymphaeum. Still in 1938 the eastern portico of the Hellenistic Gymnasium and the Imperial *natatio* were discovered. In 1940th the *anastilosis* of a section of the east porch of the Gymnasium, a monumental structure nearly 200 meters long, with Doric porticoes entirely made by local white marble, were undertaken (**Fig. II.1.16**). The work was however interrupted in 1943 because of the war, which also marked the end of the Italian archaeological research in the area.

II.2 Topographic framework (*M. Livadiotti, from p. 138*)

The block where from the 5th c. an early-byzantine basilica complex developed (**Fig. II.2.1**) is located in the western district of the city founded in the mid-fourth century BC (see. § I.1.1, and **Fig. I.1.1.1**). The area slightly slopes from east to west: the highest level, to the east, is represented by the top of the hill of the acropolis, site of the archaic settlement of Kos Meropis. The western slopes were relatively steep, so much so that a little further north, from the earliest stages of the urban layout and using just the natural slope, the stands for a stadium were placed, which influenced the orientation of the entire western district, divergent from the direction generally north-south of the southern and eastern districts. To the south of the stadium, along the slopes of the acropolis, several buildings were built in the 4th or 3rd c., including a monumental Doric stoa, the so-called Tufa Stoa (**Fig. II.2.2**). Further south, other rooms leaned against the retaining wall of the hill; even if much reworked in the imperial age and beyond, they are identifiable as rooms for commercial use (**Fig. II.2.3**). In front of these buildings, the Hellenistic road, corresponding to the Roman *cardo*, equipped with an efficient drainage system, had a width of approximately 5.90 m, corresponding to 20 feet. Within the framework of the newly founded city, designed according to the Hippodamian system in which it is possible to identify a tendency to create hierarchies between the main thoroughfares, there was a road of some importance, because wider than a normal *stenopos* (4.44 m). This road is not straight, but follows the general orientation of the neighbourhoods that crosses, surrounding the acropolis hill and running parallel to a sector of the west fortification walls.

Along the road the excavations have brought to light dwellings of the Hellenistic period, some of them very remarkable indeed, to the west of which, during the 2nd c. BC, a huge porticoed square (approximately 100 x 200 m) was built, expansion of a previous and smaller gymnasium located to the north and parallel to the stadium. The new extension, therefore, inevitably generated a conflict with the adjacent blocks to the east, which were partly cut by the east portico of the new building. This discrepancy in the orientations is therefore the origin of the trapezoidal shape of the residential blocks as early as the 2nd c. BC. In this irregular space since the second half of the 1st c. AD, a thermal building settled occupying part of the ancient dwellings (cfr. § II.3).

After the earthquake of 142 A.D. also in this area of the town important changes took place: south of the first bath building another one was in fact created, smaller in size; on the opposite side of the road, between the Tufa Stoa and the row of shops to the south, a monumental latrine-nymphaeum was built (cfr. § II.4.1.1) and the entire water supply system of the district was increased. Further changes are recorded in the first half of the 3rd c., when the ancient Hellenistic *plateia* was monumentalised by building long Corinthian porches, with rooms on the rear (**Fig. II.2.6**). The construction of the long stoa had substantial effects on the road system in the neighbourhood, because it interrupted the southern outlet of the *cardo*, which was a vehicular road; for this reason, it became necessary to open a branch that, leading beyond the western limit of the porch, could restore the vehicular circulation (see **Fig. II.1.4**). This new road, with a south-west / north-east direction, however, caused the destruction of the southeast corner of the block south of the Baths, whose front had to be profoundly transformed, assuming the oblique shape that will be repeated in subsequent phases.

After the earthquake of 469 AD and the destruction of the main buildings, the western district was greatly transformed. For example, the eastern portico of the gymnasium had collapsed and on the rubble a considerable layer of debris had formed; in it, later, the walls of a series of rooms of uncertain function were founded, facing west to what was now a street or a public square. The Baths themselves were irreparably damaged and, hereafter, their spaces were gradually converted into a Christian complex, which, in fact, reused building material from the ancient buildings collapsed.

II.3. The thermal complex (*M. Livadiotti, from p. 146*)

The block of the Western Baths occupies, from the mid-1st c. AD, a former residential area, extended from the eastern stoa of the Hellenistic Gymnasium (**Fig. II.3.1**) to the *cardo*, which connected the south-western districts of the town with the harbour (§ II.2). The Western Baths, as well as the other public bath buildings of Kos, like the Central and Northern Baths, were conceived, at least initially, as functional integration of a gymnasium, in line with a transformation process occurring in the same period in many cities of the eastern Mediterranean, where the gymnasial institution preserves its social importance during the Imperial period, giving rise to architectural hybrids which maintain, along with fully developed bath buildings, the typical spaces of a Greek gymnasium.

Due to the irregularity of the area, the layout concentrates on the block inside the main rooms, regular in shape, while on the west edge the service areas, irregular, are arranged (**Fig. II.3.2**). To the north, a large square, probably an outdoor court, was the *frigidarium* and led from the Baths to the Gymnasium. Further south, three rooms with traces of heating equipment had to be *tepidaria*. The core is finally formed by a large *caldarium*, heated by *praefurnia* placed in service areas arranged on its south, east and west external sides. As for the internal paths, the building is of the row type, according with Krencker's definition, developed along the longitudinal axis of a block arrangement; the scheme is not so rational because forces bathers to retrace their steps. The pattern is strictly symmetrical, in line with a trend interpreted as "Hellenistic". Good comparisons for the Western Baths are the contemporary Central Bath of Kos and the Capito Baths in Miletus, dated to the reign of Nero, which show an axial pattern of internal paths (**Figs. II.3.3-4**).

After the earthquake of 142 AD, the Central Baths show extensive renovations (**Fig. II.3.5**): at this stage, the construction of a new large room, which partially occupies the space of the old open-air court, across the entire width of the thermal building, is documented. It is a majestic rectangular hall with apses, a *basilica thermarum*, serving also as an *apodyterium*. The access to baths during this time had to be in the north-east, opposite the monumental latrine-nymphaeum built across the *cardo* in this period, but a passage on the opposite side would undoubtedly be left to allow access also from the gymnasium, where right now a large *natatio* is built (**Figs. II.3.5-6**). As for the internal paths, the general sense of the project is clearly to transform the pattern from the original axial scheme in the new double ring one; this is much more efficient, because allows to separate the flows, now independent, eliminating the users' need to retrace their steps to exit from the bath building. In this phase, south of the main Baths, another thermal bath is constructed, saturating the space so far remained free between the baths and the house of Hellenistic-Roman times to the south. The new bath building is simpler, with smaller dimensions and completely independent from the first one; the building seems not to have had any relationship with the gymnasium, making possible the hypothesis that it was a *balneum* frequented by women.

A significant restructuring concerns the bath complex towards the end of the 3rd or the beginning of the 4th c. AD (**Fig. II.3.7**). Because of the strong amount of reused materials in the walls, the intervention appears to be due to some destructive seismic action. Following a coeval tendency, the warm rooms sector is substantially expanded, adding for example a new warm room south of the smaller bath building. The new hall, octagonal in shape and probably roofed with a vault, find comparisons in 3rd - 4th c. examples like the Antonine Bath of Carthage, the Hunting Baths of Lepcis Magna, the Baths of Maxentius on Palatine Hill, at Rome, and the Bath C of Antiocheia. Several *praefurnia* were arranged along the west wall, testifying the definitive disposal of the old gymnasium. The phenomenon is in line with a general trend noticeable throughout the eastern Mediterranean basin in this period, when the connection with the Hellenistic gymnasium and its functions seems to disappear and so the use of the *palaestra*.

Probably as a result of the earthquake of the second half of the 5th c., the Western Baths were no more restored and their large areas soon acquired new functions in the context of the Christian city (§ II.4).

II.4. The episcopal complex. Architectural development and models (*I. Baldini, from p. 154*)

Surveys implemented in the area of Western Baths show the process - very common in Late Antiquity - of the passage of public properties to the assets of the Church, with their re-use for new functions. Still in use at the end of the 4th c. (Phase I), the Western Bath experiences, in fact, a drastic change in function after the mid 5th c. (Phase II), when a first Christian building (Basilica A) is built in its northern sector, above the *frigidarium*. Is it possible that such a change follows the earthquake of 469. After the earthquake, the Western Baths could not be maintained and passed to the properties of the local Church. Basilica A was smaller than other religious buildings (Basilicas of the Harbor and Epta Vimata) founded in Kos some decades before. Its religious role was probably linked to the neighbourhood. The acquisition of the episcopal rank seems instead to correspond to a subsequent reorganization of the spaces and the paths of the district, dated shortly after mid 6th c. (Phase III), after the earthquake of 554. With access from the *decumanus*, the new complex included entrance rooms, an apsidal room with a monumental nymphaeum, private baths, a baptistery, two churches - one of which built from the restructuring of Basilica A (**Fig. II.4.2**), a *triclinium*, a second entrance accessible from the *cardo*. The complex, with impressive mosaic pavements, again returned to be an urban epicenter of primary importance, destined to keep this importance at least until the end of the 7th/8th c., when new building activities can be noted in Basilica B.

The new Episcopal complex was conceived according to the character of monumentality which corresponded to the importance of the city and its bishopric. The compactness of the building system can be compared to other Eastern and Western episcopia for both planimetric and formal aspects: it was a multifunctional ensemble, conceived to perform liturgical, representative and residential activities. Spaces were enlarged for religious actions, new decorations, both pavements (mosaic and in *opus sectile*) and architectural (e.g. through the almost exclusive use of ionic capitals for the colonnades) were added. It was a huge financial commitment, which also included the import of pre-worked or partly worked Proconnesian members. Unfortunately, a sector of the quarter is lost and in the reading of the different parts you cannot appreciate completely the combination of external architectural influences and local traditions. In the baptistery, for example, there is a main pool (**Fig. II.4.13**), accessible from two opposing stairs for the ritual immersion, but also two small secondary pools, in relation with the baptizing practices before accessing the sacrament. One of the indicators of the "international" models adopted by the Koan community is also the form of the banquet hall, housed in the Basilica Thermarum (**Fig. II.4.14**): it was built according to the models of hierarchical and representative behaviours acquired by the late antique clergy through the example of the high aristocracy. A half-round table with the *stibadium* left burning traces, still visible in the old photographs (**Fig II.4.15**).

The northern basilica (or Basilica A) probably had a complementary role, also suggested by the location and the relationship with the bishop's dining hall. An ambo with an octagonal platform, documented by some white marble elements (**Fig. II.4.18**), can be attributed to this church. The archaeologist L. Morricone believed that most of the marble elements came from the southern church (Basilica B), which can be considered the new cathedral after mid 6th c.: the importance of the church is demonstrated by the central location, the connection with the monumental entrance rooms and the baptistery

through special paths, underlined by mosaic and marble floors. The importance of the building had to be evident also from the architectural members and the liturgical furniture. In particular, it is important to remember the discovery of a large Proconnesian ambo; the monolithic platform is distinguished for the elegance of the decor, typical of Constantinople, which also includes the inscription "Light-Life".

In the southern sector of the complex a cover of black marble reliquary was found (**Fig. II.4.22**) perhaps coming from room 26, adjacent to the baptistery and the Basilica B. This building shows a prolonged use: a series of marble slabs were found in the area decorated with the monograms of important dignitaries (**Fig. II.4.24**), dated between the end the 7th and the 8th c. The possibility of extending up to this period the use of the Episcopal basilica widely contributes to the reconstruction of the development of the local Church and the entire Koan community, matching the series of archaeological evidences proofing the continuity of life in the city beyond Late Antiquity.

II.4.1. The street and the eastern buildings (*F. Giletti, from p. 173*)

Probably after the earthquake of the second half of the 5th century the revitalization of the Western Baths includes the abandonment of the roman levels and of the paved road. The pathway from south to north of the *cardo* is more accentuated and a significant number of *tubuli* is observable on the imperial age road (**Fig. II.4.1.1**). A large rectangular building is built with reused square blocks along the *cardo*. From the 4th century, the Hellenistic-Roman houses placed north and south of the Baths, are restored, but at higher levels. In the northern area a *domus* is built leaning against the northern front of the *Basilica Thermanum*. An old photograph shows the remains of two walls slightly invading the roman road (**Fig. II.4.1.3**), together with other structures (**Fig. II.4.1.12**), also with hydraulic functions (**Fig. II.4.1.4**).

II.4.1.1. The latrina-nymphaeum (*F. Pannuti, from p. 177*)

By observing still visible building changes, thanks to the studies published by A. Merletto, four main building phases can be noted in the latrine-nymphaeum along the east side of the *cardo*. Phase 1 can be dated to the mid-3rd century on the basis of the mosaics of the central courtyard. The large peristyle, with Doric colonnade, belongs to Phase 2. Phase 3 coincides with a general restyling of the area, including the addition of the tanks of the nymphaeum, the reduction of the mosaic with the construction of a monumental central basin, the replacement of the Doric peristyle order with a Ionic one, the construction of plastered vaults. Phase 4 coincides, according to L. Morricone, with the earthquake of 469: later in the access room of the latrine, at a higher level of almost two meters, a mosaic floor was built; in the corner there is a pool including a clay vessel on the floor (**Fig. II.4.1.1.3**). A staircase (**Fig. II.4.1.1.5**) was built outside, above the clay pipe system. To the medieval period belong two (**Fig. II.4.1.1.6**) calcare? inside the building.

II.4.2 The southern area (*D. Pellacchia, from p. 182*)

Layers difficult to define characterize the southern area of the site, dating from the Hellenistic to the Early-byzantine period. Towards the end of the 3rd and the beginning of the 4th c. a *calidarium* was build, an octagonal construction relative to the last renovation of the imperial thermal complex (§ II.3). The remains of a private house of the late Roman age, provided with a mosaic dated to the 3rd c. by L. De Mattei, are at the south of the complex.

During the Early-byzantine period, the area underwent an extensive building renovation intended to adapt the space to the Christian cult. The interventions regarded mainly the creation of new rooms or with new functions. At least three parts of the episcopal complex (**Fig. II.4.2.1**) can be ascribed with certainty to this phase; these are: starting from the south, a room with a monumental entrance (room 39), an apsidal longitudinal space termination (rooms 36 and 54) and a small bath (rooms 34 and 35). The entrance is located in the south-eastern part of the district. It has a rectangular shape and a monumental marble threshold; on the floor traces of the decoration in *opus sectile* (mortar and fragments of marble hexagons. are still visible). At north, the room is connected to a corridor that links the entrance area with a court (compartment 36), ending with an apsidal space, while from the north-east side it is possible to enter another room with a terracotta pavement, accessible also from the external corridor. The space and the internal paths are quite clear, despite the incompleteness of the walls, thanks to the presence of the thresholds. To the north there are the structures relevant to the *balneum*. The walls of the area were built with a considerable use of *spolia*, such as bricks and marble fragments. Some of the structures have traces of waterproof coatings and reused marble *crustae*. The thermal complex (**Fig. II.4.2.3**) is divided, from east to west, in at least three distinct areas: *apodyterium* (room 35), *frigidarium* and *calidarium* (room 34). The *apodyterium* (room 35) is a rectangular room placed on the eastern side of the complex, leaning against one of the sides of the octagon. It was paved with slabs of gray marble. To the west there was a space paved in *opus sectile*, from which the access to the two half-round basins of the *frigidarium* was possible, whose walls consist of regular courses of bricks, sometimes with stone or marble fragments.

Below the floor in *opus sectile* a water drainage system is placed, which was connected to both the basins and the eastern *calidarium*. The latter room (34) has some masonry preserved only at the level of the foundation (**Fig. II.4.2.4**). On the north and south sides it has two pools, while the *praefurnium* would presumably be located on the west side, close to the surviving structures of the octagon, almost in central position (no structures are still visible). Two semicircular and specular

niches, located on the west side, were constructed in a subsequent period. The room was heated by *suspensurae*, probably realized with the use of recycled material coming from the former thermal building. Despite the constraints represented by the existing buildings, the small Baths - almost perfectly symmetrical and axial - followed a typical Roman tradition. It is possible to distinguish two building phases, the second witnessed by some restoration of the building.

In the southern area, it is possible to recognize a series of at least six rooms, characterized by a building technique that diverges radically from the rest of the area. The walls show large quantities of *spolia*, especially marble fragments, such as column bases, capitals, column drums, or carved blocks. These materials are mixed to stone blocks of heterogeneous size, without regularity and are often arranged without mortar. Some of the reused marble fragments belonged to a Christian building, so it seems probable that the south spaces were built after the abandonment of the episcopal complex.

II.4.2.1 Hypothesis of restitution of the Episcopal Baths (*P. Baronio, from p. 196*)

Located within the late Imperial octagonal *calidarium* of the western baths (§ II.3), the new 6th c. baths of the episcopal palace reused the previous large polygonal room, subdividing and restructuring the spaces according to the new requirements. The analysis carried out on the walls of this *balneum* has allowed to identify different building phases. A series of spaces designed symmetrically, joined by a path crossing them, has been hypothesized through the collected data. Therefore, it is possible to reconstruct (**Fig. II.4.2.1.2-4**) a sequence of three rooms: *apodyterium*, *frigidarium* and *calidarium* - of which the latter two were built inside the Imperial octagonal room and were equipped with a double system of immersion tanks - that finds specific planimetric and volumetric comparisons with the thermal complex of St. Gabriel in Kos and with other Early Byzantine *balnea* in Athens and in the Aegean area.

II.4.3 The central area and the Basilica B: phases and development (*F. Giletti, from p. 199*)

In the central sector of the Western Baths' district, after the earthquake of 142 AD, a bath was built behind the southern *calidarium*. Two tanks were added in the area south of the warm rooms. Between the late 3rd and the early 4th century, in the middle of the quarter a bath building was built and a *tepidarium*. Phase I -Phase II: in this area, between the abandonment of the bath, which occurred in the 5th century, and the installation of the episcopal complex, built just after the middle of the 6th century, it is not possible to detect any level. Phase III: in the Episcopal complex of the Justinian period, the baptistery (room 28: **Fig. II.4.3.1**), paved with marble slabs, was the center of this sector. The water supply for the baptismal font was assured by two tanks in rooms 33 and 29. Two main path-ways led to the baptistery, one from the east and one from the northwest. The first route started from the large corridor 46: in the centre of the corridor there was a passage leading to an open court (31), (**Fig. II.4.3.5**). Room 30 had a representative function. A path parallel to the one that led to the baptistery started from corridor 46, passing through room 31 and 30. There was also a corridor (**Fig. II.4.3.7**, room 25) crossing east-west the building. As part of this reconstruction a well was provided, or at least maintained (**Fig. II.4.3.8**). 60-63 rooms faced corridor 25. A second monumental route ran along a north-south direction. To the west of the baptistery, rooms 27 and 24 functioned as antechamber and privileged entrance to the area for the administration of the sacrament. Among them a monumental portal was raised, made of marble elements (**Fig. II.4.3.9**). Room 27 was placed in connection with room 26 (**Fig. II.4.3.10**). An old picture shows the upper part of a reliquary leaning against the west wall of the room (**Figs. II.4.22-23**): that was probably its original position, as a gap in the floor shows.

The alignment of rooms 27, 24, 23 represents a monumental route that allowed the connection between the spaces used for the baptismal functions and the area to the north, occupied by a large complex, called conventionally by L. Morricone 'Basilica B'. Archaeologists attributed several architectural and liturgical elements found in the area of the *calidarium* to this building. It is difficult to imagine the plan of this church. At the foundation level, a structure with a curvilinear opening to the west can be ascribed to an apse facing east. The western limit of the same building could instead be recognized thanks to some traces on the south-western pillar of the *calidarium*. The church was directly connected to the rest of the complex. Other structural evidence indicates the existence of a second floor, housed inside the two tanks of the Western Baths: the two stairways which ensured the communication between rooms 23 and 47 and the upper level (rooms 64 and 65) are still visible (**Fig. II.4.3.13**). In conclusion: the mid-6th century reorganization of the central sector of the episcopal complex created two main direct routes to the baptismal rooms. The second passage connected the northern sector, occupied by the Basilicas A and B, to the baptismal rooms through a path-way oriented north-south, near the western limit of the quarter. The organization of the rooms substantially respects the articulation of the Roman complex, changing the access and the communication systems according to the new distribution and representative requirements of the Christian commitment.

II.4.3.1. The baptistery (*L. Boccardi, from p. 210*)

The building of the baptistery caused the obliteration of the previous levels, the restoration of the walls and the reconstruction of the roofs, adapting architectural solutions to the new destination of the room (**Figs. II.4.3.1-4**). The pool was formed by a central basin accessed by two opposing staircases with three steps (**Fig. II.4.3.1.2**). At the sides of

the Western staircase there were two smaller circular tanks (Fig. II.4.3.1.3). The whole structure had a covering made of re-used white marble slabs (Fig. II.4.3.1.4). The state of preservation of the monument gives evidence for the water supply system.

II.4.4. Northern Sector and Basilica A. Phases and development (G. Marsili, from p. 214)

During Late Antiquity, some transformations concern the northern sector of the quarter (phase I) (Fig. II.4.4.1). Some rooms paved with quadrangular bricks and mosaics are built behind the *Basilica Thermarum* (Fig. II.4.4.2). These, likely related to a residential complex, are placed against the baths, still in use, according to a practice widely attested in Late Antiquity. The final dismiss of the thermal complex probably dates back to the second half of the 5th c., maybe as a consequence of the destructive earthquake of the 469. This event provokes both functional and administrative changes (phase II): at least a part of the quarter is acquired by the local church and a Christian basilica is installed in the cold rooms of the complex. Notwithstanding the lack of archaeological data and the difficulty in outlining the general layout of the church, it is possible to recognize a narthex, three naves and a *presbyterium* with a polygonal apse (Fig. II.4.4.6). A semi-circular *synthronon* consisting in a *koilon* of five steps occupied the presbytery (Fig. II.4.4.8). The interior decoration of the church is completely lacking, except for a small fragment of the marble pavement of the northern nave (Fig. II.4.4.7). Unfortunately, we have no data about the original dedication of the church, which is subordinate in dimension to the Christian urban complexes built some decades before (harbour basilica, Epta Vimata). We can assume that in the 5th c. the building was not the cathedral of the city, both for the absence of a joint baptistery and for the scant decorative features. It was probably a complementary religious complex with jurisdiction on the neighbouring area, built in a district purchased by the local church after the severe earthquake of 469. A broad reorganization of spaces and paths dates back after the middle of the 6th c., probably immediately following the earthquake of 554, when the complex acquires the episcopal rank (phase III). The presbytery of the Basilica A receives a new decoration, with slabs in white marble and *opus sectile* (Fig. II.4.4.13). Meanwhile, some annexes are joint to the Basilica: a longitudinal hallway paved with mosaics (Fig. II.4.4.17) links the presbytery with the ancient *Basilica Thermarum*, now completely restored and transformed in a *triclinium* (Fig. II.4.4.16). Other representative functions are located on the upper floor, reached by the elliptic staircase in the southeast corner of the room (Fig. II.4.4.12). In the meantime, the *triclinium* is connected with the northern spaces with two different passages opened on its southern side. On the western edge, a staircase is realized in order to fill up the gap in the walking levels. On the eastern edge, a threshold in mosaic leads to a northern room, completely restored with a new mosaic pavement and a monumental access with a porch (Fig. II.4.4.19).

II.4.4.1 The *synthronon* in the Early Byzantine architecture, from Constantinople to Kos (S. Casadei, from p. 235)

The semicircle and the “orthogonal” (Fig. II.4.4.1.1) are the most common types of *synthrona*. The semicircular *synthrona* are characterized by a series of concentric steps placed in proximity of the apse wall. In this typology, between the structure and the semi-circular apse wall there could be a *kyklion*, on the cover of which was grafted the last step of the seat. It is likely that the *kyklion* was used as clergy passage to move through the presbytery, but some cases are known where the corridor was not viable. The second type of *synthronon* is defined “orthogonal”: it consists of a semicircular platform which occupies all the apsidal space and of two rectangular tiers placed in a straight line on the sides of the altar. The platform was accessible through a rectangular recess with stairs, while the benches could be detached or contiguous to the platform.

In Kos 9 early byzantine churches are known with *synthrona*: in the urban or suburban area the Basilica A of the Western Baths and the basilica of St. Gabriel, in the suburban area the churches of Haghia Maria in Palaio Pyli, Kapama, Antimacheia, Mastichari and Kefalos. In the Basilica A of the Western Baths the first step of a semicircular *synthronon* covered by marble slabs with its unviable *kyklionis* is still visible. In the basilica of St. Gabriel, in all the semi-circle, traces of a semicircular structure probably of five steps with marble belonging to the Justinian period have been found. A Palaio Pyli, in the basilica of S. Maria there are the remains of an apse and some traces of a *synthronon* perhaps attributable to the Early Byzantine period building. In the church of Kapama, there was a semicircular structure in two steps, the same form found in Antimacheia in the variant with the platform. The Basilica of Mastichari has a semicircular *synthronon* in the rear sector covered with marble slabs and with a *kyklion* not viable, of which there are only two out of the original four or five steps. The Basilica of Kefalos was equipped with a two-step semicircular *synthronon*. A similar structure was found in the southern church of St. Stephen in Kefalos. There is a typological uniformity of *synthrona*, all semicircular with multiple steps except the doubtful case of the basilica of Antimacheia, which probably had an orthogonal *synthronon*. Within the Aegean-Constantinopolitan area, the *synthrona* of Kos can be correlated, from a chronological and typological point of view, to the Microasiatics and of the Aegean islands rather than those of the Greek mainland.

II.4.5. The epigraphic documentation (S. Cosentino, from p. 240)

The monograms found in the western Baths were part of a series of 8 marble slabs (originally comprising four panels with monogram and 4 with decoration) that were probably placed in the narthex of the basilica B. The monograms have been

interpreted as relevant to members of the laity, not the clergy. As for their chronology, a dating to the second half of the 7th century or, more likely, to the first half of the 8th century, has been also suggested.

II.4.6. Yard and masons' mark (G. Marsili, from p. 246)

Many masons' marks have been discovered on the surface of marble items from the Episcopal complex of Kos. They consist in inscriptions carved by workers and officials in different moments of the artisanal process. Throughout the study of these inscriptions, it is possible to highlight working procedures and artistic models employed by marble cutters for architectural and liturgical decoration. This kind of archaeological data are frequently overlooked, remaining often unpublished, and scientific literature lacks of systematic works about this topic. A typological classification of masons' marks has to take into account the moment and the place of realization of the signs. Indeed, different working contexts implied different artisanal figures, pertaining to the administrative, technical and artisanal sphere, and different purposes in the use of marks. In Coan assemblage only two types of marks occur: assemblage marks and workshop marks. Assemblage marks are simple letters of the Greek alphabet intended as numeral signs and carved at the end of the stonecutting. They are clearly detectable thanks to their numeric sequence and are generally invisible after the *mise en oeuvre*. Their purpose was to facilitate the assemblage and positioning of prefabricated marble parts, such as columns, lintels, blocks of stylobates, paving, wall-blocks and so on. 11 signs of this type are recognized in the episcopal complex of Kos and much more evidences come from other urban and insular contexts.

Workshop marks can refer to the identity of marble cutters and they can be interpreted as the signature of the *πρωτομαίστωρ*, the mason-in-chief responsible for the work. This system was likely used for the payment of marble sets. Literary sources witness the existence of contracts between patrons and workers, which aimed to regulate the terms of employment and funding of the latter ones, besides inventories, accounting records and orders of payment for carried out by *οικοδόμοι* and *λιθοξόοι*. 14 marks of this type occur in the episcopal complex of Kos, carved on the surface of ionic impost capitals, simplified profile column base, pavement marble slabs. The comparison between the Coan marks and similar evidences coming from Constantinople and other Mediterranean contexts has allowed proposing the involvement of Metropolitan ateliers for marble supply and maybe their direct involvement on the spot for the final dressing of the artefacts. Moreover, the examination of artistic features of marble items may suggest a cooperation of these Constantinopolitan craftsmen with local workshops.

II.4.7. The decoration of architecture and liturgical furnishing (G. Mazzilli, from p. 274)

A considerable number of white veined marble architectural elements has been identified and assigned to the Early-Christian building phase of the Western Baths; on the contrary, only a few are the ones of polychromatic stones. This is common on the whole island, where the taste for the "marble style" widespread at that time almost never took form.

Even considering the strict analogies between different white marbles, such as the Proconnesian and the Thasian ones, and their competing spread in the Mediterranean, it's highly probable that the Koan specimens are made of local marble, though reproducing standard types and patterns. Imported elements are also present: they are relative to that serial production which is to be understood, especially during the Justinianean age, in the framework of the intensive building activity stimulated by the Emperor and its meaning in terms of political propaganda. Workers are to be recognised as Koan, too; craftsmen coming from abroad may sometimes have flanked them. Thus, the example of Kos confirms the already known complexity of the ecclesiastic yard of the time, which is the result of the mixture of different materials, products and stonemasons.

Both Attic (Asgari IV.B) and simplified bases respect official models. Column shafts were disposed upon them: they were mainly of Proconnesian marble and had typical ending mouldings. With the exception of one simple specimen, Ionic capitals with dossier come from the area; they are coherent with the type Vemi III.4, which was elaborated in Constantinople solving the necessities of serial production. It seems likely they were imported: both their material and the presence on the island of semi-finished capitals could be taken as a ground evidence.

Two groups of architectural elements can be recognized on the basis of their dimensions and thus two orders are restored, probably superimposed one upon the other. Such a reconstruction has a parallel in the two-storeyed Basilica of Mastichari and may be confirmed by some features of the cornices, which normally have their face profiled as a cyma with the lower convex part very prominent: in particular, some of them have holes for tenons in their bedding surface to fix an architectural arrangement upon them.

Also double columns used in windows and their capitals, only once decorated by something like an ovolo with lemnisci, are commonly shaped. Door jambs and lintels show the same mouldings used in other buildings of the 6th c. AD.

Liturgical ornaments completed the interior. Two pillars belong without any doubt to the *templon*, since small columns have been carved above them in the same marble block; others were used between the columns of the nave. Among the *plutei*, two of them are to be marked out: one with a central garland, carved like a fishbone, and liliated lemnisci, repeating an already known scheme; another with a liliated wreath, central flower with heart-shaped petals and interlaced cords,

maybe reproducing a local pattern. Two wider slabs (one with monograms) and some other similarly inscribed fragments complete the set; these are of a later date.

The ambo was probably put in the middle of the nave, as frequently attested in Kos: it belongs to the Aegean and Constantinopolitan type, widespread during the Justinian era. Nothing can be said about the solea, since pertaining remains have not been hitherto recovered.

II.4.8. Paths and paving

II.4.8.1 Mosaics (*F. Frasca, from p. 384*)

The paper concerns the mosaics belonging to the early Byzantine episcopal complex in Cos, which are well known and have been widely studied over last decades. In this research those archaeological features have been put in an overall sight, starting from the monumental complex, with the intent to comprehend the relationships between its single parts and the mosaics themselves. The research aim was to understand if and how the decorative program, certainly carefully planned for such a wide and monumental site, has included particular solutions due to the use of the single buildings. The results seem to describe such a plan, that is not characterized only by the will to adorn these buildings, but regards the ways to move inside them as well. After that, this research has moved on other Christian buildings of Kos with extensive mosaics flooring, highlighting in many cases the use of the same specific solutions for interacting in and moving through the spaces.

II.4.8.2. *Sectilia* (*S. Lo Ioco, from p. 399*)

The Episcopal complex of the Western Bath retains a significant part of the *sectilia* documented in the city of Kos; these fragments are generally attributed to the 5th-6th c.: it is necessary, however, to evaluate the single contexts, for a better determination of dating. The material used for the floors is usually polychrome marble (Pavonazzetto, Portasanta, Rosso antico, Giallo antico, Porphyry stone and Serpentine), but is much more common to find entire geometric floors in white or gray marble.

Eleven rooms with *opus sectile* floor with different type of decoration have been investigated; in general, a remarkable uniformity of the composition of the tessellated pavement seems to prevail, with a prevalence of medium and small modules, often in square or rectangular repeated patterns (**Fig. II.4.8.2.1**). By analyzing the distribution of the floors of the Western Baths, which seem to belong to the age of Justinian, we note the presence of special paths, that seem to connect the basilica, the baptistery and the southern areas of the complex.

II.4.9. 3D Computer Graphic and Virtual Reality (*F. Frasca, from p. 404*)

3D Computer Graphic and Virtual Reality are already widely known and used in scientific research. They are no longer unusual instruments for archaeologists and for those who are involved in Cultural Heritage preservation and divulgation. Below, the assumptions of this archaeological reconstruction of the past will be explained, in particular of some buildings belonging to the archaeological site subject of this publication. The finality of those virtual models and the weaknesses of these kinds of hypothetical reconstructions will be illustrated, too. We must always remember that what is proposed is a hypothesis, and that there could be more than one, because of the lack of information and archaeological data or their incompleteness. The modelling software involved in this reconstruction is Blender, an open source software that has other functionalities and implementations useful for the 3D archaeological models and their real-time navigation. Easy to learn and set up, the Blender Game Engine, could be useful not only for specialists, but also for those who visit those sites and often are not able to comprehend them, because of their wideness and of their peculiar nature of multileveled sites.

II.5. A project for the conservation and enhancement of the archaeological site

II.5.1. The enhancement of archaeological sites for a Public Archaeology (*M. Mastrodonardo, from p. 407*)

The value of archaeology doesn't lie in collecting historical memories, but in the attempt to completely understand the past, giving its exact depth, especially today, in the era of globalization, in which different cultures are becoming increasingly homogeneous. In order to accomplish this aim, it is necessary to protect, enhance and spread the results of the research, which shouldn't be limited to a few specialists, but to a wider range of users. In this context we find the so-called 'Public Archaeology', which expresses itself when the public dimension and the archaeological study interweave and work in parallel.

Often the results of the archaeological researches are confined to the narrow audience of specialists as far as technical language and dissemination are concerned. As for the archaeological areas, for economic reasons they are often closed to the public,

because the extension of the excavation is such that it doesn't allow adequate maintenance. Moreover, even when sites are open to the public, they often lack the appropriate equipment to foster inexperienced visitors' proper understanding of the area. As such, the lack of appropriately settled sites causes a distancing of the audience from the archaeological heritage, which reduces the attractiveness and the comprehension of the latter.

Thus, the theme of the transmission of knowledge is configured as the modern challenge to which archaeology must make a contribution through publications, media, development of archaeological sites and museums getting closer and closer to the needs of all users.

II.5.2. The Italian project for the archaeological sites of Kos (*G. Loiudice, from p. 408*)

The town of Kos in the early 900 consisted of four residential areas: the so called Città Murata, inhabited by Greeks and Jews, a settlement outside the walls known as "Turkish village", one in the north, inhabited by Cretans, and the neighbourhood of Turkish tanneries at the port. The first studies date back to 1912, but real archaeological surveys were conducted in 1922 by the SAIA and then, from 1928, by L. Laurenzi, head of the Archaeological Kos. On April 23, 1933 a devastating earthquake struck the island, destroying most of the buildings and disrupting the life of the town. The event is undoubtedly the starting point for understanding what was the best route planning and architecture that resulted in the definition of the today Kos.

During the preparation of the project a large number of practitioners were involved in a harmonious plurality of activities in the field of archaeology, conservation and restoration, urban planning and architectural design, which ended in the drafting of the Master Plan of 1934. Kos was in fact designed by archaeologists and architects such as Mario Paolini and Giovan Battista Ceas, engaged in the enhancing of historical architectures. The final product (**Fig. II.5.2.1-3**) was the design of a modern, bright and refined city; moreover, the challenge became to create archaeological parks that do not interfere with the urban grid, but, on the contrary, define its structure.

II.5.3. The archaeological site of Western Basilicas: criticality's analysis (*D. Nicolai, from p. 412*)

The site of Western Area presents some problems that don't allow to enhance and protect the archaeological remains. One of these concerns the accesses that seem not sufficiently appropriate. The north opening, near the church of Hagios Pandleimon, is sloping and steeper gradient than the area of the excavation; the eastern access, south of the Nymphaeum, presents an antique staircase that must be restored; finally, the southern entrance is a small stairway that connects the current Gregoriou V street with the area of the *decumanus*. The lack of adequate admittances is aggravated also by the absence of appropriate signage that allows to easily reach the place.

Besides, in comparison with the initial project, the new buildings are higher than those achieved in 1934 (**Fig. II.5.3.1-2**). The greater height makes the archaeological area suffocated by the surrounding volumes; consequently, the archaeological site, rather than emerging, appear instead sunken.

The area is open and unattended and, in the absence of a suitable itinerary and surveillance, constitutes a danger for the users, involving the inevitable degradation connected to an unregulated attendance. Moreover, it is necessary to safeguard and enhance the cycle of mosaic floors and *opera sectilia* of basilicas and outbuildings. In addition, the arboreal species of high trunk prevent an adequate view of the site. The roots, together with other weeds, damage structures, which consequently tend to deterioration and instability. In conclusion, the need arises for a plan that provides for the archaeological area maintenance the definition of routes, the resetting of green and provides an *antiquarium* where to store and display the architectural elements that cannot remain *in situ* (see §. II.5.5).

II.5.4. From the analysis of critical points of the site to the project of the archaeological park (*S.A. Zaccaro, from p. 415*)

The project of enhancing the archaeological site aims to promote the developing and use of the area to give it a cultural and social impulse.

The project surface could be extended to the north and south of the Bath Buildings' area to connect more places by removing existing roads and building up a bridge that allows to unify the gymnasium to the Hellenistic stadium (**Fig. II.5.4.1**).

This project firstly foresees an intervention concerning the accesses, one in the area of Italian "Mascalcia" and the other one nearby St. Anne's church yard, in order to guarantee disabled access (**Fig. II.5.4.2-3a,b**). Moreover, the routes are considered as walkways to allow people to safely reach interesting sights respecting the ancient buildings (**Fig. II.5.4.4**). The safeguard interventions operate on walls and on floor consolidation. The mosaics, in particular, will be protected and preserved by constant maintenance and by using barriers to prevent direct contact with the mosaic floors. Furthermore, all along the walkways the project considers to place many explaining boards about the history of the evolution of the archaeological area, facilitating a diachronic perception by visitors. Thus, the archaeological site can evolve in an open air museum in which ancient and modern worlds can interact, developing a solid match and giving inhabitants a renewed identity.

II.5.5 The *Antiquarium* (*M.T. Nardulli, from p. 418*)

For the time being, the large amount of architectural fragments related to the archaeological site of the Western Basilicas is not adequately preserved and protected; many of the fragments are simply stacked in some areas of the site, others are kept away from the original structure, for example those located in the Kastro. Therefore, it is necessary to establish a museum complex that brings together these fragments, to protect them from the action of time and make them more understandable by the insertion of appropriate explicative panels.

The *Antiquarium* could be placed in the central area of the archaeological park, where the tour routes from the north and south areas lead. The museum would contain the north arm of the gymnasium portico, whose portions of foundations and stylobates survive; for this part of the monument it is possible to deepen the excavation of the western part, currently covered under the layers of the modern city.

The structure of the *Antiquarium* could be obtained, indeed, in the difference between the contemporary urban level and the lowest level of the excavation, in order to build a sort of hypogeum, unobtrusive and not emerging from the ancient ruins as an isolated volume.

The front of the Museum, at the archaeological level, would be articulated with a system of dividing walls made of the same local stone of the enclosure walls (**Figs. II.5.5.1-2**); the long entrance corridor, formed between the walls, would lead first to service areas, such as ticket office, and then inside the Museum. The obtained space can be divided into three sectors: the exhibitions area, the section of the gymnasium portico and, finally, a repository for the not displayed architectural fragments (**Figs. II.5.5.3-4**).

II.5.6 The widespread archaeological park (*A. La Notte, from p. 422*)

The enhancement of an archaeological resource should consider the landscape in which it is set, not only regarded as a geographical context but also as a complex palimpsest of relationships that links an area to the community that lived and changed it over the centuries. Through the diachronic study of the historical landscape and ancient topography, it is possible to insert a single archaeological remain in a more comprehensive context, in order to achieve a “widespread archaeological park”, where the main monuments of the area are connected by thematic routes, planned to offer the visitor a clearer and more complete idea of urban history.

In the case of Kos, as ideal sections of a museum exhibition that follows the historical development of the city, it is possible to identify five possible routes: the Greek-Roman Kos (**Fig. II.5.6.1**), the Byzantine one (**Fig. II.5.6.2**), the Middle Ages and Ottoman Kos (**Fig. II.5.6.3**) and the Italian colonial town. An additional route could focus on the water architectures, across all the historical periods, from Greek-Roman aqueducts and baths to Ottoman *hammams* and fountains.

The routes would be set up with panels illustrating single monuments and whole town history through concise texts and graphic reconstructions; even the arrangement of green would be functional to direct visitors and, sometimes, to suggest high structures no more there.

Finally the Western Basilicas *Antiquarium* (see § II.5.5.5) would become a strategic place in the urban historical park, functioning as the linchpin of all itineraries; it will offer the way to synthesize the single knowledge gained along the different chosen routes into a more complete historical context.



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