82. The Hellenistic Port of Amathus, Cyprus: Archaeology, History and Publication

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The submerged port of Amathus was excavated by a Franco-Cypriot team over three campaigns, from 1984-1986, with joint financing from the École Française d’Athènes and the Association for the Restoration of Ancient Port of Amathus (SALPA). The long moles made of local stone still break the surface of the sea. Some 20 underwater soundings led to an understanding of their dating and construction method, exploiting the nearby quarries. This naval port of the early Hellenistic era was never used. It was built around 315 BC by Demetrius Poliorcetes (as attested by coins and ceramics), and was abandoned under Ptolemy I, perhaps without ever having been put into service. The sea retreated from the harbour basin, as demonstrated by the presence of freshwater wells and a saqieh of the Roman period that were in use during the fourth century AD. The abandonment of these latter features can be dated by the fill (vases, noria jars, animal bones and coins) to the end of the sixth century AD and was caused by the sea level rising by about 2m.

Several detailed reports were published at the time of initial examination and the definitive study of the excavations and material has been made possible by the financial support of the Honor Frost Foundation, which we would like to thank here. The volume is published by the École Française d’Athènes and includes testimonia on the port, a history of the excavations, descriptions of the soundings, the cutting of the blocks in the coastal quarries, the transport of these blocks and setting them in the moles, with a reconstitution of the transport and lifting machinery. Thereafter, we present studies of the ceramics from the fourth century BC and the sixth century AD, the metallic objects, the coins, animal remains, and the remains of wood used in construction. The volume closes with a summary of the history of the port.

83. Investigations into the Ancient Port at Dreamer’s Bay and the Maritime Environment of the Akrotiri Peninsula, Cyprus

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At the southernmost tip of Cyprus, in Dreamer’s Bay on the seaward coast of the Akrotiri peninsula, lie submerged remains of an ancient harbour. These comprise a masonry breakwater possibly of Hellenistic date, and a scatter of ancient anchors and ceramic concentrations believed to attest wrecks. On the top of the cliffs overlooking the harbour are extensive stone quarries, and rock-cut cemeteries of Roman to Early Christian date. Immediately to the west of the bay, on the only area of low ground anywhere on the southern coast of the peninsula, the shoreline is dotted for 0.5km with the remains of masonry buildings exposed by winter wave action. Initially investigated in the
1990s, these were thought to be Late Roman warehouses. The port must bear some relationship to
the settlement pattern of the peninsula, comprising several apparently Late Roman/Early Byzantine
‘village’ sites, including Katalymata ton Plakaton, where a major early Byzantine ecclesiastical
centre is under excavation. It also likely relates to the major city of Kourion, ca. 13km to the
northwest. Understanding these relationships is dependent on establishing the chronology of
formation of the double tombolo beaches, which turned Akrotiri from island to
peninsula. Currently collaborative research undertaken by the Universities of Leicester and
Southampton is seeking to address these questions. The Leicester team is conducting excavations,
to determine the nature, extent and chronology of the apparent harbour. Preliminary results of this
work, expected to continue for two more years, will be presented.

84. Coves, Carobs and Ancient Commerce: Evidence for the Enduring Maritime Landscape
of Cyprus’ Northern Coasts

John Leonard (Independent Researcher, Athens, Greece)

At the time of the Kyrenia Ship’s sinking, most likely ca. 300-285 BC, the narrow strait between
Cyprus and Anatolia represented a complex maritime world characterized by distinctive coastal
geography and winds, a diverse range of small ports, and a volatile political and commercial
environment, in which merchant vessels and other civilian craft regularly risked crossing paths
with belligerent naval ships and marauding pirates. Cyprus’ coasts and territorial waters, a timeless
eastern Mediterranean crossroads, were filled with local or foreign ships whose captains and crews
exploited the island’s well-known shores for refuge, the replenishing of vital supplies and the
profitable transport of goods and passengers. Age-old patterns of seaborne commerce and coastal
land use in Cyprus can be traced back more than two millennia. Archaeological and ancient textual
evidence, combined with comparative medieval and British colonial records concerning Cypriot
agricultural exports, especially carobs, confirms that ancient Cyprus was indeed an insula portuosa,
an island abounding in ports. Many of Cyprus’ major seaports or long-traditional minor ports are
situated either on ancient harbour sites or lie close to coastal settlements that were likely involved
in maritime trade. Presented here is a review of the diachronic evidence that indicates how
Hellenistic Cyprus’ northern coasts were lined with small capes, coves and local export stations,
through which moved an abundance of commercial products – valuable cargoes likely irresistible
to hostile seafarers that preyed on coastal or cross-channel shipping and may have been responsible
for the sinking of the Kyrenia Ship.

85. Cyprus and Mediterranean Trade in Copper Oxhide Ingots

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Philadelphia, USA)

We have been aware of the existence of copper oxhide ingots for over 100 years, thanks to their
representation on the walls of the Rekhmire tomb in Egypt and the discovery of a hoard of 17 such
ingots in 1903, at the Late Minoan IB site of Hagia Triada, in south-western Crete. The British
Museum excavations at Enkomi, in eastern Cyprus, in 1898, had already produced several such
ingots, one of which is in the Cyprus Museum in Nicosia and another in the British Museum in
London. The modern study of such ingots goes back to an article by the late Hans Gunter Buchholz, dealing with what he called *Kefitubarren*, published in 1959. As fate would have it, the following two years saw the excavation of the first shipwreck carrying such ingots, off the southern coast of Turkey, at Cape Gelidonya, by George Bass and the University Museum in Philadelphia. Since Cape Gelidonya the number and the distribution of such ingots have steadily increased. We now have such ingots from Corsica, southern France and Spain, Germany and southeastern Turkey, as well as Greece, Crete and Cyprus. There are even claims for the pictorial representation of oxhide ingots from Scandinavia. For Cyprus the great breakthrough came with the research of Noel and Sophia-Stos Gale and their study of the traces of lead in these ingots, using a geological technique known as lead isotope analysis (or LIA). This research demonstrated that, in the period after ca. 1350 BC virtually all such ingots from the Mediterranean world were made of Cypriot copper. Such conclusions have been hotly contested, especially for Sardinia, but they can no longer be denied. The implications for LBA Cyprus are enormous.

86. Paphos’ Harbours revisited: Results of Interdisciplinary Research of the Paphos Agora Project

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Paphos, the Hellenistic-Roman capital of Cyprus, was one of the most important trade centres in the Eastern Mediterranean with an identified harbour located in its south-eastern part. After starting the research on the Agora of Paphos in 2011, scientific discussion turned back to the former
hypothesis of an existing second harbour close to the north-western gate. In an attempt to verify this hypothesis, recent research was primarily based on the analysis of the spatial organization of the city, especially on the investigation of the urban layout with a special focus on city walls and gates. A broad spectrum of non-invasive methods was implemented to achieve a reconstruction of the north-western seascape. First, the area behind the north-western wall formed by an accumulation of sediments transported from the mouth of the Koskinas River along the seashore was examined by geoarchaeological research. An increasing alluviation rate after the deforestation of the basin would explain the absence of visible harbour infrastructure remains. In a next step, an orthophoto-plan and DTM of the Paphos Archaeological Park were created by using UAV. DTM allowed registering possible remains of the dock or shipyard outside the walls. The paleogeographical calculations based on the neotectonic uplift and sea level changes revealed a sea level presumably 2.5m higher than nowadays. In sum, the collected data seem to prove the existence of a north-western harbour. Ongoing geophysical and archaeological research aims to confirm these results and helps to reconstruct the seascape in this area.

In this paper, the role of an integrated approach extending to the range of digital tools for modelling and reconstruction of ancient seascapes will be presented. In light of recent results, the research team would like to revive the discussion about Paphos’ ancient harbours.