

ince 2011, a team from Brock University and Stanford University has been conducting survey and excavation, in collaboration with Middle East Technical University (METU) and INA, in the shallows at Burgaz in southwest Turkey. The settlement here, complete with four built harbors, flourished especially during the Archaic and Classical periods (ca 700-350 BCE), but remained in use throughout antiquity. Located just east of the modern town of Datca, the site has long been identified as the settlement of the Knidians before their move to the tip of the peninsula, where extensive habitation at Tekir about 30 km to the west-can be traced only from around the 4th century. While the nature of the connection between the two sites has sparked scholarly debate, most current accounts of the region accept the notion of two related settlements, and the identification of Burgaz as 'Old Knidos' seems well supported in readings of the historical evidence.

Burgaz initially prospered because of its proximity to fertile agricultural land as well as its ready access to the sea. In its foundation and initial development, the

Opposite: Aerial view of Harbor 1 in the foreground and the large Harbor 4 in the distance; running between the two parallel to the shore can be seen remains of the seawall.

site served as a hub for communication and trade with links to Halikarnassos. Simi, Kos, and Rhodes. The late 4th century saw fundamental shifts in the urban fabric at Burgaz, with more rudimentary workshops and industrial facilities replacing earlier civic and domestic spaces throughout the city center. This transformation is concurrent with, and almost certainly connected to, the founding of New Knidos on the tip of the Datça Peninsula, a site probably best known for its 4th-century Aphrodite cult statue carved by Praxiteles. Travelers from around the Greek world made pilgrimages to the city to visit the nude statue, so awe-inspiring that the goddess upon viewing herself is said to have wondered (Greek Anthology 16.160), "Where did Praxiteles see me naked?" The Aphrodite stood as a symbol of the cultural internationalism of the new Knidian city: a civic and religious center and a maritime hub of Hellenistic cosmopolitanism marked by its double harbors.

Although our interests focus on the earlier socioeconomic activity at Burgaz, the complementary relationship between Old and New Knidos reflects an evolving local, regional and international maritime centrality that speaks to our project's overall research aims. Through collaborative fieldwork that juxtaposes evidence from the terrestrial and underwater areas



of the site, we explore how the changing maritime landscape of Burgaz reflects a series of fundamental socioeconomic shifts along the Datça Peninsula, from the beyond. Excavated wrecks in the region city's rise as an Archaic maritime center, to the late Classical relocation of the civic core, and its ultimate decline at the end of antiquity.

Looking farther seaward, the project is poised to answer questions at the heart of INA's long-term explorations along the Bodrum and Datça Peninsulas, where

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THE BOUNDARY OF 1st DEGREE ARCHAEOLOGICAL SITE

BURGAZ

EXCAVATED AREAS

AKROPOL / ACROPOLIS

1. DERECE ARKEOLOJÍK SÍT SINIRI

ANTIK LIMANLAR / ANCIENT HARBOURS

ARKAÎK NEKROPOL / ARCHAIC NECROPOLIS

HELLENİSTİK ŞARAP İŞLİĞİ / HELLENISTIC WINERY

decades of underwater investigations have revealed shipwrecks from the Bronze Age through the Byzantine period and include those at Seytan Deresi, Pabuç Burnu, Yassıada, Bozburun, and Serçe Limani. These projects have demonstrated clearly that the southeast Aegean was for centuries an important point of transit, where ships carried goods for distribution around the region and internationally, particularly between the eastern Mediter-

AKDENIZ

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ranean and Aegean worlds.

Our project explores the breadth of maritime socioeconomic interaction, including the fundamental stages that came before and after the distribution of commodities through shipping. How and where were goods produced? How were cargoes and shipments organized and by whom? To what degree are literary descriptions of maritime loans and the busy socioeconomic lives of ports and harbors mirrored in the archaeological record? And when goods reached their destinations, how did the harbors at Burgaz and other cities facilitate their redistribution and consumption? What was the relationship between harbor installations and the nearby settlements? How did the positioning of port cities change depending on shipping trends,

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and what happened to those sites left behind? The phenomenon of wandering cities—what we might think of as 'portable ports'—is a curious but not unusual occurrence in antiquity, where pragmatic economics may have served as critical motivators behind urban relocations.

#### HARBOR 1 (L1)

The shift from civic to industrial activity is reflected in the town's harbors, connected to the settlement by a series of paved streets. The closest harbor, designated Harbor 1 (L1 for 'Liman 1' on the plan), probably served the settlement in its earliest stages. An excellent natural harbor, it offers good mooring space during the prevailing northwest *meltem* winds. Today, the basin's maximum dimensions are barely 65 m across by 60 m from shore, and the entrance channel between its two moles is relatively nar-

row at only 10-15 m, figures that would suggest a very modest capacity. The extremely shallow depth—at present no deeper than 3 m—and the general topography in the area suggest that considerable sedimentation may have pushed the shoreline outward and reduced an area that originally extended into the adjacent

Opposite page: Map of Burgaz showing the general layout of the four harbors and the excavations in the city center. This page from top: Late Classical and early Hellenistic workshops excavated by METU in the southeast sector of the site; Yael Braun and Nairouz Qubty take a core in the waters just outside L1.

low-lying fields.

A primary focus of our project has been the excavation of a trench in L1 along the northern harbor mole in L1 and extending toward the seawall. All ceramics were collected for quantification by ware and fabric, as well as more detailed study of diagnostic sherds for dating purposes. Sherd counts reveal a high proportion of amphora material in comparison to cooking pots or domestic common wares, as would be expected from a harbor context. Ceramics recovered from the trench are all fragmentary, with the majority of datable sherds from the

lowest levels belonging to the late Classical and early Hellenistic eras (4th and 3rd centuries BCE).

Large rocks throughout the area and in some places quantities of roof tiles—likely point to the collapse of the harbor structures, perhaps associated with a sea level change after the Hellenistic era, as preliminary geophysical analysis indicates. In 2013, geophysical coring in and around L1 was initiated by Beverly Goodman-Tchernov from the University of Haifa. Results from these cores may help to clarify the formation process of the harbors and provide a





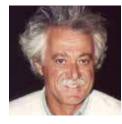
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EXCAVATING THE HARBORS OF OLD KNIDOS

ELIZABETH S. GREENE, JUSTIN LEIDWANGER, & NUMAN TUNA



clearer picture of the depths of the original harbor floors. Outside the basin, survey has revealed evidence for maritime activity ranging from the Archaic period through the late Roman.

### HARBOR 4 (L4)

After the 4th century the focus of commercial activity at Burgaz seems to shift toward the north of the original settlement core, in particular to the area surrounding the large Harbor 4, labeled L4, a less sheltered but also larger, deeper, and less silted alternative to L1. Along the southern end of L4, an area of mixed architectural features can be identified as belonging to a series of workshops, complete with several built storage basins and a submerged fragmentary wine press of Hellenistic date. From an architectural perspective, submerged harbor features near L4 are typical of Hellenistic masonry construction, confirming the continued interest in maintaining maritime infrastructure after the relocation of the city's habitation complexes to New Knidos toward the end of the Classical era.

In addition to architectural features on shore and in the shallows, the scattered ceramic remains of a probable late Roman

This page from top: Annie Parker and Nairooz Qubty sample a core taken from the seabed outside L1; Recording partially submerged structures along the southern end of L4. Opposite page: Karl Krusell floats above the excavation area in L2 with the harbor wall and square tower visible in the background.

shipwreck were investigated at approximately 4 m of depth just inside the northern mole of L4. Diagnostic features of at least 25-30 Late Roman 1 (LR1) and Late Roman 2 (LR2) amphoras—similar to the two types that dominate the 7th-century Yassıada shipwreck cargo—lie exposed on the seabed, and some additional material was uncovered beneath the fine sand. Oral reports suggest that this collection was once larger and included intact examples. Today, many artifacts appear disturbed from their original context, likely the result of the site's location near a popular swimming area.

#### HARBOR 2 (L2) & HARBOR 3 (L3)

To the south of the town and its acropolis, harbor facilities continue throughout the area designated as Harbor 2 (L2). Built

structures here include moles and two probable towers: one located at the end of the northeast mole, the other near the midpoint of the southwest mole. Both towers are approximately square, with dimensions ranging from 7.5 m to nearly 9 m. The architectural style, preliminarily explored through test excavations in 2013, exhibits strong parallels with the city walls and suggests that these features incorporated into the walls of L2 may be associated with Burgaz's late Classical fortifications. Construction of walls over a rubble base is typical for earthquake-prone regions and hints at the engineering questions that lay beneath harbor constructions before the age of hydraulic cement. Together, the moles protect the basin in most seasonal weather conditions and the towers may suggest a military purpose; perhaps the

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Conversations with local residents have underscored the need for full documentation of the harbor structures, shipwreck remains, and other underwater cultural heritage in light of destructive winter storms and the inevitable expansion of tourism in the area. One of the many key differences between our work at Burgaz and the 'typical' INA shipwreck excavation is that we do not cling to the side of an isolated cliff, idyllic as that can be. Instead we work among dog walkers, swimmers, joggers and campers, local residents and summer visitors, all of whom have differing knowledge and levels of interest in the site. Through our work in and among the community at Burgaz we hope to raise awareness of this significant site as well as the continued importance of maritime archaeology in Turkey.

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#### **SUGGESTED READING**

Bean, G.E. and J.M. Cook. 1952. "The Cnidia." *Annual of the British School at Athens* 47: 171-212.

Demand, N. 1990. *Urban Relocation in Archaic and Classical Greece*.

Hodder, I. 2002. "Ethics and Archaeology: The Attempt at Çatalhöyük." *Near Eastern Archaeology* 65: 174-81.

Tuna, N. 2012. Knidos Teritoryumu'nda Arkeolojik Araştırmalar / Archaeological Investigations at the Knidian Territorium. Ankara.

Tuna, N., N. Atıcı, İ. Sarkaya, and E. Koparal. 2009. "The Preliminary results of Burgaz excavations within the context of locating Old Knidos." In *Die Karer und die Anderen, Internationales Kolloquium an der Freien Universitat Berlin*, 13-15 Oct. 2005, edited by F. Rumscheid, 517-532. Bonn.





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