CHAPTER NINE

SINOP KALESİ ARCHAEOLOGICAL EXCAVATIONS, 2015-2016 FIELD SEASONS

OWEN DOONAN, HÜSEYIN VURAL, ANDREW GOLDMAN, ALEXANDER BAUER, JANE REMPEL, SUSAN SHERRATT, ULRIKE KROTSCHEK, PAOLO MARANZANA, AND EMINE SÖKMEN

INTRODUCTION

The Sinop Regional Archaeological Project (SRAP) conducted its first two seasons of excavations at the site of Sinop Kalesi in July-August 2015 and 2016. The excavation builds on more than a decade of survey and environmental research in Sinop and ties in with the longer-term regional project through ongoing environmental studies, ceramic analyses, and regional scale archaeological research. Sinop (ancient *Sinope*) was one of the earliest Ionian Greek colonies in the Black Sea and the earliest colony on its Anatolian coast. The goals for these initial field seasons were to clarify the Iron Age and early colonial phases of settlement investigated by SRAP in 2000 (Doonan 2007), and to establish the stratigraphic relationship of the defensive wall to early colonial and pre-colonial phases of the site. Ground Penetrating Radar (GPR) investigations of Sinop Kalesi, carried out in December 2012, suggested that early strata should be accessible beneath a paved modern surface to the west of the city wall, so we concentrated efforts there in our initial season (Doonan et al. 2015).

SRAP conducted a scarp excavation of several exposed stone structures during the summer of 2000 and established that these belonged to the early to middle Iron Age (ca. 1000–700 BCE). The architecture was unlike local

pre-colonial construction in the Sinop region, and the handmade ceramics with horizontal bands of finger-impressed decoration showed closest parallels to examples from the north and west coasts of the Black Sea. The structures resemble the dug-out and semi dug-out houses from the same region that are associated with the earliest phases of colonization (Tsetskhladze 2004). A few sherds also showed parallels to the buff-burnished wares with faceted rims and handles of the Bafra plain 100 km to the east (Doonan 2007). The site thus showed great potential to shed light on pre-colonial interaction in the Black Sea and its impact on subsequent colonial economic and political systems.

The areas available for excavation have been limited thus far to a single narrow parcel extending roughly 13 meters west of the city walls.[1] Three operations were opened in our 2015 season, expanded by a fourth in 2016 (Fig. 9-1):

- Operation 1: a 5 × 10 m (expanded to 6 × 10 m in 2016) trench perpendicular to the line of the city wall;
- Operation 2: a 2 × 2 m (expanded to 4 × 6 m in 2016) trench against the wall extending from the edge of the Sinop Museum excavations;
- Operation 3: a section protected under an Ottoman concrete cap in a tower that was cut back in 2015;
- Operation 4: a 6 × 10 m trench immediately south of Operation 1.

The purposes of the initial excavation seasons at Sinop Kale included:

1) to test the hypothesis that pre-colonial maritime culture in the Black Sea laid the foundations for cultural and economic developments during Ionian and subsequent colonial systems;
2) to examine the stratigraphy of the city wall and its relation to and impact upon earlier occupation phases;
3) to establish the first stratified sequence of ceramics spanning proto-historic–medieval periods along the north coast of Anatolia.

In the sections that follow we summarize the 2015 and 2016 results of our excavations followed by brief summaries of our floral and faunal studies, ceramic analyses, and ground penetrating radar studies.

[1]We thank the Sinop Mayor Baki Ergül and the city council for granting us the use of this plot for an initial period of ten years.

Fig. 9-1: Overview of trenches opened during the 2016 field season.

SINOP KALE EXCAVATION 2015-2016 DETAILED SUMMARY OF EXCAVATION RESULTS: OPERATIONS 1, 2, AND 4

Operation 1 (2015, 2016 Field Seasons)

Operation 1 is a 6 × 10 m trench oriented roughly NW-SE perpendicular to the Hellenistic city wall. This location was chosen because it was a relatively large space on our allotted parcel, and we wanted to excavate perpendicular to the wall in order to understand the stratigraphy of the wall and its relation to the earlier strata. The trench was close to the slope where in the 2000 field season our team documented the remains of two Iron Age stone-lined pit structures along the scarp below (Doonan 2007). Furthermore our GPR investigations suggested that much of this area was free of large stone fills below the surface and was likely to have relatively undisturbed archaeological contexts.

Our first actions were to remove all vegetation and modern debris from the surface; we then began to excavate a packed stone and soil pavement created in 1967 when the Sinop municipality leveled the site for a minibus (*dolmuş*) stop. Within 5 cm of the modern surface we encountered the foundation courses of a mortared-core fortification wall with a stone facing of reused ancient blocks (see Fig. 9-2, Loci Δ19 and Δ21) running parallel to the line of the city wall. This wall is 2.6 meters in width and runs diagonally across the entire trench, oriented SE-NW. Two courses of foundation wall are preserved to a height of 0.92 cm. On either side of the wall a 50 centimeter-wide foundation trench was uncovered containing Byzantine roof tiles and pottery, and three small bronze coins (folles), the date of which we expect to clarify in the 2017 field season.

The Byzantine stone wall divides the trench roughly into thirds: to the west are mixed fills with material almost exclusively originating from the Bronze and Iron Ages (see Fig. 9-2, Δ17 and Δ104). The Byzantine wall and its foundation trench cut through the center of the trench, and the construction trench of the extant Hellenistic wall cuts an early structure (most likely Archaic Ionian in date). Further complicating the overall stratigraphy is an ancient ditch that protected the Hellenistic city wall which runs roughly parallel to the northern edge of the trench–this was filled with late Hellenistic debris that may, pending further analysis of the finds, be connected to the capture of the city by the Roman general L. Licinius Lucullus in 70 BCE (see Fig. 9-2, Locus Δ108; Fig. 9-3).

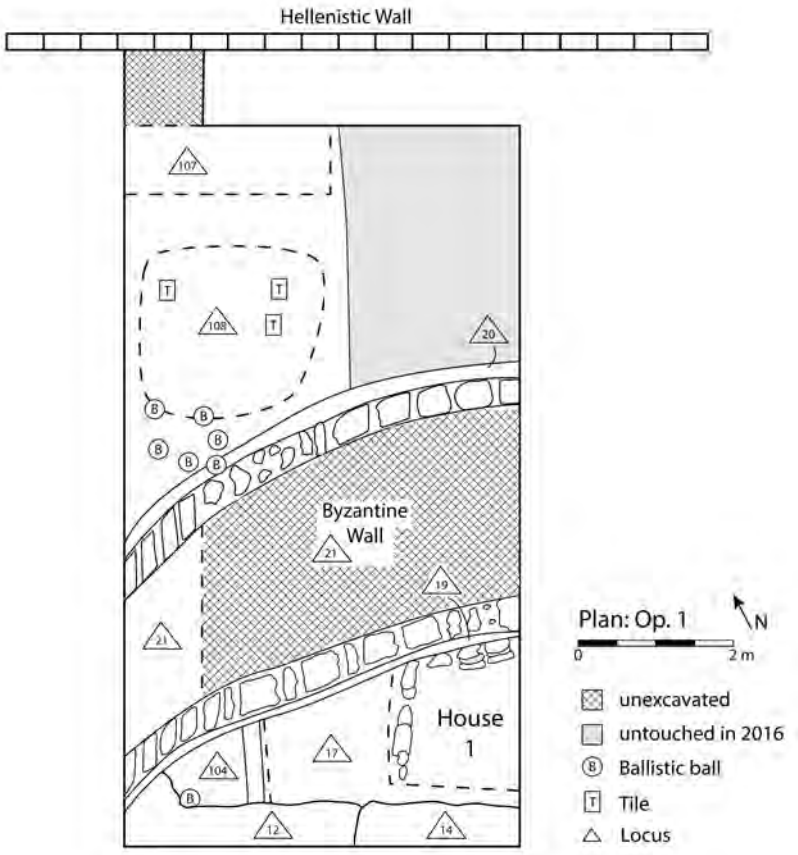

Fig. 9-2. Top plan of the excavation in Operation 1 in 2016.

At least 10 large (ca. 0.5 m diameter) stone ballista balls, an iron arrow point, three crates of Hellenistic tiles, pithos fragments, and ceramics were removed from the deposits in the defensive ditch mentioned above (Fig. 9-2, Δ108; Fig. 9-3). The builders of the Byzantine wall were forced to alter the course of the wall slightly in order to go around the massive deposit of ballista balls. At least six of the tiles bore Hellenistic tile stamps. There were no later intrusive materials and it is clear that this was a secure ancient context.

Fig. 9-3. Photo of Operation 1, Locus Δ108.

Fig. 9-4: Operation 1, House 2, built in a rectangular plan of roughly shaped stones. This house was associated with painted Early Iron Age pottery (parallels at Boğazköy and the Bafra plain).

The uppermost 50 cm in the east quarter of the trench consisted of the modern pavement and wind blown sandy fills with Hellenistic ceramics. As in the north corner there was no mixture of later ceramics, and it is clear that these were undisturbed Hellenistic deposits. A stone wall preserved to a maximum of four courses was excavated intact (Fig. 9-4, height: 40 cm). These walls at first appeared to be the remains of one corner of a rounded rectangular pit house, initially called "House 1," but which has, upon further investigation, now been interpreted as a stone-faced glacis (the name of the structure, however, has remained "House 1"). The stratigraphy indicates that the stone walls were one course thick and at least partially set into a pit. At least one wall had collapsed into the center of the house. The ceramic finds date to the Iron Age, including fragments of an Iron Age painted bowl rim (Fig. 9-5), and a burnished faceted handle with parallels in the Iron Age Bafra plain, which was found just outside the walls of this house. The other ceramics from this house were burnished, low-fired red and black handmade wares with shell temper. One sherd was decorated with a horizontal band of finger impressions.

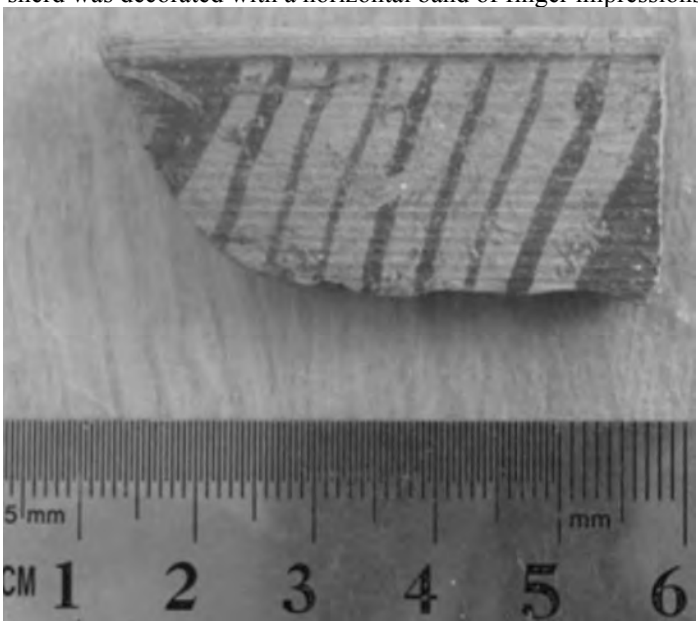

Fig. 9-5: Iron Age bowl fragment from a fill adjacent to Operation 1, House 2.

South and west of the Byzantine wall we excavated a series of grey clay fills rich in Iron Age and Bronze Age ceramics. Two walls were excavated in this area ("Structure 1"), the first, oriented NW-SE, was

preserved up to seven courses (ca. 70 cm), and it appears to step into the hill slope. The second wall abuts the first, is oriented NE-SW, and is preserved to three courses (ca. 30 cm, Fig. 9-6). The stones used in this construction are flat (ca. 60 x 30 x 10 cm) river-worn stones. The stones and construction technique are very distinctive from the Iron Age buildings on the east side of the trench (House 2), and the fills inside the structure are a series of ephemeral surfaces filled with ceramics, occasional bone, shell, and carbon.

Fig. 9-6: Structure 1, built of river-smoothed stones and stepped into the slope. This structure was associated with a series of ephemeral surfaces that featured Bronze and Iron Age ceramics (ca. 2300 BCE – 800 BCE), terrestrial animal and fish bones, a bone fish hook, and worked bone.

Five significant finds from this structure may suggest long-term, non-continuous occupation. A green ground-stone mace head, ovoid in shape with a well-formed circular hafting hole appears to belong to the Early Bronze Age. From the same period is an incised bi-conical clay spindle whorl with herringbone design filled with white paste (Fig. 9-7). This has clear parallels at nearby sites of Kocagöz and İkiztepe. A conical clay spindle whorl suggests a later date, perhaps Iron Age. A chipped chert blade is also likely to be Bronze Age. A carved bone object likely to be a fish-hook hints at the reason for the importance of this site. The annual migration of several important fish species would have created extraordinarily rich fishing resources on the coastal region here on a

regular seasonal schedule. This hillside is ideally situated to view the passing schools of fish as they came up the coast from the south and along the north coast of Boztepe and the Sinop promontory. At least one full crate of handmade pottery was excavated in this area. This assemblage exhibits an astonishing variety of pastes, surface treatments, and decorations. The non-local character of the structures excavated in 2000, and the diverse origins of ceramic finds, suggest diverse origins or access to trade networks of the occupants of this site in pre-colonial times.[2] The closest cultural parallels for many of these ceramics and the architecture are from the northern and western coasts of the Black Sea.

Fig. 9-7: Early Bronze Age biconical spindle whorl with incised and filled decoration.

Operation 2 (2015, 2016 Field Seasons)

Operation 2 was located on the west side of the Hellenistic fortification wall at the NW edge of the area that had recently been excavated/cleared by the Sinop Museum in preparation for the erection of a low concrete

[2]A scarp excavation at the site was conducted during the summer of 2000 by the Sinop Regional Archaeological Project under the leadership of F. Hiebert and O. Doonan. See Doonan 2007.

block wall around the exposed walls and foundations (see Fig. 9-9). Operation 2 is a 4 × 4 m trench running lengthwise along the W face of the fortification wall itself, with a 0.5 m baulk running along the SW side. The trench included a slope (ca. 45 degrees) created during the building of the low concrete block wall, running down from the NW edge of the trench.

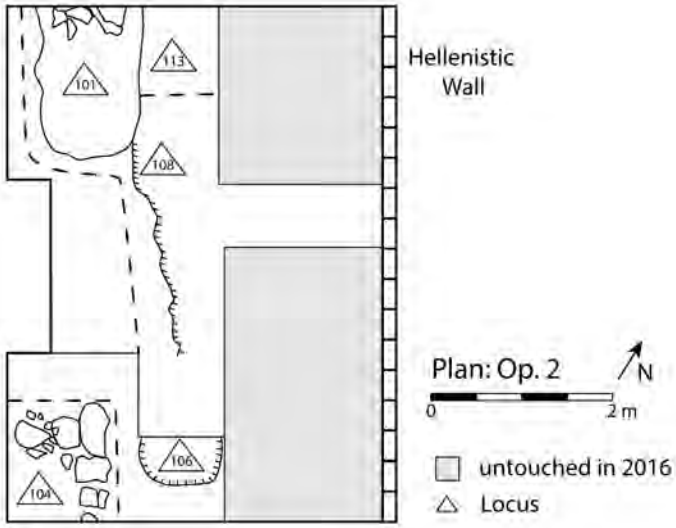

Fig. 9-8: Top plan of Operation 2, 2016 field season.

Fig. 9-9: Operation 2, including details of Locus 101, 104, and 113. The concrete and marble wall set up by the museum can be seen running just around the perimeter of the trench.

The purpose of Operation 2 was to investigate the stratigraphy connected with the construction of the Hellenistic fortification wall and to investigate the stratigraphy underneath the fortification wall to determine if there is any evidence for earlier occupation in this area. Both of these goals were intended to inform our understanding of the stratigraphy in our project area as well as increase knowledge of the fortification walls themselves.

Operation 2 excavated into slopes created by the Museum excavations alongside the Hellenistic wall (done in 2013/14), as well as a flat section beside the wall at roughly the level of the sand course under the foundation blocks (Figs. 9-8 and 9-9). The NW and SW sides of the trench sloped down from the level of the perimeter wall built by the Museum at an angle of approximately 30-40° over a distance of ca. 2 m. A 2 × 3 m section of the lowest part of the trench in the E corner was not excavated in 2016.

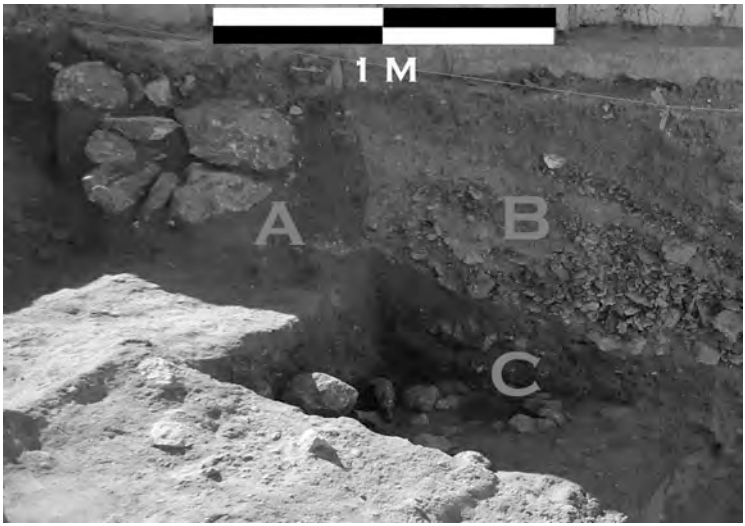

Fig. 9-10: Detail of Δ101, Δ113, and Δ115. Stone and mud-brick feature Δ101 (A) is cut by the fill of the city wall (marked "B,"Δ2, Δ3, Δ8 from 2015 field season and Δ108, Δ111 from 2016) which also cuts the ashy grey fill of Δ113 (C). Δ113 included a small hearth (Δ115), seen in the horizontal line of small stones just above the letter C. Finds associated with Δ101 finds from the wall fill are predominantly 4th and 3rd century in date. Finds from Δ113 and 115 include handmade ceramics, charcoal, and a conical spindle whorl (Fig. 9-13). Finds from Δ101 include Archaic and Classical ceramics.

We removed the sloping fills from the Hellenistic wall foundation trench where they were preserved in the NW half of the trench (Fig. 9-8, Δ108; Fig. 9-9). These fills ranged from loose soil with many rock chips, to sandy pebbles, to large loose rock chips with no soil matrix; they are connected with 2015 loci Δ2, Δ3, Δ8, and Δ12 (see profile Fig. 9-10).

The outer SW edge of the Hellenistic wall foundation trench appeared to be cut into Δ101 (see below) and the matrix to the SE of Δ101, where the bottom of an angled cut was still preserved below the slope of the Museum trenching. The cut between the fill of the Hellenistic wall foundation trench and Δ101 was more or less vertical and the stratigraphy difficult to interpret due to truncation caused by the previous Sinop Museum excavations, but it seems most probable that the Hellenistic wall foundation trench cut Δ101 (Fig. 9-10).

Finds from the Hellenistic wall foundation trench (Δ108; Δ111) include tile and pot sherds, animal bone, and shell. Diagnostic pottery included black slip, both pink and grey wares; ring bases and carinated open shapes were the most common. This pottery has not been systematically studied yet, but it is interesting that there were no obvious late Hellenistic pieces, especially red-slipped fine wares, coming from the wall fill. Small finds include a worked stone fragment, a palmette probably from a grave stele (Fig. 9-11); see French's (2004) *Inscriptions of Sinop I*, number 59 (5th–4th century BCE) for close comparanda.

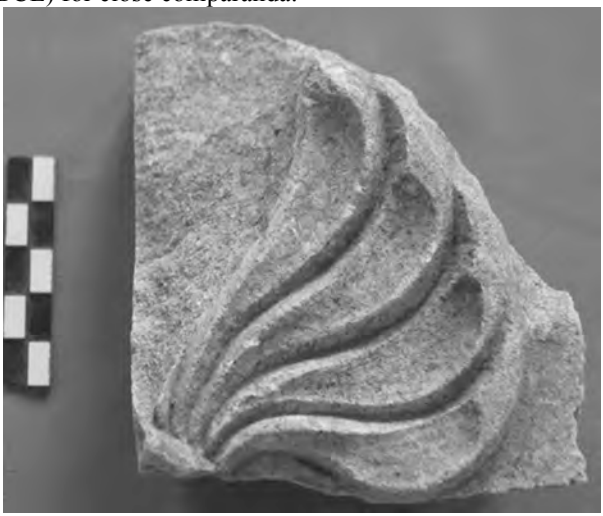

Fig. 9-11: Stele fragment from Operation 2 Δ111.

Fig. 9-12: Final plan, Operation 4.

A 1 m section along the NW side of the trench, to the NE of Δ101 and to the SW of the edge of the 2015 Operation 2 trench, included: the reddish-brown silty clay matrix that the foundation trench was cut into (Δ112); a very ashy layer (Δ113) that overlay an ephemeral hearth (Δ115); and a deep brown silty matrix that lay under the hearth (Δ116). Excavation in this area also exposed and removed the SW edge of Δ117 (excavated as Δ17 in 2015). Locus Δ101 included a stone and mudbrick feature that may be a continuation of the glacis and mudbrick feature (possible an Archaic-Classical city wall) also recorded in Operation 4 (see Fig. 9-8, the area marked A in Fig. 9-10, and Δ20-21 marked on Fig. 9-12).

Locus Δ 101 consisted of a series of large and medium-sized rocks lying loosely articulated within a rectilinear cut feature (see Figs. 9-9, 9-10). The soil within the cut and surrounding the rocks was an orange-red mudbrick with patches of grey; underneath the rocks in Δ101, there was clear sandwiching of red and grey layers. Finds, however, included large pieces of pottery (including an amphora neck and handle) and large amounts of animal bone (both large butchered pieces and smaller bones, mostly whole, including bird bones). The Hellenistic wall foundation trench is almost certainly cut into the northeast side of this feature (see

above), and a preliminary read on the pottery (the amphora in particular) suggests a possible late 6th–early 5th century BCE date; other diagnostic pieces include a large Iron Age buff "Bafra ware" base, a small sherd from a black- and red-banded pot, and a double roll-handled lid with pierced holes. Nothing from the fills beneath Δ101 can be immediately identifiable as Hellenistic or later, consistent with an early date for the feature (Fig. 9-13).

Fig. 9-13: SK 15823 spindle whorl from Δ113.

Operation 4 (2016 Field Season)

Operation 4 was located immediately adjacent (SE) to Operation 1 with the same orientation, and approximately 20 m NW of Operation 2. It measures 6 × 10 m oriented NE-SW, including a 50 cm baulk on all four sides. Like Operation 1, Operation 4 is subdivided by the continuation of the Byzantine wall described in Operation 1 (Fig. 9-12, Δ16; Fig. 9-14). Investigation of earlier phases of the stratigraphy are effectively restricted to a 5 × 4.5 m area to the NE of the Byzantine wall, and a 3 × 5 m area SW of the Byzantine wall.

The dominant feature associated with the NE sectors was the fill of the Hellenistic wall foundation trench. It extended SW from the wall up to 2 m

into the NE sector; it was excavated with two test trenches, one in the N corner (Δ4) and one in the E corner (Δ11, 26, 30), as well as incremental removal of the fill deposits. A deep sounding (Δ30) probed beneath the construction trench of the Hellenistic wall, yielding bone and handmade ceramics provisionally thought to belong to the Iron Age.

Figure 9-14: Locus 16; Byzantine wall, looking SE.

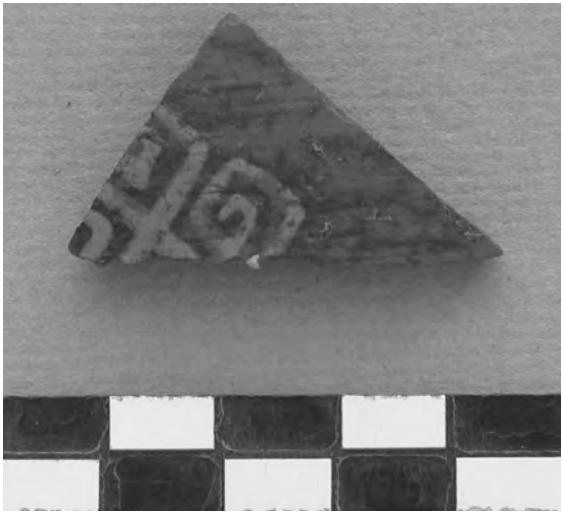

Figure 9-15: West Anatolian buff body fragment with swastika design in reserve against a reddish-brown slipped field. Parallels to Lydian "Streaky Glazed" ceramics (7th–mid-6th centuries BCE).

Ceramics from the construction fill of the Hellenistic city wall suggest overall that the construction trench cut into fills of an Archaic/Classical period settlement. Finds may date as early as the Middle Iron Age (7th–6th centuries BCE), consistent with the finds in Operation 1, structure 2. Iron Age central Anatolian wares similar to that illustrated in Fig. 9-5, polychrome painted wares, an Archaic Lydian bowl (Fig. 9-15), and a variety of black slipped wares, suggest settlement in this area from the early Ionian period (mid-late 7th century BCE) to the fourth century BCE.

Fig. 9-16: Locus 32, Iron Age wall, NW part.

To the southwest of the Byzantine wall, Structure 1 continues from Operation 1 across the entire width of Operation 4. Although structure 1 had initially been interpreted as a pre-colonial Iron Age house based on its similarity to the huts excavated in the SRAP scarp excavations in 2000, it now appears that this structure may have formed a glacis constructed of stones that had originally been used in an earlier settlement (Fig. 9-16, 9-17). This interpretation would explain the puzzling lack of surfaces observed in the Iron Age and Bronze Age fills west of the wall. Furthermore, the wall was covered by an orange colored mudbrick feature that is also observed in Operations 1 and 2. Pending further investigation in future seasons we propose that the stone glacis and mudbrick capping may be the remains of an Archaic or Classical curtain wall in a slightly different orientation to the later Hellenistic and Byzantine walls.

Fig. 9-17: Detail of decayed mudbrick above stone wall in Locus Δ24.

FLORAL AND FAUNAL ANALYSES

One of our major interests is to obtain a robust environmental record for the site. This site offers a unique opportunity to acquire never previously recorded environmental and economic data from the Black Sea region, which may then be compared to pre-colonial (up to ca. 650 BCE) and early colonial (ca. 650-400 BCE) periods. All primary and secondary fills are sieved through a 0.5 cm dry sieve; primary fills are generally subjected to flotation at a ratio of 1:5. Primary contexts of high interest (hearths, floors, and so on) are subjected to flotation at a ratio of 1:1. Organic finds are dried and stored for analysis at Middle East Technical University's Department of Settlement Archaeology under the direction of Associate Professor Evangelina Pişkin.

CERAMIC ANALYSES

Ceramics are subjected to a series of physical analyses in order to develop a ware-based typology of local handmade wares. Chemical profiles of the ceramics determined by a portable X-Ray Fluorescence (pXRF) machine help to establish groups of wares based on clay sources, while microscopic studies are used to define ware types based on technological processes. These studies will be particularly helpful in

establishing the chronology and distribution of simple handmade wares at sites identified in surveys by our team on Sinop promontory, and of imported wares of uncertain origins, like late Roman Pontic Red Slip wares.

GEOPHYSICAL STUDIES

Ground Penetrating Radar (GPR) survey around the Hellenistic walls was undertaken by Sinop Geophysics specialist Bariş Kaya (Kaya Mühendislik) in order to determine the possible location of structures not visible above ground; we were particularly interested to learn the location of possible towers (see Fig. 9-18) and a jetty that would have protected the military harbor. A brief summary of results in three key areas (#3, #5, and #11) is offered here.

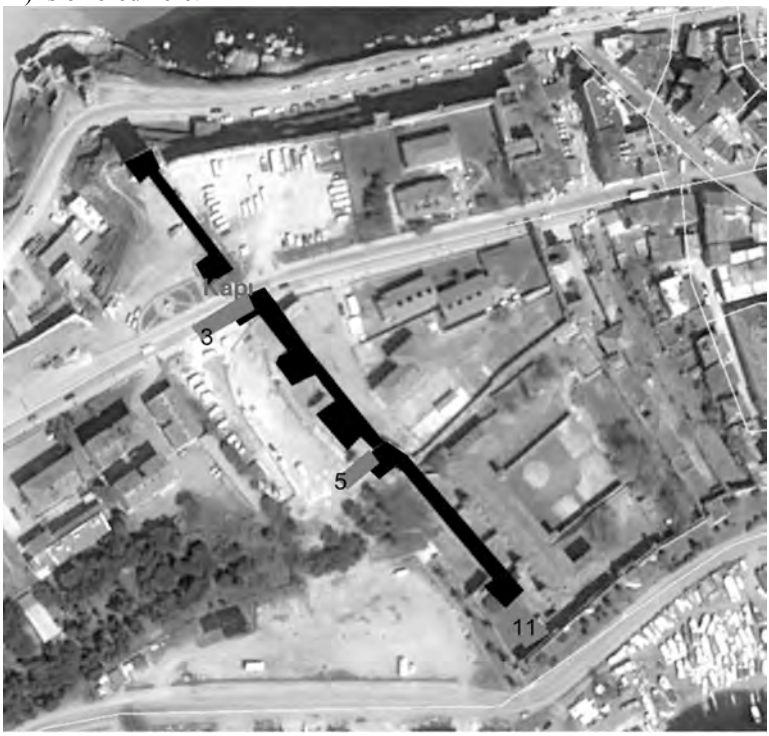

Fig. 9-18: Aerial image of Sinop Kale site with areas investigated by GPR marked in grey and a proposed reconstruction of the original line of the Hellenistic curtain wall in black. Note that the original gate (marked "kapı") and several towers were

removed in the Roman reworking of the wall, effectively neutralizing it as a defensive structure.

A strong anomaly in area 3 seen here at a depth of 1.5 m may indicate a large wall in the location where a tower structure was hypothesized by the SRAP team. Most likely this indicates the position of a tower in the Hellenistic wall that would have paired with the tower exposed to the north of the road designed to protect the monumental gateway into the city. Fig. 9-8 reconstructs the possible configuration of this gateway.

Another anomaly noted at a depth of ca. 1.5 m in Area 5 may also suggest a wall running E-W that is likely to belong to another tower in the Hellenistic phase of the wall. In this case the tower was dismantled to build the Roman arch that survives today. This would have given the upper terrace of the Sinop Prison area a second monumental entrance into the city, cancelling the military effectiveness of the Hellenistic wall and providing access to the harbor area to the southwest. This may well have formed a commercial harbor during Roman times. Further investigations should clarify this question. Historical photographs of Sinop Kalesi from the early 20th century show a series of arches that must have replaced the towers in the original Hellenistic wall.

CONCLUSION

Remarkable results were obtained relating to all of these goals in our first two seasons. In sum, we documented: (1) the first evidence of an early Bronze Age occupation within the boundaries of the city of Sinop; (2) a remarkably diverse assemblage of Iron Age ceramics and architecture from around the northern, western, and eastern coasts of the Black Sea; and (3) the stratigraphy related to the city wall was clarified and previously unknown phases and features were identified. In two adjacent trenches covering a total 11 × 10 m area two structures, (one possibly related to the Archaic city wall and the second an Archaic house), the stratigraphy of the Hellenistic wall foundation trench, a late Hellenistic destruction layer, and a Middle Byzantine wall were excavated. A long wall (a possible glacis of the Archaic colonial wall), with up to seven preserved courses of river pebbles was associated with a series of fills that contain a diverse assemblage of Bronze Age and Iron Age ceramics typical of the north and west coasts of the Black Sea. This structure was covered by a layer of decayed mudbrick and stone construction that may be the traces of the Archaic-Classical city wall. The other early structure (House 2) was cut and largely removed by the construction trench of the Hellenistic city wall. Two walls of rough-hewn stones intersect at a right

angle, suggesting a rectangular plan, and are associated with Archaic Ionian wares and Middle Iron Age ceramics from the Bafra plain and the Anatolian interior. A defensive trench set before the Hellenistic walls was filled with destruction debris dating to the Hellenistic period, including stamped roof tile fragments, pithos fragments, charred wood, and at least ten ballista balls. A Byzantine outer wall cut these two trenches in half and isolated pre-colonial and colonial contexts.

Two more targeted stratigraphic investigations established initial results relating to the building of the city wall, and to an uninterrupted superimposed sequence from the mid-first millennium BCE to the late first millennium CE. The city wall was shown to cut Archaic and Classical strata that may include both habitation areas and burials. Remains of the stone and mudbrick feature possibly associated with the Classical phase of the city wall mentioned above were revealed in section superimposed over Iron Age remains.

These results of the 2015-16 field seasons at Sinop Kalesi are highly significant for our understanding of the early Black Sea and demonstrate the outstanding promise the Sinop Kalesi excavations hold for future research.

ACKNOWLEDGEMENTS

We would like to thank the Turkish Republic Ministry of Culture for granting us permission to excavate the site of Sinop Kalesi in 2015 and 2016, and our Ministry representatives Mr. Mustafa Kolağasıoğlu (Samsun Museum) and Ms. Ayşe Kaya (Düzce Museum). We acknowledge Sinop Mayor Baki Ergül and the city council for granting us the use of this plot for an initial period of ten years and Sinop İI Özel İdaresi General Secretary Mehmet Yüzer for granting the use of three container structures as office and storage space. Mr. Cemalettin Kaya, Chair of the Sinop Tourism Board and Mr. Hasan Onur, Chair of the Sinop Historical and Cultural Research foundation, provided invaluable assistance in many ways. Major funding was provided by a three-year grant from the National Endowment for the Humanities (RZ-51768), the National Geographic Society (#9318-13), and the British Institute of Archaeology at Ankara, in addition to California State University Northridge, Queens College, and Gonzaga University.

REFERENCES CITED

Doonan, Owen. 2007. Colony and Conjuncture: The Early Greek Colony at Sinope. In *Frühes Ionien: Eine Bestandsaufnahme.* DAI Milesische Forschungen Band 5. J. Cobet, V. Graeve, W.D. Niemeier, and K. Zimmermann, eds., 613-620. Mainz am Rhein: Philipp von Zabern.

Doonan, Owen, Hüseyin Vural, Andrew Goldman, Alexander Bauer, Susan Sherratt, and Jane Rempel. 2015. Sinop Kale Excavations, 2015 Field Season. *Antiquity Project Gallery* (June 2016). URL: http://antiquity.ac.uk/projgall/578).

French, David H. 2004. *The Inscriptions of Sinop I.* Bonn: Habelt.

Tsetkhladze, Gocha R. 2004. On the Earliest Greek Colonial Architecture in the Pontus. In *Pontus and the Outside World,* C. Tuplin, ed., 225-78. Colloquia Pontica 9. Leiden: E.J. Brill.