

Sinop Kale Excavations 2016

Jane Rempel & Sue Sherratt | University of Sheffield

With Owen Doonan, Andrew Goldman, Alexander Bauer, Emine Sökmen, Beth Watson & Holly Rosevear

doi:10.18866/biaa2016.032

In the summer of 2016 the second season of the Sinop Kale Excavations project unfolded, with continued excavations in the heart of ancient Sinope, on the Black Sea coast of Turkey, as well as a programme of environmental sampling, study of the handmade pottery and recording and virtual reconstruction of the Hellenistic fortification wall that runs across the neck of the Sinop peninsula.

This project, directed by Owen Doonan (California State University Northridge), builds on more than a decade of survey and environmental research conducted by the Sinop Regional Archaeological Project. Its aim is to investigate the nature of pre-Greek settlement as well as the early Greek settlement and its later development. The Sheffield contingent, supported by funding from the BIAA and including Jane Rempel and Sue Sherratt from the Department of Archaeology as well as recent graduate Nick Groat and current undergraduates Holly Rosevear and Beth Watson, worked alongside an international team including Associate Director Alexander Bauer (Queens College, New York), Assistant Director Emine Sökmen (Hitit University), Field Director Andrew Goldman (Gonzaga University) and staff and students from both American and Turkish universities. Project funding, in addition to that provided by the BIAA, comes from the National Geographic Society, the National Endowment for the Humanities, CSU Northridge, Queens College and Gonzaga University. This year, the University of Sheffield was also able to support our undergraduate students through the Sheffield Undergraduate Research Experience scheme (SURE). Through six-week paid placements, the SURE awards provide undergraduate students with the opportunity to work in partnership with an academic staff member on a dedicated research project during the summer vacation. Through their SURE projects, students become directly involved in the research activity of the University, take part in active research projects in subject areas that are of special interest and experience what it is like to work in partnership with academic staff or collaboratively in a research group.

Beth Watson's SURE project – 'Understanding the Hellenistic fortification walls at ancient Sinope, Turkey' – involved working with Jane Rempel to record and interpret the remains of the Hellenistic fortification wall in the Sinop Kale area. The fortification walls of the Kale are a prominent feature of the town, both ancient and modern, and they represent the best-surviving Hellenistic fortifications in northern Asia Minor and the Black Sea region (Crow 2014: 38–39). Strabo, around the beginning of the common era, called Sinope 'the beautifully walled city' (12.3.11). The Hellenistic wall that he describes ran as a curtain wall northwest to southeast across the neck of the Boztepe peninsula. This line of wall still survives today, albeit with later Roman, Byzantine, Seljuk and Ottoman additions; the best-surviving section of the original Hellenistic wall is located at the northwestern end, in the Sinop Kale Excavations project area. This includes the northwestern Hellenistic tower, with its upper portions rebuilt, an adjoining section of the Hellenistic wall (also with upper portions rebuilt and restored), as well as a section of the foundations and lower courses of the Hellenistic wall that had been exposed by earlier archaeological work in the area (see the 3D reconstruction, below).

While textual references attest to a fortification wall at Sinope at least as early as the early fourth century BC (Polyaenus *Stratagems* 7.21), the earliest surviving wall is from the Hellenistic period and has been traditionally associated with one of two kings of Pontus: Pharnakes I (second century BC) or Mithridates VI (first century BC) (Bryer, Winfield 1985: 70, 76–77; Doonan 2004: 76; Crow 2014: 39).

The design of the Hellenistic fortification wall is unique, however. Although the isodomic masonry of quarry-faced blocks with drafted margins and the bevelled corners on its towers suggest a Hellenistic date, a series of arrow slots with projecting lintels is unparalleled (Crow in Bryer, Winfield 1985: 78; Crow 2014). In addition, stratigraphic excavations of the foundation trench for the Hellenistic fortification wall in 2015 and 2016 have provided a close understanding of its construction process and preliminary reading of the material in its fills suggests it is not later than the third century BC. The chronological resolution provided by the Sinop Kale Excavations will provide an important contribution to studies of fortification walls of this period as well as to our understanding of the urban development of ancient Sinope.

A first attempt at a 3D model of the wall section in the Sinop Kale Excavations project area (J. Rempel and A. Çobanoğlu)





3D model of a portion of the Hellenistic wall
(B. Watson and J. Rempel)

In order to understand better the nature of the wall, it was important to record the surviving remains in the project area so that its construction and morphology can be reconstructed. Beth's SURE project involved recording the exposed foundations of the Hellenistic fortification wall using close-range photogrammetry. This technique uses a linked series of digital images to create measurement-accurate 3D models (like that above). Agisoft Photoscan was used to process the images and MeshLab to ensure the accuracy of scales applied to the models using known measurements. This work has resulted in a spatially accurate record of the surviving architecture of the Hellenistic wall in the Sinop Kale Excavations project area and the models will be used to create 2D measured drawings in AutoCAD. We were also able to work with Ahmet Çobanoğlu to create a 3D model of the entire northwestern corner of the surviving fortification wall, including the Hellenistic tower, from imagery taken from an unmanned aerial vehicle, commonly known as a drone (see figure on previous page).

Holly Rosevear's SURE project – 'The handmade pottery of Sinop Kale' – involved working with Sue Sherratt. They made a start on studying some of the handmade pottery found in the 2015 excavation, particularly that found in Locus 29. Locus 29 was originally thought to lie inside a 'dugout' (House 1) on the western side of Operation 1 (Rempel et al. 2015; Doonan et al. 2016), but excavation in 2016 revealed that the wall, consisting of eight or more courses of flattish stones and thought to define the northeastern edge of House 1, actually extends for at least 5m more to the southeast, suggesting that Locus 29 probably lay (in a yard?) outside the structure, the rest of which to the north and northeast was eventually destroyed or covered by the Byzantine wall. The pottery from Locus 29 consists almost entirely of handmade pottery of varied appearance and with various types of decoration, some of which has a generally Early Bronze Age (third millennium BC) appearance. It also, however, bears resemblances to pottery uncovered in 2000 in an eroding scarp to the west of the 2015 excavation and at a somewhat lower level, associated with what were tentatively identified as stone-lined pit houses. These were stratified below the Hellenistic levels, and both architecture and pottery were compared to material from northern and western Black Sea sites of Early Iron Age (early first

millennium BC) date (Doonan 2004: 56–58). Only a couple of wheelmade sherds, well embedded within Locus 29, hinted that some – or perhaps much – of this pottery might actually be contemporary with an early stage of the Greek colony of Sinope in the late seventh to sixth century BC. A major question was thus whether any of the pottery from the fill was genuinely of Early Bronze Age date (so demonstrating Early Bronze Age occupation of the site) or whether the indigenous inhabitants continued making pottery of generally Early Bronze Age appearance after the foundation of the colony at the end of the seventh century BC, and, if so, for how long. In other words, what the date range of the pottery from the fill of Locus 29 is likely to be. Given the lack of understanding hitherto of the prehistoric ceramic chronology of this part of the Turkish coast (which has in the past led to suggestions that it was uninhabited for long stretches between the Early Bronze Age and the seventh to sixth century BC), this is a particularly important issue. Another question is the extent to which similarities to pottery from other sites around the Black Sea should be regarded as the result of maritime interaction, and, if so, at what points in time in particular.

In order to begin to investigate these questions, Holly strewed, sorted and macroscopically examined all feature sherds (those with rims, bases, handles or decoration) from Locus 29, and entered them in a database in which details of fabric, inclusions, surface finishes, types of decoration, rim or base types (where appropriate) and possible shapes were recorded. These entries are accompanied by a photograph of each sherd and supplemented by profile drawings of rims and bases.



Holly Rosevear studying some of the handmade pottery
(photo by Sue Sherratt)



University of Sheffield archaeology undergraduates Holly Rosevear, Nick Groat and Beth Watson in front of the Hellenistic fortification wall (photo by J. Rempel)

Preliminary results suggest that Locus 29 contained an interesting variety of fabrics and tempers, surface colours, surface finishes and decorations. Most sherds are relatively coarse, but a few are of a notable fineness. Tempering includes shell/calcareous inclusions, quartz pebbles and some chaff; cores are frequently black (a normal indication of low firing temperatures). Surface colours range from black to greyish yellow/buff to red, including some mottling. Surface finishes include varying degrees of burnish, sherds with a rough concrete-like finish outside and a smoothed/burnished interior, and an unusual burnished red washy slip. Among the shapes (where determinable) are rounded and carinated bowls or cups and jars of various sorts, including hole-mouthed jars; rims tend to be rounded or pointed and sometimes slightly squared, bases can be flat or raised and handles vertical or horizontal. Decorations include applied or pulled-up ridges with finger-impressions or diagonal slashing, knobs or lugs, neatly impressed holes and incised lines.

Despite its general ‘Early Bronze Age’ appearance, it seems unlikely that much, if any, of this pottery is actually Early Bronze Age in date. On the other hand, some of it seems to find good parallels at sites, such as Berezan and Olbia, on the northern coast of the Black Sea, where handmade pottery co-exists with imported Greek pottery from the late seventh century down to the fifth century and later. Particular similarities can be seen in several of the shapes, in the finger-impressed ridges, in the knobs and lugs and the rows of impressed holes (for example Solovyov 1999: figs 18, 20–22; Gavriljuk 2010: pls 262–69), while some of the incised pottery seems reminiscent of some of the so-called Kizil-Koba pottery of the northern Black Sea (Solovyov 1999: fig. 24). Especially intriguing are one or two sherds on which differential burnishing appears to have been used to create a rim band of the sort one might see on imported painted pottery, which might suggest

contemporaneity with, and influence from, the latter. The results of portable x-ray fluorescence (pXRF) analysis combined with microscopic studies of technological processes, carried out this summer by Alexander Bauer on a number of the sherds, should help to establish groups of wares based on different clay sources and give some idea of the variety and possibly varied sources of this pottery.

For a summary of the results of the 2015 season, see <http://antiquity.ac.uk/projgall/578> and the Sinop Kale Excavations web site: <http://srpexexcavation.wixsite.com/kale>.

References

- Bryer, A., Winfield, D. 1985: *The Byzantine Monuments and Topography of the Pontos*. Washington DC, Dumbarton Oaks
- Crow, J. 2014: ‘Sinop, the citadel walls, description and commentary’ in S. Redford (ed.), *Legends of Authority: The 1215 Seljuk Inscriptions of Sinop Citadel, Turkey*. Istanbul, Koç University Press: 21–60
- Doonan, O. 2004: *Sinop Landscapes: Exploring Connection in a Black Sea Hinterland*. Philadelphia, University of Pennsylvania Museum
- Doonan, O. et al. 2016: ‘Sinope ancient Kale excavations 2015: towards a new model of mobile fishing communities and incipient trade in the Black Sea’ *Antiquity Project Gallery*: <http://antiquity.ac.uk/projgall/578>
- Gavriljuk, N.A. 2010: ‘Handmade pottery’ in N.A. Lejpuskaja et al. (eds), *The Lower City of Olbia (Sector NGS) in the 6th Century BC to the 4th Century AD*. Aarhus, Aarhus University Press: 335–54
- Rempel, J. et al. 2015: ‘Settlement, colonisation and Black Sea networks: Early Iron Age to Classical Sinope’ *Heritage Turkey* 5: 30–31
- Solovyov, S.L. 1999: *Ancient Berezan. The Architecture, History and Culture of the First Greek Colony in the Northern Black Sea*. Leiden, Brill



View from the Sinop Kale Excavations project area to Ak Liman after a rainstorm (photo by J. Rempel)