Site-Based Survey at S’Urachi: Deep History, Thick Shrubs, and Historical Connections in West Central Sardinia

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Introduction:
The nuraghe of S’Urachi is a Bronze Age stone monument that has served a central place in the landscape of west-Central Sardinia for millennia. Since 2013, the archaeological site has been the subject of an ongoing investigation into the daily lives of local inhabitants living around the nuraghe from the Bronze Age through the Roman period. The project is a joint effort of an international team led by Brown University and the Comune di San Vero Milis—has investigated the immediate surroundings of S’Urachi through remote-geographical, soil, and geological survey as well as targeted excavation. In complement to this research, we carried out intensive pedestrian survey in 2015 to investigate the long-term trends in occupation and use of the site. The unplowed landscape with heavy vegetation required a new pedestrian survey approach than is traditionally used in Mediterranean survey. The results shed light on trends of occupation in the late Iron Age and Roman periods and patterns of garbage deposition from the Early Modern period onwards. This poster presents preliminary results, highlighting the methodology developed for coping with the environmental challenges at S’Urachi and the future plans for prospection in and around the site.

Methodology:
The 2015 site-based pedestrian survey of S’Urachi proceeded by two separate survey operations completed in the 2014 season: a georeferenced survey carried out by Alexander Smith of the eastern half of the site and a geophysical survey of the same area by Eastern Atlas Geophysical Prospection. The surveyors conducted both ground penetrating radar and magnetometry. Due to intense vegetation, the overall results were incomplete. In order to further investigate the wider archaeological landscape, we carried out a pedestrian survey in 2015 involving the collection and analysis of surface artifacts. One of our primary objectives in creating a sampling strategy was to balance a systematic approach with a data set that realistically reflected the archaeological remains on the ground. In order to accomplish this, we created a 20 by 20 grid across the site based on a permanent cadastral grid from archaeological work carried out in S’Urachi in the 1960s. We first projected the grid digitally through ArcGIS, then shot in each part of the grid using a Total Station. These grid points served as our collection points. Using this method, we laid out 81 collection points across the survey area.

In order to access the “surface,” or immediate subsurface remains, we dug approximately 10 cm into the ground at each collection spot, beneath the vegetation. All soil was then sifted and artifacts of all sizes and time periods were collected from the screen. We followed a policy of full collection for ceramic (vessels and construction materials, glass, metal, worked stone, shell, and bone remains found within each unit). We did not, however, collect plastic, paper, metal, or fabric remains, but noted the existence of these modern materials when they were present. Only in select cases did we dig just a few cm into the soil for our own safety (glass, asbestos, etc.).

The collection areas were circular units with a radius of 81 cm, or roughly 2 square meters in total area. Using a plastic stake with a string attached with the 81 cm measurement, we marked the center of the unit around the grid point while spray painting the circle collection area on the ground vegetation (see Figures 3, 4 and 5). Ideally, this would represent 2 square meters for every 20 by 20 sq m of 400 square meters) or about 0.5% coverage. With the irregular shape of the area, however, at roughly 229 square meters (126 square meters), we were able to achieve 0.4% coverage of the area.

The results of the survey reflect a diachronic understanding of S’Urachi’s environs. We uncovered primarily ceramic (both in situ vessels and construction materials) and faunal bone with smaller quantities of worked stone and glass. In total, we found 3,494 ceramic sherds (43.23%); 1,248 modern sherds (15.95%) and 2,009 ancient sherds (19.84%); and 82 historic or circa 19th or early 20th century sherds (0.93%). The total number of faunal bone remains is 19,400 (115 species). In total, we also collected 3.32 kg of bone, 3.49 kg of modern glass, and 1.965 kg of metal, stone, shell, and other materials. For the purposes of this analysis, ancient ceramic was divided into 4 basic temporal categories: Nuragic (Iron Age), Phoenician/Punic, Early Roman, and Votive Imperial Roman (Figure 7). Despite the fragmentary nature of many of our ceramics, we encountered enough diagnostic sherds as well as identifiable fabrics to be able to place most finds into one of these broad categories, with some caveats. First, a large proportion of ceramics encountered were produced using local clays, so—in some cases—we had difficulty distinguishing non-diagnostic fragments by period. A closer analysis of these fabrics and production processes during the study season could demystify some of these local, temporal differences.

In addition to closer study of the ceramics, we will also be placing several small test trenches to probe portions of the ceramic scatter and test for any clear stratigraphic truth areas [highlighted in blue to the right] as potentially significant in the site survey. All three of these features exhibit anomalous traits, the northern circle representing a proportionally high number of Punic and Roman ceramics, the small central circle representing a potential geographical feature (though with little artifact yield during the survey), and the southwestern circle representing a high ratio of Nuragic sherds by weight. We also hope to conduct a geophysical survey with 10 x 10 m grid and pedestrian survey using the methodology presented in this poster to explore the area more deeply in the future. This will give us a firmer picture of the distribution of features associated with later, Punic occupations.

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Modern Site Use:
Modern materials (especially construction materials and ceramic sherdsw) make up 42.9% of our finds by weight. This is the result of many decades of dumping in certain areas of the site, which seems to have peaked in the late 1960s.

Early modern and historic materials were processed in several quantities in many areas, but in especially high quantities in the northern extent of the site. Overwhelmingly, this material included ceramics associated with domestic activities (dining and cooking) as well as construction materials, namely handmade tiles (Figure 18, top). Of particular interest is the consistent appearance of ceramic vessels with glaze in both tiles and roof glaze. These vessels are primarily lead glazed ceramics produced in Ostia in the 19th and 20th centuries. The most complete vessel recovered is a large basin with two perforations that would have been used to hang the basin from a kitchen wall.

These vessels are traditionally used for kneading dough for making pasta or bread and are known in the local Sardinian language as “tana,” (Figure 14). One bowl is an older and finer production of glazed wares (Figure 19). It has bright green glaze produced with copper oxide rather than lead possibly indicating the influence of medieval Spanish technologies.

We also found modern glass, modern ceramic, select metal objects, and the occasional plastic object. Examples can be seen to the right of contemporary kitchenware (Figure 15, glass bottle fragment at (1)), a ceramic soda bottle cap (Figure 17), and mass-produced modern construction materials (Figure 16, bottom).

Future Research:
In the study season that will take place in summer 2016, we will be conducting a closer analysis of pottery from all units in conjunction with the study of ceramics from the excavation of Trench D and D’ from the 2015 seasons. A more thorough analysis of ceramic fabrics and typologies for locally produced wares may help refine the chronology, especially of the 4th millennium BCE ceramics from Phoenician and Punic traditions. During this re-analysis of the ceramic finds, we will begin to examine the local to imported ceramics for all periods. This may highlight periods of increased connectivity between S’Urachi and coastal areas during Phoenician, Punic, and/or human colonization.