San Gemini Preservation Studies
International Institute for Restoration and Preservation Studies
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Archaeological Ceramics Restoration Project, San Gemini, Italy 2013
Course: SG203B - Introduction to Conservation of Archaeological Ceramics – Part 2, Workshop

Instructor:
Prof. Elena Raimondi (Project Conservator / Restorer)

Student restorer	Danielle Settlemeyer
Student's Home University	Shippensburg University

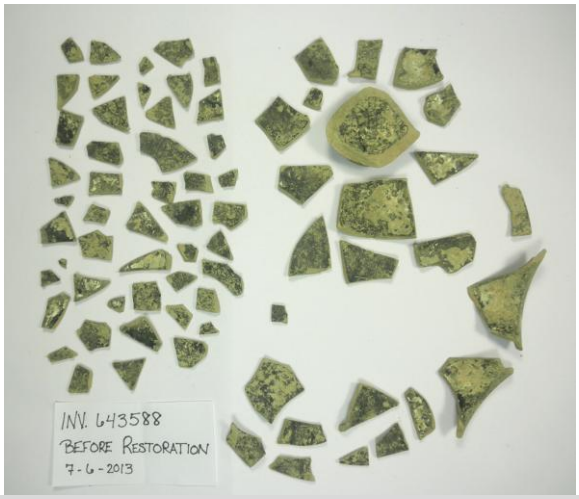
FINAL CONSERVATION REPORT

Reference data	643588
Description (shape and decoration)	Ovoid cup with two shallowly incised lines at the shoulder of the cup, prominent flared rim and small disc foot, finished with "black glaze". The condition of the piece, though in fragments, presented a stable object with which to work. The body of the cup was a fine tan clay with a slight rose tint. The cup's 73 pieces displayed considerable soil encrustations, calcareous encrustations, possible siliceous encrustations that were visible upon the initial examination. After cleaning, a very thin yellow-green encrustation presented along with a few areas of weakened or missing glaze mostly along the rim and base. There is also chipping along some of the fracture lines, most of which is minimal with less than a quarter of the pieces showing any considerable chipping. Though the cup was in many pieces, restoration of the pieced shows only about a 15% loss.
Provenence	Burial site near Norcia
Period/ Date	330-290 BC
Owner	Italian State/ Museo Archeologico Nazionale dell'Umbria
Restoration Notes	
1. Documentation	Text and digital photo

2. Cleaning method	The cleaning of the piece used both mechanical and chemical means. Most of the encrustations, soil, calcareous, and siliceous, were removed using cotton swabs, demineralized water, and an exchangeable blades scalpel. This method removed all of the encrustations and soil except for the thin yellow-green encrustation. The use of EDTA at 5% in demineralized water applied with cotton swab was ineffective to remove this kind of alteration.
3. Bonding	The consolidation of the broken edges of all the pieces was completed using the acrylic resin Paraloid B72 in acetone with a concentration of 1.5%, which was the best solution after testing of Polyvinil Butirral resin Mowital B60HH in ethanol at 2% left a white film on the black glaze and Paraloid B72 in acetone at 2.5% left a glossy finish. After consolidating all of the edges and the rim and base to protect the weakened glaze, the reassembly process began with fitting the pieces together without resin to find their placement and using paper tape to secure them during this process. After finding the placement of 70 of the 73 pieces, the cup was disassembled and an explosion chart created to assist in the final reassembly of the cup. For final assembly, the edges of the pieces were consolidated with two coats of Paraloid B72 in acetone at 5% before fixing the pieces together using Paraloid B72 in acetone at 20% and once again using paper tape to hold the connections until the resin hardened.
4. Filling	For filling the losses of the cup, a test sample was created to determine the required color for the piece using 15g Polyfilla colored with 2 large spatulas of Raw Sienna, 1 small spatula of Burnt Umber, and 1 small spatula of Burnt Sienna. The color was very close to what was needed. The final color was the same mixture with ½ small spatula of Pozzuoli Red, mixing 45g of Polyfilla to ensure enough to fill the entirety of the loss. The structure for all but one of the fillings was provided by paper tape placed on the inside of the cup with paper tape providing protection around the losses on the outside of the cup. After filling all of the losses and allowing them to partially dry, the paper tape was removed and a scalpel was used to shape the fillings to the correct shape and depth. The missing section of rim was filled by creating a mold using dental wax to provide support from the outside of the rim and fill from the inside. After allowing this to dry also, the scalpel was again used to create the correct shape. Once every filling was dry, 500 grit sandpaper was used to smooth the fillings for a nice finish on them and these were consolidated with Mowital in ethanol at

	2.5%.
5. Other notes	During the restoration of this cup, 70 of the 73 pieces were reassembled, 1 was determined to belong to another piece from the same grave (INV. 643592), and the remaining 2 slivers were placed in a small bag with the cup.
6. Short photographic documentation	

Before



During

After