CONSERVATION OF 15TH AND 16TH CENTURY ITALIAN GLAZED TERRACOTTA: THOUGHTS FROM CONSERVATORS IN PRIVATE PRACTICE

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Art Conservation Group has worked on more than a dozen glazed Italian terracotta sculptures. All have come to us after purchase from the market or auction house. One of the glories of glazed ceramics is that beneath the layers of grime and old restoration, the surfaces are often beautifully preserved. Though there are often multiple areas of damage, adjacent surfaces largely inform the viewer as to how the whole would have looked. As a studio in private practice, beyond our mandate to treat each object within the AIC code of ethics, our choices for the aesthetic outcome of our treatment are also directed by the clients’ needs. While always appropriate to preserve some sense of an object’s visual antiquity, we consider the context in which the piece will be placed when determining our goal(s). Our part of a joint presentation with Anthony Sigel discusses our general approach to the treatment of these terracotta sculptures. We include a review of the general materials that we use and discuss some of our choices in light of our work in the private sector.

KEYWORDS: Della Robbia, Renaissance, Glazed terracotta

1. INTRODUCTION

Over the last 20 years, Art Conservation Group has examined or worked on more than a dozen Renaissance era glazed terracottas. On occasion, the studio has been brought works that are structurally sound, with restorations that are virtually invisible. It has been our practice to leave such a restoration in place as long as it did not appear to be covering an extensive amount of good surface. However, well-executed restored pieces are not what we routinely encounter. Our experience has most often been with glazed works that exhibit the clear presence of at least a few, if not many, heavy-handed restorations that show significant age.

That a glazed terracotta object from the 15th or 16th century has made it to the 21st is exceptional. In its 500 or so years, a given piece has most likely lived in many locations and passed through the hands of multiple custodians. While these fired works are strong, for the most part, they are also inherently vulnerable. As such, virtually all have suffered at least minor damages and surface losses—and most have seen at least one major “breakage event.” Enter the generations of restorers, with their agendas and materials that age and discolor, and the custodians for whom they worked, whose aesthetic and budgetary whims have driven the restoration process.

We see the results: restorations on top of restorations and large swaths of discolored overpaint that cover ever-smaller swaths of earlier fixes, often with minor actual damage beneath. While this phenomenon is seen on all sorts of materials that we conserve, we have found that it is particularly egregious with the della Robbias.

One gets the distinct impression that there is a tendency for these pieces to be “atticed”—set aside, or stored for an extended period, once the restorations have degraded. Certainly many, if not most, of the glazed terracotta Renaissance era pieces we have worked on have been in the so-called attic condition, in some cases made all the more challenging by the presence of a highly compromised, yet still holding on, mounting system. It is usually a “fresh” owner or custodian who brings the piece to us to examine and treat.

Treatments are driven by consideration of condition, desired aesthetics, installation context, and budget. When a project is particularly large or complex, we communicate with our clients throughout the
process; clients are updated as to our own emerging understanding of their piece. While we typically start by giving the client a ballpark estimate, we provide reports and invoices several times over the course of these projects. As we progress through the treatment in phases, including the client in decisions at the different phases helps them understand and be comfortable with the costs.

First, we assess the condition of a given piece. When restorative material is widespread, the assessment happens largely through examination paired with surface cleaning. On some of the large glazed works, this can require the careful removal not just of dirt and degraded coatings but also the deconstruction of tenacious old mounting and framing systems. After initial cleaning, we carry out any required stabilization or repair work in a second phase of treatment. The need for repairs is far more common than the need for consolidation/surface stabilization, as the glazes tend to be very sturdy and coherent. Because the original surfaces are so often sound, finding them below layers of restoration is not typically the main challenge. The process of stabilization also tends toward a clear-cut goal. Far less automatic, however, is the question of surface integration during the final phase of treatment.

Our goal for the final appearance of the surface typically begins to take shape once cleaning and stabilization are completed, and its true condition can be more fully understood. We would say that a range of integrated surfaces can be considered appropriate for a Renaissance glazed piece—a balance between what its likely original appearance was, its current condition, and a consideration of what might be appropriate signs of age or damage. Within this idea, the wishes of the custodian/owner and the object’s intended context can also play a role in defining our goal. In some cases, we have worked toward achieving more of a pristine look, while other treatments have leaned toward more of a natural “scratch-and-dent” aesthetic, depending in part on the context into which we anticipate it entering.

We will describe aspects of five projects as they moved through the cleaning (reversal of old restoration), stabilization, and integration phases of treatment. Ultimately, we will discuss how some of the integration decisions were made. A section at the end will outline some of the techniques we often use in our work on these objects.

The five projects are:
della Robbia, *Madonna and Child*
A workshop-grade* della Robbia, *Roundel 2016-146*
della Robbia, *Fruit and Vegetable Basket*
della Robbia, *Wall Plaque 2015-068*
Santi Buglioni, *St. Bernadino 2013-278*

2. CLEANING PHASE

We have encountered several old mounts and frames that have been a challenge to remove. A 16th century Madonna and Child (fig. 1), one of the so-called atticed objects, arrived with mobile cracks, a torturous frame, and extensive deteriorating restorations.

There were several bolts in the back; we were optimistic that their removal would free the various elements. However, in addition to bolts, we found that the glazed elements had also been attached to the back panel with beds of adhesive and mortar paired with iron nail catches (fig. 6). Thankfully, these adherents were only applied locally. Each element was loosened by mechanically separating the adherents
Fig. 1. After treatment, della Robbia, *Madonna and Child*, 16th century(?), glazed terracotta, 121 × 90 cm. Private collection (Courtesy of ACG)

Fig. 2. After treatment, della Robbia Workshop, *Roundel*, 16th century(?), glazed terracotta, Diam: 74 cm. Private collection (Courtesy of ACG)
Fig. 3. After treatment; della Robbia, *Fruit and Vegetable Basket*, 15th/16th century, glazed terracotta, H: 6 cm, Diam: 25 cm. Private collection (Courtesy of ACG)

Fig. 4. After treatment, della Robbia, *Wall Plaque*, 15th/16th century, glazed terracotta (Courtesy of ACG)
from the wood back panel. Once freed from the wood panel, the elements were ready for the cleaning and stabilization phases of treatment.

A workshop-grade roundel also arrived in a degraded mount (fig. 2). The bricks were attached with several different types of thick cementitious mortars onto a now-rusted iron frame.

A mirror, not original to the roundel, had been attached with a bituminous material, still soft and with a slight smell of tar. The mortars and bituminous restorative material were mechanically carved away in order to separate the bricks from the rusted frame.
The various mortars, such as the ones found on both the roundel and the Madonna and Child, can be as hard as cement and may cover original surfaces. Removal requires tenacity and patience. We have found that old plaster and some of the cementitious materials can be carefully softened with water for easier mechanical cleaning; we typically use cotton wadding or dampened paper towels.

Once the bulkier remains of mortars and other mounting materials have been removed, the individual elements can be cleaned. The bricks associated with the Madonna and Child remained encapsulated within layers of discolored varnish, very stubborn old paint that covered wide passages of original glaze, and extensive grime.

Acetone, ethanol, and benzyl alcohol generally suffice to take down discolored paint and varnish layers. Most often, the aged restorative materials are markedly dull compared with the gloss of the original glaze; their removal is typically a great improvement.

A dark bituminous material found on the surface of the roundel reduced with benzyl alcohol and ethanol. As increased dwell time improved the result, we choose to poultice with solvent-saturated cotton wadding under a foil cover. Had the passages of the relief been lower and less detailed, we might have been more inclined to employ solvent gels.

In addition to organic solvents, we have used saliva or water, of course. When a surface is very dirty, yet hearty, we have on occasion used steam and stencil brushes, which can help get grime out of the interstices that are found in detailed passages. Ammonium citrate solutions, pH 9, have also been
employed—always well cleared with water. With these fired-clay materials, water can soften unglazed areas; aqueous cleaning, especially soaking of any kind, requires caution.

3. STRUCTURAL PHASE

The *Madonna and Child* required significant structural work. Manufactured in two sections and joined along the horizontal with pins, the join was distinctly mobile (fig. 5).

In addition, the upper part of the two sections was broken and had a highly mobile crack down its center. Our concerns for reversibility were mixed with the need for added join strength; both the horizontal join and the break in the upper portion were adhered using a combination of Epotek 301 thickened with fumed silica to a gel state and placed as dots in strategic locations and a 3:1 mixture of Paraloid B-72/B-48N applied more generally across the break edges. The Paraloid B-72/B-48N mix has become our go-to structural adhesive for projects such as these (Riccardelli et al. 2014).

For structural fills, we commonly use plaster as a subfill and then seal with shellac or Paraloid B-72. Occasionally, an epoxy putty fill is used and then surfaced with another material. With the epoxies, it is our standard practice to apply Japanese tissue with dilute Paraloid B-72 in acetone as a barrier over the join face, which should facilitate removal in the future. We have also used Japanese paper infused with adhesive to fill losses along joins. We generally surface fills with Flügger, as it dries harder and with a denser surface than some of the other vinyl spackles we have used (including Modostuc and DAP).

Structural issues can also fall under integration concerns. A 15th century fruit and vegetable basket (fig. 3) exhibited damages that were severe but not unexpected for a piece of its composition, one of the
most visually and materially delicate della Robbia baskets that we have seen. It had lost most of the leaf
points. The leaf tips were remade with plaster and consolidated with thin solutions of Paraloid B-72 in
acetone before adhering them to the object with the Paraloid B-72/B-48N adhesive (fig. 7).

It was a challenge to make the joins between our leaf-tip additions and the break edges sufficiently hearty,
as the break edges are extremely thin, with very little surface area for the added plaster to cling to. We
were concerned that our repairs would not hold up since the object is a centerpiece on a low table in a
private home. The owner is an active collector; when new objects are brought home, things are moved
about until any new acquisition has been incorporated into the overall installation. Within months,
several of our added leaf tips had fallen off.

It was decided to strengthen the joins with Japanese tissue “band-aids”: small strips of paper adhered over
the undersides of the joins with Paraloid B-72. While the tissue tabs cover original material, they are on
the undersides of the leaves, and are not readily visible. This solution has proved effective so far: while the
basket continues to be moved about by the owner, no leaves have fallen off for many years.

4. INTEGRATION PHASE

Once a piece has been cleaned and stabilized, we can address integration aesthetics. Our preference is to
visually minimize areas of damage so that the object can be taken in as a whole—so that these changes to
the piece do not interfere with our experience of it. Within this guiding concept, however, a range of
surface appearances can be considered acceptable. Even among those in the know (curators at a museum,
savvy dealers and owners, or different conservators), there does not seem to be agreement in the art world
as to ideal condition; it seems to boil down to taste. Some expect a surface closer to perfect, and have
collections that reflect this ideal, while others prefer the signs of wear and tear natural to an old glazed
ceramic.

While we would argue that some sense of an object’s visual antiquity should always be preserved, we do
not find it objectionable to consider the context into which the piece will be placed when determining
our aesthetic goal(s), provided that we exercise some measure of restraint in our use of restorative
materials. In the case of the della Robbia basket, the majority of the object was in pristine condition,
providing ample information to fill the losses that truly undermined the original intention. In the market

Fig. 8. Wall Plaque before (left) and after (right) treatment (Courtesy of ACG)
A decorative plaque (fig. 4) we worked on needed less treatment than any of the others discussed so far. It was in good condition, with scattered minor surface losses and the larger loss of a fruit element near the outside edge. The initial proposal agreed to by the client was for a selective decrease in damages, including some cleaning and relatively minor fills and inpainting. With this approach, our original inclination was to leave the side fruit loss, as such. However, after the clients lived with it for several months, they felt it to be incomplete. Thus, the piece was returned to us for the addition of some fruit (fig. 8).

Many objects that we see on the market are frequently left with a combination of visible areas of minor damage in select locations with more highly restored areas in others. The highly restored areas are often difficult to find even under close examination; in some cases, there has been select use of UV-blocking coatings. This is, simply, manipulative. Because we work in the private sector, we at times lean toward more integration or replacement of losses than a museum conservator may; however, we refrain from heavy-handed work and are committed to staying within the lines of loss. If looked for, the fills can be found without difficulty.

Three mid-16th century saints by Santi Buglioni on view at the Boston Museum of Fine Arts (MFA) in 2016 were exhibited together perhaps for the first time since inception, or ever, presenting a unique opportunity to compare different conservation approaches. Each of the three saints had different owners and conservators; we worked on St. Bernadino for a private client (fig. 5); St. John of Capistrano was worked on by Anthony Sigel and discussed in his article in this volume; and St. Francis, on loan from the Uffizi, was conserved by an Italian institution. Our approaches to loss compensation and integration varied quite markedly.

All three had lost their proper right foot, likely due to the geometry and weight distribution of the sculptures. Additionally, St. Bernadino had also lost his proper right thumb; a photograph from the 1940s indicates that St. Francis had suffered a loss to his left arm. On arrival at our studio, the statue of St. Bernadino exhibited dull restorative paint over much of his robe, due in part to old restoration that sought to cover the seams between the blocks. The overpaint on the seams had been leveled with fill before inpainting; thus, the old fill had to be brought down following paint removal. Once removed, stable bright glaze was revealed.

In the treatment of the St. Giovanni da Capistrano, Sigel decided to leave the loss to the foot and the seams between the blocks minimized but left a terracotta color, in accordance with his specific goals. The conservators of the Uffizi St. Francis decided to replace both the foot and lost arm, and the seams were well integrated. They also added a base with a white glaze finish.

Our integration decisions for St. Bernadino were made based on the known eventual location of the sculpture: the owner’s living room. It is a somewhat minimalist room as far as furnishings are concerned, but filled with 16th century Italian sculpture and paintings. It is intimate and often visited by scholars. Because of this context, the replacement of the proper right thumb and foot was ultimately considered essential, as their absence would be a distraction from the overall object. Also, because of the install location, more sculptural than architectural in feel, it was decided that the very visible joins between the blocks that make up the sculpture would be toned—but not filled—such that they would visually recede.
5. FAVORITE TIPS

Baggie Method for Applying Fills: We often apply fills by loading the fill material into small polyethylene baggies. A corner of the baggie is cut off; you can then “shoot” the material into cracks or hard-to-reach gaps by sticking the clipped corner into the loss and squeezing, run a bead along longer cracks, or simply hold the baggie in one hand and squeeze successive tiny amounts on to your spatula. The ability to squeeze bits of material directly into losses can be especially helpful when they are surrounded by sensitive surfaces and the usual clean-up would likely be damaging. Between uses, you can tape the corner or put a spring clip on it. An added benefit is that, by decanting into a baggie, less crust builds up on your mother container.

Tools for sculpting fills: We frequently use silicone tip spatulas in addition to the usual steel ones (Color Shaper by Royal Sovereign Ltd).

Della Robbia blues and whites: We use Golden Archival Varnish with dry pigment, especially when della Robbia blues or whites need to be matched—or when the surrounding glaze is particularly thick and rich looking. For matching blues, rottenstone is used to dull a mixture of ultramarine and Prussian blue pigments. Add titanium white and, in some cases, add a bit of a magenta element. For della Robbia white—titanium white works if you add rottenstone—often with a blue or magenta component. The key to both is the rottenstone; it dulls back the white or blue without overdarkening or turning cloudy as it dries.

Inpainting terracotta: We use Flügger as both the medium and white pigment in combination with matte acrylic paints. The “tooth” lent by the Flügger acts as a matting agent and allows for mechanical manipulation of the surface; you can easily create convincing scuff marks, for example. Rottenstone is, once again, a helpful colorant.

Watercolor pencils (we use Caran d’Ache) have a number of benefits. With no drying time, the final color is immediate and the range of colors is quite extensive. Freed from the brush, you can apply color in scumbling or other nonbrushmark manners. Also, if Flügger or another textural agent is in the underlying paint layer, the pencil lines will catch nicely on the tooth.

Brushes: We have found the SeppLeaf gilding brushes to be far superior to any others, especially when working with solvent-based varnishes. They keep their points for a very long time and stand up to solvent well. In addition, they hold a lot of paint; thus, you do not have to reload as often. Note that these brushes are also our first choice for consolidation—again, for their high load capacity, durability, and nice point.

Proprietary Epoxy Putties: WoodEpox (Abatron), Pro Poxy (Hercules) and Magic Sculpt (WESCO).

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NOTE

1. Based on a visual assessment of the piece; less detail and depth of relief; more likely to have been mass produced and cast from molds.

REFERENCE


SOURCES OF MATERIALS

Acetone, Ethanol, Benzyl Alcohol, Ammonium Citrate, Fumed Silica, Paraloid B-72, Paraloid B-48N, Shellac, Japanese Tissue Paper, Flügger, Modustuc

Talas
330 Morgan Ave.
Brooklyn, NY 11211
212-219-0770
www.talasonline.com

Plaster, Rottenstone, Dry Pigments
Kremer Pigments
247 W. 29th St.
New York, NY 10001
212-219-2394
www.kremerpigments.com

Color Shaper/Royal Sovereign Ltd. Silicone Tip Spatulas, Magic Sculpt
The Compleat Sculptor
110 West 19th St.
New York, NY 10011
212-243-6074
www.sculpt.com

Sable Pointed Quill Brushes
SeppLeaf Products, Inc.
381 Park Avenue South
New York, NY 10016
212-683-2840
www.seppleaf.com
Golden Archival Varnish, Golden Acrylics, Caran d’Ache Watercolor Pencils
Blick Art Materials
PO Box 1267
Galesburg, IL 61402
800-828-4548
www.dickblick.com

Wood Epox
Abatron
5501 95th Ave.
Kenosha, WI 53144
262-653-2000
www.abatron.com

Epo-Tek 301
Epoxy Technology
14 Fortune Dr.
Billerica, MA 01821

Pro Poxy 20
HCC Holdings
4700 West 160th St.
Cleveland, OH 44135
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www.Oatley.com

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