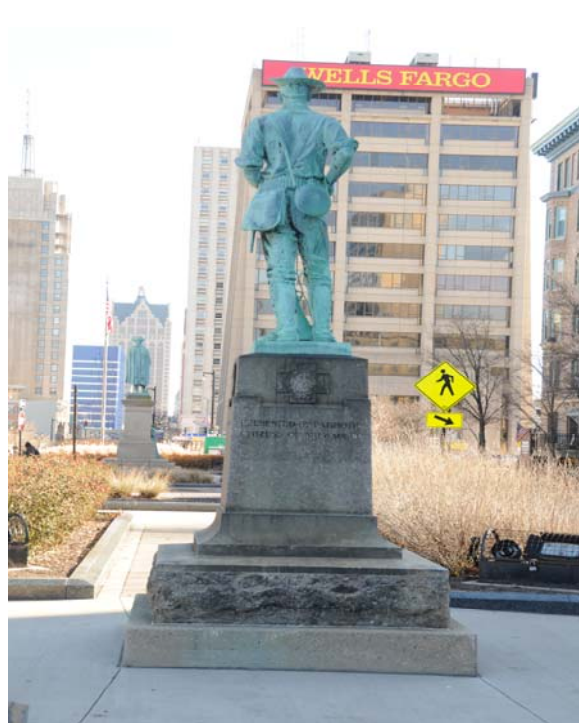




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Condition Report and Treatment Proposal



Title: Spanish - American War Soldier
Location: W. Wisconsin Ave at N 10 th. St. (Median) Milwaukee, WI
Owner : City of Milwaukee
Artist: Ferdinand Koenig
Material: Bronze on Granite base
Dated: 1932
Examined: 02-2014

CONDITION

The sculpture has been exposed to an outdoor environment for a number of years. The entire surface is covered with dirt, dust, and corrosion products. The bronze elements present typical green and black corrosion

products which disfigure the design of the monument. The surface is corroded relatively evenly. The entire sculpture is covered with light green corrosion and spots and streaks of black copper sulfides. The most disfiguring black streaking is found on the legs of the soldier.

It appears that all of the original parts of the sculpture are intact. No evidence of replacement parts was found during examination. The sculpture appears to be well attached to the base.



The stone is covered with black presumably carbon based deposits from air pollution. The monument is located in an area with a lot of car traffic, which explains the discoloration. The stone appears to be structurally stable.

PROPOSED TREATMENT

Before starting the treatment conduct research to determine the original color of the sculpture.

1. Erect a scaffolding and thoroughly examine the external surface of the bronze in order to correctly assess the condition. Some unseen condition issues may be discovered.

2. Clean the surface of the bronze using:

Option A: bronze wool and brass brushes in order to remove all of the loose corrosion products.

Option B: laser ablation process in order to remove all of the corrosion products.

3. Wash with steam and 5% solution of Orvus Non-Ionic Detergent using tampico scrub brushes.

4. Patinate the surface of the sculpture:

Option A.

- patinate the entire surface of the sculpture brown.

Option B.

- patinate the black areas green to match the appearance of the corrosion products.

Option C.

- patinate the black areas green, and then add brown patina to change the tone of green to slightly brown/green.

Note: A range of patina colors is possible and can be chosen based on historic research for the intended original color.

5. Coat the sculpture with hot applied microcrystalline wax or Incralac.

6. Apply a sacrificial cold-wax coating and buff-out using soft cotton rags.

Pedestal:

1. Test cleaning protocols in small areas for approval, and after owners approval clean the stone.

- A. Wash with warm water and a 5% solution of Orvus Non-Ionic detergent using low pressure washing (under 200psi).
- B. Remove the black staining after testing for the most appropriate method.
- C. Tack point the stone where needed.

Optional: Apply a graffiti protective coating. (Not included in this cost estimate).

At the present time conservators of outdoor bronzes use two kinds of coating: a combination of microcrystalline waxes, or an Incralac - an acrylic resin in organic solvents with Benzotriazole (BTA) - a corrosion inhibitor added. Both of the coatings require maintenance. A wax coating has to be maintained at least once a year. An Incralac coating should be washed, and waxed every other year, and removed, and reapplied after 7 to 10 years. Waxes are easier to maintain, but Incralac gives longer surface protection for a bronze.