

THE HIKER



Owner: City of Ypsilanti

Title/Subject: **"The Hiker"**

Artist: **Allen G. Newman Sc 1904**

Dedication Date: ?

Medium/Material: Cast Bronze

Foundry: Bedi-Rassy. Foundry. N.Y.C.

Location: Washtinaw and Cross

Pedestal: white/gray granite

Markings: Proper Right Side: Bedi-Rassy. Foundry. N.Y.C. Copyrighted by

Proper Left Side: "The Hiker" Copyrighted by Allen G. Newman Sc 1904

Sculpture dimensions: 7'4"(h) x 3'6"(w) x 3'(d)

Pedestal dimensions (approx. overall) 5'10" (h) x 6'1"(w) x 6'1" (d)

Plaque: There is one bronze plaque installed on the pedestal. It measures 3'4"h x 24"w.

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Structurally, the object is in good and stable condition. The condition of the surface is consistent with open air weathering of 100 some years: Green weathering products predominate in the most exposed areas with extreme streaking on vertical surfaces, (typically sulfates and carbonates, where active corrosion and metal loss are occurring). Corrosion pitting was noted throughout. Black weathering products (typically sulfides and carbon compounds) were evident in the more protected areas. Some foundry patches/plugs both round and rectangular were visible. No missing elements were noted. Although most of the cast sections are visible, no significant cracks, gaps, joint separations or large holes were observed. There were some iron stains from iron core pins.

The casting/fabrication is of good quality. The monument is composed of approximately 9 cast pieces, which were visually counted. It appears that some sections were sand cast (base) and the balance cast with classical investment. Some paint remnants were evident.

The plaque on the front of the pedestal was previously painted with a bronze color paint.

Report of Treatment

The "on site" conservation treatment started on 9/9/05 and ended 9/16/05 (one week). The work was performed from scaffolding erected around the monument. One weep hole was opened, at the lowest point of the rifle. Size # 7 drill was used so that it can be plugged if needed, with 1/4"20 bronze threaded rod. See photos.

The existing iron pins/plugs, ranging in size up to 1/4" were removed and the voids repaired by drilling, tapping and inserting threaded bronze rod, then cutting them off flush with the surface. On the exterior surface the end of the rod was worked to conform to the adjacent texture, and patinated to blend with existing coloration. See photos.

The paint on the plaque was removed using solvents (MEK, Acetone) with small stiff nylon brushes and rags.

The cleaning of the bronze monument consisted of washing with a non-ionic detergent (Igepal), soft bristle brushes, bronze wool, and medium-intensity water-wash (1500 psi). After thorough cleaning, minimum localized hot patination was performed as needed on bare exposed surfaces. Solutions of Potassium polysulfide, Ferric nitrate and Cupric nitrate were used, as traditionally foundry-applied patinas. All surfaces were thoroughly flushed after each application to remove all chemical residues.

This minimum patination process on a weathered bronze can be considered primarily a modulation procedure (retaining a translucent quality, in which the underlying layers of color differentiation are blended but not obscured). The objective was to incorporate whatever is known about the original appearance with the fact that the art object has aged. The appearance is of a well maintained, aged outdoor bronze sculpture.

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When the patination process was completed, the object was treated by applying benzotriazole (BTA), a copper-alloy corrosion inhibitor (a 3% solution in water, isopropyl and ethyl alcohols) to the warm (heated) metal, and then thoroughly rinsed.

The next step was the application of the protective coating. When completely dry, three coats of wax were then applied. The initial coat was applied to heated metal, which causes the wax to flow and permeate the porous cast metal providing superior protection against corrosion. This method of application is considered to be superior as it provides an integral coating across the surface. It has a darkening effect as it saturates the patina and weathering products, causing them to become translucent and permitting the metal to become more visible. The next two coats were applied cold. The first two coats of wax contain 85% Victory White microcrystalline wax, 12% Polywax 2000 polyethylene wax, and 3% Cosmoloid 80H hard microcrystalline wax. The final coat of wax contains an additional 20% carnauba wax. All waxes were prepared as a paste in a solvent base of mineral spirits. When dry, each coat was buffed with soft brushes and no-lint cloths.

Between coats, pigmented hard microcrystalline wax was used to plug and seal small holes, cracks, porosity/gas, and separations to prevent the ingress of water. The final coat was carefully buffed to highlight and enhance the form and texture of the objects. The final appearance is of a somewhat mottled but uniform patina, varying from green to olive green, to dark brown, approximate and present of an appropriate well-maintained, aged appearance.

Maintenance Considerations

The recommended and applied coatings are best maintained on an annual basis. Weep holes should be inspected at this time and cleared of any debris. This consists of the sculpture being first wet-down, and then washed with a non-ionic detergent, and soft bristle brushes. The surfaces are rinsed, with low to medium pressure water (not more than 500 psi), paying particular attention to spray water on those surfaces, which are not accessible with brushes, in order to loosen and wash away accumulated deposits. Sufficient time needs to be allowed for the metal to completely dry before wax is applied.

Clear paste wax is applied sparingly (stipple) with brushes to the metal surface, taking care to remove as little of the existing wax as possible. Pigment should not be required. The wax requires at least eight hours to dry. Overnight drying is recommended so the following morning, the wax can be buffed while the metal is still cold. Buffing should be done with soft brushes and cloths that do not leave lint.