



Andrew Todd Conservators Ltd.

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24 May 2024

Conservation Report Examination and Assessment of Sculptural Installation Ceramic Fins of Centennial Square Fountain City of Victoria

Background History of the Company

Information has been provided about Andrew Todd Conservators Ltd. in January 2024 and remains current.

Examination and Assessment of Public Art

This report is submitted to describe the conservation conditions observed and recorded for preservation of the Ceramic Fins of Centennial Square Fountain owned by the City of Victoria. The report is provided with consideration for the best methods of preserving, restoring and protecting the materials of the sculptural installation, sculptural concrete aggregate surfaces and Italian Glass tiles. The report is provided with reference to international standards for conservation and "Standards and Guidelines for the Conservation of Historic Places in Canada". New conservation design recommendations can be addressed in the approved conservation treatment program. Additional research into conservation standards and practices will be provided for an approved conservation treatment program. A budget proposal is provided for the conservation treatment recommendations arising from this report.



Conservation Assessment Inspection

A complete inspection of each individual work of art in the 3 part installation, was undertaken 2-5 April 2024 by Conservator Andrew Todd as proposed in January 2024. The findings from the inspection assessment are provided here in a Condition Report with a recommended Treatment Proposal for the ceramic fin towers installation.

Historical references to the City of Victoria Art collection have been reviewed and referred to in the report. Sketches, drawings, and digital photographs documenting the condition were made.



For the examination the pool was drained.

Activities carried out for the examination:

A review of the history of the installation, previous reports and restoration changes to the sculptures were made as well as an assessment of any conservation monitoring with reference to present and past treatments and the condition of the installation. This research is included with the examination report for the object.

Conservation handling techniques were followed during the examination.

Physical measurements of structural depths in deteriorated materials were made by traditional physical instruments.

Moisture level readings were made and estimates of penetration and effects calculated.

Records of measurements of damage and defects are included in the report.

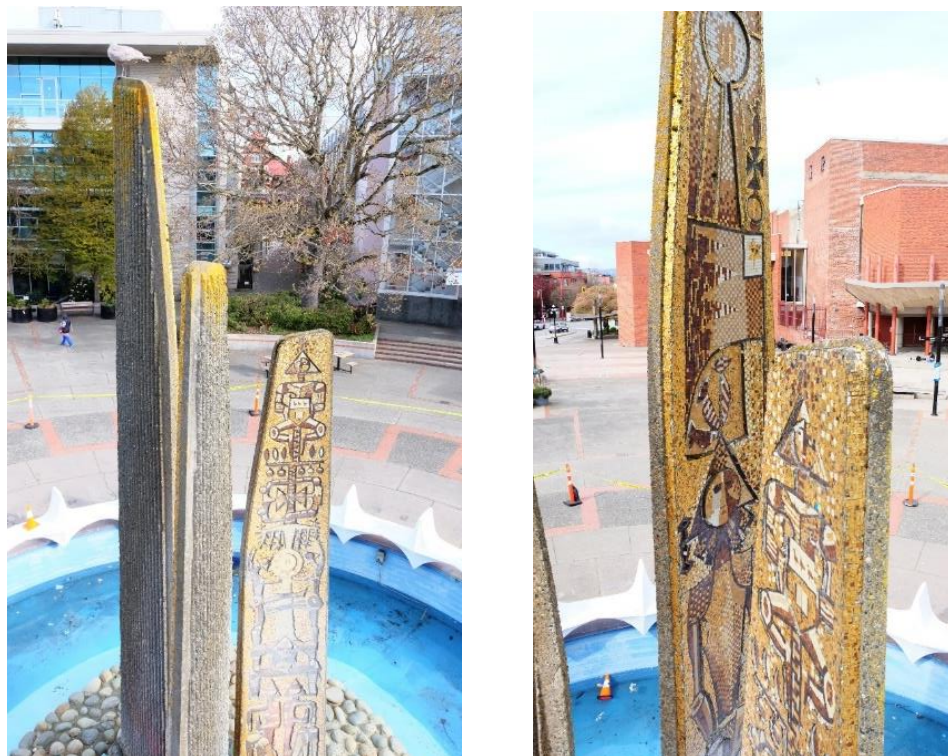
Evidence of deterioration activity was investigated and reported.

Condition Report

Information from the on-site examination and tests are recorded here in the Condition Report for the 3 Ceramic Fin towers (sculptural concrete aggregate and Italian Glass Tiles) in the Centennial Square fountain. The recorded data has been systematically analysed in relation to longevity of the materials. The record includes physical measurements of areas of deterioration, including stability depths and measurements by traditional instruments. Losses are detailed with descriptions of the remaining interface. Biological growths are recorded present on surfaces of the sculptures. Surface descriptions include flaking, faded, and lost surface areas. Stability of the

sculptural structures was tested physically and reported here as in stable condition. (Engineering reports are separate.)

Treatment priorities have been determined in relation to the preservation needs and are provided here as a Treatment Proposal for the Ceramic Fins sculptures. The Condition Report is written in a standard conservation report format and accompanied here with photographs of the objects.



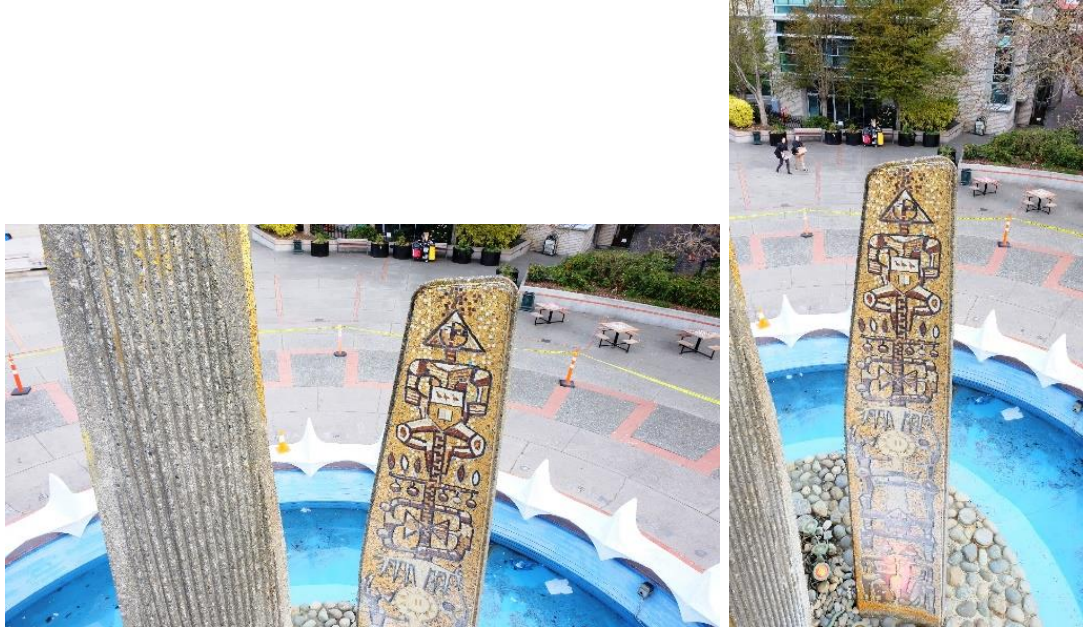
Details of tops of the fin towers reveal a golden yellow moss growth overall.

Examination and Inspection Instruments and Equipment

The visual examination was assisted by light, magnification loupes and binoculars as required. Material samples were collected, and identification indicates active biological growths overall on upper surfaces. The usual hand instruments used in heritage examinations were employed. Scientific instruments were used to monitor air temperature, light and moisture levels. Vibration issues were monitored physically. Safety issues were observed carefully in relation to all activities of the inspection. In addition, acoustic tapping tests, moisture level readings and surface related tests were proposed and carried out as part of the conservation examination. These findings are included in the report with recommendations.

Condition Report Summary

The following conditions were noted from the examination assessment of the Ceramic Fins of Centennial Square Fountain, 3 part sculptural installation.



Detail photos of upper areas of the towers. The whitish haze can be observed on the bottom half of the towers and the golden yellow moss/lichen growth on the upper half.

- 1.) surface deterioration was observed overall, biological surface growths of lichens several kinds of moss, and fungal growths were especially evident across the top half of all 3 fin towers. Tests found that manual removal of surface build-up of moss could be removed by careful scraping with gentle tools followed by slightly stiff brush cleaning. Both the tile surfaces and aggregate backs of the towers were noted to have the same build up of the moss and lichen growths.
- 2.) In the upper areas, weathered grout and foreign deposits, bird guano and accretions, along with surface dirt accumulations were noted. Weathered grout was observed as crumbly whitish powdered areas in depths of .5-1 cm in corners and interfaces of tile to tile areas.
- 3.) The lower half of all 3 fin towers exhibited signs of deterioration caused by force of water jets and fading of the surfaces on both sides of the columns caused by chemical contacts from water additives like chlorine.
- 4.) Impact damage from contact by projectiles was noted to have caused damage to some individual tiles in a few locations. These are indicated in the photos. Losses of aggregate material noted in fluted backs of each column especially near bases.



Impact damage to tiles noted in this photo.



Areas of loss, large area on right photo.



Examination of the base was conducted down to base level of the structures.

- 5.) Structural deterioration could not be identified in the towers. Tests indicated durable stability of the fin towers in their base support. Previous structural engineering reports indicate deterioration of exposed rebar support rods.
- 6.) Vibration could not be detected in or around the sculptures and was not considered a condition issue. Movement of the fin towers could be created by physical manipulation at the top but revealed no weakness of strength.
- 7.) Likewise, the structural contact of tiles to the substrate was found to be stable, except for a few smaller pieces directly on edges at the top of the fin towers. In some of these cases deteriorated and weathered grout was associated with losses in these areas.
- 8.) No structural deterioration was noted caused by physical damage or maintenance equipment. Condition of the pool area of the fountain was not considered in this examination.
- 9.) Surface images were noted covered by a film of whitish deposit at the base area of the installation. This condition extended upward nearly half the height of the towers. Roughly measured at 10 feet (approx. 3 meters)
- 10.) No structural deterioration caused by any other factor was noted.
- 11.) All associated materials were examined on the fin towers, but not for any other part of the fountain.
- 12.) The Condition Report indicates treatment is recommended.
- 13.) A complete Treatment Proposal for the 3 sculptural units follows.
- 14.) A maintenance schedule for the artwork installation is also recommended.



Examination of the upper surfaces found conditions of heavy moss/lichen fungal growths

Treatment Proposal and Recommendations

The following Treatment Proposal and Recommendations result from the above Condition Report findings of the examination. The proposals include step by step approach to priorities according to different treatment steps for the objects. Overall priorities are addressed and recommendations for dealing with scale of treatment and sequences are included in the report as steps in a work plan. Should any biological issues arise (bees and wasps), Integrated Pest Management systems will be addressed in the Treatment Proposal. This survey does not include an engineering structural analysis which has already been provided by others.



Upper surface conditions on left with moss/lichens. base levels of surface with whitish film.

- 1.) Treatment of surface biological growths of lichens several kinds of moss, and fungal growths across the top half of all 3 fin towers to be removed by physical brushing of both sides and edges of each tower with gentle tools and soft

- scrapers followed by anionic detergent wash, using similar brushes and then a rinse and followed by a subsequent application of a borate preservative.
- 2.) In the upper areas, weathered grout and foreign deposits, bird guano and accretions, along with surface dirt accumulations are to be removed and followed by consolidation of weathered grout and crumbly whitish powdered areas in corners and interfaces of tile to tile areas. Specific consolidation product by Lascaux (Hydro Sealer).
 - 3.) The lower half of all 3 fin towers to be cleaned by wash and rinse followed by tests to determine best removal chemical/acid for the surface build up of additive whitish stains.
 - 4.) Areas of impact damage to be consolidated at location sites. Repeat consolidation application as required. Preparation of new aggregate concrete to areas with losses. Product; Bentomat, Geosynthetic Clay Liner, (or similar product) and new aggregate concrete material.
 - 5.) Follow surface cleaning with preparation for applying new tiles to resemble existing areas. Repeat process to fill losses. Apply restoration concrete product to aggregate losses on aggregate sides of the 3 columns.
 - 6.) Continue application of new tiles and grout as required. Continue application of new aggregate materials to restoration concrete in areas with losses.
 - 7.) Consolidate smaller areas of loss directly on edges at the top of the fin towers. Repeat application for deteriorated and weathered grout associated with losses in these areas.
 - 8.) Structural deterioration as noted in engineers report of corroded rebar in concrete to be treated separately by others as advised. Pool area of the fountain is not proposed for treatment by our firm.
 - 9.) The surface images that were noted covered by a film of whitish deposit at the base area of the installation is proposed to be treated based on tests following initial overall wash operation for the whole 3 columns of the installation.
 - 10.) No other structural treatment is proposed..
 - 11.) Other parts of the fountain to be dealt with by others.
 - 12.) This treatment is recommended based on findings of the examination.
 - 13.) The Treatment Proposal for the 3 sculptural units is proposed to be undertaken by Conservator Andrew Todd according to the Standards and Guidelines for the Conservation of Historic Places in Canada, Vol II, 2010.
 - 14.) The following maintenance schedule for the artwork installation is also recommended.

Maintenance Schedule

The above proposal, once carried out, should be regularly maintained according to scheduled examinations every season and annual condition inspections every year. The recommendations for conservation maintenance treatment every 5 years are to be repeated new proposed versions of the above cleaning treatment steps.

Time Estimate for Current Treatment Project

Location and On-Site Treatment Plan: (4 people)	15 days
Scope of work; Report:	2 days
Travel (fee)	2 days.
Total:	19 days

Draft: Budget Proposal, Seasonal until 31 October 2024:

This conservation treatment proposal is to be carried out according to international standards and “Standards and Guidelines for the Conservation of Historic Places in Canada”. Conservator Andrew Todd will be conducting all stages of treatment with the assistance of trained conservation assistants and Mosaic Artist Bruce Walther also with a trained assistant. Liaison with the City of Victoria will be carried out through the Cultural Planning, City of Victoria.

The fees for the above treatment project is: \$108,550.00. (Travel expenses, food and 14 nights accommodation in addition: ***\$14,725.00***) Materials and Supplies: ***\$1000.00.***

Estimated total: \$124,275.00

Costs for rental of 2 Genie lifts in addition; X60 required.

I am available to discuss and review proposals and planning for the project. For any questions or further information, please contact me by phone or email.

Signed:  Andrew Todd

24 May 2024

