

October 7, 2011



**LACMA, DCA, and Watts Towers**

**Third Quarterly Report (July-September 2011)**

**Prepared for the DCA, City of Los Angeles, by Frank Preusser, Mark Gilberg, and Brooke Davis Anderson**

**Summary**

During the third quarter we continued the organization and review of existing documentation and information (hardcopy and electronic), hired an Assistant Conservator, two part-time Research Assistants, and one Student Intern. A local contractor re-wired the storage container. The weather station was received and installed. The Thermal Imaging Camera was also received. About 75% of the state treatment records from 1979-1985 have been sorted and re-housed. Work on the fallen fragments has resumed and made good progress. Experimentation with vibration monitors continued. A contract has been signed with GBG USA Inc. to perform a “Measured Building Survey” (laser scan).

**Introduction**

Besides routine maintenance of the site and monument, the main task for the first year is to review and assess the City’s existing conservation and preservation plans for the Watts Towers, which includes proposing changes consistent with available funding and developing a comprehensive conservation management plan. To accomplish this it is necessary to thoroughly evaluate the performance of past interventions. It is also currently not known what the actual *rate of deterioration* is, both in terms of crack development and loss of decorative elements (ornaments). In the third quarter we continued the work commenced in the first two quarters and expanded on it with the main goal to better understand the deterioration mechanism of the monument and the reasons for the successes and failures of past interventions.

**Accomplishments**

**Staffing**

- Ms. Blanka Kielb started on August 16<sup>th</sup> as Assistant Conservator.
- Ms. Heather Goers (USC) started on August 2<sup>nd</sup> as part-time Student Intern.
- Ms. Kimberly Blanks and Mr. Israel Campus started on September 1<sup>st</sup> as part-time Research Assistants

### Consultants

- Discussions with Mr. Mel Green (Melvyn Green & Associates, Inc.) on the monitoring program for the Towers continued.
- Upon our request Dr. Hugh Saurenman (ATS Consulting) submitted a proposal for a pilot vibration and crack monitoring study. After reviewing the proposal Mel Green and LACMA staff met with Dr. Saurenman and we reduced the scope of work and requested a revised proposal.
- Upon our request Mr. Christopher Gray (GBG USA Inc.) submitted a proposal for a “Measured Building Survey” of the Watts Towers. The proposal was accepted and the survey will be carried out in the first week of October. This will replace the C. W. Cook surveys from 1988 and 1994 with a high resolution laser scan. To determine if there is any permanent movement of the Towers and/or the floor it is currently planned to repeat the survey every two years or after any sizeable seismic event.
- Vector Corrosion Technologies was contacted to explore the possibility of assisting in corrosion monitoring and electrical continuity measurements.
- Cortech Corp. was contacted for advice on the potential application of migrating corrosion inhibitors (MCI) at the Towers.

### Office

Two laptop computers, one tablet computer, and one server were added to the office equipment. All Watts Towers electronic files, reports, and images are currently being consolidated in the cloud (Egnyte), allowing all project staff remote access to all the information they need in their work.

Additional shelving was purchased and installed to accommodate the re-housed fragments and file boxes.

The re-organization and purging of the office files continues.

A stereo microscope has been temporarily transferred from the LACMA laboratories to the WT Conservation HQ to facilitate some of the work with the fragments and future testing of conservation materials and methods.

### Chemical Safety

Ms. Sylvia Schweri-Dorsch attended an OSHA workshop on workplace safety in July.

### General Safety

The unsafe electric wiring in the storage container has been replaced by CDM Construction and it is now to code.

The repair/rebuilding of the platform in the location of Rodia's house is still under discussion.

To comply with safety regulations the pedestrian gate of the site has been retrofitted with a push-bar to allow egress from the site without a key. Access to the site still is only possible with a key.

A safety plan (required by OSHA) is currently being drafted.

### Site Maintenance and Improvements

The site is surveyed daily for any fallen ornaments and other problems.

One cracked and detached tile fragment in the Gazebo has been reattached (temporary) using B72, as well as two fragments that had been removed earlier as a precautionary measure. B67 is currently being evaluated as an alternative to B72.

The chain-link fence gate in the South Wall and its posts, and the steel sign post at the SW corner of Rodia's house have been removed by Charles Dickson (figures 1 and 2).

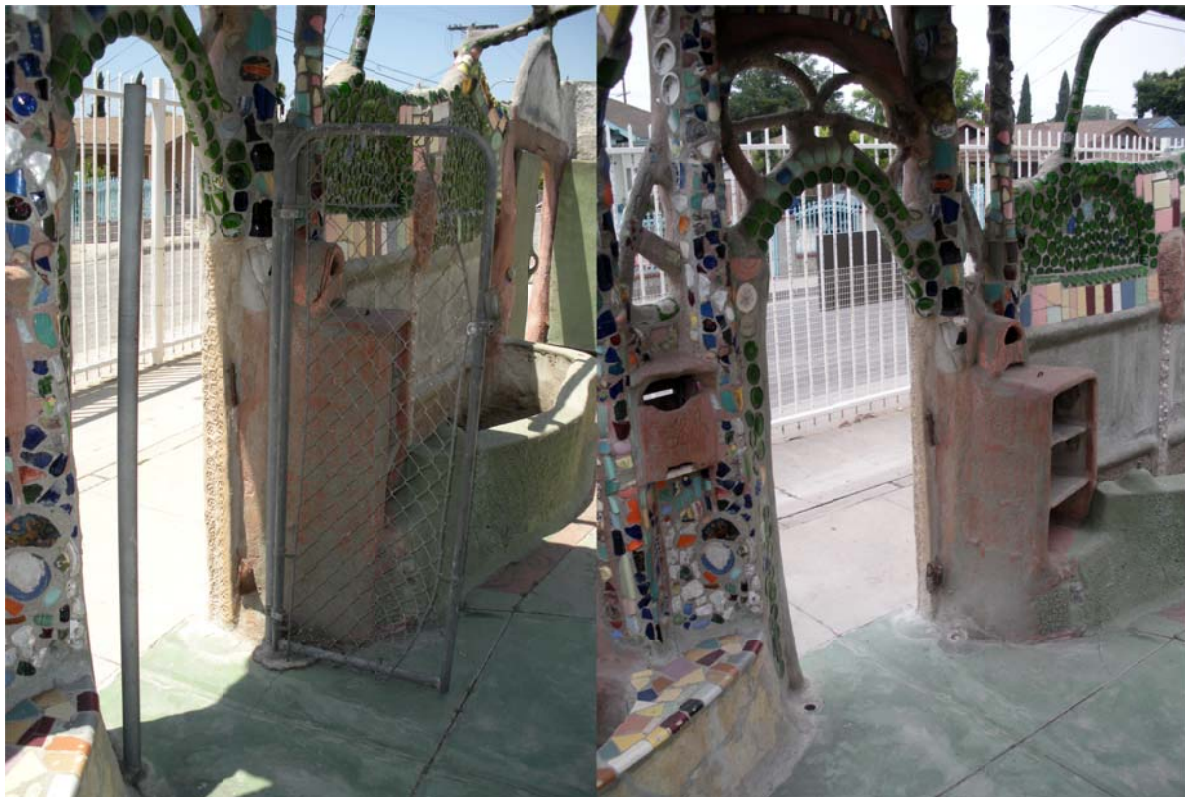


Figure 1: chain link gate

Figure 2: after removal of the gate

It was observed that the garage doors are moved by visitors and the wind. This puts considerable strain on the hinges. It was therefore decided to fix them in one position and at the same time take some load off the hinges (figures 3 and 4; built by Charles

Dickson). This intervention is fully reversible and the current position of the doors can be changed at any time.



Figure 3: garage doors locked into position



Figure 4: locking and lifting device

The problem of bird droppings has increased and we are currently exploring different cleaning strategies.

We are also currently exploring strategies to prevent cats from urinating at the bow of the Ship (figure 5). One possibility is the installation of an ultrasonic cat deterrent.



Figure 5: cat urine problem

A sizeable bee swarm settled on the Central Tower early September. It was removed by CAT Pest Control (under city contract) on September 23rd.

#### Archival Research

Ms. Colleen Boye continued re-organizing, re-housing, and creating an inventory of the treatment records from the state. There are approximately 4,000 unique records covering the time period from 1979 to 1985. Approximately 3,000 have been re-housed. Scanning of individual records will be done on an “as needed” basis (figures 6 to 8).





Figure 6: state record from 1983

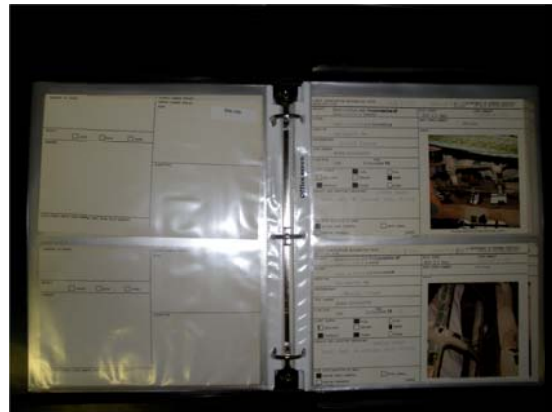


Figure 7: re-housed state records



Figure 8: part of re-housed records and photos

### Rand Photographs

Liz Werden has finished the sorting and re-housing of the Rand 35 mm slides of the three towers and we are awaiting a quote for the scanning of the slides. The unique set consists of approximately 1,800 slides.

### Re-Photography of the Monument

Re-photography of the monument had been temporarily stopped because of adverse light conditions. It will be resumed in the next quarter.

### Inventory of Detached Ornaments

Work on the fragment inventory, that had been temporarily suspended, has been resumed after Kimberly Blanks started. Kimberly has made good progress, documenting 70 fragments.

21 fragments have fallen since the last report. They have been collected, photographed and entered in the database

### Condition Survey

While the thorough condition survey continues we decided to add a more rapid survey with the goal to identify areas that need a temporary intervention prior to the rainy season.

Since for the foreseeable future scaffolding will not be available, and boom trucks only provide very limited (and expensive) access to the Towers we decided to explore the possibility of using a spotting scope and/or a camera with a telephoto lens for a survey of the towers themselves. The initial test was very promising and we will continue to pursue this approach, using the ARG crack documentation as a guide

### Elastomeric Crack Fillers and Repair Mortars

Partially based on recommendations by Norman Weiss we started identifying elastomeric crack fillers potentially suitable for the crack repairs at the Towers. We are in the process of obtaining one or more of the more promising products and will start the preliminary evaluation process.

We are also exploring different non-shrinking repair mortars that have been developed in the past decades or two.

### Evaluation of Cracks

The majority of the previously installed simple crack monitors (telltales and plaster bridges) showed movement to varying degrees. A number of plaster bridges have been added in the third quarter. Two telltale monitors were removed by visitors and found on the ground. As we are preparing to install more (and more expensive) monitoring devices this causes great concern about securing future experiments from vandalism and interference.

We are currently discussing with ATS Consulting the installation of strain gauges for a more detailed crack monitoring program.

### Vibration Monitoring

Difficulties arose with the vibration monitors with extended battery life (figure 9). The towers interfere with the radio signal from the monitors and we were not able to record the signal with the base station at the Conservation Office. We obtained a different antenna which seems to solve some of the problems. We will continue exploring this option. Since all the equipment is currently on loan to us we will soon have to decide if we want to purchase it.



Figure 9: vibration monitor

Weather Station



Figure 10: weather station during installation



The Weather Station was received and installed (figure 10). We are currently collecting data at ½ hour intervals. The sampling interval will be reduced to two minutes when Santa Ana conditions or storms are forecast. For this purpose we have signed up for a weather alert service.

### Thermal Imaging

We are currently developing a measurement/recording protocol for the use of the thermal imaging camera for the documentation of the thermal profile of the monument.

### Fundraising

Notification is pending from a corporation for additional grant funds.

### Other

LACMA toured a patron to the Towers (July 8), presented to the Watts Neighborhood Council (July 12), met with State Park Representatives (July 14), former WTAC Director Mark Greenfield (July 19), Watts Labor Community Action Committee (WLCAC) Tina Watkins (July 25), and attended Wattstar Theater Luncheon (July 26). Attended Watts Towers Mayor's Task Force (WTMTF) (July 27), toured The Arts Newspaper (August 4, August 24), visited Noah Purifoy's (first director of WTAC) site (August 8), toured Peter Zumthor (August 11), met with Anita Bennett about press (August 15), met with potential funder (August 16), met with Dr. Cecil Murray (August 17), Tim Whalen of the Getty (August 18), Tibby Rothman (August 19), Rosie Lee Hooks, director of WTAC (August 20), KUSC for press (August 21), Wattstar Theater staff (August 22), Harbor Watts (August 23), WTMTF (August 24), Getty conservators (September 14).

Additionally, a "Partner's Lunch" was held on July 27 and September 28 for DCA, WTAC and LACMA staff.

LACMA and WTAC coordinated 6 shuttles on July 23-24, August 20-21, and September 10-11, all of which sold out and provided income to WTAC, Dominique Moody, and Watts Coffeehouse.

The WTAC Summer Camp visited LACMA on August 7.

LACMA sponsored a portion of WTAC Drum Festival on September 24 and WTAC Jazz Festival on September 25. LACMA also supported the Garden Studio on the WTAC campus.

Goals for 4<sup>th</sup> Quarter

Since most of the activities are going to take place concurrently the list below does not reflect priorities. Not all tasks will be started and/or completed within the next quarter

- Continue to secure loose, endangered ornaments by facing or other appropriate means.
- Carry out a remedial survey to identify areas that require (temporary) intervention before the rainy season.
- Continue thorough condition survey of the lower parts of the monument
- Commence survey of the higher elevations.
- Expand crack monitoring program
- Identify and install improved vibration monitoring device
- Design and start thermal monitoring program
- Start testing of elastomeric crack fillers, adhesives, and repair mortars
- Develop and evaluate a Filemaker Pro™ based database
- Continue review, re-organization and re-housing of previous treatment reports
- Continue inventory and re-housing of collected detached ornaments
- Continue search for historic photographs
- Develop the document for recommended long-term care of the artwork

Respectfully submitted by Frank Preusser, Senior Conservation Scientist, Conservation, with support from Mark Gilberg, Suzanne D. Booth and David G. Booth Conservation Center Director, and Brooke Davis Anderson, Deputy Director for Curatorial Planning, LACMA.

Submitted October 7, 2011