

# CONSERVATION

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**CONDITIONS ASSESSMENT  
and  
CONSERVATION TREATMENT RECOMMENDATIONS  
for the  
SHALAKO PROCESSION MURALS  
DE ANZA MOTOR COURT,  
ALBUQUERQUE, NM**



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## INTRODUCTION

At the request of James Kraft, Unified Arts, Albuquerque, NM, Conservation Solutions, Inc. (CSI) and Steven Prins & Company performed an assessment of the construction design, materials and conditions of the Shalako Procession Murals in the basement of the De Anza Motor Court, Albuquerque, NM. The murals were inspected by Joe Sembrat, President and Senior Conservator of CSI, Patty Miller, Senior Conservator of CSI, and Steven Prins, Paintings Conservator, on March 13, 2007. This report incorporates the results of the findings from that investigation. Discussed are the materials and methods of construction, their conditions, the causes of deterioration if known, and recommendations for remediation, protection and treatment.

On-site activity included inspection of the property and structure, with special attention given to the building and basement room housing the murals, as well as inspections of the mural *per se*. The paintings were examined visually, assisted by low-power magnifiers (OptiVisor #7). Examination was carried out under incandescent and ultra violet light.

Samples were taken for use in preparation of this report. However, no chemical/physical analysis has been carried out on them to date to aid in the characterization of the paints, i.e. identify medium and pigment. Initial characterization offered here is based solely on visual examination, as noted above, on-site solvent/solubility testing, and the experience of the conservators.

The murals and site were documented using digital photography. A selection of detail images is provided within the report to illustrate as-found conditions. Overall photographs of the two painted walls are provided with grid overlays (1 square = 1 ft<sup>2</sup>) to facilitate the location of features and conditions described herein (Appendix I).

## SITE DESCRIPTION

The De Anza Motor Court was constructed in 1939 by Charles Garrett Wallace on Route 66 (Central Avenue) in Albuquerque. Originally executed in Pueblo-style adobe, renovations made in 1950-51 have obscured many of the building's distinguishing architectural features to create what at the time was considered a new and modern appearance.

The paintings are located in a basement room at the northwest corner of the central building of the motel. Access to the room is gained through an alleyway that runs the length of the building between two rows of guest rooms. At the north end of the alleyway a single flight of stairs descends along the west (right) side, leading to a single metal door that is the only access to this part of the structure. There are no windows.

On the interior, it can be seen that three of the walls --west, north and east-- are foundation walls consisting of poured concrete. The texture of the plywood forms in which they were cast remains apparent in the surface of the concrete walls. The fourth wall is a partition wall of concrete block

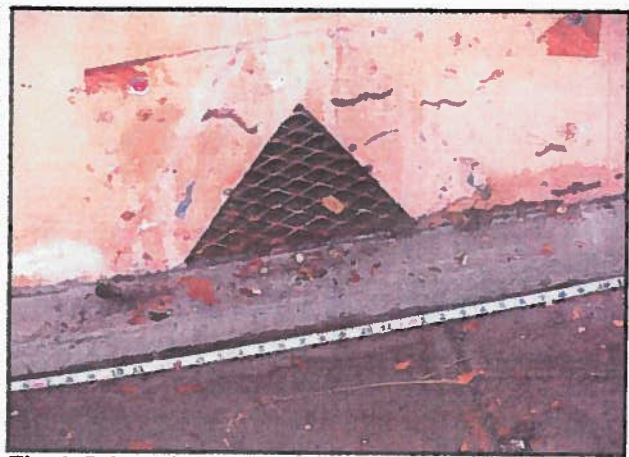


Fig. 1. Drop ceiling for plumbing, electrical and HVAC. Fig. 2. Triangular grate and 2 inch concrete dam.  
Note also vent to exterior in ceiling above north mural (left).

or concrete masonry unit (CMU), separating the mural room from an adjoining mechanical room accessible by a single door.

The basement floor is cast concrete covered with linoleum tile (or similar). The floor above is a cast concrete slab, supported by steel trusses and corrugated sheetmetal formwork. The ceiling appears to be constructed of suspended metal lathe and plaster, although this could only be observed directly above the east wall where a mechanical crawlspace is located.

The only significant architectural feature within the room is this mechanical crawlspace, a section of drop ceiling 2' high and 5'6" wide that runs along the east wall to provide passage for plumbing, electrical, and HVAC.

Two vents above grade provide fresh air ventilation for the room. On the north wall there is a triangular penetration through the exterior wall at grade. This is connected by a short duct to a grate in the ceiling above the painting (Sketch A-1 location F-14). This vent at grade must have readily emerged as a problem due to flooding. The building is designed so that all water drains off the roofs of the guest rooms, via *canales*, into the alleyway and then out to either end of the building. On the north it drains out onto flagstone pavement at grade, i.e. at the level of the vent. Either the flagstone was not properly graded or it has settled, so that water running out of the alleyway pooled in front of the vent. Damage to the corresponding interior wall indicates that water actually flowed into the vent -- probably on more than one occasion. At some point a concrete curb was constructed to prevent further flooding through the vent. Roughly 2" high, it runs



Fig. 3. Pavement and gate to alleyway and access stair. Note also concrete berm.





Fig. 4. Gutter spilling into alleyway.



Fig. 5. Vent in soffit to the left of the door.

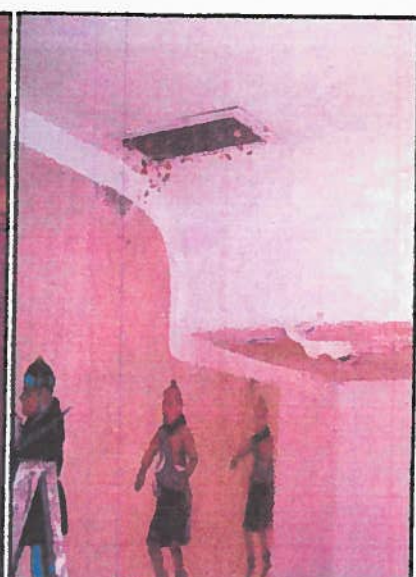


Fig. 6. Debris coming from vent grate.

along the exterior of the north wall, extending beyond the building to dam roughly 2/3 of the entrance to the alleyway. It then turns at a 90° angle, damming off the flagstone in front of the vent and directing the water from the alleyway out into the parking lot. The duct appears to have been filled to the level of the dam behind the grate, as well.

Additional ventilation is provided by a rectangular vent in the exterior of the east wall, connected by ductwork to a grate in the ceiling just to the left of the door (as seen from within).

Neither vent contains a filter and leaves and other debris were found on the inside of the interior grate of the north wall.

## PAINTING DESCRIPTION

The murals are executed on two walls of the room: north and east. The overall dimensions of the paintings, in their present state, are 18' 4½" H± x 5' 6½" W± and 13' 8½" H± x 3' 7½" W±, respectively (see Appendix I). However, these dimensions are defined by white overpaint applied some time after the paintings' execution, and probably not by the artist. Originally, the walls appear to have been painted entirely with the yellow that appears as the ground of the paintings (including the west wall as well). The figures appear to have been originally painted on this

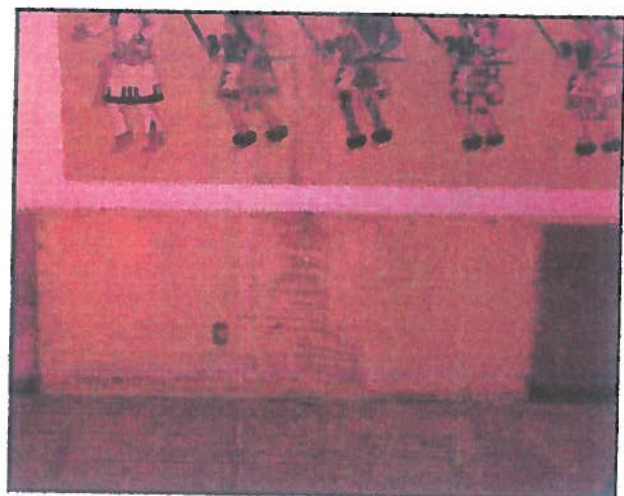


Fig. 7. East wall with section of wainscot removed showing overall yellow wall color and water damage and mold growth at base of wall.

yellow ground without any borders or framing elements. This yellow paint extends behind the present wainscot, indicating that this was also a later addition.

The paintings represent the Zuni Shalako procession. Their history and iconography has been previously researched by others and a report provided to conservators on the day of the assessment (see Appendix II for full report provided). The relevant description of the paintings is provided in a quote from the document below.

Wallace's most significant addition to the De Anza Motor Court in the 1950s was a private basement banquet room, north center section, featuring two brilliant, oil based, polychrome 20' x 4' Shalako murals, by Zuni artist, Tony Edaakie, Sr. Trained by teacher Clara Gonzales in the 1920s, Edaakie is considered a major figure in 20<sup>th</sup> Century Zuni painting and lapidary arts. As these Shalako murals, while subtly altered for non Zuni viewers, are quasi religious in nature, viewing of such work by non Zunis requires educated, informed respect.

Shalako is a Zuni winter ceremonial. Figures featured include: North Wall: a Ceremonial Father, the Little Fire God, the Rain Priest of the North, Deputy to the Rain Priest, a Shalako (a courier to the Gods), the Shalako's support/alternate, two Mudhead figures

East Wall: a Ceremonial Father and 6 Sacred Directions Guardians

It should be noted that this information was compiled in recent times and may not be completely accurate, as the reported dimensions would appear to describe the painting in its present condition, as it is defined by later overpaint. These dimensions are not accurate. The author (unknown) identifies the paint medium as oil-based. This appears to be based on conversations with the artist's sons and assistant, but has not been confirmed. And the exact use of the room, described generally here as a banquet room, has not been corroborated.

The painting is signed in the lower-right corner of the east wall:

Tony Edaakie

Zuni, New Mexico

The signature is neatly printed in black paint. The ruling used by the artist to lay out his signature remains visible.



Fig. 8. Artist's signature in lower-right corner on east wall.

As noted, the figures are painted on a yellow ground. This appears to have been painted directly onto the surface of the cast concrete. No other general/overall priming or preparation was observed/detected in this inspection. Removal of small areas of the white



overpaint on three walls (north, east and west) all revealed this yellow paint. Removal of a section of the wainscot also revealed a surface entirely painted with this yellow. It appears that the room was entirely painted with this yellow prior to the painting of the figures. At this point it is not clear whether this was done by the artist or pre-existed the artist's involvement in the decoration of the room. On the one hand, similarity in the paints' appearance and solubility characteristics suggest that they are probably contemporary and similar in composition.

On the other hand, the fact that the surface of the north wall appears to have required additional preparation by the artist before painting suggests that he may have inherited this yellow. A slight discrepancy of color between the two layers suggests that they were not from a common pot. However, this does not determine whether the artist was matching a color he inherited or one he created himself.

It is worth noting that this yellow ground is very similar to that used by Ma Pe Wi in his Shalako murals painted at the Pritzlaff Ranch, San Ignacio, NM in 1934.

It appears that the artist found the surface of the north wall unacceptable and made fills with a white plaster-like material before painting. A second coat of yellow was then applied over the fills. The presence of two layers of yellow was confirmed in several locations, by various means, across the north wall. By contrast, the fills appear to have only a single layer of yellow underlying the colors of the imagery. The fills themselves can still be detected topographically, as they are generally smoother than the rest of the surface and are often surrounded by some irregularity or disruption at their borders. They are further distinguished by extensive



Fig. 10. Lighter yellow below existing top yellow.



Fig. 11. Shalako murals painted at the Pritzlaff Ranch.

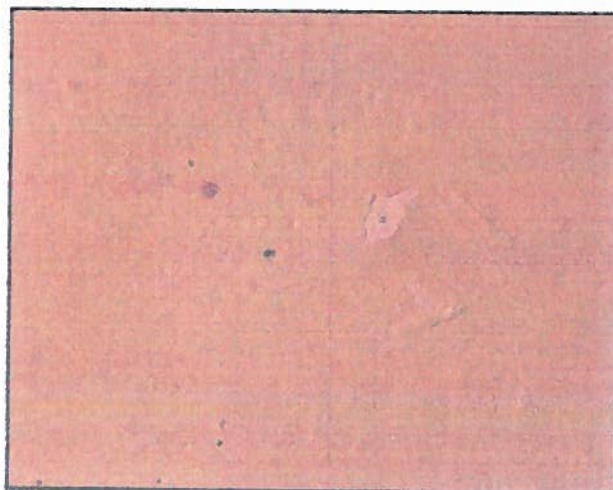


Fig. 12. Loss to plaster patch in yellow ground reveals earlier yellow paint. Note also raised texture of plaster patch.

associated cleavage and flaking of paint.

Before painting, the figures were sketched onto the yellow ground of the walls with pencil. The colors were then applied using the drawing as a rough guide. The actual painting frequently deviates from the initial drawing as is evidenced by the artist's original pencil lines that remain visible in many places around the borders of the figures. Care must be taken in cleaning not to remove this drawing.



Fig. 13. Cleavage and loss of plaster patch in figure.

The figures are painted in a distinctive style. They are modeled to a much greater degree than was often the case in traditional Indian School paintings. However, there is little evidence of blending of colors on the painted surface. Rather it appears that the artist mixed the range of colors required on his palette or in pots and applied them progressively from light to dark or center to edges, or visa versa, as needed. The parallel hatching and stippling of the artist's brushwork remains apparent

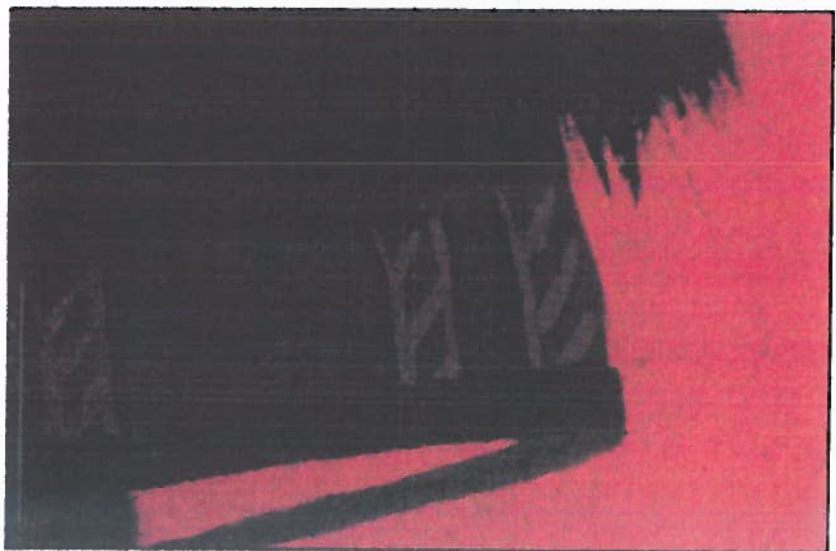


Fig. 14. Faint initial drawing just to the right of the skirt edge.

throughout. Many of the figures or features within them are finely defined with a fine black or brown outline. Some details, such as beads and buttons are outlined with a darker value of the same hue. The anatomical features of the figures are strongly articulated. The knees are particularly exaggerated, with dark modeling defining sharp geometric forms. To a lesser extent the shoulders are similarly defined. Along with their proportions and the absence of any indication of the ground on which they walk, this gives them a puppet-like, ethereal quality. Their garments and ceremonial attributes are painted with bright colors in great detail.

The paints are generally characteristic of aqueous media of the type favored by many Indian School painters, i.e. casein. They are thinly applied, yet cover opaquely. Applied as fluids of



varying viscosity, they do not retain the texture of the artist's brushwork. They present a generally matte surface, although careful inspection reveals some variation of gloss that appears to coincide with concentration of media in different colors and passages.

The paints were found to be resistant to all organic solvents tested, including aliphatic/aromatic hydrocarbons, alcohols and ketones. They were found to be variably sensitive to water in the short term. The yellow of the ground was found to be most sensitive. Upon wetting with water, saliva, etc. it became soft and susceptible to removal with a cotton swab after a minute or so. The other colors were found to be only slightly sensitive after even longer exposure and manipulation. General sensitivity to prolonged exposure is evident in areas of past water damage. This is particularly apparent on figures 2 & 3 on the east wall (from left first two Direction Guardians) (East, A3-5:D3-5), where water running on the surface of the painting eventually dissolved and/or eroded paint and ground away to the concrete support without any other mechanical action.

The observed characteristics of the paints are consistent with casein – an aqueous medium that dries to look like gouache but becomes insoluble in water as it cures. However, one cannot rule out the possibility that they are oils. Other Pueblo artists reportedly imitated the desired effects of casein/gouache painting with oils, i.e. Oqwa Pi's paintings, c. 1933, at the School of American Research, Santa Fe, NM. However, this is assuming that they are artist's colors. Painted in 1951, they might be



Fig. 15. Artistic details in gray shading, cross hatching, articulation of fingers and outlining.



Fig. 16. Steven Prins conducting organic solvent testing.

one of a number of new commercial media coming on the market at that time.

Further analytical testing to characterize the paints was not within the scope of this initial examination. Solvent testing and empirical observation proved to be sufficient to determine possible/potential courses of treatment and potential risks entailed and possible constraints. Additional sampling and analysis should be carried out prior to the installation of the site protection by the conservator charged with treatment of the paintings as they deem necessary or as mandated by the owner or the owner's representative.

The paintings' reactions to organic solvents indicate that they might be employed in cleaning and solvent-based adhesives may be employed in consolidation. Their reaction to water suggests that aqueous adhesives and cleaning agents could be employed as well. The paints were found to be resistant to slightly elevated pH, i.e. 8.0 – 8.5. Where tested, they proved to be sufficiently resistant to permit safe cleaning with detergents and/or chelating agents specifically prepared for the purpose. However, while aqueous cleaning would seem to be indicated for effective and efficient grime removal, their use would require caution and constraint in a general cleaning protocol. The aqueous solutions tested were found to effectively remove salt efflorescence on the painted surface, as well.

## OVERALL/GENERAL CONDITION

The overall condition of the paintings is very good. In large part this is likely due to their location. First, their subterranean location appears to have provided a very stable climatic environment for the paintings, buffering/damping variations of temperature and humidity. On March 13, 2007, the morning of the assessment (8am-12pm), the room conditions were 53 degrees Fahrenheit and 32% humidity, as measured by conservator's battery powered thermal hygrometer. The outside conditions were sunny, average temperature 57 degrees Fahrenheit, and 48% relative humidity. The private nature of the room's function and its out of the way location have also led to benign neglect, sparing this room the abuse suffered by many of the guest rooms above it.

The paintings were therefore found to be relatively free of defects and deterioration. The images are generally well preserved. The colors remain bright and clear. The paints remain sound and generally securely bound to the substrate.

The only exception to this was cleavage and flaking paint observed in numerous locations on the north wall. Here the paint was lifting from the support in broad, foliate flakes. Losses in these areas consistently exposed a white, plaster-like surface rather than the yellow ground or the concrete of the wall. In fact, it was the observation of the white in these losses that first alerted us to the presence of the fills. Unfortunately, the fill material or its finishing does not appear to have provided good adhesion for the paints as they dried and aged. Examples of this kind of flaking are seen in Figure 3 (North, C5, C6, D6). There are many areas of insecure paint on the north wall at risk of further loss. Consolidation to prevent further loss is urgently recommended prior to the installation of the site protection.



Initial cleaning tests revealed only a moderate general accumulation of dust and grime.

A prominent settling crack extends the entire height of the north wall, passing through the fourth figure from the left (North, A8-9:F8-9). There is some insecure paint and minor losses along the crack. It has been painted over above and below the mural. While it is visually intrusive, the crack does not appear to pose a significant risk to the painting. However, it is advisable to monitor this crack during construction, visually and perhaps with strain gauges (see recommendations).

There is a secondary crack in the concrete that starts just below the vent (North, F14) and passes between the figure to the right of the Shalako and the first Mudhead figure and then through the figure to the right of the Shalako (North, A14-B14). The aperture of the crack is relatively fine, making it less visually intrusive. There are some very minor losses along this crack as well.



Fig. 17. *Left*, Overall view of crack extending entire height of north wall and passing through fourth figure from the left of the north wall group.

Fig. 18. *Above*, Detail of crack through the skirt of the of the fourth figure. Note also paint losses along the crack.



## DAMAGE & OTHER LOCALIZED CONDITIONS

The paintings have sustained moderate to severe damage from water in three locations. The least of these is associated with the vent on the north wall. Here it appears that water entering the exterior vent penetrated the ductwork and percolated through the wall. This has resulted in salt formation at the top of the wall directly beneath the vent, leading to disruption and loss of paint at the top of the mural (North, F14). About 1/2 of this damage has been painted over with the white latex wall paint of the recent surround. The apparent area of damage to the mural is therefore relatively small. Vertical water stains extending the entire height of the painting are observed in a broader area to the left of this, running through the Shalako's support/alternate, suggesting that in some incident(s) water spread horizontally before running/percolating down the wall (North, A14:F14). Some leaching of medium may have been sustained in the process. However there does not appear to be significant structural damage associated with this water damage, only staining from soluble materials in the water.

The most severe and significant damage has been sustained where water has penetrated the structure and been allowed to run down the painted surface for a prolonged period(s) of time. This was the result of a broken drainpipe from the bathroom sink of the guestroom above. Through a still-open penetration in the exterior wall two repairs to the pipe were observed, suggesting more than a single event. As can be seen in Fig. 20, this pipe descends below grade outside of the cast concrete floor above the mural room. This meant that water from the leaking pipe drained directly into the mechanical crawl space in the mural room. From there, much of it percolated directly down through the ceiling (the crawl space) and ran down the east wall (East, A3-5:D3-5). Some flowed and pooled at the north end of the crawl space, eventually percolating through the ceiling to run down the surface of the north wall (North, A18:D18). Expanded metal lathe was severely corroded and the plaster badly degraded in the process. A considerable area of lost and detached paint and plaster extends from the north wall along the ceiling of the crawl space. It is not clear whether a large hole at the north end currently covered with a piece of vinyl sheet is the result of mechanical failure and collapse or was opened up to allow the water to drain. These iron oxides may account for much of the staining observed in tide lines and salt formations.

However, discoloration associated with areas of dampness also raises the possibility of mold infestation. No sampling or analysis has been



Fig. 20. Opening in exterior wall and bathroom pipes.



Fig. 21. *Above*, Detail of water damage to east wall.

Fig. 22. *Upper Left*, Large hole covered by vinyl sheet above Mudhead figure on north wall.



Fig. 23. *Lower Left*, Detail of water damage to Mudhead figure.

carried out at this time to determine the presence of mold. Further testing can be carried out at the time of treatment. Depending on the results of such testing, or simply as a prophylactic, these areas should be disinfected in the course of treatment.

At its worst, where the water flowed over the surface of the painting it has dissolved/eroded the paint and ground to expose the concrete substrate. The last figure on the north wall and the first three figures on the east wall are severely affected by such damage. The surrounding paint is discolored from a variety of causes: leaching of material from the paints, blanching of the paints, salt formation and staining from soluble material in the water, i.e. iron oxide from corroded expanded metal lathe. Water percolating through the wall has evaporated at the painted surface and has deposited white salt efflorescence over a much larger area, concentrated at the tops of the walls (North D18, East D3-5). The crystallization of these salts has disrupted and dislodged the paint, resulting in large areas of extremely fragile, salt-laden paint and considerable extensive loss. This condition is most severe between the second and third figures on the east wall (a 12 square foot area), both of which have sustained extensive loss and remain extremely fragile. However, its effects extend to the corner of the room in one direction, where losses due to damp/salt formation are observed in the ground in front of the leading figure, and to the fourth figure in the other, where distinct salt efflorescence has formed





Fig. 24. Detail of staining between figures on east wall .



Fig. 25. Detail of east wall showing paint loss and exposed concrete.

along tide lines passing through the top of the figure. To a much lesser extent the last figure on the north wall has been similarly affected.

In addition to these major but localized damages, a number of other minor damages and accretions were observed in various locations on both walls. These included several areas of abrasion, scratches and scuffs. There are several instances of spattered white house paint, as well as other unidentified accretions. On area of brown spotting to the left of the door is suggestive of blood. Residual tape adhesive was observed in a number of locations, especially on the north wall. These are apparent as visible build-ups of yellow, resinous material in short bands across the painted surface. The adhesive is fluorescent under ultraviolet light, which can also be used as an aid in detecting less apparent instances.

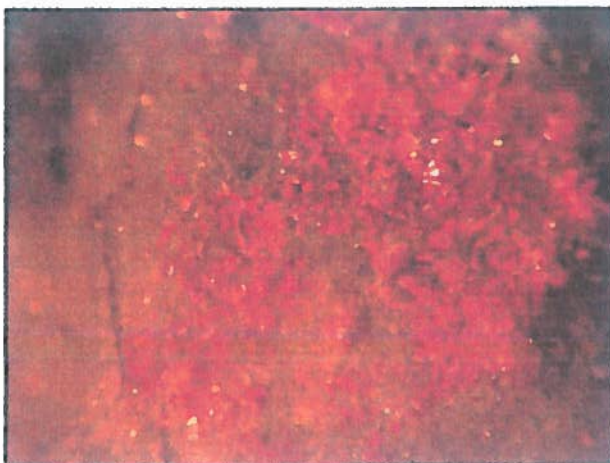


Fig. 26. Iron oxides located on the painted surface of Mudhead figure, north wall.

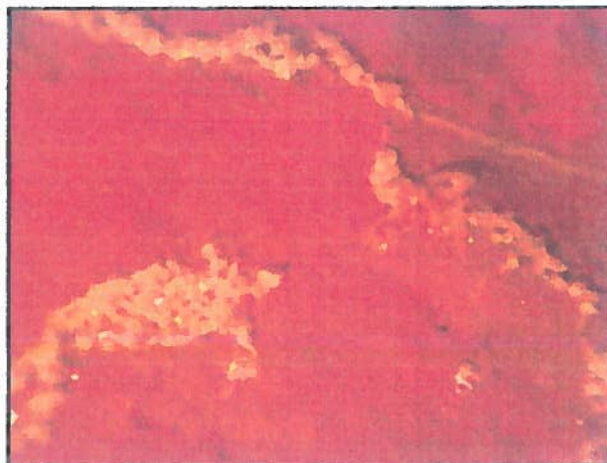


Fig. 27. Salt crystals and blister forming on painted surface of Mudhead figure, north wall.



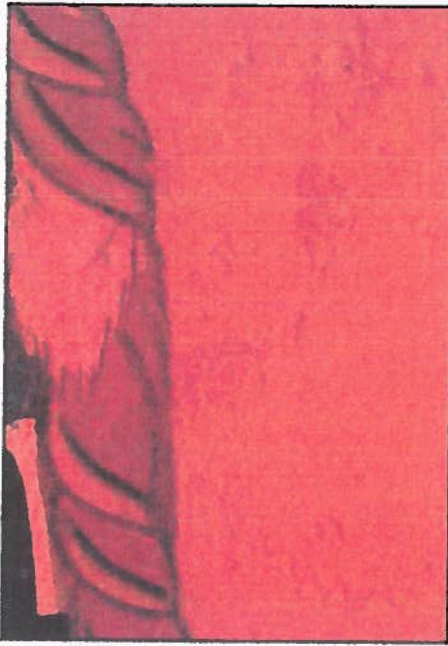


Fig. 28. *Left*, Adhesive residue on third figure from left, north wall.



Fig. 29. *Right*, Adhesive residue visible under ultraviolet light conditions.

## OTHER CONCERNS

The penetration made for the plumbing repair remains open, covered only with a piece of coated masonite sheet (the type used to line baths and showers) which is loosely screwed to the surface of the exterior plaster wall.

In this state it poses a very serious ongoing risk to the murals, providing an opening for entry of water at a location of known potential for damage.

Although no water appears to be entering via the ventilation ducts at this point, they obviously remain a significant source of pollution and debris, carried through the unobstructed and unfiltered duct directly into the room.

The wooden wainscot is damaged and rotted on both walls and may contain active mold spores. The floor materials in the northeast corner are also loose and cracked.



Fig. 30. Coated masonite sheet covering plumbing repair on exterior plaster wall.

## RECOMMENDATIONS

Recommendations for treatment are based on the following documents:

- United States Department of the Interior, National Park Service, "The Secretary of the Interior's Standards for the Treatment of Historic Properties," latest edition.
- American Institute for Conservation of Historic and Artistic Works (AIC) "Code of Ethics" and "Guidelines for Practice," latest edition.

Goals of minimal intervention, preservation of historic fabric, documentation and reversibility should be followed in the determination of treatments. The uniqueness and fragility of the murals may be contributing factors in the definition of the treatment goals.

### Glossary

The terms *Preservation, Rehabilitation, Restoration, and Reconstruction* are used here as defined in the Secretary of the Interior's Standards for the Treatment of Historic Properties.

<http://www2.cr.nps.gov/tps/secstan1.htm> - intro

The terms *Conservation, Conservator, Documentation, and Stabilization* are used here as defined in the American Institute for Conservation (AIC) Definitions of Conservation Terminology

<http://aic.stanford.edu/geninfo/defin.html>

Other historic preservation terms are used here as defined in the ICOMOS Heritage Conservation Terminology and Definition of Terms

[http://www.icomos.org/~fleblanc/publications/pub\\_terminology\\_e.html](http://www.icomos.org/~fleblanc/publications/pub_terminology_e.html)

Architectural descriptions are used here as defined in the Getty Art & Architecture Thesaurus On Line

[http://www.getty.edu/research/conducting\\_research/vocabularies/aat/](http://www.getty.edu/research/conducting_research/vocabularies/aat/)

Material names are used here as defined in the Conservation and Art Material Encyclopedia Online (CAMEO)

[http://www.mfa.org/\\_cameo/frontend/home.asp](http://www.mfa.org/_cameo/frontend/home.asp)

### Conservator Qualification Guidelines

The work to be performed on the mural should only be undertaken by a qualified (paintings) conservator who meets all of the following requirements:

1. A minimum of a Master's Degree in art conservation or architectural conservation or a Master's Degree in a related field with certification in art conservation or architectural conservation from an accredited college or university. In special circumstances specialized apprenticed training and demonstrated experience in the field, including treatment of similar objects, may be considered in lieu of the formal education and certification.

2. **Membership in good standing of the American Institute for Conservation of Historic and Artistic Works (AIC).**
3. **A minimum total of (10) ten years of experience of painting conservation/object conservation applicable to the work outlined above. The conservator must have successfully completed conservation on not less than (5) five conservation projects similar in scope, quality, and complexity of this project within the last (5) years.**

The Consulting Conservator shall examine the existing condition of the paintings to determine that the conditions have not changed since this examination report. The Conservator should then provide a treatment proposal that will include the methods and materials to be employed, a proposed work schedule, and a comprehensive description of the actual organization of the team and the work.

## TREATMENT GOALS

### Murals

The goal of the treatment of the murals will be to stabilize, clean and provide loss compensation to the original mural paintings within the framework of minimal intervention, complete documentation, and reversibility in keeping with American Institute for Conservation of Historic and Artistic Works (AIC) "*Code of Ethics*" and "*Guidelines for Practice*." The scope of the treatment should include:

- Documentation of mural conditions and materials prior to treatment.
- Pre-consolidation, site protection for construction phase.
- Carry out sampling and analysis for mold, both to determine its contribution to discoloration and necessity for treatment, and for the health and safety of future potential visitors to the site, as well as those carrying out the conservation treatment. Disinfect affected areas as indicated.
- Carry out sampling and analysis for purposes of characterization of original paints, i.e. identification of medium and pigment components, as deemed necessary by the conservator for the responsible execution of treatment or as requested by the owner/client to contribute to the knowledge base regarding the paintings.
- Consolidate and set down delaminating paint and other surface cleavage, in particular that associated with fills.
- Consolidate and set down disrupted painted surface associated with salt efflorescence.
- Remove/reduce general grime, salt efflorescence, iron oxide and other staining and non-original surface accretions.
- Treat locally as necessary to remove/reduce scuffs, spatters, etc.
- Treat locally to remove adhesive residues from tape.
- Fill and inpaint areas of loss as necessary to compensate for damage and loss of paint and



ground. Loss compensation should strictly adhere to the guidelines of reversibility.

- Removal or overpaint of the white overpaint from the west, north and east walls to reestablish the overall yellowish cream appearance of the room walls and to eliminate the artificial mural boarder.
- Treatment Report: written and digital photographic documentation that will explain the condition of the murals before, during, and after the treatment. The materials, procedures, and techniques that were used during the treatment should be described. Report should contain a continuing conservation maintenance plan, which will explain the procedures to be performed for the ongoing care of the murals.

### Structure

Although outside of the scope of this assessment, a conservator should be consulted regarding the remediation of the structure as it may affect the Murals and Mural Room. For information purposes the following scope of treatment should be considered for the repair and improvement to the building, site and Mural Room for the long-term protection of the paintings:

- Immediately close and seal exterior opening in the east wall associated with plumbing repair. If the plumbing issues are resolved the wall should be replaced with appropriate masonry and plaster.
- Immediately close and seal the vent at grade on the north wall, at least until such time as plans for the new HVAC system are developed and implemented.
- Long-term upgrade for HVAC. (see Environmental Concerns section below)
- Dismantle the soffit of the crawlspace along the east wall removing all water damaged materials as it may extend into adjacent ceiling materials, remove obsolete plumbing and pipes from the crawlspace, reconstruct the damaged plaster and lath of the crawlspace and adjacent ceiling materials.
- Repair/replace water damaged plywood wainscot if deemed by further research to be original/significant to the finishing of the room.
- Clean/repair/replace as necessary original floor tiles in the north east corner of the room damaged by water infiltration (note: concrete sub-floor materials should be inspected and repaired as necessary)
- Repair/replace floor tiles in northeast corner if deemed by further research to be original/significant to the finishing of the room
- Research and develop proper lighting of the murals, in collaboration with owner's architect and/or engineer.
- Install a perimeter stanchion to keep visitors from touching the murals.
- Install climatic monitoring equipment to maintain a reliable record of the conditions within the Mural Room. This will allow the owners to monitor the possible adverse effects of visitors and necessary lighting on the site, as well as providing essential information regarding the operation of the HVAC system.

### **Environmental Concerns**

While museums strive to maintain constant temperature and humidity levels for works of art, maintaining 72 degrees Fahrenheit and 40-60% relative humidity, works located in non-museum sites (particularly house museums and other non-traditional locations) are subject to both daily and more gradual seasonal variations in temperature and humidity. In these non-traditional spaces, it is more important to maintain constant conditions with minimal fluctuations in the environment, rather than maintaining any particular set of values, provided that the range is not harmful to the materials in the collection/structure. The environment in which the Shalako murals have existed for nearly 60 years has been a constant cool, somewhat dry and stable environment (except during the water leak period or possibly heavy rains). The greatest threat to these paintings is the formation of condensation onto the surface of the wall and paintings. Condensation would develop when warm moist air condenses on the cold surface of the concrete wall to form a layer of liquid water. The prevention of condensation is of great importance and should be considered when planning for a new HVAC system. Illumination of the murals should be indirect and UV filtered lighting.

## **PRELIMINARY STABILIZATION OF MURAL & MURAL PROTECTION**

### **Mural Protection**

During the reconstruction of the De Anza Motor Court, especially work directly associated with the building where the murals are located, the painting surfaces and the structural concrete walls onto which they are painted should be fully protected for any damages. Crack monitoring gauges, or similar strain gauge devices, should be installed at existing cracks through the murals on the north wall and monitored for change throughout construction (do not install directly over figures).

The following are recommended guidelines for methods, materials and techniques to protect the murals during reconstruction/renovation of the De Anza Motel building.

### **Purpose**

To enclose the murals during construction to prevent damage by impact and to exclude dust and debris from the painted surface.

### **Guidelines for Mural Protection During Construction**

- No coatings or adhesives whatsoever should be applied to the painted surfaces by contractor or their agents/employees.
- Nothing should contact the decorative painted surfaces within the image areas of the murals. Any contact shall be confined to areas of yellow ground at an appropriate distance from the imagery.
- Protection shall be taken from floor to ceiling soffit and corner to door frame on the east wall, and floor to ceiling height and corner to corner on north wall, making all necessary height changes for the soffit in the east corner. The enclosure should make contact only with

a four-inch (4") margin around the perimeter. Removal of wainscot is recommended to make protection flush to the wall.

- Contact around the perimeter shall be made only with inert foam insulation materials that will compress to conform to the irregularities of the painted surface and form a satisfactory seal to exclude dust and debris: i.e. 1/4" of polyethylene foam (Ethafoam or similar).
- Panel facing of the enclosure shall be made from plywood, particleboard, etc. (3/4") with a continuous layer of 6 mil polyethylene sheeting between mural surfaces and board to provide adequate protection of the painted surface from impact and possible moisture ingress.
- The panel facing of the enclosure shall be *at least* two inches (2") distance from the painted surface of the wall.
- Penetration or other damage to the walls and/or floors shall be kept to a minimum, and shall only be permissible in areas demonstrated to be free of and at a safe distance from any mural imagery.
- Final design should be subject to review and approval by the Consulting Conservator.
- Installation and removal should be carried out under the Consulting Conservators supervision, as necessary and desirable.

#### **Additional Phase I Work Prior to the Construction Phase**

- Sampling of original paints. Samples to be analyzed during construction as necessary to supplement historical and practical information.
- Photo-documentation of condition of murals before construction. These should be large format (4"x5" or 8"x10") color transparencies that can be used as a basis for comparison throughout the project.
- Research and development of methods and materials of treatment, resulting in the development of protocols for all aspects of treatment, including stabilization & consolidation, salt removal/mitigation, cleaning, and compensation (i.e. filling and inpainting).
- Submission of Proposals for Treatment for both Phase I, before and during construction and Phase II, after construction. Proposal for Phase I shall include specific plans for stabilization of painted surface prior to installation of mural protection, fabrication & installation of mural protection, installation of environmental & structural monitoring equipment, and proposed schedule of participation during construction. Participation during construction should include both on-site monitoring of construction impact on mural room, ongoing research and development, i.e. analysis of samples, as well as necessary consultations with architects and engineers. Proposal for Phase II shall reflect the development of methods and materials anticipated for use in the treatment of the paintings post construction. This shall be subject to revision in light of further information obtained through analysis and/or ongoing research.
- Stabilization and consolidation of painted surface prior to installation of mural protection. This may also require/incorporate salt mitigation, as salt efflorescence is the primary cause of paint loss.



- Analysis of samples taken prior to construction and continue ongoing research regarding after construction treatment.
- Consult with architects and engineers as necessary regarding lighting, HVAC, and other conservation-related matters pertaining to construction and modifications to Mural Room.

## **BUDGETARY COST ESTIMATE**

### **First Phase (Preliminary Stabilization of Mural & Mural Protection)**

- Sampling of original paints.
- Photo-documentation of condition of murals before construction.
- Research and development of methods and materials of treatment.
- Submission of Proposals for Treatment for both Phase I, before and during construction and Phase II, after construction.
- Stabilization and consolidation of painted surface prior to installation of mural protection.
- Fabrication & installation of mural protection.
- Installation of environmental monitoring devices and crack monitoring gages.
- Conservator oversight during the construction phase.
- Analysis of samples taken prior to construction and ongoing research regarding treatment after construction.
- Submission of revised Proposal for Treatment for Phase II treatment of murals, after construction.
- Consultation regarding lighting, HVAC, and other conservation-related matters.

**Budgetary cost estimate for this phase is \$50,000**

### **Second Phase (Post-Construction Treatment of Mural)**

- Removal of mural protection
- Inspection, documentation and assessment of murals' condition after construction to determine impact, if any, of the construction phase on the murals.
- Mold remediation, as indicated by analyses carried out during construction.
- Removal/mitigation of residual salt efflorescence, as necessary. Much of this may be have to be done in Phase I as part of initial stabilization.
- Consolidation of insecure paint, as necessary.
- Cleaning of painted surface, including general cleaning to remove dust and grime, as well as local removal of accretions such as tape residue, paint spatters, rust stains, etc.
- Compensation for damage and loss, including necessary filling, inpainting and retouching.
- Final documentation & reporting with maintenance recommendations
- Installation of long term environmental monitoring equipment
- Consultation with architect for long term environmental monitoring, lighting, etc.

**Budgetary cost estimate for this phase is \$150,000**

## **APPENDIX I: CONDITIONS**

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**North Wall, Eight Figure Mural**

*Refer to Sketch N*

**Figure 1: Ceremonial Father**

40"H, 30"W

- C-2 Tape adhesive residue 3" in length
- A-3 Small losses of paint in right foot

**Figure 2: Little Fire God**

36"H, 16"W

- C4-B4 Tape adhesive residue 5" in length across arm to feathers
- B4 Loss of paint/flaking 4" in left thigh
- B5 Flaking paint over plaster fill in figure costume and several in yellow background

**Figure 3: Rain Priest of the North**

42"H, 26"W

- C5 Flaking paint over plaster fill in left hand and arm
- D6 Flaking paint over plaster fill in b/w-striped neckband
- C6 Flaking paint over plaster fill in right hand and feather
- B6 Paint loss/chip from impact damage in hem of skirt
- B7 Tape adhesive residue 3" in length on blue of skirt and yellow of background
- A6-7 Scratch and paint loss along right foot

**Figure 4: Deputy to the Rain Priest**

44"H, 28"W

- A8-9:F8-9 Crack in concrete wall runs length of mural passing thru figure with paint loss along crack
- C8 Flaking paint over plaster fill in yellow background, into shoulder, across pelt
- B8 Flaking paint over plaster fill in bags of left hand
- C9-B9 Scratch and paint loss across bow and feathers
- B8-B9 Possible repair/consolidation along crack at skirt hem, surface sheen is different
- A8-A9 Scratch and paint loss along feet

**Figure 5: Shalako**

66"H, 24"W (mural top boarder is increased in height by 1" to accommodate height of figure)

- A10:F10 Flaking paint over plaster fill in yellow background
- E11 Flaking paint over plaster fill in nose of mask
- E11 Scratch and paint loss along neck
- A11-A12 Flaking paint in black painted hem of skirt

**Figure 6: Shalako's support/alternate**

37"H, 17"W

- B13-C13 White/cream paint drips in black of coat
- A14-B14 Narrow crack runs from upper edge of mural (F14) down and through black of

## **APPENDIX II: DE ANZA MOTOR COURT SHORT HISTORY**

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## THE DE ANZA MOTOR COURT - A SHORT HISTORY

Constructed in 1939 for Charles Garrett Wallace, a major trader in Zuni & Navajo art and craftwork, the De Anza Motor Court was built to suit a shrewd, Gallup based, innovative businessman's wish for a more easily accessible place to stay in Albuquerque. Taking advantage of the new Route 66 corridor running through the City on Central Avenue and the advent of car based Motor Lodge concepts, the De Anza was conveniently constructed a mile west of the WPA-built State Fair grounds.

Architectural details of Wallace's motel originally utilized Pueblo Indian, adobe based, forms. Also, echoing the explosion of travel by car during the 1930s, each room featured a car port. With up to date amenities, Wallace catered to major NM political figures, prominent ranchers, farmers and repeat visitors from as far away as West Texas, particularly during the September, State Fair. Regulars during the 1940-50s, included Democratic Chair Fern Sawyer & her daughter, Dessie, Republicans Tom Bolack and later, Joe Skeen.

Appealing to a wider audience, Wallace named his motel after Juan Bautista DeAnza, a major Spanish Colonial period (1700s) governor, who reputedly led an expedition carrying food and supplies to starving Hopi Indians during a drought. Enticing tourists further, Wallace employed Zuni Crafts persons to demonstrate jewelry making. Zunis also helped sell the jewelry, pots, rugs and other Native produced items in the motel's Curio Shop.

In the 1950s, Wallace had the De Anza Motor Court updated. Utilizing designs by architect George Pearl (Stevens, Mallory, Campbell, Moore), room sizes were expanded, carports were enclosed, wooden vigas were removed, and a porte cochere faced with Zuni sandstone was added to the Entry area. The motel's Turquoise Café floor was redone in a terrazzo composed of real chips of turquoise and inlaid silver Zuni Knife Wing figures. Leather furniture by local Franciscan Furniture was created and a bright pink Cadillac convertible, parked in front, was used to taxi guests to and from the rapidly growing Airport.

Wallace's most significant addition to the De Anza Motor Court in the 1950s was a private basement banquet room, north center section, featuring two brilliant, oil based, polychrome 20' x 4' Shalako murals, by Zuni artist, Tony Edaakie, Sr. Trained by teacher Clara Gonzales in the 1920s, Edaakie is considered a major figure in 20<sup>th</sup> Century Zuni painting and lapidary arts. As these Shalako murals, while subtly altered for non Zuni viewers, are quasi religious in nature, viewing of such work by non Zunis requires educated, informed respect.

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Shalako is a Zuni winter ceremonial. Figures featured include:  
North Wall: a Ceremonial Father, the Little Fire God, the Rain Priest of the North, Deputy to the Rain Priest, a Shalako (a courier to the gods), the Shalako's support/alternate, two Mudhead figures  
East Wall: a Ceremonial Father and 6 Sacred Directions Guardians