

Proceedings of a  
Symposium Organized by  
The Getty Conservation  
Institute, October 16–17, 2012

# The Siqueiros Legacy: Challenges of Conserving the Artist's Monumental Murals



# **The Siqueiros Legacy: Challenges of Conserving the Artist's Monumental Murals**

Proceedings of a Symposium Organized by  
The Getty Conservation Institute

October 16–17, 2012

The Getty Center, Los Angeles

*Edited by Leslie Rainer and Luann Manning*

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LOS ANGELES

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The Getty Conservation Institute  
1200 Getty Center Drive, Suite 700  
Los Angeles, CA 90049-1684 United States  
Telephone: 310 440-7325  
Fax: 310 440-7702  
Email: [gciweb@getty.edu](mailto:gciweb@getty.edu)  
[www.getty.edu/conservation](http://www.getty.edu/conservation)

ISBN: 978-1-937433-17-8

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# Preface

*Leslie Rainer and Luann Manning*

Since 1988, the Getty Conservation Institute and the City of Los Angeles have collaborated on a comprehensive project to preserve the mural, *América Tropical* (1932) by David Alfaro Siqueiros, one of the great Mexican artists of the 20<sup>th</sup> century. *América Tropical* is one of three murals Siqueiros painted in Los Angeles and his only surviving mural in the United States still in its original location. The aim of the project is to conserve this monumental mural, provide for its protection by constructing a canopy shelter, and make it accessible to the public by installing a viewing platform and an interpretive center. Upon completion of these components, the site re-opened to the public in October 2012. In conjunction with the official opening of the mural, the Getty Conservation Institute organized an international symposium titled “The Siqueiros Legacy: Challenges of Conserving the Artist’s Monumental Murals,” which took place at the Getty Center in Los Angeles on October 16 and 17, 2012.

These selected papers are the proceedings from the two-day symposium, which convened conservators, architects, engineers, curators, and exhibit designers to present different aspects of the conservation process of Siqueiros’s murals in the Americas. As an ambitious artist and innovator working with modern materials and new technologies on an architectural scale, Siqueiros created monumental works of art that present tremen-

dous challenges for their conservation. The papers in these proceedings address a number of those challenges. The papers are organized in two sections and in the language in which they were presented (English or Spanish).

The papers presented on Day One discuss the many complex issues associated with the comprehensive project to conserve the mural *América Tropical*. They include: an overview of the conservation project’s history and significance; a film maker’s interpretation of the mural’s history; an early assessment of the mural’s condition in the 1970s; a discussion of the design challenges of the shelter, viewing platform, and interpretive center; the construction challenges faced in completing the project in a historic setting; the conservation treatment of the mural; and finally the design and installation of the interpretive center.

The papers presented on Day Two address the issues involved in conserving and presenting some of the most important murals painted by Siqueiros in Mexico City, Buenos Aires, Chile and Southern California.

We would like to acknowledge the hard work of those involved with the compilation of these proceedings, particularly Sylvia Tidwell and Viviana Dominguez for editing the papers, Gary Hespenheide for the design and layout of the proceedings, and Angela Escobar for her overall guidance and supervision of this process.



## DAY 1

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# Conservation, Protection, and Interpretation of *América Tropical*



# The Conservation of *América Tropical*: Historical Context and Project Overview

Leslie Rainer

**Abstract:** In 1932 David Alfaro Siqueiros painted the mural *América Tropical* on a second-story exterior wall at El Pueblo de Los Angeles, a historic district and the heart of Los Angeles. The artist, commissioned to paint an idyllic scene of old Mexico, instead depicted an indigenous figure on a double cross, surmounted by an American eagle, and revolutionaries with rifles crouched on a nearby rooftop. The highly controversial mural was whitewashed soon after its completion and then largely forgotten until the 1960s, during the rise of the Chicano mural movement. Since that time, efforts to preserve the mural have been ongoing. The Getty Conservation Institute and the City of Los Angeles have recently completed a comprehensive project to conserve, protect, present, and interpret *América Tropical*, the artist's only mural that is accessible to the public in its original location in the United States. This paper presents the story of *América Tropical*—its censorship, its rediscovery, and the efforts to preserve it.

**Resumen:** En 1932 David Alfaro Siqueiros pintó el mural *América Tropical* en el muro exterior de un segundo piso en El Pueblo de Los Ángeles, una zona histórica en el corazón de dicha ciudad. El artista, comisionado para pintar una escena idílica del viejo México, dibuja en su lugar una figura indígena sobre una doble cruz, coronada por un águila americana, mientras revolucionarios armados con rifles se agazapan en una azotea cercana. El mural, sumamente controvertido, es cubierto con agua de cal poco después de terminado, para luego ser prácticamente olvidado hasta la década de 1960, cuando surge el movimiento mural chicano. Desde entonces, los

esfuerzos por preservar el mural han sido continuos. The Getty Conservation Institute y la Ciudad de Los Ángeles han terminado recientemente un proyecto bastante exhaustivo para conservar, proteger y presentar *América Tropical*, el único mural del artista que aún permanece abierto al público en su ubicación original en los Estados Unidos. Esta ponencia presenta la historia de *América Tropical*: su censura, redescubrimiento, y los esfuerzos hechos para preservarlo.

## Introduction

In 1932 David Alfaro Siqueiros came to Los Angeles for approximately six months. During this time he painted three murals—the first, titled *Street Meeting*, at Chouinard Art Institute; the second, titled *América Tropical*, commissioned for an exterior wall of the Plaza Art Center at El Pueblo de Los Angeles, in the historic heart of downtown; and the third for the residence of filmmaker Dudley Murphy in Pacific Palisades, known as *Portrait of Mexico Today*.<sup>1</sup> Each of these murals was innovative, using new materials and techniques that Siqueiros discovered and developed in Los Angeles. All of the murals were also controversial, and two of the three were censored shortly after they were completed.<sup>2</sup> The body of work the artist made in Los Angeles laid a foundation not only for Siqueiros's later work but for future generations of artists in L.A. *América Tropical*, the largest and the most controversial of the three murals, has had a tumultuous history since it was painted in 1932. This paper presents the historic context in which the mural was painted, its history, preserva-



**Figure 1** *América Tropical* shortly after it was completed. An associate of Siqueiros, Roberto Berdecio, is seen in the foreground. Getty Research Institute, 960094. Photo: Getty Research Institute; mural: © 2012, Artists Rights Society (ARS), New York/Sociedad Mexicana de Autores de las Artes Plásticas (SOMAAP), Mexico City

tion efforts, and an overview of the collaborative project carried out by the Getty Conservation Institute and the City of Los Angeles to conserve, protect, interpret, and present *América Tropical* to the public.

The mural *América Tropical* was commissioned by F. K. Ferenz, the director of the Plaza Art Center, for a second-story exterior wall of the building, also known as the Italian Hall, on Olvera Street. The mural was to be an idyllic depiction of a land of plenty where the fruits of the land fell into the hands of the people. This imagery went along with the theme of Olvera Street, itself a romanticized version of a Mexican marketplace developed as a tourist destination by Los Angeles booster Christine Sterling in 1930 (Poole and Ball 2002). Siqueiros, a political activist and revolutionary artist, however, painted a very different scene of tropical

America, with, as Siqueiros later stated, “a man . . . crucified on a double cross, which had, proudly perched on top, the eagle of North American coins” (Siqueiros 1985, 32). The scene was placed in an overgrown jungle, amid the ruins of a Mayan pyramid. In the upper right corner of the mural, two revolutionaries took aim at the eagle from a nearby rooftop (fig. 1).

There was great controversy when the mural was unveiled. As recalled by artist Millard Sheets, one of the Bloc of Mural Painters who worked on the Chouinard mural with Siqueiros, “some people really liked it thoroughly in every possible way, others were very much against it, feeling that it had something to do with political controversy or propaganda” (Treviño 2001, 210).

The east end of the mural, which showed the revolutionaries and could be seen from Olvera Street, was

whitewashed within months of the mural's completion (Millier 1934) (fig. 2). By the end of the decade, the entire mural was whitewashed, leaving a blank white wall in place of the monumental mural Siqueiros had painted less than ten years before.

*América Tropical* remained whitewashed, neglected, and all but forgotten for over twenty years on the second-story exterior of the Italian Hall, but by the mid-1960s, the whitewash began to fail. According to art historian Shifra Goldman, "by 1973 the years of rain and sun on the unprotected outdoor mural had taken their toll, removing both the whitewash and finally most of the color beneath" (Goldman 1974, 325). Additionally,

the two upper corners were lost in the Sylmar earthquake of 1971, and a band of tar covered the bottom edge of the mural. The early 1970s also marked the beginnings of the Chicano mural movement. Shifra Goldman spearheaded early preservation efforts to save the mural, enlisting the help of artists, filmmakers, and preservationists. In 1971 filmmaker Jesús Treviño produced a documentary for the local Los Angeles television station, KCET, titled *América Tropical*, which told the story of the mural (Treviño 2006).<sup>3</sup> Siqueiros was interviewed for the documentary, and a team of conservators was brought from Mexico to examine the mural. Their assessment was that because of the overall degradation



**Figure 2** View of the mural from Olvera Street taken by a *Los Angeles Times* staff photographer circa 1934. The east portion of *América Tropical*, which could be seen from Olvera Street, was whitewashed shortly after the mural was completed. Photo: © Los Angeles Times, photo published June 22, 2004; mural: © 2012, Artists Rights Society (ARS), New York/Sociedad Mexicana de Autores de las Artes Plásticas (SOMAAP), Mexico City

of the surface, the mural could not be restored but, rather, could, and should, be preserved and protected from further deterioration.<sup>5</sup> With these recommendations, along with evaluations from additional conservators who examined the mural over the years, Shifra Goldman and the committee to save the mural began to seek funding for its preservation. She asked El Pueblo de Los Angeles State Historic Park,<sup>4</sup> the entity overseeing Olvera Street, to join the cause. From the early 1980s on, El Pueblo erected a series of temporary protective shelters over *América Tropical* (fig. 3) while the project was under development and funding was secured for its preservation (Poole and Ball 2002).

In 1987 Jean Bruce Poole, then curator at El Pueblo de Los Angeles State Historic Park, approached the Getty Conservation Institute for assistance, and in 1988 the GCI agreed to undertake a collaborative project with

the City of Los Angeles to conserve, interpret, and provide public access to the mural through:

- scientific study
- documentation
- conservation of the mural
- design and construction of a protective shelter and public viewing platform
- design and installation of an interpretive center to tell the story of the mural in the context of Siqueiros's life and work.

The long-term public-private partnership between the GCI and the City of Los Angeles put these different components into place over a period of nearly twenty-five years, in a process that brought together numerous professionals and stakeholders, including architects, archaeologists, conservators, documentation specialists,



**Figure 3** A temporary shelter erected over *América Tropical*, circa 1990. From the 1980s on, a series of temporary shelters was erected over the mural to protect it while funding was secured and conservation plans were developed.

Photo: Nancy Kaye, © J. Paul Getty Trust

scientists, engineers, exhibit designers, the merchants of Olvera Street, various commissions, city departments, and others.

## Scientific Investigation

Over the course of the project, the GCI has undertaken numerous activities, beginning with scientific investigation, to identify the materials and techniques Siqueiros used to paint the mural (Piqué et al. 1995), as well as environmental monitoring to determine the effect of atmospheric pollutants and condensation on the painting (Maekawa and Meyer 1993).

## Documentation

During the 1990s, the GCI carried out extensive documentation of *América Tropical*, including photographic documentation before and after a preliminary phase of conservation in 1990, followed by an early digital capture of the mural in 1993, in which individual detail sections were photographed, then tiled together, a process that resulted in a rectified, high-resolution image of the mural (Lange 1996). This image has been used as a base map for the condition recording performed since then,<sup>6</sup>

as the GCI has monitored the mural and developed conservation treatments (fig. 4).

Additionally, an online bibliography of Siqueiros's murals in Los Angeles has been compiled (Greathouse and Rainer 2012), which includes a set of references on this period of time in Siqueiros's life in Los Angeles, as well as a chronology of news coverage, from 1932 to the present, of the murals he painted in Los Angeles.

## Conservation

The GCI has carried out three phases of conservation treatment—in 1990, 2002, and 2012. Preliminary treatment in 1990 addressed surface cleaning and consolidation, reattachment of plaster to the brick substrate, whitewash removal, and removal of tar from the base of the mural (Espinosa 1990; Paine 1990; Stewart 1990) (fig. 5). Further plaster stabilization was carried out in 2002 (Rainer 2002–3), and in 2012, the most recent campaign of conservation was carried out. This treatment included cleaning, additional stain and tar stain reduction and removal, reattachment of plaster, filling of losses, surface consolidation, and visual reintegration (Rainer 2013).



**Figure 4** Mural base map with condition-recording layers over it. Mural: © 2012, Artists Rights Society (ARS), New York/Sociedad Mexicana de Autores de las Artes Plásticas (SOMAAP), Mexico City



**Figure 5** Conservation treatment of the mural. In 1990 a team of conservators led by Agustín Espinosa performed preliminary treatment, including surface cleaning, reattachment of plaster to the wall, removal of tar, and surface consolidation. Photo: Nancy Kaye, © J. Paul Getty Trust; mural: © 2012, Artists Rights Society (ARS), New York/Sociedad Mexicana de Autores de las Artes Plásticas (SOMAAP), Mexico City

## Shelter and Viewing Platform

As part of the larger project to conserve, protect, present, and interpret *América Tropical*, the Bureau of Engineering of the City of Los Angeles undertook the construction of a protective shelter, viewing platform, and interpretive center (Moore 2013). The architectural firm Brooks + Scarpa (formerly Pugh + Scarpa) designed and constructed a canopy to protect the mural from direct exposure to sunlight, rain, and birds, while allowing an unobstructed view from an observation platform on a nearby rooftop (Buckland 2013) (fig. 6). The platform provides the opportunity for the public to view the mural from this vantage point, much as it was meant to be seen when it was first painted (fig. 7). A roll-down screen is incorporated into the design of the shelter to provide additional protection at times of the year when low light hits the wall, and it serves as

a physical barrier against vandalism when the site is closed to the public.

## América Tropical Interpretive Center

The América Tropical Interpretive Center (ATIC), conceived and installed by the exhibit design firm IQ Magic, is located in the historic Sepulveda House at El Pueblo. The exhibits contained in ATIC present the story of the mural in the context of the life and work of Siqueiros through a series of interactive displays and didactic panels (fig. 8). The interpretive center is divided into sections on the artist's life, the history of the mural in the context of the period during which it was painted in Los Angeles, materials and techniques used to paint the mural, conservation efforts, and Siqueiros's legacy through the Chicano mural movement and later mural painting in Los Angeles (Hartman 2013).



**Figure 6** The mural with its protective canopy, seen from the viewing platform at the opening of the site in October 2012. The canopy protects the mural from direct sunlight, rain, and birds and allows an unobstructed view of the mural from a nearby rooftop. Mural: © 2012, Artists Rights Society (ARS), New York/ Sociedad Mexicana de Autores de las Artes Plásticas (SOMAAP), Mexico City



**Figure 7** The viewing platform, designed by Brooks + Scarpa Architects, which is accessible from the América Tropical Interpretive Center. Up to twenty visitors can view the mural at one time. A large black-and-white image of the mural positioned on a rail of the platform provides information on the painting's iconography



**Figure 8** Interactive stations and didactic panels in the América Tropical Interpretive Center, located in the Sepulveda House at El Pueblo. They present the story of the mural in the context of Siqueiros's life and work. Mural: © 2012, Artists Rights Society (ARS), New York/ Sociedad Mexicana de Autores de las Artes Plásticas (SOMAAP), Mexico City

## Conclusion

The culmination of the efforts of the collaborative project of the GCI and the City of Los Angeles was the opening of the site and the presentation of *América Tropical* once again to the public on October 9, 2012, eighty years after the mural was first unveiled in 1932. *América Tropical* has had a tumultuous history, from its early censorship soon after its completion and the neglect it suffered over decades, to the early preservation efforts starting in the 1960s and, finally, the collaborative GCI–City of Los Angeles project. The vision of a group of individuals—and the dedication and perseverance of a multidisciplinary team to address the complex issues of protecting, conserving, presenting, and interpreting the mural—have brought this comprehensive project to completion with a holistic approach. Through their efforts, *América Tropical*, the only remaining mural by David Alfaro Siqueiros in the United States still in its original location, has been made accessible to the public once again.

## Acknowledgments

The author would like to acknowledge the project partners, who, through the combined efforts of numerous departments at the Getty Conservation Institute and the City of Los Angeles, worked together to bring this project to completion. From the GCI, staff from Science, Field Projects, Dissemination and Information, Communications, the Director's Office, and Publications have participated in this project at various stages over nearly twenty-five years. Particular recognition goes to Tim Whalen, director of the GCI, and Susan Macdonald, head of Field Projects, for their unwavering support and perseverance in seeing the project through to completion.

Thanks are also due to the Mayor's Office of the City of Los Angeles, as well as to the Bureau of Engineering, led by City Engineer Gary Lee Moore, which oversaw the construction, working with the Bureau of Contract Administration and the Department of Public Works. The steward of the site, the Department of El Pueblo de Los Angeles Historical Monument, led by General Manager Christopher P. Espinosa, served as liaison with the merchants of Olvera Street and other stakeholders, to ensure the success of the project and its integration into the larger plans for the area.

Consultants Brooks + Scarpa Architects (formerly Pugh + Scarpa Architects) had the vision for the design

and construction of the canopy, the viewing platform, and the América Tropical Interpretive Center, and IQ Magic created the design and content for the exhibits, which tell the story of the mural, the artist, and the legacy of Siqueiros in Los Angeles. For the conservation, Agustín Espinosa, Zebala & Partners, Silverlake Conservation, and GCI conservators deserve special recognition.

Finally, acknowledgments are due to Shifra Goldman, Jean Bruce Poole, and Jesús Treviño for their vision and early efforts to preserve *América Tropical*.

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## Notes

1. It is possible that Siqueiros painted, or at least began, one other mural, at the John Reed Club of Hollywood (Millier 1932). There are a few accounts of this mural from the time. It was said to represent the international proletariat marching across the walls of the club's auditorium (Clements 1932). However, Siqueiros himself did not write of that mural, and accounts differ as to whether he painted it or whether it was painted by students and dedicated to Siqueiros. It is not certain whether the mural was ever completed, but it was reported to have been damaged in a police raid on the club at the time (*Los Angeles Times* 1933; Millier 1933). The building no longer exists.
2. The mural *Street Meeting* was whitewashed within a year of being painted; *América Tropical* was partially whitewashed after a little more than a year, and it was completely whitewashed in the next several years.
3. A DVD version of Treviño's 1971 documentary was made in 2006 (Treviño 2006).
4. El Pueblo de Los Angeles State Historic Park, at the time under state jurisdiction, was later transferred to the City of Los Angeles; its name was changed to El Pueblo de Los Angeles Historical Monument.
5. The GCI carried out condition assessments in 1997, 2002, and 2012.
6. Siqueiros proposed re-creating the mural on panels to be given as a gift to the people of Los Angeles, but this mural was never completed (Treviño, 2013).

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## Biographical Note

Leslie Rainer is a wall paintings conservator and senior project specialist at the Getty Conservation Institute. She is the GCI’s project manager for the conservation of David Alfaro Siqueiros’s mural *América Tropical* and has been involved in the project since 1995. She is one of the organizers of the 2012 international symposium “The Siqueiros Legacy: Challenges of Conserving the Artist’s Monumental Murals.”



# América Tropical through the Eyes of a Filmmaker

Jesús Salvador Treviño

**Abstract:** In 1971 Jesús Salvador Treviño collaborated with art historian Shifra Goldman to produce a thirty-minute documentary about the whitewashing of the América Tropical mural painted by David Alfaro Siqueiros in 1932. In the course of researching the mural's history and the story of its whitewashing, Treviño and Goldman uncovered photographs of the mural and conducted interviews with artists who had worked on it with Siqueiros. Treviño invited two mural restorers, Jaime Mejía Servín and Josefina Quezada, to Los Angeles to inspect the artwork. The restorers concluded that it should be preserved rather than restored.

**Resumen:** En 1971, Jesús Salvador Treviño colaboró con la historiadora del arte Shifra Goldman para producir un documental de treinta minutos que prueba cómo el mural América Tropical, pintado por David Alfaro Siqueiros en 1932, fue cubierto con agua de cal. En el transcurso de la investigación tanto de la historia del mural como de la historia de su recubrimiento, Treviño y Goldman descubren fotografías del mural y realizan entrevistas a artistas que trabajaron con Siqueiros en el mismo. Treviño invita a Los Ángeles a dos restauradores de murales, Jaime Mejía Servín y Josefina Quezada, a inspeccionar el mural. Los restauradores concluyen que, más que restaurarse, éste podría preservarse.

I was first introduced to *América Tropical* in 1968 by Dr. Shifra Goldman, an activist art historian and educator. I had met Dr. Goldman, or Shifra as I knew her, in September 1968, while we were both participants in a seven-day sit-in at the offices of the Los Angeles City

School Board.<sup>1</sup> We developed a durable, albeit improbable, friendship. I was a twenty-one-year-old Chicano student activist, and she was a thirty-something art historian who a decade earlier had been brought before the House Un-American Activities Committee for her outspoken views on social justice.<sup>2</sup>

At the time I was deeply committed to the Chicano struggle for civil rights and eager to learn all I could about the occluded history of Mexican Americans. Shifra soon became my mentor, introducing me not just to Mexican American history but also to Mexican art and the work of “Los Tres Grandes,” the Mexican masters Diego Rivera, José Clemente Orozco, and David Alfaro Siqueiros. Her vast collection of photographic slides of Mexican murals was a treasure trove for me when I made a three-minute film telling the story of Mexico's history through its art.

It was during our work together on this short student film, *La Historia de México*,<sup>3</sup> that Shifra told me about the three murals that had been painted in Los Angeles by Siqueiros in 1932. She had acquired a biography of the artist by Mexican art historian Raquel Tibol which contained two reproductions of details from the *América Tropical* mural.<sup>4</sup> I was immediately intrigued by the image of the crucified Indian, and Shifra offered to take me to see the mural. In the fall of 1968, she secured permission from the director of El Pueblo de Los Angeles, Mario Valadez, to gain access to the old Italian Hall. We climbed up the stairs and crawled through the window and onto the roof of the adjoining building.

I inspected the mural. The colors were barely visible. A layer of whitewash was flaking away from the

wall, doubtless the result of the rain, sun, and wind to which the mural had been subjected for thirty-six years (fig. 1). The lower portion of the mural was covered with the black tar that rainproofed the adjoining roof (fig. 2). Even so, the central figure was amazingly powerful, and the two guerrilla soldiers to the right, taking aim at the eagle atop the crucified Indian, spoke to me on many levels. I later learned that Siqueiros had taken the eagle image from the U.S. currency.

Standing on the roof, Shifra reiterated her dream to someday see the mural restored. She suggested that a documentary on the mural could help publicize its existence and garner the support needed for preservation. Inspired by the mural in front of us, we made a pact. We would work together to see if the mural could be restored. As a student filmmaker, however, I had, as yet, neither the resources nor the craft to make the film that Shifra and I envisioned. I knew that there was a story to be told here, but I wasn't yet certain what that story was.

It would be two years before I considered the mural again. During the ensuing years, I was hired by the Los Angeles television station KCET as a production assistant on the first Mexican American magazine-format show to air in Southern California, *AHORA!* While at *AHORA!* I wrote and produced, along with my colleague Luis Torres, a series of vignettes on Mexican American history which we titled "La Raza History."<sup>5</sup> As I wrote these segments, I became aware of how little information existed on the history of Mexican Americans in the United States. I longed to help fill this vacuum using the medium of film—a motivation that would later contribute to the way in which I structured my documentary on the Siqueiros mural.

When the *AHORA!* series ended in June 1970, I stayed on at KCET as an associate producer in the Human Affairs department. Before long I became a full producer, creating my own shows at KCET. In November 1970, I decided that I was ready to undertake the documentary that Shifra and I had discussed two years before.



**Figure 1** The *América Tropical* mural in 1971, after the earthquake of February 9, 1971. Earthquake damage can be seen at the upper right and upper left corners. Photo: Jesús Salvador Treviño; mural: © 2012, Artists Rights Society (ARS), New York/Sociedad Mexicana de Autores de las Artes Plásticas (SOMAAP), Mexico City



**Figure 2** Detail of the mural in 1971, showing the tar coating on the lower portion. Photo: Jesús Salvador Treviño; mural: © 2012, Artists Rights Society (ARS), New York/Sociedad Mexicana de Autores de las Artes Plásticas (SOMAAP), Mexico City

My first task was to get the general manager and program czar of KCET, Charles Allen, to approve the Siqueiros mural as subject matter for a KCET documentary. I went about this in a somewhat devious way.

I arranged to meet Allen for dinner in Chinatown, along with my wife at the time; I selected a restaurant within walking distance of Olvera Street. After dinner, during the course of which we drank a considerable quantity of wine, I suggested we take a walk. As I directed us toward Olvera Street, I began my narrative about the visit that the great Mexican muralist David Alfaro Siqueiros had made to Los Angeles in 1932. At first Allen listened politely, but soon, when I got to the part about how Maestro Siqueiros had painted the controversial figure of a crucified Indian, I could see he was becoming quite intrigued. When I got to the part about the whitewashing of the mural, he became really interested. “Where did you say this mural is located?” he asked.

By then we had arrived at the corner of Main Street and Brooklyn Avenue (now Cesar Chavez Avenue). I

walked him a few more steps south on Main Street and pointed across the street to the roof of the old Italian Hall, where, in spite of the dim street light, the mural was visible (fig. 3). He gave me the green light to produce the documentary on the spot. In December of 1970, I began work on the documentary.

The first task was to locate and interview local artists who had worked on the mural with Siqueiros. Shifra had told me about a group of artists who had studied under Siqueiros during his stay in Los Angeles, the Fresco Bloc painters. With Shifra’s help I was able to locate two artists, John Weiskall and Millard Sheets. Both had worked with Siqueiros on *América Tropical* and agreed to be interviewed for the documentary. More important, Weiskall had retained two photos of the mural, one showing a detail of the center section and the other a wide panoramic photograph of the entire mural. These black-and-white photos were of pristine quality. I made copies for Shifra and myself. These two photos would become the basis for all my renderings of



**Figure 3** The *América Tropical* mural seen from Olvera Street in March 1971, shortly after the February 1971 earthquake. Photo: Jesús Salvador Treviño; mural: © 2012, Artists Rights Society (ARS), New York/Sociedad Mexicana de Autores de las Artes Plásticas (SOMAAP), Mexico City

the mural in the documentary and, to my knowledge, they are the source of much of the current images of the mural today.<sup>6</sup>

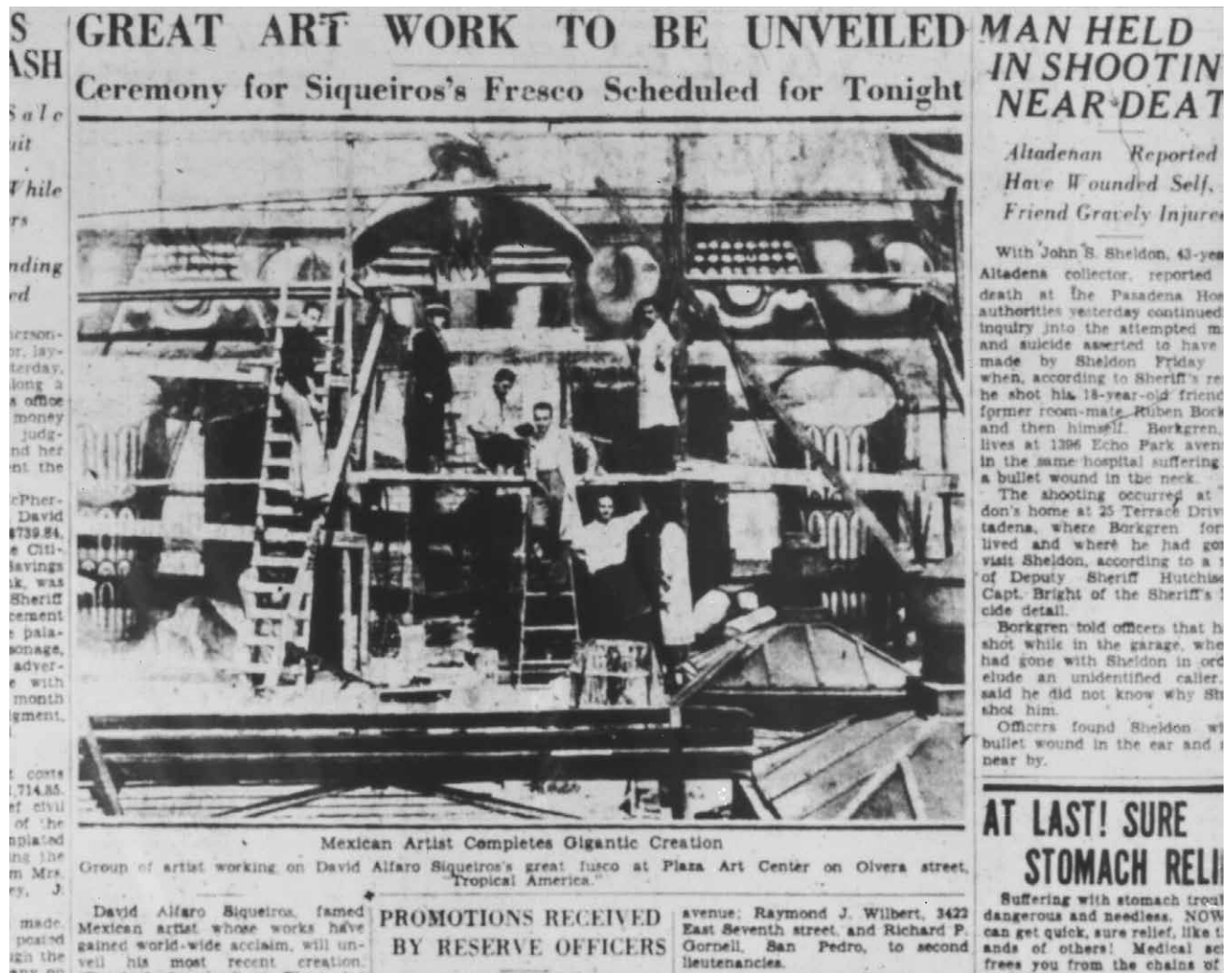
For the next three months I did intensive research trying to locate more visuals of the mural and of Siqueiros during his stay in Los Angeles. After all, this was to be a documentary, not a radio show. I visited the *Los Angeles Times* photograph morgue and found photos of the mural Siqueiros had painted at the Chouinard School of Art, *Street Meeting*, and a photo of *América Tropical*, taken from street level in Olvera Street, that showed a portion of the mural already whitewashed. But four photos hardly provided sufficient visuals for a half-hour documentary. I knew I needed more.

My plan was simple. Doubtless there must have been some news coverage of the murals that Siqueiros painted while in Los Angeles. Perhaps there'd be some mention in the dominant papers of the time, a photo perhaps or a headline. So I systematically set out to

review each page of the *Los Angeles Times* from January 1 through December 31, 1932. Every day for well over a month, I visited the microfiche room at California State University, Los Angeles. By the end of each day, my eyes were blurry from fast-forwarding through microfiche copies of the newspaper. And my efforts paid off. I located two articles with photographs that were not to be found in the photo morgue of the *Times*. I borrowed the microfiche and made internegatives, which I then enlarged for my film (fig. 4).

It was during my daily perusal of each page of this newspaper that I hit on how I would tell the story of the whitewashing of the *América Tropical* mural.

As I examined the newspapers, I would occasionally run across an article pertaining to an event in the Mexican American community. These news notes paled in comparison to the more extensive coverage of events taking place in the dominant society. News of Albert Einstein's visit to Caltech was newsworthy, as



**Figure 4** Microfiche of the front page of the *Los Angeles Times*, October 9, 1932, located during the author's search for visuals to tell the *América Tropical* story. Photo: *Los Angeles Times* staff, © 1932, *Los Angeles Times*. Reprinted with permission; mural: © 2012, Artists Rights Society (ARS), New York/Sociedad Mexicana de Autores de las Artes Plásticas (SOMAAP), Mexico City

was the kidnapping of Charles Lindbergh's baby. These stories merited lengthy articles. But events pertaining to Latinos, like the thousands of Mexicans and Mexican Americans who were being deported to Mexico weekly during the Depression years, or the killing of a cousin of Mexico's president Ortiz Rubio under highly questionable circumstances, merited barely a paragraph.

It suddenly struck me that like the image of the crucified Indian, Chicano history had also been whitewashed, the exploitation and discrimination denied, the contributions we made to American society unrecognized. But now, even as the image of the crucified Indian was

reemerging to visibility, so too, we in the Chicano movement were resurrecting our own history and our place in American society. The mural was, indeed, not only a historic and profound work of art but also a metaphor for the emergence of the Chicano civil rights movement and our quest for our own identity and equality in America.

The next step in my storytelling was to determine the answer to the question that Shifra and I had asked ourselves on that rooftop in 1968. Could the mural be restored? I realized that the documentary would not be complete without an authoritative answer to this fundamental question. And so, after much prodding, I secured



**Figure 5** Detail of the mural in 1971, showing the earthquake damage at the upper right corner. Photo: Jesús Salvador Treviño; mural: © 2012, Artists Rights Society (ARS), New York/Sociedad Mexicana de Autores de las Artes Plásticas (SOMAAP), Mexico City

from my boss Charles Allen at KCET an addition to my film budget. It allowed me to bring in two experts from Mexico City, Jaime Mejía Servín and Josefina Quezada, who specialized in the restoration of Mexican murals. Once again Shifra was in the forefront, both in identifying these art experts and in helping negotiate the logistics of their travel.

When Mejía and Quezada inspected the mural, I filmed their analysis. They encountered a mural that had been damaged not just by time but by the earthquake that had hit Los Angeles in February of 1971 (fig. 5). It seems that Siqueiros had experimented with the new

technology of the time—a spray gun—to blast color into the wet portland cement with which he had covered the wall of the Italian Hall. Because the colors of the *América Tropical* mural had been blasted deep into the cement surface of the mural, they could not be refurbished once they had faded.

The verdict was disappointing. It would not be possible to restore the colors of the mural to their original vibrancy. The bottom line: the mural could not be restored, it could only be preserved from further damage from the elements. Jaime Mejía suggested that the only way to preserve the mural was to remove the wall on which the mural was painted, cutting it into sections and reconstituting it in some gallery or museum.

Once the restorers had given their assessment, I felt I had all I needed to complete the film. But I was mistaken. After several weeks of editing, it became clear that we were missing something. We were trying to bake a chocolate cake without any chocolate. We were missing the maestro himself, Siqueiros, commenting on the original painting of the mural and telling us how he felt about its preservation.

By now I had already expended my \$5,000 budget. The cost of taking a three- or four-person film crew to Mexico City for the Siqueiros interview was prohibitive. I finally managed to broker a deal with Allen. He understood the importance of having Siqueiros in the film and agreed to pay for my flight to Mexico City. Instead of a film crew of three or four people, I would film the Siqueiros interview myself, using a single-system Oricon 16 mm camera.

*América Tropical*, the documentary, aired on KCET on June 22, 1971. The broadcast brought a new awareness of the mural to Southern California. Shifra and I were convinced we had a chance to succeed in our dream of preserving the mural. We created the Save the Mural Committee. We envisioned donations coming not only from foundations and arts groups but also from everyday citizens of East Los Angeles. We were convinced that our community would literally pay to see the mural preserved.

Following Mejía's suggestion, we made initial inquiries at Plaza de la Raza, a newly opened community center in Lincoln Heights, where we hoped to house the mural once it was removed from Olvera Street. The

director of Plaza de la Raza was excited about the idea of displaying the mural there, but there was no appropriate building. A new building, designed especially to accommodate the mural, would have to be built. Shifra and I also approached the Los Angeles County Museum of Art, hoping that LACMA might provide a home for *América Tropical*.

Before our efforts could gain steam, however, we were greeted with an unexpected offer. A few months after the broadcast, I returned to Mexico City and screened the documentary for Siqueiros himself. He was so delighted by the film that he made an extravagant offer. He volunteered to paint a new mural, in his modern style, based on the original theme and imagery of *América Tropical*. He had huge panels left over from the mural he had completed at the Hotel de México, *The March of Humanity*, and could use these panels for the new mural. He would donate the new work to the people of Los Angeles (fig. 6).<sup>7</sup>

Sadly, the new mural was never completed. A few months after Siqueiros started work on *América Tropical II*, he was diagnosed with cancer. He stopped work on the project to travel with his wife Angelica in the days that remained to him. He died on January 6, 1974.

It has been forty-four years since I stood on the rooftop adjoining the Old Italian Hall in Olvera Street with Shifra Goldman, as we discussed our dream to see *América Tropical* preserved. Over the years there have been many efforts to have the mural preserved, some motivated by good intentions, others more self-serving. Throughout the 1970s and 1980s, in one way or another, Shifra was involved in these efforts and was always committed to safeguarding the artistic integrity of Siqueiros's work to the day of her death in 2011. With pleasure and satisfaction, I see the dream that she and I shared so long ago finally coming into reality. My only regret is that Shifra is not here to appreciate the fruits of her labors.



**Figure 6** *América Tropical II*, an unfinished work photographed at Siqueiros's studio in Cuernavaca in the summer of 1974. Photo: Shifra Goldman; used by permission of her estate; mural: © 2012, Artists Rights Society (ARS), New York/Sociedad Mexicana de Autores de las Artes Plásticas (SOMAAP), Mexico City

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## Notes

1. The sit-in by more than one hundred members of the ad hoc Educational Issues Coordinating Committee was in response to the removal of a controversial teacher, Sal Castro, from Lincoln High School. Castro had been an activist teacher during the March 1968 high school walkouts in East Los Angeles and had subsequently been indicted for conspiracy to disturb the peace. To many in the Mexican American community, he represented the ideal teacher who was so committed to his students that he would put his own career in jeopardy. The sit-in resulted in Castro's reinstatement to his teaching job.
2. Dr. Goldman was a member of the Civil Rights Congress, a civil rights watchdog organization. She represented the Civil Rights Congress in its outreach to an early Mexican American civil rights organization, the National Mexican American Association. Because of these activities, she was called before the House Un-American Activities Committee in 1956.
3. This early student film of mine, shot and edited in Super 8, has been lost.
4. Raquel Tibol, *Siqueiros, Introdutor de Realidades* (Mexico City: Universidad Nacional Autónoma de México, 1961).
5. The *AHORA!* series was funded by a grant to KCET from the Ford Foundation. The show was broadcast live five nights a week, from September 1969 to June 1970. The historical vignettes, "La Raza History," were a regular weekly part of the show.
6. Weiskall could not recall the name of the photographer who had taken the photos, and during the next six months, I tried to track down the unknown photographer, with no success. Later, when I interviewed Siqueiros in Mexico City, I found that he also had copies of these two photos.
7. In 1972, I visited Siqueiros at his studio in Cuernavaca and saw the progress of work on the panels of the new mural, *América Tropical*.

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## Biographical Note

Jesús Salvador Treviño is a Los Angeles writer and director who has directed more than one hundred hours of prime-time network and cable television programs. His many PBS documentaries include *América Tropical* (1971), which brought widespread attention to the whitewashing of the Siqueiros mural in 1932. While making the documentary, he arranged for restorers from Mexico City to visit the mural and assess its condition. His current project is [www.Latinopia.com](http://www.Latinopia.com), a video-driven website on Latino history, art, literature, music, theater, cinema, and food.

# América Tropical y el renacimiento del arte en Estados Unidos

Jaime Mejía Servín

**Resumen:** En 1969, la Dra. Shifra Goldman me contactó para ver la posibilidad de la restauración del mural “América Tropical” que el maestro David A. Siqueiros y el Mural Bloc Painters, grupo compuesto por veinticuatro artistas, realizaron en el exterior de un edificio ubicado entre las calles, Main y Olvera de El Pueblo de Los Ángeles State Historic Park, California, en 1932.

En 1982, trece años desde la primera vez que analicé dicho mural, visité el mismo; observando que la pintura, durante este tiempo había sufrido grandes deterioros.

**Abstract:** In 1969, I was contacted by Dr. Shifra Goldman to study the possibility of restoring the mural América Tropical. This work had been created in 1932 by David A. Siqueiros and the Mural Block Painters—a group of twenty-four artists—on the exterior of a building located between Olvera and North Main streets, in the Olvera Street section of El Pueblo de Los Angeles Historic Monument in Los Angeles.

In 1982, more than thirteen years since I first analyzed the work, I visited the mural again, and observed that during this time the paint suffered tremendous deterioration.

En el año de 1963, el INBA (Instituto Nacional de Bellas Artes de México) y el gobierno del Estado de Morelos iniciaron la restauración de los murales del Palacio de Cortés que pintó el maestro Diego Rivera en 1932. Yo formaba parte del equipo de restauradores que dirigía el maestro Marco Antonio Borregui, quien había sido ayudante de Rivera.

En este lugar conocí a la Doctora Shifra Goldman, estudiosa del arte mexicano, quien realizaba una visita para conocer la obra del maestro Rivera. Su interés y sus investigaciones del arte de México –siendo residente de la ciudad de Los Ángeles, California– la llevaron a descubrir el mural “América Tropical” que el maestro David A. Siqueiros, otro eminente muralista, había pintado en el año 1932 en The Plaza Art Center, ubicado en el área del Pueblo de Los Ángeles.

Este mural de cinco metros y medio metros de alto por veinticinco metros de ancho fue realizado en un muro exterior. La forma en que el maestro Siqueiros trató el tema “América Tropical” no fue del agrado de los contratantes y después de algunos meses de la inauguración fue cubierto en su totalidad con una gruesa capa de pintura blanca y además la parte inferior se cubrió con una capa de asfalto de un metro de altura.

Con el firme propósito de rescatar el mural “América Tropical” de su deterioro, la Dra. Shifra Goldman me invitó, en 1969, a visitar el lugar y determinar su posible preservación o restauración. En esa oportunidad hice una serie de recomendaciones que servirían para proteger el mural de la lluvia, el sol, contaminación, etcétera.

Cumplida esta etapa en 1971, la doctora Goldman continuó con el trabajo del rescate de la obra por lo que contacta al joven productor de televisión Jesús Salvador Treviño (Canal 28 KCET de Los Ángeles); la participación de este personaje fue definitiva para atraer mayor interés al proyecto. Treviño produjo el documental de televisión. “América Tropical” con una duración

de 30 minutos. En éste, narra la época en la que se pintó el mural y entrevista a personajes como Millard Sheets, John Weiskall, Gilberto Luján, Shifra Goldman y al propio maestro Siqueiros. En mi propia intervención, comento los aspectos técnicos propuestos para su preservación.

El documental se transmitió en Estados Unidos y México a nivel nacional, lo que despertó el interés por la restauración de la obra en ambos países y por el muralismo en los Estados Unidos.

La Dra. Goldman, desde inicios del proyecto en 1969, mantuvo informado al maestro Siqueiros de todos los aspectos referentes a su mural. Todos los aspectos técnicos de la conservación le eran informados para estar seguros y no quedase ninguna duda de que el artista estaba de acuerdo con lo que se le había comunicado en junio de 1969. Siqueiros nos otorgó una carta firmada aprobando los puntos técnicos acordados.

El interés despertado por el documental de Jesús S. Treviño hacia la obra mural de Siqueiros, hizo que el propio maestro reconsiderara la conservación o restauración de la obra y -en una carta dirigida a la Dra. Shifra Goldman fechada en 1972- expresó que no autorizaba a ningún artista ni restaurador a trabajar sobre el muro original de “América Tropical”. Propuso, en su lugar, realizar personalmente un panel mural que reproducía dicha obra.

Hasta donde conocemos, el maestro Siqueiros inició -en su taller de Cuernavaca- la obra propuesta; no tenemos noticia en qué terminó el proyecto ya que falleció en esa ciudad el 6 de enero de 1974.

Se continuó trabajando en el proyecto de rescate de “América Tropical” y en 1979 me volvieron a invitar, momento en el que realicé un nuevo diagnóstico de las condiciones del mural.

Diez años más tarde la situación de la pintura ya no era la misma, sus condiciones se habían vuelto extremas. Por ejemplo observamos que la capa pictórica casi había desaparecido en la parte superior así como en otras zonas del mural. La pérdida de esta capa se debió principalmente a la acción de la lluvia y a su posterior evaporación por efecto de los rayos solares, situación que afectó también la base del cemento negro, la que se ha erosionado en la superficie, o sea en la zona que contiene la capa pictórica. Por esta razón, la capa de revoque, la capa pictórica y la pintura con la que fue recubierto el mural, ya reblandecidos por la acción de lluvia y rayos solares, se

mezclan y se desprenden. La base de cemento negro sin duda fue pensada por Siqueiros y su grupo con el fin de que tuviera mayor resistencia a la acción de los elementos a los que iba a estar expuesta la obra por encontrarse en el exterior del edificio. Hay que hacer notar que hasta en esa época no se había empleado este material en la pintura al fresco. Si en esta obra se hubiera empleado la base tradicional de la pintura al fresco, “América Tropical” ya no existiría.

Los daños que presentaba eran los siguientes: En algunas zonas se podían localizar en grietas muy profundas en forma de red, estas grietas son sumamente peligrosas ya que si llegan a cerrarse en círculos puede desprenderse el área afectada. Se encontraron también cámaras de aire, lo mismo que otro tipo de grietas que atraviesan la base de cemento, éstas son más profundas que las primeras, posiblemente llegan a hasta la pared del edificio. También se observaron desprendimientos de la pared en las dos esquinas superiores, izquierda y derecha.

Para el rescate de la obra del maestro Siqueiros propusimos un proyecto de conservación y restauración. Mencionamos por primera vez la palabra “restauración” en relación a esta obra porque obviamente la pintura requiere de la devolución de algunos elementos que la componían en su forma original, evidenciándose esto en la capa pictórica casi desaparecida; el proyecto de restauración se apoya en la carta de Venecia que dice que el último recurso de la conservación es la restauración (Carta de Venecia 1964, Artículos 2 al 13).

Los pasos que contemplaba el proyecto son los siguientes

1. Fijar el pigmento y quitar la capa de asfalto de la parte inferior del mural. Es muy importante fijar lo que aún queda de la capa pictórica con el fin de evitar que esta se siga desprendiendo al contacto de cualquier elemento de los ya mencionados, la pérdida de más color nos imposibilitaría la oportunidad de tener el apoyo del color y el diseño originales. Es la base en la que nos apoyaremos para regresar a la pintura parte de su estado original. En las partes en las que el color se ha perdido, se tratará de lograr la unidad que Siqueiros y su grupo le imprimieron a la obra.

2. Limpieza del polvo, esmog y otras impurezas de la parte trasera del mural y reconstrucción de las esquinas superiores de la pared. El objetivo de esta operación es lograr que la pared se libre de elementos ajenos a ella y se prepare para recibir la sustancia hidrófoba; en esta etapa también se procederá a resanar grietas mayores lo mismo que desprendimientos de la base de cemento.
3. Una vez resanadas las grietas y otras pérdidas de la base de cemento, se procederá a inyectar toda clase de grietas, ya sean profundas, anchas y/o superficiales y las cámaras de aire, con el fin de consolidar toda la base de cemento negro de la pared original del edificio.
4. Colocación del líquido hidrofugante en la parte superior trasera y laterales, con la finalidad de proporcionar a la pared que soporta el mural, la capacidad de respirar y a la vez eliminar todas las sustancias contaminantes. Nuestro aire se compone básicamente de gases de combustión ricos en ácidos de azufre, estos humos ácidos son conducidos por la lluvia sobre los materiales de construcción y destruyen sus aglutinantes. El líquido hidrofugante evitará un alto porcentaje la acción de los ácidos del azufre.
5. Reintegración del color perdido. Como se dijo al principio del proyecto, la capa pictórica debe fijarse previamente con el fin de disponer de la referencia más completa del color original de la obra. En esta etapa la referencia es muy útil porque nos apoyaremos en ella para regresarle al mural la unidad de color lo más cercana posible a la que se haya conservado del original, en otras palabras se restaurará el color perdido.
6. "Terminada la reintegración del color, se le aplicará una sustancia aislante que proteja al mural de la lluvia y los rayos solares, además de la polución." (Proyecto de Jaime Mejía Servín, Conservación del Mural "América Tropical" en Los Ángeles California USA, México D.F 1979).

A partir de 1979, la Dra. Goldman, la Sra. Jean Bruce Poole, el Sr. Jesús S. Treviño y yo continuamos trabajando en el proyecto pero debido a la falta de recur-

sos económicos este no avanzó según lo planeado. Desde el aspecto técnico teníamos que encontrar el líquido hidrofugante apropiado, producto vital para la vida del mural. Al no encontrar en el mercado el mencionado líquido, recurrimos al apoyo de los químicos Roland Hildel y Ma. Teresa Villegas quienes -mediante el empleo de fragmentos originales del mural- desarrollaron la fórmula hidrofugante ideal para emplearla en "América Tropical".

En abril de 1982 la Sra. Jean Poole y la Dra. Goldman se entrevistaron con la Sra. Myrna Saxe que -por su trayectoria curricular como conservadora y residente en Los Ángeles- mostró interés en el mural. La Sra. Saxe, que contaba con otro tipo de conocimientos, estuvo parcialmente de acuerdo con mi proyecto técnico.

En el mes de mayo de 1982 recibí una carta de la Sra. Jean Bruce Poole en la que me comunica muy amablemente que la Sra. Myrna Saxe realizaría la restauración de "América Tropical".

Desde que recibí la primera invitación de la Dra. Shifra Goldman para participar en el rescate del mural hasta el año de 1982 transcurrieron trece años. Durante ese tiempo, para ser más exacto a mediados de la década de los setenta y gracias a la difusión del documental "América Tropical" de Treviño, conocí en la Ciudad de México al Dr. Jorge Bustamante y al Sr. Gilberto Martínez de Lansing, Michigan.

Por intermediación del Dr. Bustamante, Jesús Treviño produjo películas de largo metraje con el tema chicano mexicano, una de ellas fue "Raíces de sangre"; y con el Sr. Gilberto Martínez organizamos exposiciones pictóricas de artistas mexicanos que exhibimos en casi todos los Estados Unidos.

Gracias al mural de Siqueiros y de estas exposiciones se generó un amplio interés por las expresiones del arte mexicano. Muchos artistas, de forma individual, y agrupaciones artísticas realizaron murales en todo el territorio estadounidense; se publicaron manuales sobre muralismo como el de Mark Rogobin en Chicago y se organizaron dos congresos llamados "Murals Network" en Nueva York y en Chicago; el maestro Siqueiros fue invitado especial en el segundo congreso.

Hubo exposiciones como "La mujer, diálogo visual" integrada por artistas femeninas mexicanas y la Conferencia Plástica Chicana en Austin (Texas) en la que participaron artistas mexicanos, críticos de arte y artistas chicanos.

Ejercieron su trabajo muralistas como Judy Baca en California, Lucy Mahler en Nueva York, Ray Patlan en Chicago, David Torres en Michigan, Marie Turley en Somerville, (Massachusetts) y se formaron agrupaciones como Artes Guadalupanos de Aztlan de Santa Fe, City Arts Workshop de Nueva York, Mujeres Muralistas de San Francisco, Mechicano Art Center East de Los Ángeles, Galería de la Raza de San Francisco y Quinto Sol de Lansing Michigan, entre otros.

Todo lo antes mencionado tuvo un motor generador, “América Tropical” de Los Ángeles.

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## Curriculum

Jaime Mejía Servín, maestro en artes plásticas y restauración, cursa sus estudios en la Escuela de Artes de Tula en Hidalgo y en la Escuela Nacional de Pintura, Escultura y Grabado del Instituto Nacional de Bellas Artes (INBA) como así también realiza estudios de especialización de pintura mural en el Centro Nacional de Conservación y Restauración de Bellas Artes, en México.

Como profesional del arte se desenvuelve en el campo de la conservación y restauración de pintura de caballete y mural, organizando muestras de obras de arte y en diversos medios periodísticos. Ha dado numerosas conferencias y se ha dedicado a la enseñanza y promoción de la cultura. Jaime Mejía Servín y Josefina Quezada fueron entre los primeros conservadores en examinar y evaluar el estado de conservación de “América Tropical” en 1969.

# *América Tropical* as Artifact: Designing a Framework for Its Protection, Viewing, and Interpretation

Mark Buckland

**Abstract:** *The paper will detail the design goals and the implementation of architectural features of the Siqueiros Mural Protective Shelter, Viewing Platform, and Interpretive Center Project. Though the project's primary reason for construction—to protect the historic mural and artifact América Tropical—has remained constant, there have been many other influences on the design. These influences will be examined via a history of the project's evolution, from the concept abandoned in 2002 through to the present built work, including the discovery of a section of the Zanja Madre, the original water system for Los Angeles. Because this element of historical infrastructure required preservation, its discovery greatly affected the design concept.*

**Resumen:** *Esta ponencia expone detalladamente los objetivos del diseño y la implementación de los elementos arquitectónicos de la cubierta de protección, la plataforma panorámica y del centro de interpretación del mural de Siqueiros. Si bien el objetivo principal para la realización del proyecto (proteger el mural histórico América Tropical) no ha cambiado, muchas otras influencias han contribuido a su diseño. Dichas influencias son analizadas mediante un recuento de la evolución del proyecto, desde el concepto abandonado en el 2002 hasta la obra actualmente construida, incluyendo el descubrimiento de una sección de la Zanja Madre, la red hidráulica original de la ciudad de Los Angeles, otro artefacto que afecta en gran medida el concepto del diseño.*

## Background

The *América Tropical* mural, by David Alfaro Siqueiros, has undergone a controversial history of public acceptance since its unveiling on October 9, 1932. The mural was whitewashed soon after, because of its politically charged iconography. It remained forgotten until the late 1960s, when the whitewashing faded and peeled to the extent that the mural was noticed by local artists. In an effort to protect the mural surface from further sun damage while a longer-term solution could be developed, a series of protective coverings was erected since 1982, thus hiding the mural again.

The Getty Conservation Institute (GCI), in collaboration with the City of Los Angeles and other interested parties, began in the 1990s to analyze the mural's condition and investigate various methods of protecting it and presenting it to the public. In 1996, as part of the mandatory seismic rehabilitation of unreinforced masonry buildings (known as Division 88), a project was undertaken to bring many of the El Pueblo de Los Angeles Historical Monument buildings up to code. As part of that project, columns were erected in the Hammel Building which projected through the roof in order to support a future mural shelter—one that had not yet been fully designed or funded (fig. 1).

Brooks + Scarpa (then known as Pugh + Scarpa), in collaboration with the architectural firm Sato + Rittner, was contracted to continue the development of the Division 88 project based on project goals compiled by a group consisting of the GCI and several City of Los Angeles agencies. The project goals are outlined below.



**Figure 1** One of a series of protective coverings erected over the mural since 1982. The steel columns in the foreground were intended to support a future mural shelter. Photo: Brooks + Scarpa

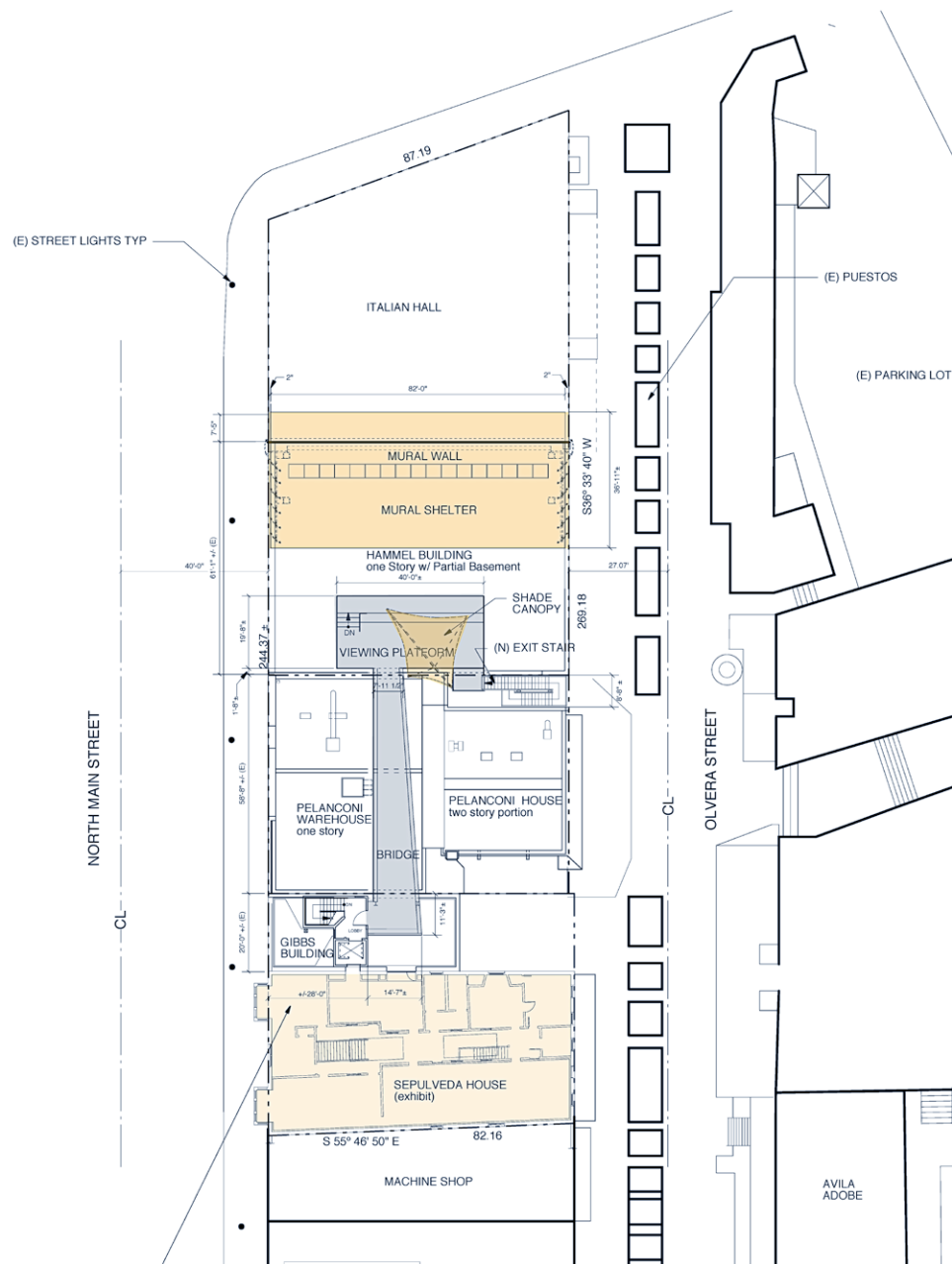
## Design Goals

1. Provide for the environmental protection (sun, wind, rain, and vandalism) of the historic mural *América Tropical*, a painted cement plaster skim coat applied over the original brick-masonry south-facing wall measuring approximately eighteen by eighty-two feet.
2. Provide for the public viewing (day and night) of the mural, which has been obscured by various means (whitewashing, plywood/sheet-metal shed covering, polycarbonate panel/metal vertical truss system) since 1932.
3. Provide a museum-like space for an exhibit dedicated to the interpretation of the mural's iconography, as well as presenting background on Siqueiros, his painting technique, and his impact on modern-day artists.
4. Provide a fourth emergency egress corridor from the pedestrian-only Olvera Street to Main Street, as mandated by the City of Los Angeles Fire Department.

5. Preserve and/or rehabilitate the historic fabric of the five unreinforced masonry buildings that encompass the project limits, as per the Secretary of the Interior's Standards. According to those standards, the new works are to be differentiated from the existing while being compatible with the historic materials, features, scale, proportion, and massing.
6. Structurally isolate the new construction so as not to impose any additional lateral loads on the unreinforced masonry walls.

## Early Designs

Multiple schematic design options were presented to the project's stakeholders. These schemes did not utilize the short columns installed by the Division 88 work (fig. 1). The scheme that was chosen for development was a metal-clad shelter, measuring eighty-two by thirty-seven feet, with a hip roof and slot skylight, supported on four square steel columns rising through the roof (fig. 2). The pairs of columns were to be supported from



**Figure 2** Site plan with an early design for the mural shelter, bridge, viewing platform, and interpretive center. Drawing: Brooks + Scarpa

two separate concrete pile caps and multiple concrete micropiles. The shelter also featured curved copper mesh sunshades above the parapets for side sun protection. A viewing platform with a fabric shade canopy was located on the southern portion of the roof approximately forty-five feet from the mural wall, and a fifty-eight-foot bridge connected it to the Gibbs Building stair/elevator tower to the south. The viewing platform, because of its size, also required a second egress stair that passed through a portion of the Pelanconi House.

An interpretive center would be located on the second floor of the Sepulveda House. Presentations were made to the Cultural Heritage Commission and Cultural Affairs Department of the City of Los Angeles, and approvals were granted.

The project was further developed and eventually submitted to the Los Angeles Department of Building and Safety in September 2002. During this period of design development, in May 2002, an intact portion of historical infrastructure known as the Zanja



**Figure 3** Street elevations of the proposed mural shelter and viewing platform in the context of the buildings included within the project scope. Drawings: Brooks + Scarpa

Madre was discovered in the northeast corner of the Hammel Building via borings drilled to test the soil's load-bearing capacity. The Zanja Madre is a brick pipe, four and a half feet in diameter, that was Los Angeles's original water supply; thus it is classified as historic fabric. The intended mitigation of the pipe—removing an intact section for public display elsewhere—would need to become part of the California Environmental Quality Act (CEQA) approval process. The stakeholders also decided to relocate the interpretive center from the second floor to the ground floor of the Sepulveda House due to concerns regarding historic fabric.

Though this project was approved by the Department of Building and Safety in March 2003, the initial cost estimates, the conditional CEQA approval process allowing the Zanja Madre to be left in place rather than being carefully removed, the lack of a fourth egress path, and demands by merchants who would be impacted by construction caused the project to be suspended for several years.

## Project Limits

The current project scope includes five separate masonry buildings built in the late 1850s through the 1920s, each sharing a common masonry demising wall. The block of buildings is bounded by Main Street to the west, Cesar Chavez Avenue to the north, and Olvera Street to the east. A brief overview of the buildings follows (fig. 3).

## Italian Hall

This three-story exposed brick structure anchors the city block at the northernmost end. It has been used as an assembly space since its construction, which was initiated by Marie Hammel and completed in 1908. The mural *América Tropical* is painted the upper portion of the south-facing party wall. There are two metal-clad shuttered windows and a set of wooden double doors in the wall, which the artist incorporated into the composition of the mural.

## Hammel Building

The single-story Hammel Building was built in two stages. The western portion was built in 1909, and it extended approximately two-thirds of the length of the lot. It was composed of four largely glazed storefront bays, each used for commercial purposes. The eastern portion was built in 1913 and extended the four bays to the Olvera Street facade. These additions included large vented skylights and partial basements accessible only from Olvera Street. While the vented skylights were removed in the 1940s, the original plank flooring and storefronts were mostly intact; they were the prime historic-fabric elements to be retained.

## Pelanconi House/Warehouse

Next is a structure commonly referred to by the public as La Golondrina restaurant. The original structure, built from 1855 to 1857, is a two-story painted brick building with a wood-framed balcony structure. There have been multiple wood-framed infill additions over the years. The building's main facade, with arched openings and brick half-round columns, opens up to Olvera Street and has functioned as a restaurant since 1930. The single-story warehouse portion of the building, built in 1910, extended the building to Main Street and aligns with the adjacent Hammel Building. The Main Street facade is a three-bay glazed storefront with rough-textured cement plaster over the brick columns and parapet. The differing construction phases are most apparent at the roof, where five roof surfaces of varying heights are easily visible.

## Gibbs Building

The single-story brick structure, built in 1926, is set back from the adjacent structures approximately twenty-eight feet. The building has undergone major remodeling over the years. Within years of its completion, a raised patio was added to the Olvera Street front when the whole length of Olvera Street was lowered in elevation by about four feet. In 1932 the Olvera Street facade received the current smooth cement plaster finish, clay tile along the parapet, and metal window and door ornamentation. In 1947 a small wooden shed structure known as

the Glass Blower's Shop was built in the northeast corner of the lot. The last major renovation occurred in the 1990s—the addition of an elevator and stair to the roof, which serves the egress and access requirements of the Sepulveda House.

## Sepulveda House

This two-story exposed brick building was built in 1887. On the ground floor there were a pair of commercial spaces fronting Main Street as well as residential spaces accessible from Olvera Street; on the second floor, there were individual lodging rooms. The Main Street facade features two projecting second-floor wooden bay windows and tall double doors. The Olvera Street facade is painted brick, with a second-floor wooden balcony and fabric awning above. While this building has undergone renovations over the years, they have been minor. Thus, the building includes much of the historic fabric that needed to be retained for the whole project.

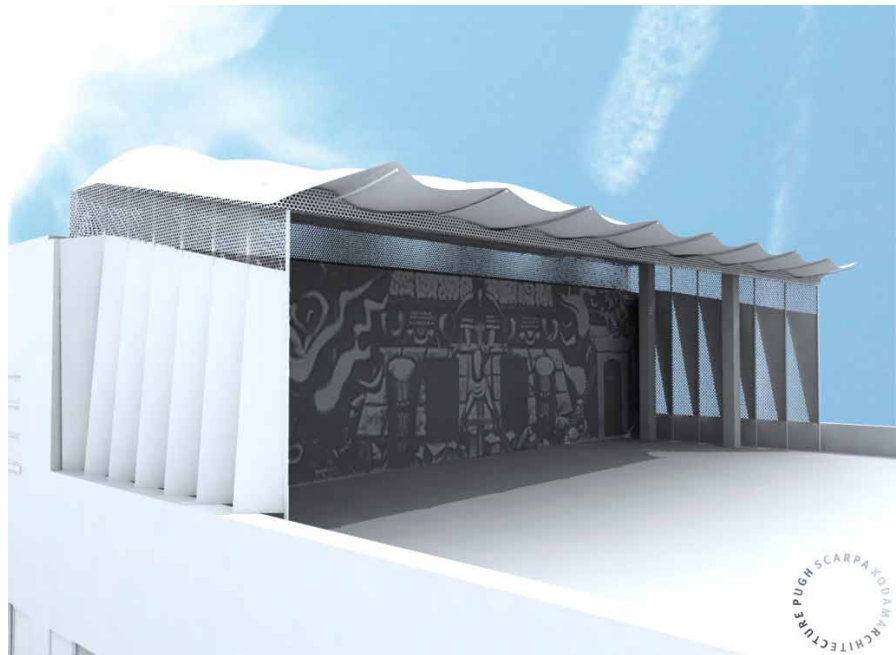
## Current Design

In July 2007, the architectural division of the City of Los Angeles Bureau of Engineering contracted Brooks + Scarpa to submit a reduced/revised scope schematic design package based on previously submitted concept renderings (figs. 4 and 5) of a shelter and platform design that (a) eliminated the bridge and second egress stair component, (b) retained and protected the Zanja Madre in place, and (c) created the necessary fourth egress path.

## Mural Shelter

The intention to protect the Zanja Madre in place greatly influenced the shelter design. Multiple schemes were developed that differed mostly in the profile, angle, and size of the mural shelter itself—several of which are shown in figure 6. In each case, the frame of the shelter was designed to span the seventy-two feet between columns as a space frame (a two-way truss) constructed by interconnected hollow steel sections (HSS) and wrapped with fire-retardant fabric stretched tightly over the frame top and bottom. The space frame would also need to support a protective roll-down screen that would be lowered when the mural was not being viewed. Each

**Figure 4** Conceptual rendering of the mural shelter. Drawing: Brooks + Scarpa; mural: © 2012, Artists Rights Society (ARS), New York/Sociedad Mexicana de Autores de las Artes Plásticas (SOMAAP), Mexico City.

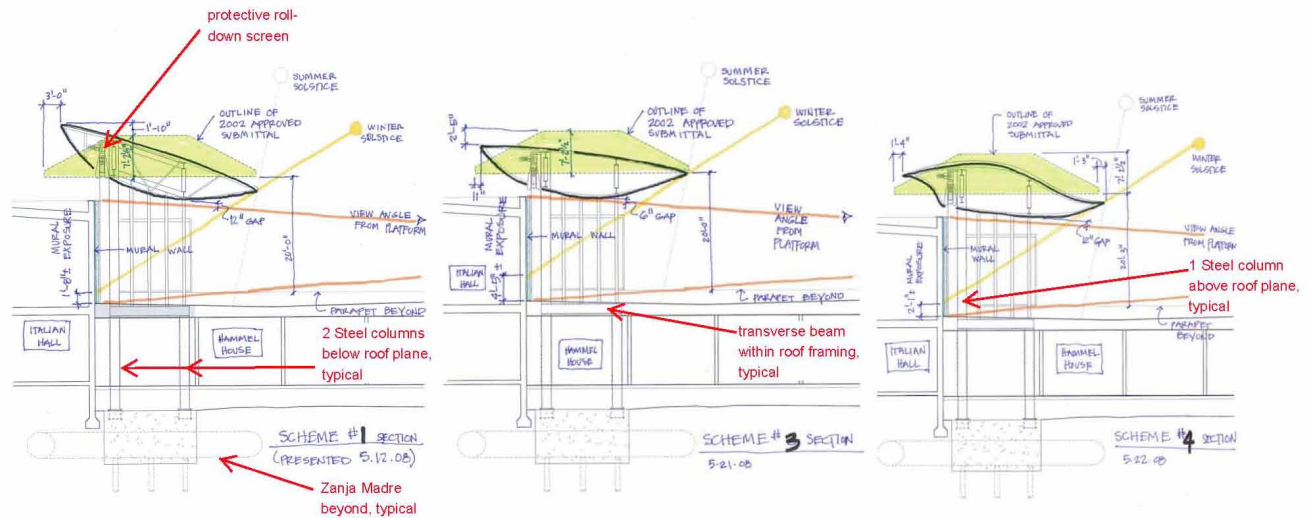


**Figure 5** Conceptual rendering of the viewing platform. Drawing: Brooks + Scarpa



of the shelter canopy profiles was supported by a steel column above the roof plane that transitioned the loads to a transverse beam within the roof framing and was in turn supported by two steel columns below the roof plane. The columns above the roof would also support perforated copper sunshades, as before. The perforated copper would eventually be detailed to include solid sec-

tions, so as to align with adjacent Italian Hall elements. Although a specific profile was selected by consensus, many design elements were yet to be resolved. Some of the major issues were: (a) the location of the column above the roof relative to the mural wall and the amount of surface it would obstruct; (b) the depth of the space frame, its overall maximum height above the street, and



**Figure 6** Sun-angle study sketches of proposed mural shelter profiles. Drawings: Brooks + Scarpa

the asymmetrical loading of the space frame to a single offset column; and (c) the pile cap/pile locations relative to the Zanja Madre.

The resolution of these issues came from the decision to eliminate the double column and transverse beam configuration below the roof surface. Instead, a single built-up column measuring eighteen by thirty-six inches was proposed at each end from foundation

to space frame, seismically isolated from the Hammel roof structure. The column line was moved away from the mural wall approximately fourteen feet (fig. 7), and an alternate type of roll-down screen was proposed that utilized a motor within the roll-tube itself. In order to more equally balance the forces acting through the space-frame-to-column connection, the shelter's size was increased east and west of the parapet edges. The



**Figure 7** Rendering of the mural shelter with sun-shades. Drawing: Brooks + Scarpa

space frame profile was also tapered toward the edges in order to visually reduce the apparent mass, including a “knife-edge” continuous gutter at the perimeter. The easternmost column-to-pile-cap connection also required a wishbone-shaped, concrete-filled transverse beam that cantilevered over the Zanja Madre.

## Viewing Platform

During design, there were considerable changes in relation to the concept rendering. Instead of a stretched-fabric awning structure similar to that of the 2002 design, the platform became more visually enclosed, in order to provide increased shading for visitors, a more intimate viewing “room,” and a signage opportunity for the interpretive center below (fig. 8). Features of the viewing platform include:

1. Aluminum T-bar grating as the walking surface, for durability, wheelchair accessibility, and drainage to the roof below.
2. Galvanized diamond plate at the egress stair and landing. The stair to the recreated historical door of the Sepulveda House provides the required second egress point from the platform.

3. Perforated, corrugated steel decking at the platform’s roof. The decking is supported by HSS tube frames that are wrapped with painted sheet metal. The roof structure is supported by columns passing through the Gibbs Building’s roof that rest on a continuous concrete grade beam and six concrete piles forty feet deep by eighteen inches in diameter.
4. Painted steel guardrails with rectangular steel mesh infill.
5. Alaskan yellow cedar benches.
6. Perforated copper panels that create a screen. The perforations vary in size and spacing to create an abstract self-portrait of Siqueiros. The same screen signage is also used at the Main Street elevation.

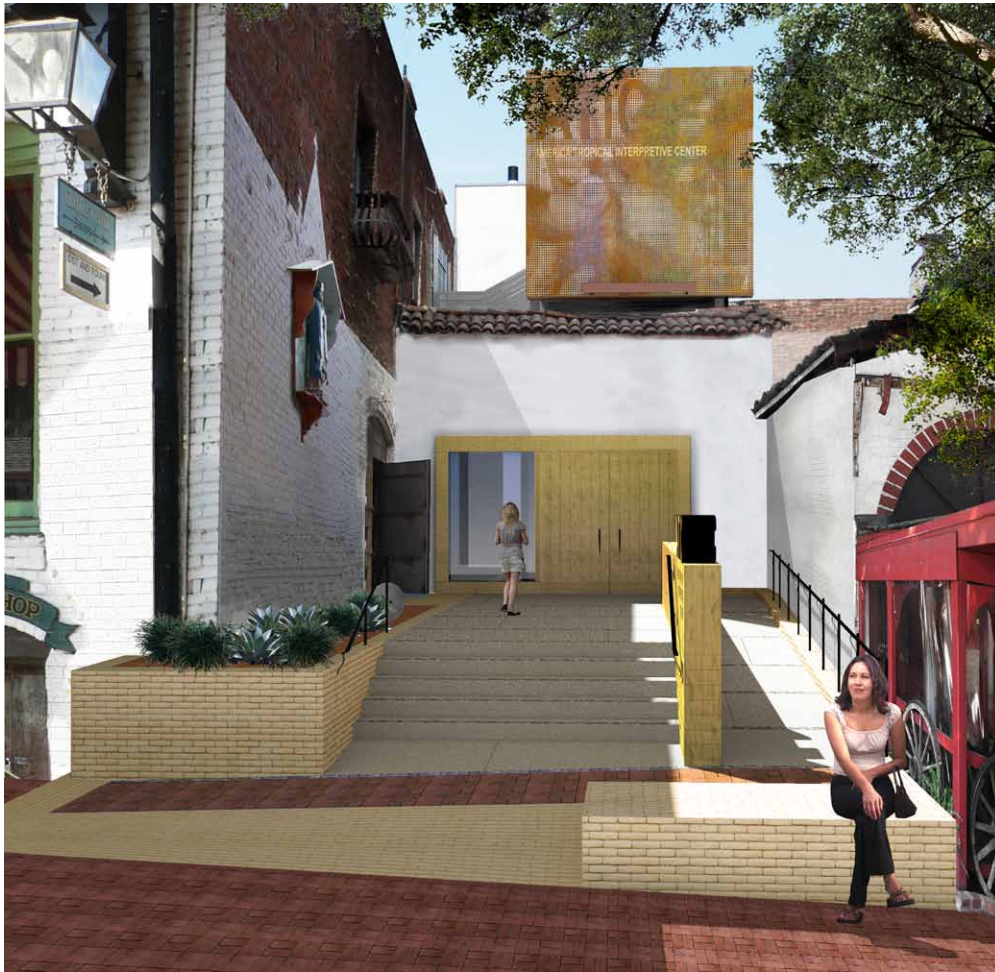
It also became necessary, because of the increased distance between the visitor and the mural surface, to visually “clean up” the expanse of roof surface in the view corridor.

## Interpretive Center

The América Tropical Interpretive Center, while actually occupying the ground floor of the Sepulveda House,

**Figure 8** Rendering of the viewing platform. Drawing: Brooks + Scarpa



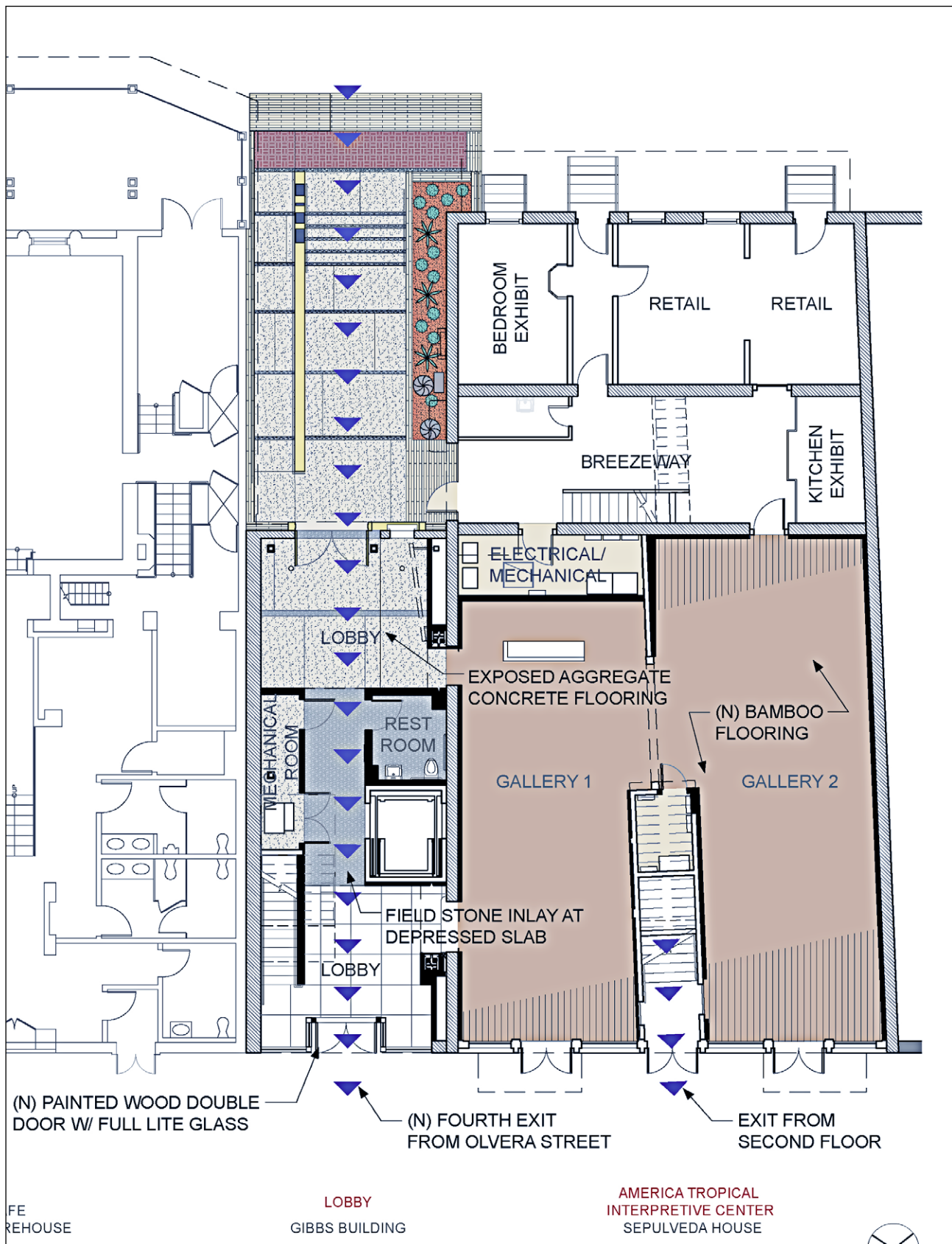


**Figure 9** Rendering of the raised patio off Olvera Street and the entry into the Gibbs Building. Drawing: Brooks + Scarpa

is organized to take advantage of the ground floor of the Gibbs Building, which serves both as a lobby and as the egress corridor from Olvera Street. The stakeholders also decided to add to the project scope via an outdoor area to the east by removing the Glass Blower's Shop. The removal of this "noncontributing" (to the historic fabric of the El Pueblo Monument) structure exposed three previously hidden arched openings on the south wall of the Pelanconi House. Brooks + Scarpa presented several schemes that created a raised patio similar to what was on the site in the 1930s. The patio schemes included a landscaped area along one edge, an accessible ramp along another edge, and a set of steps in the center. These different schemes offered varied finishes and configurations of the elements, and one of them was chosen (fig. 9). It features exposed aggregate concrete with pebble bands, an Alaskan yellow cedar (AYC) wall with

an adzed finish to separate the ramp and stairs, brushed stainless steel handrails, a brick planter and surface edging, desert flora in a decomposed granite planter bed, and granite millstones. The perforated copper of the viewing platform looms overhead, above adzed AYC double doors that lead to the Gibbs Building lobby.

The patio floor finish continues through the double doors into the lobby. From the lobby area, one can continue through the space to Main Street or enter the interpretive center (fig. 10). Also accessible from the lobby is a unisex restroom for interpretive center patrons that features recessed LED lighting and full-height porcelain wall tile. The elevator has new aluminum floor tiles, and the viewing platform's access stair utilizes aluminum diamond plate at the landings. Exhibit-related graphics adorn the walls throughout the lobby space. The interiors of the interpretive center were designed so



**Figure 10** Floor plan of the interpretive center and patio. Drawing: Brooks + Scarpa

as to provide a “white box” for exhibit fabrications. The two existing separated gallery spaces were combined by removal of part of the demising wall that spanned the existing heavy timber framing. Passing through this new wall opening, visitors walk under a distressed-wood painter’s scaffolding system that represents the types of equipment that would have been utilized by Siqueiros and his team of artists. The floors and baseboard are prefinished bamboo, and there is a bamboo-clad reception desk with a brushed stainless steel countertop near the sliding-glass entry door. The space is cooled via sub-floor ductwork and cherry floor diffusers. The ceilings feature recessed and track lighting, and the existing historic stenciling around the perimeter of Gallery 2 was retained. The brushed aluminum exhibit fabrications, including monitors, interactive consoles, and wall prints, are organized along the perimeter of the spaces.

## Summary

Over the course of the project, numerous communication, sequencing, and technical feasibility challenges

were faced, from design concept through construction. Even so, throughout the project, all attempts were made to ensure that the process remained collaborative and that the finished product remained true to the core goals of protecting, presenting, and interpreting *América Tropical*—including its conservation. It is hoped that the public will agree that the canopy, viewing platform, and interpretive center achieve their goals of exposing this hidden Los Angeles treasure for many generations to come.

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## Biographical Note

Mark Buckland earned a bachelor of science in architecture from the University of Cincinnati in 1991. He has over seventeen years of work experience in architecture, with a focus on construction administration. Additionally, he has six years of construction trade experience. A project manager for Brooks + Scarpa, he has been involved with the Siqueiros project since 2008.



# Sheltering Siqueiros: Complexities of Building in a Historic Site

Gary Lee Moore

**Abstract:** *In 1932, two years after the opening of Olvera Street, prominent Mexican artist David Alfaro Siqueiros painted an eighteen by eighty foot mural titled América Tropical on the south wall of the Italian Hall, a building erected in 1908 at El Pueblo de Los Angeles, a historical district considered the birthplace of Los Angeles. The mural was whitewashed over time between 1933 and 1938. In July 2006, the Los Angeles City Council accepted a grant from the J. Paul Getty Trust to match city funds for the construction of a protective shelter for the mural, a public viewing platform, and an interpretive center. In this paper, the city's project manager from the Bureau of Engineering will discuss the construction challenges faced in completing the project in a historic setting.*

**Resumen:** *En 1932, dos años después de la apertura de la calle Olvera, el renombrado artista mexicano David Alfaro Siqueiros pinta un mural de cinco metros y medio de alto por veinticuatro metros de largo titulado América Tropical en el muro sur del Italian Hall, edificio construido en 1908 en El Pueblo de Los Ángeles, zona histórica considerada el lugar de la fundación de dicha ciudad. El mural es cubierto repetidamente con pintura blanca entre 1933 y 1938. En julio del 2006, el Ayuntamiento de la Ciudad de Los Ángeles acepta un subsidio del J. Paul Getty Trust que equipara los fondos de la Ciudad para construir una cubierta para el mural, una plataforma panorámica para el público y un centro de interpretación. En esta ponencia, el director del proyecto de la Oficina del Departamento de Ingeniería de la Ciudad de Los Angeles analiza los retos que se enfrentaron para llevar a buen término la construcción de este proyecto en un contexto histórico.*

In 1932, two years following the opening of Olvera Street, prominent Mexican artist David Alfaro Siqueiros painted an eighteen-by-eighty-foot mural titled *América Tropical* (fig. 1), on the south wall of the Italian Hall, a building erected in 1908 at the site of the current El Pueblo de Los Angeles Historical Monument. The brightly colored mural was visible from the Los Angeles City Hall, Olvera Street, and North Main Street. *América Tropical* was whitewashed sometime between 1933 and 1938. Since the 1980s, a series of temporary protective shelters was erected over it by El Pueblo. In 2002 the GCI and preparators from the J. Paul Getty Museum installed a rigid protection in front of the mural in preparation for the construction and installation of the current protective canopy.

In July 2006, the Los Angeles City Council accepted a grant of \$3.95 million from the J. Paul Getty Trust to match city funds for the construction of the Siqueiros Mural Protective Shelter, Viewing Platform, and Interpretive Center Project. The total project cost was \$9.95 million, and its goal was to protect the mural and to allow the many visitors who come to El Pueblo to experience the mural, learn about the artist, and explore the artistic movement Siqueiros represented.

Soon after the acceptance of the grant from the Getty, the Bureau of Engineering (BOE) was requested by the Mayor's Office to undertake the design and construction management of the project. The firm of Brooks + Scarpa Architects (formerly Pugh + Scarpa Architects) was contracted by BOE in July 2007 for design and construction administration services, because of their knowledge of El Pueblo and their experience working there.



**Figure 1** *América Tropical* by David Alfaro Siqueiros. Photo: Stacey Rain Strickler, J. Paul Getty Trust; mural: © 2012, Artists Rights Society (ARS), New York/Sociedad Mexicana de Autores de las Artes Plásticas (SOMAAP), Mexico City

Planning and designing the project was an extensive and lengthy process, because there were many stakeholders that had to review and agree upon the final concept. Several presentations and design workshops were conducted by the BOE with the Mayor's Office, the Department of El Pueblo de Los Angeles Historical Monument, the Getty, Brooks + Scarpa, the artist community, the Cultural Heritage and Cultural Affairs commissions, and the Building and Safety and Fire departments.

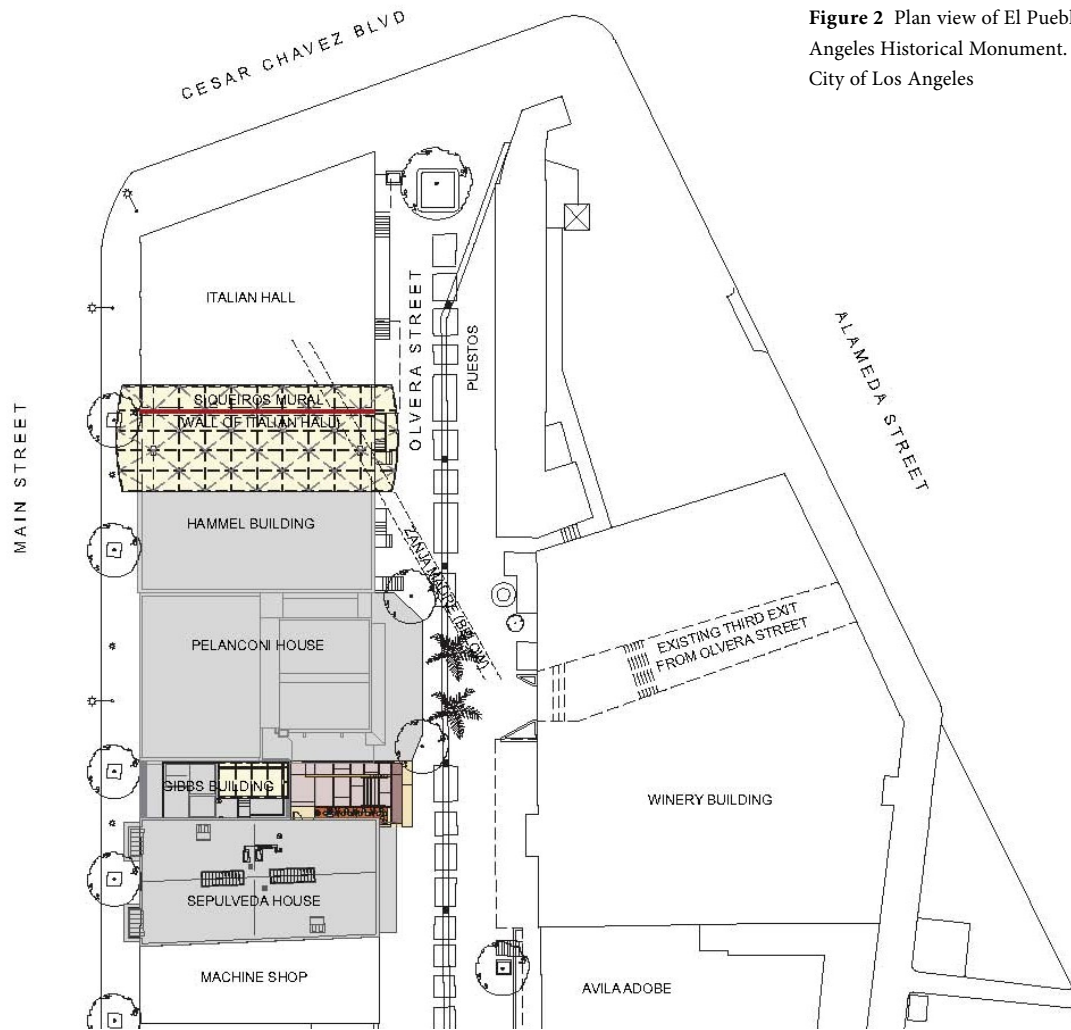
In order to achieve the vision of the mayor, the Getty, and El Pueblo to showcase and protect the mural, the project would have to impact several of the existing historic buildings. The BOE conducted extensive meetings to discuss and analyze impacts to the existing historic buildings. By working with the Cultural Heritage Commission, historical preservation consultants, and El Pueblo's curator, the BOE was able to develop an acceptable plan to minimize the impacts. Some of the buildings affected were the Sepulveda House, built in 1887; the Gibbs Building, built in 1910; the Pelanconi House, built in 1855; and the Hammel Building, built in 1909 (fig. 2). The impact to the Sepulveda House included the relocation of the existing Visitors Center to the Avila Adobe, built in 1818, to make room for the new *América Tropical* Interpretive Center and to allow the addition of a secondary exit from the planned mural viewing platform on the second floor. The Mr. Churro deli was relocated from the Gibbs Building in order to add a required fourth exit from Olvera Street, to construct the viewing platform on the roof, and to add the main entrance to the interpretive center. La Golondrina restaurant in the Pelanconi House was to be

kept in operation during the relocation of the mechanical equipment on the roof; moving this equipment was necessary in order to provide a clear view of the mural from the viewing platform. The retail space in the Hammel Building was closed, and all the merchandise was removed, to allow the construction of the foundation system for the two large columns that support the protective shelter and to allow for the protection of a section of the historical infrastructure known as the Zanja Madre (Mother Ditch), the original water system for Los Angeles, which is located in the basement of the building (fig. 3).

El Pueblo is currently visited by over two million people per year from many countries. Most of the retail spaces and restaurants are open seven days a week, including holidays, and there are regularly scheduled programs and activities throughout the year. The BOE worked closely with the Mayor's Office, Brooks + Scarpa, and El Pueblo staff to minimize disruptions to the daily operations of El Pueblo.

The design of the project was completed in late 2009 (fig. 4). In May 2010, the construction contract was awarded to Royal Construction Corporation, and construction began in August 2010.

The addition of new construction features within the historic buildings required working around historic fabric. This resulted in numerous challenges. The selective demolition work required careful cataloging and removal of historic elements that would ultimately be reinstalled in their original location after the new work was completed. Floorboards and joists were temporarily removed in the Hammel Building to allow for the drilling of the foundation for the mural protective shelter



**Figure 2** Plan view of El Pueblo de Los Angeles Historical Monument. Drawing: City of Los Angeles



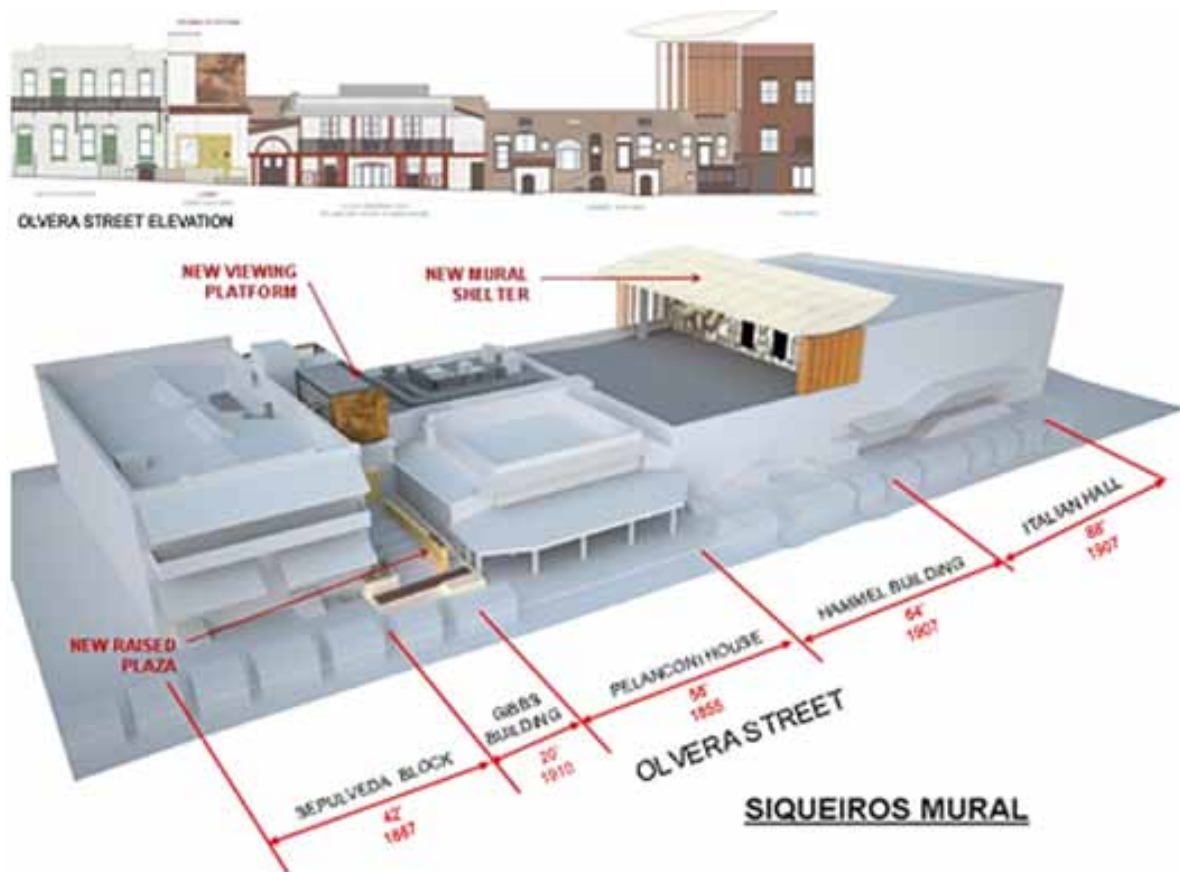
**Figure 3** The Zanja Madre exposed during construction. Photo: City of Los Angeles

(fig. 5). Fire sprinkler upgrades required the removal of artifacts from the exhibits in the Sepulveda House museum. Historic doors that required alterations for code compliance could not be reused without major modification. In order to ensure that these historic features remained protected, the contractor provided the services of a preservation specialist who, with input from El Pueblo curators and the BOE, closely monitored daily activities.

During the selective demolition process, many unforeseen conditions were discovered that differed from the historical data available during the design phase of the project. The discoveries required the removal of the wood floor and foundation in the Sepulveda House, as well as the upgrading of inadequate mechanical, electrical, and plumbing systems. Many of these issues arose from an unidentified sewer leak under the flooring of the north gallery in the Sepulveda House which went unnoticed because of lack of access during design. The

leak damaged the historic floor so badly that it could not be salvaged. When the floor was removed, the crawl space was found to be littered with debris and sewage that had accumulated over an unknown period of time. The demolition also uncovered a network of unidentified conduits that conflicted with contract work. The project team produced a new design to reconfigure the foundation, rehabilitate the sewer system, and install a new floor system. The design was beneficial to the installation of a new heating, ventilating, and air conditioning (HVAC) system, included in the original design, which routed ventilation ducts within the newly reconfigured crawl space.

After the selective demolition was completed and the remaining historic fabric protected in place, construction began on the foundation for the new mural protective shelter above the Hammel Building, as well as the viewing platform atop the Gibbs Building. The structures were designed to be supported by steel col-



**Figure 4** The final project design components. Drawing: City of Los Angeles



**Figure 5** Pile drilling in a confined space inside the Hammel Building. Photo: City of Los Angeles

umns on top of pile cap foundations that are connected to cast-in-drilled-hole (CIDH) piles with an effective depth of fifty feet. Prior to the drilling of the piles, the Zanja Madre was exposed and protected in place until the project's completion. The Zanja Madre was to be highlighted in the completed project with the floor cut away to reveal the historic pipe.

The installation of the piles required adequate clearance for drilling equipment and material through the excavation of up to twelve feet of soil from the basement spaces in each of the buildings. The excavation exposed building foundations that were not as shown on the plans, and as a consequence, it was necessary to provide underpinning of the existing foundations in both the Gibbs and Hammel buildings. Once the underpinning was complete, drilling of the piles proved to be a slow and meticulous process because of space limitations and the large number of boulders and cobblestones encountered in the soil (fig. 5). Drilling of the piles and the removal of the soil that was generated during the drilling activities was performed at night in order to minimize the impact on El Pueblo's vendors and visitors. Once the pile cap foundations were in place, the team focused on installing the thirty-ton transfer beam inside the Hammel Building (fig. 6).

To avoid having to remove portions of the historic Zanja Madre, the design team reconfigured one of the protective shelter columns supported by the pile cap. A built-up steel transfer beam was designed in a cantile-



**Figure 6** The transfer beam in its final position. Photo: City of Los Angeles

vered configuration to extend over the Zanja Madre and transmit the vertical load of the eastern column to the pile cap. The canopy alone weighs over seventy tons, and transmitting half the load required a massive transfer beam. The lack of work space inside the Hammel Building also required that the transfer beam be delivered fully assembled to the job site, and that a method to lower it into place be engineered. The installation system consisted of stacked railroad ties forming a ramp leading from the front of the building on Main Street to the pile cap located in the back. Heavy metal plates placed over the railroad ties and C-channel tracks helped guide the thirty-ton transfer beam into position. An additional historic storefront also had to be removed to allow access while the transfer beam was being lowered. Positioning the transfer beam required controlling the speed at which it was lowered, since the Zanja Madre was in the beam's path of travel. To lower the massive steel beam, twin forklifts were staged on Main Street, providing controlled guidance with their system of cables and pulleys and by extending their booms inside the building.

After the successful installation of the piles, pile caps, transfer beam, and built-up columns, the complicated task of placing the steel frame canopy in its final location remained. The layout of El Pueblo, its historic buildings, the fragile infrastructure, and the location of the project (in one of the busiest downtown Los Angeles areas) made it unfeasible to stage the lifting equipment

without affecting traffic. Lifting the canopy onto the columns required a 350-ton built-up crane, which arrived on several flatbed trucks lined up along Main Street. The canopy was to be placed in two lifts, and the crane had to change locations to manipulate the canopy safely above the roof; the relocation took twelve hours.

The large size of the canopy (forty by ninety feet) and a tolerance of plus or minus one-sixteenth of an inch for the bolt holes in the connecting baseplates required that the layout of the canopy truss frame be surveyed on several occasions during its fabrication in the shop. After the steel truss members were welded together, the canopy frame had to be cut into five equal sections before it could be safely transported to the job site. The canopy frame was then reassembled and resurveyed in the staging area, located in the parking lot across the street from El Pueblo. Temporary supports were designed to elevate the truss frame off the ground after reassembly, to allow the canopy fabric to be wrapped around the frame (fig. 7). A special lifting assembly was also engineered to help spread the point loads of the canopy and to prevent the steel frame from bending excessively, which would have likely ripped the canopy fabric or permanently warped the frame. Once

the frame was fully reassembled, Main Street, from Aliso Avenue to Cesar A. Chavez Avenue, had to be closed for three days so that the canopy could be staged and then lifted into place. This step required close collaboration between the Department of Transportation (DOT), the Bureau of Street Services (BSS), El Pueblo staff, and the BOE. A traffic-control plan was approved by DOT and BSS to alert motorists to the construction activities and to redirect traffic.

The plan successfully guided through-traffic vehicles away from the construction zone while providing safe access for El Pueblo's visitors to nearby parking lots. The installation of the canopy was performed in two days. However, before the first lift, the sacred *Danza de los Aztecas* was performed to bless the canopy (fig. 8). On the first day of the move, the canopy was moved from the parking lot to the street and placed on temporary supports. This step allowed the crane to realign on the street for the final move of the canopy. On the second day of the move, as a large group of spectators gathered, the crane began to lift the canopy up to its final location (fig. 9). The crane lifted the canopy slowly up from the street and over the historic buildings, while construction personnel guided the canopy

**Figure 7** The installation of the fabric on the canopy structure, done in a parking lot across the street from the mural. Photo: City of Los Angeles





**Figure 8** An Aztec Indian dancer blessing the canopy before it is lifted into place. Photo: City of Los Angeles

to its two supports, which had previously been installed (fig. 10). As the canopy was lowered and guided onto its bolting plates, applause and cheers were heard throughout El Pueblo. The advance planning to ensure that the bolts lined up paid off: the installation went according to plan, the canopy was successfully installed over the mural (fig. 11), and on the third day, the street was reopened as scheduled.

While the contract work was being executed on the roof of the Hammel Building, the Getty was performing conservation to conserve the mural (fig. 12). This process began with the removal of the protective scrim, which consisted of aluminum trusses and Lexan panels. Since the removal of the scrim would have left the mural exposed during construction, a temporary protection system of tarps was installed. Also during this time, the city's General Services Department was working on reinforcing the mural wall from behind the mural, on the common wall shared with the Italian Hall. The mural will be protected from the elements not only by the canopy but also by a system of sheet-metal closure plates and mechanical roll-down screens that will be operated to expose the mural for daily visitation from the viewing platform and special events.



**Figure 9** Spectators watching as the crane lifts the canopy from the parking lot to Main Street. Photo: City of Los Angeles

**Figure 10** The crane positioning the canopy on top of the columns above the roof of the Hammel Building. Photo: City of Los Angeles; mural: © 2012, Artists Rights Society (ARS), New York/Sociedad Mexicana de Autores de las Artes Plásticas (SOMAAP), Mexico City



**Figure 11** The canopy after installation. Photo: City of Los Angeles; mural: © 2012, Artists Rights Society (ARS), New York/Sociedad Mexicana de Autores de las Artes Plásticas (SOMAAP), Mexico City



Construction of the project took twenty-six months, and a grand opening was held in October 2012. Despite the complexities of constructing within the historic buildings, the care required while making alterations to historic fabric, and unforeseen and challenging conditions, El Pueblo staff and the Getty are pleased with the results. Thanks to the contin-

ued support from El Pueblo staff, the impact to their tenants was minimal, and visitors have been spared interruptions. The group effort by all city departments, the Getty, and the Mayor's Office will ensure that the memory of Siqueiros and his *América Tropical* will remain accessible to El Pueblo's more than two million annual visitors.



**Figure 12** GCI conservators working on the conservation of the mural. Photo: Leslie Rainer, J. Paul Getty Trust; mural: © 2012, Artists Rights Society (ARS), New York/Sociedad Mexicana de Autores de las Artes Plásticas (SOMAAP), Mexico City.

## Acknowledgments

The author would like to acknowledge the excellent efforts of his staff at the Bureau of Engineering, in particular Deborah J. Weintraub, AIA, Chief Deputy City Engineer; Mahmood Karimzadeh, AIA, Principal Architect; J. Robert Lomelin, Senior Architect; and Pradeep Ranade, Architectural Associate. Additionally, for their substantial contributions to the Siqueiros mural project, thanks are owed to personnel from many other city departments: the Bureau of Contract Administration, the Bureau of Accounting, the Department of Building and Safety, the Planning Department, the Department of Cultural Affairs, the Fire Department, and El Pueblo de Los Angeles Historical Monument—in particular to General Manager Christopher P. Espinosa.

## Biographical Note

Gary Lee Moore is the city engineer of the City of Los Angeles. As the general manager of the Bureau of Engineering, he is responsible for the city's vast network of public infrastructure, overseeing planning, design, and construction of all public facilities. With more than twenty-seven years of public service, Moore is an accomplished executive and professional engineer who leads over eight hundred engineers, architects, surveyors, and technical support staff in delivering comprehensive, innovative engineering services to the city. Moore oversaw the construction of the protective shelter, viewing platform, and interpretive center for Siqueiros's mural *América Tropical*.



# Preserving *América Tropical*: From Original Technique to Conservation Treatment

Leslie Rainer

**Abstract:** *América Tropical* (1932) by David Alfaro Siqueiros is one of the artist's first murals on cement plaster executed in a modified fresco technique with a variety of modern tools. Because of its politically controversial imagery, the mural was whitewashed soon after its completion in 1932, and it was then neglected for decades. Efforts to preserve the mural began in the 1960s. Since 1988 the Getty Conservation Institute and the City of Los Angeles have worked together to study and conserve *América Tropical*. Treatment has included whitewash and tar removal, cleaning, surface consolidation, reattachment of detached plaster and flaking paint, filling of losses, and visual reintegration. The objective of conservation has been to stabilize the mural and reinstate its legibility while retaining the authenticity of the original work, the traces of its history, and the artist's hand.

**Resumen:** *América Tropical* (1932), de David Alfaro Siqueiros, es uno de los primeros murales del artista en enlucido de cemento ejecutado con una técnica de fresco modificada y con una diversidad de herramientas modernas. Debido a sus políticamente controvertidas imágenes, el mural fue cubierto con pintura blanca poco después de terminado, para luego ser abandonado por décadas. Los esfuerzos dedicados a la preservación del mural se inician en la década de 1960. Desde 1988, The Getty Conservation Institute y la Ciudad de Los Ángeles han trabajado de manera conjunta para estudiar y conservar *América Tropical*. El tratamiento suministrado incluye la eliminación pintura blanca y alquitrán, limpieza, consolidación de la superficie, fijación del enlucido y la pin-

tura delaminada, y su reintegración visual. El objetivo de la conservación ha sido estabilizar el mural y restituir su legibilidad, preservando siempre la autenticidad de la obra original, incluyendo los vestigios de su historia y de la mano del artista.

## Introduction

The mural *América Tropical*, painted by David Alfaro Siqueiros in 1932 on the second-story exterior wall of the Italian Hall at El Pueblo de Los Angeles in downtown Los Angeles, was a major achievement for the artist. It was significant not only for the sheer size of the work and its political content but also for the revolutionary technique he used to paint it, which Siqueiros himself described in detail at the time. The execution of the mural was also innovative in terms of the collaborative process he employed; he recruited local artists and art students, known as the Bloc of Mural Painters, to work with him on the monumental piece.<sup>1</sup>

The mural, which measured approximately eighteen by eighty-two feet, depicted the artist's vision of tropical America—a central Indian figure lashed to a double cross with an eagle perched above him. The scene was set against the backdrop of a Mayan pyramid surrounded by an overgrown jungle, and in the upper right corner of the mural, two revolutionaries took aim at the eagle. Two preexisting shutters and a door were incorporated into the composition (fig. 1).

In response to its scathing political commentary, the mural was whitewashed, then neglected and mostly



**Figure 1** Black-and-white photograph of the mural when it was first painted. Photo: John Weiskall, courtesy of El Pueblo Historical Monument; mural: © 2012, Artists Rights Society (ARS), New York/Sociedad Mexicana de Autores de las Artes Plásticas (SOMAAP), Mexico City

forgotten for decades until, in the 1960s, a group of preservationists, artists, and scholars, led by art historian Shifra Goldman, recognized its significance and initiated efforts to conserve it. Since 1988 the Getty Conservation Institute and the City of Los Angeles have worked together to conserve, protect, interpret, and present the mural to the public (Rainer 2013). As an integral part of the comprehensive project, a study of the original materials and techniques used to paint the mural was carried out based on historic research, visual examination, and scientific study. This study informed the plan for the conservation of the mural, which was implemented in phases and completed in 2012.

## Original Technique

A combination of historic research, visual examination, and scientific analysis formed the basis of the study of the materials and techniques Siqueiros used on *América Tropical*.

## Historical Research

A number of documents survive from the period of Siqueiros's stay in Los Angeles. During this time Siqueiros discovered and wrote extensively about modern tools for fresco painting. When Siqueiros, a great innovator, came to Los Angeles in 1932, he discovered a variety of modern tools and materials being used in construction and in the film industry. Siqueiros experimented with many of these on the murals he painted while in Los Angeles, and during this time, he developed an entirely new and revolutionary fresco technique

working on cement plaster, a departure from the traditional lime-sand plaster used for true fresco.

The most relevant documents he wrote while in Los Angeles, "Pintura Dialectico-Subversiva," which he developed into a manifesto titled "Toward a Technical Revolution of Painting," described the experimental techniques he was developing using mechanical and pneumatic tools for his new fresco painting technique. Among the tools he lists are a compressed air drill to prepare the mural wall, a spray gun to apply plaster to the wall, the spray gun (with its technical accessories, including metal and celluloid stencils, rulers, etc.) to apply the paint, the blowtorch to consolidate the final wax layer applied to the walls, the electrical projector as an auxiliary tool for the initial drawing, and the camera to provide photographic sketches capturing dynamic movement (David Alfaro Siqueiros Papers 1920–91, 1932, 3–15). At the end of the manifesto "Toward a Technical Revolution of Painting," Siqueiros stated that "everything said in the above paragraphs will be practically demonstrated during the course of instruction in fresco painting which I will give at the Plaza Art Center" (David Alfaro Siqueiros Papers 1920–91, 1932, 3–15). It is likely that the mural *América Tropical* was the product of this course.<sup>2</sup> He subsequently painted that mural with the Bloc of Mural Painters on the exterior wall of the Italian Hall, which housed the Plaza Art Center. It was further noted, in a *Los Angeles Times* article announcing the opening of the mural, that it was "the first outdoor painting on cement executed with mechanical equipment" (*Los Angeles Times* 1932).

The materials he described using include waterproof white cement plaster; asphalt as a new element

in painting walls, applied with the air compressor; and pure natural earth and pure mineral oxide pigments, mixed with only water (David Alfaro Siqueiros Papers 1920–91, 1932, 3-15). He further stated that oil, watercolor, tempera, and so on, “are not everlasting, they lack the physical resistance, [and] are not applicable to the monumental painting” (David Alfaro Siqueiros Papers 1920–91, 1932, 3-13).

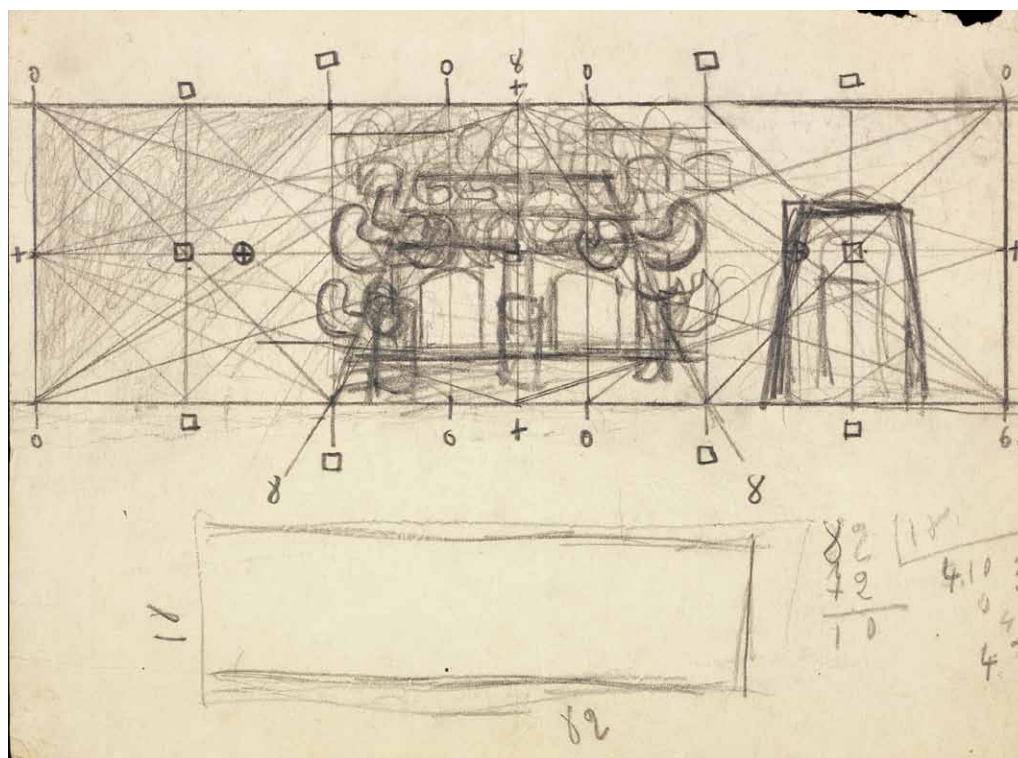
Siqueiros further described his working process. First, he used the drill gun or pneumatic hammer to clean and roughen the surface of the wall to prepare it for the application of cement plaster, next he applied the cement in small patches, then applied the color by air gun while the cement was still wet. Finally, he described how, once the surface had “crystallized,” a mineral wax was added (David Alfaro Siqueiros Papers 1920–91, 1932, 3-16). This was confirmed by Murray Hantman, one of the Bloc of Mural Painters who worked on *América Tropical* with Siqueiros, who refers to it as Minwax and mentions the use of a blowtorch as well (Hantman 1990).

Along with the battery of mechanical elements Siqueiros employed, there is evidence that he also used cartoons, as is done in traditional fresco technique, in which a drawing would first be prepared on paper, then

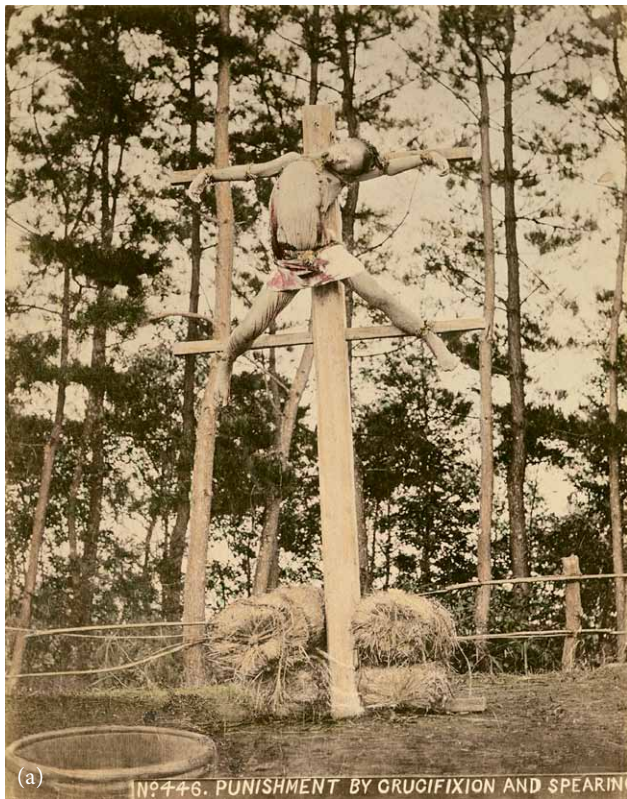
perforated, and finally transferred to the wall by means of powdered pigment pounced through the perforated paper. The use of a cartoon for the final scene, which was painted the night before the opening of the mural, was described by Hantman (Hantman 1990), and a historic photograph also shows a large sheet of paper with a sketch of the Chac Mool figure stretched across a portion of the mural along the lower west side at the base of the wall (Herner de Larrea 2010, 324).

Siqueiros clearly worked from hand-drawn sketches as well, and at least two preparatory sketches of *América Tropical* exist. One shows the various points of perspective of the mural (fig. 2), and the other is a detail of the two revolutionary figures.<sup>3</sup> The perspective sketch is especially important as documentation of the “dynamic perspective” that Siqueiros was developing at the time, and which he was to take to extremes in his later murals.

It is also well known that Siqueiros used photographs as sources for his work. It is likely that he used a photograph—*Crucifixion of the Male Servant Sokichi Who Killed the Son of His Boss and was therefore Crucified. He was 25 Years Old* by Felice Beato—for the central crucified figure (Goldman 1998). While this has



**Figure 2** Sketch for the mural by Siqueiros, showing different points of perspective. This is an early example of the artist's stylistic innovation, which he termed “dynamic perspective.” Getty Research Institute, 960094. Photo: Getty Research Institute



**Figures 3a and 3b** Photograph of a crucified Japanese criminal by Felice Beato, 1863–68 (a), and a composite photo of 2012, showing a detail of the central crucified figure in *América Tropical* (1932) (b). Photos: 3a: Felice Beato (British, 1832–1909), *Execution of the Servant Sokichi (Punishment by Crucifixion and Spearing)*, 1865–68, from *Galerie Gerda Bassenge, Photography Auction 92, December 3, 2008* (Berlin: Galerie Bassenge, 2008), courtesy of Galerie Bassenge; 3b: IQ Magic; mural: © 2012, Artists Rights Society (ARS), New York/Sociedad Mexicana de Autores de las Artes Plásticas (SOMAAP), Mexico City

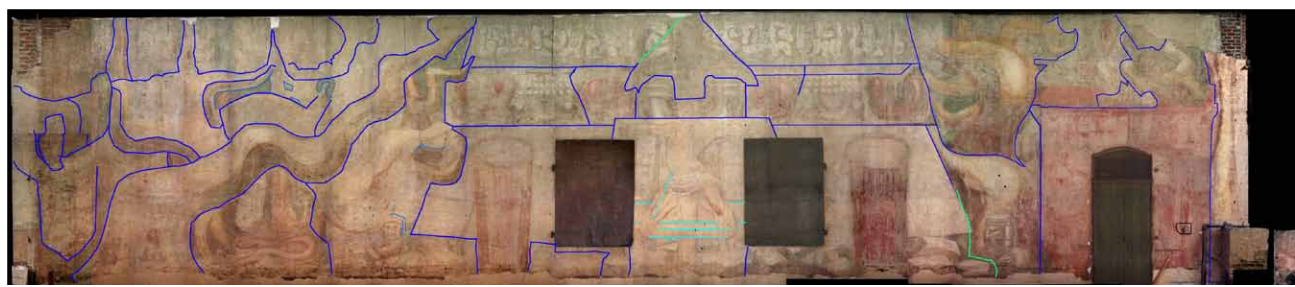
not been confirmed, the position of the figure and the construction of the double cross strongly suggest that Siqueiros had seen the image and based his crucified figure on this reference (figs. 3a and 3b).

### Technical Investigation: Visual Examination

The cement plaster layer is between five and seven millimeters thick, the thickness varying across the wall. The application is not even in thickness or texture, and the final plaster layer is rough in some areas and smoothed in others. In Hantman's account, three layers of plaster were applied, and the final layer contained marble dust (Hantman 1990). A close visual examination shows that Siqueiros applied plaster in areas, or *giornate*, as seen in the plaster joins across the wall. This is similar to the way true fresco would be laid out using traditional lime

and sand plaster. It can be seen that the *giornate* on the west end of the wall are smaller and correspond to specific design elements; moving across the mural, the areas incorporate larger sections of design. In places, incisions can be seen, as well as snap lines, in particular defining the structure of the double cross (fig. 4).

Because of the deterioration and loss of the paint layer overall, it has been difficult to extract sufficient sample material for binder analysis. The majority of the painting appears to be pigment bound in the cement layer. From examination of historic black-and-white photographs of the mural when it was painted, the mural appears to have been more densely colored and to have had more modeling of the design elements than can be seen today, and it is clear that much of the original layering of color has been lost. The sculptural head on the lower east side of the painting, an element that is better



"America Tropical" Mural by David Alfaro Siqueiros  
Graphic Documentation Legend

**Techniques of Execution**

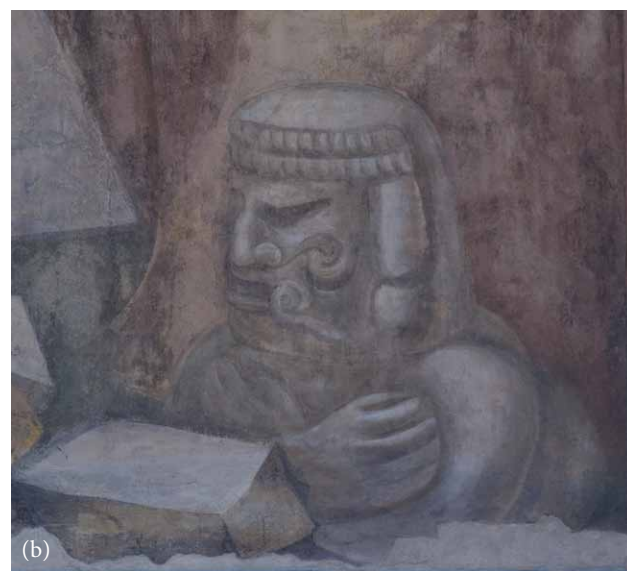
- ☐ Incisions
- ☒ Plaster Joins
- ☒ Possible Plaster Joins
- ☒ Underdrawing

**Figure 4** Documentation of the original technique, showing plaster joins in blue, incisions in green, and snap lines in light blue. Graphic: J. Paul Getty Trust; mural: © 2012, Artists Rights Society (ARS), New York/Sociedad Mexicana de Autores de las Artes Plásticas (SOMAAP), Mexico City

preserved than much of the rest of the mural, retains significant detail and modeling of the figure. A comparison between the current state of this element and a historic photograph gives an indication of the overall appearance of the surface as originally painted (figs. 5a and 5b).

As mentioned above, Siqueiros stated in his manifesto "Toward a Technical Revolution of Painting" that only the airbrush or spray gun was to be used in this new

painting technique. This was confirmed in an account by Grace Clements, who described Siqueiros's application of deep greens, ochers, and reds by the modern technique of the airbrush (Clements 1932, 6). However, it appears from the physical evidence that paintbrushes were also used for modeling, as seen in the traces of brushstrokes and impasto on the sculptural head and on other areas on the mural.



**Figures 5a and 5b** Detail of a sculpturally modeled head on the east end of the mural in a photograph from 1932 (a), and a current photo, from 2012 (b). Note the modeling of details, which is largely missing on much of the rest of the mural due to overall degradation of the surface. Photos: 5a: IQ Magic; 5b: J. Paul Getty Trust; 5a and 5b: mural: © 2012, Artists Rights Society (ARS), New York/Sociedad Mexicana de Autores de las Artes Plásticas (SOMAAP), Mexico City

## Technical Investigation: Scientific Analysis

At different times from 1987 to 2011, the Getty Conservation Institute has performed scientific analysis focused on the characterization of plaster and paint materials. Materials analysis performed by the GCI in 1987 confirms the use of mineral pigments, including yellow ocher, raw sienna, red ocher, burnt sienna, raw umber, chromium oxide green, gypsum, zinc oxide, and titanium dioxide. Additionally, charcoal was found in areas of black (Piqué et al. 1995, 368).

Organic analysis attempted to identify the binder or binders used in the painting. While traces of nitrogen were found using organic elemental analysis, and Fourier transform infrared spectroscopy (FTIR) analysis produced spectra that suggested the possible presence of cellulose nitrate, additional analysis was thought necessary to confirm this (Piqué et al. 1995). Further analysis was performed in 2002 and 2010 using pyrolysis–gas chromatography/mass spectrometry and additional FTIR analysis (Khanjian 2011), but no positive identification of an organic binder has been possible to date. While investigation of a possible mineral binder has not been thoroughly undertaken, it could provide interesting results.

In Siqueiros's own writing from 1932, he clearly stated in his manifesto "Toward a Technical Revolution of Painting" that "pure natural earths and pure mineral oxides must be used exclusively as color in the work. To dissolve the pigments, only water is to be used. The cement, previously colored, can also be applied with air compressor to create splendid compositions and decorations of a great plastic value, and of resistance beyond comparison" (David Alfaro Siqueiros Papers 1920–91, 1932, 3–15).

From the historic research and the technical investigation, it seems that *América Tropical* was painted in a modified fresco technique on cement, using a spray gun with no binder added; however, that leaves the binder of the areas of impasto still in question. Although Siqueiros and Hantman both mention that a final wax layer was applied to the painting, with a blowtorch used to heat and consolidate it (David Alfaro Siqueiros Papers 1920–91, 1932, 3–15; Hantman 1990), traces of wax were not found in the analysis.

## Conservation History

As early as 1969, conservators Jaime Mejía Servín and Josefina Quezada first examined the mural. Their assessment was that because of the extensive degradation of the paint layer overall, it could not be restored. Instead, they believed that it could, and should, be conserved for its artistic merit and historic significance. They proposed a minimally invasive treatment that included removal of the whitewash, removal of the tar, surface cleaning, reattachment of the plaster in areas where it was detached from the wall, visual reintegration, and the addition of a protective shelter over the mural (Treviño 2006).

From 1979 on, a series of temporary shelters was erected over the mural by El Pueblo de Los Angeles Historical Monument as a preventive measure to protect the mural from direct exposure to sun, rain, and birds, while funds were secured to design and build a permanent shelter.

As plans for conservation of the mural progressed, an examination and pilot treatment were done by conservator Scott Haskins in 1988. The pilot treatment, which was applied to an area measuring six by nine feet in the lower west side, included surface cleaning and reintegration (Haskins and Santa Barbara Fine Art Conservation Laboratories 1988).

In 1990 a team of conservators from Mexico, led by Agustín Espinosa, carried out a preliminary phase of conservation, consisting mainly of surface cleaning, reattachment of detached plaster to the brick wall, removal of residual whitewash and tar, and surface consolidation with polyvinyl acetate (Espinosa 1990). Complete photographic documentation of the mural was done in sections before and after treatment.

During the 1990s, the GCI performed further documentation of *América Tropical*, using digital photography to capture the mural in sections, then tiling them together. This early digital stitching project resulted in a rectified, high-resolution image of the mural (Lange 1996) that has been used as a base map for subsequent condition recording done by the GCI,<sup>4</sup> for purposes of monitoring the mural and developing appropriate conservation treatments (Buzzanca et al. 2000).

A second round of plaster stabilization was carried out in 2002 by the GCI, mainly to reattach loose plaster by injection grouting, and the surface of the mural was also cleaned (Rainer 2002–3). At that time, a temporary

rigid protection was erected by preparators from the J. Paul Getty Museum. This was put up in the place of previous larger shelters, in preparation for the construction of the protective canopy.

Most recently, the GCI carried out a final phase of treatment, led by the author of this paper, along with Emily MacDonald-Korth, and Aneta Zebala of Zebala and Partners (fig. 6). The aim of the conservation treatment was to stabilize the mural, improve its appearance through cleaning, stain and tar reduction and removal, and limited visual reintegration, while preserving the authenticity of the artwork, telling the story of its tumultuous past, and reviving the clarity of the iconography. The treatment steps were as follows.

Injection grouting was done to reattach delaminated plaster with a commercially available injection grout, and losses to the plaster layer were filled with a cement-lime-sand mixture with dry pigments. Paint was reattached by injection of a polyvinyl butyral resin.

Surface cleaning was carried out using an aqueous system, and areas of heavier soiling were cleaned with an ammonium citrate solution. Localized areas of tar and residual tar stains and other types of stains were reduced and removed where possible, with solvents. Following surface cleaning and stain removal or reduction, and prior to inpainting, the surface was consolidated and resaturated with an isolating layer consisting of a dilute (less than 7%) solution of isobutyl and n-butyl methacrylate with ultraviolet light stabilizers in solvent.

Silverlake Conservation carried out the treatment of the two shutters that were incorporated into the mural composition. This process included surface cleaning and removal of spray paint from the interior surface, stabilization of existing wood and metal sheathing, filling of missing metal sections, and waxing of the surface (Dawson 2012). The door was stabilized, the surface was cleaned, and areas of mechanical damage and abrasion were inpainted.



**Figure 6** The conservation team carrying out the final phase of treatment in 2012. Photo: J. Paul Getty Trust; mural: © 2012, Artists Rights Society (ARS), New York/Sociedad Mexicana de Autores de las Artes Plásticas (SOMAAP), Mexico City

**Figures 7a–7c** Detail of the armed revolutionaries when the mural was first painted in 1932 (a), before the recent final phase of treatment (b), and after treatment in 2012 (c). Inpainting aimed to eliminate scratches and abrasions and reinstate the legibility of the image while preserving the integrity of the artist's hand. Photos: 7a: John Weiskall, courtesy of El Pueblo Historical Monument; 7b and 7c: J. Paul Getty Trust; 7a–7c: mural: © 2012, Artists Rights Society (ARS), New York/Sociedad Mexicana de Autores de las Artes Plásticas (SOMAAP), Mexico City



Visual reintegration, or inpainting, of the mural was done with artists' matte fluid acrylic colors over the isolating layer. Visual reintegration addressed areas of mechanical damage and clear abrasions, such as scratches and scrapes over much of the surface, and was performed on fills and other areas of past treatment, to match the surrounding area of original paint. Additionally, the reintegration reinstated legibility to the mural and reinforced forms by connecting isolated

areas of original paint, to bring back the continuity of the composition and its iconography, while preserving the artistic integrity of the artist's hand and the traces of history that the mural exhibited after suffering eighty years of censorship, neglect, and exposure (figs. 7a–7c).

Given the overall degradation of the surface, determining the extent of the inpainting was perhaps one of the greatest challenges of the project. *América*



**Figure 8** *América Tropical* after treatment. Photo: Stacey Rain Strickler; mural: © 2012, Artists Rights Society (ARS), New York/Sociedad Mexicana de Autores de las Artes Plásticas (SOMAAP), Mexico City

*Tropical* was not restored to its original appearance because doing so would have entailed repainting much of the entire surface of the mural and would have left little or no trace of the artist's hand or the history told by the wear on the wall. Furthermore, because there is no color documentation of the mural from the time of its completion, it is impossible to determine the accurate hues, intensity, or saturation of the palette. By using digital imaging software, conservators were able to use details from a high-resolution historic black-and-white composite image of the mural when it was first painted (Hartman 2013), overlaid with a current image of the same areas, to better locate forms and islands of original paint remaining on the surface. This information allowed conservators to subtly reinforce the imagery of the mural and to reinstate legibility (fig. 8).

To ensure its long-term preservation, monitoring and maintenance of *América Tropical* will be carried out by the GCI for the next ten years.

## Conclusion

In this comprehensive project to protect, present, interpret, and conserve *América Tropical*, this important mural has been studied and conserved by the GCI. Research into the artist's original techniques has shed new light on Siqueiros's working methods in this period, as he used practices he developed largely in Los Angeles, where he discovered modern industrial tools and adapted them to mural painting to create a new and revolutionary fresco technique. Comprehensive documentation of the condition of the mural and of how it has changed over time has informed subsequent

preservation and conservation planning. Conservation treatment in conjunction with the protective shelter has stabilized the mural and acted to slow its deterioration. The treatment has also allowed visitors to appreciate this monumental mural by improving the legibility of the composition and by preserving its physical history. Because of this work, *América Tropical* now takes its place as the last remaining mural in the United States by the great artist David Alfaro Siqueiros that is accessible to the public in its original location.

## Acknowledgments

The author would like to recognize the contributions of the countless staff and consultants from the Getty Conservation Institute, and of other individuals who have participated in this project since its inception. For the scientific analysis of original materials and environmental monitoring, thanks go to scientists from the GCI. The former documentation group carried out early recording of the mural, which was followed up by Field Projects staff. Valerie Greathouse, of the Information Center, was responsible for the compilation of the bibliography on the Siqueiros murals in Los Angeles. The Getty Research Institute's holdings of the Siqueiros papers from the period were invaluable to the background research on *América Tropical*. Staff from GCI Communications assisted in securing copyright for images and in helping disseminate the work. The J. Paul Getty Museum preparations team was vital for the design, installation, and deinstallation of the temporary protective shelter over the mural from 2002 to 2012.

Conservation was carried out in phases over time, beginning with Agustín Espinosa and his team in 1990, followed by subsequent campaigns by GCI staff and consultants, including Zebala & Partners and Silverlake Conservation. Consultant Nancy Kaye and J. Paul Getty Museum staff photographer Stacey Rain Strickler documented the mural before, during, and after treatment.

Special recognition goes to Francesca Piqué, Kristin Kelly, and Cassie Myers for their lead roles on the project at different moments over the course of time, and to Susan Macdonald, who brought the project to completion.

Last, but certainly not least, recognition should be given to Shifra Goldman and Jean Bruce Poole for their commitment to the preservation of the mural. Without their dedication and perseverance, the project would not have been possible.

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## Notes

1. While in Los Angeles, Siqueiros worked on his murals with other artists and art students. The composition of the Bloc of Mural Painters changed with the different murals. The idea of working collaboratively was central to Siqueiros's working process at the time.
2. *América Tropical* was commissioned by F. K. Ferenz, director of the Plaza Art Center, which was housed in the Italian Hall.
3. The sketch of the revolutionary figures is in the collection of the San Francisco Museum of Modern Art.
4. The GCI performed condition assessments in 1997, 2002, and 2012.

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## Biographical Note

Leslie Rainer is a wall paintings conservator and senior project specialist at the Getty Conservation Institute. She is the GCI’s project manager for the conservation of David Alfaro Siqueiros’s mural *América Tropical* and has been involved in the project since 1995. She is one of the organizers of the 2012 international symposium “The Siqueiros Legacy: Challenges of Conserving the Artist’s Monumental Murals.”



# Interpretive Design for *América Tropical*: Created, Concealed, and Revealed

Thomas Hartman

**Abstract:** *This paper will reveal the interpretive strategies of the América Tropical Interpretive Center's permanent exhibition. The dramatic story of this mural, the man who created it, and the impassioned times in which it was painted—and painted over—is full of radical politics, social discord, and artistic grandeur. The artwork led the artist in a new direction, revealed cracks in the sunny face of Los Angeles, and foreshadowed an explosion in public art that continues to echo today. The author, an interpretive planner and designer, will discuss assumptions made about the exhibition and its audiences; the definition, expectations, and involvement of the exhibition's stakeholders; the multimedia strategy employed; and opportunities for future expansion of the interpretive program.*

**Resumen:** *Esta ponencia revela las estrategias interpretativas de la exposición permanente del América Tropical Interpretive Center. La dramática historia de este mural, el hombre que lo crea y la exaltada época en que fue pintado –para luego ser cubierto con pintura– bien expresan las políticas radicales, el conflicto social y la grandeza artística propia de aquellos tiempos. Esta obra de arte supone una nueva dirección para el artista, pone al descubierto grietas en la soleada y positiva ciudad de Los Ángeles y vaticina una explosión de arte público que sigue resonando hasta ahora. El autor, urbanista y diseñador interpretativo, expone los hechos asumidos a priori en torno a la exposición y el público al cual está dirigida; la definición, expectativas y participación de las diferentes partes interesadas; de la estrategia multimedia utilizada y las oportunidades de futura expansión del programa interpretativo.*

*“América Tropical: Created, Concealed and Revealed”* is the permanent exhibition of the América Tropical Interpretive Center (ATIC). When initiated in 1994 by the Getty Conservation Institute (GCI), the exhibition had a simple and straightforward goal: to provide insight into the mural *América Tropical*, its conservation, and its creator, David Alfaro Siqueiros. The initial team, engaged by the GCI to develop a concept for the exhibition, consisted of myself, the president of IQ Magic (IQM); Mexican curator and historian Irene Herner; and media producer Martin Brinkerhoff of MBA and Associates in Irvine, California.

The earliest content narratives and exhibit design schemes attempted to present a broad story of Siqueiros's life, art, and later works; Los Angeles and Olvera Street history; and a survey of modern Los Angeles murals. The physical design iterations originally placed exhibits on the second floor of the Sepulveda House; however, the preferred concept was to develop a plan on the lower floor with access from the Gibbs Building, which later became available.

The design and interpretive strategies evolved significantly from their forms in the 1990s. As the exhibition team developed its concepts, it became clear that this was a story of great complexity, one too broad to be fully presented in a simple exhibition. IQM, proposing to focus the content more exclusively on *América Tropical* and its relationship to Los Angeles, was awarded the contract to proceed.

Generally speaking, three factors drove these changes:

- *The multilayered intricacies of the América Tropical story.* Any attempt to simplify the life, politics, and art of Siqueiros would not accurately reflect the meanings with which he infused *América Tropical* or the complexities of the times in which it was painted, painted over, “rediscovered,” and conserved. Moreover, there are strong parallels between the times in which it was painted and the present, a fact that underscores the importance of conserving the art and its message.
- *New project parameters.* From 1994 onward, the complexities of the overall mural project—including the design of the mural shelter, changes in building codes, the relocation of ground-floor retail venues, and the allocation of secured funding sources—necessitated significant changes to the physical spaces designated for and available to an interpretive exhibition and experience.
- *New possibilities in exhibition media and visitor engagement.* As the multimedia technology available to exhibition designers and visitors has become exponentially more powerful, scalable, and affordable, the interpretive potential of these devices, as well as visitor expectations for them, has evolved.

The final plan was the culmination of research, design, and engaging interpretation. This document focuses specifically upon the latter two—design and interpretation—and their interrelated refinement.

### Parameters for the Interpretive Plan

The final interpretive center (not exhibition) layout was finalized by 2003. Parameters for the design were numerous. These included:

- adhering to preservation guidelines for the Gibbs Building and historic Sepulveda House
- delivering a multifaceted exhibition that accurately and compellingly told the story of

*América Tropical*, Siqueiros, and the influence of each within and beyond the context of their times

- providing space for lectures and public programs
- using current multimedia technologies to deliver the message, and in such a manner that they can be expanded in the future
- providing Spanish-language support (a late addition)

Finally, numerous communities of stakeholders have long held an important and sustained interest in the story of *América Tropical*. Committees of representatives from these communities, including, but not limited to, Amigos de Siqueiros (the designated public-support partner of ATIC), were consulted to develop guidelines for the center and to ensure that the voice and experience of the presentation reflected their understanding of the cultural history and the influence of *América Tropical* on mural art in Los Angeles.

### Interpretive Planning

What does *América Tropical* mean? And by extension, why is it worthy of conservation and interpretation? On one level, the ATIC exists to answer this question for visitors. On another, it exists to ask this question, provoking visitors to think critically about the artwork and its history, value, and significance. It was important for the design team, interpreters, media producers, and stakeholders to understand this dual purpose. To ensure the tone, impartiality, and accuracy of content for all involved, it was necessary to establish strict criteria and goals in an interpretive guide.

As a comprehensive consolidation of all existing thoughts and direction for the exhibition, the interpretive guide expressed the exhibit’s scope, general content, and goals (both institutional and interpretive). It served as a point-in-time resource for supporting information and a definitive statement of what the exhibit was about and why it existed. This ensured efficiency and consistency of focus among team members and project partners, while allowing ready communication with major stakeholders of the project, who reviewed its content.

Included in the interpretive guide were outlines of exhibit themes, as well as an investigation of primary and secondary messages to be conveyed through graphics, film, touchscreen interactives, and the physical setting. All subsequent content development flowed from these themes and messages, which were themselves extensively vetted and refined.

As sections of the interpretive guide were finalized, content development began in earnest. This process included writing the narrative from existing and new research, developing treatments for media producers (film and interactives), and refining the physical design in support of the content.

The fundamental criteria for content were:

- *Always focus on the central story:* “*América Tropical*, a mural created in Los Angeles by the artist David Alfaro Siqueiros and subsequently whitewashed.”
  - Every element must tie back to the mural; it is our central topic and theme, the starting point for all the other content.
  - These connections should be in the forefront of our minds at all times: “What does this have to do with the mural?” Can that question be answered in a single sentence and be easily understood, or can it be assumed? If not, it’s probably too esoteric, needs further refinement, or is not relevant.
- *Let the story tell itself:* Capture the range of opinions about the work, its times, and its legacy through historical and contemporary accounts, quotes, and interviews.
  - Don’t take a side in the controversy, but don’t be afraid to reveal it and its actors for who and what they were in their times.
  - This was an artwork suffused with politics with which not everyone agreed (or agrees); we must acknowledge the gray areas and gradations of opinion that existed (and exist) and allow visitors to determine the meaning for themselves. But we must not downplay Siqueiros’s politics either; they were consistently at the very heart of his person and his work.

Several important exhibition parameters further shaped the interpretive design. Chief among these was a lack of physical artifacts. With the exception of *América Tropical* itself, there is a limited physical record of materials related to the mural. Moreover, in the long term, the ATIC would not necessarily be configured to maintain either a loaned or accessioned collection of objects.

In addition, because past and present opinion about *América Tropical* and its meaning varies, the center could not assert one single definitive meaning; the need for multiple viewpoints and voices—not just a curatorial voice—was clear. Moreover, until the opening of this exhibition in October 2012, there was no single book or source available that told as complete a story about *América Tropical* as the exhibition. As such, it needed to be designed to serve as a permanent statement of record.

Therefore, a variety of voices, including those of scholars, artists, eyewitnesses, critics, and news reports, tells the story. Not all these voices are necessarily in agreement, however, or can be fully trusted as definitive reports. Nevertheless, together they help create an exhibition of record. In all cases, only authentic primary sources and credibly published secondary sources were used.

Of course, the most important voice is that of Siqueiros himself. He wrote extensively about *América Tropical* at the time of its creation, and his ideas about the mural, technology, and a philosophy of modern art are presented prominently throughout the exhibition, in his own words. In the films, Edward James Olmos provides the voice of Siqueiros.

## The Exhibition: General Layout and Flow

The interpretive center comprises two adjacent storefronts facing Main Street. A wide, twelve-foot-high opening connects two exhibition galleries. An adjacent passageway and small lobby form the entry, and on the second level of the center, there is a viewing platform from which visitors may view the mural. The second gallery doubles as a lecture hall and space for public programs.

With the exception of *América Tropical* itself, there are no artifacts in the exhibition. Text, images, props, and multimedia (films and interactive programs) tell the story.

**Figure 1** Entry walls that introduce the exhibition and reveal the mural during the mid-1930s, after a portion of it was whitewashed. The Siqueiros photo, courtesy of Tobey Moss Gallery, is printed on quarter-inch aluminum panel. The deep red duo-tone color provides a sense of place upon entry and contrasts strongly with the black-and-white walls in the galleries. Photo: IQ Magic; mural: © 2012, Artists Rights Society (ARS), New York/Sociedad Mexicana de Autores de las Artes Plásticas (SOMAAP), Mexico City



Visitors begin in the lobby, where they are greeted by an introduction to the artist and the art (fig. 1).

The dramatic story of this mural, the man who created it, and the impassioned times in which it was painted—and painted over—is full of radical politics, social discord, and artistic grandeur. It pointed the artist in a new direction, revealed cracks in the sunny face of Los Angeles, and foreshadowed an explosion in public art that continues to echo across the globe.

The artwork is now a ghost of itself, but when it was painted, it could not be ignored. Monumental in scale, revolutionary in technique, and explicit in its politics, it was a sensation. And, within a short period of time, it was whitewashed.

From here, visitors proceed into the exhibition galleries. Though the story is complex, it is designed to be digestible in whatever order it is encountered. Although there is a preferred sequence of exhibition sections, it is not critical that visitors follow it.

Multimedia elements are the primary interpretive tool; they allow depth of content and diversity of expe-

rience in a small footprint. Through uniform design and functionality, visitors can focus on the content itself, rather than on how to get to the content. Spanish-language support is provided digitally (through film captions and a handheld device).

## The Exhibition: Interpretive Design Strategies

### Layered Content and Hierarchy

Throughout the exhibition, content is layered to juxtapose fantasy, myth, and reality. This multilevel content is delivered through a hierarchy that first presents overarching ideas, then supports them with more detailed information that viewers can choose to engage. The general conceptual frameworks are delivered on theme panels, specific stories are provided on reader rails, and further discovery is available through interactive media for deeper specificity (fig. 2).

### Exhibit System

The exhibit systems house media technologies, provide a scaffold for graphic storytelling elements, and create a barrier to historical perimeter walls, all while acting as



**Figure 2** An area with layered content, with a wall mural, posters, images on glass, a theme panel, reader rails, and touchscreens. The “stage for controversy” theme contrasts the “Spanish fantasy” imagery of Olvera Street and L.A. boosterism with Depression-era images. Photo: IQ Magic

a frame for thematic displays of images, quotes, objects, and media. The materials and design for the exhibit system, graphics, and overall exhibit-scape have a con-

temporary industrial style. This style references and supports Siqueiros’s commitment to exploring progressive modern industrial materials and technologies (fig. 3).



**Figure 3** The exhibit system is made up of vertical two-inch-diameter floor-to-ceiling support poles that distribute data and electrical from the floor into the system. Horizontal satin-finished aluminum I-beam members provide a wiring chase and support reader-rail graphics touchscreens and media equipment boxes. Photo: IQ Magic

### Inspiration by Siqueiros

The attract screen for the media, as well as renderings on the walls of the exhibition space, were inspired by Siqueiros's investigations of space.

### Theatrical Devices

The introduction of a painted scene, *Opening Night*, varies the exhibition texture and experience and brings the story to life. Painted portraits in this composition are arresting, and overall, the image has a film noir quality. This is the first time visitors see a clear depiction of the mural and its monumental scale. Using touchscreens in front of the painting, visitors can click on figures in the painting to discover their identities, their stories, and the roles they played in Los Angeles. This feature puts a face on the artistic and intellectual community and identifies actors in the drama (fig. 4).

Aged, heavy-beamed wooden scaffolding forms a framed entry and doubles as a platform to house authentic period tools and objects that Siqueiros described in his writings. The scaffolding allows visitors to understand the scale and the work involved in *América Tropical*, as well as the tools utilized. While all objects are props, they are based upon historic photos and Siqueiros's own writings. This element marks a transition between galleries from the "what happened here" theme into "why it matters" (fig. 5).

In the next gallery, a large black-and-white mural of *América Tropical*, measuring eight by thirty-three feet, is interactively activated through touchscreens that explain the iconography of the mural in images and Siqueiros's own words. The image was printed from a scan of a high-density composite image produced by IQM from four different image sources. No other single photograph found in any publication depicts the mural in its entirety (fig. 6).

**Figure 4** *Opening Night*, painted by Barbara Carrasco and John Valadez. The artists assembled a team of painters who assisted in researching images of Siqueiros's bloc of painters and numerous community figures who interacted with Siqueiros and his work. Photo: IQ Magic; mural: © 2012, Artists Rights Society (ARS), New York/Sociedad Mexicana de Autores de las Artes Plásticas (SOMAAP), Mexico City





**Figure 5** Scaffolding that provides an experiential transition between the two galleries. Tools from the 1920s and early 1930s assist in illustrating the story of painting the mural. Reproductions of Siqueiros's typed documents in the collection of the Getty Research Institute are included. Photo: IQ Magic; mural: © 2012, Artists Rights Society (ARS), New York/Sociedad Mexicana de Autores de las Artes Plásticas (SOMAAP), Mexico City



**Figure 6** A black-and-white mural, measuring eight by thirty-three feet, depicts *América Tropical*. The mural anchors the second gallery and is mounted over electroluminescent panels. Inverters and a controller are pulsed through touchscreens to infill illumination of the selected icons in the mural. As the icon begins its sequence, audio of Siqueiros's words describes his intent. Photo: IQ Magic; mural: © 2012, Artists Rights Society (ARS), New York/Sociedad Mexicana de Autores de las Artes Plásticas (SOMAAP), Mexico City

## Multiple Voices and Perspectives

Artists speak about their work and the influence of Siqueiros on two forty-six-inch touchscreens. The voices of historians, critics, and others are featured throughout the exhibition media (fig. 7).

## Black and White Scheme

Color is restricted throughout the exhibition, in part to echo the GCI's position regarding the conservation of the mural, of which no original color documentation exists. The color experience of the mural is saved for the viewing platform; there, interpretation is minimal, limited to a black-and-white reproduction of the mural with callouts to critical details, mounted on the rail to help visitors read the imagery—also to conform to the GCI's goal of an unmediated viewing of the art itself (fig. 8).

## Conclusion

Any attempt to simplify the life, politics, and art of Siqueiros does not accurately reflect the meanings with which he infused *América Tropical* or the complexities of the times in which it was first painted and then painted over. His story is one of discovery, passion, and the creation of meaning on a monumental scale. Multilayered and complex, the mural is a fusion of ideology and artistic mastery that was shaped by, and which helped shape, the times in which the artist lived and worked.

What we have presented to the public here is therefore not the *Siqueiros* interpretive center: a center that tells the complete story of the man's life and work. Such a task could scarcely be achieved in a library of books, not to mention a place that is home to only a single piece of his art. It is the *América Tropical* Interpretive Center: it is focused exclusively on the artist, on the mural, and on the times in which it was created.



**Figure 7** Two forty-two-inch touchscreens feature four productions on the meaning, impact, and merit of *América Tropical* specifically, and on public art in general. The wall graphics offer quotes, from eyewitness accounts of the unveiling of *América Tropical* to current-day responses to Siqueiros and his work. Photo: IQ Magic



**Figure 8** A black-and-white image of the mural as it appeared on the morning of October 10, 1932. A depiction at this scale requires an original to scan at high resolution. While photos of the mural exist, none were of the full image; most reprints are cropped or are from an incorrect retouched, damaged photo. IQ Magic researched and obtained photos from the University of Southern California, the Archives of American Art, the Getty Research Institute, and artist Barbara Carrasco, to assemble a complete image of the mural. Photo: IQ Magic; mural: © 2012, Artists Rights Society (ARS), New York/Sociedad Mexicana de Autores de las Artes Plásticas (SOMAAP), Mexico City

## Appendix: The Exhibition: Section Goals and Supporting Media

### Section 1: Introduction

#### Goal

Visitors will understand the center's story and purpose, and they will feel intrigued, excited, and compelled to enter the exhibit.

#### Multimedia

[None]

### Section 2: 1932: A Stage for Controversy

#### Goal

The visitor will understand that *América Tropical* was created at a time when regional and national events were exposing long-standing and serious cracks beneath the sunny public image of Los Angeles.

#### Multimedia

- Film: *Mexican Los Angeles*
- Film: *LA 1932: A Stage for Controversy*
- Interactive photo journal: The City of Destiny
- Interactive photo journal: The Spanish Fantasy Past
- Interactive time line: Labor and Free Speech

### Section 3: The Soldier Artist

#### Goal

The visitor will meet Siqueiros as an intellectual Mexican artist with a militant worldview, who in 1932 traveled to Los Angeles, where he found a new freedom to express himself.

#### Multimedia

- Film: *The Soldier Artist*

### Section 4: Opening Night: *América Tropical*

#### Goal

The visitor will experience the sensational impact that the unveiling of *América Tropical* had upon those who were there to see it in its original form.

#### Multimedia

- Film: *Opening Night*
- Film: *Painting "América Tropical"*

- Interactive time line: Siqueiros in L.A.
- Interactive feature: Setting the Stage (The Rooftop Scene)

### Section 5: The Technical Revolution

#### Goal

The visitor will learn that Siqueiros was a technological innovator, and that *América Tropical* was a pioneering work in the process of mural painting.

#### Multimedia

[None]

### Section 6.1: An Experimental Prototype

#### Goal

The visitor will understand the importance of *América Tropical* as a prototype for Siqueiros's later work and style, and will have a chance to view examples of the later work.

#### Multimedia

- Interactive game: Elements of Style

### Section 6.2: An Inspiring Presence

#### Goal

The visitor will be introduced to Siqueiros's continuing impact upon American art, beginning with its origins during the time the artist spent in Los Angeles in 1932.

#### Multimedia

[None]

### Section 7: Transcendent Legacy

#### Goal

The visitor will see and understand the spiritual legacy of Siqueiros and *América Tropical* in art and public expression.

#### Multimedia

- Film: *Art in Public*
- Film: *The Power of Public Art*
- Film: *The Legacy of Siqueiros*
- Film: *"América Tropical": A Collective Reflection*
- Interactive feature: A Siqueiros Survey

**Section 8: The Iconography of *América Tropical*****Goal**

The visitor will understand how the symbolic and pictorial elements of *América Tropical* work together to convey the artist's message.

**Multimedia**

- Interactive feature: The Iconography of *América Tropical*

**Section 9: Conserving *América Tropical*****Goal**

The visitor will understand the processes, both political and physical, through which *América Tropical* was conserved.

**Multimedia**

- Film: "*América Tropical*": *Seeing the Light of Day*
- Film: *Conserving "América Tropical"*

**Section 10: The Viewing Platform****Goal**

Visitors will experience the mural for themselves, with minimal interpretation.

**Multimedia**

[None]

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**Biographical Note**

Thomas Hartman, President, IQ Magic (IQM), is widely recognized as an innovative leader in museum development, exhibition design, and planning for cultural tourism. Over the past thirty years, he has established three design firms, worked with clients in a broad range of institutions nationwide, and taught at the university level. IQM has produced cultural experiences for art, history, and science museums; libraries; archives; zoos; interpretive centers; historic districts; and entertainment venues. The core aim of IQM's work is threefold—to produce compelling storytelling, to create discovery-oriented learning environments, and to develop experiences with a refined design aesthetic.



## DAY 2

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# **Conservation of David Alfaro Siqueiros's Murals in Mexico, South America, and Southern California**



# La obra mural de Siqueiros: una política de rescate patrimonial por parte del Estado Mexicano

Gabriela Gil Verenzuela

**Resumen:** *La Ley Federal sobre Monumentos y Zonas Arqueológicas, Artísticas e Históricas en México* data de 1972; a partir de entonces es competencia del Estado Mexicano la preservación, conservación y difusión de su patrimonio cultural, a través de sus dos órganos rectores principales: el INAH -Instituto Nacional de Antropología e Historia- (1939) y el INBA -Instituto Nacional de Bellas Artes- (1946).

*Formulado como un ente que desarrolla políticas públicas en el área de la educación artística, así como en la conservación y difusión del patrimonio artístico correspondiente a los siglos XX y XXI, el INBA asume la responsabilidad de dirigir, coordinar y realizar, a través del CENCROPAM (Centro Nacional de Conservación y Registro del Patrimonio Artístico Mueble) la conservación y restauración de la obra mural realizada por los máximos exponentes del movimiento muralista mexicano del siglo XX y sus epígonos en el siglo XXI.*

*Sin duda, la conservación y restauración de los murales de David Alfaro Siqueiros en México, así como en otros países, constituye un aspecto relevante de la gestión en materia de protección patrimonial desarrollada por el Estado mexicano en las últimas décadas.*

**Abstract:** *Since the passage of Mexico's Federal Law on Archaeological, Artistic, and Historic Monuments and Zones (1972), the Mexican government has borne the responsibility for preserving, conserving, and disseminating the nation's cultural heritage through two main agencies: the Instituto Nacional de Antropología e Historia*

*(INAH) and the Instituto Nacional de Bellas Artes (INBA). Established in 1946 and entrusted with developing public policy on art education as well as with the conservation and dissemination of Mexico's artistic heritage from the twentieth and twenty-first centuries, the INBA, through the Centro Nacional de Conservación y Registro del Patrimonio Artístico Mueble (National Center for the Conservation and Registration of Artistic Heritage, CENCROPAM), also carries out the conservation and restoration of murals created in the last century by the major artists of Mexico's Muralist movement, as well as by their followers in the present century. Thus, over the past few decades, the conservation of David Alfaro Siqueiros's murals in Mexico and in other countries has become a relevant aspect of the Mexican government's policy for the management and protection of heritage.*

*La Ley Federal sobre Monumentos y Zonas Arqueológicas, Artísticas e Históricas en México* data de 1972. A partir de entonces es competencia del Estado Mexicano la preservación, conservación y difusión de su patrimonio cultural, a través de sus dos principales órganos rectores: el Instituto Nacional de Antropología e Historia [INAH] (1939) y el Instituto Nacional de Bellas Artes [INBA] (1946).

El INBA es formulado como un ente que desarrolla políticas públicas en el área de la educación artística, así como en la conservación y difusión del patrimonio artístico correspondiente a los siglos XX y XXI. Esta entidad asume la responsabilidad de dirigir,

coordinar y realizar, a través del Centro Nacional de Conservación y Registro del Patrimonio Artístico Mueble [CENCROPAM] la conservación y restauración de la obra mural realizada por los máximos exponentes del movimiento muralista mexicano del siglo XX y sus contemporáneos en el siglo XXI.

El Centro Nacional de Conservación y Registro del Patrimonio Artístico Mueble trabaja directa e indirectamente sobre la materialidad de los bienes del patrimonio cultural mexicano, por lo tanto asume la responsabilidad de desarrollar intervenciones que incrementen los valores que le son inherentes. Para ello, profesionales de distintas especialidades se agrupan en diversos talleres de restauración: pintura de caballete, mural, papel, escultura, maderas y artes aplicadas. Cuenta también con un área de conservación donde se resguarda y preserva el acervo asignado al recinto, así como un laboratorio de biodeterioro en donde se aplica tratamiento preventivo a las distintas colecciones de los museos y a la obra mural *in situ*. (Figura 1)

Los restauradores y conservadores se preocupan por comprender el significado de los bienes patrimoniales que intervienen. Toda intervención está orientada por el respeto a la materialidad, al valor y al significado estético, histórico y social; se basa en los principios generales de la conservación preventiva, y resguarda la integridad física de los bienes culturales en todo proceso.

En 1975 Tomás Zurian, historiador del arte y restaurador mexicano, resaltaba la trascendencia de la pintura mural mexicana en los ámbitos nacional e internacional. Prueba de ello es la obra mural de David Alfaro Siqueiros, artista que experimentó a lo largo de su creación plástica con diferentes técnicas, materiales y soportes que en conjunto conforman el enorme legado patrimonial que trasciende las fronteras mexicanas.

Zurian apuntaba desde entonces los retos y avatares que vivían los restauradores al enfrentarse a los más diversos deterioros que presentaban las obras de los muralistas mexicanos. Los fenómenos de deterioro, que con mayor frecuencia se presentaban en la pintura mural, se podían atribuir en su mayoría a factores como: la humedad en los muros y los materiales utilizados por el artista. (Zurian, 1975: 4)

El primero corresponde a los fenómenos de hidratación con estimulación de ataques microbiológicos y



**Figura 1** Vista Patio Interior. Centro Nacional de Conservación y Registro del Patrimonio Artístico Mueble. México D.F. Foto: CENCROPAM-INBA

que se encuentran representados por tres aspectos fenomenológicos básicos de la humedad: la condensación, la filtración y la capilaridad, los cuales provocan una paulatina y/o rápida disgregación del aglutinante y terminan pulverizando, escamando o transformando químicamente el color.

Este es el caso del gran mural titulado “*Monumento al Generalísimo Don Ignacio Allende*” (1948), localizado en el Centro Cultural Ignacio Ramírez “El Nigromante”, en la ciudad de San Miguel de Allende, Guanajuato. El daño frecuente que ha experimentado ha sido la humedad por filtración y por capilaridad. Estos factores de deterioro, son característicos al tipo de construcción que alberga la obra, el mural se encuentra en una construcción conventual del siglo XVIII, con muros de piedra y de mampostería que son altamente retenedores de humedad.

Mientras que el segundo factor, está caracterizado por un uso inadecuado de los materiales constitutivos que estructuran los valores físicos, químicos y mecánicos con los cuales se realiza la obra de arte.

En este sentido, las obras murales de Siqueiros, con características de facturas similares, han presentado alteraciones comunes, sobre todo cuando son expuestas a cambios violentos de temperatura y humedad, provocando en los materiales de soporte, principalmente *celotex* o madera comprimida, alojamiento de microrga-



**Figura 2** *Muerte al invasor*. Escuela de México en Chillán, Chile. Foto: Gabriela Gil

nismo, bacterias, fracturas, hinchamiento y deformaciones. Ejemplo de este comportamiento mecánico y físico lo han tenido las obras : “Retrato de la burguesía”(1939),



**Figura 3** Detalle *Muerte al invasor*. Escuela de México en Chillán, Chile. Foto: Taller de Obra Mural. CENCROPAM-INBA

localizada en el ex Sindicato Mexicano de Electricistas; “Muerte al invasor” (1941–1942) en la Escuela México en Chillán, Chile (Figura 2) (Figura 3); “Por una seguridad completa y para todos los mexicanos” (1952–1954) del Centro Médico la Raza del Instituto Mexicano del Seguro Social (Figura 4); “Maternidad” (Figura 5) y “Escuela para el Estado de México” (1965–1973) en la Sala de Arte Público Siqueiros (Figura 6); y la “Sala Poliangular” (1971–1973) en La Tallera en Cuernavaca. (Figura 7) (Figura 8)

Estas obras realizadas en espacios interiores registran daños comunes y recurrentes, que tienen su origen en la alteración y deformaciones de sus materiales de soporte, reflejándose en su superficie pictórica, en presencia de grietas, fisuras y pérdida de la capa de color.

Pero quizás, entre las obras más complejas y desafiantes en su intervención, se destacan “Muerte al invasor” ubicada en la Escuela México en la ciudad de Chillán, Chile; “Maternidad” y “Escuela para el Estado de México” en la Sala de Arte Público Siqueiros; y la “Sala Poliangular” en La Tallera en Cuernavaca.



**Figura 4** Detalle *Por una seguridad completa y para todos los mexicanos*. Centro Médico La Raza del Instituto Mexicano del Seguro Social. México D.F. Foto: Taller de Obra Mural. CENCROPAM-INBA



**Figura 5** *Maternidad*. Sala de Arte Público  
Siqueiros. México D.F. Foto: Taller de Obra Mural.  
CENCROPAM-INBA



**Figura 7** Vista Sala Poliangular. La Tallera. Cuernavaca,  
Estado de Morelos. Foto: Gabriela Gil



**Figura 6** *Mural para una Escuela del Estado de México*.  
Sala de Arte Público Siqueiros. México D.F. Foto: Taller  
de Obra Mural. CENCROPAM-INBA



**Figura 8** Detalle Sala Poliangular. La Tallera.  
Cuernavaca, Estado de Morelos. Foto: Gabriela Gil

## **“Muerte al invasor” 1941–1942. Escuela México en Chillán, Chile**

“Muerte al invasor”, tuvo su primera restauración exhaustiva entre el 2008 y el 2009, producto del esfuerzo y de una colaboración binacional entre México y Chile<sup>1</sup>. La obra está realizada sobre un soporte-bastidor de madera cubierto con planchas de terciado marino. Dichas planchas son de forma cuadrangular en diferentes tamaños. La estructura del soporte ha sido diseñada en función de una modificación del espacio arquitectónico original, creando planos elípticos y/o de diferentes inclinaciones, en beneficio de su propuesta poliangular y cinética. Se modifica la estructura espacial convirtiendo las esquinas en curvas y generando áreas envolventes para dar la sensación de movimiento, eliminando aristas y ángulos arquitectónicos por medio de diferentes soportes exentos del muro y ligados entre sí, logrando una especie de concha de geometría elíptica. Con esto propone las denominadas por él, vistas poliangulares que podrá tener el espectador al estar frente a la obra.

Siqueiros empleó para su realización una técnica mixta, mezcla de piroxilina, oleos y temples con un acabado mate. La piroxilina es aplicada en diferentes modalidades: por aspersion en veladuras transparentes y/o cubrientes y en ocasiones utilizando plantillas; en capas más consistentes aplicadas con brochas y pinceles.

### **Cuadro de afectaciones**

La obra mural presentaba degradación del soporte, llegando a ser muy severa en áreas considerables, con suciedad acumulada, distorsión y separación de estratos; oxidación y debilitamiento del sistema de anclaje por efecto de la humedad.

En el caso de la capa pictórica, zonas craqueladas en forma de escamas con separación severa del soporte, lo anterior debido principalmente al trabajo mecánico diferencial entre el soporte de madera muy sensible a las variaciones de temperatura y humedad. Importantes

áreas con pérdidas de superficie pictórica y numerosas intervenciones anteriores con alteraciones cromáticas. Se realizaron tareas de limpieza mecánica y química, en muros norte y sur, para posteriormente intervenir en el desanclaje de las planchas más deterioradas e intervenirlas en mesa de trabajo, en su anverso y reverso, pudiéndose trabajar las contiguas y el resto de las planchas, en su sitio original. Se revisó también el sistema de anclaje de las planchas en toda la superficie, sustituyendo los elementos oxidados.

En el caso de la capa pictórica se consolidaron previamente todas las áreas de agrietados y craquelado en forma de escamas, recuperando donde era necesario el plano original por medio de inyecciones de material adhesivo y plancha térmica, asegurando la capa pictórica de posibles pérdidas. Posteriormente se procedió a aplicar una pasta compatible en áreas de faltantes. Se eliminaron intervenciones anteriores y materiales ajenos por medio de una limpieza mecánica y química, localizada y específica hasta llegar a la reposición cromática.

### **Hacia una nueva intervención de “Muerte al Invasor”**

El terremoto del 27 de febrero de 2010 ocasionó nuevas afectaciones al mural, en los actuales momentos se ha contemplado un plan por etapas para atender el edificio en general, que resultó severamente afectado por el sismo, y la zona en particular que alberga la obra mural. Estos trabajos tienen por objeto restaurar y consolidar estructuralmente los elementos arquitectónicos y constructivos que albergan y contienen al mural.

Para la primera etapa que contempla la obra civil se necesita:

1. Revisar y reinstalar los revestimientos metálicos de cubierta. Esto consiste en cambiar parte de la techumbre, ya que se producen goteras por filtraciones de agua lluvia, que afectan el plafón del mural por el reverso.
2. Limpieza por aspirado de la zona del reverso del plafón del mural. Revisar y mejorar el sistema de aislación térmica en sector de entre techo. La aislación térmica a utilizar será de lana mineral doble cara.
3. Instalar una placa estructural sobre aislación térmica del mural como medida auxiliar y de

<sup>1</sup> El proyecto de restauración de los murales de David Alfaro Siqueiros y Xavier Guerrero en Chillán y Jorge González Camarena en Concepción (Chile) ha sido posible gracias a la participación de instituciones mexicanas y chilenas: Fondo de Cooperación México-Chile ACSI; Secretaría de Relaciones Exteriores de México; Consejo de Monumentos Nacionales de Chile; Instituto Nacional de Bellas Artes de México y el Centro Nacional de Conservación y Restauración de Chile.

protección del soporte. Será una placa estructural no menos de 15 mm de espesor.

4. Colocación de muros cortafuego en la zona del entretecho del mural. Se instalarán muros cortafuego de volcometal no inferior a 10 cm de espesor. Las estructuras serán revestidas con planchas de Volcanita RF no inferior a 15 mm de espesor y con borde rebajado para poder dar una buena terminación al muro.
5. Reparación de grietas existentes en los muros norte y sur en los cuales se apoya la estructura de madera soportante del mural.

Una vez concluidos los trabajos de obra civil, se continuará con la intervención directa de la obra mural para llevar a cabo la restauración artística:

1. Identificación de afectaciones.
2. Limpieza general por aspirado del reverso del plafón del mural en la zona del entretecho.
3. Revisión general y eventualmente ajuste puntual de anclajes por el anverso de la obra.
4. Consolidación, y nivelación puntual de capa pictórica, resanes en zonas de faltantes.
5. Reintegración cromática en áreas de resanes y faltantes de superficie.

El Instituto Nacional de Bellas Artes emprende a finales de 2009 el rescate y puesta en valor de dos espacios representativos del patrimonio artístico, la Sala de Arte Público Siqueiros en la Ciudad de México y La Tallería en Cuernavaca<sup>2</sup>, estos espacios son los últimos habitados por el artista mexicano David Alfaro Siqueiros.

### **“Maternidad” y “Escuela para el Estado de México” 1965–1973. Sala de Arte Público Siqueiros, México D.F.**

La SAPS (Sala de Arte Público Siqueiros) se ha dedicado principalmente a la exhibición y difusión del arte contemporáneo actual en diálogo y revisión con el planteamiento y las propuestas sobre arte público que hiciera en su momento David Alfaro Siqueiros.

Los murales “Maternidad” y “Escuela para el Estado de México” son obras realizadas entre 1965 y 1973 en técnica mixta, piroxilina y acrílico sobre *celotex*.

La preocupación de Siqueiros por realizar obras plásticas con combinaciones técnicas y matéricas que incorporaban las aportaciones de la ciencia y la industria de su tiempo fue constante. Las correcciones del diseño fue algo que marcó su producción plástica; revelaba su febrilidad creativa en procesos preconcebidos, realizando correcciones cuando la primera capa de color no había secado por completo.

### **Cuadro de afectaciones**

En el caso del soporte, realizado en *celotex*, la naturaleza higroscópica del mismo y el contacto permanente con la humedad de la edificación generaron deterioros específicos: disgregación del material de soporte, proliferación de microorganismos, desfasamiento y deformación de paneles entre otros. A su vez al hincharse, producto del exceso de humedad, se acelera el tipo de deterioro facilitando la pérdida parcial de algunos elementos.

Por otro lado, la forma de almacenaje y manipulación de la obra de paneles desmontables que por un tiempo estuvieron almacenados en bodegas, fomentaron notables deterioros como deposición de suciedad en la superficie, manchas y gotas de distintos materiales. En algunos puntos de montaje, debido a la fricción y a la falta de cohesión de esas zonas, se han ocasionado desgarres y pérdidas del soporte, y por consiguiente de capa pictórica, volviéndose en algunos casos, zonas de peligro de desprendimiento de original.

### **Propuesta de intervención**

1. Fumigación. Con el objetivo de eliminar el bio-deterioro del soporte, huevo, larva o insecto, se realiza una fumigación por medio de cámara cerrada y un agente piretroide a base de permetrina.
2. Limpieza. Se elimina el polvo y la suciedad adheridos a la obra.
  - Mecánica: La eliminación del polvo en la superficie se propone hacerla en anverso y reverso, con la ayuda de una brocha de pelo suave.
  - Química: La eliminación de restos de manchas y mugre se realiza con la ayuda de un tensoactivo y de espuma de jabón quirúrgico

<sup>2</sup> <http://www.saps-latalleria.org/saps/>

por medio de rodillos de algodón. Se utiliza también una solución de solventes ligeros.

3. Nivelación de planos. Se realiza este proceso mecánico por medio de peso y humedad, con el cual se restituye el plano original de la obra. A través de estas acciones se eliminan las deformaciones que presentan algunos paneles en su soporte.
4. Consolidación. A través de este proceso se devuelve la estabilidad química y física del soporte de manera puntual en las zonas en las que presenta fragilidad. Esto se realiza mediante un consolidante de acetato de polivinilo con el objetivo de restituir la consistencia de la cohesión perdida, conservando y devolviendo su aspecto y propiedades originales. Se busca que este proceso sea lo más permanente y definitivo posible.
5. Reintegración de color. Se reintegra la superficie pictórica con esmaltes aplicados localmente con pincel, según las necesidades del área a intervenir.

### **“Sala Poliangular” 1971–1973. LaTallera. Cuernavaca, México**

La Tallera inicia su proceso en enero de 2010, donde la reconstrucción, reinterpretación y resignificación del espacio patrimonial fue completa e integral. Desde su inicio hubo un planteamiento museológico y de gestión curatorial basado en la reinterpretación del espacio en sí.

El equipo que ha venido trabajando en el proyecto, de la mano de su directora Taiyana Pimentel, propone un replanteamiento del espacio más que un museo de sitio; un museo vivo basado en la historia, pero en pos de la producción artística contemporánea. Por supuesto, se busca no dejar de lado el carácter público, monumental y social del muralismo mexicano. Para lograr tal cometido, se restauraron los murales que se encuentran en el recinto y se recuperaron tanto los talleres de trabajo como el novedoso sistema de bodegas que propuso Siqueiros en su momento, con la finalidad de generar nuevamente un espacio real de creación artística.

La “Sala Poliangular” sufre de los mismos factores de deterioro que los murales que se encuentran en la SAPS.

### **Cuadro de afectaciones**

La pintura mural forma parte integral de la arquitectura, la cual es su contenedor y el marco que engloba a la obra en su lugar y espacio, formando un todo integral.

En la obra mural de Siqueiros, debemos considerar la presencia constante del fenómeno de biodeterioro, ocasionado por la presencia de insectos en el soporte, provenientes de una serie de obras realizadas con semillas de maíz. Las alteraciones que esta plaga genera pueden ocasionar daños actuando directamente sobre el soporte o indirectamente mediante las sustancias que desprenden. Lo anterior combinado con varios factores tales como las condiciones de temperatura, la composición y porosidad del soporte, y la humedad relativa del medio ambiente, producen degradación física y química que puede resultar en erosión, fragmentación y transformación del soporte. Por lo tanto, debemos tener en cuenta esta problemática al momento de realizar una propuesta de intervención y conservación de la obra mural, ya que se encuentra en juego la permanencia de la obra, misma que podría encontrarse afectada por la inestabilidad del soporte en sus propiedades mecánicas. En ello radica la importancia de su intervención ya que al ser el sustento de la imagen, su pérdida implicaría la pérdida de la misma.

### **Propuesta de intervención**

1. Fumigación. Con el objetivo de eliminar cualquier huevo, larva o insecto en el soporte, se realiza una fumigación por medio de cámara cerrada y un agente piretroide a base de permetrina.
2. Eliminación de hongos. Se aplica una solución de biocida en alcohol a baja concentración por medio de aspersión e inyección. Se eliminan los hongos una vez muertos en forma mecánica.
3. Limpieza mecánica y química. Proceso que consiste en eliminar el polvo y mugre adheridos a la obra.
4. Nivelación de Planos. Proceso mecánico realizado por medio de peso y humedad, con el cual se restituye el plano original de la obra. Con esto se pretende eliminar las ondulaciones que presentan algunos paneles en su soporte.

5. Consolidación: Es un proceso que consiste en devolver la estabilidad matérica y física del soporte, de manera puntual en las zonas en las que presenta fragilidad. Esto se realiza mediante un consolidante de acetato de polivinilo con el objetivo de restituir la consistencia de la cohesión perdida, conservando y devolviendo su aspecto y propiedades originales, tratando que este proceso sea lo más permanente y definitivo.
6. Eliminación y/o reintegración de repintes: Se eliminan lo más posible los repintes de intervenciones anteriores, por medio de procesos mecánicos y químicos. La reintegración de color se lleva a cabo localmente sobre los repintes con los materiales definidos para la reintegración.
7. Reintegración de color. Se reintegra la superficie pictórica con esmaltes aplicados localmente con pincel y pincel de aire, según las necesidades del área a intervenir. El original será enmascarillado para dichos propósitos.
8. Montaje. El soporte se montará *in situ* sobre bastidores colocados previamente en el muro. Una vez montado se resanarán y reintegrarán los puntos de montaje.

### Retos en la conservación del patrimonio artístico

Los conceptos de prevención y protección cobran hoy un mayor peso, más que los procesos de intervención y restauración propiamente, estas son operaciones que deben ser discutidas cada vez más en el seno de las reuniones colegiadas interdisciplinarias.

El sitio o ubicación, así como el sentido o función de la obra, marca en definitiva una posición sobre la cual partir para intervenirla. Debe discutirse la coexistencia de épocas distintas, aunque la lectura de la obra sea confusa, como es el caso de la pintura mural o de caballete, o bien dejar expuesta nada más aquella que muestra una obra legible.

Salvador Aceves García, en su revisión sobre la Carta de Venecia en el año 2004 se preguntaba: ¿Qué tan válida es la reconstrucción, cuando se tiene información suficiente? La Carta de Venecia dice que “el límite está donde comienza la hipótesis”, pero, ¿y si la intervención implica una restauración de más del 80% en comparación a lo que resta del original? Es claro que la decisión tiene que sustentarse en otros factores, entre ellos, la lectura de todo el conjunto de bienes y la singularidad del bien entre el conjunto (Aceves García, 2004: 106)

En el caso de la pintura mural, su buena conservación “*in situ*” depende esencialmente del mantenimiento del inmueble en su conjunto. No servirá de nada actuar sobre los efectos de una alteración sin antes eliminar las causas de la misma. Esta relación intrínseca entre edificio - pintura mural, generalmente tiene relación con deterioros provocados por filtraciones, humedades, mal uso o abandono del inmueble, ni que decir con las vibraciones, sismos, inundaciones u otra causa de desastre natural.

Es necesario desarrollar un proyecto metodológico en el que se tenga en cuenta el reconocimiento de la obra en su consistencia física y en su doble polaridad estética e histórica, y como pieza que se ha de transmitir al futuro.

La conservación y restauración de los murales de David Alfaro Siqueiros en México, así como en otros países, constituye sin duda un aspecto prioritario y relevante de la protección patrimonial desarrollada por el Estado Mexicano en la última década.

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## Currículo

Gabriela Gil Verenzuela, Director, Centro Nacional de Conservación y Registro del Patrimonio Artístico Mueble - Instituto Nacional de Bellas Artes Licenciada en Artes por la Universidad Central de Venezuela. Posgrado en Gestión y Políticas Culturales en la Universidad de Barcelona, España. Maestría en Estudios de Arte en la Universidad Iberoamericana, México. Candidata a Doctora en Ciencias Sociales y Humanidades por la Universidad Autónoma Metropolitana, México. Del 2001 al 2007 fue coordinadora de exposiciones del Museo del Palacio de Bellas Artes en la Ciudad de México. Del 2007 al 2010 coordinó el Posgrado en Museología en la Escuela Nacional de Conservación, Restauración y Museografía del Instituto Nacional de Antropología e Historia. Actualmente dirige el Centro Nacional de Conservación y Registro del Patrimonio Artístico del Instituto Nacional de Bellas Artes, México.



# Observaciones sobre las causas del deterioro en la obra mural de David Alfaro Siqueiros

Sergio Arturo Montero Alarcón and Roberto Ramírez Vega

**Resumen:** Al proponer el muralismo como arte público, Siqueiros plantea diversas problemáticas: una de las fundamentales es la experimentación técnica con materiales y procesos industriales. El proceso de restauración del Poliforum permite reflexionar sobre las ventajas y los riesgos de dicha experimentación, culpable en buena parte de los deterioros sufridos en su obra. Problemas similares se detectaron al restaurar el mural “Del porfirismo a la revolución” en el Museo Nacional de Historia del Instituto Nacional de Antropología e Historia en el Castillo de Chapultepec, aunque esto sería tema de otra ponencia.

**Abstract:** By making murals as a form of public art, Siqueiros was faced with a diverse range of problems, the most fundamental of which involved technical experimentation with industrial processes and materials. The process of restoring the Poliforum has enabled us to reflect upon the advantages and risks of this experimentation, which were largely responsible for the deterioration of Siqueiros's work. Similar problems were also encountered during the restoration of “Del Porfirismo a la Revolución” (From the Dictatorship of Porfirio Díaz to the Revolution) at the Museo Nacional de Historia of the Instituto Nacional de Antropología e Historia at Chapultepec Castle in Mexico City—a project that would be the subject of another study.

¿Que tipos de datos puede proporcionar el restaurador de bienes culturales para una mayor comprensión de una obra artística? Recordemos que una de las tareas del restaurador consiste en discernir las causas que han producido los deterioros en los materiales que componen

a la obra de arte; ello requiere del conocimiento de tres variables: la naturaleza de sus materiales constitutivos, las transformaciones que se operan en ellos en el proceso de ejecución de la obra y los factores físicos, químicos y biológicos del medio ambiente, con los cuales han interactuado los materiales de la obra. Otras de las tareas del restaurador son: la eliminación o reducción de las causas del deterioro, la contención de los procesos de deterioro presentes en los materiales que integran la obra de arte y finalmente, en la medida en que la naturaleza de los deterioros lo permitan, la restitución de sus características plásticas. La primera y la última de estas tareas son las que proporcionan al restaurador un tipo de información sobre las obras de arte, que se distingue de la que recaban otros especialistas.

Pero antes de entrar en materia, queremos hacer una aclaración: Los datos que aquí exponremos provienen de nuestra experiencia en la restauración de cinco de las doce esculto-pinturas murales exteriores de Poliforum. Como es sabido, Siqueiros centró su interés y su atención en la realización de “La marcha de la humanidad”. La dirección de la ejecución de los murales exteriores les fue encomendada a dos de sus principales colaboradores: Mario Orozco Rivera y Guillermo Cenicerros.

¿Hace este hecho “menos siqueirianos” los murales exteriores del Poliforum? No en nuestra opinión por las siguientes razones

1. Porque Siqueiros definió los procedimientos con base en “... las pequeñas estampas que Siqueiros había hecho en la cárcel”, señala O.

Suárez y...” que al llevarse a escala mayor, obligó posteriormente (a Siqueiros), con lágrimas en los ojos, a realizar los cambios”. (Orlando Suárez, 1969)

2. Porque Siqueiros definió los procedimientos técnicos para la factura de los murales y procuró que sus colaboradores lo observaran, aunque en opinión de Guillermo Ceniceros, consultado al respecto, no se logró que el equipo cumpliera con las indicaciones técnicas establecidas.

### Las técnicas de factura de los murales del poliforum

Es ampliamente conocida la constante preocupación de Siqueiros por acompañar sus proyectos con propuestas técnicas que incorporan las aportaciones de la ciencia, la técnica y la industria de su tiempo. En 1956, días después de la inauguración de su mural “El Pueblo a la Universidad”, Siqueiros manifestaba las limitaciones plásticas que le imponían la realización de sus esculto-pinturas murales mediante el procedimiento de estructurar los volúmenes con cemento armado y policromarlos con mosaico. Y precisamente en “La marcha de la humanidad” sustituye esta técnica y realiza las esculto-pinturas con láminas de acero soldadas.

Ahora bien, ¿por qué decidieron usar placas de asbesto-cemento como soporte mural? Orlando Suárez expone las siguientes razones: “por economía, por ser un material inerte y existir control en su elaboración, porque permitía la fabricación de grandes superficies de una sola pieza que reducían al máximo los empates de las uniones”. (O. Suárez, 1969)

Nuestro contacto con el mural nos ha sugerido otras razones probables: Por la gran cantidad de esculturas que componen “La marcha de la humanidad”, su sujeción a placas de asbesto-cemento con un espesor de 1.5 a 2 centímetros, resultaba menos laboriosa que si se hubieran fijado a muros de concreto, por su menor peso respecto a los muros de concreto. El mural podía realizarse en secciones, en paneles transportables, y llevados de algún otro lugar distinto al de su destino –como fue el caso– y que al colocarse son al mismo tiempo los muros del recinto. Y en efecto, el uso de placas de asbesto-cemento resultaba más económico porque el Sr. Manuel Suárez, quien financiaba la obra, era propieta-

rio de la fábrica Eureka que producía los entonces novedosos techos de lámina acanalada de asbesto-cemento.

Al parecer, la decisión obedeció a su menor costo y a su menor peso y, en el orden plástico, a la reducción de líneas de junteo gracias a las grandes dimensiones de las placas. Pero, a diferencia de los paneles de “La marcha de la humanidad”, los de los murales exteriores (Figura 1 a y b) no se realizaron antes de su colocación y tampoco contienen el número de esculturas que aquellos. Por el contrario, en los murales exteriores, el uso de elementos escultóricos obedece a otra intención plástica. No forman parte sustancial aunque en algunos murales enfatizan los valores de ciertos elementos pictóricos (como la profundidad en la campana de “Destino”... o el relieve del centro de las ondas sonoras en “La música”...), en general se utilizan como elementos de continuidad entre el tablero frontal y los diseños planimétricos de los murales laterales y del tablero inferior. No están policromados. Cuando su función es la de continuar los diseños planimétricos, los elementos escultóricos son grandes y pesados en comparación con los de “La marcha de la humanidad” lo cual provocó—dicho sea de paso—fracturas de borde a borde en las placas que los soportan; esto sucedió en los casos en los que los elementos escultóricos se sujetaron a las placas y no a la estructura metálica soporte del tablero.

Ahora bien, fuera de los inconvenientes señalados, cabe preguntarse si por lo demás, la utilización de las placas de asbesto-cemento fue acertada como soporte de los murales exteriores. No lo fue en nuestra opinión.

En los cinco casos que hemos podido observar, existe una muy buena adherencia de la capa pictórica acrílica con la superficie del asbesto-cemento. Sin embargo, las placas de asbesto-cemento se deforman y se fracturan fácilmente. ¿Qué tan fácilmente? No lo hemos medido aún, pero podemos ejemplificarlo.

Estamos hablando de placas elaboradas con asbesto de fibra corta. Sus dimensiones varían de  $3.56 \times 1.78$  metros a  $4.10 \times 2.24$  metros y su espesor de 1.5 a 2 centímetros. Las placas están atornilladas a un emparrillado de ángulos de hierro, el cual su vez, está soldado a la estructura metálica de las salientes trapezoidales que arman a cada uno de los murales exteriores. Los tornillos de sujeción tienen un patrón de distribución promedio de 0.50 metros cuadrados, es decir, cada tornillo sujeta un área de 0.50 metros cuadrados de la placa. En los casos en los que faltaban los dos tornillos más cercanos a



(a)



(b)

**Figuras 1a y 1b** Exterior del Poliforum mostrando paneles murales. Foto: Grupo de Restauradores para el Poliforum, 1995

una esquina, se producía una deformación de la placa en forma similar a como se alabea la madera. Una de esas deformaciones se produjo en el rostro de la representación de Hernán Cortés, figura central del mural “Mezcla de las razas” alterándolo notablemente.

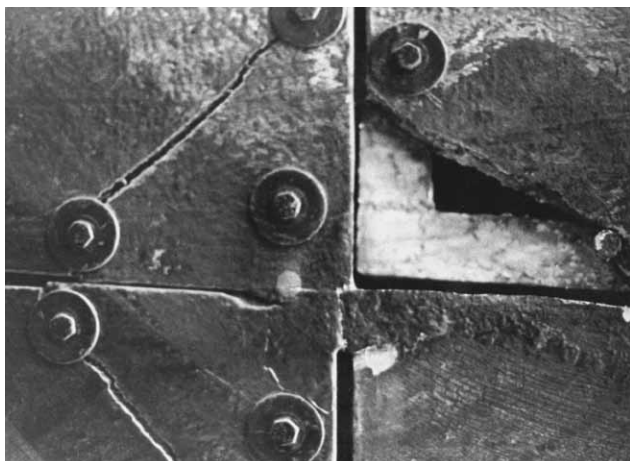
En los casos en los que se fracturó la placa de asbesto en forma transversal, es decir, horizontalmente (la nube de humo de “El átomo... y las hondas sonoras de “La música”...), los bordes se deformaron a tal grado que no fue posible lograr su ajuste cuando se cerró la fractura.

Con respecto a las fracturas la situación es más dramática. Orlando Suárez menciona que “las planchas de asbesto-cemento fueron protegidas con bastidores de ángulo de hierro reforzado”. (O. Suárez, 1969) En efecto, todos los tableros de “La marcha de la humanidad” presentan este enmarcado que en realidad es la causa de numerosas fracturas en las esquinas y los bordes de las placas de asbesto cemento. Al parecer, se decidió protegerlas de esta manera para que, en el momento de su colocación, que se realizaba con polipastos, los golpes accidentales no las fracturaran. Además, dichos basti-

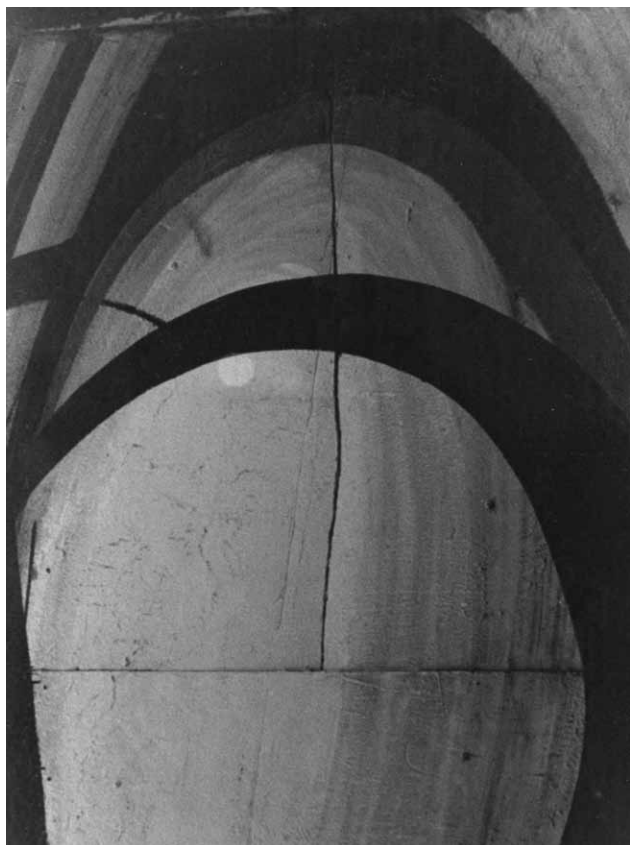
dores tenían soldadas unas asas, de las cuales se asían las placas para ser colocadas.

Los bastidores consisten en un trapecio de ángulos de hierro soldados entre sí, con travesaños horizontales distribuidos en el área de la placa. El bastidor se sujeta a las placas con tornillos y esto es precisamente lo que propicia las fracturas en esquinas y bordes, porque los orificios de los tornillos se encuentran a 2 o 3 centímetros del borde. (Figura 2)

Aunque no hemos realizado una inspección detallada de este problema en todos los tableros de “La marcha de la humanidad”, suponemos que su frecuencia es menor que en los murales exteriores, ya que en éstos, los movimientos volumétricos, por encontrarse a la intemperie son mayores. Si estos movimientos no encontraran resistencia, probablemente no se producirían fracturas; pero los tornillos se ajustaron con distintas presiones y en algunos casos la presión es tan alta que se opone a los movimientos mecánicos de las placas, produciéndose en consecuencia las fracturas en las zonas más débiles que son los bordes y principalmente las esquinas, aunque en algunas placas se produjeron fracturas que recorren



**Figura 2** Roturas en las esquinas de las laminas provocadas por tensiones diferenciales y por la inadecuada presión (torque) de los tornillos de sujeción. Foto: Grupo de Restauradores para el Poliforum, 1995



**Figura 3** Grieta sobre la lamina de asbestos-cemento causada por tensiones diferenciales. Foto: Grupo de Restauradores para el Poliforum, 1995

los orificios de los tornillos cuya colocación coincide en forma vertical. (Figura 3) (Figura 4)

A cada nivel de los tornillos de sujeción y probablemente a cada tornillo, debió aplicársele un torque específico en correspondencia con el peso a soportar: el peso de la placa según sus dimensiones, la altura a la que se encuentra el tornillo, el peso del elemento escultórico que se le ha adosado, etc. Pero al hacer la medición del torque, encontramos variaciones que oscilan de 0 a 120 libras por pulgada cuadrada, sin que existiera correspondencia alguna con el peso a soportar. Esta aplicación arbitraria de esfuerzos en materiales con bajos índices de resistencia a la tensión y a la compresión, son dos de los factores que produjeron las fracturas y las deformaciones. (Figura 5)

De los cinco murales que hemos restaurado, el procedimiento de montar las placas sobre los bastidores de ángulo, sólo lo encontramos en “El destino”. Al parecer, el equipo de Siqueiros advirtió sus inconvenientes y decidieron sustituirlo. El nuevo procedimiento consistió en eliminar el bastidor y atornillar directamente las placas de asbesto a un emparrillado de ángulos de hierro horizontales, soldados en paralelo a la estructura de la saliente trapezoidal. De esta forma se redujeron las fracturas de las esquinas y los bordes de las placas, pero no se evitaron las producidas por los esfuerzos irregulares a los que están sometidas las placas. (Figura 6)



**Figura 4** Grietas y roturas en las laminas de asbesto-cemento. Véase como se alinea la grieta con los tornillos de fijación. Abajo y a la izquierda se observan las aplicaciones metálicas. Foto: Grupo de Restauradores para el Poliforum, 1995

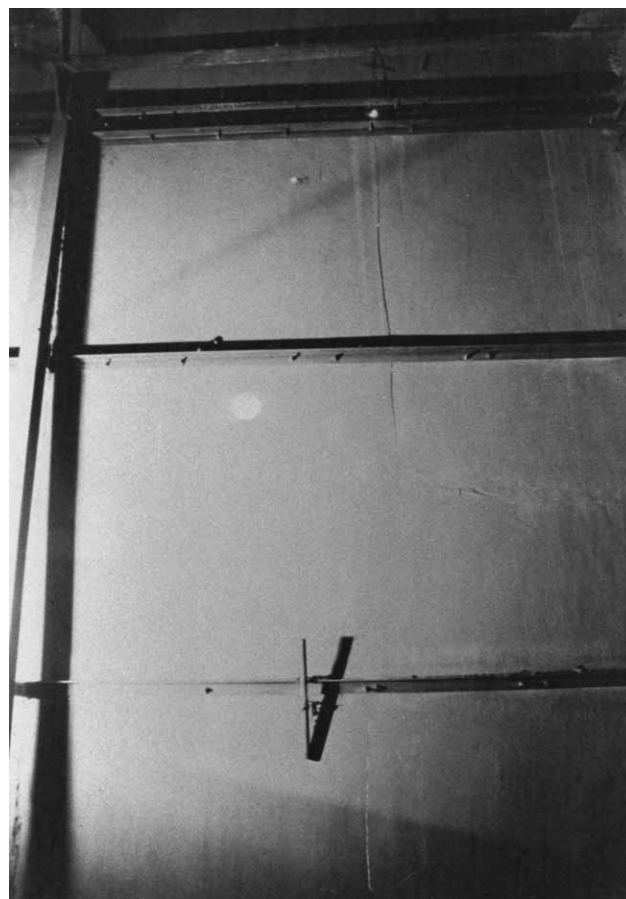
Siqueiros, al referirse a las limitaciones que le imponían al artista el uso de los materiales tradicionales, decía: “Todo concreto, como es bien sabido, presenta a la larga el problema inevitable de la oxidación de la estructura de hierro con las consiguientes cuarteaduras, particularmente graves en formas artísticas de textura precisa” (Raquel Tibol, 1974 12). A ello obedece nuestra preocupación por comprender las causas de las fracturas y deformaciones de los soportes de la capa pictórica, para contrarrestar acertadamente sus efectos y evitar futuros deterioros que sigan alterando los valores plásticos de los murales.

El otro problema al que nos referiremos es la elección de la pintura acrílica para la realización de los murales. En el citado texto intitulado “Mi experiencia

en el muralismo exterior” de 1956, Siqueiros afirmaba: “Los materiales plásticos, vengo sosteniendo desde hace mucho tiempo, determinan la forma” (Raquel Tibol, 1974 210–211). Consideramos que la realización pictórica de los murales exteriores del Poliforum es un elocuente ejemplo de esta afirmación. Se trata de murales exteriores pintados, en los que se emplearon colores acrílicos de una gran brillantez cromática, aglutinados con una resina de una transparencia extraordinaria y que al polimerizar adquiere una duraza tal, que ha podido resistir el intemperismo de los factores ambientales. No hay duda de que la posición inclinada de los tableros ha contribuido a proteger la capa pictórica de los murales; sin embargo, después de 25 años resulta sorprendente el grado de preservación de las propiedades físicas de los



**Figura 5** Deformación en la esquina de la línea causada por tensiones diferenciales. Foto: Grupo de Restauradores para el Poliforum, 1995



**Figura 6** Vista posterior de la lamina de asbesto-cemento. Grieta vertical que parte de uno de los tornillos de sujeción a la estructura metálica. Fotos: Grupo de Restauradores para el Poliforum, 1995

colores acrílicos. Pero aquí también se presentan deterioros que alteran el resultado plástico de las obras: pulverulencia de algunos pigmentos, que al ser arrastrados por el agua de lluvia, se depositan en la superficie mural formando un velo que opaca la brillantez de los colores (Figura 7); la formación de ampollas de algunas zonas de la superficie pictórica, en donde se aplicó una segunda capa cuyas crestas tienden a fracturarse; y el “acocodrilado” que consiste en el “craquelado” por contracción de la capa pictórica, que al tratarse de una segunda capa, su color se combina ópticamente con la subyacente.

Con base en nuestras observaciones proponemos las siguientes explicaciones a los deterioros mencionados:

La pulverulencia de algunos colores, principalmente el blanco y en segundo término el rojo empleado como fondo en “La música” parece obedecer a dos causas distintas: En el caso del blanco, a la preparación del color mismo, es decir, a la determinación de la proporción entre el pigmento y el aglutinante, que en este caso fue abundancia del primero y escasez del segundo. Es muy probable que esta proporción se haya hecho con la finalidad de lograr un blanco más intenso que el empleado en el resto del mural, como es el caso de la nube de humo desprendida por la explosión de la bomba atómica en el mural “El átomo”; y en efecto, la saturación de blanco en este elemento de la composición, contribuye claramente a acentuar ópticamente el volumen del “hongo”



**Figura 7** Pruebas de eliminación del velo blanquecino. Huellas de los tornillos de fijación. A la derecha aplicación metálica. Foto: Grupo de Restauradores para el Poliforum, 1995

de la explosión, pero al haberse reducido la cantidad del material que le proporciona al pigmento adherencia, cohesión, brillantez y resistencia, solo basta esperar a que la acción de los factores del medio ambiente degrade el escaso aglutinante acrílico para que el pigmento comience a ser arrastrado por el agua de lluvia y depositado a manera de un velo en la superficie mural, contribuyendo con el polvo ambiental a opacar su colorido. En cuanto al rojo, ya mencionado, la pulverulencia se debió probablemente a la misma causa; es decir, una preparación del color con escasez de aglutinante a fin de lograr una mayor intensidad del color, pero agravada por su aplicación con pistola de aire. Pero ¿no se logra una mayor homogeneidad al aplicar la pintura por aspersión? Si, pero bajo determinadas condiciones como ser : un ambiente no húmedo sin corrientes de aire que impidan la deposición controlada del material atomizado. Conociendo las condiciones en que se realizaron estos murales, podemos suponer que la aplicación del color rojo se efectuó a una distancia tal y con la interferencia de las corrientes de aire que ya circulan a escasos metros arriba del nivel del piso, que las partículas de la pintura llegan casi secas a la superficie mural y entonces no formaron una capa acrílica cohesionada sino un aglomerado de partículas débilmente unidas entre sí. Una capa de pintura con tales características es, como en el caso anterior, altamente vulnerable a los factores del intemperismo. Con respecto a las ampollas y al “acocodrilado” de algunas zonas de la capa pictórica, es importante aclarar que se produjeron en segundas capas; es decir, en zonas ya pintadas, pero que se modificaron aplicando una segunda capa poco tiempo después; el tiempo entre una y otra fue el suficiente para que al aplicarse la segunda no se mezclara con la primera, pero no lo suficiente para que ésta hubiera evaporado los disolventes del medio. (Figura 8) (Figura 9)

Las correcciones de diseño fueron una constante en las realizaciones de Siqueiros; son una manifestación de su nervio creativo y en los murales del Poliforum tenemos numerosas muestras de esta febrilidad recreativa en el proceso de amplificar los diseños preconcebidos. Pero las correcciones se hicieron cuando la capa anterior no había secado por completo. Y es que Siqueiros supuso que la eliminación de los disolventes del medio de la pintura acrílica era rápida, y lo es, si la comparamos con la velocidad de secado del óleo, pero aún los acrílicos expe-

rimentan un lento proceso de curado. La mayor parte de los disolventes se evaporan de inmediato y el resto se va evaporando en el transcurso de varios meses. Este contenido de disolventes es el que buscó salida ampollando la pintura sobrepuesta. Gradualmente las ampollas se fracturan dejando una superficie, valga la expresión, “cacariza”. Otro es el caso del “acocodrilado”. Este tipo de deterioro se presenta en ciertas zonas en las que se aplicó una segunda capa de pintura, pero que a diferencia de las ampollas en donde la segunda era gruesa y homogénea, aquí se aplicó muy diluida y en la primera fase del secado se contrajo violentamente, transformándose la película continua de color en un área de pequeños islotes cuadrados, precisamente como la piel del cocodrilo.

Se ha pensado si este tipo de deterioro no fue inducido en razón del entusiasmo que manifestaba Siqueiros por los resultados accidentales, plásticamente sugestivos, que se producían mediante las combinaciones arbitrarias de pigmentos y medio. Pero al menos, en los casos en que la segunda capa de pintura era para corregir el diseño, se trata de errores en el uso de los materiales. En el caso del Poliforum no se usaron colores previamente preparados, sino que se mezclaban in situ los pigmentos con la resina acrílica sin considerar, por desconocimiento, que en cada tipo de pinturas hay una

proporción específica del pigmento en relación con el medio de acuerdo con la densidad del pigmento. Cada uno de los miembros del equipo preparaba sus mezclas al tanteo.

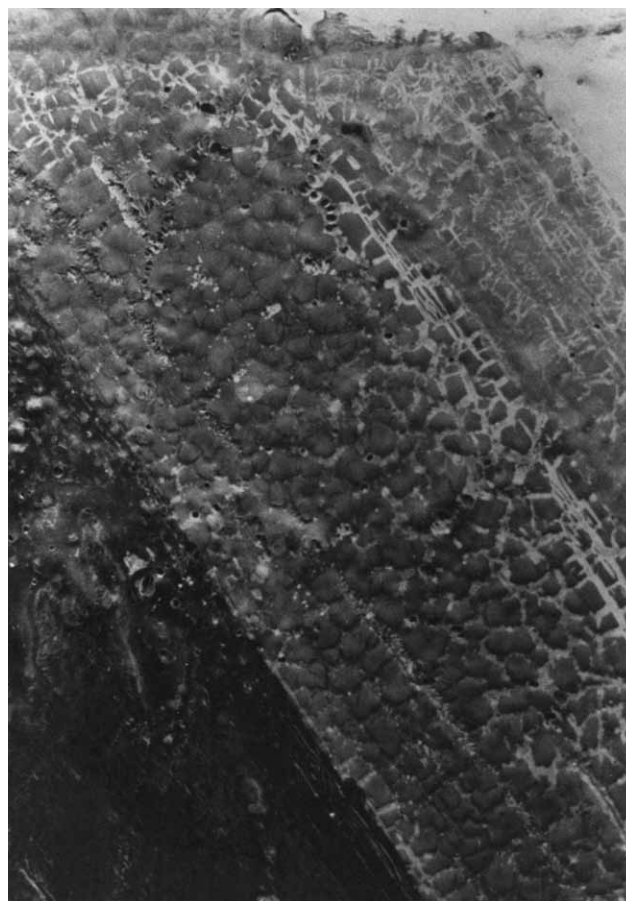
### Dos reflexiones finales

Nuestras observaciones no se encaminan a proponer que la creación artística se someta a los dictados de los materiales y las técnicas plásticas, sino que el artista cuente con un conocimiento suficiente de ello, para que pueda usar provechosamente sus propiedades en la realización de sus objetivos plásticos.

A través de los ejemplos expuestos, esperamos haber estimulado el interés de los estudiosos del arte, sobre la relevancia del estudio técnico de las obras, como



**Figura 8** Paneles laterales con soporte de fibra de vidrio y polyester. Ampollas en la capa pictórica por incompatibilidad química entre el acrílico de la pintura y el polyester del soporte. Foto: Grupo de Restauradores para el Poliforum, 1995



**Figura 9** Detalle del craquelado (“acocodrilado”) de la capa pictórica provocado por superposición de capas antes del secado total. Foto: Grupo de Restauradores para el Poliforum, 1995

otra vertiente de conocimientos que nos permite una mayor comprensión de la producción artística, sobre todo en un artista como Siqueiros, para quien la innovación técnica fue un constituyente imprescindible de sus concepciones artísticas.

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## Currículo

Sergio Arturo Montero Alarcón, conservador, nacido en México, D.F., México en 1937. Estudios de Artes Plásticas en la Escuela de Pintura y Escultura conocida como “La Esmeralda” del Instituto Nacional de Bellas Artes de México, (1952–1958). Becado por el gobierno de Checoslovaquia para realizar estudios de restauración de obras de arte y monumentos históricos, (1958–1961). Contratado por el Instituto Nacional de Antropología e Historia como jefe de restauradores en 1963, comenzando su carrera profesional, considerándosele como parte del grupo de fundadores de lo que hoy es la Coordinación Nacional de Restauración del mencionado Instituto y

en 1966, docente fundador de la Escuela Nacional de Conservación, Restauración y Museografía del INAH. En 45 años de servicio en esta institución, dirigió múltiples proyectos de restauración, principalmente de pinturas murales, como los de Siqueiros en el Poliforum y en el Museo Nacional de Historia del INAH, en Etiopía en 1973 contratado por la UNESCO. En Montevideo, Uruguay, los murales de Torres García, contratado por el gobierno de ese país. Tuvo a su cargo hasta 2009 las cátedras de restauración de pintura mural y de introducción a la restauración, participando ampliamente en la elaboración de planes y programas de estudio. Paralelamente fundó el grupo de teatro de títeres familiar “IKERÍN”, participando activamente en la fundación del Centro Mexicano de la Unión Internacional de la Marioneta, en la que en dos ocasiones fue su presidente. En tres ocasiones dirigió proyectos de restauración de títeres de la antigua compañía de Rosete Aranda de las colecciones del Instituto Nacional de Bellas Artes. En 2010 se jubila como empleado del INAH, pero continúa realizando proyectos de restauración en el ámbito privado.

# Agonía y éxtasis del *Ejercicio Plástico* de David A. Siqueiros

Néstor Barrio

**Resumen:** Después de su extracción y tras dieciocho años de abandono en la intemperie a causa de un conflicto judicial, el mural “Ejercicio Plástico” fue instalado con éxito en el Museo del Bicentenario de Buenos Aires. Entre 2008 y 2010, un equipo interdisciplinario argentino-mexicano restauró e investigó este mural casi desconocido para el público. Hoy, la técnica de ejecución puede definirse como fresco sobre cemento, posteriormente fijado y retocado con pintura al silicato. Su traslado al museo plantea un renovado debate en torno a la descontextualización y resignificación de esta obra emblemática del muralismo latinoamericano, pintada en 1933.

**Abstract:** After being removed from its original site and left to the vicissitudes of the weather for over eighteen years as a result of a legal dispute, the mural *Ejercicio Plástico* (Artistic Exercise, 1933) was successfully installed in the Museo del Bicentenario in Buenos Aires. Between 2008 and 2010, an Argentine-Mexican interdisciplinary team restored and began researching this mural, which had previously been virtually unknown to the public. The technique Siqueiros employed can be defined as fresco on cement, which was subsequently fixed and retouched with silicate paint. The mural's transfer to the museum has triggered a debate regarding the decontextualization and resignification of this important work, which is considered to be emblematic of Latin American mural art.

## Introducción

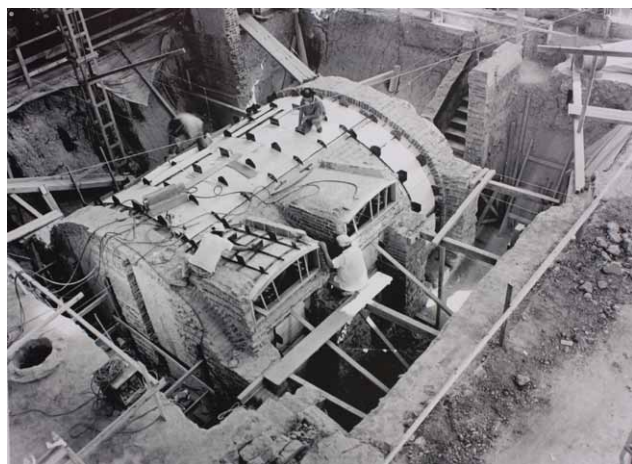
Entre septiembre y diciembre de 1933 el “equipo poligráfico” integrado por David A. Siqueiros, los argentinos Lino E. Spilimbergo, Juan Carlos Castagnino, Antonio Berni y el uruguayo Enrique Lázaro ejecutó el mural “Ejercicio Plástico” en el sótano de la finca “Los Granados” perteneciente al empresario periodístico Natalio Botana, sito en la localidad de Don Torcuato en las afueras de Buenos Aires. De planta rectangular abovedada, la superficie pictórica abarca unos 123 m<sup>2</sup>, extendiéndose por las paredes, el techo y el piso, cuyas medidas son 6,70 m. de largo × 5,40 m. de ancho y 3,00 m. de altura.

El antecedente más inmediato de esta obra lo constituyen los murales ejecutados por Siqueiros en Los Ángeles en 1932, junto al grupo: “The Bloc of Mural Painters”. Las obras “Mitin obrero” en la escuela de Arte Chouinard y “América Tropical” en el *Plaza Art Center* serían el punto de partida de una nueva concepción del muralismo, que propuso crear murales en el exterior sobre cemento, empleando nuevas herramientas como la pistola de aire y la fotografía. (Goldman, 1974)

La propuesta del “Ejercicio Plástico” consistió en crear un ambiente envolvente para un espectador en movimiento, una suerte de “caja plástica” sustentada en las correlaciones armónicas del espacio arquitectónico de aquel sótano. La composición desarrolló una serie de desnudos, escorzos y trazas no convencionales, definidas como un método de “perspectiva poli-angular”. “Ejercicio Plástico” es una pintura monumental dinámica para un espectador dinámico”, afirmaron los autores. (Siqueiros et al, 1933)

Tras la expulsión de Siqueiros de la Argentina en diciembre de 1933, la obra quedó confinada en aquella oscura y lejana cripta y su existencia sólo fue recordada por historiadores y algunos especialistas. Tras la muerte de Botana, el predio cambió varias veces de dueño hasta que, en 1991, el empresario Héctor Mendizábal y un grupo de inversores compra la antigua finca con la idea de dismantelar el mural y convertirlo en una muestra itinerante, para lo que contrató al restaurador mexicano Manuel Serrano y al estudio de ingenieros Del Carril y Fontán Balestra. La extracción del mural demandó quince meses (Figura 1) y puso en funcionamiento un proyecto de gran escala mediante el cual, se demolió la casa, se cavó alrededor del sótano, se redujo el espesor de las paredes de 60 a 1,5 centímetros, se colocaron bastidores metálicos rellenos con resina epoxi a los que se soldó una estructura metálica que hizo las veces de esqueleto portante, cortándose finalmente el mural en 6 partes. (Mendizábal y Schavelzon, 2003) Aunque las piezas fueron guardadas en 4 contenedores, complicaciones judiciales posteriores impidieron cumplir con el objetivo previsto, por lo que el mural permaneció abandonado a la intemperie. El piso también fue extraído, dividiéndose en 63 secciones, quedando en poder de uno de los socios del proyecto, aunque el mimo fuera parte del conflicto judicial.

En los años siguientes, varias personalidades de la cultura expresaron su preocupación por el destino de la obra, reclamando a las autoridades su intervención. En los medios periodísticos y en dos producciones cine-



**Figura 1** El sótano durante los trabajos de extracción en 1991. Foto: Archivo Manuel Serrano

matográficas se tejieron las más fantásticas historias, conjeturas y pronósticos sobre la génesis y el estado de conservación del mural.

Finalmente, y al cabo de 18 años, el Presidente Néstor Kirchner y luego, la Presidenta Cristina Fernández de Kirchner, impulsaron la recuperación del mural poniendo en marcha un gran proyecto conjunto argentino-mexicano, que culminaría con la instalación del “Ejercicio Plástico” en el Museo del Bicentenario, construido en el antiguo predio de la Aduana de Taylor, en la Plaza Colón, detrás de la Casa de Gobierno. Un equipo integrado por especialistas mexicanos y argentinos, del Instituto Nacional de Bellas Artes (INBA), el Centro Tarea de la Universidad Nacional de San Martín (UNSAM) y la Universidad Tecnológica Nacional (UTN), bajo la dirección del maestro Manuel Serrano, realizó los trabajos entre noviembre de 2008 y diciembre de 2010.

### La técnica de ejecución

Aunque entre la ejecución de “América Tropical” y “Ejercicio Plástico” pasaron muy pocos meses, se trata de dos obras bien diferentes. Aunque es innegable la influencia del mexicano, no es menos cierto que las contribuciones del equipo poligráfico y, en especial, el trabajo de Spilimbergo, deben ser destacados como ingredientes fundamentales a la hora de adjudicar los méritos artísticos del mural argentino.

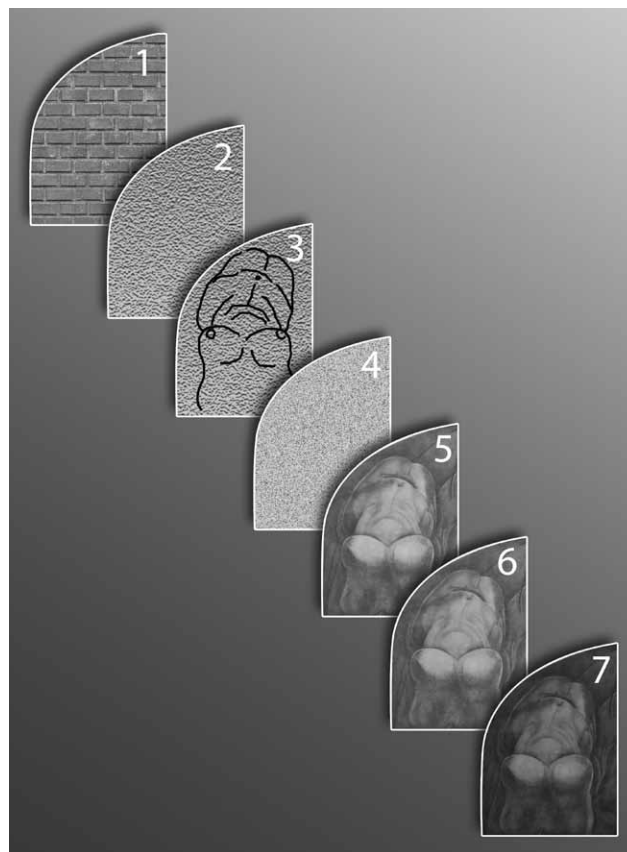
Claramente, la experiencia de Los Ángeles resultó un valioso antecedente práctico y técnico, dadas las dificultades que planteaba el uso de materiales y herramientas no convencionales, como el rápido fraguado del enlucido de cemento, la proyección de fotografías y el dominio de la pistola de aire. Sin embargo, cabe preguntarse cómo fue efectivamente el procedimiento y los materiales empleados en “América Tropical”, porque los análisis químicos sugieren la presencia de nitrocelulosa (piroxilina) como posible vehículo de los pigmentos. (Piqué, 1995)

Debido a la falta de estudios previos, se conocían muy pocos datos precisos sobre la técnica de ejecución y los materiales empleados en el “Ejercicio Plástico”. Un detallado análisis de las fuentes escritas, debidas al propio artista y a Raquel Tibol -su más destacada biógrafa-puso en evidencia varias imprecisiones y no pocas contradicciones. (Tibol, 1969) (Siqueiros, 1979)

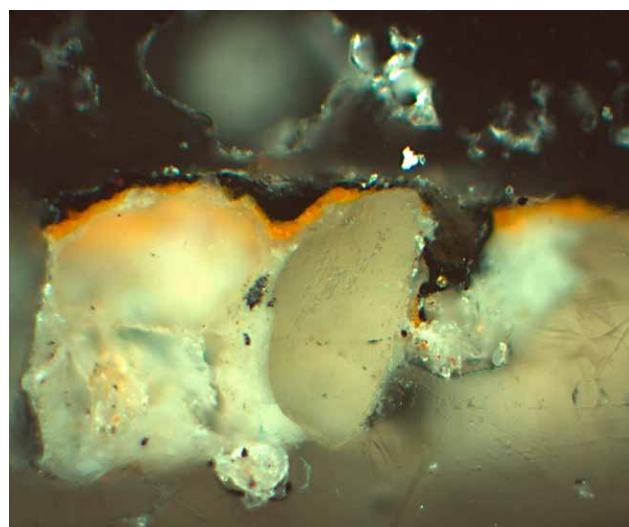
Solamente el contacto directo con la obra y sus muros podía brindar el contexto apropiado para responder las principales dudas que planteaba esta compleja trama de informaciones. Para ello, varios equipos de investigadores de la UNSAM iniciaron las indagaciones en las áreas de historia del arte, física, química y diagnóstico por imágenes. Afortunadamente, el estado de conservación del mural resultó mejor de lo que se esperaba, simplificando las tareas. La solidez de los materiales originales y de aquellos empleados para la extracción, se conjugaron para explicar la sorprendente resistencia de la estructura a condiciones tan adversas.

Gracias a los estudios realizados, hoy podemos definir la técnica de ejecución de los muros y la bóveda como un fresco sobre cemento, fijado y retocado posteriormente con pintura al silicato. (Figura 2) (Barrio et al, 2012) (Moretti et al, 2012) El piso fue ejecutado con cemento coloreado, aplanado y pulido.

Los análisis demostraron que el revoque grueso o *arricio* (en italiano) fue aplicado de una sola vez, mientras que el fino o *intonaco*, obviamente se realizó en jornadas, dado que su composición no se mantuvo constante. (Cedrola et al, 2009) Esta operatoria implicó una cuidadosa planificación que, aparentemente venía a contradecir las afirmaciones de los propios protagonistas cuando declararon: “[...] Fue hecho sin boceto previo. Sus autores atacamos los muros directamente.” (Siqueiros et al, 1933) El descubrimiento de un dibujo o boceto -tal como se muestra en el libro de Mendizábal y Schavelzon-, agregó otro enigma a las especulaciones iniciales. (Mendizábal y Schavelzon, 2003). Observando cuidadosamente la superficie de los muros se puede apreciar que hay zonas donde la aspereza del enlucido y la simplicidad de la estructura de los colores, evidencian claramente que se trata de una finísima película de pintura al fresco, que se adaptó a las irregularidades del *intonaco*. (Figura 3) En otros lugares descubrimos la superposición de varias capas, llegándose a ocultar la rugosidad propia del revoque. Es aquí donde advertimos la presencia de la pintura al silicato puesto que, técnicamente, sería imposible añadir más color una vez producido el fraguado del cemento. En todos los casos, se trata de una capa muy compacta, cornea e insoluble en todo tipo de reactivos y solventes, que no parece coincidir con lo que se conoce tradicionalmente como *retoque a secco*.



**Figura 2** Estructura del mural: 1 Ladrillos 2. Revoque grueso 3. Dibujo preliminar 4. Revoque fino 5. Pintura al fresco 6. Fijación con silicato 7. Retoques con pintura al silicato. Foto: Néstor Barrio



**Figura 3** Fotomicrografía 500 X. Delgada película de pintura sobre dos granos de arena. Foto: Fernando Marte



**Figura 4** Tímpano anterior, antes de la restauración.

Foto: Gustavo Lowry

Un interesante testimonio de Juan Carlos Castagnino, fechado en 1962, da cuenta de la técnica de ejecución: “En cuanto al trazado armónico del conjunto, (Siqueiros) comenzó por analizar cada muro en particular, en forma autónoma. Terminada esta operación procedió a establecer las correlaciones espaciales tirando cordeles o empleando largas reglas flexibles para relacionar dos puntos armónicos situados en planos distintos o en el plano del muro y curva de la bóveda, o en el punto de encuentro de muro y piso. Los ritmos generales de ubicación se trazaron con tinta oscura sobre el gris del cemento grueso. Luego, las correcciones que surgían al llevar las imágenes con el proyector eléctrico se destacaban con líneas blancas. Se tomaban fotografías de los resultados parciales y finales, y con estas últimas se trabajaba sobre el revoque definitivo realizado con una mezcla de cemento portland y marmolina. Previamente se humedecía el muro a fondo. Recién entonces se aplicaban los colores de pigmentos utilizándose un aerógrafo, ya que el fraguado rápido del revoque de cemento no daba tiempo, sobre todo en los tonos intensos y oscuros, que debieron ser tratados al final con colores al silicato”. (Castagnino, 1962)

Aunque hemos encontrado ciertas diferencias, en todos los textos y manuales donde se describe la técnica de pintura al silicato se menciona que, inicialmente el muro debe ser humedecido profundamente; a continuación se coloca una capa de fijador al silicato que sirve de base y, finalmente, se aplica el color propiamente dicho. (Doerner, 1965) (Gutiérrez, 1986) (Store & Werner, 1998)



**Figura 5** Detalle de la pared izquierda, después de la restauración. Foto: Gustavo Lowry

Interpretamos entonces que los retoques al silicato sobre el fresco ya fraguado, se habrían hecho en “húmedo” y no *a secco*.

En ese contexto, la resolución final del “Ejercicio Plástico” en Buenos Aires es una valiosa referencia sobre el afán de experimentación de Siqueiros y, también, una prueba de su asombrosa capacidad para capitalizar los ensayos y resolver situaciones técnicamente complejas (fig. 4). Como quien se entrega al destino y a esa tensión surgida entre la intuición y el hecho fortuito, años más tarde escribió: “Así comienza la historia de mis tan comentados y combatidos trucos técnicos. Trucos que continué, más tarde, en la Argentina, en Chile y en Cuba. Pero ninguno de dichos trucos fue resultante de una teoría preconcebida, sino siempre de hechos imprevisibles, de hechos casuales”. (Siqueiros, 1979)

En general, los colores fueron aplicados empleando la pistola de aire, intercalando un estencil o regla flexible, cuyo perfil servía para dar el contorno deseado; o una plantilla para producir el negativo de las formas, como ocurrió con los helechos. En varios sectores se nota también el uso directo del aerógrafo para producir esfumados y veladuras. Se perciben igualmente los frotados (con un trapo, esponja o la misma palma de la mano), para retirar parcialmente el color, provocar pasajes y la fusión de los tonos. (Figura 5)

## Conclusiones

El itinerario de la obra y sus transformaciones plantea interesantes problemas teóricos a ser debatidos. Por lo

pronto, el traslado de esta pintura mural se inscribe dentro de un proceso de descontextualización que, por conocido, no deja de ser traumático. “El conflicto de la obra museificada no radica sólo en el cambio de ubicación sino en el proceso dialéctico interno a su propio ser. El ser creada para un uso que ya no es y el asignarle otra función que ‘es’ en el museo opera indudablemente una mutación cualitativa en el objeto que a su vez no descalifica su validez objetiva como producto útil y sometido a cambios históricos”. “(…habrá que darle la razón a Adorno cuando habla del continuo proceso de museificación de la obra desde que nace.)” (León, 1995)

La disposición del mural en la Aduana de Taylor, convertida en el actual Museo del Bicentenario, se presenta ante la comunidad como un rescate épico, como la puesta en valor de un arquetipo de arte latinoamericano que estuvo oculto para la mayoría del público. En definitiva, y más allá de su valor objetivo como obra de arte, el patrocinio y la instalación del mural en el centro neurálgico del poder político, es de por sí un acontecimiento cultural independiente; una suerte de creación impuesta por las circunstancias. Si ha de lograr reanimar y recrear una memoria visual y cultural en relación al muralismo será una feliz coincidencia. El cambio de contexto ha de imprimirle al “Ejercicio Plástico” un carácter distinto y una “segunda historicidad”, situación controversial con respecto a su originalidad y autenticidad.

El “Ejercicio Plástico” es aquí y ahora una pintura emancipada y una cripta autónoma. Desde su creación hasta la actualidad, la obra ha soportado una metamorfosis propia de un episodio de la literatura fantástica. Además de la prodigiosa noticia de su extracción del lugar de origen, de su rehabilitación material a través de la restauración y los avatares de un prolongado conflicto judicial, el mural se ha transformado en un artefacto multifacético, en un objeto mueble que, paradójicamente, conserva el carácter mural. Esta ambivalencia lo convierte, de hecho, en un prototipo, en una entequeia material novedosa, propia de nuestra época, en donde toda transmutación parece posible. (Barrio, 2010)

La agonía y el éxtasis: el título acuñado por Irving Stone en 1965 para representar la vida de un artista apasionado como Miguel Ángel (Stone, 2010), coincide perfectamente con la sorprendente historia del “Ejercicio Plástico”: a un período inicial de agonía a causa del encierro, el olvido y la negligencia, le siguió finalmente

el tiempo del éxtasis: el hechizo que experimentan los miles de espectadores que lo visitan en el Museo del Bicentenario. (Figura 6) (Figura 7) (Figura 8)



**Figura 6** Interior del *Ejercicio Plástico* durante las pruebas de iluminación. Foto: Luis Liberal



**Figura 7** Instalación del mural en un recinto de vidrio en el Museo del Bicentenario. Foto: Néstor Barrio



**Figura 8** La bóveda de *Ejercicio Plástico* después de la restauración. Foto: Gustavo Lowry

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## Currículo

Néstor Barrio, Decano, Instituto de Investigaciones sobre el Patrimonio Cultural, Universidad Nacional de San Martín Licenciado en Artes Visuales IUNA. Catedrático en conservación-restauración en carreras de grado y posgrado en la Universidad Nacional de San Martín, UNSAM, y en el Instituto Universitario Nacional de Arte, IUNA. Ha contribuido en varias publicaciones sobre restauración de pintura y colabora como investigador en proyectos de PIP- CONICET y PICT-ANPCT. Como director del Centro Tarea de la UNSAM (2008-2011), coordinó proyectos de intervención de pintura mural y artes plásticas. Director de la Carrera de Especialización en Conservación-Restauración de Bienes Culturales, IIPC-UNSAM. En noviembre de 2011 fue designado Decano del Instituto de Investigaciones sobre el Patrimonio Cultural, IIPC-UNSAM.

# Siqueiros y terremotos, precursores del muralismo en Chile

Carolina Ossa Izquierdo

**Resumen:** Tras el terremoto de 1939 en la ciudad de Chillán (Chile) el gobierno mejicano dona el edificio de la Escuela México y sus murales, “Muerte al invasor” de David Alfaro Siqueiros y “De México a Chile” de Xavier Guerrero, como un acto de solidaridad hacia el pueblo chileno. Tanto la iconografía y la influencia ejercida por estos artistas en el escenario local, como las restauraciones y el terremoto del año 2010, han convertido a estos murales en símbolo de la hermandad entre el pueblo de Chile y el de México.

**Abstract:** The building Escuela México, and the murals housed in it, Muerte al invasor (Death to the Invader) by David Alfaro Siqueiros and De México a Chile (From Mexico to Chile) by Xavier Guerrero were donated to Chile by the Mexican government in an act of solidarity with the Chilean people, after a major earthquake destroyed a large portion of the city of Chillán in 1939. The iconography and stylistic influences of the artists, in the local context as well as the restorations and the earthquake in 2010, have transformed these murals into symbols of solidarity between the people of Chile and Mexico.

Chillán, que en lengua mapuche significa *Silla del Sol*, se ubica a 400 km al de Santiago. Por muchos considerada una ciudad afortunada, han nacido en ella hombres y mujeres sobresaliente en variados ámbitos como nuestro libertador Bernardo O’Higgins, el gran pianista Claudio Arrau y la escultora Marta Colvin, por mencionar algunos. Pero para otros, Chillán es una ciudad marcada por sus terremotos. La noche del 24 de enero de 1939, un violento sismo de 3 minutos, grado 7.8 Richter, derriba

el 90% de las construcciones y deja una cifra de entre 10.000 y 15.000 víctimas fatales, constituyéndose en el sismo más destructivo que ha ocurrido en Chile.

Pero trajo también repercusiones positivas, la destrucción provoca la apremiante necesidad de reconstrucción impulsando una serie de acciones tanto dentro como fuera del país. Es cuando, el Gobierno Mexicano dona a la ciudad la construcción de la Escuela México. Pablo Neruda, en esa fecha cónsul de Chile en México, estimuló y participó en la empresa de llevar a Chile a dos artistas, tramitando una visa chilena para que los pintores mexicanos David Alfaro Siqueiros y Xavier Guerrero, vinieran a pintar los murales “Muerte al invasor” de Siqueiros y “De México a Chile” de Guerrero. (Figura 1)



Figura 1 Escuela México de Chillán. Foto: Ossa 2010



**Figura 2** Mural *Historia de Concepción* de Gregorio de la Fuente. Foto: Ossa 2010

Gracias a este gesto de solidaridad hacia la destruida ciudad, se forjaron instancias de trabajo que influenciaron la labor y la trayectoria de muchos artistas chilenos, que vieron la posibilidad de desarrollar un estilo destinado al mural público para la contemplación popular, que no se relacionara directamente con el estilo academicista reinante en aquella época.

Los pintores chilenos, Camilo Mori, Laureano Guevara, Gregorio de la Fuente, Luis Vargas Rosas, junto al colombiano Alipio Jaramillo y el alemán Erwin Wenner vivieron una experiencia única de trabajo al participar junto a los grandes maestros muralistas del momento, pintando 21 frescos de héroes de la independencia americana, en las salas de clases que originalmente llevaron sus nombres.

La influencia que ejercieron los mexicanos no sólo radicó en el aprendizaje de nuevas técnicas murales sino también en cómo se enfrentaban a la temática de la obra, incorporando nuevas visiones a los temas antes tratados, replanteándose al mismo tiempo el rol del mural dentro de la sociedad de la época. Su venida cambió también la forma de enseñar la técnica del mural en la cátedra de pintura al fresco, derivando en el replanteamiento y reforzamiento del muralismo en Chile. La evolución del muralismo chileno no hubiese progresado tan rápidamente y quizás no hubiese tomado ciertos caminos sino hubiese sido por la intervención de los artistas mexicanos en el escenario local.

Como consecuencia se forma un Grupo de Pintores Muralistas del Ministerio de Educación, asesorados por



**Figura 3** *Muerte al invasor* de David Alfaro Siqueiros, muro chileno. Foto: Ossa 2010

Laureano Guevara y se les asigna la labor de decorar escuelas chilenas con la técnica del fresco. En 1946, en el Liceo de la Ciudad del Niño, se realizan los murales “Exaltación a la pareja de trabajadores” de Laureano Guevara, “Homenaje a Gabriela Mistral y a los trabajadores del salitre” de Fernando Marcos, “Los trabajadores del campo” de Orlando Silva y “Danza del niño chileno” de Osvaldo Reyes.

Un poco antes en 1942, Gregorio de la Fuente, fuertemente influenciado técnica y temáticamente, pinta “Historia de Concepción”, la obra de mayor envergadura en la tradición muralista en Chile durante más de 50 años. (Figura 2)

Siqueiros, al pintar el mural “Muerte al invasor”, impuso nuevas técnicas y soluciones pictóricas al utilizar materiales novedosos y técnicas revolucionarias. Pintó su visión de la lucha histórica de ambos pueblos por la independencia y la libertad, dentro del contexto de ideas revolucionarias, irrupción de vanguardias, nociones de progreso y avances tecnológicos.

El propósito de Siqueiros fue hacer un canto plástico a las figuras más prominentes de las luchas populares de ambos pueblos. Pinta entonces el mural que se ubica en la biblioteca de la Escuela México, en donde encontró dos muros rectangulares en los extremos de la habitación ya que el muro lateral estaba destinado a libros, y el otro posee amplios ventanales. Siqueiros amplía y transforma el espacio pictórico introduciendo un nuevo soporte de madera, sustentado en una estructura anclada al muro. Con placas

cóncavas rompe la rigidez de los ángulos rectos que se producen en el encuentro de los muros con el suelo y el cielo raso, y une ambos muros prolongando por el cielo raso de la biblioteca este nuevo soporte. Así logra una superficie continua de 200 mt<sup>2</sup>. Es razonable pensar que Siqueiros fuera entonces consciente de la sismicidad de la zona y mediante estos paneles asegurar el futuro de su obra.

Utiliza materiales como piroxilina, óleo y acrílico, aplicándolos con pistola de aire y aerógrafo, acentuando texturas con brocha y empastes. (Figura 3)

En el muro sur, dedicado a Chile, encontramos en el centro a Galvarino, el cacique araucano que combatió heroicamente con las fuerzas españolas, al cual le fueron amputadas ambas manos. Junto a su cabeza se encuentra la del escritor y político chileno Francisco Bilbao quien fuera un ferviente defensor de las ideas radicales y liberales del Siglo XIX. Este personaje bicéfalo hace referencia al lema del escudo chileno: *Por la razón o la fuerza*.

A la derecha de Galvarino, en actitud bélica llamando al combate, el Toqui Caupolicán y un poco más allá el joven libertador y estratega Lautaro, ambos araucanos son símbolo de la lucha en las guerras de la conquista.

Al otro lado, Bernardo O'Higgins, político y militar, prócer de la independencia chilena, levanta las banderas de la Patria nueva y vieja, vestido como agricultor y guerrero al usar manta y botas militares. Bajo las banderas el presidente José Manuel Balmaceda haciendo alusión a la vida republicana.

En la parte inferior del mural, bajo estos personajes, los cuerpos de los españoles vencidos y un mosaico de espejos rotos simbolizando las joyas con que se pretendió engañar a los araucanos. (Figura 4)

En el muro norte, dedicado a México, encontramos en el centro un indígena con varias extremidades que representa a Cuauhtémoc, el último emperador azteca que nunca se rindió ante los españoles. Esta figura sube una monumental escalera apuntando un arco hacia arriba. A sus pies, derrotado y herido de muerte con una estaca en el pecho se encuentra representado el invasor, de aquí el nombre del mural "Muerte al invasor".

En el extremo superior izquierdo se encuentran tres libertadores de diferentes momentos históricos: Miguel Hidalgo, precursor de la guerra de la indepen-

dencia, José María Morelos, quién asume el liderazgo tras la muerte de Hidalgo y Emiliano Zapata, revolucionario agrarista mexicano. Bajo ellos, en actitud bélica, un personaje femenino representa a todas las mujeres mexicanas que se involucraron de alguna manera en la lucha armada.

Al costado derecho, Benito Juárez sostiene en sus manos un libro aludiendo a las leyes de la Reforma, junto a Lázaro Cárdenas con una hoja de papel de la cual sale petróleo, representando al presidente mexicano que nacionalizó el petróleo.

El resultado es sorprendente, Siqueiros logra transformar la visión de dos muros físicamente opuestos a través de una iconografía que representa paralela y simultáneamente las luchas por la independencia de ambos países, instalándolas en un mismo relato. Refuerza esta idea al unir ambos sectores pictórica y materialmente a través del cielo raso abovedado, repleto de recursos pictóricos que generan la ilusión de movimiento continuo, favoreciendo la lectura entre los extremos.

Paralelamente, Xavier Guerrero, con su prolija técnica del fresco, decoraba el hall de entrada, las ramplas de la escalera y el plafón que se ubica sobre esta. Guerrero realizó una alegoría al gesto solidario de su país, el mural "De México a Chile". En el hall de entrada se encuentra una de las escenas más emotivas: Una mujer abraza a un niño de Chillán herido supuestamente a causa del terremoto. En el plafón de la escalera, una enorme mujer lanza de su mano izquierda una llamarada de fuego que la envuelve en su parte superior. A los pies, un arcoíris



**Figura 4** Muerte al invasor de David Alfaro Siqueiros, muro mexicano. Foto: Ossa 2010

la sustenta, que con forma curva resuelve los ángulos rectos que se contraponen con el semicírculo dado en la caja de la escalera. Al centro, una mano fuerte sostiene una brújula en la cual hay un texto que dice: “El tesoro máspreciado es el Hombre”.

El mural de Guerrero recibe afectuosamente al visitante al ingresar por la puerta principal de la Escuela, al continuar hacia adentro, lo invita a subir las escaleras acompañando con coloridas y amigables imágenes, hasta dejar al espectador frente a las puertas de la biblioteca, ya preparado visualmente para ingresar al intenso mural “Muerte al invasor” de Siqueiros.

## Restauraciones

Se sabe de dos intervenciones realizadas a las obras, la primera sería en 1960, año en que Fernando Marcos, pintor de murales, restaura los daños producidos en el Siqueiros por filtraciones de lluvia. Posteriormente, el restaurador Antonio Astudillo habría trabajado en ambos murales.

En el año 1992, Mónica Bahamondez<sup>1</sup> y Lilia Maturana<sup>2</sup> del Centro Nacional de Conservación y Restauración de Chile (CNCR) y de la Dirección de Bibliotecas Archivos y Museos (DIBAM) realizaron un diagnóstico de ambos murales e informaron que el mural de Siqueiros presenta deformaciones en el soporte, en el muro Norte y el techo. Hay también pérdida de material, manchas de corrosión de los elementos metálicos de fijación, desprendimientos, deformaciones y craqueladuras en las capas pictóricas, además de suciedad superficial, faltantes de madera y repintes mal ajustados cromáticamente. Los estudios de las condiciones climáticas indican que el mural recibe durante las mañanas la luz solar en forma directa, y la HR es de 80% promedio con una temperatura promedio de 9.5°C durante los meses de invierno.

Ambas especialistas concluyen que el mural se encuentra en un proceso de deterioro activo pero lento. Se propone un manejo del medio ambiente pasivo, mediante la instalación de ventanas con doble vidrio con filtros para las radiaciones ultravioleta e infrarrojo. Además, de proponer los tratamientos necesarios de res-

tauración como el fijado de las capas pictóricas y las reintegraciones cromáticas necesarias. No fue posible contar con los fondos requeridos para realizar los tratamientos propuestos. Afortunadamente las ventanas si fueron cambiadas y provistas de filtros para las radiaciones ultravioleta a las que además se les agregaron cortinas para evitar la incidencia directa de la luz solar sobre la pintura.

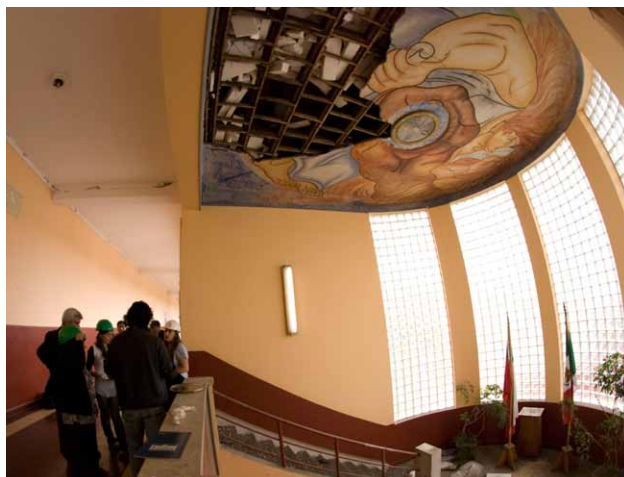
En 2004 a solicitud del arquitecto Don Claudio Martínez Cerda acompañado por personalidades del ámbito cultural y por orden del Presidente de la Republica y del Ministro de Educación de Chile, los murales “Muerte al invasor” y “De México a Chile” son declarados Monumento Histórico de Chile. Esta categoría la reciben los lugares, ruinas, construcciones y objetos de propiedad fiscal, municipal o particular que por su calidad e interés histórico o artístico o por su antigüedad, son declarados tales por decreto supremo, dictado a solicitud y previo acuerdo del Consejo de Monumentos Nacionales CMN, quedando bajo la protección del estado de Chile.



**Figura 5** *Muerte al invasor* de David Alfaro Siqueiros. Mónica Pérez, restauradora chilena durante la restauración realizada en el año 2009. Foto: Ossa. 2010

1 Jefa del Laboratorio de Monumentos.

2 Jefa del Laboratorio de Pintura.



**Figura 6** *De México a Chile* de Xavier Guerrero. Deterioros producidos por el terremoto en 2010. Foto: Ossa. 2010



**Figura 7** *Presencia de América Latina* de Jorge González Camarena. Foto: Ossa. 2010

En agosto del año 2008 se da inicio a una nueva restauración, esta vez con un equipo formado por restauradores mexicanos y chilenos, coordinados por un restaurador del Centro Nacional de Conservación y Registro del Patrimonio Artístico Mueble del Instituto Nacional de Bellas Artes de México (CENCROPAM-INBA). El proyecto fue financiado por el Fondo Conjunto de Cooperación Chile-México, fruto de un acuerdo de cooperación entre el Estado Mexicano y Chile. (Figura 5)

El Consejo de Monumentos Nacionales solicitó la participación del CNCR como contraparte técnica para dar apoyo a los restauradores mexicanos.

El proyecto comprendió 15 meses de trabajo durante los cuales se realizaron consolidaciones, fijación de los estratos, desmontaje y montaje de placas, anclajes, injertos, nivelaciones y reintegraciones cromáticas en ambos murales. Además, el mural de Siqueiros fue barnizado como medida de protección frente a la humedad. Se realizaron también acciones preventivas como limpieza y sanitado del entretecho, reparación de techumbres y aislación térmica desde el entretecho. Los trabajos terminaron en diciembre del año 2009.

El 27 de febrero del año 2010, a menos de dos meses de inaugurados los murales, un fuerte sismo azotó nuevamente a la región. El terremoto grado 8.8 en la escala de Richter, que ostenta ser el 5° terremoto de mayor magnitud registrado en la historia de la humanidad. Las noticias sobre los murales son desalentadoras. A pocos

días de lo acontecido, un equipo formado por representantes de la embajada de México, del CMN y del CNCR viajó a Chillán para evaluar la situación de los murales de la región.

El mural de Siqueiros no presentó deterioros significativos, solamente se observa una separación o grieta de la capa pictórica en la unión de los paneles horizontales y verticales en la zona de las banderas. El resto del mural no presenta daños. El mural de Guerrero en general presenta leves grietas, pero aproximadamente un 30% del plafón de la escalera cayó rompiéndose en innumerables fragmentos de diferentes dimensiones. La superficie restante, se encontraba extremadamente agrietada con sus anclajes cortados y con alto riesgo de caerse. Se evalúa también el mural “Presencia de América Latina” que pintó el mexicano Jorge González Camarena en 1965, el que presenta solamente leves grietas. (Figuras 6 y 7)

Nuevamente se manifiestan las buenas relaciones y gestos de solidaridad entre ambos países. Prontamente comienzan las gestiones para la restauración de estos tres murales. Esta vez se elabora un proyecto en conjunto entre profesionales del CNCR, de CENCROPAM, y especialistas de la Universidad Autónoma de México UNAM, el que es gestionado por el CMN y financiado por el Fondo Conjunto de Cooperación Chile-México. Igualmente se formó un equipo de restauradores chilenos y mexicanos, liderado por un restaurador de

CENCROPAM, y que cuentan con la asistencia y asesoría del CNCR. Las intervenciones se encuentran actualmente en pleno desarrollo y se espera concluyan durante el año 2013.

## Conclusiones

Los murales de Diego Alfaro Siqueiros y de Xavier Guerrero son importantes, tanto para Chile como para México. Han contribuido a fortalecer los lazos de amistad como un trabajo mancomunado entre profesionales y gobiernos de ambos países, que se han comprometido más de una vez a reunir los fondos económicos necesarios para financiar conservar, restaurar, y realizar acciones que propicien la valoración, el cuidado y la difusión de estas obras.

Estos murales, realizados por dos artistas relevantes en el desarrollo muralista tanto de Chile como

de México, reviven nuestros orígenes dando cuenta de una historia compartida. Asimismo, son un símbolo de amistad entre los dos países y de reconocimiento entre dos culturas nacidas de raíces similares. Siqueiros y Guerrero, con sus murales establecieron lazos permanentes que acercarán para siempre a ambas naciones.

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## Currículo

Carolina Ossa Izquierdo, Director, Centro Nacional de Conservación y Restauración estudió restauración en la Universidad Católica de Chile. Es Conservadora jefe del laboratorio de Pintura del Centro Nacional de Conservación y Restauración. Está a cargo de la formulación y coordinación de proyectos, evaluación y diagnóstico de obras y colecciones incluyendo la ejecución de tratamientos de conservación y restauración.

# Made Public: Siqueiros's *Portrait of Mexico Today*

Diana C. du Pont

**Abstract:** *This paper tells the dramatic story of how David Alfaro Siqueiros's third and final Los Angeles mural, Portrait of Mexico Today (1932), was skillfully moved from a private Pacific Palisades home to the Santa Barbara Museum of Art. A discussion of the curatorial objectives and conservation techniques, including the revolutionary and creative use of cyclododecane, reveals that this mammoth undertaking, achieved over a decade ago, was no easy task. The paper will also provide a firsthand account of how private and public interests can either coalesce or collide when works of art in residential settings, especially those deemed examples of cultural heritage, are at stake.*

**Resumen:** *Esta ponencia narra la increíble historia de cómo el tercer y último mural para la ciudad de Los Ángeles de David Alfaro Siqueiros, Retrato Actual de México (1932), fue hábilmente trasladado de una residencia privada en el distrito de Pacific Palisades al Museo de Arte de Santa Bárbara. Un examen de los objetivos curatoriales y las técnicas de conservación, incluyendo la utilización revolucionaria y creativa del ciclododecano, revela que esta tarea monumental, llevada a cabo hace más de una década, no fue nada fácil. Los asistentes podrán disfrutar también de un recuento de primera mano de cómo los intereses públicos y privados pueden bien coincidir o entrar en conflicto cuando se trata de una obra de arte en un entorno residencial, en particular aquellas obras consideradas patrimonio cultural.*

In 1932 Hollywood film director Dudley Murphy fulfilled his enduring dream to live by the sea. That year he purchased a Monterey-style home set in a lemon grove and

perched on the mountains above the Pacific Ocean. A mere stone's throw from where the Getty Center sits today, this home was built by architect John Byers in the mid- to late 1920s in the then-young and growing coastal community of the Pacific Palisades. At the time, there were no other houses within a quarter mile of this new residence on Amalfi Drive, just rows of beautiful and bountiful fruit trees that basked in the California sunshine.

The mural *Portrait of Mexico Today*<sup>1</sup> was created in a garden portico of this Hispanic-Anglo-styled house by the sea (figs. 1a and 1b), painted there in 1932 by the renowned modern Mexican artist David Alfaro Siqueiros (fig. 2).<sup>2</sup> Siqueiros offered to paint the mural for Murphy as a gesture of gratitude for the kind assistance the filmmaker had extended him during his political exile in Los Angeles. Murphy had helped generate sales of the artist's easel paintings to some of the biggest moviemakers and stars of the day and had provided him accommodations at his Amalfi Drive residence.

Murphy proudly lived with his Siqueiros mural until 1946. When he sold the Pacific Palisades home that year to Willard and Minna Coe, he urged them to neither neglect nor destroy it, fearing that the artist's controversial politics and the work's provocative subject matter might jeopardize its existence. This concern was justified, given the intentions of the new stewards of the property. In his unpublished autobiography, Murphy states that "for a while, he [Coe] and his wife threatened to paint out the mural. I had told them how foolish it would be . . . to destroy a work of art."<sup>3</sup>

Since its earliest days, then, one could argue that Siqueiros's *Portrait of Mexico Today* existed in a certain state of peril. Enconced in a private home and subject



**Figure 1a** *Portrait of Mexico Today* in 1995 in the garden portico of the Pacific Palisades residence. Photo: © J. Paul Getty Trust; Mural: © 2012, Artists Rights Society (ARS), New York/Sociedad Mexicana de Autores de las Artes Plásticas (SOMAAP), Mexico City



**Figure 1b** Brick entry path and front door of the Pacific Palisades residence, situated across an enclosed courtyard and facing a garden portico in which *Portrait of Mexico Today* was painted in 1932. Photo: Siqueiros Mural Project Team, Courtesy Santa Barbara Museum of Art



**Figure 2** David Alfaro Siqueiros before his mural *Portrait of Mexico Today*, Pacific Palisades, 1932. Photo: Robert Berdecio, David Alfaro Siqueiros Archive, Special Collections, Getty Research Institute; mural: © 2012, Artists Rights Society (ARS), New York/Sociedad Mexicana de Autores de las Artes Plásticas (SOMAAP), Mexico City

to all the rights and privileges of individual landowners—with their various political predilections and personal fancies—the mural could be ignored, mistreated, or even demolished. Siqueiros himself clearly recognized the dangers and was eager to protect his work. In 1959, as a form of insurance, he reached out to the owners of the sole Los Angeles mural of his that remained unharmed and gave them a copy of his recent monograph, inscribed “For Mr. and Mrs. Willard Coe, dear guardians of my mural in your California home. With friendship, D. A. Siqueiros” (Crespo de la Serna 1959).

The potential vagaries that compelled Siqueiros to encourage the Coes in their commitment to his mural were the very uncertainties that became a driving force behind the

Siqueiros Mural Project of the Santa Barbara Museum of Art (SBMA).

Fast-forward to late 1997, when, as curator of modern and contemporary art at the SBMA, I am contacted by an intermediary of the family then living in the Amalfi Drive residence. The representative inquires if there might be an interest in the mural as a donation, given the Museum's commitment to Latin American art, including modern Mexican art and the work of Siqueiros—whose canvases and works on paper were already in the permanent collection and whose easel paintings of the 1930s had been displayed at the SBMA in a major monographic exhibition earlier that year.<sup>4</sup>

Intrigued by this gift prospect, I visit the mural and meet the prospective donors in early 1998. Immediately realizing that this would be an extraordinary opportunity for the Museum, the town of Santa Barbara, and beyond, I consult with director Robert Frankel. Before any further action is taken, we seek to determine if all reasonable efforts have been made to retain the mural in Los Angeles and place it in a local institution. Once satisfied that good-faith attempts in this vein had proved unsuccessful, we begin working with the mural's owners on the details of a donation. At the same time, we establish the following actions list: (1) prepare an art-historical analysis of the work, (2) make a current condition assessment, and (3) conduct a viability study, including budget parameters, for deinstalling and reinstalling the mural in Santa Barbara.

Shifra Goldman, a world authority on Siqueiros, writes a scholarly assessment of the mural. In her review, she states, "Housing this mural is equivalent to encountering and restoring to its proper phase and place an important early Cézanne, or an early Picasso of a large size . . . Your proposal to preserve this work and make it available to the public for the first time in sixty-plus years is not only logical but visionary."

The highly respected conservation firm of Wharton and Griswold Associates prepares a current condition assessment. Team leaders for this review state in their final report: "The overall condition of the mural seems to be fairly stable, with no significant losses or obvious structural damage . . . the mural walls appear to be sound . . . [and] the painted surface is generally in good condition." Even though the conservators conclude that the mural is sufficiently stable to be moved, they

make a strong argument for site specificity. They recommend that the artwork not be moved at all; rather, it should remain in its original location.

While details of the mural gift are discussed further, the museum seeks a second opinion. Expert wall paintings conservator Perry Huston of Huston and Associates, Fort Worth, is engaged in fall 1999. Huston and his team of senior art conservators—including Andrea Rothe and Scott Haskins—also conclude that the mural is stable enough to be moved if all proper precautions are taken. In his initial report, submitted in February 2000, Huston recommends three possible methods for moving the mural: intact, in two sections, or in three sections. He also advises the museum on the complex issue of site specificity. "The field of conservation is in the business of preserving artistic and historic works. Some conservators feel that responsibility extends to every aspect of the object, including its original location. Other conservators feel that this point of view may leave the treatment of these objects at the mercy of unqualified practitioners and [understand] that if the decision [beyond their influence or control] has been made to move an object, they should provide as professional a service as possible."

The museum deliberates at length on this critical issue of site specificity. Due diligence is conducted on many fronts, including an investigation into acquiring the entire Pacific Palisades compound and operating it as a satellite facility of the museum. Faced with the impossibility of this and other extreme options, the museum understands and appreciates the argument for leaving the mural as is, but it remains committed to preserving the work and making it available to the public, even if that mission requires its relocation. The overriding caveat was that the mural would not be moved if the procedures were deemed unsafe; there could be no damage to it in the process.

Upon the advice of experts that the mural could be securely transported, the Museum makes the final decision to proceed with the project. The mural is officially offered and accepted as a donation, and as part of the arrangement, the Museum agrees to cover all expenses for work related to conserving and moving the mural and for returning the Pacific Palisades site to its original appearance after having moved the artwork.

Designated chief conservator for the project, Huston works with the museum to assemble the addi-

tional multidisciplinary expertise required.<sup>5</sup> At the same time, he continues his assessment of how best to move the mural. By late summer, he determines that transporting it in even a few sections is unsafe for the artwork, and so he proposes moving the entire structure—measuring thirty-four feet long, ten feet high, and ten feet deep—intact, but *without* its foundation. However, after discovering that part of the mural is painted over portions of the foundation and being advised that moving the mural with its foundation will offer more structural integrity for the artwork while in transit, Huston realizes that there is only one responsible and safe way to move the mural—that is, intact and *with* its foundation.

From spring through summer 2000, the first conservation treatment phase begins in Pacific Palisades. Steps include cleaning the mural, consolidating and securing paint, and applying an appropriate facing. For safety reasons, facing the mural is considered mandatory, and several approaches are analyzed. Water- or solvent-based options are ruled out because Huston and his team discover that the mural's solubility varies across its surface. The conservators then test a previously untried substance, cyclododecane, a waxlike material that evaporates when exposed to air, thus requiring no solvents. After additional experiments confirm that cyclododecane is the best facing option, it is hand-applied in three layers, with a gauze membrane incorporated between the second and third coatings for

added strength (figs. 3 and 4). The conservators then cover the face of the mural with protective plastic and padded plywood panels to prevent the cyclododecane from evaporating until the appropriate time.

To further ready the mural for transport, a steel-beam platform is constructed beneath the garden portico, to support the walls and sixteen inches of the foundation and to serve as a base for lifting the approximately twenty-five-ton structure. The building's roof and cornices are removed to accommodate the underpasses along the freeway between Los Angeles and Santa Barbara, and a fourth wall is built to close up the open side of the building and to offer support for the existing wooden posts. Last, the stucco walls are given added strength by the application of a glass-fabric wrap.

At sunrise on a beautiful Southern California day in fall 2001, a professional house moving team arrives at the Amalfi Drive home with a massive crane and a lowboy tractor-trailer. Crane operators gently pick up the mural-building and carefully place it on the truck, after which point it is sealed in plastic to further protect it from the elements (fig. 5). Traveling slowly by escort (fig. 6), the mural-building arrives in Santa Barbara the same day and is discreetly stored in a secure location for the night.

Early the next morning the tractor-trailer transports the structure up State Street, Santa Barbara's main thoroughfare, to the front of the museum. It is then

**Figure 3** Expert consultant Gary McGowen (left) and Perry Huston (right), chief conservator for the Siqueiros Mural Project, on site in Pacific Palisades preparing the cyclododecane to be applied to the mural as a facing. Photo: Siqueiros Mural Project Team, Courtesy Santa Barbara Museum of Art; mural: © 2012, Artists Rights Society (ARS), New York/Sociedad Mexicana de Autores de las Artes Plásticas (SOMAAP), Mexico City



**Figure 4** Gary McGowen applying a layer of gauze between the second and third layers of the cyclododecane facing, for added strength and protection of the mural in its move to Santa Barbara. Photo: Siqueiros Mural Project Team, Courtesy Santa Barbara Museum of Art; mural: © 2012, Artists Rights Society (ARS), New York/Sociedad Mexicana de Autores de las Artes Plásticas (SOMAAP), Mexico City



**Figure 5** Ted Hollinger of Master House Movers and his crane operators, on site in Pacific Palisades, lifting the twenty-five-ton mural-building onto a lowboy tractor-trailer headed for Santa Barbara. Photo: Siqueiros Mural Project Team, Courtesy Santa Barbara Museum of Art



**Figure 6** *Portrait of Mexico Today* traveling on the Sunset Boulevard overpass of the 405 Freeway in Los Angeles, en route to Santa Barbara. Photo: Siqueiros Mural Project Team, Courtesy Santa Barbara Museum of Art

lifted onto its new foundation, and the protective panels and plastic are immediately removed so that conservators can examine the artwork in detail (fig. 7). It is a jubilant moment when Huston exclaims, “We’ve done it! We have moved the mural to Santa Barbara without any visible damage to the artwork or its superstructure.”

The old and new foundations are then melded as a sand-concrete mix is filled in around the platform. Fresh

stucco is applied directly over the outermost layer of glass fabric, creating a sturdier exterior, and a new roof and cornices are installed to mimic the originals. Using the authentic bricks, the floor in front of the mural is reconfigured just as it had been in the Pacific Palisades home. At this point, the entire structure is secured and left for several months so that the cyclododecane can sublimate.



**Figure 7** Crane operators and general contracting team members, placing the mural on its new foundation in Santa Barbara. John Sullivan is seen standing at the far back left corner; Ted Hollinger is immediately below him, facing forward; and Robert Frankel, seen from the rear, stands in the center. Photo: Siqueiros Mural Project Team, Courtesy Santa Barbara Museum of Art

Once the evaporation process is complete, conservators again hand-palpaté the walls and compare the findings against earlier palpations conducted by the team in Pacific Palisades prior to the move (fig. 8). It is determined that the existing delaminations had not increased in size or number as a result of transport. The move is considered a complete success. Previously identified separation pockets are wetted with alcohol and injected with Rhoplex AC33, thickened with Acrysol, by way of large hypodermic needles through small existing cracks in the wall or through small holes drilled into the painting's surface. The minuscule drill holes are filled and textured with a commercial and soluble filling material. The mural is then inpainted with watercolors and Golden Artist Colors, containing mineral-spirit-based acrylic (MSA) resin, which is soluble in xylene (fig. 9). Since applying an overall finish to the mural at this

time is ruled out, no additional treatment is conducted. Final project steps include installing a state-of-the-art security system with video surveillance, rod-iron gates screened with bulletproof Plexiglas, exhibition lighting, a guardrail, landscaping, and signage.

On October 20, 2002, five years after the first inking of the Siqueiros Mural Project, *Portrait of Mexico Today* is unveiled to the public in a daylong celebration, during which the museum premieres a documentary film on the project called *For All to See: The Santa Barbara Siqueiros Mural* (fig. 10).

In retrospect, one might still argue that the best outcome would have been to have left *Portrait of Mexico Today* in its original location, to be appreciated in its authentic context. In the United States, though, the right to own and manage individual property is one of the nation's highest and most sacred democratic ideals.



**Figure 8** Perry Huston (left) and Scott Haskins (right), removing the gauze layer of the cyclododecane facing applied to *Portrait of Mexico Today*. Photo: Siqueiros Mural Project Team, Courtesy Santa Barbara Museum of Art; mural: © 2012, Artists Rights Society (ARS), New York/Sociedad Mexicana de Autores de las Artes Plásticas (SOMAAP), Mexico City



**Figure 9** Scott Haskins (left) and Perry Huston (right) inpainting *Portrait of Mexico Today*. Photo: Siqueiros Mural Project Team, Courtesy Santa Barbara Museum of Art; mural: © 2012, Artists Rights Society (ARS), New York/Sociedad Mexicana de Autores de las Artes Plásticas (SOMAAP), Mexico City



**Figure 10** *Portrait of Mexico Today*, in Santa Barbara, where it is open to the public. Photo: Brian Forrest. Image courtesy Santa Barbara Museum of Art; mural: © 2012, Artists Rights Society (ARS), New York/Sociedad Mexicana de Autores de las Artes Plásticas (SOMAAP), Mexico City

Not surprisingly, then, tensions can arise between property rights and public interests on many fronts, and this is no less the case when works of art or pieces of cultural heritage are at stake in a residential setting.

Since leaving *Portrait of Mexico Today* subject to future vagaries was unacceptable to both the mural's owners and to the museum, what was the next best thing? It was moving the work *and* the building in which it was painted to an institution devoted to maintaining and exhibiting objects of permanent value. For the owners, this outcome guaranteed that the work would receive the ongoing professional care it deserved; for the museum, it allowed for preserving an important piece of art and cultural heritage and making it available to the public.

Case studies both within and without Siqueiros's mural oeuvre validate this conclusion. For years Siqueiros's *Ejercicio Plástico*, painted in 1933 in a private Buenos Aires home, was subject to an uncertain fate. Another example pertains to murals by, as of yet, an unidentified artist in a historic house on the same street in Pacific Palisades where *Portrait of Mexico Today* was created. A classic 1920s Mediterranean villa, this home at 1265 Amalfi Drive has been described as "one of the great mansions to be built in the Palisades Riviera" with "murals throughout the house and gardens" (Bruns 2007). That the neighboring house and all its inherent artistic content was torn down in 2010—well after *Portrait of Mexico Today* was moved—validates the fear the museum had for the Siqueiros mural, which was that it could be painted over, dismantled and sold, left to decay, or outright destroyed by new owners. Each of these scenarios points to the fact that artworks created in residential settings can be and are subject to benign neglect and deliberate destruction.

Concerning *Portrait of Mexico Today*, all the parties involved came together to ensure that the mural would not be at risk of such possible abuses. If this goal meant taking the mural from its original site, and thus separating it from the main house but maintaining as much of its immediate context as feasible, then this compromise was deemed worth it. Applying innovative strategies and revising purist notions of conservation and curatorial practice to respond to the realities of home ownership are what saved *Portrait of Mexico Today* from future uncertainty. It was understood that "sometimes, the baby has to be halved."<sup>6</sup>

During the 1930s, the seclusion of Dudley Murphy's home protected *Portrait of Mexico Today* from the kind of political censorship that befell the more open and accessible *América Tropical*, but decades later, it was the institutionalized museum setting that provided a secure destiny for the mural. The Santa Barbara Museum of Art made *Portrait of Mexico Today* public, so that it could be properly maintained and accessible for all to see.

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## Notes

1. The mural was originally titled *Delivery of the Mexican Bourgeoisie Born of the Revolution into the Hands of Imperialism*, and it has also been referred to as *Portrait of Present-Day Mexico*, the latter apparently the result of a different English translation.
2. Siqueiros was assisted by artists Luis Arenal, Reuben Kadish, and Fletcher Martin.
3. Dudley Murphy, excerpt from Murphy's unpublished autobiography, quoted in archival correspondence belonging to the donors of the Siqueiros mural.
4. *Retrato de una década: David Alfaro Siqueiros, 1930–1940*, Santa Barbara Museum of Art, March 8–May 11, 1997.
5. Major members of the Santa Barbara Museum of Art Siqueiros Mural Project Team included, but are not limited to, the following professionals:

At the Santa Barbara Museum of Art: Robert H. Frankel, director; Diana C. du Pont, curator; Erik Pihl, director of external affairs; John Coplin, facilities manager; Cherie Summers, chief registrar; Jay Ewart, Nancy Rogers, Ignacio Salcedo, and Jerry Travis, art preparators/technicians; Alisa Hall, curatorial assistant; and Scott McClaine, photographer.

External consultants to the SBMA: Henry Lenny, architect; Nancy Goslee Power, landscape designer; Greg Van Sande, structural engineer; John Sullivan, general contractor; Ted Hollinger, master house mover; Shifra M. Goldman, art historian; J. Robert Andrews, attorney; Mary Rose, publicist; and Casey Case, filmmaker.

Project Conservation Team: Perry Huston, chief conservator; Scott Haskins, senior conservator; Andrea Rothe, senior conservator; Larry Keck, senior conservator; Debra Selden, senior conservator; Maura Duffy, senior conservator; Dawn Steele, senior conservator; and Gary McGowen, specialist in cyclododecane. Consultants to the Conservation Team included: Anne Rosenthal, Mervin Richards, and Richard Wolbers.

6. Randy Young, author, photographer, and noted historic preservationist in Southern California, in conversation with the author, August 2012.

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## References

- Bruns, Bill. 2007. The colorful past of an Amalfi estate. *Palisadian-Post*, Oct. 10.
- Crespo de la Serna, Jorge J. 1959. *David A. Siqueiros*. Mexico City: Editorial Espartaco.

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## Biographical Note

Diana du Pont is a writer, curator, and lecturer. As the curator of modern and contemporary art at the Santa Barbara Museum of Art (SBMA) from 1992 to 2007, she brought international recognition to the institution for its exhibitions, programs, collections, and publications in the field of Latin American art. As project director for Siqueiros's *Portrait of Mexico Today* initiative at the SBMA, she was responsible for the effort to relocate this historic mural from its original site at a private home in Los Angeles to the Museum. Her most recent book is *You Can't Eat Dirt: America's First All-Women Tribal Council and How We Changed Palm Springs* (Fan Palm Research Project, 2012), and she is currently at work on a new book project entitled "Another Kind of Motherhood: Dogs, Horses, and the Maternal Instinct" (Acorn Technica Publishing).



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