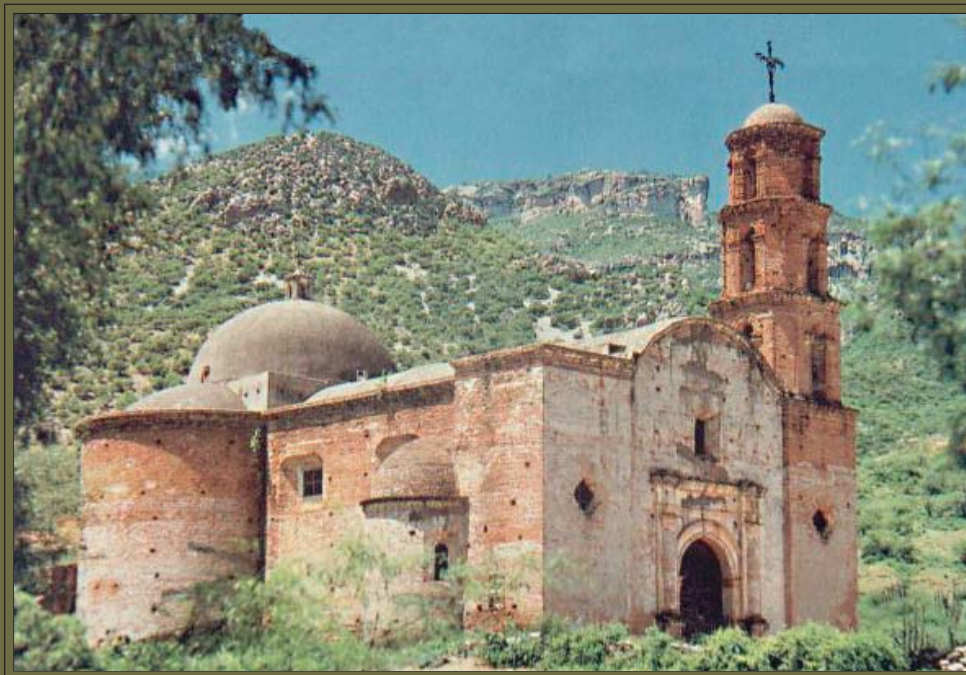


# *Imaginería de Las Californias*



Discovering our past  
through Mission sculpture



Smithsonian Center  
for Materials Research and Education

# Imaginería de Las Californias

Our project investigates the origin, production, and distribution of *imaginería*. These are the painted wooden sculptural representations of the Catholic religion made during three centuries of the Spanish colonial period in New Spain (early 16<sup>th</sup> to early 19<sup>th</sup> centuries). We are focusing on the sculptures that are in the California missions. However, to fully define and to study *imaginería*, it is necessary to expand our work area, disregard present borders, and consider as one the whole area which today is the southwest United States and northern states of Mexico. Until 1540, *Las Californias* was the name given to this unexplored area; after this date explorers began to travel and name the new lands of the Spanish northern frontier. This is why we have chosen the name *Imaginería de Las Californias*.



Historical boundaries of Las Californias. Inset: present day state of California and state of Chihuahua.

Our findings will not only will broaden and deepen our knowledge and understanding of this sculptural art, they will contribute to fuller understanding of the encounters of Spanish and native people on the northwestern frontiers of New Spain. We will also further understanding of communication and transportation routes, and the economy of the Spanish colonial period.

This project is built upon the Smithsonian Center for Materials Research and Education's sustained strength in the technical studies of cultural materials, and our collaboration with historic document specialists. The investigation draws upon both the humanities and physical sciences through combined historical documentary research, art historical characterization and analysis of techniques, materials and manufacturing relationships. Our work will define the patterned variation within the *imaginería*.

But most importantly, our work will broaden and deepen our knowledge and understanding of encounters of the Spanish and native people on the northwestern frontiers of New Spain. In the end, we will have a fuller understanding of the living traditions of an area that is now important to the people of both the United States and Mexico.

Lambertus van Zelst  
Director, Smithsonian Center for Materials Research and Education

Historical  
Timeline for  
Missions in  
New Spain

event: Political Mission Art Historical California Missions	Marriage of Isabela de Castilla & Fernando de Aragon unifies northern Spain	Cristobal Colón arrives in the West Indies	Pope Alexander gives Spain most of New World to spread Catholic faith	Juan Ponce de León is first to land at Florida	Hernan Cortez arrives in New Spain	Moctezuma dies, Cuicuilhuac dies of measles	Tenochtitlan falls, Cuahutemoc dies, Aztec Empire ends	Painter Rodriguez Cifuentes arrives in Mexico	Construction of first church in continental America: San José de Tlaltenango	First missionaries (Franciscans) arrive in Mexico	Construction of the San Francisco convent	Fray Pedro de Gante founds Arte y Oficio, indian school for craft
	1469	1492	1493	1513	1519	1520	1521	1523	1523	1523	1526	1527
Art Style	Mannerism						Plateresco					

Spanish ruler Isabel a (d.1504) Fernando 1517

Carlos I

# Project Goals

Using visual characterization, technical analyses, and focused historical research, our investigation will address the following questions.

What is the origin of the California *imagería*?

If these were created in California, were the sculptures created by missionaries or trained native artisans?

Were they made more as an individual effort, or as part of a workshop environment?

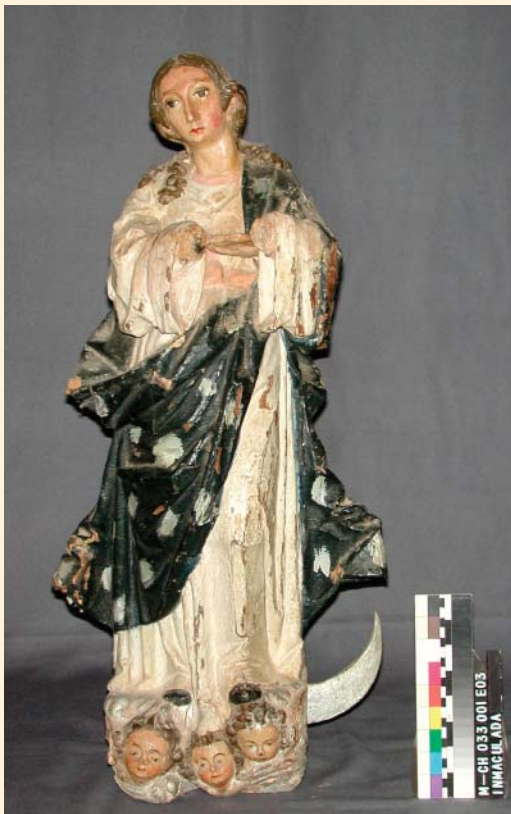
If they are from Mexico, can we identify the schools, *gremio* (guild) workshop, or artist for those California mission sculptures?

If they were made in the frontier missions, how were the workshops established and organized?

What were the patronage and commercial networks which transported these objects to the Californias?



*San Luis Rey de Francia, Mission San Luis Rey, Oceanside, California. Late 18th century. This life-sized sculpture is of the patron saint of the mission.*



Our results will contribute to public awareness of the colonial period history of California as part of *Las Californias* and Mexico. We intend to assemble for web-based distribution an inventory of the sculptures in the California missions that is linked to other examined sculptures and project's technical and descriptive data base. We will also provide new curricula materials for primary and secondary school courses on mission-related aspects of California and *Las Californias* history.

Using a combination of technical analysis, historiography, and stylistic analysis, is it possible to put an end to the anonymous period of the colonial sculptures. Clearly, in some cases, we will never know the names of the artists or the local history of a specific sculptural creation. However, through our integrated program of investigation, we will provide new understanding of the historical, social, political, and economic context of *imagería* production, distribution, and use.

*Inmaculada Concepción, Mission San Jeronimo (Huetotitan, Chihuahua), late 17th or early 18th century. M-CH 033.001.E03*

Cabeza de Vaca land expedition 1528–1536 covers Cuba, Florida, Texas, Northwestern Mexico	1528	Bishop Zumarraga letter describes art work of Indians, naming artisans	1531	Pope and the King visit New Spain; many convents & churches are built	1531	New Spain named a Viceroyalty, Antonio de Mendoza named Viceroy	1535	First print made in New Spain by Juan Pablos	1539	Colorado River reached by Francisco Vásquez de Coronado	1540	Juan Rodríguez Cabrillo expedition navigates the California coast	1542	Realy Pontificia Universidad de Mexico founded	1551	Juan Tolosa discovers minerals in Sombrerete and Chalihuities	1555	Zacatecas founded, Aguascalientes founded	1575	Discovery of mineral deposits in Santa Barbara, Indé, Cuencamé	1583	Juan de Oñate expedition claims New Mexico as frontier for New Spain	1598	Vizcaino expedition maps California coastline, names Monterey & others	1602	First Mission in Chihuahua: San Pablo de Tepehuanes	1607
---	------	--	------	---	------	---	------	--	------	---	------	---	------	--	------	---	------	---	------	--	------	--	------	--	------	---	------

Baroco



# Project Research Summary

We are integrating extensive visual characterization, documentary history, technical analysis and comparison of a large number of California sculptures to reveal new aspects of our history and the history of New Spain, especially the area of *Las Californias*. Our work will contribute to the knowledge of colonial *imagería*, by determining the origin of the California Mission sculptures. This period of the 16<sup>th</sup> through 18<sup>th</sup> centuries includes artistic styles ranging from the late renaissance and mannerist through baroque and neoclassicism. These influences—and indigenous influences—from the simplest to the most complex renderings, can all be found in *imagería*.

Much work has been done by art historians on this topic. Indeed, many scholars have devoted their careers to these objects. Greater value has been assigned to the “good hand” and to the more complex compositions, rarely are those of less skilled production studied. But even fewer studies have been undertaken that attempt to characterize the artist’s methods, materials and construction. In this case, the sculptures represent the transmission of traditional knowledge from a trained artist to a student from a markedly different cultural background. Once the craft was well learned, however, trained indians made sculptures technically as well-executed as those of the Spanish artisans.

They were so well done that it was stipulated in the colonial *Ordenanzas* (guild laws) in Mexico City and the large towns that the Spanish were prohibited from reselling indian made sculptures.

We will produce new information about the Spanish colonization, about the transportation of goods and communication by land and sea during that period, and about the missionary systems and the formation of what are now great cities. In addition, more will be learned about economic aspects of the conquest and inter-cultural exchange, and possible movement of native people accompanying the missionaries. The New Spain conquest was furthered by the expansion of the Catholic religion in the new territory, and *imagería* were the symbol of the new faith. Some of them were made by excellent guild masters, others by apprentices, some simply for financial gain, and some by native people wishing to have a devotional image. The sculptures provided a means to help convey a religion and lifestyle and were originally constructed for specific religious purposes. But in colonial New Spain, religion permeated virtually all aspects of life. Thus the systematic study of *imagería* promises to be of great importance in shedding light on the fundamental aspects of the colonial encounter in what would become the southwest United States and northwest Mexico.



*Mission San Antonio (Guazáachi, Balleza). A beautiful example of the early missions still existing in Mexico.*

Oñate is tried in Mexico for abuses of the indians	Separation of Church and State in New Spain	Father Kino arrives in Sonora Pimeria Alta	Kino founds Mission Dolores in Pimeria Alta	Presidio Santa Fe founded in New Mexico	First expedition to Baja California by Francisco Itamarra	Viceroy licenses Salvatierra & Kino to establish California missions	Mission Loreto founded in Baja California	Albuquerque founded	Churrigueresque style brought to Mexico by Jerónimo de Balbas	Tepozotlan Convent altar-pieces are made	Jesuits expelled from Spain and the Colonies	Mission San Juan Bautista founded in Baja	San Diego founded by Junipero Serra
1614	1630	1686	1687	1693	1694	1697	1697	1706	1725	1755	1767	1767	1769
					Baroco Rico			Exuberente			Churrigeresco		
1621 Felipe IV	1665	Carlos II			1700	Felipe V	1746	Fernando VI	1759				



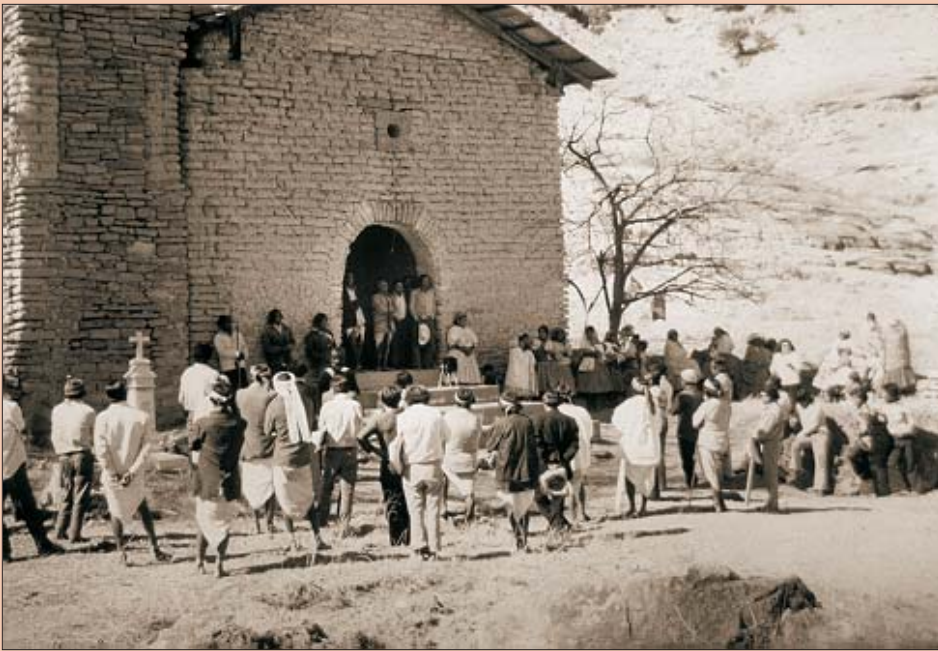
*Angel con Nubes (Angel over clouds), mid-18th century.  
Mission San Luis Rey (Oceanside, California). C-SLR.E05*

The materials and methods used to create the sculptures are the elements that form a physical record. And in a manner analogous to that of a written document, we can read, understand, and translate this physical record. Our microscopic examination, documentation, and subsequent comparison and differentiation of the sculptures will result in the description of stylistic differences, schools of manufacture, materials and techniques, and more. While the number of *imagería* is finite, the interrelationships are many, complex and not yet fully understood. *Imagería* were created over a large and varied geographic area, over the course of more than two centuries, by people with a variety of skills and purposes. The relationships between materials and production histories are based upon cultural influences, temporal groupings, stylistic elements, method and materials of fabrication, and so on. Only technological analysis can establish the materials and methods of fabrication, and when integrated with the other research components, indicate relationships and subsets within the broad group of *imagería*.

From *imagería* selected through the visual characterization, small samples of paint, textiles, and wood will be removed for microscopic and chemical analysis at SCMRE. Our microscopic

examination of paint cross-sections will be used to study the specific technology, production steps, and paint sequences used in the creation of the sculptures. In addition, our chemical analysis will identify the different pigments, binders, varnishes and dyes used, with attention given to the possible “recipes” of paint. Textile and wood analysis specialists will identify the major components of the statues and seek to relate them to available resources in the study area.

*Many missions are in use for centuries. Recent Good Friday services at Basihuare (Guachochi, Chihuahua).*



Mission  
Carlos  
Borromeo  
del  
Carmelo  
1770

Mission  
San  
Gabriel  
1771

Mission  
San  
Antonio  
1771

Mission  
San Pablo  
founded in  
Baja  
1771

Mission  
San Luis  
Obispo  
1772

Mission  
San  
Francisco  
1776

USA  
declares  
independ-  
ence  
from  
England  
1776

Mission  
San Juan  
Capistrano  
1776

Mission  
Santa  
Clara  
1777

Mission  
San  
Buena-  
ventura  
1782

First art  
schools:  
Jerónimo  
Antonio  
Gill & Royal  
Academy  
of San  
Carlos  
1783

Mission  
Santa  
Barbara  
1786

Mission  
Purísima  
Concepcion  
1787

Miguel  
Tolsá  
arrives in  
Mexico:  
Neoclassi-  
cism  
begins  
1791

*Neoclassicism*



# Technical Studies

Through visual characterization, connoisseurship, and individual histories of the sculptures that are available, the *imágenes* can be related in many ways. However, it is the microscopy and chemical analysis of the decorated layers that is critical for characterizing a sculpture. These methods provide more objective means of accessing its technological relationship to the larger group of statues from *Las Californias*. New relationships among the sculptures will undoubtedly be revealed, leading to the recognition of individual artists or schools.

Understanding the complex relationships among sculptures will rely heavily upon the microscopy of decorative and preparatory layers. Paints and varnishes (especially pre- and early industrial types) bear distinctive traces of their method of manufacture and application. Analytical chemistry can—with considerable certainty—identify the individual paint components. However, the methods of fabrication will become known only through microscopy of the paint layers. Analysis of type and number of coats of preparatory layers, decorative layers, metal leaf and powder, and varnish will complete a profile of

technique. Binders and pigments will be identified by using a variety of microscopic and instrumental methods such as gas chromatography and x-ray diffraction.

Microanalysis requires that samples be removed from the statues on site. For full cross-sectional characterization, a sample will be taken from a non-eroded area approximately 2mm by 2mm, through all the decorative layers, and into the wood substrate. Our site work includes full documentation of the condition. We have systematically photographed the sculptures, and many details of design and decoration. We are using these images as part of a visual database which can be used to help establish relationships.

We expect that the information we gather will be used by school children and other students, as well as scholars. As work proceeds, the images and data collected are added to a searchable database. The data and the images (including microscopy images and chemical analysis) can be shared with other researchers, and is planned as an internet-ready tool. In this way, we can share our information, and look forward to contributions from colleagues outside SCMRE.

*Analysis of architectural elements will provide a valuable reference. These are dated and have not moved from their original site. At left, Santa Maria de Cuevas (Belizario Dominguez, Chihuahua), founded 1672. Middle, ceiling, completed and signed in 1700. Right, one panel removed for sampling.*



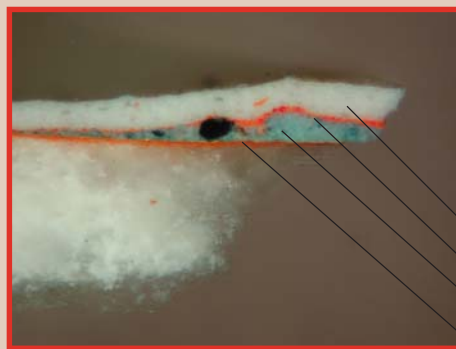
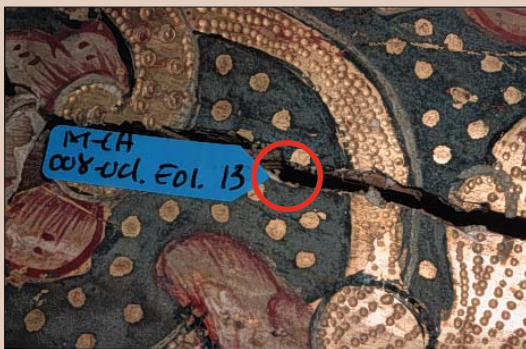
Mission La Soledad 1791	Mission Santa Cruz 1791	Mission San Juan Bautista 1797	Mission San Miguel Arcángel 1797	Mission San José 1797	Mission San Fernando Rey de España 1797	Mission Santa Catarina founded in Baja 1797	Mission San Luis Rey de Francia 1798	Sculpture of Carlos III by Miguel Tolsá 1803	Thomas Jefferson completes Louisiana Purchase from France 1803	Mission Santa Inés 1804	Napoleon invades Spain 1808	Don Miguel Hidalgo abolishes slavery in Mexico 1810	Don Miguel Hidalgo Costilla gives the Grito de Independencia 1810
----------------------------	----------------------------	-----------------------------------	-------------------------------------	--------------------------	--	--	---	---	---	----------------------------	--------------------------------	--	--

Neoclassicism

*Nuestra Señora de Loreto, Metropolitan Cathedral of Chihuahua (originally from Jesuit Colegio) early 18th century. The photos illustrate sample locations where wood, textile and paint have been removed for study. Paint sample 13 is from the back of the sculpture, and is shown in the details below.*

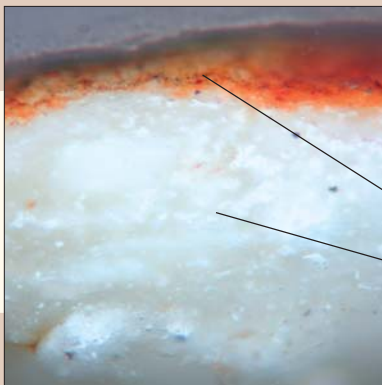


*Detail of sample 13 location; each sample location is photographed and cataloged. (Circle is 10 mm in diameter, samples typically 2mm.)*



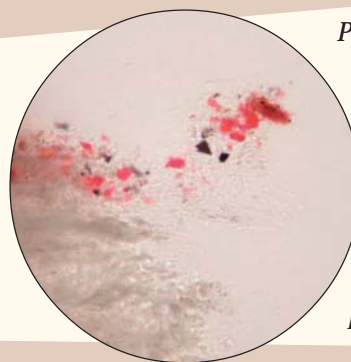
*Cross section of sample 13, magnified 200x. Images such as this will help determine materials and sequences of fabrication. The techniques here is estofado, where the entire surface is covered with gold leaf. Then it was overpainted, and some areas removed to reveal the gold.*

- white glaze
- red glaze
- blue glaze
- gold leaf



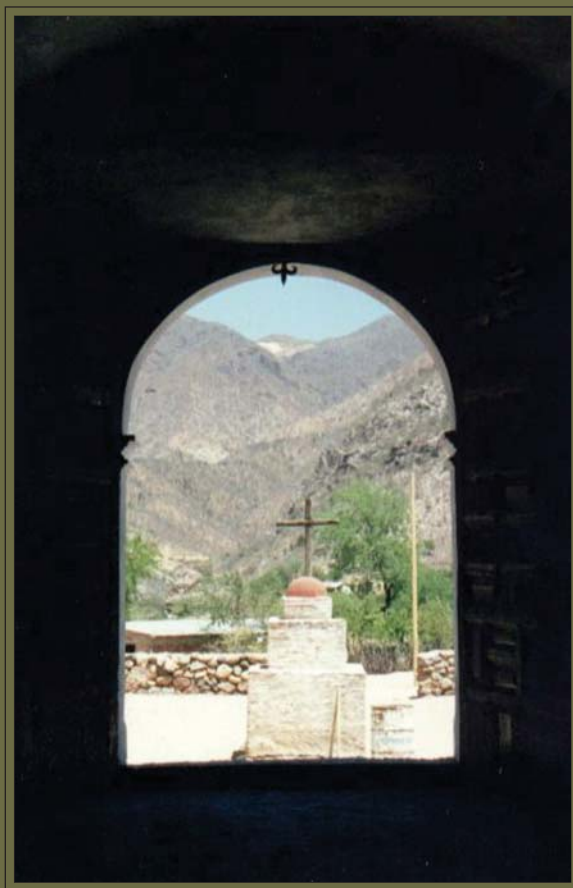
*Paint layer cross section, magnified 200x. Layers and techniques become visible.*

- decorative paint layers
- preparation layers



*Pigment and preparatory layer particles, magnified 400x. Chemical analysis will define materials used, such as red dye, and red and black pigment of decorative layer. Inert fillers in the preparatory layers will likely be distinctive.*

Mission San Rafael Arcángel	Iturbide declares Mexican independence, gives "Plan de Iguala" to Viceroy	Iturbide proclaimed Emperor of Mexico	Spain cedes Florida to USA, which relinquishes all claims on Texas	Mission Solano founded - the last in California	Guadalupe Victoria first President of Mexico	Mexican Federal Constitution established	Spanish, including missionaries, expelled from California	Texas declares independence from Mexico	Republic of Texas declared, includes southwest lands to California	Texas becomes a state	Mexican-American War begins	Treaty of Guadalupe Hidalgo: Texas, New Mexico, Arizona & California to USA	California becomes a state
1817	1821	1821	1821	1823	1824	1824	1833	1836	1836	1845	1846	1848	1850



front cover: Mission Santo Angel Custudio de Satevo  
in Batopilas, Chihuahua.

above: View from the main door of the mission.

SCMRE Principal Investigators: Karla Muñoz Alcocer & Mel Wachowiak



Smithsonian Center  
for Materials Research and Education