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Visual imagery is very powerful to how we learn, remember and communicate. Images remain in our psyche long after words have fallen silent and return as helpful references at a later date. This project is not a typical historical analysis of the landscape of Mission Santa Barbara, nor a detailed historic rendering of the beautiful architecture and surrounding landscape. Nor is this merely a literary compilation. This project is a unique perspective between all of the professionals that tell stories of the missions – architects, landscape architects, planners, artists, historians, archeologists, anthropologists, Padres, tourists, etc. – and is woven into a product rich in illustrations and backed by interesting facts and sources. This project illustrates elements of the mission that most people might not see from a typical tourist viewpoint.

This visual essay communicates the rich history of this influential place in a way that more fully demonstrates the fascinating elements of this mission's systems and strives to lead the reader to a greater appreciation of this place that is part building, part garden, part lore.



Michael A. Sánchez

Mission Santa Barbara | Visually Explored



# La Misión de la S nora B rbara, V rgen y Mart r

## Mission Santa Barbara | Visually Explored

Michael A. S nchez, 2010

Submitted to the UNIVERSITY OF OREGON, Department of Landscape Architecture, College of Architecture and the Allied Arts



*La Misión de la S nora Barbara, Virgen y Martir,*  
*Mission Santa Barbara Visually Explored,* a  
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This project has been approved and  
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Name, Chair of the Committee

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L A M I S I Ó N D E L A S É N O R A B A R B A R A , V Í R G E N Y M A R T Í R

Mission Santa Barbara Visually Explored

Submitted in partial fulfillment of a  
Master's of Landscape Architecture at  
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By  
MICHAEL A. SÁNCHEZ  
2010

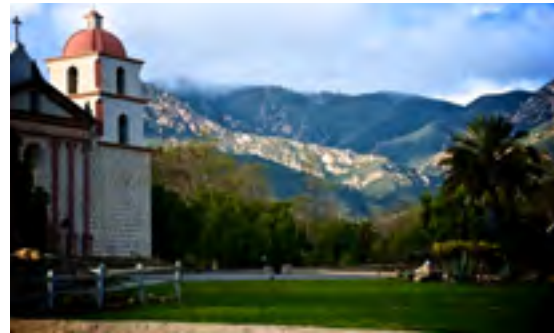
# T A B L E O F C O N T E N T S



## 01

### **Introduction**

pg. 8-9 Acknowledgements  
pg. 12-13 Influences/Ideas  
pg. 12-15 Areas of Exploration



## 02

### **Mission History**

pg. 16-21 How and Why were they Named  
(Legend of Saint Barbara)  
  
pg. 22-23 • What is a Mission?  
• Why were they Built?  
• When and Where were they Built?



## 03

### **Context/Scale**

pg. 24-29 Explanation  
of context/scale  
pg. 30-31 Global Scale - Spanish  
Empire/Romo's Influence  
pg. 32-33 Regional - Chain  
of 21 Missions  
pg. 34-35 Site - Approach  
to Mission



## 04

### **Mission Construction**

pg. 36-43 Construction Techniques/Materials  
Who Built this Mission? Natural Disasters  
pg. 44-47 Historical Events that  
Changed the Mission  
pg. 48-49 Influences  
affecting Appearance  
pg. 50-51 Earthquakes



## 05

### **Mission Systems**

pg. 52-57 Livestock/Branding  
pg. 58-71 Agriculture/Horticulture  
pg. 58-67 Huerta  
pg. 68-71 Jardín  
pg. 72-75 Water  
pg. 76-83 Ceremony  
pg. 78-79 Bells  
pg. 82-83 Stations of the Cross



## 06

### **Tools of Exploration**

pg. 84-97 The Journey  
pg. 98-99 Conclusion  
pg. 100-109 Bibliography



I N T R O D U C T I O N 0 1

Areas of Exploration

You may be familiar with the African proverb, “It takes a village to raise a child”. In her 1996 book, first lady Hillary Rodham Clinton said of her same titled book, “it takes a village to bring a book into this world”. In this case the village turned out to be more like a small city. Time does not permit me to list or thank all those who contributed, however, I would like to take a moment to acknowledge with utmost gratitude, several individuals. It is because of their help that this project is even possible.

Research can often be intimidating, especially at an archive library that is over two hundred years old. Lynn Bremer (former director of the Santa Barbara Mission

belief in my abilities to pursue and complete this degree.

A most heartfelt thank you to both Ramona Clark and Cynthia Spivey for opening your homes to my family and myself so that I could spend time exploring the Mission.

Thank you to Mike Pease, Kelcey Beardley and Craig Russell for taking time to look at or talk to me about my project and give me feedback. I was incredibly inspired by your work and appreciate your sharing it with me.

A very appreciative thank you to the Landscape Architecture Foundation and their affiliation with the Garden Club of America through the Douglas Dockery

Most master’s committees have one chair, however, my original chair, Kenny Helphand, is officially on sabbatical this year so my other committee member, Liska Chan, graciously took over the position. Liska has provided immeasurable help in the editing of my publication and preparation of my presentation. Kenny, over the years, continuously inspired me with his vast knowledge of history and design, always knowing some artist or author I should look up or sharing one from his own extensive library. Thank you Kenny and Liska, for your indispensable help.

Paying for graduate school is a challenge any student faces. I have been blessed with

sacrificed the convenience and at times necessity of a full time employee. Carol, thank you.

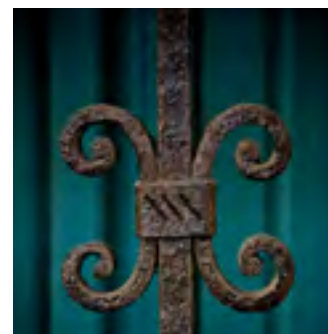
Every child should be so fortunate to have parents like mine. They have always been supportive of the often wacky endeavors I have pursued throughout my life and graduate school was no different. Providing both financial support and encouragement they have been stalwarts of strength to me. Thank you mom and dad.

Family is crucial when times get tough and I appreciate the supportive words of encouragement that my brother often provided to me with the zeal and fervor only a sibling could supply. Thank you JP.

While the support of family is certainly

the patience and understanding of my family. Their love and loyalty gave me the strength and courage to continue when I felt like giving up. Words alone can not express my deepest gratitude and appreciation for their sacrifices. This project and degree is dedicated to you. Thank you Kathryn, Ethan, Nate and Bela.

Finally, none of this would have any relevance or purpose to me if it were not for my relationship with Jesus Christ. I am grateful for the opportunity to have experienced this program – from the wonderful people I have met and worked with to the knowledge and wisdom I have gained. I owe it all to Him.



Archive Library), was most helpful and generous with SBMAL’s resources making my experience there a memorable one.

Thank you to my friend, mentor and colleague Gere Smith, for your unyielding

Thomas Fellowship which afforded me the opportunity to complete field research at Mission Santa Barbara. This project would not have been what it is without exploring the Mission first hand.

the world’s most understanding and generous employer, Carol Schirmer, who has been extremely flexible with my school schedule and because of her benevolence,

crucial in an endeavor such as this, it is also family that shoulders the biggest load. Deadlines, long hours away working on school projects and the many other facets of graduate school all have taken a toll on

Michael Anthony Sánchez

As a native Californian I never appreciated the historical importance or the visual dignity of the Spanish missions that dot the coastline and inter-coastal valleys of California. Because I lived out of state during my 4th grade year I missed an experience that all Californian 4th graders have – an opportunity to study the missions with the final product being a model of the mission of your choice.

The first mission I remember in a meaningful way was Mission San Luis Obispo de Tolosa while studying the shadow patterns of the facade during a college landscape drawing class. After graduating I lived in the San Francisco Bay Area and visited some of the northern missions along the coast. It wasn't until I moved to Santa Barbara years later that I started to gain an even more significant interest in missions as I began drawing, painting and photographing them.

While listening to a landscape history lecture on European monastic cloister gardens and their influence on architecture and landscapes outside of Europe, I was so struck by a photograph of a veranda at Mission San Juan Capistrano that I immediately knew I wanted to study the missions. <sup>1</sup> From

the outside each mission has features that are comparable to the others and at the same time each is different and has its own history. This makes, not only the subject of missions interesting, but emphasizes how each mission offers distinct insights into their unique histories.

### *Narrowing it Down*

As I began my research I quickly realized to study all twenty-one missions was a lifetime's worth of work, so I narrowed my focus to six, only to discover this also was too ambitious. With more reasonable expectations I shortened my list to two missions. In the end the subject became one. And, as I've discovered, one mission with so many fascinating aspects to explore could become a life's study.

### *Drawing as Thinking*

I wanted this project to be different; not a typical historical analysis of the landscape of the mission, nor a detailed historic rendering of the beautiful architecture and surrounding landscape. Nor was this to be merely a literary compilation. After days in the archive library at Mission Santa Barbara I was overwhelmed by the volumes

written on all of the missions by so many scholarly historians several of whom, being Padres had first hand knowledge and experience. No, this wanted to be a unique collaboration between all of the professionals that tell stories of the missions – architects, landscape architects, planners, artists, historians, Padres, Barbraños, Chumash and so on – and to weave all of these into a product rich in illustrations and backed by interesting facts and sources. This project cried to focus on elements of the mission that most people might not see from their tourist viewpoint.

What I settled on is what a professor of mine termed a visual essay. <sup>2</sup> I chose this method as a way to communicate the rich history of these influential places but also as a way to more fully demonstrate the fascinating elements of the mission systems that would lead the reader to a greater appreciation of this complex that is part building, part garden, part



**Inspirational works, Left to Right:**

Raising Hollers, *Mississippi Floods: Designing a shifting landscape*, Mathur and da Cunha, 2001.

Casebook: Serial Vision, *The Concise Townscape*, Gordon Cullen, 1961.

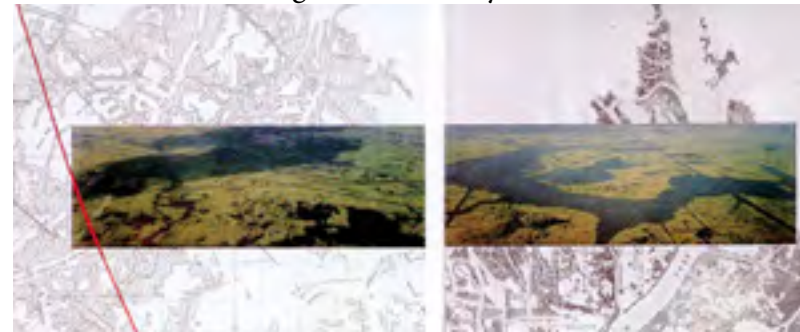
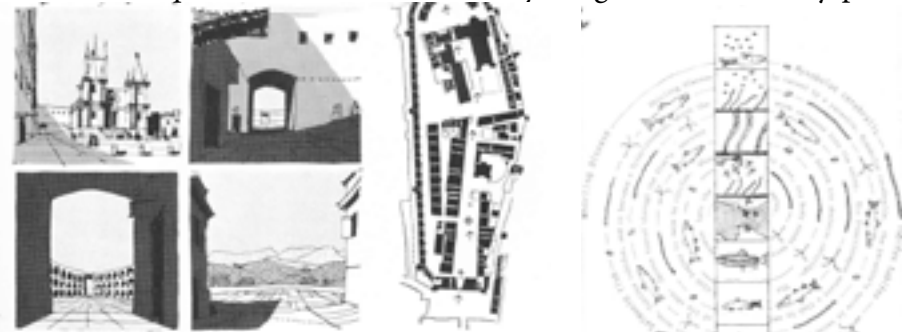
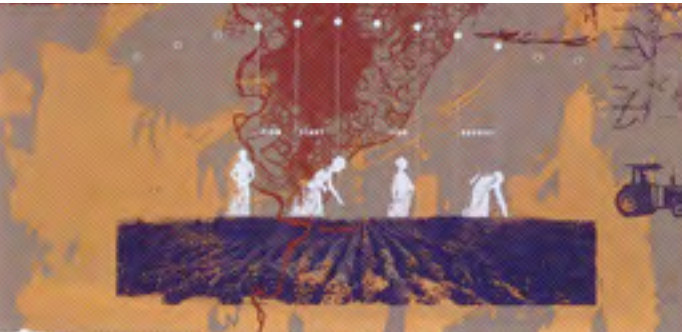
Whirling Disease, *Delta Primer a field guide to the California Delta*, Jane Wolff, 2003.

Above a Mud Plume, *Mississippi Floods: Designing a shifting landscape*, Mathur and da Cunha, 2001.

Plan of Pusey House and Garden, *Across the Open Field*, Laurie Olin, 2000.

One of the pavilions and a Lebanon cedar as the deer see them from the park, Buckland House, *Across the Open Field*, Laurie Olin, 2000.

12



13

lore. Visual imagery is very powerful to how we learn, remember and communicate. I have an employer who, in just about every conversation, turns to paper and pen to communicate what she is talking about by drawing it. It works. Those images remain in my psyche long after her words have fallen silent and at a later date those images come back as helpful references.

The same situation occurs both for the observer as well as the drawer in communicating and observing any subject. Landscape architecture, as a profession, inherently uses graphic communication as a tool for conveying design ideas. Graphic communica-

tion is a general term I use to describe any type of visual imagery which can include hand drawing, painting, photography—any of the fine art mediums traditionally used—as well as the more

contemporary mediums of computer generated line drawings, three dimensional modeling, digital photography and desktop publishing. With the advent and promulgation of the computer, much of today's graphic communication does not include to a great degree anything that is hand rendered.

This is unfortunate as many students and professionals have lost touch with a form of communicating that is critical to the very essence of creativity.

To create a visual essay, this body of work needed to rely heavily on illustrative, compelling pictorial-type images. And while the familiar early twentieth century adage echoes, “Every picture

tells a story”, no picture completes a story without a literary record. This project therefore is both. Not a strict historical documentary account of what happened on these grounds,

but an essay that weaves history with emotion, facts with beauty, and combines them all in a manner that tells a bigger story than may first appear.

Through the course of researching this project several individuals' work excited and influenced me and whose work I endeavored to emulate. If the work presented in this document stimulates interest in the reader then further exploration into the following individuals is imperative: Chip Sullivan, Jane Wolff, Marc Treib (as editor of several books on the subject of representational work in landscape architecture, art and architecture), Paul Hogarth, and many others.<sup>3</sup>

However, there were a key handful of professional artists, architects, planners and landscape architects who use drawing or other forms of graphic imagery in their work that had a

great impact on how I approached this project. Laurie Olin is a landscape architect who implements, as a design tool, the use of journals to study a subject as well as to design a space or place. In his book *Across the Open Field* he writes a series of essays on the English countryside inspired by drawings he did traveling through those places.<sup>4</sup> The words, while resonant on their own, are ameliorated by the drawings and vice versa. What impressed me though was the fact that he wrote the prose to this book some thirty years after he drew the pictures. The physical act of “seeing” through drawing what you see is support of the

importance of visual imagery in documenting historic elements.

Also influential in how I chose to illustrate my subject were Liska Chan and David Macaulay. Liska, a professor of

landscape architecture at the University of Oregon, implements in her work what she calls over-drawings, a term she learned from Kathryn Gleason and Fred Biel<sup>5</sup>; a system of layering multiple drawings, maps at various scales and images to create something that is part map and part collage. This final illustration highlights details from each of the layered elements that together speaks more than would the individual element by itself. Liska's overdrawings are done primarily in pen and ink, a medium David Macaulay primarily uses in much of his work. Macaulay, author of such “Children's” books (many of which are equally

stimulating and interesting to adults) as *Cathedral*, *Underground*, *Rome* and *The Way Things Work*, uses this simple yet powerful medium of pen and ink to denote texture, mood, emotion,



perspective and depth; characteristics that are often demonstrated through the use of color. <sup>6</sup> Another influential source was landscape architect and architect coauthors Anuradha Mathur and Dilip da Cunha, in their book *Mississippi Floods Designing a Shifting Landscape*. Simultaneously supporting their subject, the Mississippi River, are contemporary and historic photographs, USGS contour maps, paintings by the authors, and multiple large scale screen print images that are collages of images, maps, historical facts and figures pertaining to the ever changing river. This compilation of information conveys much more appreciation for the changing forces of the river than would detailed written descriptions alone. For example, a short essay accompanying each print gives historical or scientific explanations, however, either element alone leaves the reader wanting more.

Two other individual's work key to how I approached this project are Gordon Cullen and Grady Clay. <sup>7</sup> Both wrote and researched extensively on the urban environment though from different perspectives. Cullen's work involved the aesthetic principles behind what makes a town or "Town-

scape" work, the organizational cohesiveness behind a town's architecture and a deeper appreciation for the various elements of the visual aspects of a townscape. Clay's work deals with the evolution of the American city, especially the common elements that typically get forgotten as background. By highlighting these elements he shows how others can value more completely the parts of a city or town often take for granted.

These last two individuals, therefore, were influential in how I looked at the mission compound, its architectural elements and how they were organized and worked together as a unit, as well as the "background" components that have often been overlooked compared to the typical tourist "have-to-sees"—the familiar mission bell towers and fountain. How I chose to present and represent this information is the result of the impact made on me by the work of the aforementioned individuals.

**Opposite Page:**

Western bell tower from the Sacred Garden.





## M I S S I O N   H I S T O R Y   0 2

How and Why were they Named (Legend of Saint Barbara)  
What is a Mission? • Why were they Built? • When and Where were they Built?

Maynard Geiger, prolific author of California's missions writing from the unique perspective of one who lived and worked as a mission padre, captures in the introduction of his book on Mission Santa Barbara the importance and influence of this mission from all others with these words:

*Mission Santa Barbara is known across the world as the Queen of the Missions. She is without a rival among her sisters for her majestic setting and imposing architecture. The venerable institution contains elements captured from dead and distant civilizations. The tastes of Greek and Roman, Moor and Mexican, Chumash, Spaniard and American are blended here into one organic whole. Her story is one of unbroken continuity and has been told by every famous visitor from Captain George Vancouver in 1793 to the uncounted writers of our own day.*

*At no time did the mission fully disintegrate as a building nor did the activity of its friars ever cease... Over her towers have flown the flags of three nations... She has adapted herself to the shifting scene of every epoch and to the need of every age... For this reason the history of the mission cannot be written in isolation.*<sup>1</sup>

While each mission had their edict

of Christianizing the Indians and establishing the region for Spain, many of the missions played key roles in the development of the cities that grew around them. Santa Barbara's mission rose to prominence above the others. Her later responsibility as the repository for the archives of all the missions, a function she still holds, is some indication of her importance to the other missions. Impressively, she is the only mission to have continuous care and operation by the Franciscans since her founding over two hundred years ago. This places upon her a well deserved mantle of honor.

Stepping back from this individual mission to understand the beginnings of all the missions will elucidate the critical functions Santa Barbara had in the history of the mission landscape.

### What is a mission?

The Jesuits (A religious order of the Catholic Church) through the directive of the Spanish Crown established twenty *misiones* (missions) in Baja (lower) California between 1683 and 1767. Due to a growing concern that the Jesuits were amassing great power and wealth in the frontier of Nueva España or New Spain (are roughly

### Secularization:

In 1812 Mexico gained her independence from Spain. The new Mexican government slowly began changing the structure of order established by the Spanish.

Since the missions, founded by the Franciscans, were seen as loyal to Spain, they were eventually decommissioned as churches and sold as part of land grants. This resulted in many of the missions falling into disrepair and the padres fleeing the country.



covering the regions of today's Central America and a great portion of North America), King Carlos III expelled the Jesuits and replaced them with Franciscans in 1768. Considered more loyal to the king the Franciscans continued Spain's empirical expansion under the leadership of Fray Junípero

Serra. They established one mission in Baja California before moving north to establish the first mission of Alta (upper) California in 1769, La Misión San Diego de Alcalá, located at the southern most part of contemporary California in the region known then as San Diego.<sup>2</sup>

saint for which the city and mission are named.<sup>3</sup>

Both a noun and a verb, the Spanish Franciscan missions were outposts established to demonstrate legitimacy of



the Spanish government to claim the land as part of their empire. As a verb, the Catholic priests from the Order of

### Left (Figure 2-1): The First Mission Buildings in 1787

Timber for this first mission structures was cut by soldiers from the presidio in Santa Barbara. All of these were of palisade or log construction with roofs of sacate grass, floors of earth and were surrounded by poles. (drawing by Russell A. Ruiz found in Maynard J. Geiger, *A Pictorial History of the Physical Development of Mission Santa Barbara: From Brush Hut to Institutional Greatness, 1786-1963*. [Franciscan Fathers of California, 1963],5)

### Center (Figure 2-2): The Founding of Mission Santa Barbara

Mission Santa Barbara, the tenth of the California missions, was



founded on the afternoon of December 4, 1786, by Fray Fermín Francisco de Lasuen, when he raised and blessed a large cross in a simple ceremony on the hill of Tanayan. (drawing by Russell A. Ruiz, *ibid.*, 3)

### Right (Figure 2-3): The First Mission Quadrangle in 1800

The third mission church was dedicated in March of 1794. It occupied the location of the present day stone church and remained in use until December, 1812. (drawing by Russell A. Ruiz, *ibid.*, 5)

Friars Minor, better known as Franciscans, along with military accompaniments, saw the establishment of these new cities (usually based near already developed Indian villages) as their personal calling from God and their church.

Part of the padres' "mission" was to proselytize the indigenous population to the Catholic faith, teaching them new trades and crafts, Spanish laws, customs and culture eventually preparing them to become citizens of Spain. While Spain's military capabilities were clearly superior to those of these indigenous peoples they chose to colonize this "new world" through relatively friendly methods rather than by force. While their success was mixed, their impact on the development of the towns and cities that grew around these mission compounds is obvious and profound. Contemporary cities such as San Diego, Los Angeles, San Jose and San Francisco all had humble beginnings first as Indian dwellings then as missions before becoming the major metropolitan landscapes so familiar today.

The prolific documentation of the missions is a result of the padres

themselves, which they did primarily several decades after the secularization (see sidebar previous page) and decline of the missions. Much of the chronicling of activities of mission life and development of the mission architecture and grounds were the result of late nineteenth and early twentieth century padres who wrote not only to record events of mission history but in many cases in an attempt to set the record straight.

Fray Zephyrin Engelhardt, writing in his book *The Franciscans in California*, points out that the early padres, more interested in their work as missionaries serving their fledgling parishes, failed to document satisfactorily the accounts of those early years. As a result, much of what is recorded after 1785 is based on the research and observations of Protestant historian H.H. Bancroft.<sup>4</sup>

Ignorant and prejudiced to some degree about Catholic practices Bancroft often portrayed the padres in poor light choosing to emphasize a narrow perspective of mission life – that of the native Indians and their plight of losing their culture as it had existed for millennia before the arrival

of the white man.<sup>5</sup>

Regardless of the sensitive nature of historic descriptions or the intentions of the historians, many treasures can be culled describing the extraordinary feat accomplished by the padres along with the Indians who helped them in building the fantastic icons we have come to know as the Spanish Franciscan Missions of California.

**Santa Barbara**

Known affectionately as "The Queen of the Missions", Mission Santa Barbara sits impressively at the base of the Santa Inez Mountains where she commands views of the Channel Islands and watches protectively over the city. A continuous work of over two hundred years, the humble beginnings of this mission elucidate the origins of her name.

**How and why were the missions named?**

What's in a name? Invaluable not only as a means of identification, a name distinguishes a place or person from other similar people or places.

After time, a name also develops a history with which events are associated, becoming the source of stories, tales and folklore, blurring the line between truth and legend. Santa Barbara is a clear example of this. As a Spanish colonial settlement whose official religion was Catholicism, the name of each of the missions was attributed to a patron saint. In the case



of Santa Barbara it was La Señora Bárbara, Virgen y Mártir or the virgin and martyr Lady Barbara.

While many saints have well docu-

mented existences the veracity of the life and death of Saint Barbara is less so (see sidebar). Regardless, her importance is demonstrated through the naming of the city. The town and presidio adopted the name in 1782 under Father Serra and then Governor Neve on April 29 from the name which had been given to this passage nearly two hundred years prior when Spanish ex-

plorer Sebastián Vizcaíno arrived in the area on the eve of Saint Barbara's Day in 1602, christening the area after that saint.

**The legend of Saint Barbara:**

Sometime during the 3rd century, Barbara, daughter of Dioscorus, a rich heathen and prominent figure in the Roman government was confined to a tower by her father to protect her from potential suitors. Before leaving on a business trip, Dioscorus ordered a bath-house built for his daughter. Barbara, a recent convert to Christianity, saw that the house had only two windows and ordered the workman to add a third, a symbol of the Holy Trinity. Upon his return Dioscorus questioned the addition of the third window and was angered by Barbara's confession of her new faith and ordered her delivered to Martinianus, prefect of the province of Nicodema (modern day Turkey). Martinianus had her tortured for proclaiming her belief in Christ and eventually sentenced her to death by beheading. Her father carried out the sentence using his own sword. The story says that, as punishment for his cruelty he was struck down by lightning on his way home.<sup>6</sup>

**Left, Figure 2-4:**

This is one of the most traditional views every tourist photographs and is the view most likely seen by visitors almost two hundred years ago as they arrived from downtown. It is not difficult to understand the attraction once you have been here. Nestled amongst the rustic Live Oaks and Sycamores romantic ideas bloom of lazy summer afternoons. Protected from the sun you can almost hear while sitting in the shade of the Pepper trees the Chumash women tell stories as they washed laundry by the fountain.

Mission Santa Barbara acquired its name from the presidio and thriving town that were established there before its own 1786 founding.<sup>7</sup>

#### **When were they built?**

Leaving San Fernando, Mexico on July 14, 1767, Fr. Junípero Serra led nine padres on a journey that would begin the establishment of a chain of twenty-one missions. The expedition grew and eventually included ships dispatched to support the expedition.

22 Two years later, both land and sea expeditions arrived at the small port village of San Diego. Leader of the expedition, governor Gaspar de Portola chose to continue by sea to search for Monterey Bay. Before leaving San Diego by land to establish additional missions Fr. Serra founded both the presidio and mission in San Diego in honor of Saint Didacus of Alcalá, a 15th-century Spanish Franciscan.<sup>8</sup>

Portola eventually found Monterey Bay, having earlier overshot it due to unfamiliarity with the region and along with Fr. Serra founded El Presidio Real de San Carlos de Monterey and the Mission San Carlos de Monterey on June 3, 1770.

Along with San Diego and San

Carlos, Fr. Serra went on to found nine missions before he died in 1784 passing on the charge of Father President of the Alta California missions to Fr. Fermin Francisco Lasuén then in charge of the mission in San Diego.<sup>9</sup>

Mission Santa Barbara was founded in a ceremony on December 4, 1786 by Fr. Lasuén (see figure 2-2) who would go on to establish nine more missions.<sup>10</sup> While this date marked the beginning of this mission, the actual building and future compound with its associated systems of gardens, waterways, structures and ceremonies would not be completed for another forty years. As the only mission to survive the secularization of the mission chain and maintain her function as an operating church by the Franciscans, Santa Barbara can arguably maintain that its influence on architecture and landscape is yet to be completed.

#### **Where were they built?**

Primarily established along the coast, many with ocean views, some missions extend inland but always enjoyed some influence from coastal weather. While all missions are considered part of Alta California's coastline, the

climate and associated plant and geological communities are considerably different between the southern most mission San Diego and the northern most mission Sonoma just northeast of San Francisco.

Situated along California's interstate Highway 101 between San Diego and Sonoma are sculptural features in the shape of a shepherd's staff with a bell hanging from the neck of the staff. A familiar landmark to most Californians and visitors these bells and staffs mark the general location of El Camino Real, Spanish for "The Royal or King's Highway" whose original path was like no highway familiar to drivers today.<sup>11</sup>

Simple in nature, often just a worn path in the soil and rock from many a wagon, hoof and foot this "highway", more accurately interpreted as "way or path", was the connection between each of twenty-one Spanish Franciscan missions established approximately a day's journey by foot from each other. While technology has streamlined the journey for automobiles, adherence to the general form of the Royal Highway is testament to the astute site-planning capabilities of the early search parties.

**Opposite Page:**  
Sunset at the Mission.





C O N T E X T / S C A L E

Global Scale - Spanish Empire/Romo's Influence

Regional - Chain of 21 Missions

Site - Approach to Mission

The missions' association with Spain, Mexico and the United States brings about another frame of reference within which to understand them; one of context and scale. Each mission is not a stand-alone relic or monument. It clearly has connections to European influences in architecture, garden design and religious practices. Concurrently, a local vernacular is evident in the use of regional building materials and the many cultural customs tied to the various indigenous tribes, thereby illustrating a global presence and scale of operation. A provincial or regional context tied explicitly to the geography of each mission's location is noticeable from the way and location where each mission is sited. Additionally, site context and scale is observed in the craftsmanship of such features as fountains and the placement of aqueducts.

### Global Context

These Spanish outposts were multifarious in purpose. One such intention was to lay claim to or retain land already claimed from other exploring nations such as Russia or France. <sup>1</sup> A more honorable objective was intend-

ed by the Franciscans, who were encouraged by their potentate to establish a presence in these lands through the guise of proselytization. Both the padres and the neophytes (converted indigenous peoples) were caught in the middle of this imperial struggle.

Less controversial was the style of architecture implemented at the missions. When observing various built elements of the church there can be little doubt that the designer, mason and builders had outside influences. The Roman architect and writer Marcus Vitruvius Pollio in his service to the emperors wrote a series of books known as *De Architectura Libri Decem* or Ten Books on Architecture, which has been translated into five or more languages and was the standard in Europe during the Renaissance. <sup>2</sup> In his book *Mission Santa Barbara, 1782-1965*, padre and archivist, Maynard Geiger, describes how the mission built for the primitive Chumash borrowed architectural styles from ancient and diverse civilizations. Graeco-Roman techniques can be seen in the facade and arched corridor; Moorish in the splayed windows and doorways and

in the 1804 fountain out front; and the towers, tiled roofs and inner courtyard exemplify typical Hispanic and Hispanic-American styles. Geiger highlights that significant parts of western and eastern culture patterns emanate and blend harmoniously here at Santa Barbara's mission. <sup>3</sup>

Another illustration of global context is seen in the journey made by Fr. José Maria Romo who in 1872 arrived from a mission outpost in Egypt to shepherd a fledgling Boy's College known as Colegio Franciscano as well as preside over Mission Santa Barbara. <sup>4</sup> By this point in her history, Mission Santa Barbara had seen the rise and fall of the mission system, had survived the devastation of secularization and the deterioration of the buildings and grounds as a result. Hopeful were the padres that Romo's presence would turn the tide of decline to one of prosperity.

On the origins of California's Mission gardens, professor Elizabeth Kryder-Reid in her significant article, "Perennially New" Santa Barbara and the Origins of the California Mission Garden, describes Romo's journey

from Egypt to Santa Barbara that took him through Sicily, Italy and France where he visited monasteries, palaces, churches, convents, cemeteries, and seminaries along the way. <sup>5</sup> His sojourn through Europe influenced him eventually leading to the development of the ornamental courtyard gardens at the mission compound and the adjacent college.

### (Panel, pages 30-31)

Contextually the Franciscan missions were simply a small outpost of Nueva España, or New Spain, that included Louisiana which was annexed by Spain in 1763 after the Seven Year's War but given back to France in 1801. This drawing was created over a map made by Cassini in 1790 and is part of an historic collection of maps by cartographer David Rumsey. Scale-wise, this drawing shows the immense land Spain controlled and how these missions were only a small, albeit, important part of Spain's imperial ambition.

Another part of this drawing is the diagrammatic route of Padre José Maria Romo in 1872 previously mentioned in Kryder-Reid's article. Romo was serving as a missionary in Egypt

when he was called to be superior over Santa Barbara.

### Regional Context

The perceptive visitor to one or more of the missions may notice that the mission they are visiting is not a stand-alone monument or artifact, but a companion to other historic buildings and landscapes. Together, there are a chain of twenty-one individual mission compounds, which at one time included associated vineyards, orchards, gardens, livestock ranches, and in some cases presidios or military compounds. Nonexistent at most missions and displayed mostly through drawings or artwork are the corresponding communities of indigenous Indians where the missions developed.

The harvest records of field crops, of livestock population, of baptisms or weddings for any individual mission, or the impact of these reports on the birth of the state of California as most know it today. More obvious from San Diego to Sonoma is the similarity of materials used. An astute observer will see kiln dried roof tiles, adobe brick, many varieties of carved stone, ornamental ironwork, and white stucco.

This strong physical connection between the missions unified their efforts and distinctly highlights their regional context despite the fact that each of the missions had a unique look and geographical setting. While the Romans built cobbled roads between their newly conquered cities as a means for efficient circulation and transportation of their military and equipment, the padres carved but a simple path through the rough terrain, affectionately known as El Camino Real, the Royal Road. Today, that historic path finds a parallel in California's State Highway 101, often referred to as the Mission Trail.

### (Panel, pages 32-33)

This second drawing illustrates Regional context and scale. Santa Barbara was the tenth mission in a chain of 21 missions in Alta California or upper California. Mission San Diego at the very southern end of Alta California was the first mission and Carmel Mission was the second, located almost at the northern most end of Alta California. The majority of the remaining missions were established in between these first two. Un-

embellished delineation of basic geological landmarks such as major rivers and islands along the coastline emphasize the austerity of this rugged land. Simple crosses indicate the location of each mission and a dashed line indicates El Camino Real also known as the Royal or Kings highway connecting each of the missions. Images of all 21 missions highlights the similarities of all of the missions while pointing out the contrast between each of the individual designs.

#### Site Context

<sup>28</sup> While the many facets of the global and regional scale and contexts are fascinating, the scale of the site and how it fits into the larger local landscape begins to connect the mission with other aspects of the area. These other “aspects” are identified as systems of the mission and are highlighted in Chapter 5. Archeological context is the environmental and locational glue that connects elements together and is what gives relational perspective on a subject when observed. For example, seeing an igloo in Santa Barbara while visiting the mission would trigger an awareness that the igloo was out

**03 Context/Scale:** Global · Regional · Site

of context. The context of the Old Mission in Santa Barbara feels appropriate, maybe more so than some of the other missions, because the architecture of Santa Barbara is heavily influenced by the mission architecture as well as Spanish colonial architecture. Whereas, cities that have developed around other missions in this chain have utilized other forms of architecture.

Context also comes in different scales or sizes. For example, the overarching benefits of a Red Cross are international, however, their impact is felt on a regional or local scale as well. The Spanish Franciscan missions were no different. The far-reaching power and influence of the Spanish Empire and their powerful fleet of ships was evidently global in scale, leaving their mark on continents, countries, regions, and down to small communities. Evident in visiting these missions is that they were influenced by another time and place.

Established four years after the Presidio of Santa Barbara (military base) the mission chose as its site a knoll at the foot of the Santa Ines Mountains

approximately sixty feet of elevation above the presidio. As can be seen from a historic rendered elevation from 1798, viewed from the Santa Barbara Channel, the mission rests as the highest structure in the area. While the siting of the mission affords obvious views it also establishes a power position over the presidio, or any other structure for that matter, including any Chumash villages. While other buildings developed over time around and eventually a b o v e

the mission, its prominence due to its overt architecture is today still a landmark in the area.

(Panel, pages 34-35)

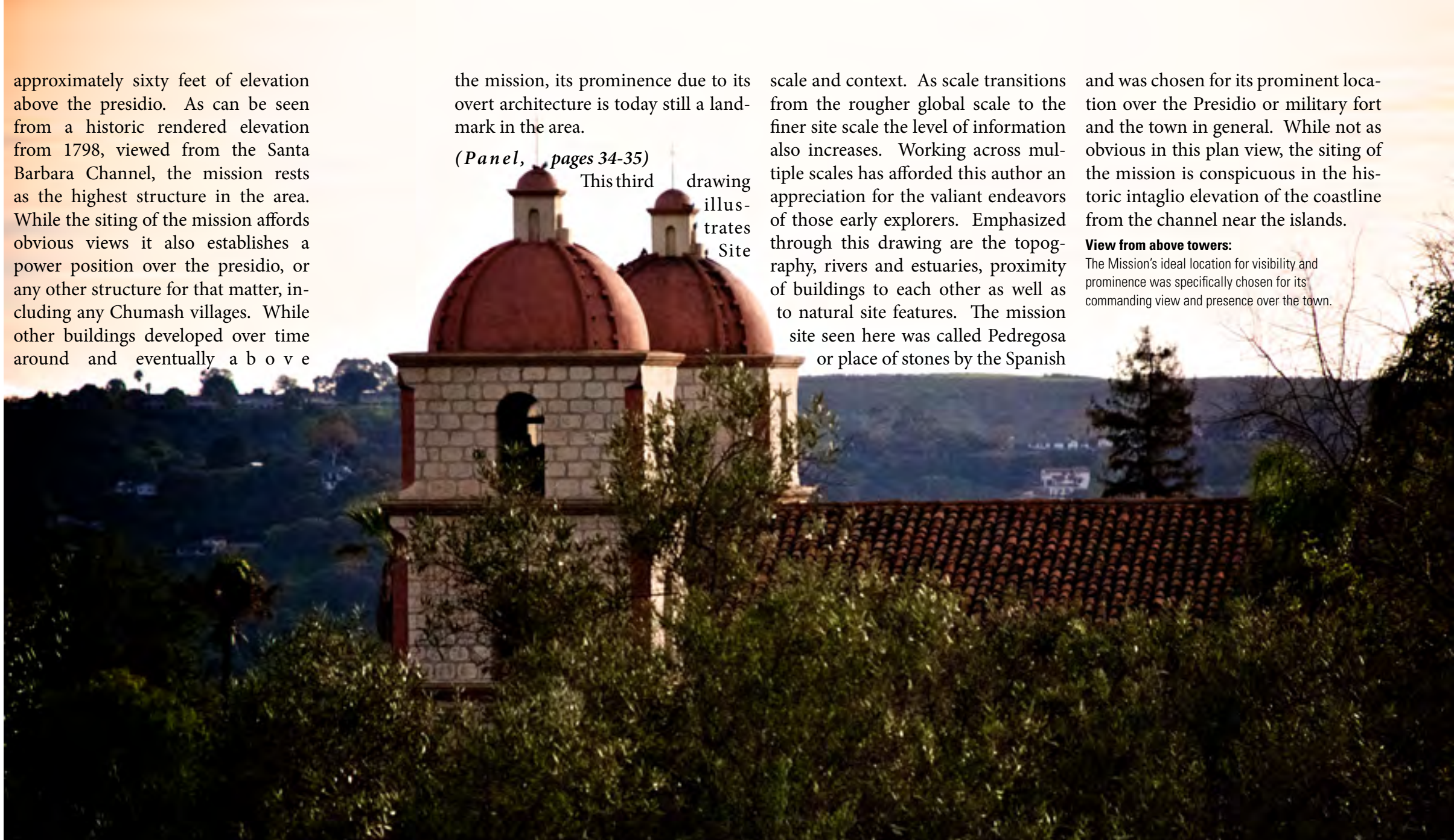
This third drawing illustrates Site

scale and context. As scale transitions from the rougher global scale to the finer site scale the level of information also increases. Working across multiple scales has afforded this author an appreciation for the valiant endeavors of those early explorers. Emphasized through this drawing are the topography, rivers and estuaries, proximity of buildings to each other as well as to natural site features. The mission site seen here was called Pedregosa or place of stones by the Spanish

and was chosen for its prominent location over the Presidio or military fort and the town in general. While not as obvious in this plan view, the siting of the mission is conspicuous in the historic intaglio elevation of the coastline from the channel near the islands.

#### View from above towers:

The Mission's ideal location for visibility and prominence was specifically chosen for its commanding view and presence over the town.







VICEROYALTY OF NEW SPAIN

VICEROYALTY OF NEW GRANADA

VICEROYALTY OF PERU

SPAIN

Romo's Journey 1872

GLOBO TERRESTRE  
IN ROMA

Territories lost before or during the Hispanic American Wars of Independence (1811-1828).

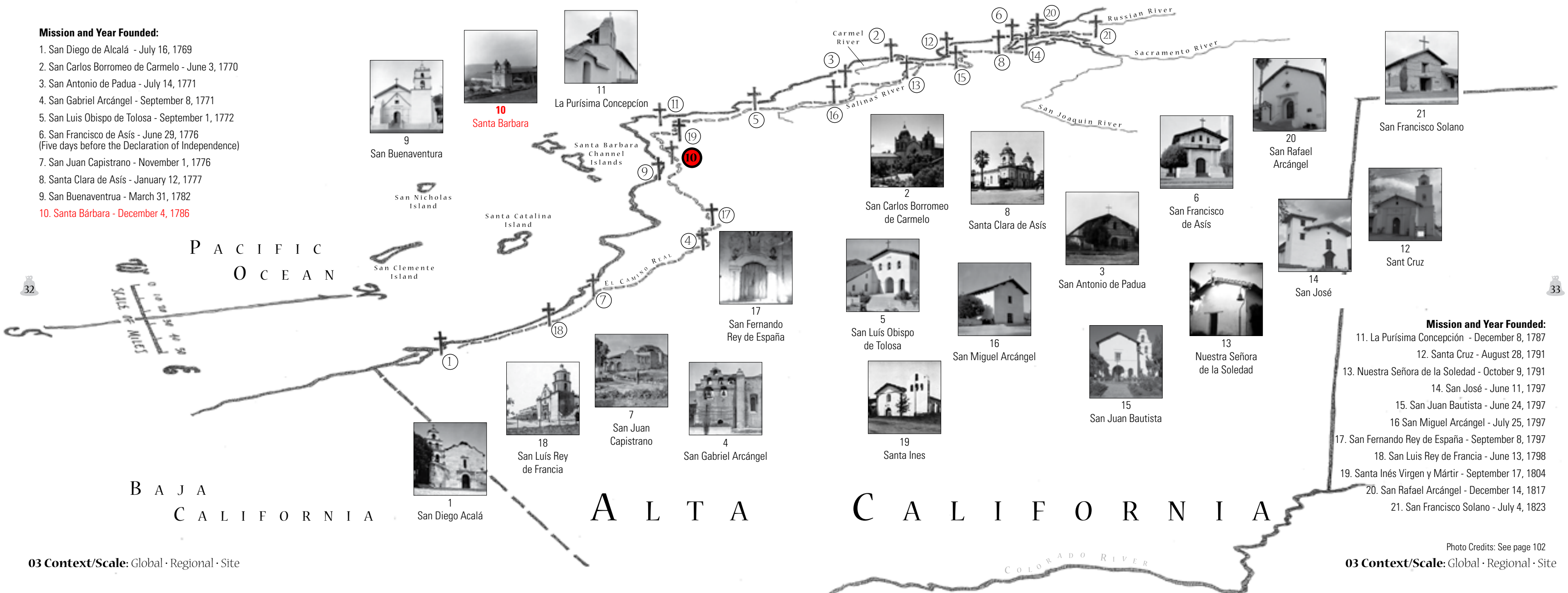
7°13' 2861' S, 22°46' 5469' W (11m)

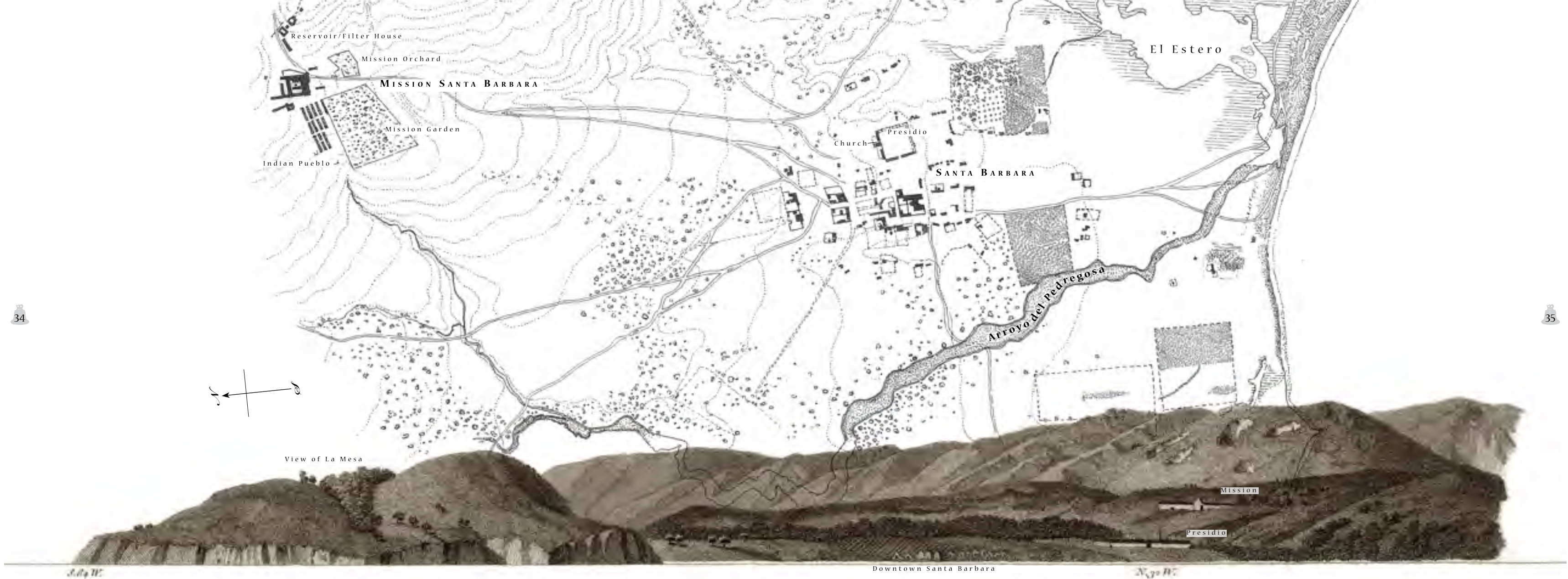
**Mission and Year Founded:**


1. San Diego de Alcalá - July 16, 1769
2. San Carlos Borromeo de Carmelo - June 3, 1770
3. San Antonio de Padua - July 14, 1771
4. San Gabriel Arcángel - September 8, 1771
5. San Luis Obispo de Tolosa - September 1, 1772
6. San Francisco de Asís - June 29, 1776 (Five days before the Declaration of Independence)
7. San Juan Capistrano - November 1, 1776
8. Santa Clara de Asís - January 12, 1777
9. San Buenaventura - March 31, 1782
10. Santa Bárbara - December 4, 1786

**Mission and Year Founded:**

11. La Purísima Concepción - December 8, 1787
12. Santa Cruz - August 28, 1791
13. Nuestra Señora de la Soledad - October 9, 1791
14. San José - June 11, 1797
15. San Juan Bautista - June 24, 1797
16. San Miguel Arcángel - July 25, 1797
17. San Fernando Rey de España - September 8, 1797
18. San Luis Rey de Francia - June 13, 1798
19. Santa Inés Virgen y Mártir - September 17, 1804
20. San Rafael Arcángel - December 14, 1817
21. San Francisco Solano - July 4, 1823





A photograph of a stone wall with a window and a skull-and-crossbones symbol. The wall is made of rough, textured stone. A window with a red frame and a grid pattern is set into the wall. Below the window, there is a carved skull and crossbones symbol. The text 'MISSION CONSTRUCTION 04' is overlaid on the image in a white, serif font. To the right of the text, there are three lines of smaller white text: 'Construction Techniques/Materials', 'Who Built this Mission?', and 'Historical Events that Changed the Mission'.

# MISSION CONSTRUCTION 04

Construction Techniques/Materials  
Who Built this Mission?  
Historical Events that Changed the Mission

Rooted in this rocky landscape for Pedregosa as the Spanish called it, is the mission building – bell towers, sanctuary, chapel, verandas, and dormitories – which together, are definitively the iconography of mission culture. But who built this church, who made the adobe, cut and dressed the stone, fired the tiles, cultivated the gardens? And what tools and techniques did they employ? What events over time impacted the way the mission looks today?

After her founding in 1786, Mission Santa Barbara had very humble beginnings. Two missionaries Fray Antonio Paterna and Fray Cristóbal Oramas were charged with the task of a new mission settlement and built the first buildings, simple, rough, even crude log cabin style structures called palisades, with grass (sacate) and earthen roofs.<sup>1</sup>

The first buildings were living quarters for the padres, the chapel and store-rooms. But before the mud had dried between the palisades Paterna already had plans for a permanent structure with a southeast exposure overlooking the presidio and channel islands.

**04 Mission Construction:** Built Elements

The orientation and placement of the site of the mission by Paterna has remained the same.

The materials used in the second stage of development were adobe and tile roofs, and by the end of 1787 Paterna had built four rooms, the beginnings of what would become the quadrangle of the mission compound.

Subsequent padres added onto the work begun by Paterna eventually adding more rooms, a larger chapel and side chapels, the addition of a sacristy and the siting of the cemetery. By 1794, the adobe structure, plastered inside and out, measured 45 by 9 1/2 *varas* and its adjoining sacristy 9 1/2 by 5 *varas* (123.4 ft. x 26.1 ft. and 26.1 ft. x 13.7 ft. respectively). Its original site occupies the same location as the present and final stone structure.<sup>2</sup>

The quadrangle grew over the next several years, first with the addition of arcades along the exterior facing the presidio and interior wing looking upon what would someday be the sacred courtyard. In 1797 the second leg of the quadrangle heading in a northerly direction from the original leg was begun with corridors of plas-

tered covered brick columns completed by 1800.

Adobe was an important material for walls but unlike the stone lintels used in the Greek and Roman temples it could not span to provide support, so timbers of sycamore or poplar were



used until they began to rot. They were eventually replaced by pine from distant mountain ranges.

Various other buildings were constructed around the mission compound serving functions such as a guard house, tannery and living quarters for the Indian converts. The Indian homes were the first formal

planned housing development in Santa Barbara and constituted a house with one window and door built back to back with other houses. These were ordered in linear rows facing each other to form streets that intersected each other at ninety degree angles and

were located immediately adjacent to the front quadrangle.

While all of the missions were built in a “New” world, their design and construction was most evidently influenced by the “Old” world. Major cities of Europe during the late 18th century already possessed many significant buildings such as churches, palaces and

structures of civic importance. Many cities boasted well known architectural monuments already centuries old. As such, construction in Alta California



was considerably “behind the times”, at least by European standards which, stylistically speaking, had already seen the eras of Baroque, Renaissance and Gothic periods, all of which improved

**Left, Figure 4-1:** View of Mission Santa Barbara’s facade as of February, 2009. The entablature and pediment of the original Graeco-Roman design (See Figure 4-2) and the finished mission facade show great similarity. The entablature, which appears to be supported by the false ionic columns, is almost directly reproduced from the architrave and frieze (with its fretwork) from the original Vitruvius illustrations.



**Center, Figure 4-2:** Plate X from the 1787 Spanish edition of Vitruvius’ *De Architectura Libri Decem* [Los diez libros de *Architectura*] illustrates a Greek Temple with Ionic columns. The three bases labeled “A,A,A” are replaced in Santa Barbara’s facade with statues.<sup>3</sup>

**Right, Figure 4-3:** Statues of Faith, Hope and Charity (from left to right) are placed on the pediment. A niche carved out in the center of the pediment makes room for a statue of St. Barbara.

**04 Mission Construction:** Built Elements

or altered in one form or another the styles of the classical architecture of antiquity, those of Greece and Rome.

However, European influences played a major part in the design and look of Mission Santa Barbara. While Europe was well into the Neoclassical Era its historic influences could be directly seen in the architectural design of this mission's facade.

After a devastating earthquake in 1812, Fathers Gil and Amestoy concurred that the December 21 earthquake had inflicted so much damage that it made more sense to rebuild than to repair. <sup>4</sup> Construction on this fourth church began in 1815, completed in 1820, and is the basis for the magnificent structure that exists today.

#### **Mission Construction** (Panel, pages 44-45)

This over drawing of maps and illustrations describes the influence of European architecture on the architectural design of Mission Santa Barbara's facade. One plan view is scaled to show Western Europe, the Mediterranean Sea and North Africa as well as a portion of North America as it was mapped in approximately 1790.

**04 Mission Construction:** Built Elements

Included in this comparison of continents is an illustration of a Greek Temple as shown in Vitruvius's Ten Books on Architecture, of which the facade of Mission Santa Barbara was modeled. While not a direct copy of the ancient temple design, much of the detail and proportions can be seen in the mission design.

Overlaid on the world map is part of the coastline of California with some of the landmark cities and geologic features such as the Channel Islands. While most of California's coastline runs north south, this part of the coastline, due to the geologic collision of the North American and Pacific plates the Transverse Range of the Santa Inez mountains shift and the coastline here runs east west. The solar exposure due to this different orientation creates conditions that make Santa Barbara and much of the surrounding coastline more amenable to growing crops than other coastal cities north of this latitude.

Pictographs illustrating a stone quarry, timber harvesting and adobe production again speak to a different scale than the world or coastline maps.

These generic images are not specific to a part of the mission but describe some of the materials used in the construction of the mission.

#### **Santa Barbara Church Floor Plan** (Panel, pages 46-47)

Five floor plans of the church as it changed during early development over a roughly thirty four year period are overlaid on a floor plan of the church as it stood in 1963. While many smaller changes and remodels occurred after the period of secularization (term used to describe the decommissioning of the missions under the new Mexican government after their independence from Spain) most of the original design has remained intact.

Overlaying the floor plan of the church from different periods on top of the floor plan from 1963 highlights a couple of interesting observations. One, is the contrast of a Western design mind set to that of the indigenous peoples. The Chumash in this area lived in single room domed structures and the Indian Pueblos they built within the mission compound were simple single room abodes connected wall to wall with their neighbor. While

the padres lived in modest rooms themselves, these were adjoined to a much grander edifice – the church.

The perspective showing the facade of the church, as illustrated in the lower right-hand corner of the panel, was chosen in particular for its imposing angle. This formidable prospect put for all who lived in, near or around the mission a frame of reference elevating the mission and all it stood for as the most dominant feature in the landscape; second only to the mountains whose feet the mission rested.

Choosing to render this illustration through pixilation emphasized the depth and prodigious exterior over the diminutive structures surrounding it, none of which came close to the scale of the mission. Not until many years later as the city developed during the late nineteenth century years after the reconstruction period of the missions, did civic and private structures rival that of the old mission. By this point the position and importance of the mission in the landscape had passed.

#### **Construction and Earthquakes** (Panel, pages 48-49)

In Maynard Geiger's book, *A Pictori-*

*al History of Mission Santa Barbara* an engineer's drawing illustrates the positions of hundreds of cracks and fissures on the facade of the mission prior to 1950. At first glance these cracks and fissures appeared to be the result of damage due to earthquake or tremor. A mystery to all for the mission facade and been completely rebuilt after the devastating earthquake of 1925. Concerned that these cracks would lead to further damage and make the facade vulnerable to another earthquake, a decision was made to facilitate more research into the cause of the cracks.

It was found that the cracks were not the result of shifting footings, inferior materials or poor craftsmanship. It was determined the cause of the cracks was due to a chemical reaction between the cement and aggregate. As a result it was decided that the facade must be replaced.

These cracks mysteriously appeared a mere twenty five years after the repair and construction of the towers destroyed as a result of the earthquake of 1925. Two new towers and the facade were rebuilt on deeper stronger footings and more durable material

was proposed. Construction began in 1950 and completed in 1953. <sup>5</sup>

While the cracks shown in the engineer's drawings were not the result of earthquakes, these geologic convulsions most certainly impacted the mission in two separate centuries. The first quake struck on December 21, 1812, the second on the morning of June 29, 1925.

The epicenter of the 1812 earthquake is of uncertain location. However, because of the widespread damage it caused, it was estimated to be as large as magnitude 7. Studies locate the epicenter somewhere offshore, possibly in the Santa Barbara channel, but an inland epicenter, somewhere in present-day Santa Barbara County, or even Ventura County, cannot be ruled out.

This earthquake destroyed the church at Mission Santa Barbara, and caused near-total destruction at several other missions most notably Mission Purisma Concepcion, near present-day Lompoc.

Despite the extent of destruction this quake caused, no deaths were reported.

The 1925 quake was altogether a dif-

**04 Mission Construction:** Built Elements

ferent scenario. During the late 19th century, building standards were not keeping up with the rapid growth and as a result much of the business district was ill prepared for even a considerably smaller magnitude quake of 6.3.<sup>6</sup>

As a result thirteen deaths were reported from this earthquake. Many deaths were avoided by the fortunate timing of the early morning shocker, which would certainly have taken more lives as the business district which was almost completely leveled. This district was eventually rebuilt to strict seismic standards as well as architectural guidelines that make Santa

tant because they link the history of the earthquakes not only to the mission facade but also to the unique character of Santa Barbara architecture.

After the 1925 earthquake, Santa Barbara created an architectural review committee to guide the look and development of the architectural design of the downtown core.

**Adobe and Earthquakes**  
(Panel, pages 50-51)

The images and text on these pages were the result of an assignment for a class in landscape perception. Arguing that because the mission buildings and

rological activity such as rain storms and wind have on the material adobe. Exploration of this material and nature's affect on it lead to the proposal of an art installation.

**Adobe Brick and 1925 Earthquake:**

1. All images of adobe bricks and the making of the adobe bricks are by Kenneth I. Helphand.
2. Title: Old Mission, Santa. Barbara Quake, 6-29-25  
Identifier: :421  
Collection: James D. Phelan Photograph Albums, Volume 94 Old Mission, Santa. Barbara Quake, 6-29-25,  
Contributing Institution: The Bancroft Library, University of California, Berkeley.



42



Barbara the iconic Riviera of North America.

The crack lines which are made up of text describing the earthquakes that occurred in 1812 and 1925 are impor-

other similar architecture were constructed of adobe, they were in essence, part of the landscape. Adding to mere perception is the affect geological activity such as earthquakes and meteo-



STONE QUARRY AND CRAFTSMANSHIP

ALTA CALIFORNIA

HONDO  
POINT  
ARGUELLO

POINT  
CONCEPTION

GAVIOTA

TAJIGUAS

GOLETA

MONTECITO

NAPLES

SANTA BARBARA

CARPINTERIA

MADRID

ESPAÑA

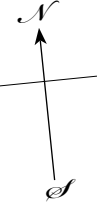
MEDITERRANEAN SEA

ADobe PRODUCTION AND CONSTRUCTION

BAJA CALIFORNIA

TIMBER HARVESTING AND CONSTRUCTION

VENTURA



SAN MIGUEL  
ISLAND

SANTA ROSA  
ISLAND

SANTA CRUZ  
ISLAND

ANACAPA  
ISLAND

**Mission Construction:**

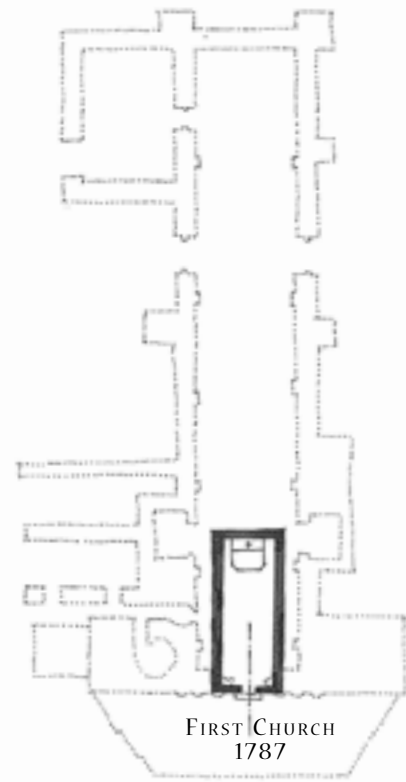
1. Timber Harvesting: This area was characterized by chaparral hillsides with mixed live oak woodlands. Much of the woodlands were felled as timber was needed for constructing the village and mission.
2. Adobe Production: The original church was built of wood with thatch roof but a much more durable material was needed. Adobe became the material of choice since it utilized a material readily available.
3. Stone Quarry: When an even more durable material was needed stone was quarried from the local hills to create the facade of the mission.

③

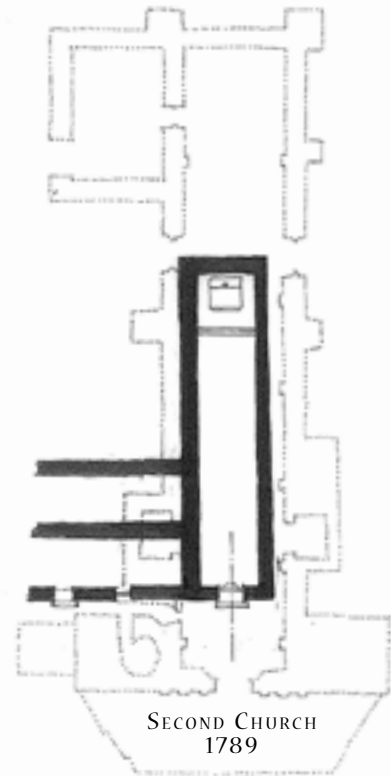
②

①

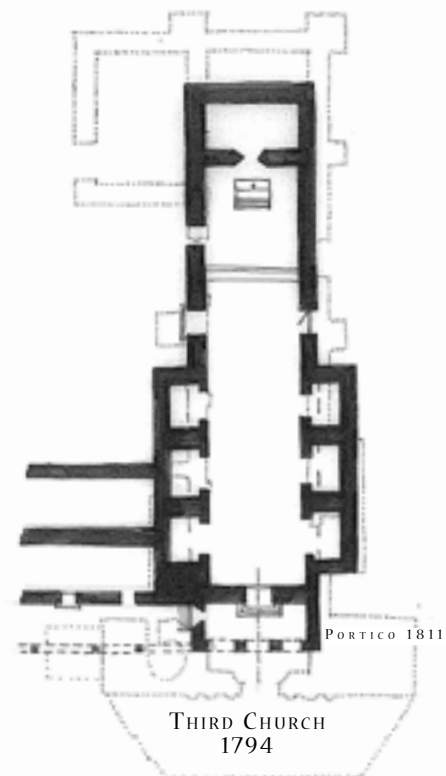




FIRST CHURCH  
1787

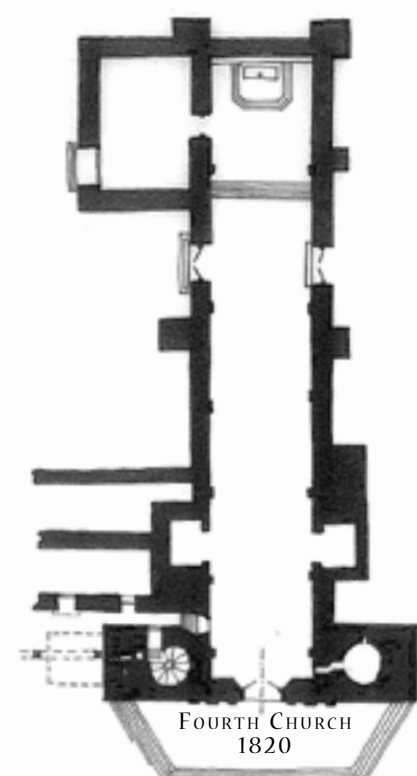


SECOND CHURCH  
1789



THIRD CHURCH  
1794

PORTICO 1811



FOURTH CHURCH  
1820

LEFT TOWER  
1831-1833

RIGHT TOWER  
1820



FOURTH CHURCH  
1820-PRESENT

14

#### Chapel/Church Construction: Early Chapel and Four Successive Churches of the Old Mission Santa Barbara

#### Plan of the Mission Church as of 1963:

1. Sacristy since 1927.
2. Door cut into stone wall from sacristy to sanctuary, 1927.
3. Sanctuary.
4. Communion railing.
5. Original sacristy, 1820.
6. Columns and arches of cut stone forming ambulatory built in 1927 replacing an earlier one of cement columns of 1893.
7. Nave of the church, 1820.
8. Side chapels built in 1815-1820.
9. Choir loft area built in 1820 remodeled in 1909, 1927 and 1953.
10. Baptistry since 1953. Above the baptistry is the blower room for the pipe organ, 1925-1953.
11. Buttress of 1953 replacing the one probably built in 1833.
12. West tower built in 1953 replacing the foundation built in 1820, and the belfries probably built in 1831-1833.
13. Facade of church of 1953 replacing the one of 1820.
14. Original stone steps of 1820 partially replaced in 1927.
15. East tower of 1953 replacing tower of 1927 which in turn replaced an earlier one of 1820.
16. Stone stairs of 1820 (replaced in 1927) covering the earlier stone stairs of 1794.

#### 04 Mission Construction: Built Elements





EARTHQUAKE OF JUNE 27, 1925

TYPE OF FAULTING  
LATERAL ZEPHYRUS

EARTHQUAKE OF DECEMBER 1912

OF CALIFORNIA

RECORDED CONSTRUCTION, OFTEN ENCOURAGED BY THE AMICABLE CLIMATE

LOCAL WATERWORKS

SANTA BARBARA GUNNERY



THE GREAT SAN FRANCISCO EARTHQUAKE

WAS ACCOMPANIED BY A GREAT FIRE THAT LEAD MANY TO CONFUSED CONCLUSIONS ABOUT WHAT

PRODUCED NO FIRE

THIS EARTHQUAKE DESTROYED THE CHURCH AT MISSION SANTA BARBARA

MISSION PURSINA CONCEPCION, NEAR PRESENT DAY EDWARDS

SHAKE DISTURBANCE BEGINNING AT 8:27 AM

THE BELL TOWERS WERE RESPONSIBLE FOR COLLAPSE

COMPLETED

The Spanish word adobe, translated as 'mud brick', has been part of the American Southwest for thousands of years. Most notable are the Pueblo villages of Mesa Verde and the twenty one eighteenth-century Spanish Franciscan Missions of California.

The bricks were used with mud mortar to build structures ranging from walls and simple rooms to large churches and compounds. While aging and the use of this ephemeral material plays a significant factor in the demise of any adobe structures, a more critical component, especially in the American Southwest, rendered these particular buildings asunder more quickly – earthquakes. Inextricably tied to geologic time an earthquake's impact on built structures varies from simple cracks to complete destruction.

This experimental installation (See Figure 4-5) seeks to explore the short-lived, yet ancient material of adobe and its relationship to both geologic time

via the event of an earthquake(s) and chronicled time in its use in the religious and cultural landscapes of the Missions.

Sun-dried adobe bricks will be used to build a series of twenty one walls composed in a radial pattern. This circle of walls, symbolizing the cyclical and boundless qualities of time, will span portions of an earthquake fault in the area of Lompoc, California – location of Mission La Purísima – in order to increase the probability of cracks in the walls. Various United States Geologic Survey Probabilistic Seismic Hazards Assessment Maps (See Figure 4-4) will be analyzed to determine prime fault locations to build the adobe walls.

The walls represent the expansion and boundaries imposed on the land and the indigenous people through the construction of the Missions by neophytes (recent converts) for Franciscan priests. Each wall will be the width of a brick module (approximately 18x24x4 inches) and will vary in height and length as each of the twenty one Missions are similar yet unique.

Cracks and fissures, the result of earthquakes and weather will demonstrate the passage and effect of geologic time, drawing visitors to the rich, infinite

blackness that results from the void left by stones or crumbling earth. Disintegration and decay reveal aging, a simile for the corresponding conditions of the extant Missions.

Chaparral and other indigenous flora will be allowed to grow freely through and around the aging walls signifying the healing of time that still may be needed by those descendants whose ancestors were displaced or exploited by the Spanish and ensuing Mexican settlers and eventually American settlers.

Adobe can be a durable material but if left unprotected it will return to the earth as mud and dust. While the missions are cultural icons of California's history, preserved as state monuments, much of the original materials have been lost or since replaced. This semi-temporary installation seeks to specifically draw attention to the mission landscape of past and present through the impermanent and historical nature of the adobe material and impact future generations through image or written record only.

This installation (never installed) was part of a proposal based on an assignment for a class in Landscape Perception, taught by Kenneth Helphand. The poster and graphics in Figures 4-4 through 4-6 were supporting graphics.

**Figure 4-4, Background Image:**

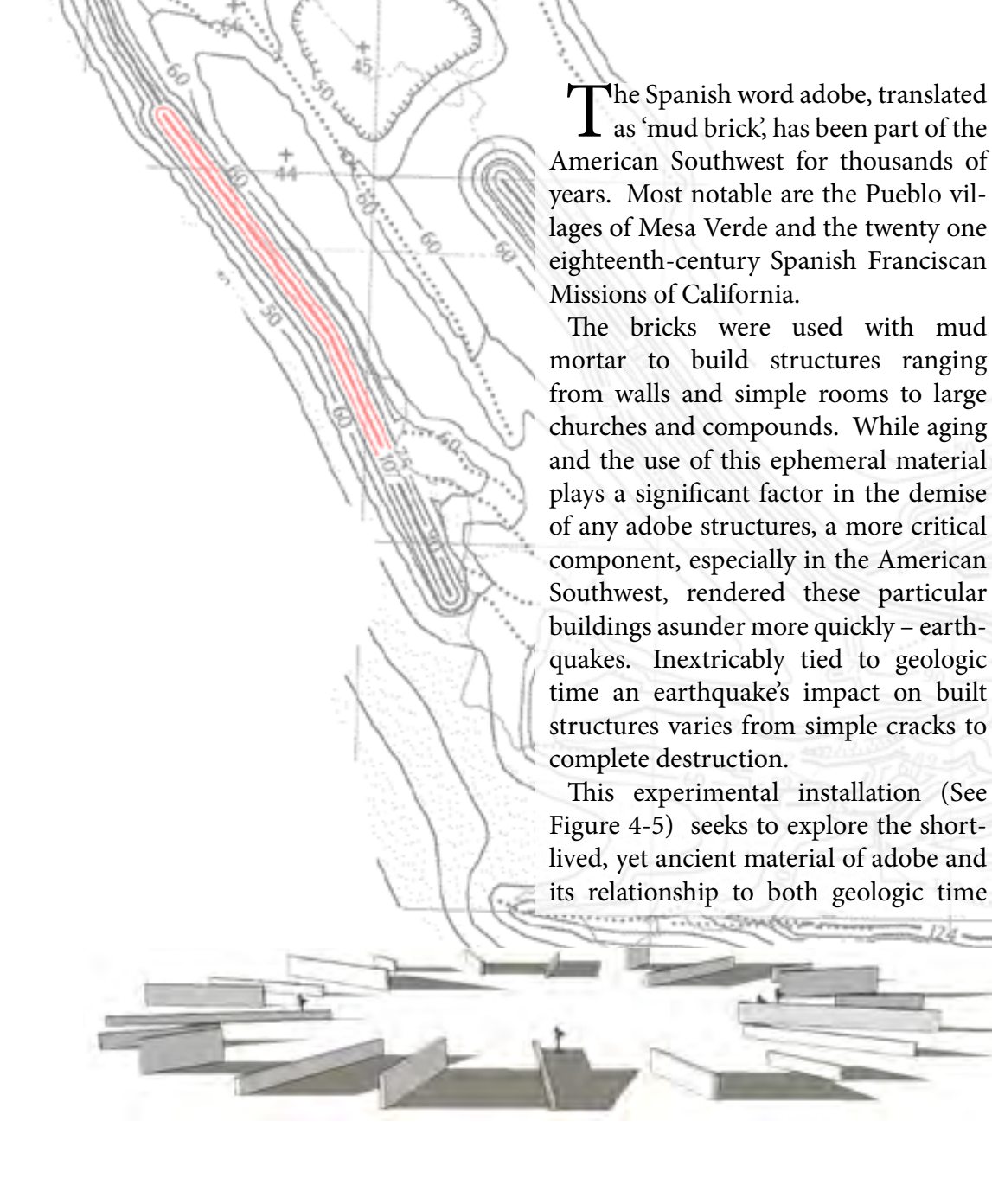
Seismic map showing fault lines around the region of Lompoc, California. Red indicates fault lines that project would be located over.

**Figure 4-5, Opposite Bottom:**

Experimental art installation exploring the material Adobe.

**Figure 4-6, Right:**

Illustrative poster submitted for LA 585 Landscape Perception, exploring the use of adobe as a building material in the landscape. Images of adobe being made, an art installation by Andy Goldsworthy combined with graphics of maps and data measuring geologic movement are combined to explore adobe through time.





M I S S I O N   S Y S T E M S   0 5

Livestock/Branding  
Agriculture/Horticulture  
Water  
Ceremony

Like an organism that has biological systems critical to the organism's survival, so too the mission had several systems that were pivotal to how the individual mission functioned. These systems were also crucial to how well the regional mission chain managed and ultimately how successful the mother country of Spain was at proliferating colonies around the world.

These systems included the physical buildings or compound of the mission, the agricultural and horticultural gardens, livestock and animal husbandry, the water system and its ancillary components of dams, aqueducts, reservoirs and fountains. And while not wholly physical, ceremony, was as much a part of the everyday life of the mission as our own circadian rhythm, and as such can be seen as a metaphor for how the mission operated.

### Livestock/Branding

Critical to the survival of each mission was a steady supply of livestock: beef and dairy cattle, oxen for plowing and hauling, horses, sheep and all of the by-products made from

these animals. As each mission was established a certain quantity of livestock were given to the newly established mission by the crown along with grain, seedlings, hardware and other supplies. Similarly to agriculture, livestock would multiply, however, more exponentially than any plant, leaving a larger mark on the landscape and an industry that would begin the era of large ranchos throughout many other parts of California.<sup>1</sup>

Barbed wire fencing would not be invented for yet another century.<sup>2</sup> Growing herds were allowed to roam and the majority of cattle spotted the extensive lands surrounding the missions. Some of the neophytes were allowed to learn and were trained how to cowboy, but it was much more common a job for Spanish soldiers. Since the range of cattle was so extensive it required Spanish cowboys, or vacqueros as they were called, to be away from the mission for extended periods of time. Asensticias or small mission-like chapels were built on the range land in order for padres to administer daily mass to those working afar.

While it was common for each of the missions to support each other with supplies and equipment, especially when a new mission was established, each mission had its own identity when it came to cattle. Unique cattle brands were created at each of the twenty one missions, carrying on an ancient tradition as well as direct orders from the Crown of Spain.<sup>3</sup> Most of the brands



were typical of the day utilizing capital letters or numerals. However, some were completely symbolic employing glyphs, in this case circles, crosses or decorative serifs on the capital letters.

Professor Kenneth Helphand mentions in *Ranch Gates of the Southwest* that brands were often “beautifully decorated and highly ornamental”, carrying on from a long line of tradition extending then to Spain's practice but harkening to an even older exercise begun by the Egyptians.<sup>4</sup> Santa Barbara's cattle brand is no less a splendid example. Its unique combination of

symbols is distinctly ornamental with a rugged beauty, however, somewhat of a mystery with mission historians who have applied basic assumptions as to the meaning since no specific defi-

nition is found in any of the records. Contributing to misinformation about this brand is its orientation which often shows the symbol upside down. The circle should be shown at the top with the cross-like shape below. (See Figure 5-1 and 5-2)

(Panel, pages 56-57)  
Described in this drawing is the vast range of land controlled by Mission Santa Barbara and the partial lands controlled by Santa Inés and La Purísima, divided by the Santa Inez Mountain Range. As a reference for scale, it took approximately a days journey by horse to go from mission to mission and a long day in this particular case because of the mountains

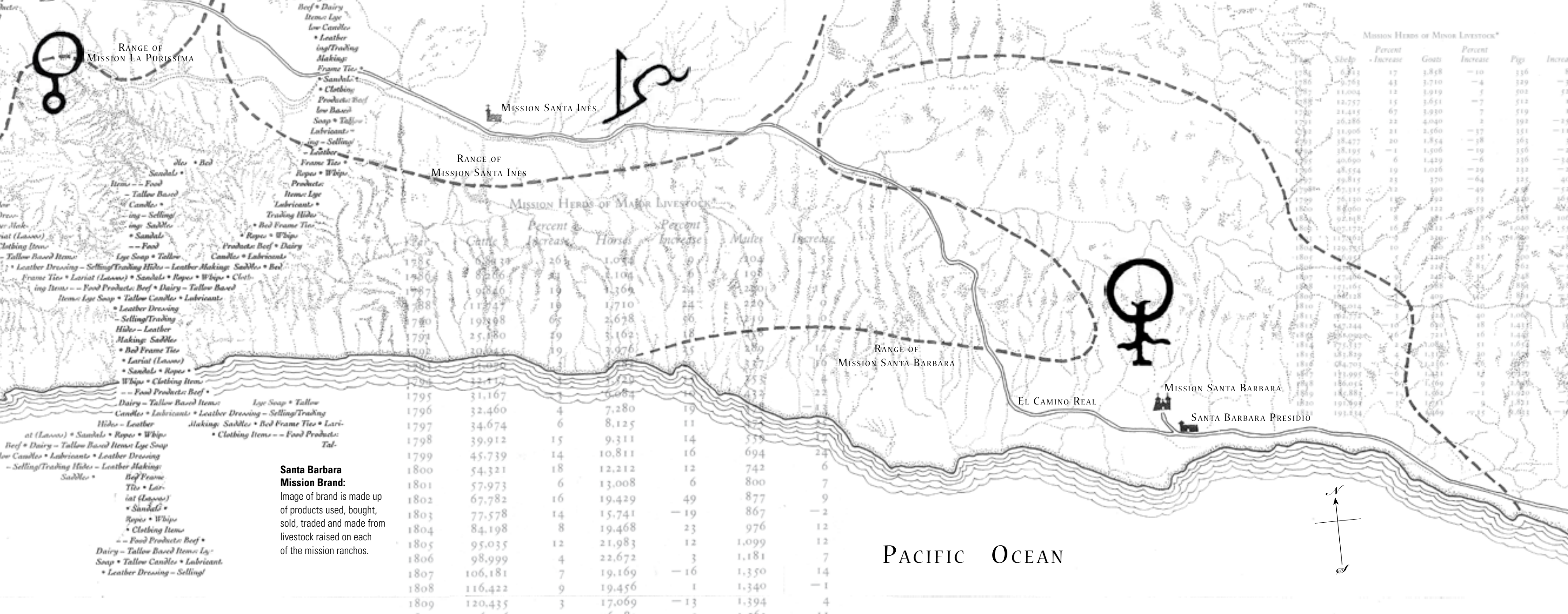
**Figure 5-1, Left:**  
Branding iron with Mission Santa Barbara's brand.

**Figure 5-2, Right:**  
Woodblock print of Mission Santa Barbara brand.  
By Author.

### Meaning of Brand:

Circles have often in Christianity represented unity and/or eternity. The symbol below the circle in many of its variations appears as a growing tree or plant. In some instances the “branch-like” horizontal line(s) have been shown straight making it look more like a cross. Either of these uses can represent life, whether the qualities of a biological organism or the “life-giving” sacrifice of Christ who died on the cross. Together with the circle these two adjoined glyphs may represent the concept of eternal life – a fitting representation for a mission brand.<sup>5</sup>





RANGE OF MISSION LA PURISSIMA

MISSION SANTA INÉS

RANGE OF MISSION SANTA INÉS

MISSION HERDS OF MAJOR LIVESTOCK

	Cattle	Percent Increase	Horses	Percent Increase	Mules	Increase
1784	6,213	17	1,054	9	104	5
1785	6,763	41	1,104	9	198	35
1786	11,004	12	1,369	24	220	1
1787	12,757	15	1,710	24	220	0
1788	21,415	67	2,678	56	219	0
1789	26,285	22	3,162	18	289	14
1790	31,905	21	3,976	25	327	10
1791	35,477	20	4,220	6	353	8
1792	38,195	-1	4,327	2	432	22
1793	40,590	6	4,684	8	432	0
1794	48,554	19	7,280	19	432	-1
1795	49,815	23	8,125	11	559	29
1796	67,315	32	9,311	14	694	24
1797	76,120	13	10,811	16	742	6
1798	88,050	15	13,008	6	800	7
1799	92,948	8	19,429	49	877	9
1800	107,172	16	15,741	-19	867	-2
1801	117,004	9	15,741	-19	867	-2
1802	129,753	10	19,468	23	976	12
1803	147,052	13	21,983	12	1,099	12
1804	166,000	13	22,672	3	1,181	7
1805	182,228	10	19,169	-16	1,350	14
1806	192,012	5	19,456	1	1,340	-1
1807	217,272	13	17,069	-13	1,394	4
1808	247,244	10	16,000	-6	1,431	3
1809	264,000	7	15,741	-2	1,431	0
1810	275,317	4	15,741	-2	1,431	0
1811	281,829	2	15,741	-2	1,431	0
1812	281,829	0	15,741	-2	1,431	0
1813	284,703	1	15,741	-2	1,431	0
1814	283,995	-1	15,741	-2	1,431	0
1815	286,012	0	15,741	-2	1,431	0
1816	283,995	-1	15,741	-2	1,431	0
1817	286,012	0	15,741	-2	1,431	0
1818	283,995	-1	15,741	-2	1,431	0
1819	286,012	0	15,741	-2	1,431	0
1820	283,995	-1	15,741	-2	1,431	0
1821	286,012	0	15,741	-2	1,431	0
1822	283,995	-1	15,741	-2	1,431	0
1823	286,012	0	15,741	-2	1,431	0
1824	283,995	-1	15,741	-2	1,431	0
1825	286,012	0	15,741	-2	1,431	0
1826	283,995	-1	15,741	-2	1,431	0
1827	286,012	0	15,741	-2	1,431	0
1828	283,995	-1	15,741	-2	1,431	0
1829	286,012	0	15,741	-2	1,431	0
1830	283,995	-1	15,741	-2	1,431	0
1831	286,012	0	15,741	-2	1,431	0
1832	283,995	-1	15,741	-2	1,431	0
1833	286,012	0	15,741	-2	1,431	0
1834	283,995	-1	15,741	-2	1,431	0
1835	286,012	0	15,741	-2	1,431	0
1836	283,995	-1	15,741	-2	1,431	0
1837	286,012	0	15,741	-2	1,431	0
1838	283,995	-1	15,741	-2	1,431	0
1839	286,012	0	15,741	-2	1,431	0
1840	283,995	-1	15,741	-2	1,431	0
1841	286,012	0	15,741	-2	1,431	0
1842	283,995	-1	15,741	-2	1,431	0
1843	286,012	0	15,741	-2	1,431	0
1844	283,995	-1	15,741	-2	1,431	0
1845	286,012	0	15,741	-2	1,431	0
1846	283,995	-1	15,741	-2	1,431	0
1847	286,012	0	15,741	-2	1,431	0
1848	283,995	-1	15,741	-2	1,431	0
1849	286,012	0	15,741	-2	1,431	0
1850	283,995	-1	15,741	-2	1,431	0
1851	286,012	0	15,741	-2	1,431	0
1852	283,995	-1	15,741	-2	1,431	0
1853	286,012	0	15,741	-2	1,431	0
1854	283,995	-1	15,741	-2	1,431	0
1855	286,012	0	15,741	-2	1,431	0
1856	283,995	-1	15,741	-2	1,431	0
1857	286,012	0	15,741	-2	1,431	0
1858	283,995	-1	15,741	-2	1,431	0
1859	286,012	0	15,741	-2	1,431	0
1860	283,995	-1	15,741	-2	1,431	0
1861	286,012	0	15,741	-2	1,431	0
1862	283,995	-1	15,741	-2	1,431	0
1863	286,012	0	15,741	-2	1,431	0
1864	283,995	-1	15,741	-2	1,431	0
1865	286,012	0	15,741	-2	1,431	0
1866	283,995	-1	15,741	-2	1,431	0
1867	286,012	0	15,741	-2	1,431	0
1868	283,995	-1	15,741	-2	1,431	0
1869	286,012	0	15,741	-2	1,431	0
1870	283,995	-1	15,741	-2	1,431	0
1871	286,012	0	15,741	-2	1,431	0
1872	283,995	-1	15,741	-2	1,431	0
1873	286,012	0	15,741	-2	1,431	0
1874	283,995	-1	15,741	-2	1,431	0
1875	286,012	0	15,741	-2	1,431	0
1876	283,995	-1	15,741	-2	1,431	0
1877	286,012	0	15,741	-2	1,431	0
1878	283,995	-1	15,741	-2	1,431	0
1879	286,012	0	15,741	-2	1,431	0
1880	283,995	-1	15,741	-2	1,431	0
1881	286,012	0	15,741	-2	1,431	0
1882	283,995	-1	15,741	-2	1,431	0
1883	286,012	0	15,741	-2	1,431	0
1884	283,995	-1	15,741	-2	1,431	0
1885	286,012	0	15,741	-2	1,431	0
1886	283,995	-1	15,741	-2	1,431	0
1887	286,012	0	15,741	-2	1,431	0
1888	283,995	-1	15,741	-2	1,431	0
1889	286,012	0	15,741	-2	1,431	0
1890	283,995	-1	15,741	-2	1,431	0
1891	286,012	0	15,741	-2	1,431	0
1892	283,995	-1	15,741	-2	1,431	0
1893	286,012	0	15,741	-2	1,431	0
1894	283,995	-1	15,741	-2	1,431	0
1895	286,012	0	15,741	-2	1,431	0
1896	283,995	-1	15,741	-2	1,431	0
1897	286,012	0	15,741	-2	1,431	0
1898	283,995	-1	15,741	-2	1,431	0
1899	286,012	0	15,741	-2	1,431	0
1900	283,995	-1	15,741	-2	1,431	0

MISSION HERDS OF MINOR LIVESTOCK\*

	Sheep	Percent Increase	Goats	Percent Increase	Pigs	Increase
1784	6,213	17	3,858	-10	336	8
1785	6,763	41	3,710	-4	329	-3
1786	11,004	12	3,919	5	502	51
1787	12,757	15	3,651	-7	512	10
1788	21,415	67	3,930	7	519	-7
1789	26,285	22	4,040	2	392	-23
1790	31,905	21	2,560	-37	351	-11
1791	35,477	20	1,854	-38	361	10
1792	38,195	-1	1,506	-19	356	-5
1793	40,590	6	1,429	-6	336	-19
1794	48,554	19	1,026	-29	312	-2
1795	49,815	23	370	-64	325	40
1796	67,315	32	490	-49	312	-12
1797	76,120	13	292	33	340	28
1798	88,050	15	122	25	317	30
1799	92,948	8	112	8	358	40
1800	107,172	16	112	0	1,040	51
1801	117,004	9	320	18	1,200	160
1802	129,753	10	260	18	1,277	77
1803	147,052	13	120	25	1,000	23
1804	166,000	13	212	81	762	262
1805	182,228	9	242	14	748	16
1806	192,012	5	268	10	850	102
1807	197,272	3	409	10	851	1
1808	217,244	10	324	20	1,000	146
1809	247,244	14	620	18	1,431	431
1810	264,000	7	721	16	1,441	10
1811	275,317	4	1,026	41	1,612	166
1812	281,829	2	1,316	28	1,628	16
1813	281,829	0	1,431	9	1,628	0
1814	284,703	1	1,431	0	1,628	0
1815	283,995	-1	1,431	0	1,628	0
1816	286,012	0	1,431	0	1,628	0
1817	283,995	-1	1,431	0	1,628	0
1818	286,012	0	1,431	0	1,628	0
1819	283,995	-1	1,431	0	1,628	0
1820	286,012	0	1,431	0	1,628	0
1821	283,995	-1	1,431	0	1,628	0
1822	286,012	0	1,431	0	1,628	0
1823	283,995	-1	1,431	0	1,628	0
1824	286,012	0	1,431	0	1,628	0
1825	283,995	-1	1,431	0	1,628	0
1826	286,012	0	1,431	0	1,628	0
1827	283,995	-1	1,431	0	1,628	0
1828	286,012	0	1,431	0	1,628	0
1829	283,995	-1	1,431	0	1,628	0
1830	286,012	0	1,431	0	1,628	0
1831	283,995	-1	1,431	0	1,628	0
1832	286,012	0	1,431	0	1,628	0
1833	283,995	-1	1,431	0	1,628	0
1834	286,012	0	1,431	0	1,628	0
1835	283,995	-1	1,431	0	1,628	0
1836	286,012	0	1,431	0	1,628	0
1837	283,995	-1	1,431	0	1,628	0
1838	286,012	0	1,431	0	1,628	0
1839	283,995	-1	1,431	0	1,628	0
1840	286,012	0	1,431	0	1,628	0
1841	283,995	-1	1,431	0	1,628	0
1842	286,012	0	1,431	0	1,628	0
1843	283,995	-1	1,431	0	1,628	0
1844	286,012	0	1,431	0	1,628	0
1845	283,995	-1	1,431	0	1,628	0
1846	286,012	0	1,431	0	1,628	0
1847	283,995	-1	1,431	0	1,628	0
1848	286,012	0	1,431	0	1,628	0
1849	283,995	-1	1,431	0	1,628	0
1850	286,012	0				

## Mission Garden

*by Michael A. Sanchez*

Darting droplets of sun pierce frost blanketing  
Ground warms, welcomes, verdant stretching.

Olive branch arching strange new visitor  
Dropping fruit among resident acorns.  
Exotic flower buds burst at first day's light  
Transporting bliss from faraway lands.  
Cultivated beds of peculiar species  
Substitute familiar chaparral expanses.

Neophytes tend curious crops and shepherd livestock  
New livelihood on ancient soil.  
Children pursue water rivulets a garden labyrinth,  
Life sprouts where none existed.  
Familiar footprints wear dusty garden paths,  
Daily ritual at communal lavandería.

Meals of atole y pozole heedlessly served  
Gone the bounty of the hunt or gather.  
Life stories myth bequeathed to little ones  
Unfamiliar principles a Padre's calling.  
Stars twinkle through 'ap bulrush and willow thatch  
Opaque adobe tile, narrow light through clerestory.  
Compound, gardens, paddocks heavy on the land  
Earth revolts and shakes wanting to go back.

H U E R T A

here.

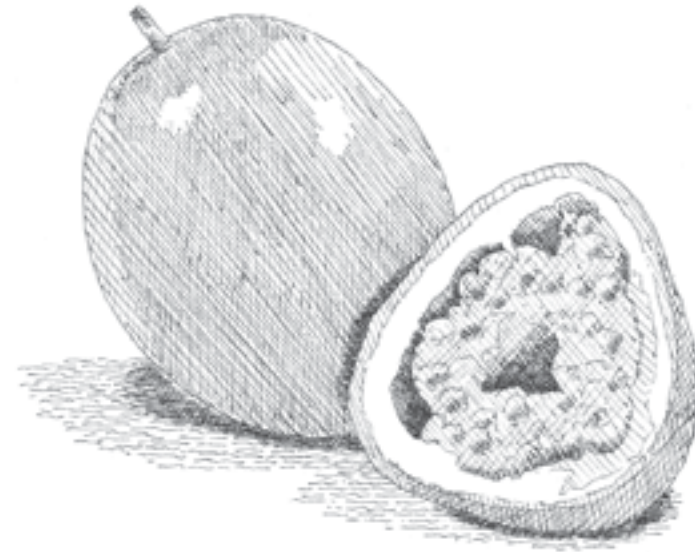
Livestock was a form of currency and as such was documented in the form of annual reports comparing different types of livestock. Tables from Robert Archibald's *The Economic Aspects of the California Missions* show animals divided into major livestock that included cattle, horses and mules while minor livestock included sheep, goats and pigs.<sup>6</sup> These reports, produced by every mission were used to inform the Viceroyalty and Spain of the progress. Similar records were kept for agriculture harvests, births, deaths, baptisms and marriages, chronicling the lives of those living at the mission compound. Life during the mission era was not always as neat and orderly as these tables and reports made them appear, but they do provide an interesting picture into aspects of daily life we normally would consider documenting.

### Agriculture/Horticulture

#### Huerta

Important as identification was, sustenance was paramount. Providing for their own needs the padres were ac-

**Figure 5-3, Top Left:**  
**Passionfruit, Granadilla,**  
*Passiflora edulis.*

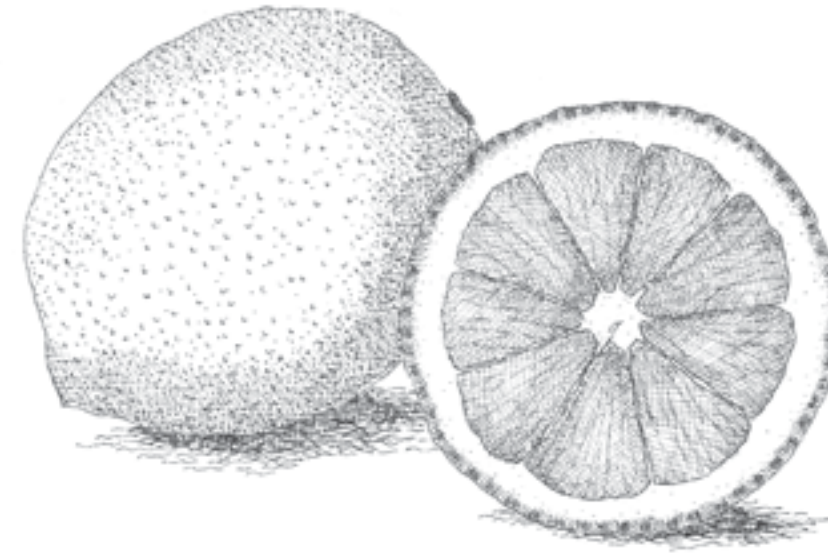
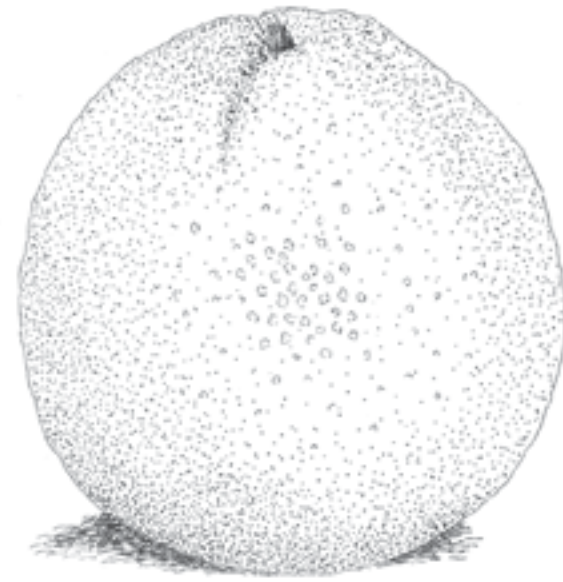


**Figure 5-4, Bottom Left:**  
**Citrus, Orange, Naranja,** (1792, 1804)  
mission oranges were initially see-propagated (later grafted)



**Figure 5-5, Top Right:**  
**Guava, Guayaba,**  
Strawberry/Purple Guava,  
*Psidium cattleianum* (=P.  
*littrorle longipe*) (likely).

**Figure 5-6, Bottom Right:**  
**Citrus, Lemon, Limon,**  
**Limonero, Citrus Limon.**



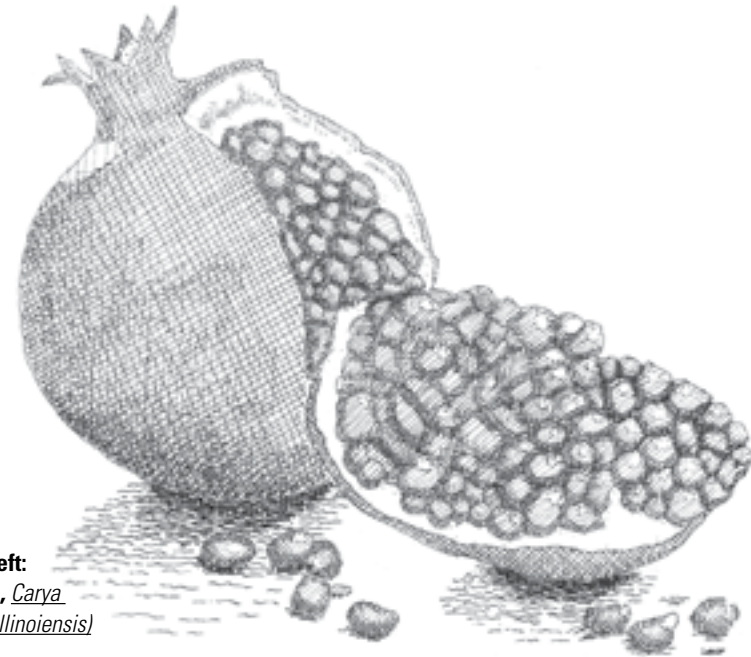
customed to simple lives of servitude, often with meager living conditions. Simply because of their hunter-gatherer lifestyle, the native Indians out of necessity also lived fairly scant. However, as a method for luring Indian converts the padres would often offer meat and clothes with the appeal of a more consistent daily constitution compared to their typical routine that may have included hunger for many days if food was scarce. Many Indians chose to explore the padre's offerings, eventually leaving their traditional ways to be part of this new culture which affected their traditional diets as well as their landscape.

While some of the Indian's traditional practices were incorporated into their new lives at the mission – mostly their gathering techniques for acorns, herbs and wild vegetables – they were also allowed to supplement, especially during the meager early days of the missions, to hunt. Their methods of hunting and gathering were light on the land, often leaving the land appear untouched. A certain respect and adoration for the land was common to the Chumash (Santa Barbara region's





**Figure 5-7, Top Left:**  
**Pecan, *Pacana*, *Carya***  
*illinoensis* (= *C. illinoensis*)



**Figure 5-8, Top Right:**  
**Pomegranate,**  
***Granada*; *Alelilla*,**  
 (1792) sweet and sour  
 strains, *Punica granatum*.



**Figure 5-9, Bottom Left:**  
**Almond, *Almedra*,**  
 soft-shell, *Prunus*  
*dulcis* var. *dulcis* (= *P.*  
*amygdalus*, *P. communis*)



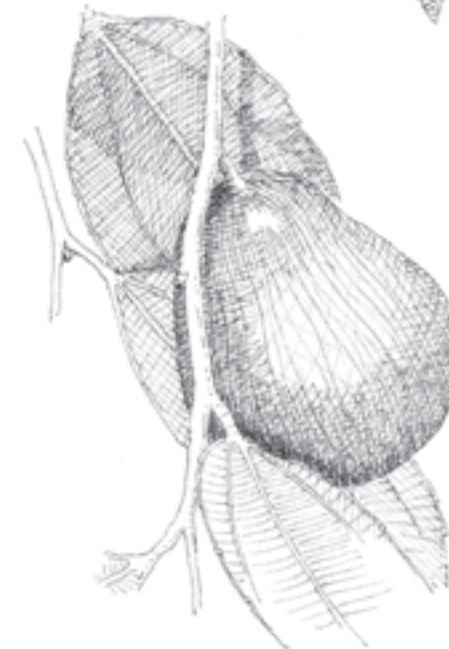
**Figure 5-10, Bottom Right:**  
**Banana – *Banana*,**  
***Plantain* – *Plátano*,**  
 (1792) *Musa acuminata*  
 (= *Musa paradisiaca* & *Musa*  
*sapientum*) & crosses.



**Figure 5-11, Top Left:**  
**Bay, California/  
 Oregon Myrtlewood,**  
*Umbellularia californica*  
 (lumber wood, furniture)



**Figure 5-12, Top Right:**  
**Hazelnut, *Avellana*,**  
 California, *Corylus cornuta*  
*californica* (= *C. robusta*  
*californica*) [native].



**Figure 5-13, Bottom Left:**  
**Jujube, *Jinol*,**  
*Zizyphus jujaba*.



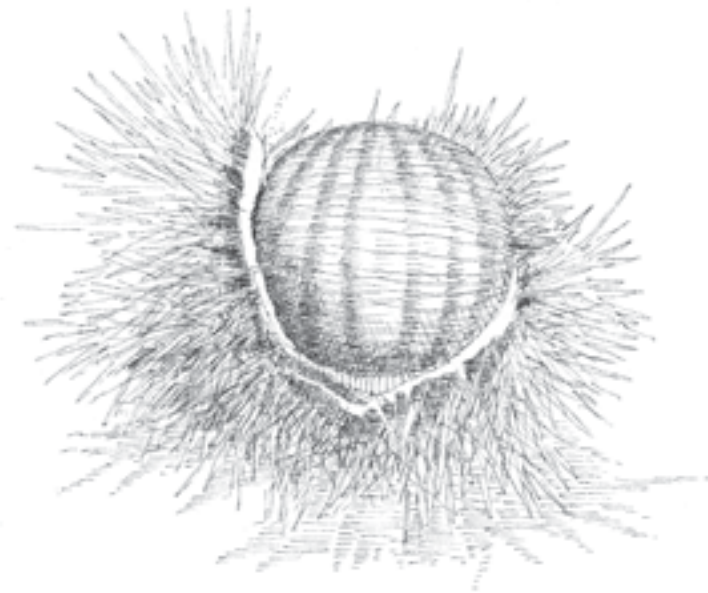
**Figure 5-14, Bottom Right:**  
**Walnut – *Nogal*,**  
 Walnut, English *Juglans*  
*regia* & Walnut,  
 California Black *Juglans*  
*californica* [native]  
 Note: some native walnuts  
 produced quality nuts;  
 English walnut was grafted  
 onto the native rootstock.



**Figure 5-15, Left:**  
**Grape, *Grano***, (1769)  
 Eating, Juice Grapes (1771),  
 Raisin – ***Pasa*** (1778),  
 Wine – ***Vino*** (1778), Brandy  
 – ***Aguardiente*** (1778)  
 – ***Angelica***, a blend: half  
 mission wine & half mission  
 brandy. Red & White grapes  
 from European grape stock  
 were brought in from Mexico  
 into the Alta territory:  
 European grape, *Vitis*  
*vinifera*: Criolla & Monica  
 types: ‘Alba’, ‘Albilla’,  
 ‘Diego Rubra’, ‘Molar’,  
 ‘Paragrande’, ‘Torrantes’  
 were seed bred quite true,  
 perhaps 60% of the time.  
 Native grapes and adjacent  
 mission grapes sometimes  
 naturally cross-bred. Hybrid  
 crosses occurred between  
 (*V. vinifera*) & native  
 grapes, *Vitis californica*  
 & *V. girdiana*. From these  
 random crosses new  
 California grape “selections”  
 resulted and were added  
 to the vineyard inventory.

**Figure 5-16, Top Right:**  
**Chestnut, Spanish,**  
***Castaña***, *Castanea sativa*.

**Figure 5-17, Bottom Right:**  
**Carob, *Algarroba*,**  
*Ceratonia siliqua* ‘Santa  
 Fe’ (hermaphrodite cv.)



**Figure 5-18, Top Left:**  
**Dates – *Datil*,**  
 1) arabian Desert Date  
 Palm, *Phoenix dactylifera*  
 2) Canary Island Date Palm,  
*Phoenix canariensis*  
 (Palms are non-woody  
 monocots) The fruit  
 and sap of the Canary  
 Island Date Palm were  
 used by the Spanish.

**Figure 5-19, Right:**  
**Oregon Grape, *Berberis***  
*aquifolium* (=Mahonia a.),  
 One of the native plants  
 used by the Spanish .



**Figure 5-20, Bottom Left:**  
**Beavertail Cactus,**  
***Nopal*, *Manso*,**  
*Opuntia basilaris*.



native Indians) as was typical of many other native American Indian cultures. One practice the Chumash exercised was that of annual burning. Burning controlled the typical chaparral undergrowth from becoming overgrown, a condition that provided hiding places for prey but also contributed to potentially dangerous wild fires.<sup>7</sup>

These practices were almost completely lost and most certainly dramatically minimized by the introduction of field agriculture and husbandry of livestock. Cattle and to some degree sheep most certainly impacted the topography and texture of the land through repeated compaction and resulting erosion. While deceptively subtle, a direct result of introducing livestock was the establishment of exotic plants such as food and forage crops. Indirectly, the spread of European annual grasses through physical contact with shipped livestock from Europe have had their own impact to California's native perennial bunch grasses and wildflowers.<sup>8</sup>

Another more pragmatic type of garden was the Huerta, Spanish from the Latin hortis, "garden" was used

to signify the agricultural garden or orchard. These gardens were vital to the survival of the Mission. Each mission was given seed and starts from Spain as part of a medley of establishment tools to begin the mission with the intention that each mission would be self sustaining within five years. A fascinating aspect of the Huerta is their biodiversity. While the padres brought with them starts from European strains of basic fruits like olives, pomes, citrus, stone-fruit such as peaches, apricots, plums and cherries many of the plants that were cultivated over the mission's lifespan were cultivars that were developed by the padres themselves or were introduced by visiting traders and explorers who exchanged their goods for supplies.<sup>9</sup>

While the intent of the huerta was not ornamental in nature, there was an irresistible quality and beauty to them even visitors who looked upon them could not resist. J.T. Farnham, in his visit to Mission Santa Barbara in 1840 described the gardens in this way:

*The old padres seem to have united with their missionary zeal a strong sense of comfort and taste. They laid off a beauti-*

*ful garden, a few rods from the church, surrounded it with a high, substantial fence of stone laid in Roman cement, and planted it with limes, almonds, apricots, peaches, apples, pears, quinces, etc., which are now annually yielding their several fruits in abundance...*<sup>10</sup>

Later, during the reconstruction period when the huerta was no longer a necessity and the agricultural



gardens were abandoned for more ornamental enterprises it is surprising to see many of the qualities expressed in the huertas – symmetry, order and pattern – revealed in the design and layout of the the ornamental gardens of the jardín.

(Panel, pages 58-67, *Plants of the Huerta Garden*)

The pen and ink drawings on these pages give prominence to but a smidgen of the many edible woody trees, shrubs and vines grown at the mission. Other categories of plants grown at the mission were edible herbaceous perennial plants, edible sea-

sonal plants or "vegetable gardens", herb garden plants, utilitarian plants, native plants used for utilitarian purposes, décor plants or ornamental plants and native plants. An extensive list of individual species found in each of these categories can be found in Michael Hardwick's invaluable

compendium of plants found at the Spanish missions entitled *Changes in Landscape, The Beginnings of Horticulture in the California Missions*.<sup>11</sup>

Selected for their visual qualities, the



species chosen to highlight the plants of the huerta were picked more for their illustrative value and horticultur-

**Figure 5-21, Left:** West elevation of the chapel from the courtyard garden, also known as the sacred garden. Interestingly, this drawing underlines the different styles, both architectural and horticultural, from different eras employed over time as the mission developed. For example, Moorish windows successfully reside beside Roman arches. Similarly, the cactus and succulent plants shown were not part of the original courtyard but an introduction most likely during the reconstruction period and later adding to the horticultural variety of the garden.



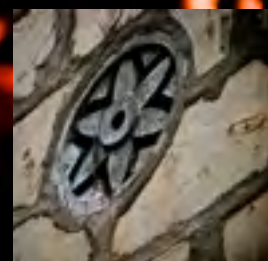
**Figure 5-22, Center:** Both the physical structure and the courtyard plants create depth and mystery, inviting the visitor to explore what is just around the corner.

**Figure 5-23, Left:** The enormous Morton Bay Fig, found in the cemetery garden attests to the extremely adaptable climate of the Santa Barbara area and the ability of the padres to grow many unique varieties collected or traded with early visitors.



# J A R D Í N

Figure 5-24 through 5-28, Top to Bottom: Patterns of a Mission Garden.





**Figure 5-29, Left:**  
Ruins of an elevated aqueduct. At the top of this stone structure is a channel which conveyed water from the reservoirs to one of the orchard gardens.



**Figure 5-30, Center:**  
Carved stone bear water supply to Lavendería (wash basin). After water left the 1804 fountain above it gravity fed this laundry basin.



**Figure 5-31, Right:**  
Ruins of upper reservoir. The remains of an aqueduct feeding this reservoir can be seen in the foreground. Built in 1827 to store water for the grist mill, the penstock (circular hole at base of wall) was fitted with a wooden gate that controlled the flow of water which turned the wheel of the mill's grindstones.

Thomas Brown in his 1980 article *Landscapes and Gardens of the Mission Era* speaks of three garden types employed during that time not only at the missions but in the cities that developed around the old mission and presidios. Those gardens were the *jardín*, the town house garden and

al uniqueness than for some historical significance. Drawing these plants reinforced the cognitive imprint over seeing images of these plants and dramatically over reading about the plants alone.

### *Jardín*

rancho garden.<sup>12</sup> The town house garden and rancho garden were most likely gardens influenced or inspired by mission gardens in the developing homes and structures of the era but particular to the mission gardens the *jardín* was primarily an ornamental garden reaching its zenith during



the reconstruction period of the missions during the latter half of the 19th century.<sup>13</sup>

Santa Barbara's early gardens, the orchards, vineyards and vegetable gardens during the thirty plus year period in which this mission was most

viable, were certainly ornamental in nature and appearance as many visitors to the early missions attested.<sup>14</sup> However, their purpose was not that of fancy or horticultural ornamentation, but of production, nourishment and sustenance.

After secularization in 1834, Santa

Barbara Mission's gardens and buildings declined and did not see improvement until the church received the property and title back in 1861.<sup>15</sup> During a Yale University scientific expedition to Santa Barbara in 1861, scientist, William H. Brewer commented

on the degradation to the city which extended well to the mission when he observed that "Grass grows in the streets and cattle feed in the gardens..."<sup>16</sup> With very little money to make improvements even for maintenance the mission continued to languish for several more years. Not until a regular income from a newly established boys' college become available and the visionary ideas of Father José Maria Romo did the buildings and grounds of the mission begin to change.<sup>17</sup>

*(Panel, pages 68-71, Jardín)*

At one time the inner courtyard, also known as the "Sacred Garden" or "Forbidden Garden" created by the wings of the quadrangle was experienced by only the padres and very special quests. It was off-limits to women, hence the name forbidden and was due to their vow of a single life; a practice of all Franciscans the world over. Before the courtyard garden became available to tourists, including women, only three women were known to have seen the special garden. The first was the Duchess of Argyle, who visited Santa Barbara after attending the World's Columbian Exposition in

Chicago in 1893 as a representative of Scottish nobility. The second was Mrs. William McKinley who was accompanying her husband, then President of the United States. The third woman's name was unknown, but her entrance was overlooked as she disguised herself as a man and later boasted about her exploit.<sup>18</sup>

Superimposed over a photograph of the 1872 fountain in the cloister garden of the main quadrangle is a plan view of the plant beds. This drawing was reproduced from Samuel Newsome's 1903 plan of the cloister garden which included lists in the plant beds of the plantings used in the original 1872 design (plant names excluded from this drawing). An early design influenced by Romo, this particular layout utilized the four rivers of paradise theme and parterres laid out in symmetrical patterns which became the inspiration of many Mission Revival gardens throughout California.<sup>19</sup>

Today, the courtyard garden is no longer considered a secret or private garden admissible to only a few but is open to all. Much of the plant material has been replaced with lawn with the



1804  
FOUNTAIN

MISSION CREEK

GRIST MILL

LOWER  
RESERVOIR

UPPER  
RESERVOIR

MISSION CREEK  
DAM

PLAN

CORRAL

POTTERY  
FACTORY

CEMETERY

MAJORDOMO HOUSE

THRASHING  
FLOOR

RESERVOIR

SACRED  
GARDEN

SANTA BARBARA  
MISSION

1804 FOUNTAIN

LAVENDERIA

GUARDHOUSE

ORCHARD

KILNS

GRANARY

INDIAN  
PUEBLO

HUERTA

FILTER  
BOX

STONE AQUEDUCT

M I S S I O N  
C R E E K

- Legend
- ..... current city plan
  - ruined artifact
  - existing artifact
  - ..... aqueduct
  - ==== creek
  - - - - garden boundaries
  - cemetery walls

ELEVATION/SECTION

edges of the courtyard still planted in symmetrical beds.

Details are included of iron and stonework found on the building (see Figures 5-24-5-28), revealing the interconnected patterns of the parterres and these built elements.

While not a formal ornamental garden, the cemetery is most certainly a vibrant collection of fascinating plants and newsworthy tombstones, many of which give a rich history of this Mission.

An article from an 1901 Sunset Magazine eloquently characterizes the cemetery as a garden equal to no other and captures the essences of what this pen and ink drawing tries to describe.

*Yet, strangely enough, so supremely does the heart dominate the perceptions, that the uncertain coloring, the angular lines and questionable curves of figure and flower traced by the patient, toil-worn fingers of those unselfish shepherds of wilderness souls, these appealed to and touched me more profoundly than all the rare canvases that hung above the altar! Thus eloquent is the work of the padres of the devoted endeavor and of the peculiar difficulties under which these marvelous missions were reared.*

*But our guide now conducted us to a doorway in the right wall of the church, and fitting in its lock a ponderous key, flung it open; and as we stepped forth ill to the ancient burying ground it seemed that the day's enchantment had but just begun, for a lovelier or more flowery garden in which to sleep the eternal sleep it would seem impossible to imagine!<sup>20</sup>*

The drawing centers on the enormous Morton Bay Fig which is estimated to have been planted around 1890. Other large specimens loom throughout the garden adding mystery and patina to the stone and adobe walls.

This black and white pen and ink expressed through hatches and line work capture the mystery of this garden by not being a photograph showing every minute detail, but, by allowing the viewer to imagine what some of the shapes, the patterns, the textures might be. What might the colors, the atmosphere, the mood be? These questions, put forward by this drawing, provoke the viewer to appreciate more about this place than merely viewing a pretty picture, thereby allowing the observer to relive the history through an unparalleled experience.

### Water System

Equally interesting to the gardens is the water system of the mission. Of the extensive hydraulic infrastructure created to provide water to all parts of the compound, only fragments remain (see Figures 5-29 through 5-31). Pieces of aqueduct are now separated by contemporary streets, private homes and public open spaces but harken to a time where they were the primary feature in the landscape. Other elements such as reservoirs, settling tanks and clay pipes only remain because of photographs, old surveys and much lore. Many elements of the water system, such as the dam in Pedregosa Creek (now Mission Creek) in Mission Canyon as well as a dam in Rattlesnake Canyon are shrouded by overgrown riparian vines, shrubs and trees.

Originally created to furnish the mission with a reliable supply of life-sustaining water the Mission Canyon Dam can be seen today in the Santa Barbara Botanic Garden near the Redwood Forest. The reservoirs, grist mill and filter houses are noticeable remnants rising out of grasses and shrubs gone wild, recognizable only

because of informational signage and maps. Other elements from the water system, such as the Santa Barbara fountain and Lavandería (laundry) of 1804 are the best preserved of all the hydrologic features. However, it's apparent that even these familiar relics may not survive another two hundred years.

To be sure, water was more than critical for the success of any of the missions. Many a mission was relocated because of issues of proximity to a dribbling water source or a well going dry. The three primary purposes of the water system at Santa Barbara were to irrigate crops, vegetable gardens and orchards, to provide water for drinking and washing for those living in the mission compound, and to produce power for one of Alta California's earliest industries—the grist mill.

<sup>21</sup>

But water was more than just a life-giving substance. While used sparingly water was also used in celebration, ceremony and as a way to enliven space. These may not have

been the originally intended uses for the 1804 fountain or lavandería, or the secret courtyard fountain installed by Romo in 1872, but it was the outcome, nonetheless. Positioned to the south-



**Figure 5-32, Bell Echo:**

Woodblock print by Author. Sound, like a pebble hitting a still pool of water, emanates from the origin. This illustration was a study in expressing the way sound might look if it were visible.

west of the church entry, the fountain and lavandería were centrally located between the mission, the Indian village, the orchards, the vegetable gardens and the majordomo's (work foreman) house. This location was most likely the primary feature a visitor would see upon entering this compound. In essence it was the "hub" for activity at the mission.

*(Panel, pages 74-75, Water System)*

This over-drawing includes three plan views at different scales. One scale shows the Pedregosa or Mission Creek Dam. Once passing over the dam water was conveyed via a stone aqueduct down the canyon, diverting it from the creek to the reservoirs above the mission. Water was then gravity fed from the reservoirs through aqueducts to supply orchards, gardens, fountains and laundry as well as many other industries that required water, such as the grist mill and tannery.

In a 1939 speech for the Sisquoc Barbeque, Fray Maynard Geiger implores





his audience that, "...if Santa Barbara was awakened to the historical importance of this ancient water system they would at once spare nothing to preserve and restore this invaluable resource." <sup>22</sup>

One way in which those who read and study this drawing can appreciate the historic connection of the water system to modern-day realities is through the inclusion of the contemporary street layout beneath the footprint of the original mission compound. Seeing the feat these builders overcame to build miles of aqueduct, reservoirs that held close to a million gallons of water and an extensive, well irrigated garden, builds appreciation for these accomplishments.

Rounding out this drawing is a plan and section of the 1804 fountain. This icon of the mission is the focus of many a tourist and artist, local and international. The relationship of the fountain to the mission, the laundry, the Indian village, and the gardens, etc. is emphasized by showing the fountain at different scales, highlighting its design elements through the elevation and associating all of this through

the screened photograph in the background.

### **Ceremony**

The system of ceremony could be seen, heard and felt at Mission Santa Barbara. It most certainly had an impact as a means of connecting the explorers and indigenous people to this historic religious place. Ceremony is an integral part of many religious institutions, most definitely Roman Catholicism, but will not be evaluated specifically as part of this religion but rather harken back to the biological analogy; simply a part of a larger organism.

### **Mission Bells**

Ceremony, as a means of organization, as a method for learning and as an instrument for connecting the padres and their parish to God and country, was critical in unifying Santa Barbara Mission to the other missions and Spain. It comes in many forms; from the simple reciting of prayers to the more complex procedures of a mass, wedding or funeral. It is also the familiar ground on which many believers of the Catholic religion find

comfort, whether they participated in a ceremonial event at this mission or any other.

Therefore, ceremony also serves as a type of order that gives structure to the day, the space or during a specific event or time. Mission Santa Barbara has over the last two hundred-plus years remained an operating church and elements of ceremony can still be seen in and around the compound, during the daily masses, but especially during festivals and religious holidays. However, some elements of ceremony manifested in the landscape and architecture are not so obvious yet have a rich history that must be told.

One such aspect of ceremony are the mission bells and the music of the mission period. The sound of church bells new or old have a curious and intriguing affect on us. Whether you have a religious background or not, the silvery sound of bells tolling can be mesmerizing, taking you back to distant memories; or they can be alarming or exhilarating, calling you to attention or celebration. According to Maynard Geiger's study, *Mission Bells of Santa Barbara*, these bells gave

forth the first genuine musical notes in the civilized communities along the Camino Real. They were a call to worship three times daily at morning, noon and evening, reminding all to the Angelus, a devotional prayer recalling the Incarnation of the Son of God. They rang in celebrations such as weddings or festivals, greeted distinguished guests such as presidents or governors as well as lamenting such events as funerals. <sup>23</sup>

The Santa Barbara Mission currently has eleven bells divided amongst its two towers, however, it wasn't always this way. When a mission was established it was given, as a gift from the King of Spain, two bells – one large and one small. <sup>24</sup> Acquiring the funds to purchase new bells or repair bells damaged by earthquakes were made possible by wealthy parishioners or fund raising. In reviewing Geiger's *Mission Bells of Santa Barbara*, it is easy to see the difficulty in keeping track of the history of these bells as they were also given as gifts to padres starting other smaller nearby churches, brought back in some cases, destroyed by natural disasters and simply forgot-

ten through the natural mislaying of time.

These bells had a direct impact on the people living in and around the mission grounds. For example, the bells were used to call all to worship as well as demarcating important times of day such as when work should begin or end, much the same way school bells work to call children to class.

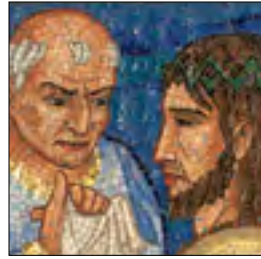
In a recent discussion with Craig Russell, author of *From Serra to Sancho* (a compendium of mission period music) and recording artist playing baroque guitar in his latest release *Mission Roads*, I learned the mission bells were not used as a musical instrument playing specific or independent notes, "songs" or "melodies", but rather, through the art of tolling the bells were used to create rhythmic patterns of sounds for different events. Russell went on to say that through the art of bell-tolling there are rhythmic loops and each bell is part of these revolving loops or circles that overlap in ever-changing patterns where the patterns are based on the regularity of a particular bell's loop. In a visual analogy he compared this process to

that of a hanging mobile, where each individual "shape" (bell) has its own integrity, but those "shapes" (bells) all revolve and interact in ever-changing ways. <sup>25</sup>

### **(Panel, pages 78-79, Bells of Mission Santa Barbara)**

While the traveling sound waves of bells may be difficult to express or represent illustratively their impact on those living at the mission were direct and absolute. Like the daylight triggering our body's circadian rhythm the bells triggered the rhythm of life at the mission. In fact every aspect of life at the mission was regulated by the bell, be it work, meals, sleep or prayer.

In an attempt to convey the far reaching reverberations of the bells the accompanying illustration begins by expressing the distance the sound of the bells traveled in overlapping plan views of the mission site at two different scales: one inch equals a mile and one inch equals two hundred feet. The importance of the bells to all those living in the mission compound is undeniable. Through a thread on the American Bell Association's blog-site, bells of this era and form or struc-



1. Jesus is condemned to death by Pontius Pilate.



2. Jesus is given his cross.



3. Jesus falls the first time



4. Jesus meets His Mother.

5. Simon of Cyrene carries the cross.

6. Veronica wipes the face of Jesus.

7. Jesus falls the second time.

ture could be heard from a distance of  $\frac{3}{4}$  of a mile to as far as eight miles depending on the condition of the air and other objects that may disrupt the sound waves from traveling, such as land forms. These sounds were perhaps even heard further out at sea where the sound waves could travel much farther.<sup>26</sup>

Therefore, the one inch equals a mile scale reflects concentric circles representing sound waves at various ranges from a mile to three miles. The ambient sound of the 1790's would have included horses, wagons and people making various sounds of work and play, most of which would be in relatively low to mid range frequencies. Contrasting this with the higher frequency sound waves from the bells and one could easily imagine the mission bells being heard from most parts of town. Included in this illustration is major state highway 101 which closely follows the

old Camino Real and helps to draw comparisons between historic place and contemporary space. While the bells were intended primarily for those living at the mission

compound their peal became part of the fabric of the landscape far beyond the walls of the mission.

This drawing also touches on the music of the mission era. At the one inch equals two hundred feet scale a partial music score of the song Kiri Eleyson circles the mission similar to the scale showing the sound traveling.

There are several items of interest in how the music is depicted. The first is the staff. Contemporary staff have five lines and four spaces

where this staff contains six lines and five spaces. Another difference is the presence of a single staff that includes notes for four separate parts instead of having two staves differentiated by

a treble clef and a bass clef. The four separate parts in this illustration are distinguished by color and fill. There are solid red and hollow red notes as well as solid black and hollow black notes.

This music, written in Latin, was sacred music and as such was only played inside the church. Secular music was also popular and often played on the verandas or steps of the mission but always played outside of the church.<sup>27</sup>

The two bell towers along with the facade of the

mission are the symbols that identify Santa Barbara from all the other missions. Breakaway renderings of the towers reveal all eleven of the bells. A chart highlights the unique characteristics of each of the bells.

### Stations of the Cross

The Stations of the Cross is a ceremony where individuals can follow the various stages of the crucifixion of Jesus Christ such as these sculptures shown here. Once, this was a ceremony adhered to by Pilgrims to the Holy Land, but became unsafe when the Muslims took over the region. In order to protect their believers, Church officials created the stations within the church through paintings or other artwork, in order for their members to celebrate this ceremony safely.

### Stations of the Cross:

8. Jesus meets the daughters of Jerusalem.

9. Jesus falls the third time

10. Jesus is stripped of His garments

11. Crucifixion: Jesus is nailed to the cross

12. Jesus dies on the cross

13. Jesus' body is removed from the cross (Deposition or Lamentation)

14. Jesus is laid in the tomb and covered in incense





T O O L S O F E X P L O R A T I O N 0 6

Drawing • Painting • Pen & Ink  
Photography • Woodblock • Graphic Design

**Overleaf:**  
Woodblock print of *Agave victoriae-reginae*.

**Below – Left to Right:**  
**Figure 6-1, Mission La Purissima:**  
Plein-air watercolor of the chapel and bell tower.

**Figure 6-2, Cemetery Garden:**  
Pen and ink rendering on mylar film. This drawing could be said to be simply a line drawing as some form of line makes up the outlines as well as shadows and tonal value.

**Figure 6-3, Bell Echo:**  
Woodblock print. This woodblock is printed with watercolor inks.

**Figure 6-4, Doorway to Cemetery:**  
Digital Photograph. Nikon D80, AF-S DX Zoom-Nikkor 18-135mm. ISO 1600, 18mm, 0ev, f/5.6, 1/320. A curious sight, the three skull and bones depicted over the doorway are meant to signify the entry of the cemetery.



**Figure 6-5, Vent:**  
Watercolor study of circulation vent.

**Figure 6-6, Mission Santa Barbara Facade:**  
Pencil study of the facade for a possible experiment similar to Gordon Cullen's Serial Vision shown in his book *The Concise Townscape*.



Because of my love for drawing and most artistic media in general and my passion for landscape spaces both contemporary and historic, I wanted to incorporate heavily the exercise of drawing into this project.

Mission Santa Barbara is one of the most visually celebrated historic icons of California and because this Queen of the Missions is so identified through visual means it seemed natural to extend the instructional goal of helping others better understand and appreciate this incredible place through the context of art and graphic design.

project more fully infused with knowledge and experiences of Mission Santa Barbara at a level deeper than perhaps only writing supported with historic images could provide. As a hopeful academic I was also looking for pedagogical methods to help students use a tool that is left virtually obsolete today by the computer – drawing.

Many variety of courses in drawing are offered at every school where landscape architecture is taught and because ours' is a field that is based in the visual it makes sense to have courses that teach visual communication. Many

Drawing as well as other forms of visual communication were the keys to attaining these goals. An equally ambitious goal was to myself finish this

students though (especially those who are not naturally artistically inclined) see these classes as a means to an end. As such I see what I've learned through

this project as an opportunity to help all students become excited about exploring a subject in a way they may never have thought.

I have obviously never seen drawing or any form of visual communication as simply a means to an end, however, I've worked with enough visually challenged individuals to know how painful it is to want to express oneself graphically only to be frustrated with the physical limitations of a hand-eye-brain connection. Everyone learning to draw has experienced this. To be clear, however, this is not a project

on how to teach drawing, nor is it an analysis of the importance of drawing in visual communication.

It is an analysis of what I learned

through drawing and literary research, through painting and journaling, through photography, writing and the artistic process in general as I explored Mission Santa Barbara's landscape. It is also meant to inspire the curious and those tempted to dabble in art but afraid to try it as a method of learning, exploring or documenting a subject.

### Journaling the Place

Many mediums or forms of art were used to explore the various aspects of Mission Santa Barbara's buildings, landscape and systems, the most basic of which was simple graphite pencil

sketching. Using primarily a pencil and sometimes a pen I studied the mission landscape by journaling what I saw. Journaling in this context includes both notes and annotations as

well as a plein-air line or tonal drawings. I drew details, panoramas, elevations of the mission and the landscape it dwelt in, plan view diagrams and various other visual snippets. What was common in all of these was a desire to capture the essence of what I was studying and not a final or finished rendering. In some cases I came back and embellished with color in order to understand a different element of my subject – mood, atmosphere, temperature, wetness or dryness – qualities that often cannot be documented by black and white alone.

While mood can be illustrated in black and white it often fails to com-

... continued page 90

The following experiment and supporting drawings were part of a class in Contemporary Landscape Theory taught by Professor Kenneth Helphand.

How many times do people walk through a landscape soaking in the views, perhaps stopping at a designated overlook to take a picture of their companions or to have a picture taken of them? Every single day. How many of those same individuals would remember what that vista was, the special qualities of the place they sought to memorialize if they were to lose that image or print? Most likely very few to none.

Very rarely anymore do Americans and perhaps most tourists sketch or paint as a way to remember a place or to ingrain the scene into their memories through similar types of memory techniques. However, those with little or much life experience can recall vividly images of times past when stimulated by a passing stench or lovely fragrance. Our sense of smell in fact is the longest-lived of the senses bring back to the moment even the earliest memories of our lives.

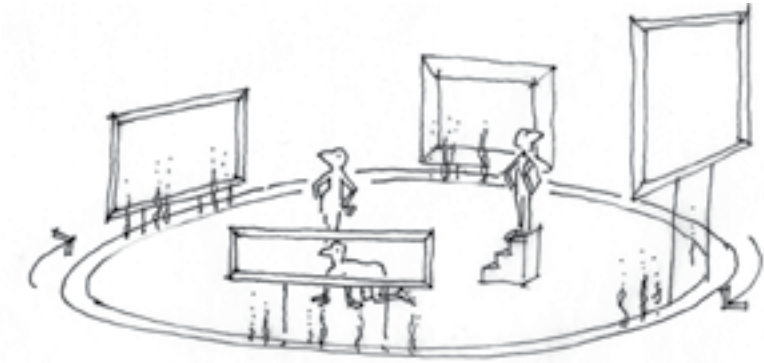
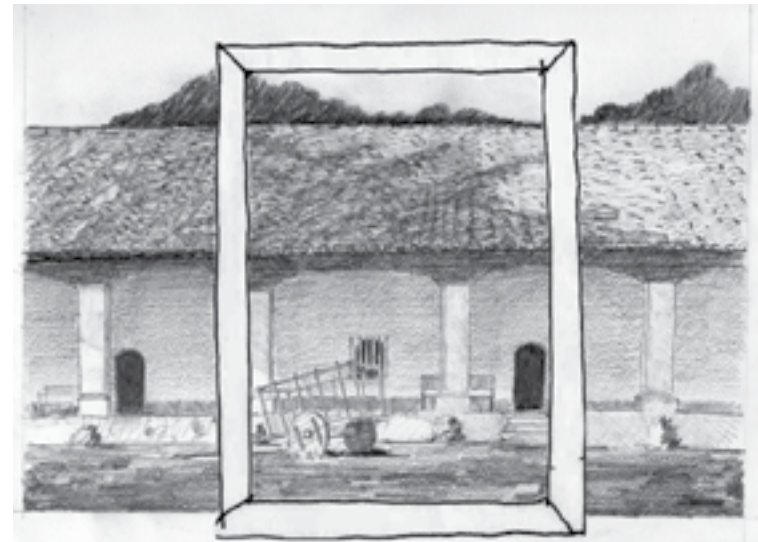
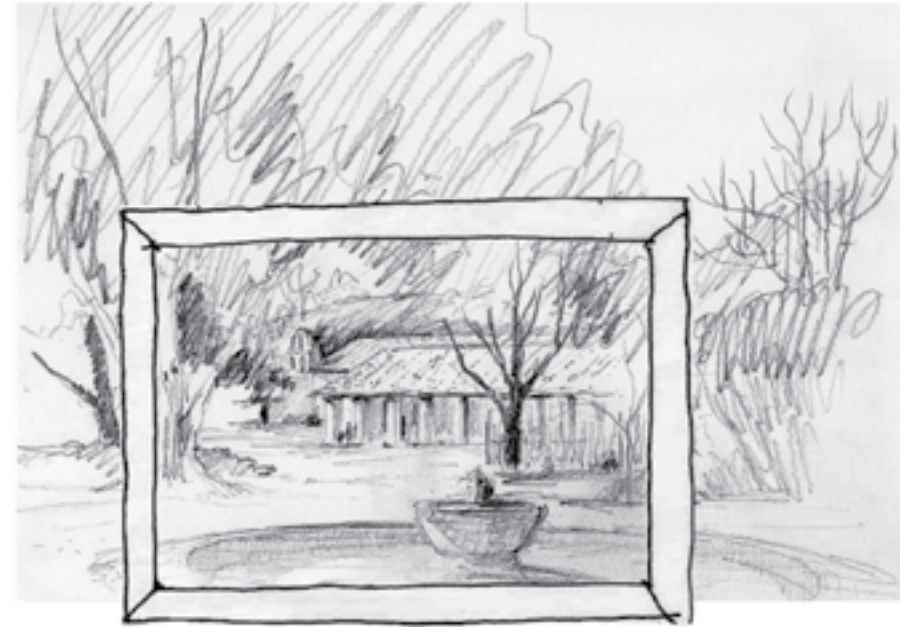
The gardens of Mission La Purissima are loaded with memories. To visitors today, those memories are conveyed through the museum and educational venues setup throughout the Mission grounds. But what if there were a way to

use that history and the gardens in their present state to indelibly etch into the minds of tourists what they see on their exploration of the gardens.

This experiment seeks to use odor as a means of stimulating the portions of the brain to remember what is seen. To facilitate this frames will be set on a large rotating ring that can be oriented to capture different points of view and perspective from a single point. The frames will vary in size, shape and orientation. Depending on the selected scenery an odor or aroma dependent upon the view will be released into the air connecting both the visual and the olfaction.

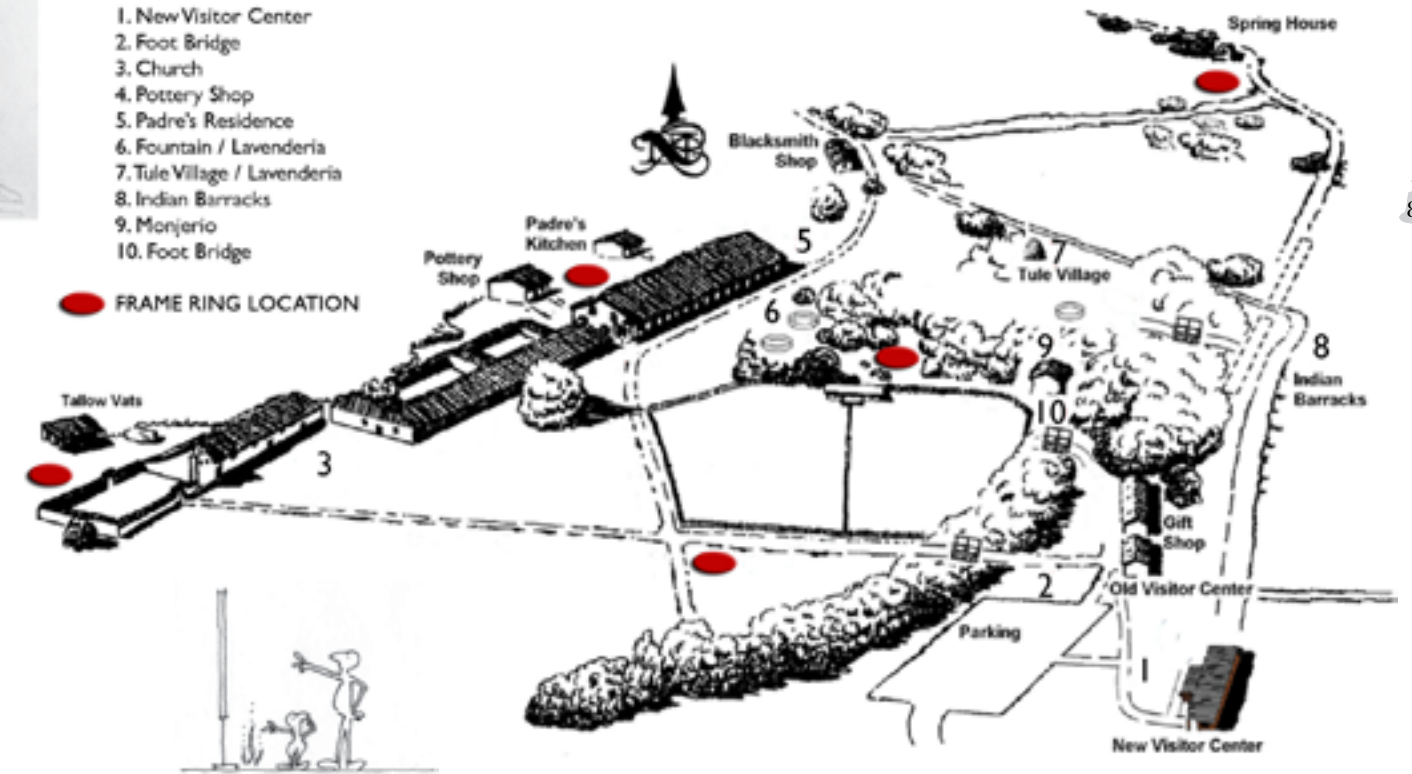
For example if a frame is oriented toward the tallow vats, perhaps the smell of soap, or fat would fill the air. If a frame were directed toward the lavenderia or communal clothes washing area a scent of clean sun-dried laundry could be detected. Or even smells of farm animals when the frame is positioned toward the paddocks.

The possibilities are endless and the frame rings could be moved to different locations to provide numerous view-point and scent combinations and could be done in different times of the year to take advantage of seasonal smells.



1. New Visitor Center
2. Foot Bridge
3. Church
4. Pottery Shop
5. Padre's Residence
6. Fountain / Lavenderia
7. Tule Village / Lavenderia
8. Indian Barracks
9. Monjerio
10. Foot Bridge

● FRAME RING LOCATION



municate certain emotions or atmosphere that are easily communicated through color. Shadows, through color, line or other tone emphatically add depth, time of day, mystery and reality to a drawing, but without color the observer is left wondering whether the moment captured happened in the morning, mid-day or evening.

But drawing is more than just the medium one uses to record what one sees. Through drawing the opportunity to observe a subject and its relationship to other elements is fundamental. As Laurie Olin, author, landscape architect and artist points out in his book of essays and drawings of the English landscape, "Drawing is not merely a manual skill or craft dependent upon physical dexterity... drawing is an attitude and a mode of seeing and being that is essentially quiet." <sup>1</sup> A certain concentration overcomes the drawer as he focuses on his subject, an attention that is more strident than the actual activity of drawing.

If there is anything else that can be said of drawing, it might be, that there is nothing to equal the experience of personally being in special and unique

places, holding paper and pencil and simply being in that place and time capturing what will never be the same again in time and space.

### Photography

Photography is an interesting and fascinating medium. Two hundred

and forty years ago when the missions were founded, photography was still some sixty-some years from being invented. The way we see our world changed when cameras were made accessible to the masses and film processing convenient for the average person. Today, with the common use

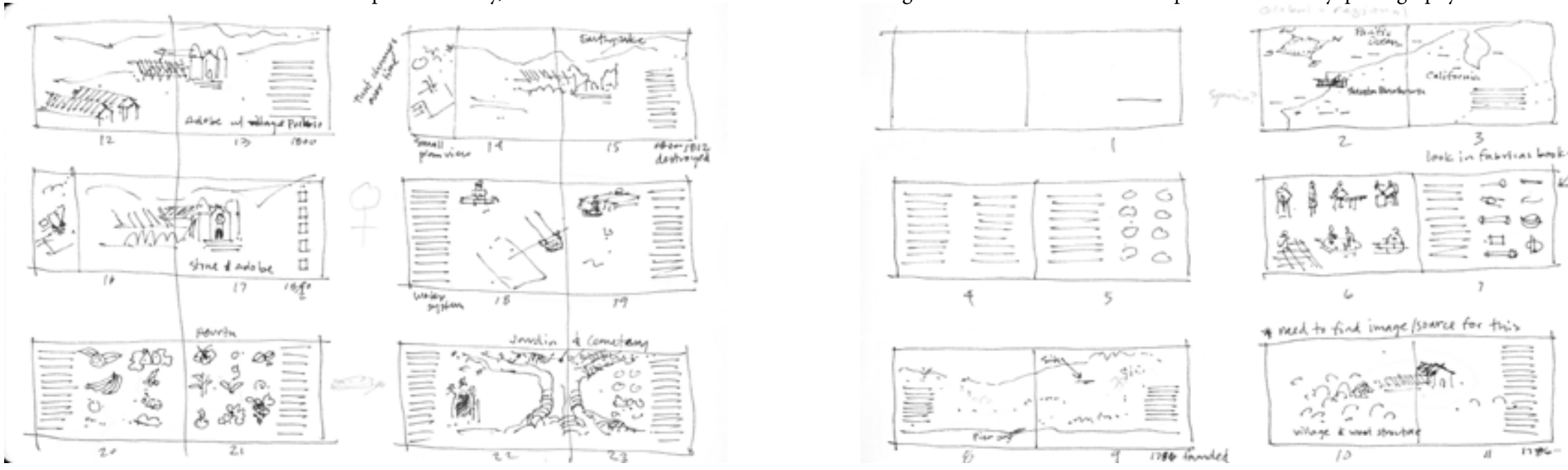
of digital photography, many images are easily taken without thought to what one is actually looking at. After all, without the expense of having to pay for printing or developing, one can shoot as many pictures as time allows. This practice, however, strays from the original intent of the camera and pho-

tograph which is to capture an image of an object freezing it in time in a way that would be difficult or impossible through a painting or drawing. Remember, photo realism needed photography to be invented before there was some type of "realism" to emulate.

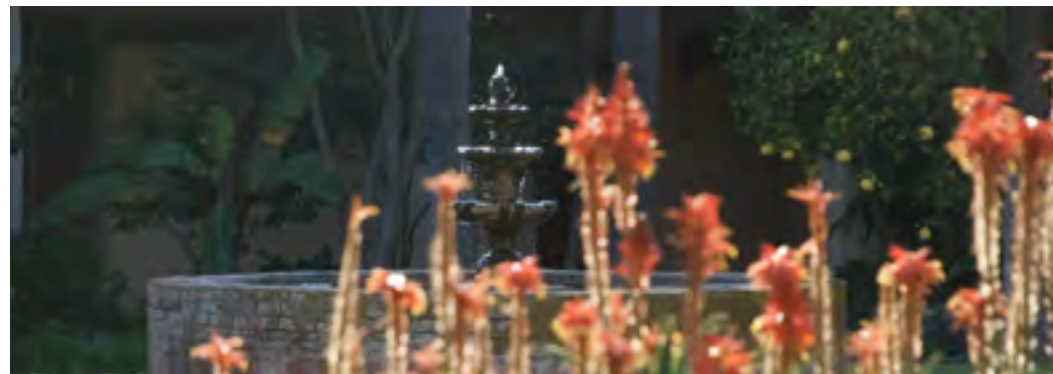
One way photography was used in

this project was as a means of capturing a large amount of information in a relatively short amount of time. Opposite of drawing, in this case, the digital camera became a tool for freezing time and space rapidly. Because unlimited time was not available to sit and draw everything I saw, I relied on the camera to encapsulate in seconds what would have taken me hours to draw.

This has its advantages and drawbacks however. Lost to some degree in this form of photography is the focus and observation skills used in drawing. While a professional artist certainly spends intentional time crafting an image before activating the shutter, more effort was made to quickly document elements of the landscape that I wanted to evaluate more deliberately and purposefully at a later time. Perhaps because of my artistic inclinations the images I captured were not all merely "snapshots" but had qualities of that reflected an intentional application of balance, composition, depth of field and attention to light. This attention to detail would later be useful as I "played" with the images on the computer.



**Figure 6-7, Sketchbook Thumbnails:** Integral to exploring both the place as well as crafting a publication is the organization of thoughts graphically. In order to "see" what I was thinking I drew it using a quick notation called thumbnails where text simply becomes lines and detailed information becomes shapes.



**Photographic Progression:**

The four images on this page represent a typical pattern illustrating the progression a photographic image went through in order to be used as a graphic in this publication.

**Above:**  
92 The original raw image, unedited and uncropped.

**Above, Right:**  
The initial step was to crop this image to a proportion that matched the landscape format of this publication.

**Right, Center:**  
The next step was to create a vignette filter over the image in order to focus the attention on the fountain in the background and in preparation for the plan graphic of the cloister garden that would be reversed in white. (see pages 68-69)

**Below, Right:**  
The final step was to create a dynamic effect. Wanting this to be more than just a photograph an additional filter was added to this image in order to accentuate the colorful plants in the foreground and creating a darker background for the cloister garden plan.

Another aspect of photography that goes beyond the actual taking of the picture is manipulation of the image through some type of digital imaging software. While historically belonging solely to the realm of the dark-room artist, amateur photographers today can, through the help of software such as Adobe's Photoshop produce amazing works of art. Such has been attempted here.

Beyond basic corrections like color, exposure, saturation and contrast, digital manipulation ventures into editing or altering the actual image as a way to create mood and appreciation for something that otherwise might have been considered common or ordinary, thereby transforming something that was originally intended as documentation into an artistic expression. Arguably, there is also a level of understanding and appreciation of the subject through the time spent in looking manipulating the original.

**Painting**

Painting is another medium that was used to study this mission. While a "final" or "finished" painting was not the goal of this exercise, nothing

can match the beauty of professional painting in any medium. Painting in this project was used similarly to drawing, as a tool to explore elements of my subject that could not have been discovered through the use of other mediums. Included in this chapter is a finished watercolor I did of Mission La Purissima (see Figure 6-1) as an example of ways that I have in the

ferent light.  
**Pen and Ink**  
At one time a fountain pen, often a feathered quill, was the primary method of transferring ink to paper or parchment. Today, felt-tip pens or refillable technical pens are the methods of application for India or permanent ink.



past captured the essence of a place. Rather, watercolor in this project was used to see parts of the mission in dif-

**Carving Woodblock:**  
Author, Michael Sánchez working on Bell Echoes, a woodblock print exploring the visualization of sound. (see Figure 5-32)



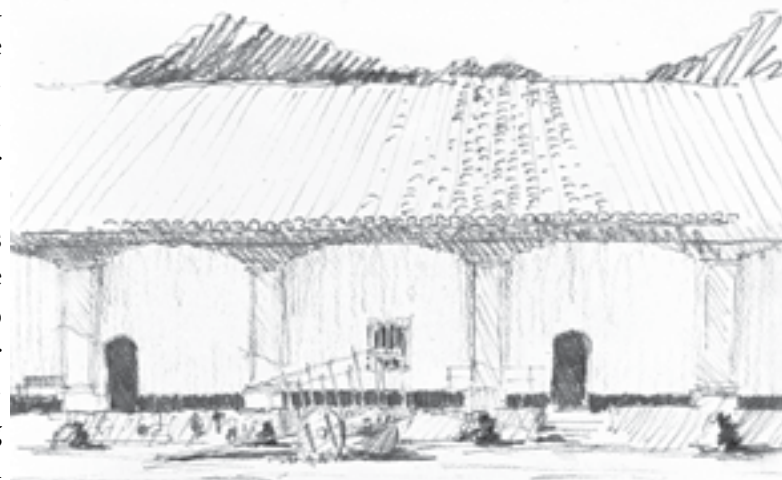
Black and white drawings can be challenging as a way of capturing or documenting a subject. Because there are no grays or tonal variations inherent in pure black ink, other methods must be used to represent tonal value. In most of the drawings produced in this publication tonal value is expressed through the density or proximity in hatching of lines or pointalism.

94 Many artists masterfully use pen and ink to represent their ideas and concepts. Drawing inspiration from David Macaulay's accomplished work *Cathedral: The story of its construction*, the primary method used in this study was ink on mylar. It was chosen as a way to extract the quintessential elements of the mission, the spirit of a bygone era. Black and white goes hand-in-hand

with historical pieces and contemporary alike, both of which fit well with the objectives of this project; to tell the story of Mission Santa Barbara through visual studies.

### Woodblock

There are various forms of wood-



block print. Western print making traditionally use oil based paints and the blocks range from wood to linoleum. The woodblock prints done for this project were inspired by Japanese woodblock or moku hanga and use watercolor. Both forms utilize a similar technique of creating ridges

and valley in a medium by carving whereby paint is applied to the ridges and transferred to paper either by a roller or in the case of Japanese print making, a barren, or round flat bur-nisher.

The act of carving the wood in my case was like farming of gardening.



Rather than cultivating soil to produce a bounty of fruits or vegetables I was sculpting a flat piece of wood in hopes of bringing forth a new understanding or appreciation of Mission Santa Barbara. While none of the woodblock prints I did were specifically of the

mission, they did encapsulate aspects of the mission relative to a topic of the mission I was studying. For example, in my study of branding and livestock I made a woodblock of Mission Santa Barbara's brand. While not a complex woodblock, being only a single color, the act of print making in this case

was akin to the act of branding itself. Where in branding, a hot iron is used to mark the hide of livestock; a pattern carved in wood was used to mark a piece of paper. (see Figure 5-2)

### Intaglio

The meaning of intaglio, pronounced [in'talyō; -'täl-], is to engrave or etch into a medium, typically a metal such as copper. The process is very similar to that of woodblock print making described above. Because of the

nature of the materials used in intaglio, different effects can be achieved using a variety of techniques.

The process as described by Professor Emeritus Margaret Prentice paints an image of hills and valleys etched into the surface of a copper plate, where the valleys in this print making medium

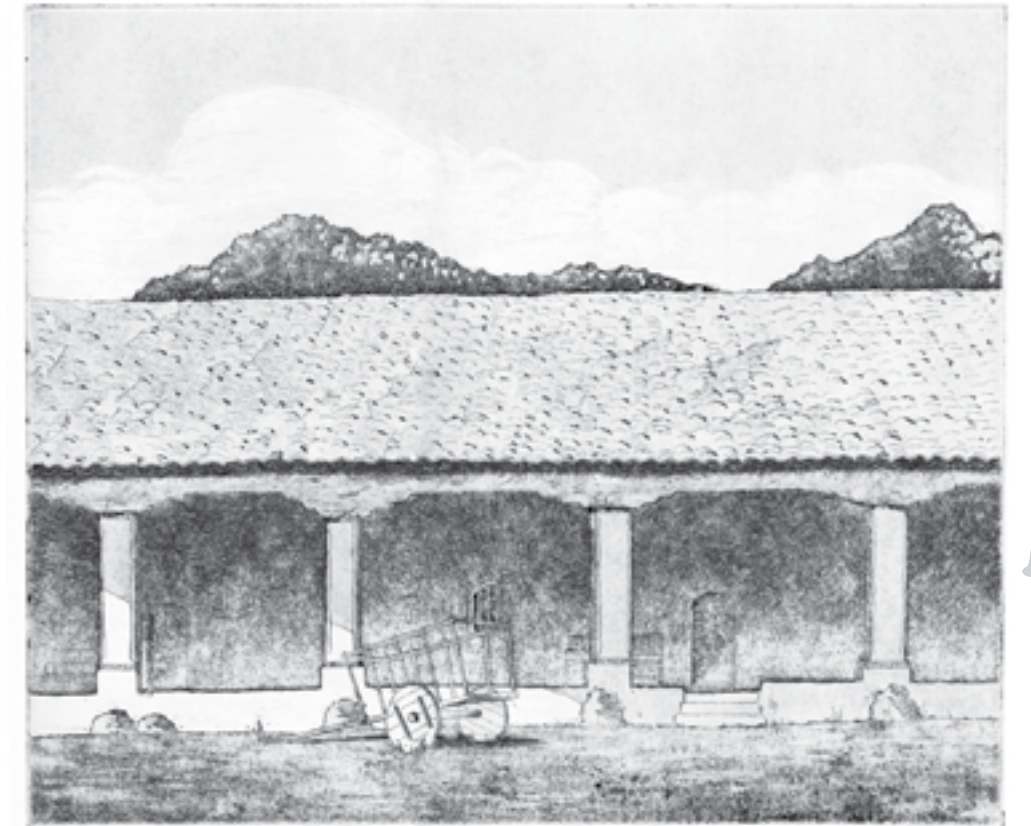


Figure 6-8, Plein-air sketch, Left:

Field documentation to capture the spirit of the place. Quick notation of objects, proportions, shadows and overall mood.

Figure 6-9, Studio Detail, Center:

Plein-air sketch was further delineated to show full range of tonal values and detail of elements.

Figure 6-10, Intaglio Print, Right:

Etched on a copper plate through scraping and burnishing over multiple layers of rosin and spray lacquer to create different depths of "valleys" that would eventually hold ink creating the various tones of the final print.



### Graphic Design Process

#### Figure 6-11, Left:

Map from historic book. Elements of map are copied.

#### Figure 6-12, Center:

Copied drawing from map is warped as a perspective in Adobe Photoshop to create a "bird's eye" affect.

#### Figure 6-13, Right:

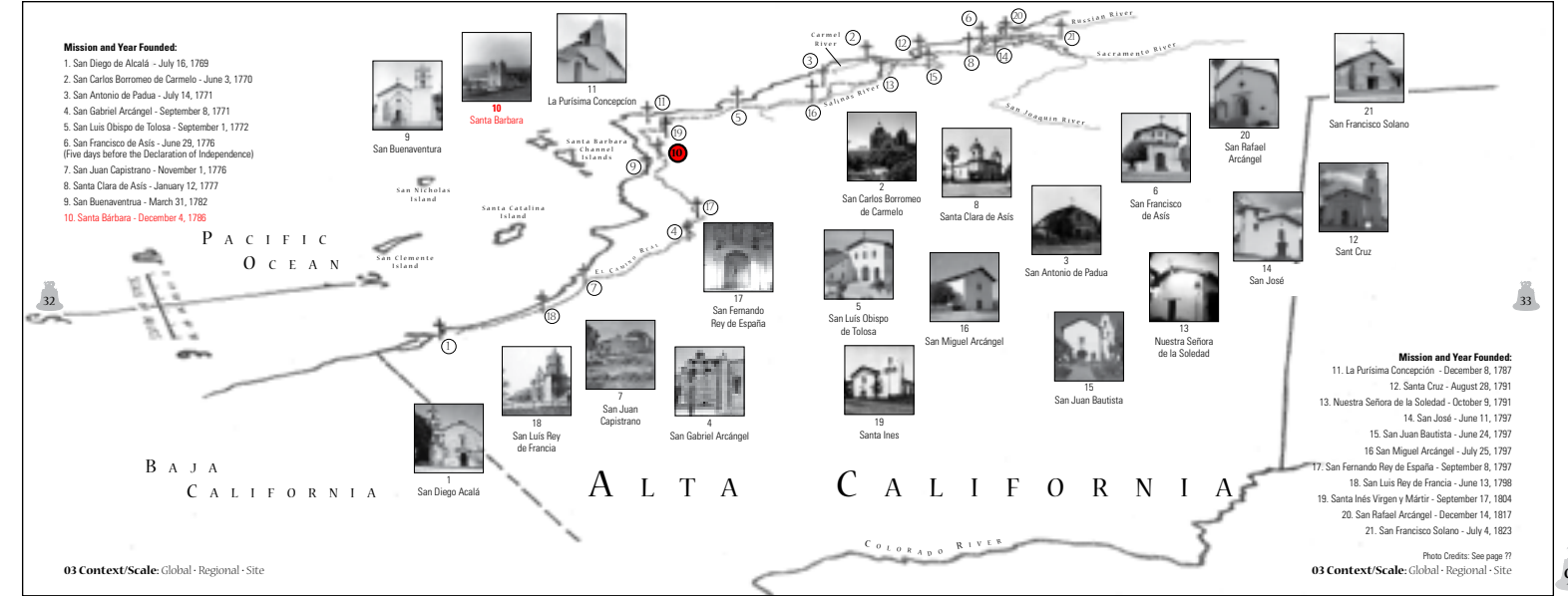
Text, Color, Photographic images are added to scanned base to round out graphic and create a new drawing.

take the ink as opposed to the hills taking the ink in woodblock. Again, the visceral experience of touching the

copper, etching tools and tarlatan, the smell of etching inks, solvents, rosins and lacquers, the sound of the wheel turning on the etching press, embed in my mind the image I created of an arcade at Mission La Purissima. (see Figure 6-10)

### Graphic design

Often overlooked as a medium for discovery or exploration is graphic design. Perhaps, because often by the time a drawing or image makes it into some type of graphic software



such as Adobe's InDesign or Illustrator much of the design or creative thought has already been initiated, apparently leaving only the placement of graphics on the page for display. This couldn't be further from the truth. Many an InDesign user will tell you bringing the images into the software is only the beginning.

Design in any medium is a cyclical process and requires the artist to re-evaluate the representation often to observe whether it is meeting the objectives or not.

### Conclusion

There are many aspects of the Mission landscape to observe, many of which by themselves could be a stand alone subjects of research. Through the illustrative process described and displayed in this project, spatial, temporal, cultural and historic relationships between each of the mission elements, be it landscape, building or both, the viewer's perceptions or insights would not have been accessible through a literary process alone.

For example, patterns emerge by

overlaying historic site plans on a contemporary street plan, perhaps explaining choices in site planning that frame, rather than block the incredible views of the channel islands. These and many other relationships are made more relevant and obvious through drawings, like the ones included in this project, over word pictures alone.

While there are many similar styles of representation in the field of landscape architecture, I believe the combination of mediums and techniques demonstrated in this project culminate, in a

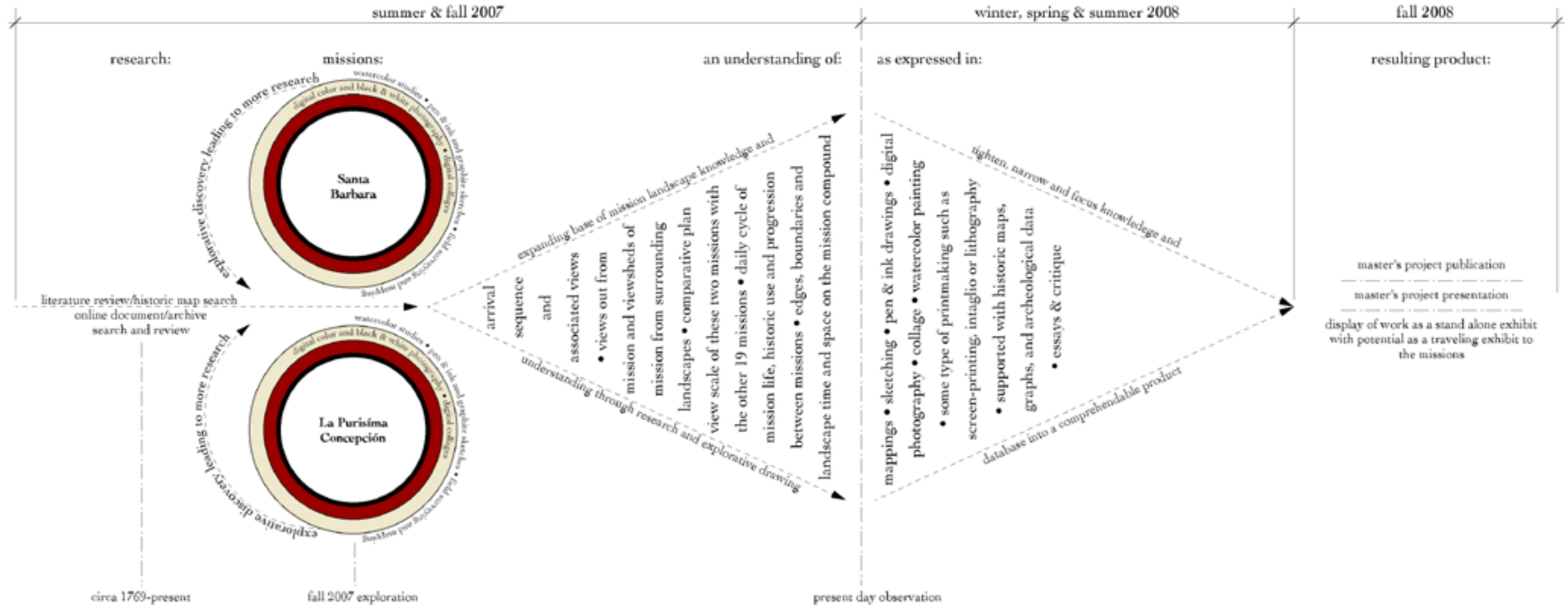
new contribution to the field, hopefully giving designers ideas of new ways to access or understand a place.

However, my greatest disappointment in this project was that while a picture may be worth a thousand words, it certainly may not be the one thousand words I was intending to communicate. So, while I may have learned some wonderful treasure of observation from creating these drawings, it may unfortunately be a different treasure that you walk away with. My only solace is the hope that all who read and view this project will walk away with a new and appreciative understanding of this magnificent place known as the Queen of the Missions.

**Figure 6-14, Right:**

The Diagram to the right is a “flow chart” of sorts describing the process and time frame of this master’s project. One can see simply by the date set for completing this project and the date on this publication the diagram was not accurate.

It does incorporate many of the processes, if in spirit only, used to implement the research and production of this project.





B I B L I O G R A P H Y

## Notes

### Chapter 1

1. Kenneth I. Helphand is Knight Professor of Landscape Architecture at the University of Oregon where he has taught courses in landscape history, theory and design since 1974. He is the author of several books, his most recent being *Defiant Gardens: Making Gardens in Wartime* (2006).
2. Elisabeth 'Liska' (Clemence) Chan is an Associate Professor of Landscape Architecture and department head at the University of Oregon where she teaches design studios, theory and media classes.
3. Chip Sullivan's *Drawing the Landscape*, Jane Wolff's *Delta Primer: A Field Guide to the California Delta* and Marc Treib's *Representing Landscape Architecture* all deal with the representation of the landscape in engaging and dynamic ways. Artist Paul Hogarth was able through his drawings and paintings to communicate critical and often politically sensitive issues without saying a word. It is often assumed – incorrectly – that words alone are an only means of communication.
4. Olin, L., *Across the open field: essays drawn from English landscapes*. Penn studies in landscape architecture. 2000, Philadelphia, Pa.: University of Pennsylvania Press. xiii, 352 p.
5. Liska Chan first heard the term over-drawings from professors Kathryn Gleason and Fred Biel at Cornell University.
6. *Cathedral: The Story of Its Construction, Building the Book Cathedral* and *Rome Antics* are prime examples of how artist David Macau-

lay uses black and white to create many of the emotions and atmospheres typical through artistic mediums that employ color.

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2. Berger, John Anton. *The Franciscan missions of California*. Doubleday, 1948. (pp190-191)
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7. Geiger, Ibid.

8. McLaughlin, David J. *The California Missions Source Book: Key Information, Dramatic Images, and Fascinating Anecdotes Covering All Twenty-One Missions*. University of New Mexico Press, 2009.

9. Ibid., 17.

10. Geiger, Maynard J. *A Pictorial History of the Physical Development of Mission Santa Barbara, From Brush Hut to Institutional Greatness, 1786-1963*. Franciscan Fathers of California, 1963.

11. Brunt, Jessie Van. *California Missions / Painted and Described By Jessie Van Brunt*. Los Angeles, Calif.: Wetzel Publishing, 1932., 10.

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4. Kryder-Reid, Elizabeth “Perennially New” Santa Barbara and the Origins of the California Mission Garden. *Journal of the Society of Architectural Historians* 69, no. 3 (September 2010), 378-405., 385.

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1782-1965. Franciscan Fathers, 1965., 41.

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4. Glenn, Frater, O.F.M. *Mission Santa Barbara “Queen of the Missions”*, 3.

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13. Ibid., 17.

14. DuHaut-Cilly, *Viaggio Intorno Al Mondo*, Vol. I. pp. 207-280. This author saw the Mission 30 March, 1827 and had this to say regarding the early gardens: “The management of the Mission was committed to Fr. Antonio Ripoll. He was at the time attending to affairs elsewhere, so we took advantage of his absence to visit his garden which we found to be large, well cultivated and planted with trees. Very fine olive trees shaded the straight paths, and you could see fruits of the temperate and torrid zones at one and the same time. The Adam’s figs spread their broad leaves between the apples and pears, and the gold of the oranges mingled with the red of the cherries.

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23. Geiger, Maynard, O.F.M., Ph.D., *Mission Bells of Santa Barbara: Their History and Romance,*

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Other than those images listed below or cited at the image, all photographs illustrated in this publication are those of the author.

Page 30-31

- 1. David Rumsey Historical Map Collection: World Globe 1790, Jean-Dominique, comte de Cassini was a French astronomer and cartographer of Italian French descent and one of the last globe makers active at the end of the 18th century.

The following credits are in reference to the images of the twenty one missions shown in the Regional Scale and Context Drawing on pages 32-33.

- 1. San Diego Acalá [http://www.cmp.ucr.edu/collections/permanent/projects/survey/missions/connell/co\\_img/90.24.282.9.jpg](http://www.cmp.ucr.edu/collections/permanent/projects/survey/missions/connell/co_img/90.24.282.9.jpg)
- 2. San Carlos Borromeo de Carmelo - [http://www.cmp.ucr.edu/collections/permanent/projects/survey/missions/Hoxie/hx\\_img/97.6.19.2.2.jpg](http://www.cmp.ucr.edu/collections/permanent/projects/survey/missions/Hoxie/hx_img/97.6.19.2.2.jpg)
- 3. San Antonio de Padua - [http://www.cmp.ucr.edu/collections/permanent/projects/survey/missions/Pidgeon/pi\\_img/86.34.716.jpg](http://www.cmp.ucr.edu/collections/permanent/projects/survey/missions/Pidgeon/pi_img/86.34.716.jpg)
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- 5. San Luis Obispo de Tolosa - [http://www.cmp.ucr.edu/collections/permanent/projects/survey/missions/connell/co\\_img/90.24.286.1.jpg](http://www.cmp.ucr.edu/collections/permanent/projects/survey/missions/connell/co_img/90.24.286.1.jpg)
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- 7. San Juan Capistrano - [http://www.cmp.ucr.edu/collections/permanent/projects/survey/missions/km/km\\_img/23026.jpg](http://www.cmp.ucr.edu/collections/permanent/projects/survey/missions/km/km_img/23026.jpg)
- 8. Santa Clara de Asís - [http://www.cmp.ucr.edu/collections/permanent/projects/survey/missions/haines/ha\\_img/81.33.266.jpg](http://www.cmp.ucr.edu/collections/permanent/projects/survey/missions/haines/ha_img/81.33.266.jpg)
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- 12. Santa Cruz - [http://farm5.static.flickr.com/4050/4393799580\\_23d861527d.jpg](http://farm5.static.flickr.com/4050/4393799580_23d861527d.jpg)
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  - 20. San Rafael Arcángel- [http://www.missiontour.org/sanrafael/images/sr\\_exteriormain.jpg](http://www.missiontour.org/sanrafael/images/sr_exteriormain.jpg)
  - 21. San Francisco Solano- <http://www.cmp.ucr.edu/collections/permanent/projects/survey/missions/Other>
- Intaglio elevation pages 34-35
- 1. Collection: David Rumsey Collection  
Author: Vancouver, George, 1757-1798  
Date: 1798  
Short Title: Views of Parts of the Coast of North West America.  
Publisher: G.G. & J. Robinson London  
Note: Uncolored views including Punto de los Reyes and the Bay of Sir Francis Drake, Port of St. Francisco, Point Pinos, Santa Barbara, the entrance to the Port of St. Diego, and Cape Colnett.  
Reference: P197; Streeter 3497; Sabin 98443; Cowan 1933; Wagner 853-860.  
Country: Mexico  
State/Province: California  
Published May 1st 1798, by R. Edwards New Bond Street, J. Edwards Pall Mall and G. Robinson Paternoster Row. J. Fittler sculp.
- The following credits are in reference to the images on pages 42-43.
- 1. All images of adobe bricks and the making of the adobe bricks are by Kenneth I. Helphand.
  - 2. Title: Old Mission, Santa. Barbara Quake, 6-29-25  
Identifier: :421  
Collection: James D. Phelan Photograph

Albums, Volume 94 Old Mission, Santa Barbara Quake, 6-29-25,  
Contributing Institution: The Bancroft Library, University of California, Berkeley.

Works Consulted

The body of work represented here comprises research on the missions themselves; looking at these places historically, politically, horticulturally and culturally. Several books also describe the missions through historic images, drawings, maps and paintings.

The following references also represent research on how to read/study/document the landscape, different theories of landscape design, representation as well as books that represent different graphic styles. My interest in these books is how others display and express illustrative information, how they portray historical data and how others have written and told the story of landscape..

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- 5. Byne, M.S. and A. Byne, Spanish gardens and patios. 1924, Philadelphia & London, New York: J. B. Lippincott company; The Architectural record. 305 p.
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- The following references are loosely organized into general mission websites, archive libraries and research sites and Mission specific sites for both Santa Barbara and La Purisima. Further review and documentation of these websites is required as well as additional sites not yet explored.

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108

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109