

**Shadows of the Things That Have Been:  
An Analysis of and  
Identification Guide to Ceramics  
From the Chapel Complex Excavation  
of the  
San Diego Presidio**

**Stephen R. Van Wormer**

**2024**

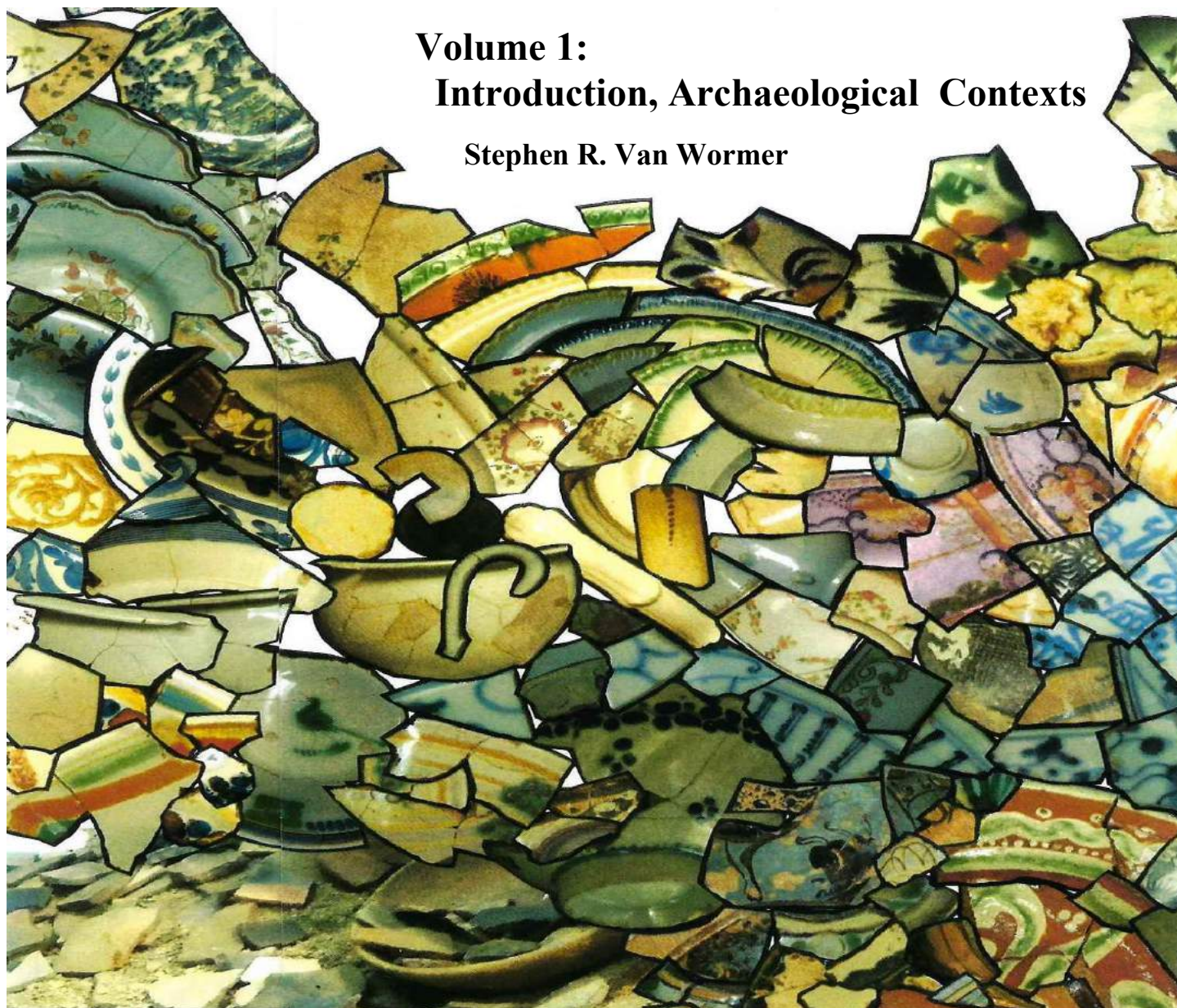
**Susan D. Walter**

**Sue A. Wade**



**Volume 1:  
Introduction, Archaeological Contexts**

**Stephen R. Van Wormer**



***Shadows of the Things That Have Been:  
An Analysis of and Guide to Ceramics of the San Diego Presidio***

Cover Design by Susan D. Walter

**About the Cover**

**Volume 1: Introduction, Archaeological Contexts**

Everything on the assemblage of the cover for Volume 1 is somewhere in Volumes 1, 2, 3, 4, 5, and 6 of *Shadows of the Things That Have Been*.

All of the English, Chinese, and Mexican *sherds* on the cover are framed with black. It is harder to see this in the Upper Block than the Lower Block. The Native American items on the dirt are not framed with black.

The ceramics in the cover are stratified:

**UPPER BLOCK**

LEVEL 1A = Several Marks – except one, which is a *sherd*, are *not* depicted with black outlines (these are snips, or cut outs) – form a stratum along the top of the Upper Block

LEVEL 1B = Consists of English Transferwares

“FEATURE 1” = Along the right side of the Upper Block are several Intrusive ceramics

**LOWER BLOCK**

LEVEL 2 = English wares

“FEATURE 2” = A cluster of chamber pots

LEVEL 3A = Chinese Export Wares

LEVEL 3B = Chinese Native Folk Wares

LEVEL 4 = Mexican wares

LEVEL 5 = Native American wares

LEVEL 6 = Sterile Dirt

Teasers:

- BLOCK 1: There is a gastrolith – it is Chinese Export Ware in the Upper Block – but I figured that chicken wouldn’t have paid much attention to stratigraphy (do you see the pareidoliac chicken face that the gastrolith is the eye of?)
- BLOCK 2: Note (in my imagination) the large Chamber pot is a “Pot of Gold” and I put the three tokens above it.
- BLOCK 2: Can you find the only consumer ceramic sherd in the Chinese levels? Hint – it is striated.

NOTE: This Stratigraphy and “Features” is only for purposes of this cover, and is not to be construed as actual stratigraphy within the Chapel Assemblage Excavations. The items and snips are not to scale on this cover.

Shadows of the Things That Have Been:  
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San Diego Presidio

“These are but shadows of the things that have been. They have no consciousness of us.”

(The Ghost of Christmas Past to Ebenezer Scrooge from  
*A Christmas Carol* by Charles Dickens 1843)

By

Stephen R. Van Wormer

Susan D. Walter

and

Sue A. Wade

IN SIX VOLUMES

VOLUME 1: INTRODUCTION, ARCHAEOLOGICAL CONTEXTS

VOLUME 2: HISTORICAL AND CULTURAL CONTEXTS

VOLUME 3: DE CAZUELAS, COMALES, Y TANTAS JARRIADAS: ANALYSIS OF MEXICAN AND  
NATIVE AMERICAN WARES

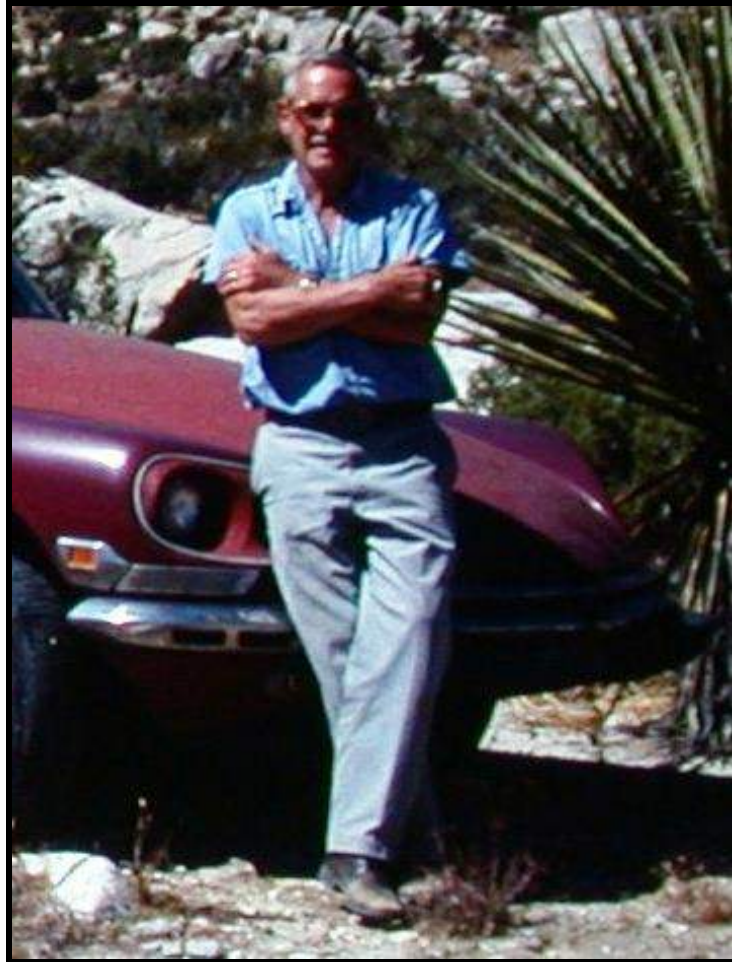
VOLUME 4: THE FRACTURED FRONTIER: ANALYSIS OF OLD WORLD CERAMICS

VOLUME 5: SYNTHESIS AND CONCLUSIONS, AND APPENDICES 1: Intrusive Ceramics, and 2:  
Mayolica Economic Scaling Calculations

VOLUME 6: APPENDIX III: MORE FRACTURED FRONTIER: TRANSFERWARE PATTERNS OF  
THE SAN DIEGO PRESIDIO'S CHAPEL ASSEMBLAGE; DOCUMENTATION,  
NOTES, AND PERSONAL OBSERVATIONS



## DEDICATED TO THE MEMORY OF DR. PAUL H. EZELL



**Paul Ezell in the Colorado Desert, 1978. Photograph by Dennis Gallegos.**

The more I think about Paul, the more I realize how much I owe him, how much we all owe him. Through his work and teaching at the Presidio Chapel he set the tone for the last 50 years of San Diego archaeology. His legacy deserves to be remembered (Stan Berryman 2022).

Shadows of the Things That Have Been:  
An Analysis of and Identification Guide to Ceramics  
From the Chapel Complex Excavation  
of the  
San Diego Presidio

Volume 1: Introduction and Archaeological Contexts

Stephen R. Van Wormer

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## ABSTRACT

This monograph presents results of an analysis of ceramics recovered from excavation of the San Diego, California, Presidio Chapel Complex. The material has been presented in a format that also serves as an identification guide for these artifacts. The purpose of this study was to identify as thoroughly as possible all of the vessels represented in the collection and gain an understanding of their archaeological and cultural contexts and use. Vessels were quantified by sherd count, weight, and minimum number (MNV). Another objective of this report was to provide under one cover the background information needed to understand the historical, archaeological, and cultural contexts of the ceramic artifacts.

The ceramic assemblage consisted of approximately 27,818 sherds, weighing 151.333 kilos. Analysis resulted in identification of a minimum number of 1,294 vessels from material that had been deposited as refuse between 1820 and 1837. These items represented diverse origins and included locally produced Native American Brownware, Mexican ceramics, and Old World ceramics that consisted of Chinese and English wares. Each of these categories had a variety of ware types and functional vessel shapes.

Data synthesis and interpretations included an examination of the assemblage's composition and cross-site comparisons with two other California presidio archaeological deposits for which complete ceramic assemblage data was available: The Gateway trash midden at the San Diego Presidio (Barbollila 1992), and the Building 13 refuse deposit of the San Francisco Presidio (Voss 2002), and included assessments by ware type origins, vessel functions, the relationship between vessel forms and foodways, economic status analysis, and statements on the San Diego Presidio's ceramics associations with gender and cultural identity.

## RESUMEN

Esta monografía presenta los resultados de un análisis de cerámica recuperada de la excavación del Complejo de la Capilla del Presidio de San Diego, California. El material se ha presentado en un formato que también sirve como guía de identificación de estos artefactos. El propósito de este estudio fue identificar lo más exhaustivamente posible todas las vasijas representadas en la colección y comprender su contexto y uso arqueológico y cultural. Las vasijas se cuantificaron mediante recuento de tiestos, peso, y número mínimo (MNV). Otro objetivo de este informe fue proporcionar bajo una sola cubierta la información básica necesaria para comprender los contextos históricos, arqueológicos, y culturales de los artefactos cerámicos.

El conjunto cerámico estuvo conformado por aproximadamente 27,818 tiestos, con un peso de 151.33 kilos. El análisis dio como resultado la identificación de un número mínimo de 1294 vasijas de material que había sido depositado como basura entre los años 1820 y 1837. Estos artículos representaban orígenes diversos e incluían cerámica nativa americana de producción local, cerámica mexicana, y cerámica del viejo mundo que consistía en loza china e inglesa. Cada una de estas categorías tenía una variedad de tipos de artículos y formas funcionales de vasijas.

La síntesis de datos y las interpretaciones incluyeron un examen de la composición de la colección y comparaciones entre sitios con otros dos depósitos arqueológicos de presidios de California para los cuales se disponía de datos completos sobre el conjunto cerámico: el basurero de la puerta principal (Gateway trash midden) en el Presidio de San Diego (Barbolla 1992) y el Edificio 13 depósito de basura del Presidio de San Francisco (Voss 2002), e incluyó evaluaciones por origen del tipo de cerámica, funciones de las vasijas, la relación entre las formas de las vasijas y los alimentos, análisis del estatus económico, y declaraciones sobre las asociaciones de la cerámica del Presidio de San Diego con la identidad cultural y de género.

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# INTRODUCTION

By Stephen R. Van Wormer

Yes, take it all around, there is quite a good deal of information in ... [this] book. I regret this very much; but really it could not be helped: information appears to stew out of me naturally, like the precious ottar of roses out of the otter. Sometimes it has seemed to me that I would give worlds if I could retain my facts; but it cannot be. The more I calk up the sources, and the tighter I get, the more I leak wisdom. Therefore, I can only claim indulgence at the hands of the reader, not justification (Mark Twain, *Roughing It*, 1872).

I offer nothing more than simple facts, plain arguments, and common sense (Thomas Paine, *Common Sense*, 1776)

This monograph presents results of an analysis of ceramics recovered from excavation of the San Diego, California, Presidio Chapel Complex. The text is formatted in a manner that also serves as an identification guide for these artifacts.

The site of the San Diego Presidio lies on Presidio Hill within the City of San Diego's Presidio Park (Figures 1 and 2). Excavation of the Chapel Complex by the San Diego State University Anthropology Department occurred between 1965 and 1976 (Ezell 1976). Artifacts recovered from this project are housed at Collections Management, Department of Anthropology, San Diego State University.

The ceramic assemblage consisted of approximately 27,818 sherds, weighing 151.333 kilos. Analysis resulted in identification of a minimum number of 1,294 vessels from material that had been deposited as refuse between 1820 and 1837. These items represented diverse origins and included locally produced Native American Brown Ware, Mexican ceramics, and Old World ceramics that consisted of Chinese and English wares. Each of these categories had a variety of ware types and functional vessel shapes. In addition, eight items were identified that were not vessels. Two were chipped ceramic disks, and six were ceramic figurines. Twenty-two intrusive items that had been

manufactured after 1840 were also recognized but not included in the quantification of presidio period vessels. They are listed on the Table in Appendix 1.

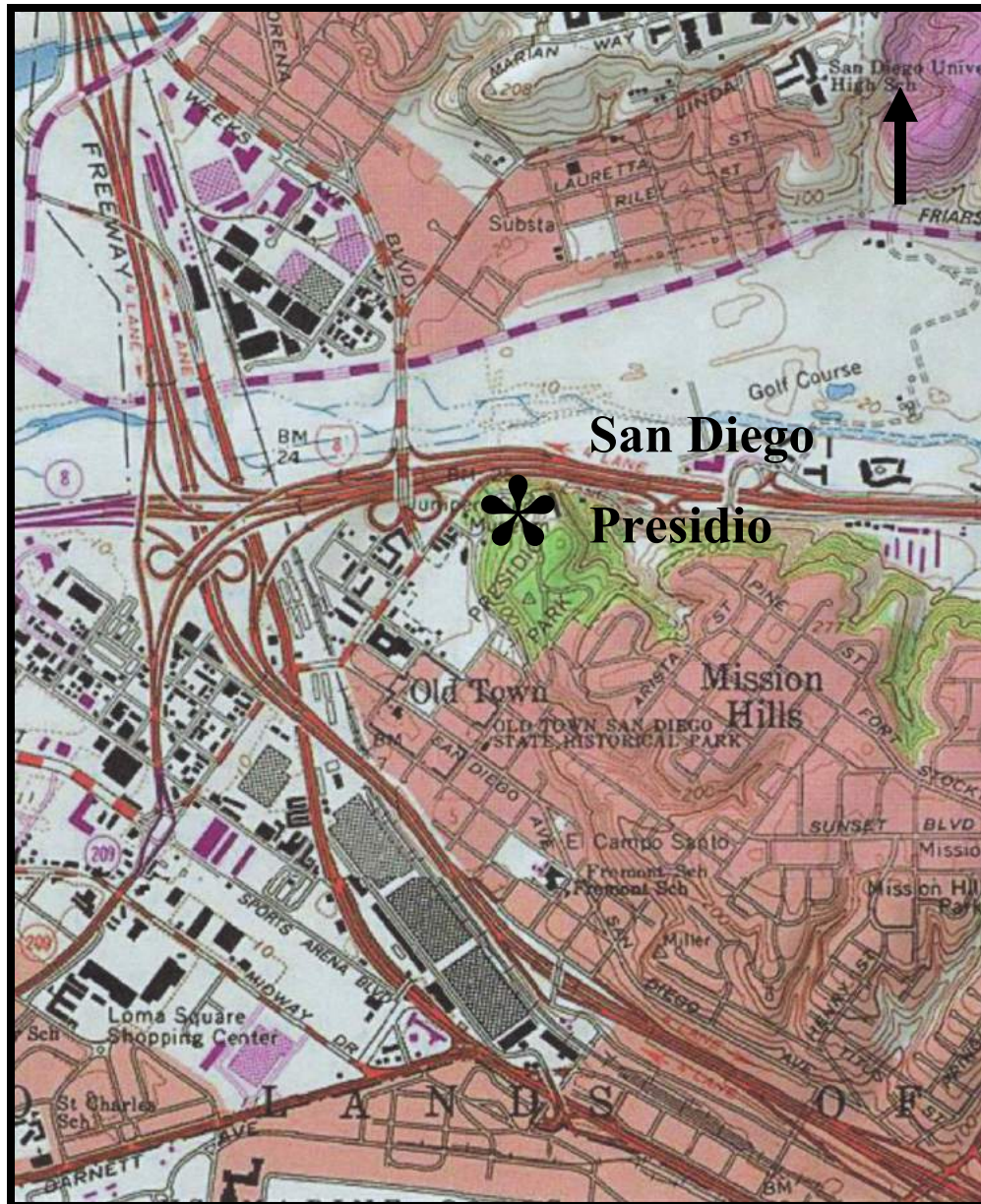


Figure 1: San Diego Presidio Site Location Shown on U.S.G.S. 1:24000 1967 La Jolla and Point Loma Quadrangles.



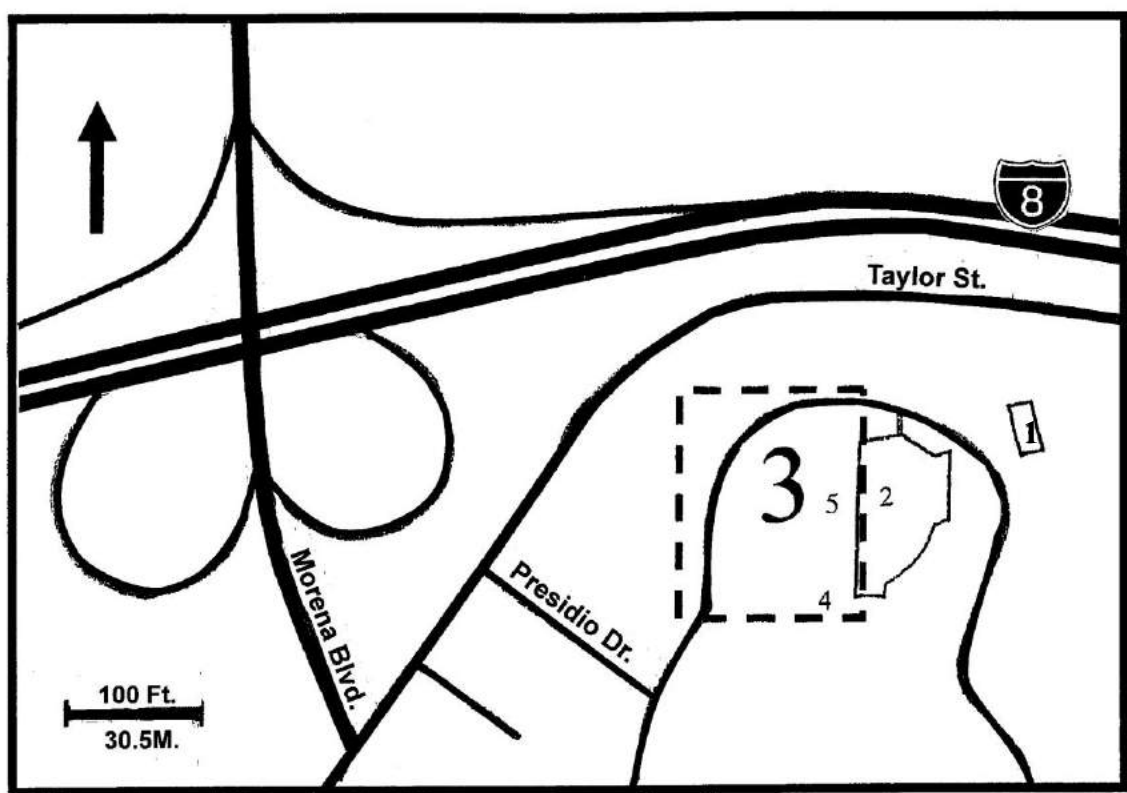


Figure 2: Detailed Presidio Site Location Map. Serra Museum # 1, Parking Lot # 2, Area of Presidio Ruins Within Dashed Line # 3, Chapel Ruins Location # 4, Serra Cross # 5. The dashed line represents the “Marston Wall” (Map by S. D. Walter, finalized by Mary McGee, Helix Environmental).

Two major portions of the collection had previously been studied. One examination was Ronald V. May's pioneering work on the Mexican Mayolica (May 1972, 1975). The other was the Jean Krase's equally, for its time, ground-breaking examination of the Old World ceramics (Krase 1979). This current study addresses the entire ceramics collection and builds on those previous analyses while augmenting their contributions. Incredible growth in the literature of ceramic recognition and analysis, in addition to the ease of access of resources via the internet, has allowed much more precise identification of the sherds than was possible forty or more years ago. This is especially true in the case of the Old World ceramics. This study has also contributed quantifications by minimum vessel counts, which were not originally undertaken.

The purpose of this study was to identify as thoroughly as possible all of the vessels represented in the collection and gain an understanding of their archaeological and cultural contexts and use. Vessels were quantified by sherd count, weight, and minimum number (MNV). Methodologies used to determine the minimum individual number of vessels represented were similar to those described by Gibson (2003) and Voss and Allen (2010, 2013).

Another objective of this report was to provide under one cover the background information needed to understand the historical, archaeological, and cultural contexts of the ceramic artifacts. In Volume 1, a history of the Chapel Complex site excavation and assessment of the site's formation provide the archaeological context. In Volume 2, an emic<sup>1</sup> context for understanding the use of ceramics by Mexican Californios was achieved through an examination of the physical and demographic history of the San Diego Presidio, a history of trade and economics in California during the eighteenth and early nineteenth centuries, and assessments of Californio cultural origins and food ways, as well as a folk typology for Mexican ceramics.

---

<sup>1</sup> An emic point of view is one that is "relating to, or involving analysis of cultural phenomena from the perspective of one who participates in the culture being studied" ("Emic." Merriam-Webster.com Dictionary, Merriam-Webster, <https://www.merriam-webster.com/dictionary/emic>. Accessed 26 Apr. 2023). In other words from a native point of view.

In Volumes 3 and 4, the chapters on ceramic artifacts are organized by origins and ware types and structured to serve as an identification guide. Each section begins with a review of the manufacturing and trade history of the ceramics. The discussion has been organized to progress from identification of individual sherds through to whole vessels. This has been aided by numerous photographs and illustrations.

In Volume 5, data synthesis and interpretations are presented, along with Appendix 1: Intrusive Ceramics, and Appendix 2: Mayolica Economic Scaling Calculations. Appendix III in Volume 6 is a detailed documentation and discussion of Transferware patterns from the San Diego Presidio's Chapel assemblage.

Data synthesis and interpretations included an examination of the assemblage's composition and cross-site comparisons with two other California presidio archeological deposits for which complete ceramic assemblage data was available: The Gateway trash midden at the San Diego Presidio (Barbolla 1992), and the Building 13 refuse deposit of the San Francisco Presidio (Voss 2002), and included assessments by ware type origins, vessel functions, the relationship between vessel forms and foodways, economic status analysis, and statements on the San Diego Presidio's ceramics associations with gender and cultural identity and resulted in the following conclusions:

(1) There are distinct differences between the ceramic assemblages of the San Diego and San Francisco Presidios that reflect their periods of deposition and geographic location. San Diego Presidio's assemblages are dominated by Native American Brown Ware pottery, while the San Francisco collection is dominated by Mexican wares. This difference is due to the heavy reliance of local Native American pottery for cooking and tableware vessels at San Diego.

The other main difference between the assemblages reflects the time spans represented by the deposits. Mexican ceramics were much more abundant at the San Diego Presidio Gateway and San Francisco Presidio Building 13 trash middens. Both were deposited before 1810 when California was supplied from San Blas, Mexico (Barbolla 1992:140;

Voss 2002:695). Chinese and English-European ceramics occurred in significantly greater amounts in the San Diego Chapel Complex deposits, which dated between 1820 and 1837, during the period when the Hide and Tallow and Eastern Pacific Coastal trades supplied California, and imported English ceramics had displaced local manufacturing in most of Mexico and Latin America.

(2) Economic status analysis showed that the recovery of exclusively fine grade Mayolica from the San Diego and San Francisco Presidios indicates that as a whole the presidio populations represented a “middling” rather than economically depressed class on the frontier. The fact that Mayolica is a significant ware type in the Chapel Complex assemblage, given the time period represented, suggests that many of these vessels had probably been purchased in prior decades and they were appreciated and taken care of.

(3) Identification of Native American Brown Ware and Mexican Galera Ware eating vessels at the Chapel Complex, along with significant quantities of Mayolica, Chinese Export and English porcelain, and English transferwares, indicates a wide range of tableware types in presidio households and a range of economic diversity within the population represented. Ceramic economic scaling analysis showed that in spite of the fact that the Chapel ceramics are from cumulative midden deposits representing various households, consumer choices of higher income individuals and families are reflected in the elevated quantities of Chinese porcelain and English transferwares, and the consuming practices of lower status households is shown in the large quantity of older Mayolica, Galera Ware, and Native American Brown Ware in the tableware assemblages.

(4) Examination of gender roles concluded the obvious, which is that the study of presidio ceramics is by default a study of women’s activities. In presidio society kitchen and dining areas and meal preparation tended to be female spheres of labor (Williams 2003; Reynoso Ramos 2004; Smith-Lintner 2007:179; Voss 2008; Morton 2014:XV).

(5) Finally, an examination of foodways, functional vessel shapes, and expressions of cultural self-identity showed that all of the cookwares and most of the tablewares

represent traditional Mexican Colonial period Mesoamerican vessel shapes and indicated the consumption of tortillas along with an abundance of broth based, slow-simmer foods cooked in a single pot. These conclusions showed that presidio families followed culinary customs based on their northern frontier Colonial Mexican roots and their food practices retained strong connections to Mesoamerican origins.

The project culminating in this study has been a completely volunteer effort. All of the artifact identification and report writing was accomplished by the three authors, along with Anna Noah who helped with identification of Native American Brown Wares. Two of the authors, Walter and Van Wormer, began their archaeological careers as students and volunteers at the Chapel Complex excavation, which kindled a life long interest and passion in the archaeology and history of the San Diego Presidio. The project that resulted in this report began in 2013 and was the outgrowth of Paul Chace's "Presidio Circle," a monthly meeting of interested individuals that discussed issues of the San Diego Presidio's history, interpretation, and access to archaeological collections.

As with all undertakings of this scope, numerous individuals and institutions aided by providing information and resources, which made it a much stronger work than it would have been without their help. All were extremely generous and included:

For access to the collection: Jamie Lenox and the staff of Collections Management at San Diego State University.

For those who shared information and provided technical expertise: Susan Arter, Damian Bacich, Sarah S. Elkind, Dennis Gallegos, Michelle Graham, Helix Environmental, Dick Henrywood, Robert Hoover, Mike Imwalle, Linda Dale Longoria, Teresita Majewski, Mary McGee, Anna Noah, Maricarmen Olimon, Lee Panich, Mary Robbins-Wade, The San Francisco Presidio Archaeology Lab, Aaron Sasson, Kelly Jenks, and Barbara Voss.



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For those who reviewed all or portions of the manuscript and provided scholarly feed back: Paul G. Chace, Alexa Clausen, Julia G. Costello, Richard Carrico, Marie Christine Duggan, Suzanne Griset, Tim Gross, David Hoexter, Seth Malios, Judith Siddall, and Ye Wa.

# EXCAVATION HISTORY

By Stephen R. Van Wormer

Excavations of the San Diego Presidio were undertaken with little or no information regarding the nature of the structure. The little information available seemed to indicate that the structure to be excavated may have been a large residence or barracks (Typed Field Notes: Faulk Spring 1965).

No one standing there on that afternoon could have known the significance of such a gesture for within a few months project directors made the startling announcement that probably an early chapel constructed in Upper California had been found on that very spot (Brockington and Brandes 1965:3).

The more I think about Paul, the more I realize how much I owe him, how much we all owe him. Through his work and teaching at the Presidio Chapel he set the tone for the last 50 years of San Diego archaeology. His legacy deserves to be remembered (Berryman 2022).

Planning for excavation of the San Diego Presidio began in 1964 when Dr. Raymond Brandes, newly appointed director of the San Diego Historical Society's Serra Museum, proposed an excavation research and training program for the site's ruins to be carried out through the Department of Anthropology at San Diego State College (now San Diego State University) under the sponsorship of the San Diego Historical Society (now the San Diego History Center) (Ezell 1976:1-3). The purpose was to determine if the Presidio ruins offered scientific and educational opportunities, and if the site might be restored for use as museum and research buildings. "A three-phase project was envisioned: historical research, archaeological investigation," and partial reconstruction of the site by July 16, 1969, the 200th anniversary of the city of San Diego's founding. Dr. Ralph S. Roberts, Study Committee Chairman, Samuel Wood Hamill, architect, and other Historical

Society board members and directors presented the study plan to the San Diego Park and Recreation Board and to the City Council (Brockington and Brandes 1965:8).

After receiving a permit from City administrators, the Historical Society prepared formal plans to carry out the work. Local business firms and organizations provided grants for research, and financial aid to purchase microfilm documents from the National Archives in Mexico City, and the Archives of the Indies in Seville (Brockington and Brandes 1965:8).

Opening ceremonies were held on the afternoon of Sunday March 7, 1965. The Most Reverend Bishop Francis J. Furey, Apostolic Administrator of the Diocese of San Diego, blessed the archaeological excavation site. Then San Diego Historical Society President Mrs. Lester L. Wittenberg, along with San Diego City Vice Mayor Ivor de Kirby, and Chairman of the County Board of Supervisors Mr. Frank Gibson, broke ground on the site with trowels. "One hundred and fifty persons witnessed the start of the field work" (Brockington and Brandes 1965:3).

Following the groundbreaking ceremony, Dr. Donald Brockington of San Diego State College, working under an agreement with the Historical Society, established the archaeological field school in Presidio Park. Necessary contracts were drawn up, insurance taken out, and students set up a chain link fence around the site of the excavations. Dr. Raymond Brandes served as liaison for the Historical Society. Dr. Paul Ezell, head of the archaeological programs at San Diego State, was on temporary leave in South America. He would resume control of the field school on his return the following year (1966) (Brockington and Brandes 1965:12; Ezell 1976:2). "With the exception of only a few summers and the fall of 1967, when circumstances forced a temporary suspension of the excavations, work was carried on continuously" through the summer of 1976 (Ezell 1976:3).<sup>2</sup> Throughout the course of the excavations Dr. Ezell was supported

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<sup>2</sup> . A survey of Student Chapel Excavation Field Books shows that work occurred at the site during the fall of 1967. It was during the spring semester that work ceased so that a new fence could be set up around the expanded excavation area. There are numerous student field books for the 1967 fall semester, but only one for the spring semester (Field Books Spring 1967, Fall 1967).

and assisted by his wife Greta Ezell, who conducted most of the historical research and aided in editing and authoring reports and publications for the project, as well as providing copious amounts of advice.

The excavation program's authorization came from a joint agreement between the City of San Diego, the San Diego Historical Society, and the Department of Anthropology at San Diego State College - University. As Dr. Ezell explained:

The City issues a permit to the San Diego Historical Society for the work, since the ruins lie in a city park; an annual progress report must be filed, and the permit must be renewed every year. The San Diego Historical Society accepts responsibility for the custody of the materials recovered, and provides exhibition space for a small part of the collection; it also provides guide and lecture services to visitors, as well as the outdoor informational devices such as the signs and the scale plan of the principal structure mounted within the fenced area. San Diego State, through its instructional program, provides professional direction and supervision and the basic digging crew of the students. We have, over the years, been joined by classes from San Diego Mesa College for a time, by a summer class of high school students, and by volunteers both from other colleges and universities and from the dedicated citizenry (Ezell 1976:3).

The area chosen for excavation was a long depression surrounded by mounds about three feet in height (Figure 3). This corner of Presidio Park, on the western slope below the Serra Memorial Cross and south of lower Presidio Drive, lies in the southwest portion of the original presidio area. A perimeter barrier known as the Marston wall encloses the ruins. It was void of major vegetation or trees, and so had few obstacles. Only the sod had to be removed. An additional reason for choosing this location was that earlier archaeological testing by City Parks engineer Percy Broell had suggested these mounds represented a barracks or living quarters. It was hoped that household trash, which could

provide information on the daily lives of the Presidio's inhabitants would be found in and around the areas where people had lived (Ezell 1976:2).

With initiation of the field school, work teams staked out the area in a grid with ten foot intervals. A primary datum point was established, and maps and contour drawings made. Twenty students began peeling back the sod. On the basis of what appeared to be divisions within the long irregular mound, the area was divided into what was thought to be three rooms, designated A, B, and C (Figures 4 - 6). Four students, under the supervision of a crew chief, excavated each section (Field Books: Bratz - Spring 1965; Brockington and Brandes 1965:14-17).

Rows of earth (balks) were left remaining inside the rooms so that the students would have runways for the wheelbarrows carrying off the dirt. Into the soil went the picks to remove the turf and roots coming from pine trees some distance away. Shovels carried out the rubble and top soil, [which was] fairly soft from park waterings (Brockington and Brandes 1965:15).

Stratigraphic profiles were drawn for each side of completed quadrants and as work progressed, scale drawings made of all walls and floors. Each quadrant, wall section, and special features were also photographed to insure a complete record of the site. Colored slides, colored motion picture film, and black and white photographs were taken regularly (Brockington and Brandes 1965:14).





**Figure 3: San Diego Presidio Chapel Complex Site on February 23, 1965. This long depression surrounded by mounds about three feet in height was chosen for study (Field Books: Ellis - Spring 1965).**

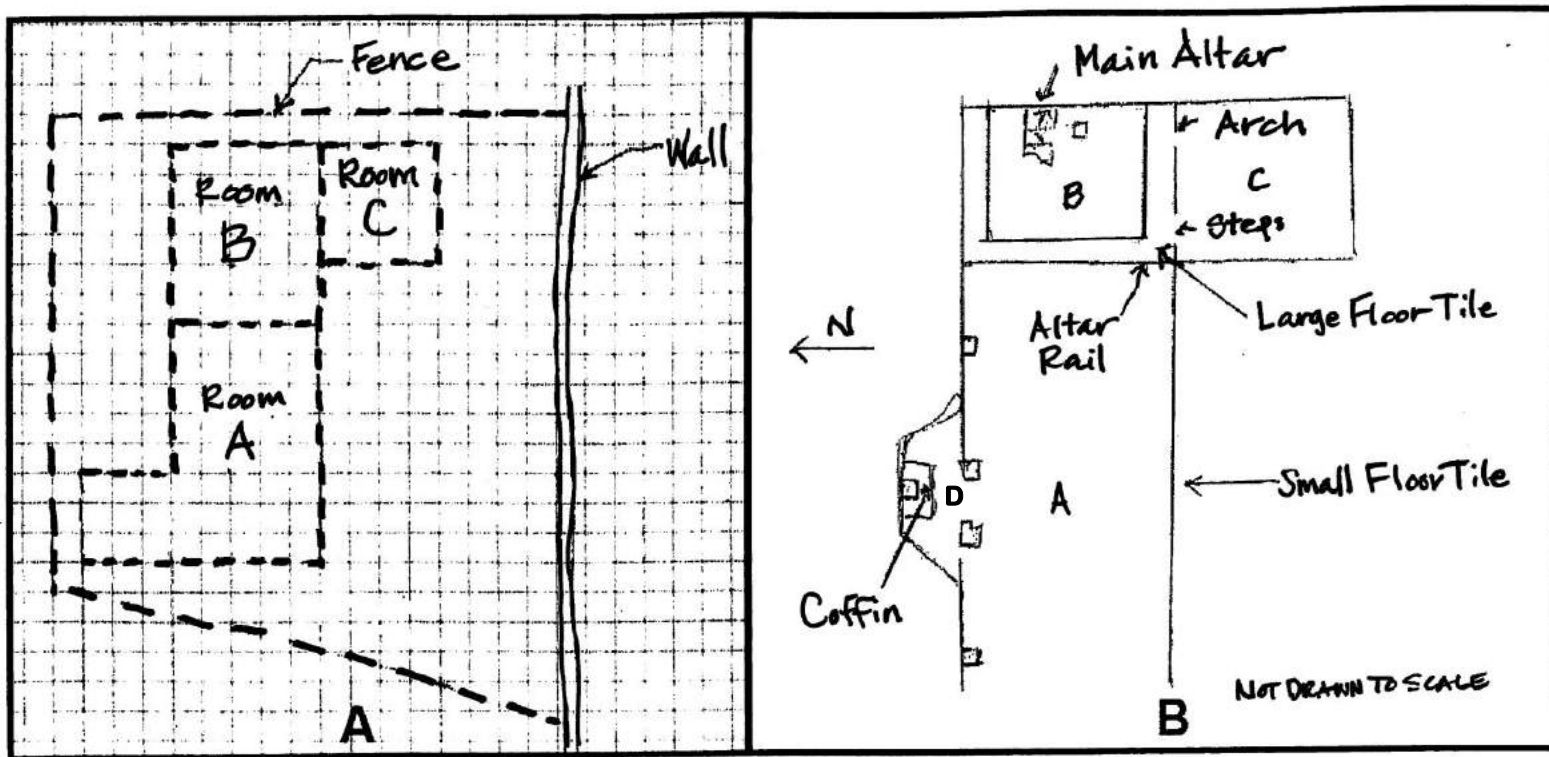


Figure 4: 1965 Excavation Layout and Results. Letter A (on the left) shows the areas originally laid out to be excavated. They were divided into Rooms A, B, and C according to what seemed to be divisions within the mounds (Field Books: Connolly - Spring 1965). Letter B shows the same area after it was uncovered to the point that it could be identified as the San Diego Presidio Chapel (Typed Field Notes: White - Spring 1965). In drawing B (on the right) A is the Church Nave, B the Sanctuary, C the Sacristy, and D was thought to be the Baptistry but was later reinterpreted as a side chapel.

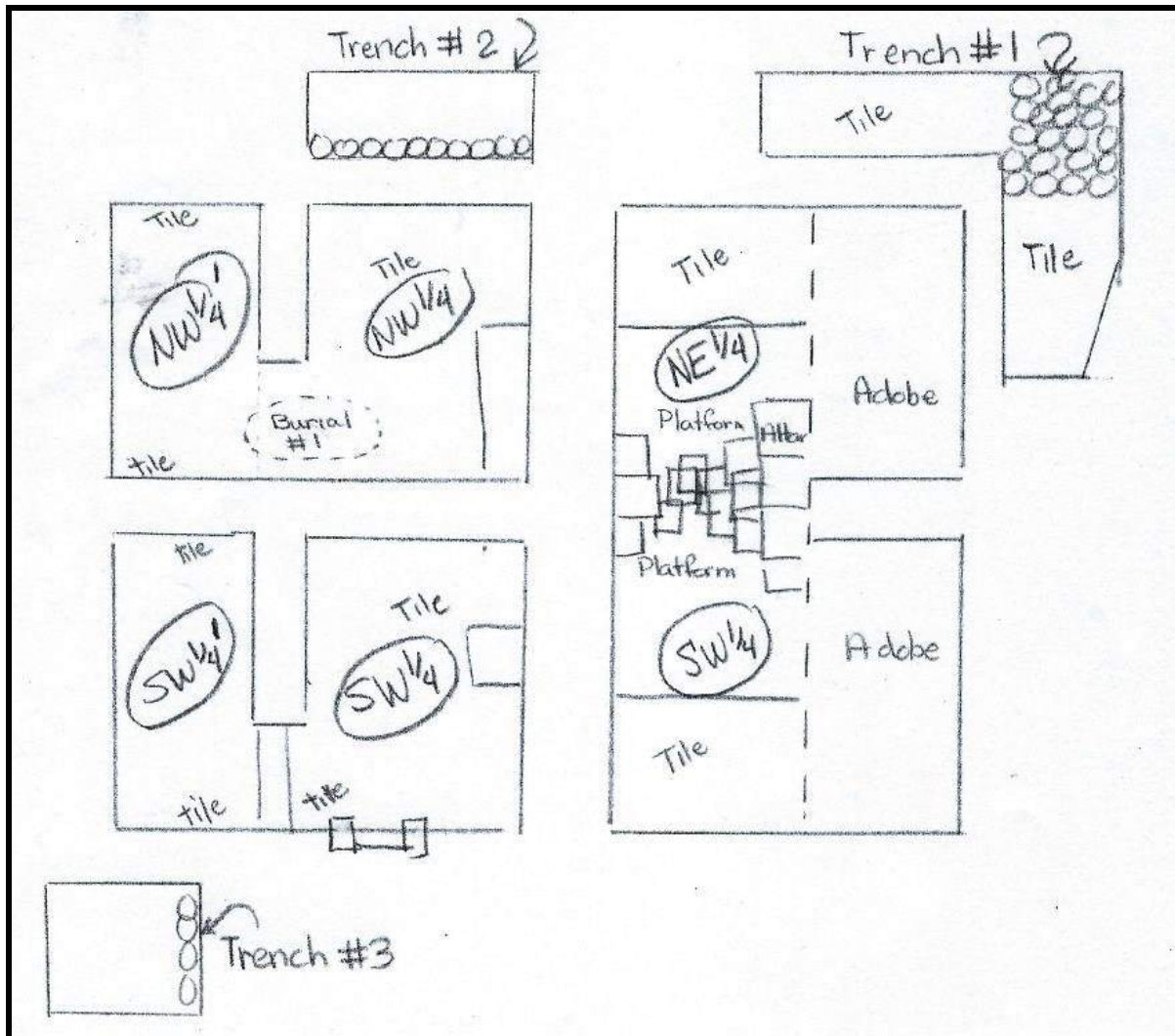


Figure 5: 1965 Excavation Units, Balks, and Trenches in Room B. Note the Altar (Platform) in the center of the excavation on the right side of the page and the burial on the left side (Typed Field Notes: Bratz - Spring 1965).



**Figure 6: Students Excavating the Chapel in 1965 (Ezell 1976:13).**

As students troweled their way down through the rubble, at the same time recording and photographing their finds, adobe blocks could be made out which were the walls of buildings, buried to a height of about 3 1/2 feet .. .. The baked adobe block used for wall construction and flooring was heavy and often contained fingerprints, perhaps of the maker; several brick contained prints of a dog, which crossed over the bricks drying in the sun. On several other brick, students noted arrows and other forms of doodling (Brockington and Brandes 1965:16).<sup>3</sup>

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<sup>3</sup> The field work was accomplished with William James as assistant director; Robert Cassidy, Carl Falk and Christopher White as crew chiefs; and Margaret Bartz, Susan Cleary, David Connelly, Richard Ellis, Robert Gonzales, Kenneth Hedges, Ardyce Holmberg, Jack Inhofe, Raymond Lieberenz, Joan McCarthy, James Porter, Raymond Scaramella and Franklin Smith as crew members. Dr. Ned Greenwood of the State College Department of Geography also served as a crew member and gave his expert opinions regarding soils (Brockington and Brandes 1965:16).



The adobe walls had been built on cobblestone foundations. Test pits along one wall exposed a heavy cobblestone buttress on the outside of the building. These types of structures often supported a building “with high and heavy walls, and a heavy roof” (Brockington and Brandes 1965:17). The interior of the rooms exhibited ladrillo tiled floors. Building materials included fired, curved red tile tejas, commonly used for both roofing, and for drainage tile, a wide range of red fired ladrillo used for arches, door lintels and flooring, and the large brown-colored adobe blocks used for wall construction (Figure 7) (Brockington and Brandes 1965:16-24).



**Figure 7: Typical Chapel Construction Detail. Cobblestone foundations support the remains of adobe block walls, which can be identified in the photograph by the horizontal mortar joints between the blocks. Ladrillo tiles cover the floor. The photograph was taken in the side chapel looking toward the northeast (Courtesy Stan Berryman).**

It soon became apparent that the mounds being excavated were not barracks or living quarters. In conclusion to his spring 1965 field notes David Connelly recorded: "The entire area excavated in this site appears to have been a church" (Typed Field Notes: Connelly - Spring 1965).

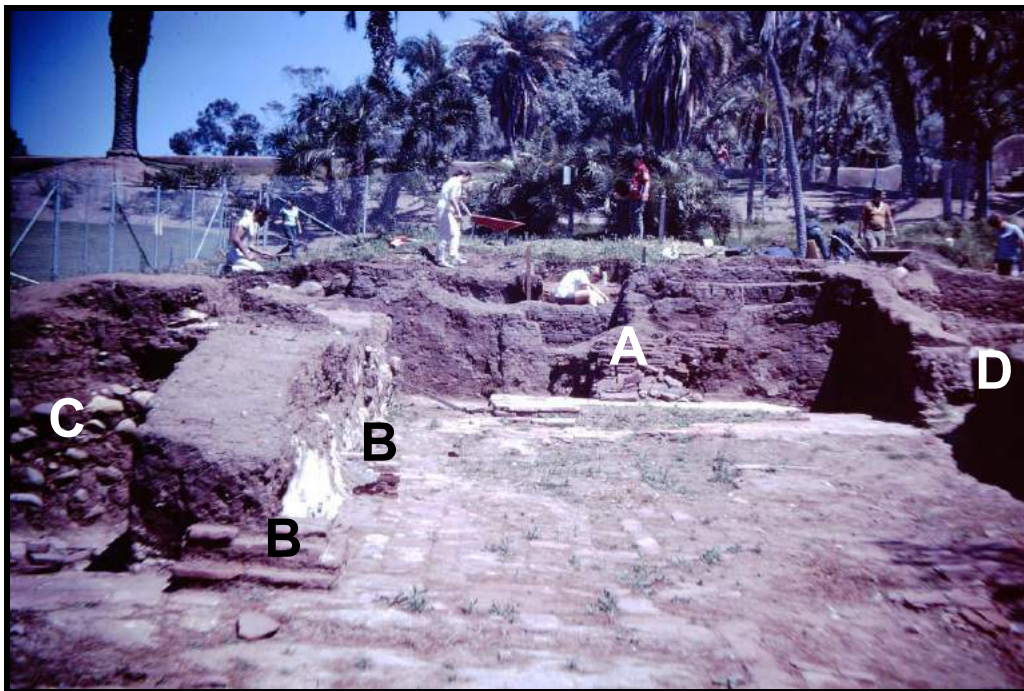
The evidence for a chapel was by that time rather conclusive and consisted of:

1. The remains of a ladrillo altar and surrounding altar platform (Feature #1), located at the east end of Room B, along with rotted pieces of wood around the raised platform that had been trimmed with decorative copper sheeting. These were determined to be portions of communion rails.
2. A recessed box, known as an ambry, on the south side of the altar platform identified as a container for the disposal of sacramental items at the conclusion of Mass.
3. An alcove on the north side of Room A (Room A prime) with the remains of an arched entrance and a small toppled altar appeared to be a side chapel.
4. Walls were buttressed at the base indicating a heavy roof.
5. There were seven pillars present along the inside walls of Room A, also indicating supports for a heavy roof.
6. Burials were encountered under the tiled floors.
7. The interior walls were painted. Some had as many as twelve red, blue, or white coatings. Others showed traces of red lines and floral motifs, along with large yellow checks on white plaster along the base of the wall. Sizable pieces of gold leaf decorated the walls of Room C.

8. Room C was a separate space connected to Room B by a doorway and had no exit to the outside. A room at this location in a Catholic church would serve as the sacristy: a storage area for vestments and church furnishings.

9. Segments of additional copper covered wood rails in Rooms A, and A prime, and pounded copper fragments from these rooms and Room B also provided evidence of a Catholic religious structure.

The final conclusions were that Room C was the Sacristy connected to the Sanctuary of the Church. Room B constituted the Sanctuary (Main Altar and religious disposal area) of the Church, and Room A constituted the church Nave or main hall. Room A prime, the small alcove on the north side of Room A, represented a side chapel (Figures 8 - 10) (Typed Field Notes: Bratz - Spring 1965, Connelly - Spring 1965, Falk - Spring 1965, White - Spring 1965; Brockington and Brandes 1965:17-24).



**Figure 8: Excavated Chapel 1970.** In this 1970 photograph by Stan Berryman the remains of the altar (A) can be seen against the ruins of the east wall. Note the ladrillo tiles covering the floor, plaster on the wall on the left side, and ladrillo pillar supports (B) along the same wall. Portions of the Side Chapel (C) and Sacristy (D) can be seen on the left and right sides respectively of the main chapel area (Courtesy Stan Berryman).

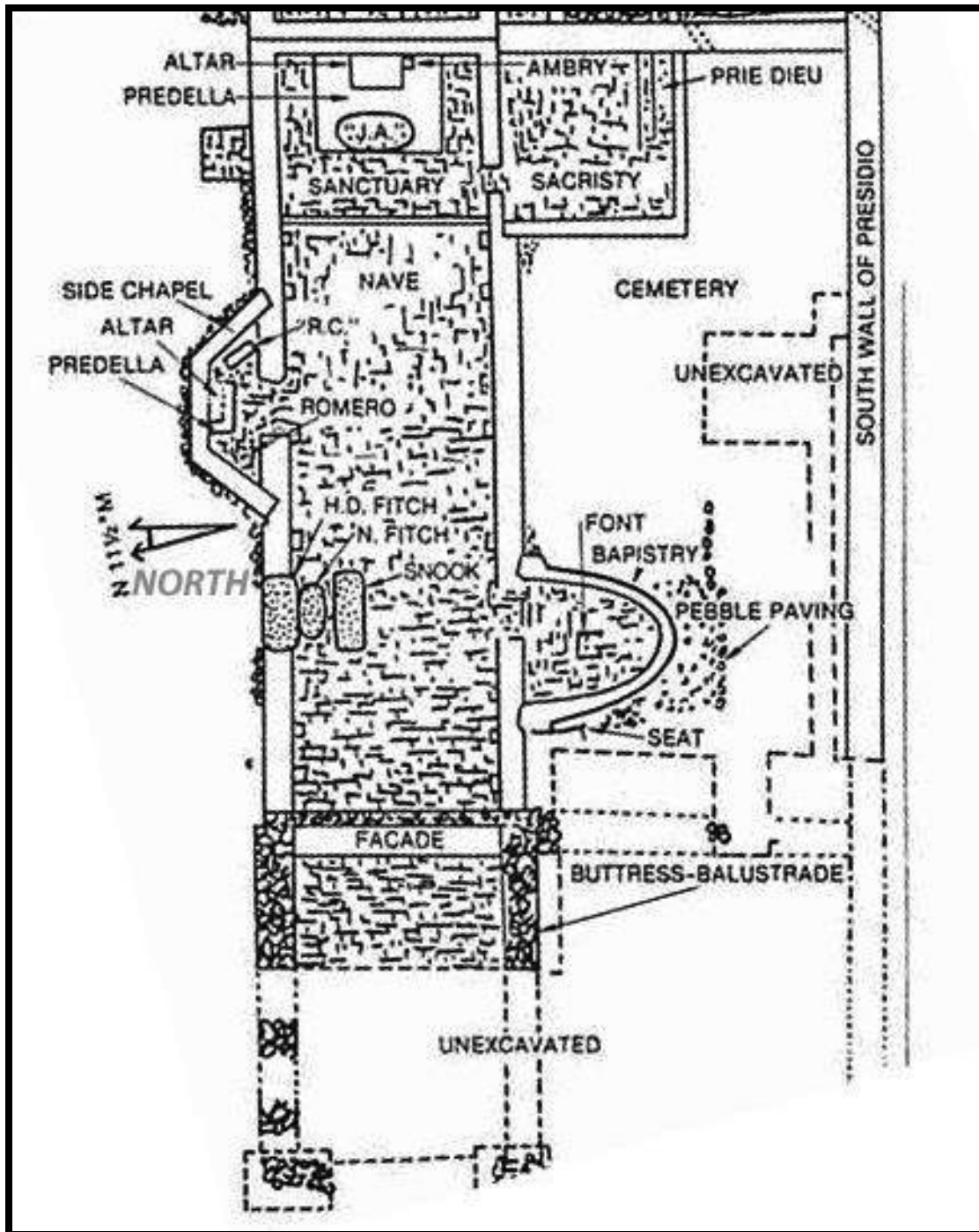
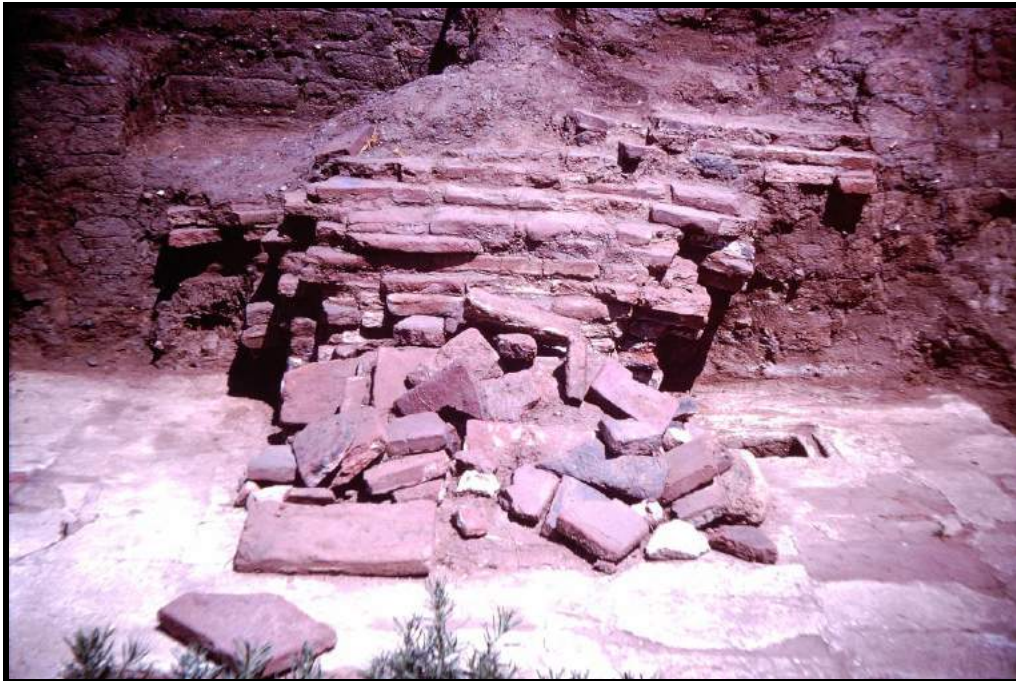


Figure 9: The San Diego Presidio Chapel as Finally Excavated in 1976 (Map by Dr. Paul Ezell, Courtesy Richard Carrico). The chapel measured approximately 80 by 25 feet (24 by 7.5 m), with the mortuary side chapel extending 10 feet to the north, and baptistry and sanctuary 15 and 20 feet (4.5 and 6 m) respectively to the south.





**Figure 10: Altar Ruins Photographed by Stan Berryman in 1970. Note the recessed box on the south (right) side of the altar platform identified as a container (an ambry) for the disposal of sacramental items at the conclusion of Mass (Courtesy Stan Berryman).**

In addition to identification of the chapel, excavators made other discoveries. Testing to the south of the Marston wall found ladrillo and adobe building rubble, suggesting that at some point in time Presidio period structures had stood on the flat outside the perimeter defense wall (Brockington and Brandes 1965:26). Later trenching for a sprinkler system in the same area encountered a foundation and presidio period artifacts (Ezell 1968:30). On the south side of the sacristy, excavation of a trench to uncover the exterior of the south wall encountered “a very productive” trash deposit that contained pieces of porcelain and other ceramic vessels; iron, copper, and brass objects; glass vessels; and butchered bone (Brockington and Brandes 1965:25).

In June 1965, the students from San Diego State College finished the first semester’s archaeological work at the Presidio Chapel. “The site was cleaned, grass cut back, and all left in readiness for the fall season.” That summer, Dr. Brandes undertook a field program for junior members of the Historical Society in local archaeology and history. “Some forty-five young people from twelve to twenty years of age learned to survey,

map, and sketch historic sites. At the same time, they performed a community service by helping to maintain the site” (Brockington and Brandes 1965:26).

In the fall of 1965, the project resumed under the direction of Dr. Paul Ezell, who had returned from South America. Excavation continued within the original project area, further defining the interior and exterior of the church. In the spring of 1966, the assignment of investigation areas within larger predesignated areas or rooms was discontinued and students began to dig in 5 foot squares identified by the north and south quadrants of the unit’s south west corner (Field Books: Spring 1966, Fall 1966).

By the end of the fall 1966 semester, the original excavation section within the Chapel ruins had been almost entirely uncovered, and in order to continue the chain link fence had to be moved and enlarged to expand the excavation site. Because it took until the end of the summer to get the new barrier in place, excavations did not resume until the fall semester of 1967. The new irregularly shaped area measured approximately 165 by 90 feet (50 by 26 m) (Figure 11). Fence relocation opened new areas to the east of the complex of buildings already uncovered and provided almost complete protection against vandalism, which had plagued the project from the beginning. Dr. Ezell noted that “There are still, however, two possible accesses which should be stopped, since we had at least one certain trespass (for the purpose of using one of the deeper trenches as a concealment for smoking marijuana!)” (Ezell 1968:28).

Under the expanded program a new crew hierarchy was implemented:

A crew structure system has been worked out which provides the maximum of instruction and supervision of the personnel. Under the general direction of a qualified archaeologist is an excavation foreman, someone who has had approximately 1,000 hours of experience in archaeological excavation, most of it at this site. Under him or her -- we are equal opportunity employers -- are team supervisors, usually advanced students who have had approximately one hundred hours of experience.

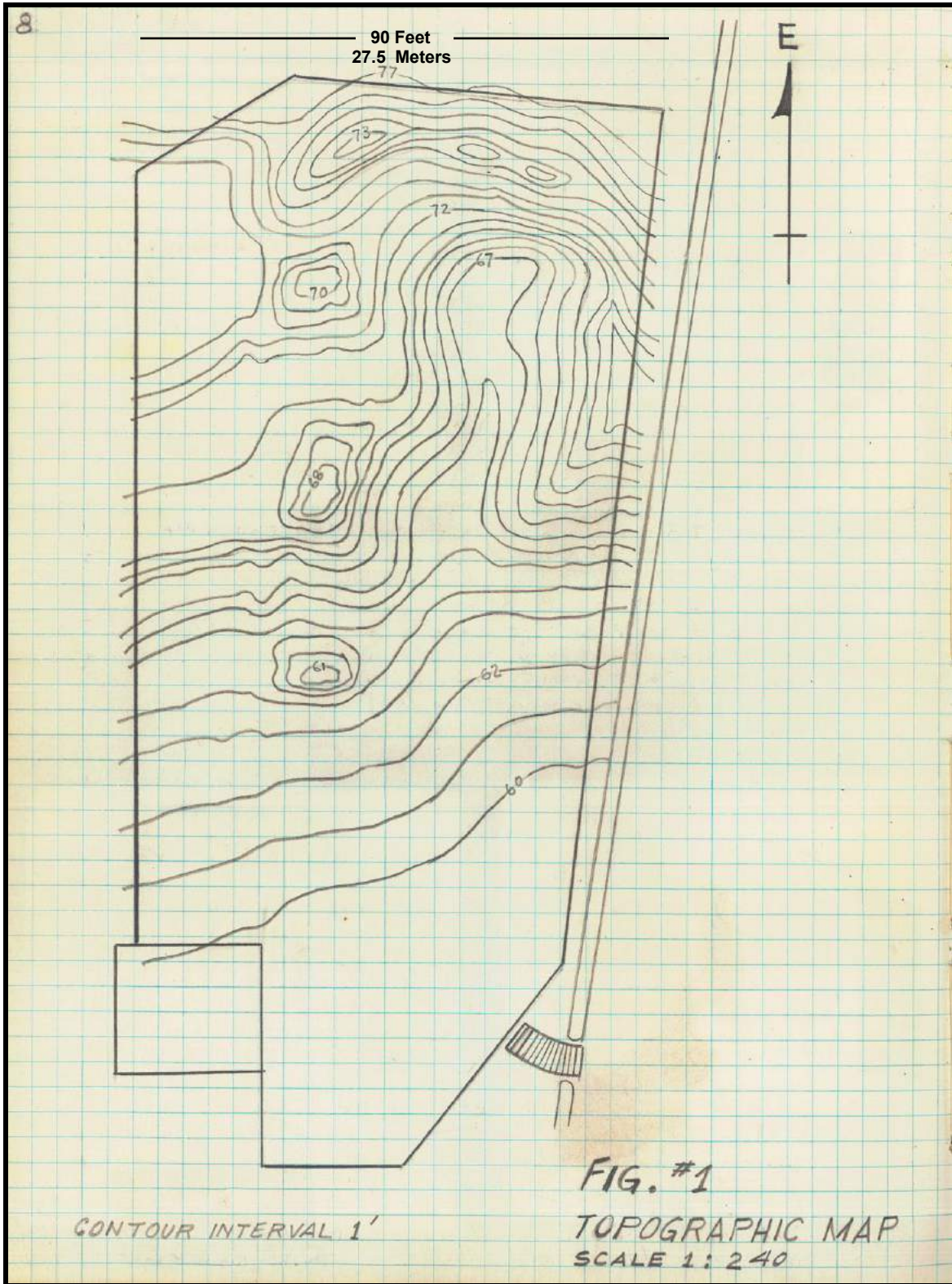


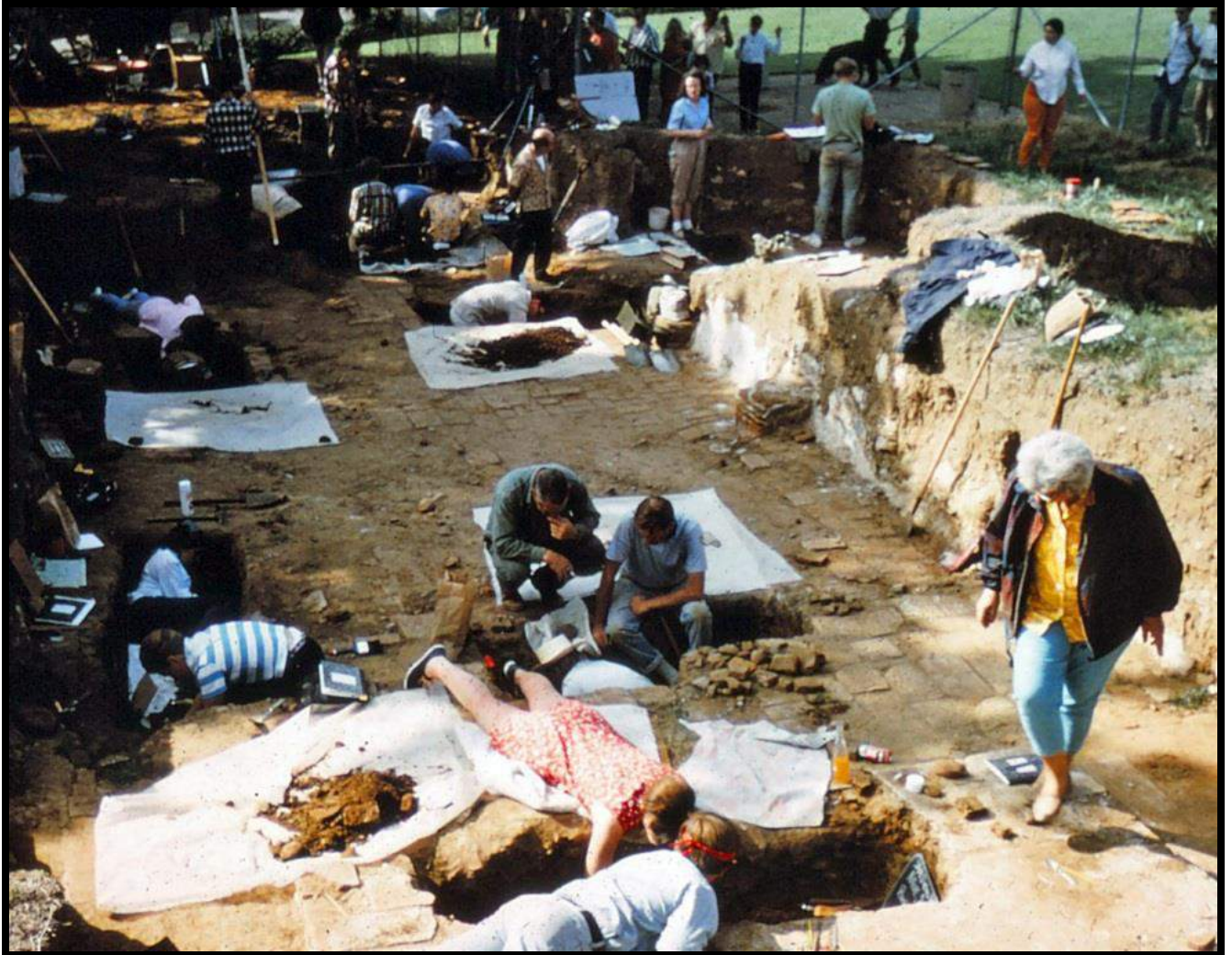
Figure 11: Topographic Map of the Expanded Fenced Excavation Area, Fall 1968 (Field Books: Lister - Fall 1968).

These team supervisors are responsible for from one to not more than three beginners, those who have had no previous experience in excavation. The team supervisors are required to instruct the beginners in the basic techniques of excavation -- to oversee not only where they dig (which is assigned by the director and excavation foreman in consultation before the start of a new group of beginners) but how they dig, their note-keeping, and the cataloguing. Questions to which the team supervisors do not know the answers are referred to the assistant excavation foreman (men), then to the excavation foreman, finally to the director. Because one of the responsibilities of the archaeologist is to communicate the results of work to the public, the team supervisors are expected also to conduct tours; before the semester is over, the beginners are also expected to undertake such tasks (Ezell 1976:4).

In 1968 the program's field time and crew expanded. During the spring semester, San Diego City Mesa Junior College students under the supervision of Professor Michael Axford began to participate. This relationship continued for the duration of the project. Also, for the first time, in addition to the spring and fall semesters, San Diego State's Anthropology Department conducted the field class as a six-week summer session, a practice that also continued until the end of excavations (Figure 12) (Ezell 1968:30, 1976:2-3).

When class resumed in the fall of 1967 work concentrated on the area east of the Chapel (Field Books: Fall 1967). From that time through the end of 1969 units were opened along the southeastern edge of the excavation area and in the northern half directly east of the chapel. By the beginning of 1970 these areas had been expanded and connected by a row of units running in a north-south alignment along the eastern edge of the excavation area. By 1971 units had also been opened to the north of the church and in the cemetery south of the sacristy (Figures 13 - 14) (Field Books: Pannek - Fall 1967, Mannin - Spring 1968, Brodereck - Fall 1968, Turnbull - Fall 1968, Collins - Spring 1969, Zogg - Spring 1971).





**Figure 12: Presidio Excavations 1968.** Following the Chapel Complex Excavation Program expansion in 1968 the site bustled with activity almost every Saturday. This photograph was taken in the summer of 1968. Greta Ezell is in the right foreground (Courtesy Richard Carrico).

Along the south and east edges students uncovered heavy cobble foundations of the southern and eastern perimeter defense walls. In the northern portion directly east of the Chapel a tiled floor was exposed (Field Books: Pannek - Fall 1967, Long - Spring 1968; Ezell 1968:29-30).

Uncovering of the ruins revealed that the area east of the chapel was a self-contained courtyard enclosed by four adobe walls (Field Books: Poe - Spring 1971, Case - Fall 1971; Ritchie 1972; Ezell 1976:11-13) “evidently devoted to the secular side of life” (Figure 15) (Ezell 1976:11). The approximate north half of this area contained the remains of a series of ladrillo tile floored rooms built against the compound’s north wall. The complex could be accessed via an entrance in the north wall leading into a set of two rooms on the east side of the center of the row. A doorway in the southern room led into the courtyard. From here door openings to the other apartments could be reached (Ritchie 1972; Ezell 1976:11). Historical documentation indicates these were storage rooms and living quarters for visiting clergy (Ezell 1976:7 & 12, 2009; Ezell and Ezell 1980:86; Carrico 2019:7).

The southern portion of the courtyard showed evidence of having been a large cobble paved outdoor living and cooking area. Ruins of a beehive shaped oven (horno) stood in the extreme southeast corner at the intersection of the south and east defense walls. At the center of the patio, projecting northward from the southern defense wall, existed the cobble foundation remains of two small rooms which had been built on accumulated trash. Simple hearths, ash lenses, and rock lined cooking pits were found with these cobble features (Field Books: Underwood - Spring 1968, Rutheford - Summer 1969, Clark - Fall 1970; Ezell 1968:29-30, 1976:11; Ezell and Ezell 1980). The hearths’ and cooking pit’s close association with these foundations suggests the two rooms may represent an outdoor kitchen (See Figure 15). The south portion of the open area contained a drainage system lined with inverted curved teja roofing tiles (Field Books: Cook - Fall 1972, Ritchie 1972; Ezell 1976:11-12).



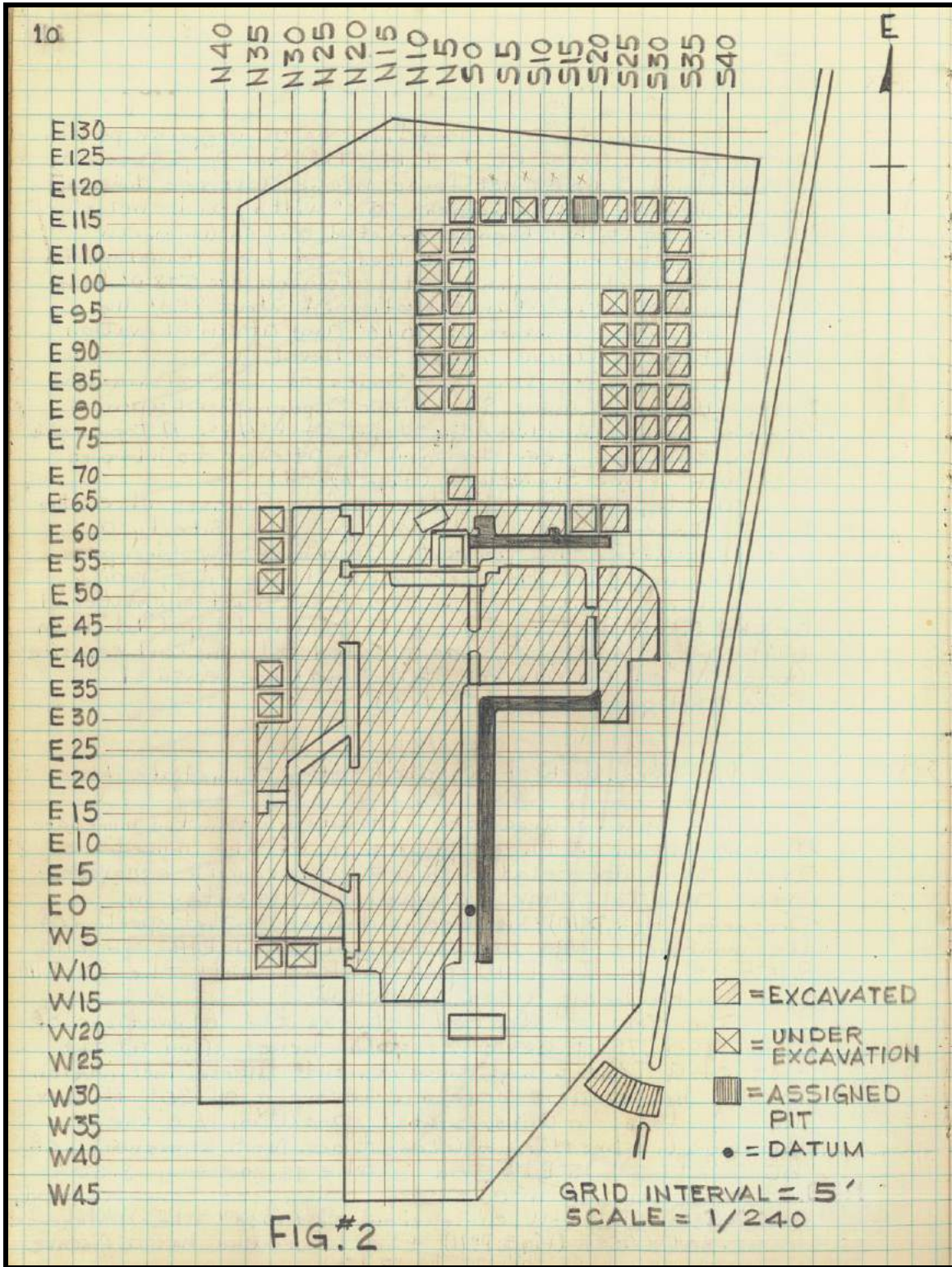


Figure 13: Excavation Progress as of the Fall of 1968. Grid interval = 5 feet (Field Books: Lister - Fall 1968).



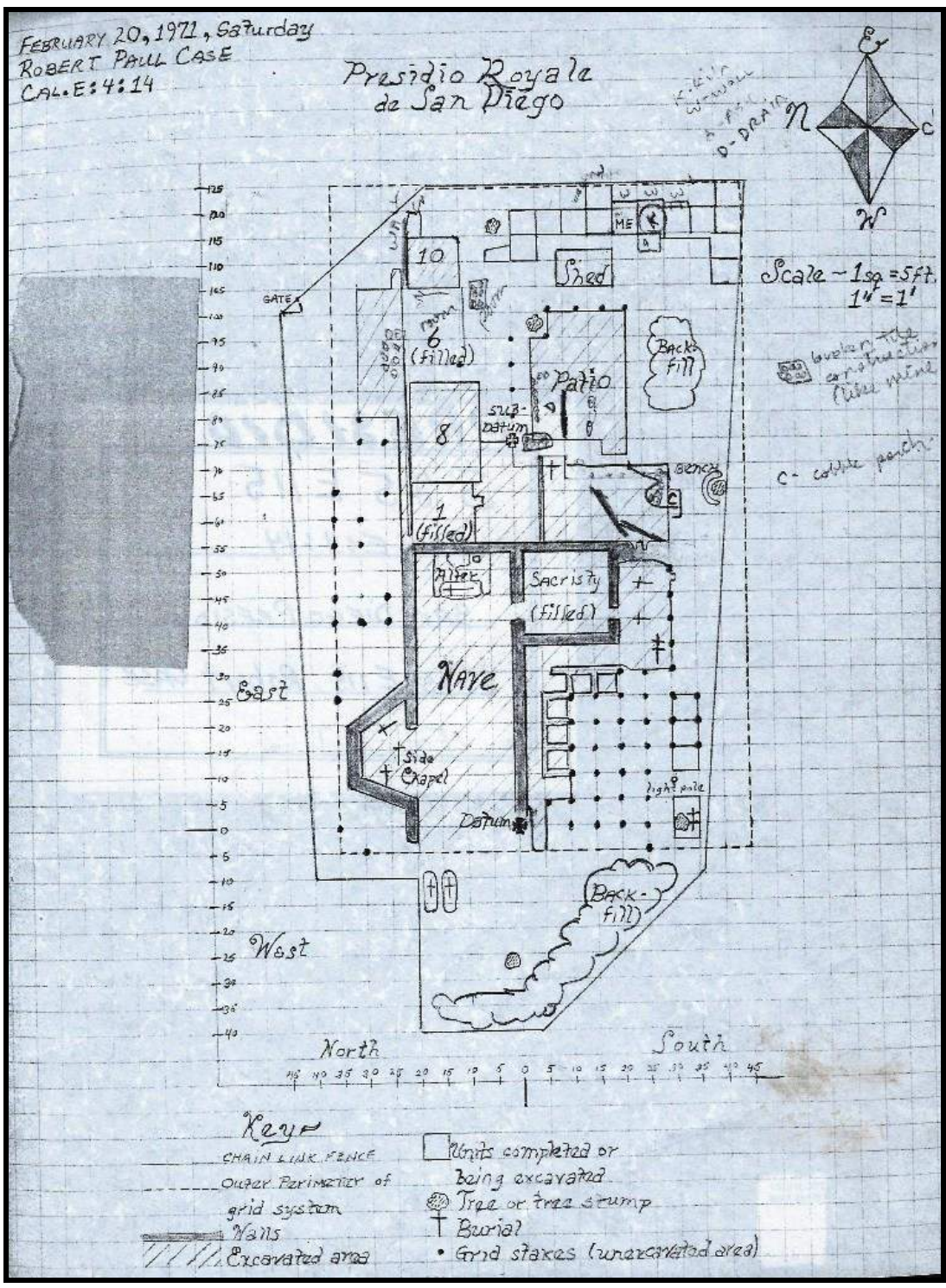


Figure 14: Excavation Progress as of February 1971. Grid interval = 5 feet (Field Books: Case - Spring 1971).



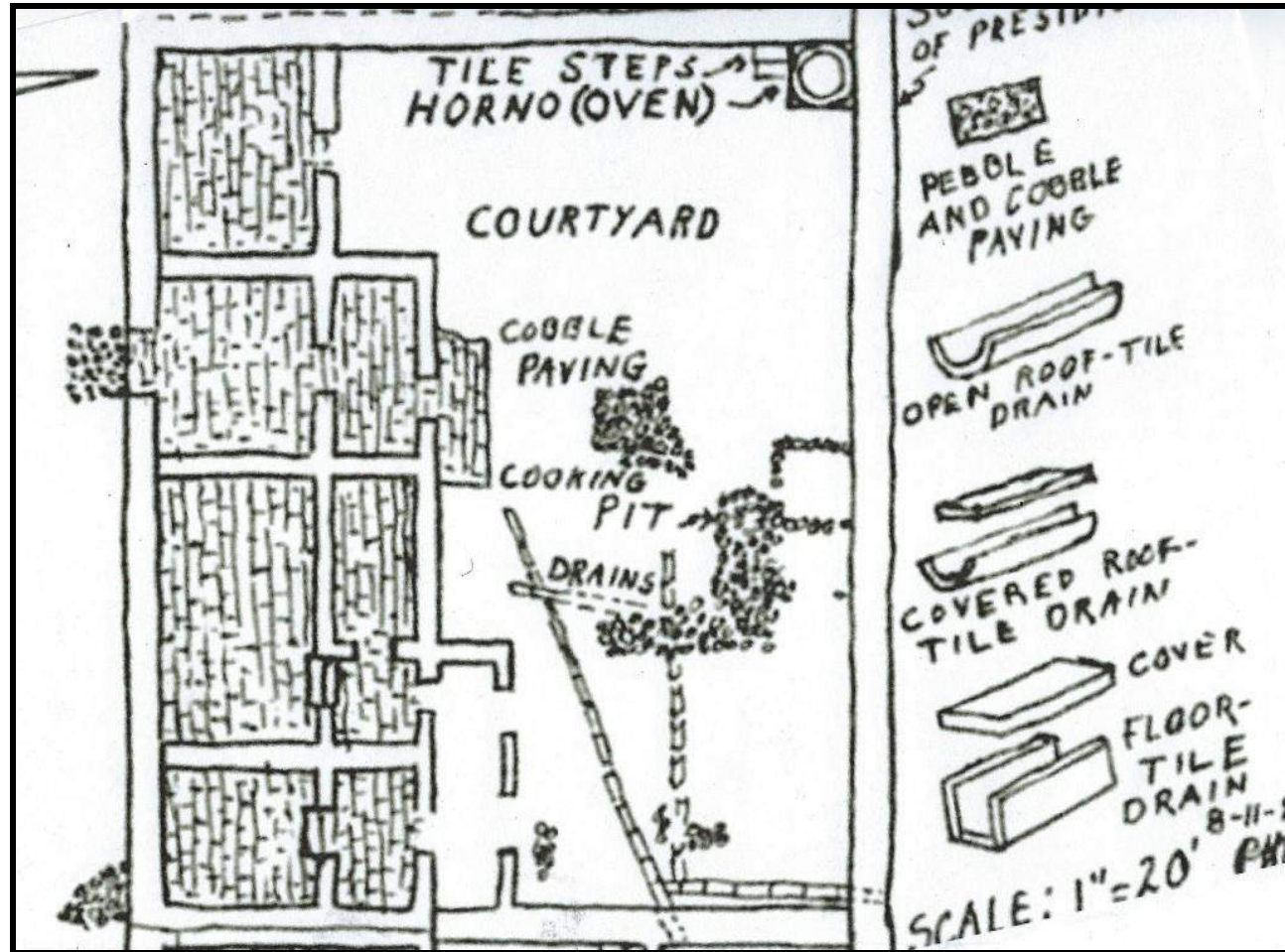


Figure 15: Dr. Paul Ezell's Map of the Chapel Complex Courtyard as Finally Excavated in 1976. North is on the left at the top of the drawing (Ezell 1976:12). The complex is approximately 60 feet wide.

As excavations revealed details of the courtyard, work in other areas continued. By 1969 units had been opened to explore the trash deposit that had been found in 1965 south of the sacristy (Field Books: Turnbull Fall – 1968, Kearns Fall - 1969). Some units had previously been opened here prior to the end of 1966 (Field Books: Dickey - Fall 1966, Fisk - Fall 1966, Melton - Fall 1966). Since this was located in the church yard, burials were encountered. Over the next several years extensive work occurred in the cemetery and a number of graves unearthed (Field Books: Poe - Spring 1971, Case - Fall 1971, Paterson - Spring 1972, Horn - Fall 1973; Carrico 2019).

By 1973 work in the cemetery had encountered remains of the baptistery, projecting outward as a “D” shaped room from the south wall of the chapel (Figure 16) (Field Books: Williams - Fall 1973, Aker - Fall 1975, Hurst Curtis - Fall 1975, Reid - Spring 1975, Craig - Summer 1975, Wentworth - Spring 1975, Miller - Spring 1976, Price - Spring 1976). Dr. Ezell provided the following description:

Another pleasant surprise was the nearly complete floor (broken only by one post-abandonment grave) and foundations, although only small sections of the walls survived, of a structure on the south side of the nave which has been identified as the baptistery. Access to it was through an elaborate doorway in the south wall of the nave, the opening which Broell had thought might have been the gateway to the Presidio. Only complete excavation, for which Broell had not the funds, made possible the identification of that doorway. In the geographic center of the D-shaped floor can be seen the evidences of a construction of tiles, once covered by plaster extending down on to the floor, approximately two feet on a side. Among possible explanations of such an architectural feature were a column to support a roof or a shorter column -- i.e., a pedestal -- to support something else. We rejected the roof support idea because we had found



**Figure 16: Baptistry Looking South from the Chapel Interior. The stacked square ladrillo tiles on the left side in the foreground frame the doorway (Dr. Paul Ezell Photograph courtesy Richard Carrico).**

no evidence of interior support columns in the nave where such support would have been more needed. As for the other, the one thing which is supported on a pedestal of that kind in a church or a chapel is a font for holy water. The font for the general use of the congregation is usually placed near the entrance to the nave and often built into one of the walls. Placed where it was, it thus seems probable that this was a font used for baptisms, and thus the identification of the D-shaped room as the baptistry. This, in turn, provides a possible explanation of something else found in the trash deposit south of the baptistry, fragments of a steatite bowl. It has been reported that in one of the missions still surviving the baptismal font is one of the Indian soapstone bowls which were a feature of the Indians of the Santa Barbara Channel area such as the Chumash (Ezell 1976:13-14).

Part of the fill covering the floor of the baptistry was the still intact portions of two fallen walls. It could be determined that one of the walls

had fallen from the north, the other from the west. That portion fallen from the north still contained mud building blocks in position relative to each other which showed that the doorway between the nave and the baptistery had had, in addition to the elaboration of the sides near the floor level, an elaboration of the top of the doorway common in religious structures along the northwestern Spanish frontier at least. The blocks had been carved into ridges and grooves and this then plastered over, simulating the radial fluting of certain kinds of sea shells (think of the Shell Oil Company trademark). This ornamentation was used on the arched overhang of doors, windows, and saints' niches, and the sculptured building blocks showed that they had formed such an arch. The fallen blocks of the west wall showed that it too had contained an arch, but one without that ornamentation. In the surviving remnant of the base of that wall, however, on the exterior of the west side of the baptistery just to the south of the south wall of the nave, was found the remains of a recess in the wall, which for a time, we referred to as the "outdoor bathtub" because of its shape. That feature was most probably a seat, built where the west wall of the baptistery was thinned to approximately half the thickness of the south wall of the nave (Ezell 1976:14-15).

During this same period (1972 – 1976) excavators uncovered the front of the chapel (Field Books: Bradley - Fall 1973, Horn - Fall 1973, Dayton - Spring 1973). The foundation to the west (front wall) was encountered and adjacent and parallel to it “. . . has been found another wall. The foundation of this wall ... lies several feet below the level of the floor of the nave.... On it are still some mud building blocks, showing that another wall had been built. So far, the most acceptable explanation of this second wall is that it was a ‘false front,’ a facade, an architectural device for lending greater dignity to the front of a building” (Ezell 1976:15).

Extending thirty feet to the west was a ladrillo tiled floor “at an average depth of two feet below the level of the nave floor . . .; the tiles in this floor, however, are smaller in size

than those used in the floor of the nave.” These appeared to be the remains of an entryway bordered on the north and south sides with river cobbles and pieces of sandstone (Ezell 1976:15).

Another discovery occurred in the courtyard “east of the east wall of the sacristy” where a unit “was taken down to over five feet in an effort to locate the surface on to which the Spaniards moved in 1769. Here was found possible evidence of one of the earliest structures to be erected by Europeans on the site, covered by layers of later construction and living activities” (Figure 17) (Ezell 1976:13).

In the yellowish clay and gravel of that sub-stratum were found two darker circles, approximately eight inches in diameter. That sort of thing is familiar to an archaeologist as evidence of a hole in the ground which has subsequently been filled. Upon excavation both proved to be not animal burrows, one of the possibilities, but postholes, since they were approximately vertical to the plane of the ground, cylindrical in shape, and bottom was reached in both at approximately six inches. In one was found a crushed crucifix of metal (silver?) and wood. Those two postholes might well represent all that is left of one of the earlier structures used for religious services. The search for more of them in order to attempt to determine the full outline of the structure could not be pursued without dismantling much of the sacristy and the information to be gained from it seemed likely to add so little to what we already knew that that destruction did not seem worth the reward (Ezell 1976:13).



Figure 17: Two Postholes That Might Represent One of the Earlier Structures Used for Religious Services at the San Diego Presidio (Ezell 1976:13).

## Burials

Archaeological excavation of the Presidio Chapel from 1965 to 1976 uncovered the remains of approximately 119 burials<sup>4</sup> (Carrico 2019). Although in hindsight the occurrence of interments amongst the ruins of a chapel and churchyard may not seem to be a surprising event, in 1965 when excavations began under the assumption that the mounds in the grass represented barracks and living quarters, graves were not expected (Larkin 1968:22; Ezell 1976:2; Carrico 2019).

Soon after excavation commenced clearly defined slumps under the ladrillo covered floor indicated some tiles had been removed and replaced. When excavation of these locations revealed graves, the remains were left in place. No policy had been formulated on how to deal with human interments. By the end of 1967, twenty burials had been encountered and the need to address the issue could no longer be ignored. Word had gotten out. Visitors at the site were asking about the “bones,” and the possibility of “grave robbers” or other vandalism became a major concern (Larkin 1968:25). Dr. Ezell was so preoccupied he would wake up at night and drive from his home in Pacific Beach to Presidio Park to verify that nothing had yet happened (Larkin 1968:25; Ezell 1976:11; Carrico 2019).

Assuming that any individual buried in a Catholic Church or cemetery had indeed been a Catholic, a moral claim on the part of the Church seemed logical and negotiations ensued with the local diocese to formulate a policy for the treatment of the burials.<sup>5</sup> Bishop Furey appointed Monsignor Donald F. Doxie, Vice Chancellor Secretary, as liaison with the program. He also gave the Church’s sanction to adopt any measures necessary “to

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<sup>4</sup> This comprised 56 percent of the 213 known burials at the presidio in the San Diego Mission records of interments between 1769 and 1830. This figure does not include the non-Catholic Sylvester Pattie (1828) who would have been buried in non-consecrated ground beyond the Cemetery, Jose Francisco Snook (1848), Henry Delano Fitch (1849), Natalia Fitch (Unknown), and at least five Indian women in the 1870s. Thus, several more persons who are not in the mission death records were buried there. The archaeological record provides information on 119 sets of remains with 91 of the burials having undergone a basic forensic study (Carrico 2019:9-10).

<sup>5</sup> This was standard procedure for the time. In the present day (2023) consultations would occur with the local coroner’s office and descendants of the individuals known to be buried in the cemetery prior removal of any remains.

protect the burials and to recover the maximum of information.” Working consecutive 10-hour days from February 24 through March 7, 1968, a crew of twenty-seven individuals, consisting mostly of students from San Diego State and Mesa College, uncovered and removed twelve of the known burials. Two others required additional time to complete (Larkin 1968:27). By the end of 1968 twenty had been excavated. All but three were in the Chapel. One was in the Sacristy and two others in the cemetery. Because of their fragile condition most of these were documented in place and covered over (Carrico 2019).

As work in the cemetery and the chapel area continued from 1969 to 1976 excavators found more interments and ultimately the previously mentioned total of 119 individuals was identified (Howard 1975; Carrico 2019). In many cases very little skeletal material remained. Chemical reactions resulting from the constant watering of the grass at Presidio Park had bathed the graves in a mild acid solution for almost 40 years, and many of the skeletons, especially those in wooden coffins which retained more moisture, had disintegrated. Whenever possible, excavators exposed and then recorded the remains without further disturbance. “If circumstances, such as the possibility of vandalism on the part of souvenir hunters or the necessity . . . to record something lying below them” required their removal, they were treated with a preservative to prevent further deterioration (Ezell 1976:11). Consequently, many, if not the majority, were left in situ and forensic studies conducted largely from onsite research and evaluation (Howard 1975; Carrico 2019).

## **The End of the Excavations and Their Legacy**

By the summer of 1976 the chapel excavation was winding down. I, Stephen Van Wormer, joined the project in July of that year in time to participate in the last two Saturdays of excavation and see the site closure. On the last Saturday a large number of former students and volunteers gathered. Cardboard boxes with skeletal remains from those burials that had been removed were taken and placed on the site according to the grid provenances written on the box. After all had been placed, a skip loader began to



carry bucketloads of dirt to each location and cover the boxes. When this had been completed the tractor's driver continued to bury the remainder of the site with soil from the back dirt pile. The chapel excavation was finished. Eleven years of labor: first conceived by Dr. Raymond Brandes in 1964, began by Dr. Donald Brockington in the spring 1965, and carried on under the direction of Dr. Paul Ezell with the help of professor Michel Axford through the mid-summer of 1976 had come to an end.

The legacy of Dr. Paul Ezell's San Diego Presidio Chapel Complex excavations extends far beyond the curated artifact collections and field notes, or the reports, masters theses, and published articles that have been written on the project. Training at the presidio launched dozens of students on professional lifetime careers. Ezell was an early advocate and practitioner of public and cultural resource management archaeology and his students have been widely employed as government agency cultural resource personnel, and in the management of private firms conducting cultural resource studies in San Diego County, southern California, and throughout the western United States for the last 50 years (Gross and Christenson 1993; Berryman 2022).

# SITE FORMATION ANALYSIS

By Stephen R. Van Wormer

There's a fascination frantic in a ruin that's romantic  
(The Mikado, Act II, by William S. Gilbert, music by Arthur S. Sullivan)

## Introduction

Following its abandonment in 1837 the San Diego Presidio fell quickly into ruin. While the Chapel remained in use through 1845, the rest of the compound quickly decayed. The site remained unoccupied and exposed to the elements for 100 years. The abandoned structures provided ready-made construction materials for residents building homes at the base of the hill in present-day Old Town San Diego. They removed roof tiles, floor tiles, and timbers, and dismantled walls for adobe blocks (Bancroft 1885b:610). After 1845 the Chapel Complex succumbed to the same fate, even though burials continued in the cemetery and within the crumbled building's walls through the mid 1870's (Ezell 1970:20, 1976:10; Carrico 2019:9). By the beginning of the twentieth century the Presidio's ruins had deteriorated to the point that only shallow mounds remained (San Diego History Center Photographs 1900: #3932-A; Smythe 1908:81). In order to gain a fuller understanding of the archaeological site's formation and the processes that resulted in artifact accumulation within the Chapel Complex, this section will examine the time periods represented by the ceramic artifacts, horizontal and vertical artifact distribution, and site stratigraphy.

## Temporal Analysis

Datable ceramic items from the Chapel Complex included a variety of Old World Ceramics and Mexican Mayolicas. Calculations for the 185 datable Old World Ceramic

items on Table 1 provided a mean date of 1820.37. Calculations for the 138 dated Mayolicas on Table 2 gave a mean date of 1790.11. Combining the data together provided a mean date of 1807.44. This is extremely close to the mean date of presidio occupation (1769-1837) of 1803.

Although often used to date archaeological sites, in the case of the Chapel Complex Mayolicas seem to be less reliable than Old World ceramics. Most Mayolica type dates have been derived through an analysis of their occurrence in various archaeological sites, rather than information from manufacturing or other records, so that they tend to be estimates rather than actual documented data. Many have production ranges of 100 years or more. In addition, of the types found at northern frontier Mexican Colonial and Republic period sites, including the San Diego Presidio Chapel Complex, none have introduction dates after 1800, even though periods of production for many continued to the mid-nineteenth century (Fox and Ulrich 2008:39). All of these factors combine to make the mean date derived from the Mayolica much earlier than that from the Old World ceramics. For these reasons probable artifact deposition sequences have been derived from the Old World ceramics. Occurrences of some Mayolica types introduced by 1800 have been included in the stratigraphic discussion where it seemed appropriate.

The most recently introduced artifacts in the Old World ceramic assemblage are three hand painted, sprig pattern saucers in chrome colors produced between 1835 and 1880 (<https://jefpat.maryland.gov>). Under common practice this would be considered a *terminus post quem*, or date after which the deposit occurred. Distribution and depositional conditions at the Chapel Complex suggest the artifact deposits formed over several years and this approach does not seem appropriate. During the length of time over which the deposits formed newer items could have been introduced at any point up until discard ceased. The 1835 introduction date is only two years before the presidio was abandoned and it does not seem likely that the extensive amount of material recovered was distributed across the entire excavation area in two years or less.

In order to determine the probable years of artifact deposition, periods of production of Old World ceramics, taken from the mean date calculations in Table 1, have been marked on a bar graph time line in Figure 18. Manufacturing ranges of datable artifacts have been plotted as horizontal lines. Vertical lines were placed to bracket the period during which the artifacts were probably deposited. The left bar was placed to cross the manufacture period of most dated artifacts in the assemblage, thereby providing a date after which the deposit was made. The right bar was placed based at the year of presidio abandonment in 1837. Results can be interpreted broadly or narrowly, providing at least four possible scenarios as shown on the increasingly darkened shaded areas on the graph. A vertical line at 1820 bisects a majority of the plotted periods of manufacture. This is also true for vertical lines at 1825, and 1830, so the deposits probably occurred between 1820 and 1837. A case can also be made for more narrow interpretations of from 1825 to 1837, or 1830 to 1837. The most conservative interpretation would be to use the most recent artifact introduction date of 1835 as a *terminus post quem* and suggest that the deposits occurred over the final two years of presidio occupation.

Table 1: Old World Ceramics Mean Date Calculations

TYPE	PATTERN NAME - ID	ORIGIN	MNFG	DATE	MEAN	COUNT	PRODUCT	REFERENCE
Transfer-Cobalt	Village Church AKA Rural Village;	England	-	1759	1759.00	1	1759.00	Transferware Collectors Club (TCC) # 1783 & 1060; Coysh & Henrywood 1982, Vol. 1:386
Transfer-Plum (Purple)	A Wreath For The Victor; Greek Pattern # 2; Impressed Mark "Copeland & Garrett /Late Spode/ 21"	Stoke on Trent, England	Copeland & Garrett, Late Spode	1805	1805.00	1	1805.00	TCC # 5737;
Transfer-Plum (Purple)	Unknown Greek Pattern	Stoke on Trent, England	Copeland & Garrett, Late Spode	1805	1805.00	1	1805.00	TCC Database Accessed In 2013-2016
Chinese Export Ware Porcelain	Nanking	China	-	1760 -1800	1780.00	7	12460.00	Madsen & White 2009:98
Chinese Export Ware Porcelain	Neoclassical Bands And Lines Pattern - "Late 18th Century Bands & Lines" Stringing	China	-	1765- 1810	1832.50	1	1832.50	Madsen & White 2009:116-117+
Chinese Export Ware Porcelain	Nanking Shaded Trellis, Spearhead &	China	-	1765- 1820	1792.50	1	1792.50	Madsen & White 2009
Misc. Mark Sherd	"Spode / 28"; Impressed.	Stoke on Trent England	Spode	1770- 1833	1801.50	1	1801.50	TCC Manufacturer Mark Chart; Kowalsky & Kowalski 1999:340 (B220B, 220i)
Cane Ware	-	England	-	1770- 1880	1825.00	1	1825.00	<a href="https://www.southebys.com/en/buy/auktion/2029/wedgewood-and-beyond-english-ceramics-from-the-starr-collection/a-wedgewood-caneware-footed-large-jeug-circa-1770-80">https://www.southebys.com/en/buy/auktion/2029/wedgewood-and-beyond-english-ceramics-from-the-starr-collection/a-wedgewood-caneware-footed-large-jeug-circa-1770-80</a>
Transfer-Cobalt	"[S]Pode"; Underglaze Cobalt Stamp.	Stoke on Trent, England	Spode	1770- 1883	1826.50	1	1826.50	TCC # 3786 & Manufacturer's Mark # 345
Edge Decorated -Cobalt Pearlware	-	-	-	1775- 1800	1787.50	7	12512.50	Hunter & Miller 2009:13
Banded Ware	-	-	-	1775- 1812	1793.50	1	1793.50	Magid 2010: C-18, C-21
Hand Painted Cobalt	(China Glaze)	England	-	1775- 1812	1793.50	1	1793.50	<a href="http://www.Chipstone.Org">www.Chipstone.Org</a> ; <a href="http://www.Jefpat.Org">www.Jefpat.Org</a>
Hand Painted Floral Cobalt	-	-	-	1775- 1830	1802.50	2	3605.00	Magid 2010
Chinese Export Ware Porcelain	Chinese House	China	-	1780- 1820	1800.00	1	1800.00	Miller & Hunter 2001:135-161
Chinese Export Ware Porcelain	Enamel Polychrome Pattern # 6["Mandarin" Palette]	China	-	1780- 1835	1807.50	1	1807.50	Nadler 2001:80, 82 (Fig. 73 [The "Mandarin" Palette"]); Mudge 1981; Felton & Schulz 1983:29; Schiffer, Schiffer & Schiffer 1997: 68(183); 161(430).
Transfer-Cobalt	Chinese River Scene With Temple & Pyramids	Wales	Cambrian Pottery	1783- 1810	1823.50	1	1823.50	TCC # 559 (See Also TCC # 627)
Transfer-Cobalt	Willow And Summer House (Susan Unidentified Pattern # 4)	Wales	Cambrian Pottery	1783- 1810	1823.50	1	1823.50	TCC # 627 (See Also TCC # 559)
Chinese Export Ware Porcelain	Nanking Butterfly & Diaper With Scales	China	-	1785- 1800	1792.50	3	5377.50	Madsen & White 2009:98; Figure 4.64

Table 1: Old World Ceramics Mean Date Calculations  
(Continued)

TYPE	PATTERN NAME - ID	ORIGIN	MNFG	DATE	MEAN	COUNT	PRODUCT	REFERENCE
Chinese Export Ware Porcelain	Enamel Polychrome Patterns	China	-	1785-1853	1819.0 0	17	30923.00	Tippett 1996:17 (Chinese Famille Rose Style) Mudge 1981; Felton & Schulz 1983:29; Schiffer, Schiffer & Schiffer 1997: 68(183);161(430); Madsen & White 2009:116-117
Chinese Export Ware Porcelain	Canton	China	-	1785-1853	1819.0 0	26	47294.00	Madsen & White 2009:100
Nursery Ware - Hand Painted Blue/White Floral	Unnamed Pattern	England	-	1790-1810	1800.0 0	4	7200.00	Punchard 1996:22
Molded Earthenware	Castleford Like	England	Castle Ford And Other Companies	1790-1825	1807.5 0	1	1807.50	Magid 2010:C-10
Transfer-Cobalt	Fruit & Flowers	Longport, England	DAVENPORT, Or STUBBS & KENT	1794-1887	1840.5 0	4	7362.00	For Davenport TCC # 2188, 3211, 3247, See Also TCC # 3226, 4257, 8956. For Stubbs TCC # 3242 & TCC # 1698.
Hand Painted Floral Polychrome	-	-	-	1795-1820	1807.5 0	2	3615.00	Magid 2010:C-22
Chinese Export Ware Porcelain	Enamel Polychrome Pattern	China	-	1800-1810	1815.0 0	1	1815.00	Mudge 1981:32 (Fig. 35) Shows A Miniature Teapot; Felton & Schulz 1983:29; Schiffer, Schiffer & Schiffer 1997: 68(183);161(430); Madsen & White 2009:116 - 117+
Chinese Export Ware Porcelain	Enamel Polychrome Pattern	China	-	1800-1820	1810.0 0	2	3620.00	Mudge 1981:206 [Figs. 121,122]; Felton, & Schulz 1983:29; Schiffer, Schiffer & Schiffer 1997: 68(183); 161(430); Madsen & White 2009:116-117.
Edge Decorated-Cobalt Pearlware	-	-	-	1800-1830	1815.0 0	3	5445.00	Hunter & Miller 2009:13
Edge Decorated-Green Pearlware	-	-	-	1800-1840	1820.0 0	8	14560.00	Hunter & Miller 2009:13
Transfer-Cobalt	"Krater In Trellis" [Name Assigned By SUSAN D. WALTER.]; Mark = "O" Underglaze Cobalt. Mark # 2 = Impressed 8 Rayed Triangular Petals	England	-	1800-1842	1821.0 0	1	1821.00	TCC # 2296 & TCC # 11218
Transfer-Cobalt	"Krater In Trellis" [Name Assigned By SUSAN D. WALTER.]	England	-	1800-1842	1821.0 0	2	3642.00	TCC # 2296 & TCC # 11218
Edge Decorated-Blue & Cobalt Pearlware	-	-	-	1800-1870	1835.0 0	1	1835.00	Allen, Huddleson, Wooten & Farris 2013:40

Table 1: Old World Ceramics Mean Date Calculations  
(Continued)

TYPE	PATTERN NAME - ID	ORIGIN	MNFG	DATE	MEAN	COUNT	PRODUCT	REFERENCE
Edge Decorated -Cobalt Pearlware	-	-	-	1800-1870	1835.00	16	29360.00	Allen, Huddleson, Wooten & Farris 2013:40
Transfer-Black	Lace Border Series	England	Ralph Stevenson (& Son)	1810-1835	1822.50	2	3645.00	TCC # 2436
Transfer-Cobalt	Man In Sleigh; "G" Impressed	Burslem Staffordshire England	Enoch Woods & Sons	1810-1846	1828.00	1	1828.00	TCC # 6989
Transfer-Cobalt/Blue	Blue Pheasants	Stoke / Lane Delph, England	Stephen Folch or G.M. & C.J. Mason	1813-1829	1821.00	1	1821.00	TCC #11248 And TCC #4116
Transfer-Cobalt	Trinity College, Oxford; "... Xfor... / ... Dg ..."; Underglaze Cobalt	Shelton, Hanley, Staffordshire, England	John & William Ridgway	1813-1830	1821.50	1	1821.50	TCC # 19312
Transfer-Cobalt	Weeping Willow Border	Cobridge, Staffordshire, England	Ralph & James Clews	1814-1834	1824.00	1	1824.00	TCC # 278 and 14 Others
Hand Painted Floral Polychrome	Gaudy Staffordshire - Single Rose (Yellow Tag) Sometimes Called "Cottage Rose"	England	-	1815-1820	1817.50	1	1817.50	Http://www.PatricianAntiques.Com/40474csc.Html
Transfer-Cobalt	Tower	Stoke On Trent, England, Staffordshire	Spode	1815-1833	1824.00	1	1824.00	TCC # 1764
Transfer-Blue	Boy Piping	England	-	1815-1835	1825.00	1	1825.00	TCC # 2013:1949; Coysh & Henrywood 1982:53; Richard Halliday: personal communication to Susan D. Walter 3/2/2016.
Transfer-Cobalt	India	Stoke On Trent, England	Spode	1815-1835	1825.00	2	3650.00	TCC # 8
Transfer-Blue	Boston State House	Longport, England	John Rogers & Son	1815-1841	1828.00	1	1828.00	TCC # 5382, 2784, 7303; Https://www.Sellingantiques.Co.Uk/304528/...
Transfer-Cobalt	Boston Harbor	Longport, England	John Rogers & Son	1815-1842	1828.50	4	7314.00	TCC # 4716; Larson 1950:153(360); Arman & Arman 2000 Vol. II: 23(80)
Transfer-Blue	Italian Aka Blue Italian Aka Spode's Italian	Stoke On Trent, England	Spode	1816-1833	1824.50	3	5473.50	TCC # 12253; Gaston 2002:133
Transfer-Cobalt	London Views: St. Phillip's Chapel	Burslem, England	Enoch Wood & Son	1818-1846	1832.00	1	1832.00	TCC # 2441; Coysh & Henrywood 1982 Vol. 1:226
Transfer-Cobalt	English Cities (Border)	Burslem, England	Enoch Wood & Sons	1818-1846	1832.00	1	1832.00	TCC # 11252; Coysh & Henrywood 1982, Vol. 1:271
Transfer-Cobalt	Cadmus (Castle Garden Battery New York) / Cottage In The Woods	Burslem, Staffordshire England	Enoch Woods & Sons	1818-1846	1832.00	1	1832.00	TCC # 2142/ 2026 / 5973
Transfer-Cobalt	Marine Hospital, Louisville Kentucky	Burslem, Staffordshire England	Enoch Wood & Sons	1818-1846	1832.00	1	1832.00	TCC # 885
Transfer-Red	A Reward For Diligence	England, Burslem	Unknown But Probably Enoch Wood & Sons	1818-1846	1832.00	1	1832.00	TCC # 5927 The Molded & Painted Rim Design Shown In TCC For This Plate Was "Only Used By Enoch Wood & Sons" - TCC # 15567
Nursery Ware	Turkey	Burslem, Staffordshire, England	Enoch Wood & Sons	1818-1846	1832.00	2	3664.00	TCC #10762; Felton: personal communication to Susan D Walter 2007.

Table 1: Old World Ceramics Mean Date Calculations  
(Continued)

TYPE	PATTERN NAME - ID	ORIGIN	MNFG	DATE	MEAN	COUNT	PRODUCT	REFERENCE
Transfer-Cobalt	Sproughton Chantry AKA Rural Estate AKA Country Manor;	England	-	1820- 1830	1825.00	3	5475.00	TCC # 2014 # 1667; Laidecker 1951; Williams & Weber 1998, Vol. 3.
Chinese Porcelain Native Ware Exported To California Ca 1820- 1850	Om (AKA Sino- Sanskrit, Longevity, Tao)	China	-	1820- 1850	1835.0 0	1	1835.00	Felton 2003
Chinese Porcelain Native Ware Exported To California Ca 1820- 1850	Star Burst (AKA Sino- Islamic, Allah)	China	-	1820- 1850	1835.0 0	2	3670.00	Felton 2003
Chinese Porcelain Native Ware Exported To California Ca 1820- 1850	Sino Islamic Curvilinear	China	-	1820- 1850	1835.0 0	5	9175.00	Felton 2003
Chinese Porcelain Native Ware Exported To California Ca 1820- 1850	Petal Panel (AKA Birthday, Peach & Fungus)	China	-	1820- 1850	1835.0 0	2	3670.00	Felton 2003
Chinese Porcelain Native Ware Exported To California Ca 1820- 1850	Criss - Cross Band - Floral Spray	China	-	1820- 1850	1835.0 0	1	1835.00	Felton 2003
Chinese Porcelain Native Ware Exported To California Ca 1820- 1850	Peach & Fungus, Looks Like a White Celadon	China	-	1820- 1850	1835.0 0	4	7340.00	Felton 2003
Chinese Porcelain Native Ware Exported To California Ca 1820- 1850	Cauldron & Bat - Chrysanthemu m	China	-	1820- 1850	1835.0 0	1	1835.00	Yang & Hellman 1998 Fig. 42 Pg. 173; Felton 2003; <a href="https://www.Sonoma.Edu/.../Overseas%20Chinese;">https://www.Sonoma.Edu/.../Overseas as Chinese.;</a>
Transfer- Red/Pink	Polish Views: A Tear For Poland	Longport, England	George Phillips or Edward & George Phillips	1822- 1847	1834.5 0	3	5503.50	TCC # 4845; Williams 1978:377
Transfer- Cobalt	The Coliseum - Regent's Park Series	Stoke On Trent, England	William Adams Ilii	1823- 1829	1826.0 0	2	3652.00	TCC # 4800; Coys & Henrywood 1982, Vol. 1.



Table 1: Old World Ceramics Mean Date Calculations  
(Continued)

TYPE	PATTERN NAME - ID	ORIGIN	MNFG	DATE	MEAN	COUNT	PRODUCT	REFERENCE
Edge Decorated -Cobalt Pearlware	-	-	-	1825- 1840	1832.50	3	5497.50	McAllister 2001:37; Hunter & Miller 2009:13; Allen, Huddleson, Wooten & Farris 2013:40
Transfer- Cobalt	London Views: St. Phillip's Chapel, Regent Street	Burslem, England	Enoch Wood & Sons	1827- 1846	1836.50	6	11019.00	Coysch & Henrywood 1982, Vol. 1:226; McCoy-Silvas TMI:30(P116-354-7); TCC # 2441)
Hand Painted Sprig	Sprig Painted Wares In Chrome Colors	-	-	1835- 1880	1857.50	3	5572.50	<a href="https://jefpat.maryland.gov">https://jefpat.maryland.gov</a> On Line Winterthur Museum Collection "St. John Bocage" 2002.0030.094.004; Picclick.Co.Uk/Early- Staffordshire-Pearlware- Bocage-Figure-Of-St-John- 192877998135.Html
Hand Painted Tin Glazed	St. John;	Staffordshire England	-	C. 1820	1820.00	1	1820.00	
Enameled Earthen- ware	Rose & Strawberry	England	-	C. 1830	1830.00	1	1830.00	Krase 1979:158-159, Plate xviii
TOTALS						185	33678.00	
MEAN						33678.00/ 185		
DATE						= 1820.37		

Table 2: Mayolica Mean Date Calculation

ITEM	TYPE	DATE	MEAN	NUMBER	PRODUCT	REFERENCE
Unidentified Vessel	Castillo (Castillos) Polychrome	1680 - 1710	1695.00	1	1695.00	Cohen-Williams & Williams 2004
Plato	Huejotzingo Blue On White Straight T Rim	1700-1850	1775.00	5	8875.00	FLMNH 2014 # 1457; Gamez Martinez 2003:238; Cohen-Williams & Williams 2004:18-20;
Escudilla	Huejotzingo Blue On White Wavy Rim	1700-1850	1775.00	2	3550.00	FLMNH 2014 # 1344 Cohen-Williams & Williams 2004:21-22
Plato	Huejotzingo Blue On White Wavy Rim	1700-1850	1775.00	1	1775.00	FLMNH 2014 # 1344 Cohen-Williams & Williams 2004:21-22
Plato	Huejotzingo Blue On White Wavy Rim	1700-1850	1775.00	10	17750.00	FLMNH 2014 # 1344 Cohen-Williams & Williams 2004:21-22
Plato	Huejotzingo Green On White Straight Rim	1700-1850	1775.00	2	3550.00	Cohen-Williams & Williams 2004:58-59
Plato	Huejotzingo Green On White Wavy Rim	1700-1850	1775.00	2	3550.00	FLMNH 2014 # 1271 Cohen-Williams & Williams 2004:60-61
Escudilla	Puebla Blue On White	1700-1850	1775.00	19	33725.00	FLMNH 2014 # 1026, 1028, 1376, 1458, 1459, 1469, 2678; Cohen-Williams & Williams 2004:12-17; Gamez Martinez 2003:238
Plato	Puebla Blue On White	1700-1850	1775.00	3	5325.00	FLMNH 2014 # 1026, 1028, 1376, 1458, 1459, 1469, 2678; Cohen-Williams & Williams 2004:12-17; Gamez Martinez 2003:238
Jícara / Taza-Cups	Puebla Blue On White	1700-1850	1775.00	5	8875.00	FLMNH 2014 # 1026, 1028, 1376, 1458, 1459, 1469, 2678; Cohen-Williams & Williams 2004:12-17; Gamez Martinez 2003:238
Escudilla	Puebla White	1700-1850	1775.00	8	14200.00	Fox And Ulrich 2008:74
Large Bowl / Jar	Puebla White	1700-1850	1775.00	1	1775.00	Fox And Ulrich 2008:74
Jícara-Cup	Puebla White	1700-1850	1775.00	2	3550.00	Fox And Ulrich 2008:74
Plato	San Ignacio Polychrome	1750-1800	1775.00	2	3550.00	Cohen-Williams & Williams 2004:48-49
Plato	Abo Aramana Unidentified Variety	1750-1830	1790.00	1	1790.00	Cohen-Williams & Williams & 2004:36
Escudilla	Nopaltapec-Monterey Polychrome	1750-1830	1790.00	1	1790.00	FLMNH # 1018, 1370, 11421, 1436, 1437, 2716; Gamez, Martinez 2003:236; Cohen-Williams & Williams 2004:46-48
Plato	Nopaltapec-Monterey Polychrome	1750-1830	1790.00	7	12530.00	FLMNH # 1018, 1370, 11421, 1436, 1437, 2716; Gamez, Martinez 2003:236; Cohen-Williams & Williams 2004:46-48
Escudilla	Zúñiga Polychrome	1750-1830	1790.00	2	3580.00	Cohen-Williams & Williams 2004:35-36
Plato	Zúñiga Polychrome	1750-1830	1790.00	1	1790.00	Cohen-Williams & Williams 2004:46
Plato	San Diego Polychrome	1750-1835	1792.50	5	8962.50	FLMNH # 1352, 1360, 1365, 3078, 3079, 3080; Cohen-Williams & Williams 2004:46-48, 54-55
Escudilla	San Diego Polychrome	1750-1835	1792.50	3	5377.50	FLMNH # 1352, 1360, 1365, 3078, 3079, 3080; Cohen-Williams & Williams 2004:46-48, 54-55
Plato	Orange Band Polychrome	1750-1850	1800.00	3	5400.00	Cohen-Williams & Williams 2004:44-45
Plato	Puebla White	1750-1850	1800.00	2	3600.00	Cohen-Williams 1992
Escudilla	San Elizario Polychrome	1750-1850	1800.00	2	3600.00	FLMNH # 1578, 1579, 1584, 2668, Gamez, Martinez 2003:237; Cohen-Williams & Williams 2004:46-48
Plato	San Elizario Polychrome	1750-1850	1800.00	23	41400.00	Deagan 1987:86; Cohen-Williams & Williams 2004:31; Fox And Ulrich 2008:96
Plato	Santa Cruz Polychrome	1750-1850	1800.00	1	1800.00	Deagan 1987:86; Cohen-Williams & Williams 2004:31; Fox And Ulrich 2008:96
Plato	Tucson Polychrome	1750-1850	1800.00	1	1800.00	Cohen-Williams & Williams 2004:54-55
Escudilla	Tubac Polychrome	1750-1850	1800.00	1	1800.00	Cohen-Williams & Williams 2004:53-54

Table 2 Mayolica Mean Date Calculation  
(Continued)

ITEM	TYPE	DATE	MEAN	NUMBER	PRODUCT	REFERENCE
Unidentified Vessel	San Agustín-Molded Blue On White	1775-1830	1802.50	1	1802.50	Cohen-Williams & Williams 2004:13-25; Fox And Ulrich 2008:84-85; FLMNH # 1026, 1028, 1376, 1469, 2678
Escudilla	San Agustín-Molded Blue On White	1775-1800	1802.50	2	3605.00	Cohen-Williams & Williams 2004:13-25; Fox And Ulrich 2008:84-85; FLMNH # 1026, 1028, 1376, 1469, 2678
Plato	San Agustín-Molded Blue On White	1775-1800	1802.50	3	5407.50	Cohen-Williams & Williams 2004:13-25; Fox And Ulrich 2008:84-85; FLMNH # 1026, 1028, 1376, 1469, 2678
Taza-Cup	San Agustín-Molded Blue On White	1775-1800	1802.50	2	3605.00	Cohen-Williams & Williams 2004:13-25; Fox And Ulrich 2008:84-85; FLMNH # 1026, 1028, 1376, 1469, 2678
Escudilla	Tumacacori Polychrome	1780-1860	1820.00	1	1820.00	May 1972:37; Barnes 1972:11 In Cohen-Williams & Williams 2004:66
Plato	Tumacacori Polychrome	1780-1860	1820.00	2	3640.00	May 1972:37; Barnes 1972:11 In Cohen-Williams & Williams 2004:66
Taza-Cup	Fine Line/Guanajuato Polychrome	1800-1850	1830.00	2	3660.00	Williams & Cohen-Williams 2004
Plato	Fine Line/Guanajuato Polychrome	1800-1850	1830.00	6	10980.00	Cohen-Williams 1992; Fox & Ulrich 2008:108-109; FLMNH 1651
Plato	Esquitlan Black On Yellow	1800-1900	1850.00	1	1850.00	Seifert 1977 In FLMNH # 1430
Pocillo-Cup - Chocolate (Lug Handle)	Esquitlan Black On Yellow	1800-1900	1850.00	1	1850.00	Seifert 1977 In FLMNH # 1430; Cohen-Williams & Williams 2004:5
Plato	Esquitlan Polychrome	1800-1900	1850.00	1	1850.00	FLMNH # 1404, 1411, 1414, 1415
		TOTALS		138	247035.00	247035
		MEAN DATE	247035.00/138 = 1790.11			

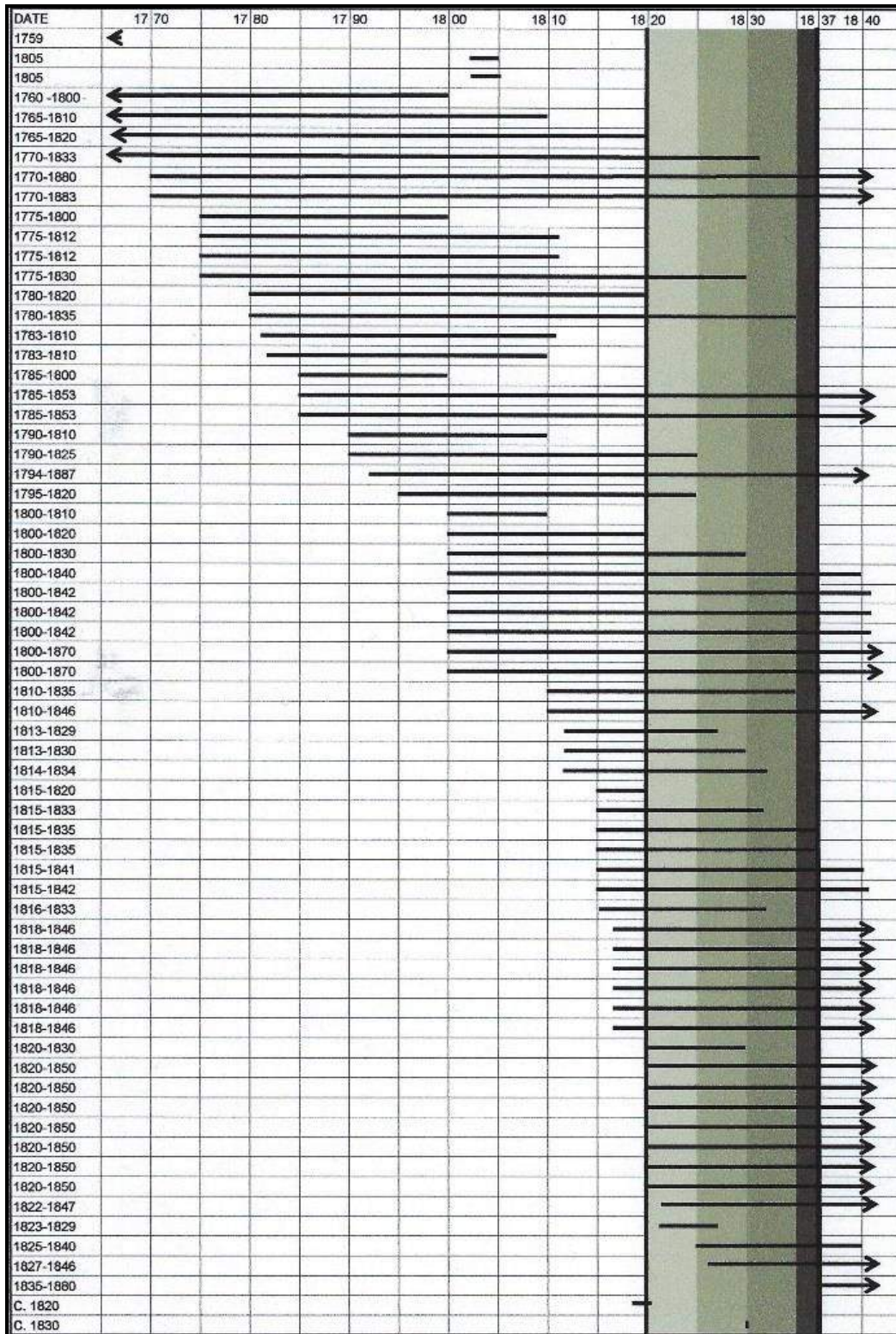


Figure 18: Probable Years of Artifact Deposition.

## **Distribution of Ceramic Artifacts within the Chapel Complex Area**

It was simply not practical to plot every one of the over 27,000 sherds in the collection. Consequently, horizontal distribution was plotted for selected types of identified minimum vessels. These included Native American Brown Ware, Mayolica, Transferwares, and Chinese Wares. These four types represent the main manufacturing regions from which most ceramics in the collection originated, as well as the major uses of food preparation and serving, and other household activities for which most were utilized.

Because the majority of individual items were identified with sherds from more than one unit, many of them are counted in multiple units, while some units that produced substantial quantities of ceramic material received no counts. In spite of these limitations, overall the results depict an accurate distribution of the ceramic artifacts. Basically, areas with more sherds produced higher estimated minimum vessel counts.

The horizontal distributions of the selected ceramic types are shown in Figures 19 through 23. Overall there is little difference in distribution between types except in the living quarters along the north side of the Courtyard where there are almost no Transferwares and very few Chinese manufactured vessels, a pattern also noted by Jean Krase (1979:40, 42) in her analysis of the Old World Ceramics from the Chapel Complex. An explanation for this distribution has not been found. Beyond that, four distinct artifact clusters, where over half the units had six or more vessels represented, are apparent (Figure 19). Two of these, Clusters One and Two, were previously identified in a study of glass from the Chapel Complex (Van Wormer 2014:52). In her earlier study, Krase (1979:40-50) recognized all four locations as areas of denser artifact concentration, even though she did not assign specific boundaries or identification numbers.

Cluster Number One is in the cemetery, directly south of the Sacristy. The area was recognized as a refuse dump in the spring of 1965 when excavations first started (Brockington and Brandes 1965:25; Field Books: Scaramella-Spring 1965). It contains one unit with less than 5 vessels, two with 11 to 20 vessels, 10 with 21 to 50 vessels, 2 with 51 to 100 vessels, and 1 with 116 vessels represented in the unit. In addition, a trench designated Room C southeast quarter, excavated along the south side of the Sacristy, produced sherds representing 234 ceramic objects.

Cluster Number Two, is in the extreme southeast corner of the excavated area, and represents a cooking area on the west and south sides of an earthen oven at the southeast corner of the complex. This deposit consisted of two units with less than five vessels, seven units with between 6 and 10 vessels, and three units with between 21 and 50 vessels.

Cluster Number 3 is in the western approximate one third of the Courtyard. This is the lowest area of the yard and associated with drainage systems where rubbish would have naturally accumulated. This deposit has nine units with five vessels or less, eight units with 6 to 10 vessels each, and six units with 11 to 20 vessels represented.

Cluster Number Four is in the cemetery directly west of the Sacristy. It encompasses two units with five vessels or less, five units with 6 to 10 vessels each, and one unit with 17 vessels.



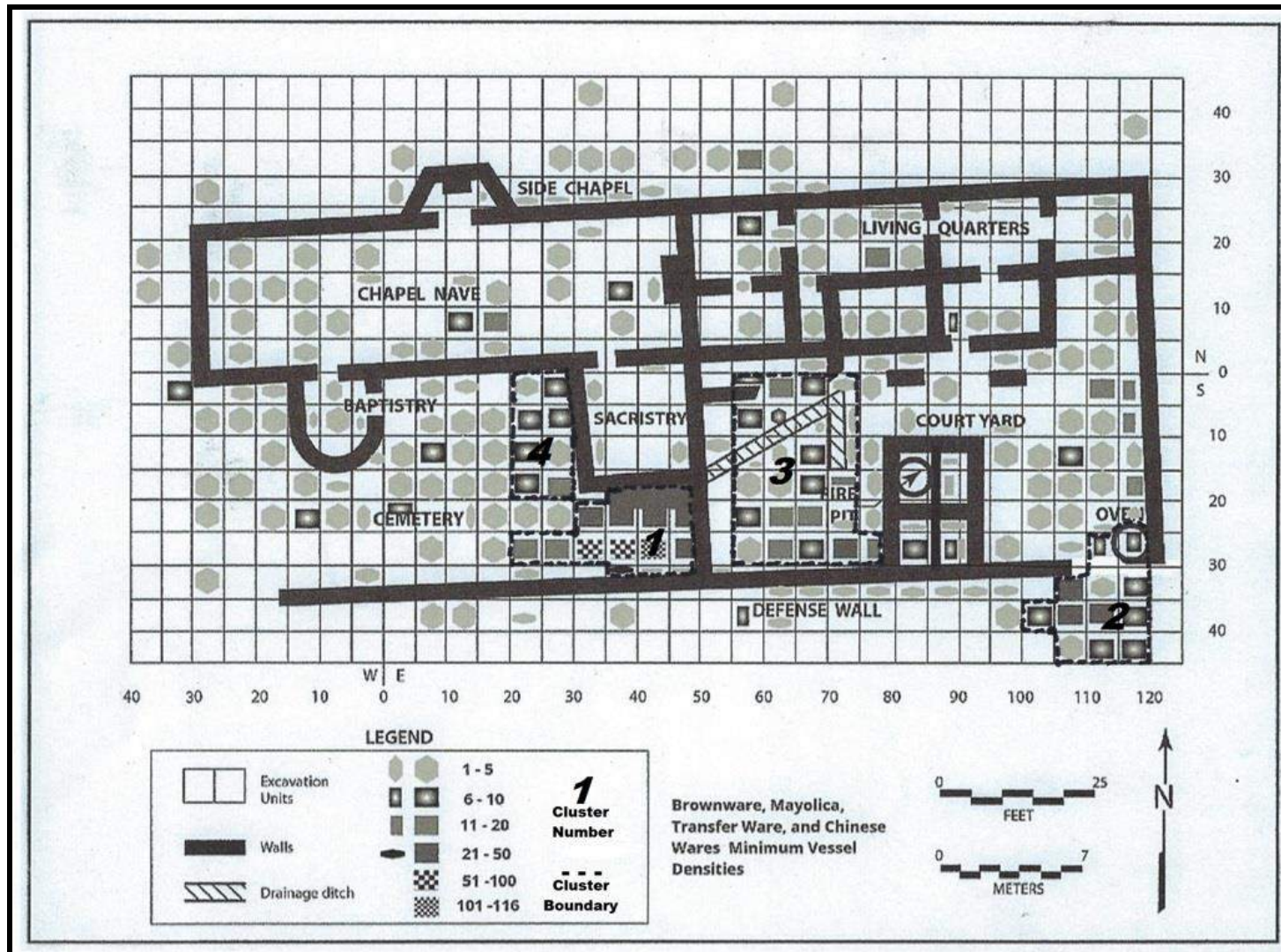


Figure 19: Brown Ware, Mayolica, Transferware, and Chinese Vessel Densities.

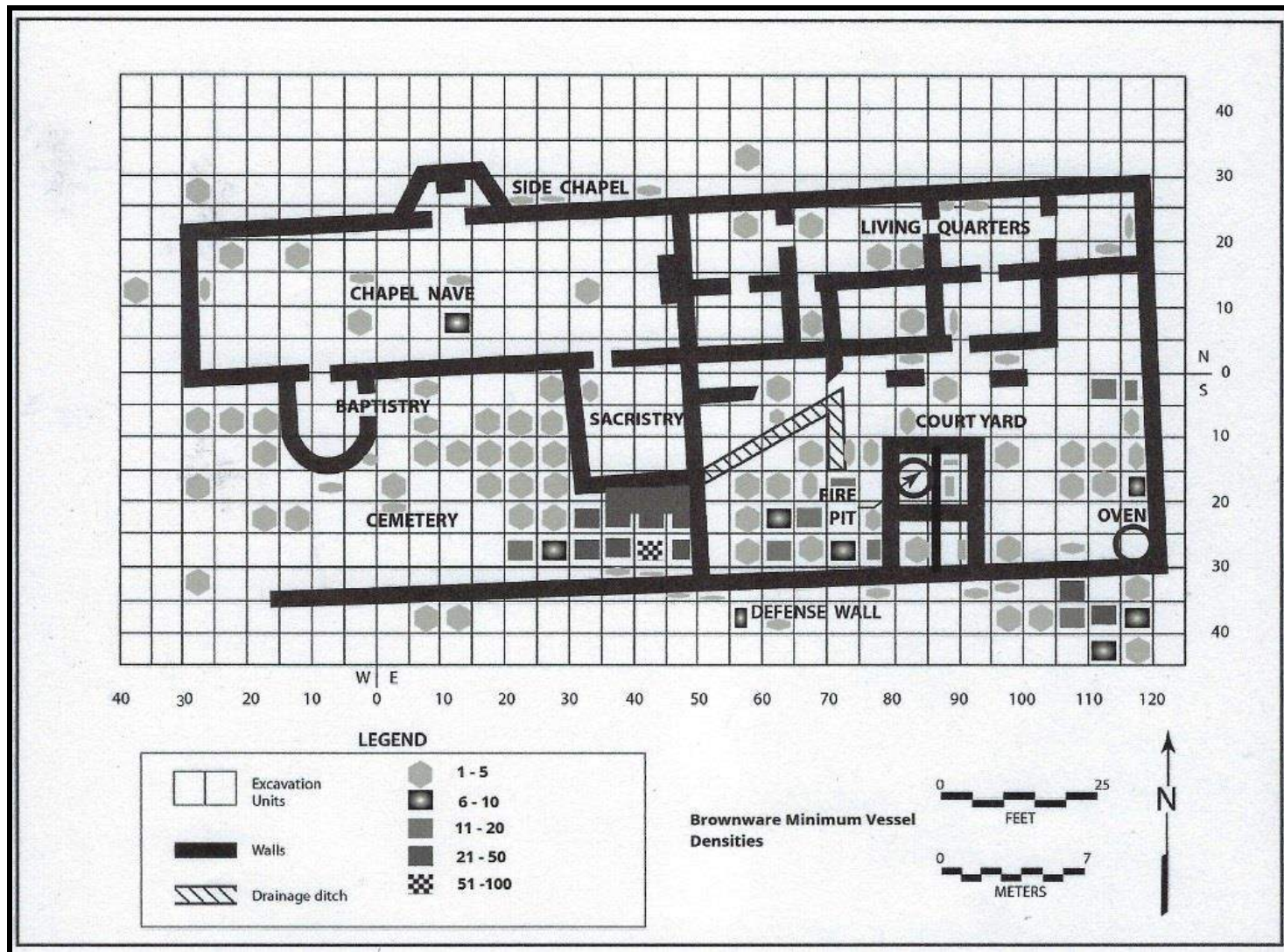


Figure 20: Brown Ware Vessel Densities.



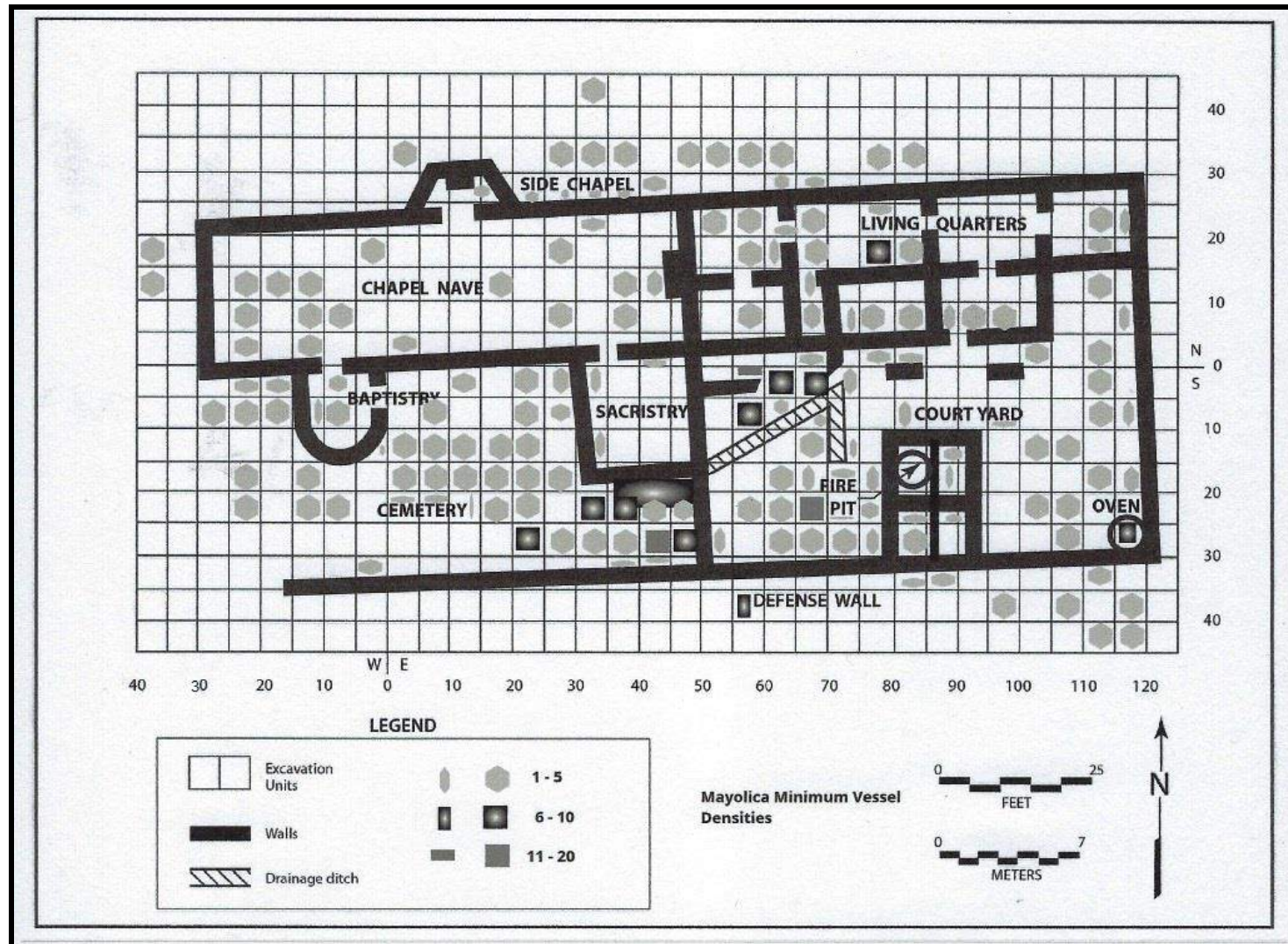


Figure 21: Mayolica Vessel Densities.

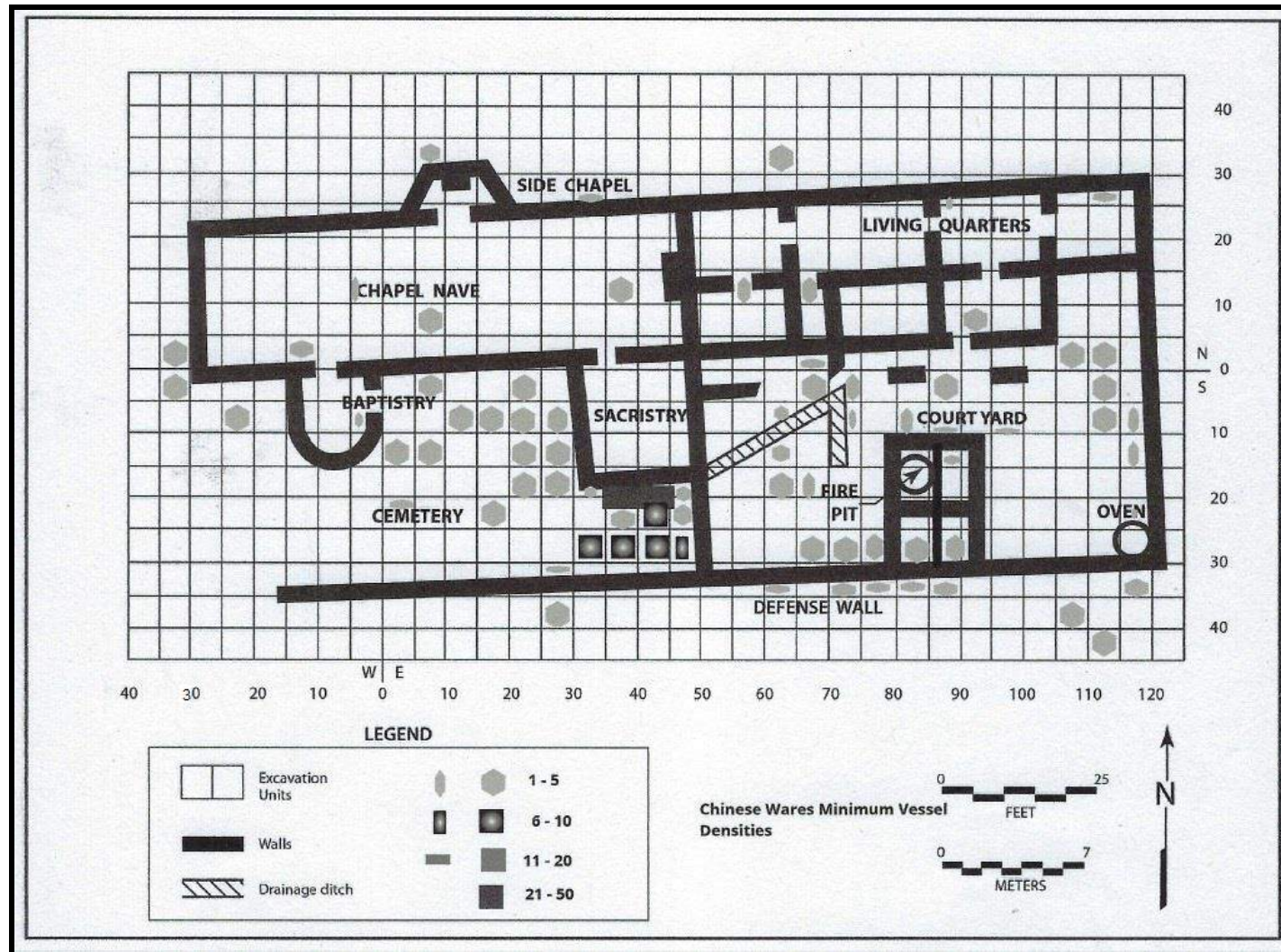


Figure 22: Chinese Vessel Densities.



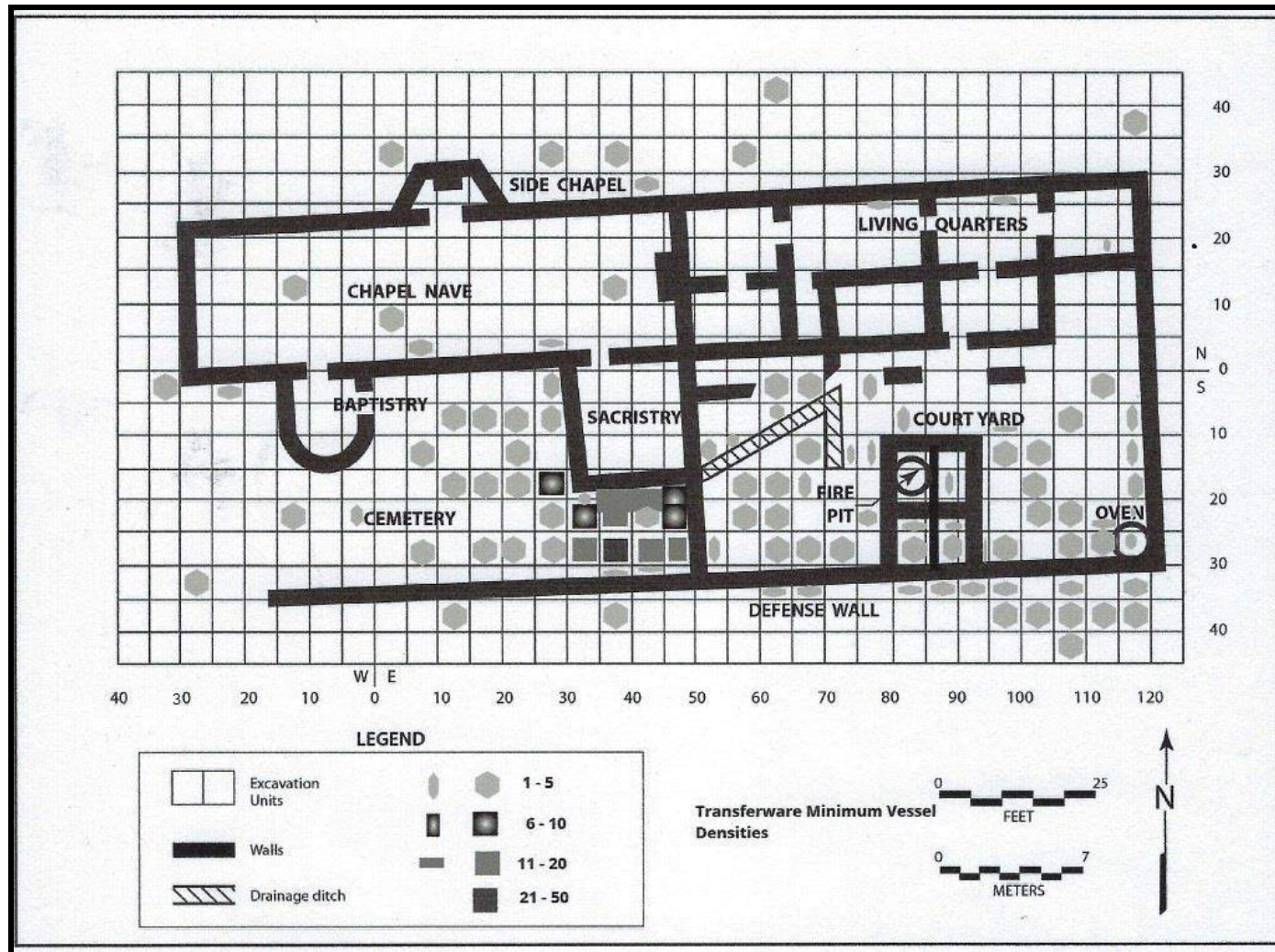


Figure 23: Transferware Vessel Densities.

## **Cross Mends**

Exact match cross mends, where one broken piece could be joined to another, were made between sherds on many vessels, especially transferwares, where the highly detailed and unique designs made this analysis easier. Some undecorated creamwares were also cross-mended. By far the majority of cross matches occurred within specific deposition areas. Examples are shown in Figure 24. This indicates that overall relatively low artifact movement has occurred across the site and that the deposits have been generally stable through time without major disturbances.

In a much smaller number of cases, cross mends were identified between sherds recovered in the Courtyard and the refuse deposits in the cemetery. Results are shown in Figure 25. An analysis of recovery depths, where recorded, showed that most of these sherds occurred below the overburden or the Marston layer, suggesting that their movement across the site was not the result of post abandonment surface disturbances. It appears that some material from primary refuse deposits in the Courtyard was ultimately discarded in the cemetery for reasons as yet undetermined. This discussion of artifact deposition will be further expanded in the following section on site stratigraphy.

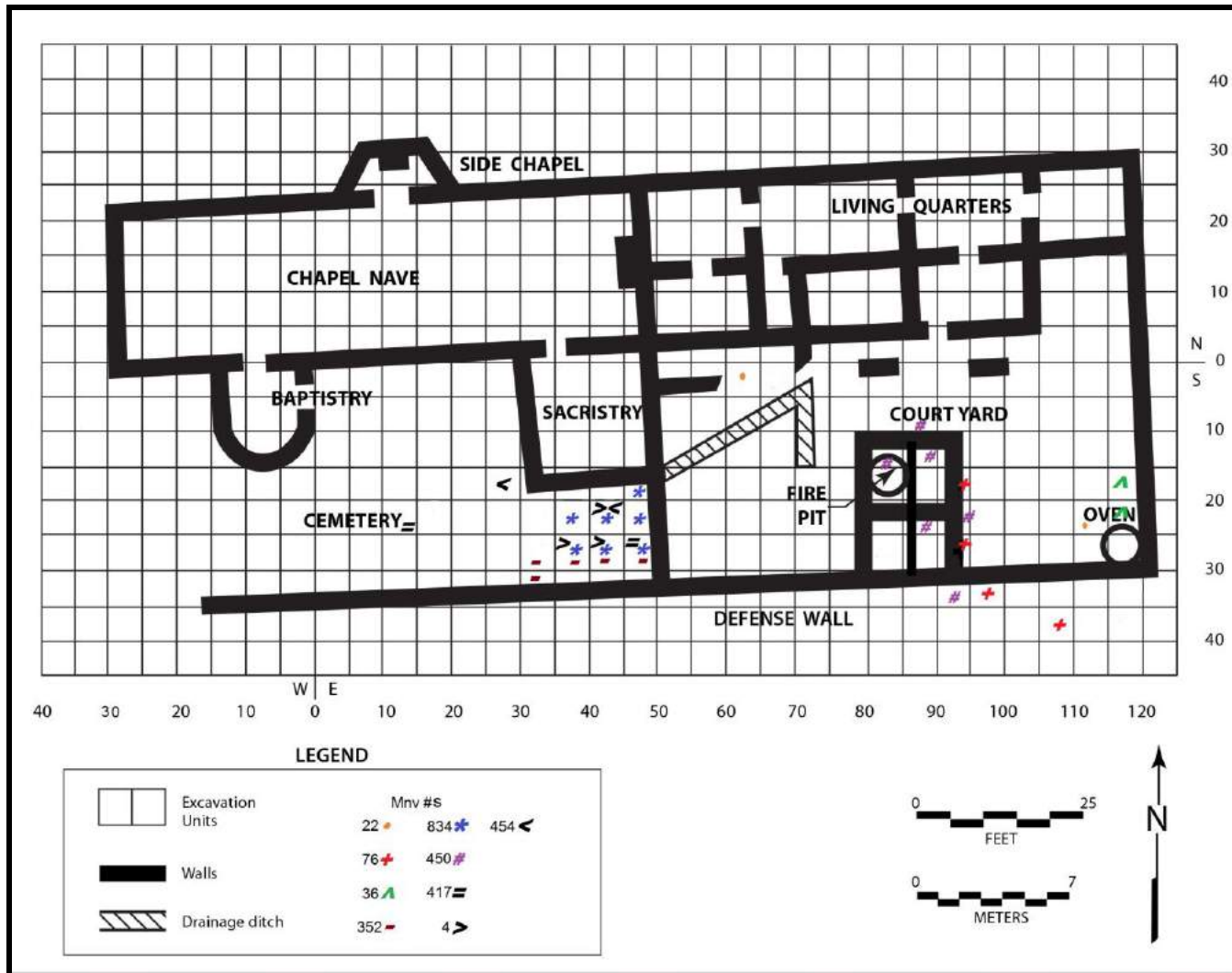


Figure 24: Selected Examples of Cross Mends Within Specific Deposition Areas. All of these examples were confined to either the cemetery or the Courtyard. Most of them are in even tighter clusters.

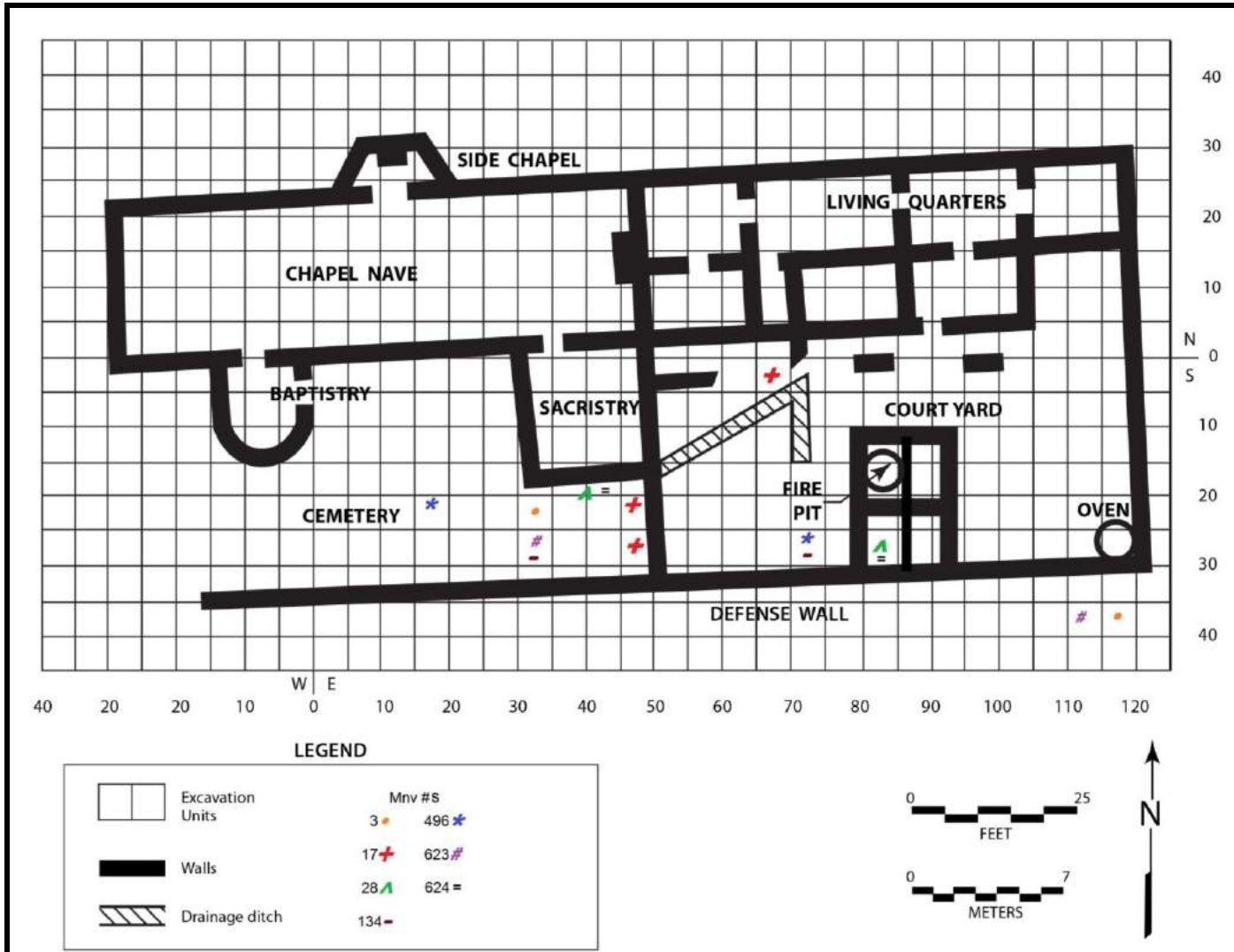


Figure 25: Cross Site Cross Mends. These vessels had sherds that joined together from both the Courtyard and the Cemetery.



# Stratigraphy

## Introduction

The placement of artifacts in stratigraphic context for the Chapel Excavation collection was problematical. A majority of the ceramic artifact labels and catalog entries do not have depth recorded. Jean Krase commented on this problem for the Old World Ceramic sherds in 1979:

Unfortunately, over 51% of the total sherds excavated at the presidio had no vertical designation. More than 600 fragments excavated between 1965 and 1967 were not labeled with depth designations. In addition, many fragments excavated in later years were given no vertical locations, or were separated from their level tags during storage or analysis (Krase 1979:50-51).

For this reason, stratigraphic analysis in this study relied largely on student excavation field books to determine the nature of soils and other conditions of the deposits as well as ascertain in which levels most of the artifacts occurred. In limited cases depths for certain individual artifacts could be found on some labels as well as in the Presidio Chapel Catalog (2005), or the Chapel Complex Excavation Master Catalogs (1964-1975). When depths could be ascertained, they were included in the appropriate contexts in this stratigraphic discussion.

Based on his excavations in the late 1930s, Percy Broell defined the overall stratigraphy at the presidio as shown in his profile in Figure 26 (Broell 1938). The adobe structures had eroded to shallow rubble heaps consisting of the bases of walls encased in debris piles that had accumulated to form mounds as the buildings deteriorated. Broell covered the ruins with topsoil taken from the middle of the San Diego River bed (Broell 1978:10, 24). The ruins and other open areas of Presidio Park were then planted in green grass lawns (Marston 1942).

Archaeological excavators at the Chapel Complex essentially found the stratigraphic sequence recorded by Broell that had been covered with the river bed silt he had brought in as a topsoil (See Figures 27-28). This final deposit was designated the “Marston layer,” “Marston level” or “overburden layer” by later investigators. In hindsight the term Broell Layer may have been more appropriate. Consisting of brownish grey clayey silt, the topsoil was not spread evenly across the site. It was deeper over most wall mounds and shallower in between these features. Consequently, larger open spaces such as the cemetery and Courtyard had very little to no overburden in some areas.

For excavation of the Chapel Complex, the site’s stratigraphic sequences were designated as three general levels. Level I was the Marston layer or overburden put down under Broell’s direction. Level II was either the rubble layer surrounding and extending out from the wall mounds, or original soil layers in those areas not covered by building rubble. Level III was only occasionally designated and consisted of materials that appeared to have been in place prior to their being covered by the formation of Level II (Field Books: Scaramella-Spring 1965). Usually excavators dug in 6-inch (15 cm) levels within these broader designated stratigraphic units. Most of the artifacts were recovered from Level II. For her analysis of the Old World ceramics Krase conducted stratigraphic analysis with the 50 percent of sherds in that collection that had depth designations. She found that across the entire site, by far, most of the material occurred above a depth of 18 inches (46 cm) below the surface, which would generally be consistent with stratigraphic level II. This included 78 percent of the transferwares, and seventy percent of Chinese manufactured sherds. Any exceptions occurred in the Cemetery and were associated with burial disturbances (Krase 1979:52-66). The Marston layer contained light concentrations of presidio period material and some early twentieth century artifacts. The presidio period items in this overburden had probably been exposed surface artifacts that became mixed with the river silt topsoil as it was spread over the site.<sup>6</sup>

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<sup>6</sup> This conclusion was also reached by Jean Krase during her 1979 study (Krase 1979:68). It is in contrast to an anecdote popular during the Chapel’s excavation and repeated by various former students who had worked there that the Marston level contained artifacts because it had come from an archaeological site at the base of Presidio Hill. Broell (1978:10, 24) clearly stated that the fill material was from “the middle” of the San Diego River bed.

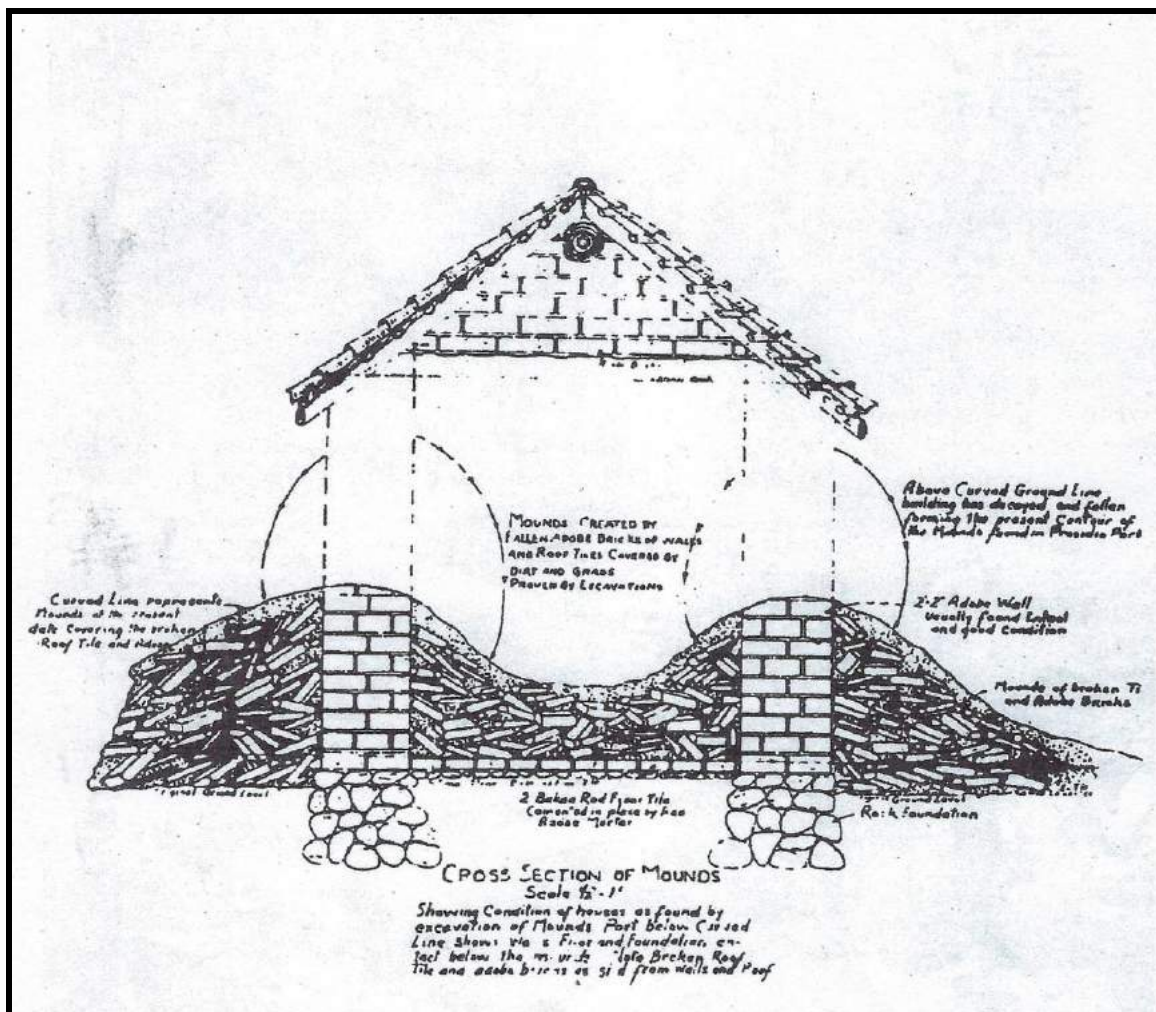


Figure 26: Typical Stratigraphy of the San Diego Presidio Ruins Recorded by Percy Broell (Broell 1938).

## Cemetery Deposits Stratigraphy

Alas, poor Yorick! I knew him, Horatio.

(Hamlet, Act 5, Scene 1, by William Shakespeare)

Artifact concentrations in the cemetery consisted of kitchen and household rubbish. Two dense clusters of refuse were encountered. Most of the remaining ceramic artifacts that constitute a general smear across the cemetery appear to have originated from these two deposits. The first cluster (Cluster Number One) is a refuse dump on the north side of the southern defense wall, directly south of the Sacristy. It contained a wide variety of

kitchen and household items. The area was first recognized as a trash deposit while excavating a trench along the exterior south side of Room C in May 1965.<sup>7</sup> Subsequent units were excavated through the summer of 1976. Although in Unit South 30 East 40 the Marston level overburden was 9 inches (23 cm) deep and sterile of cultural material; over most of the deposit this layer was a thin sod lens ranging from less than 3 to 6 inches (7.5 - 15 cm) deep and no distinction could be seen between it and the artifact rich lower levels. Generally, the stratigraphy consisted of a light brown soil heavily laden with artifacts, with no obvious distinctions or layering between the ground surface and the bottom of the deposit. Building tile, faunal material, Mexican Mayolica and Galera Ware, Native American Brown Ware, and English and Chinese manufactured ceramics, as well as an incredible variety of other items occurred at all levels. Units were excavated in 6 inch (15 cm) levels. Depths ranged from around 40 to as deep as 66 inches (101-168 cm) below ground surface<sup>8</sup> (Figures 27-30) (Field Books: Hedges-Spring 1965, Scaramella-Spring 1965, Normandie-Spring 1971, Bronson Fall-1972, Krase-Spring 1973).

The nature of this refuse deposit in the cemetery is perplexing. Even more confusing is the fact that the refuse was not simply discarded on top of the graveyard, but that graves were excavated into it and it may have been used to fill in burial holes. Fragments of human bone were randomly mixed with the tile rubble, butchered animal bone, and other household refuse. Individual skeletons, as well as deposits of human bones that represented parts of more than one individual occurred as shallow as 24 to 40 inches (61-102 cm) from the surface. The soil above, below, surrounding, and within these graves had dense concentrations of cultural material (See Figure 30) (Field Books: Poole-Fall 1970, Tolles-Fall 1970, Normandie-Spring 1971, Hogan-Spring 1972). The shallow depth of some graves, as well as their being filled with refuse, may be attributed to the continued use of the cemetery after the presidio's abandonment (Carrico 2019).

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<sup>7</sup> In spite of this excavation's location on the outside of the Sacristy it was designated as the South East ¼ of Room C.

<sup>8</sup> Maximum depths were obtained by referring to the deepest occurring artifacts in each unit in the Presidio Chapel Artifact Catalog (Presidio Chapel Catalog 2005).

It is the fact that household trash is so thoroughly mixed into the cemetery soil in these deposits that remains troubling. That the cemetery contained numerous disturbed graves, and that fragments of human bone occurred randomly throughout the soil, is not surprising and a result of common burial practices of the time. The only area considered suitable for proper interment was consecrated ground within a designated churchyard. This limited space filled as time passed so that previous graves, where the bodies had decomposed, were exhumed to dig a new one. Bones from the priorly interred skeleton were thrown back into the new excavation with the fill used to cover the most recently deposited cadaver. William Shakespeare used this scenario in *Hamlet*, at the scene where a gravedigger exhumes the skull of the court jester Yorick, prompting the well-known quote “alas poor Yorick, I knew him Horatio” (Ezell 1976:11). Archaeologists encountered identical burial methods during excavations of the presidio cemetery at Tucson (Faught 1992:2; Thiel 2020:234-235; Callis 2020:80-82).

As discussed in the previous section on horizontal distribution, a large majority of the cross matches of sherds in this cluster occurred within the specific deposition area (See Figures 24 - 25), which indicates that overall relatively low artifact movement has occurred across the site and that horizontal movement of the deposits has been generally stable through time without major disturbances. However, in a much smaller number of cases, cross mends were identified between sherds recovered in the Courtyard and the Cluster Number One deposit. An analysis of recovery depths, where recorded, showed that most of these sherds did not occur within the surface or the Marston layer, suggesting that some material from primary refuse deposits in the Courtyard were redeposited onto the cemetery refuse piles.

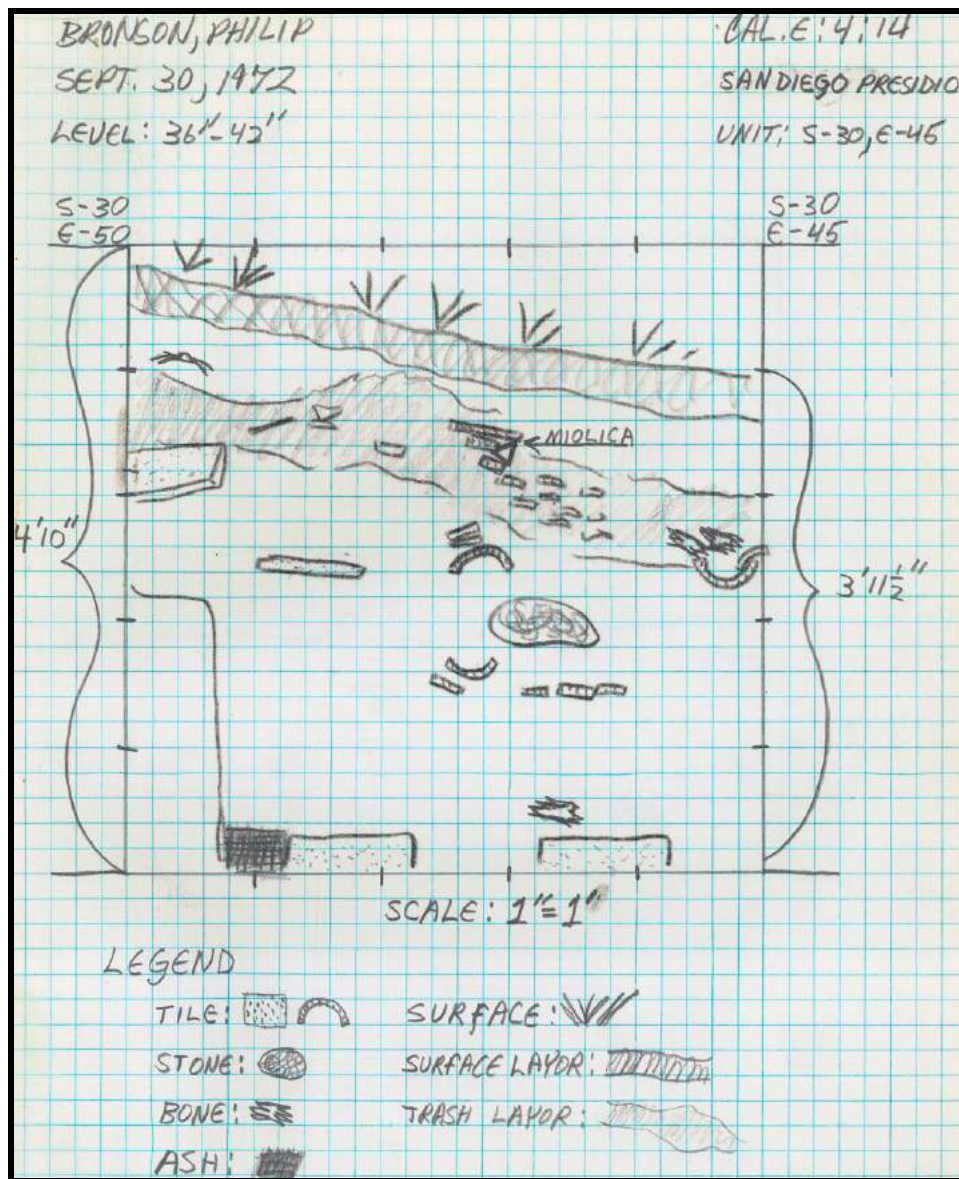


Figure 27: South Wall Profile, Unit South 30, East 45, by Philip Bronson. Although a trash layer was visible only in the upper levels of the unit, significant quantities of refuse were recovered to a depth of 36 inches (91.5 cm), with smaller amounts continuing to 48 inches (123 cm) (Field Books: Bronson-Fall 1972).



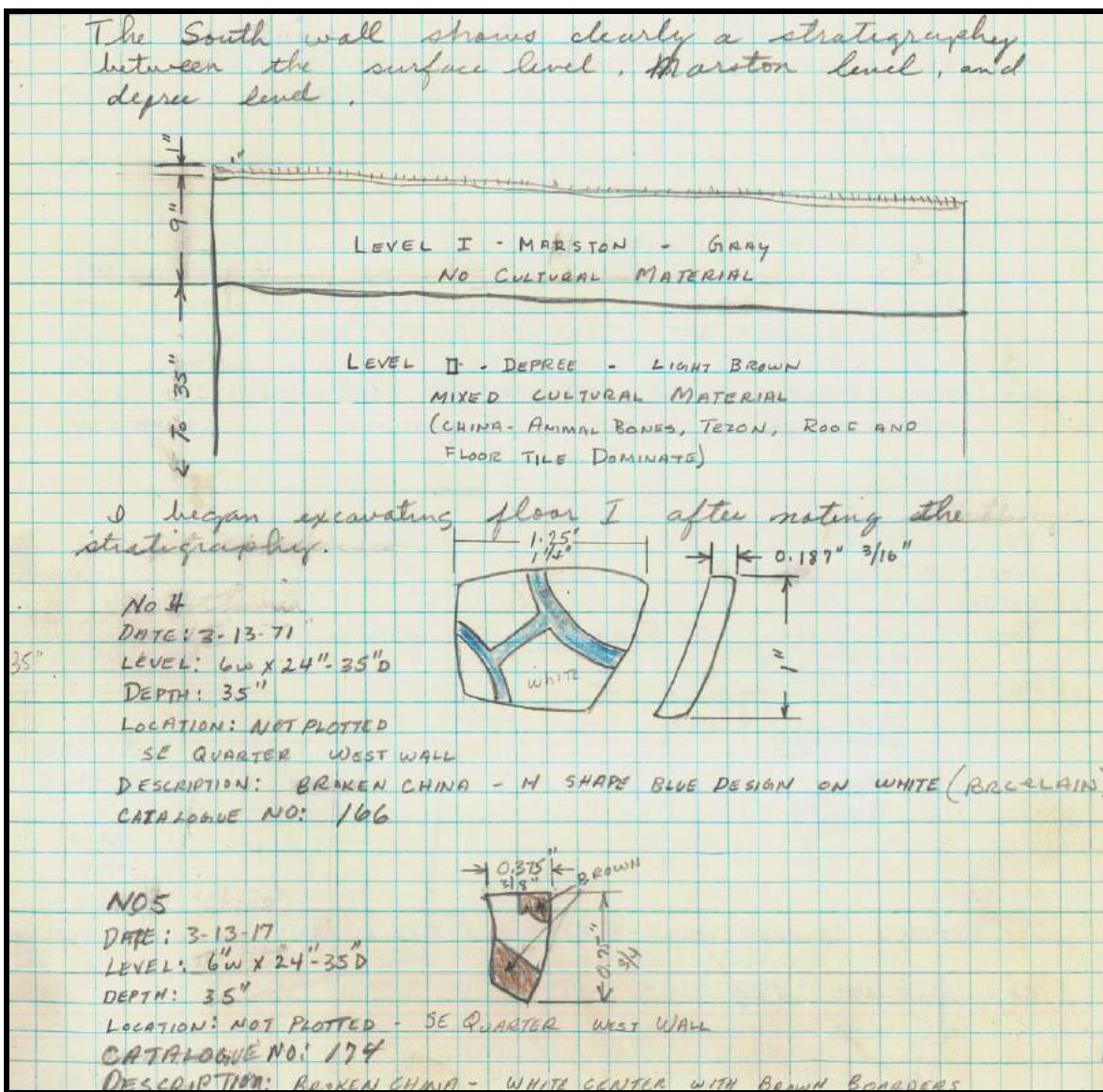


Figure 28: South Wall Profile, Unit South 30, East 40, and Artifacts from 35 Inches (89 Cm) Below the Surface (Field Books: Normandie-Spring 1971).

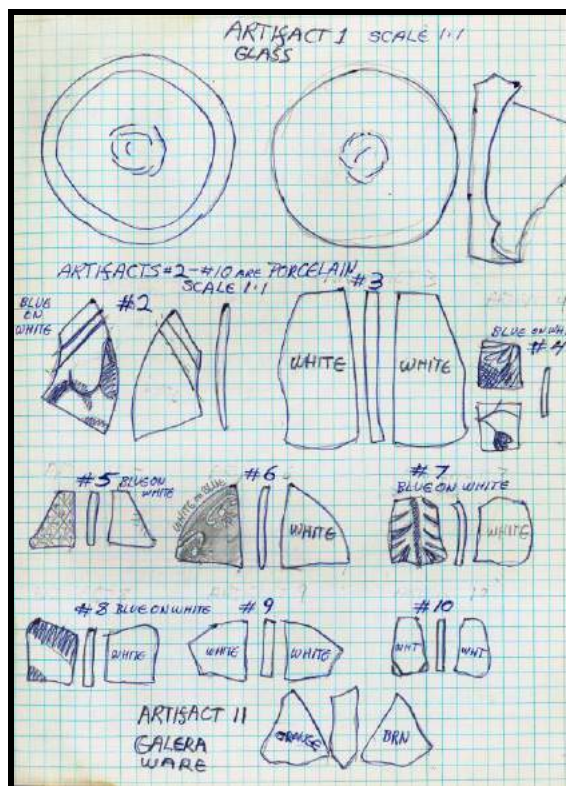


Figure 29: Illustration of Artifacts from Trash Midden, Unit South 35, East 30: Artifacts Recovered from 6 to 12 Inches (15 – 30 cm). This sketch by Phillip Bronson illustrates some of the types of ceramic and glass refuse items recovered from the cemetery trash deposits (Field Books: Bronson-Fall 1972).



Figure 30: Articulated Human Long Bones at 24 Inches (61 Cm) Below the Surface in Unit South 20 East 45. Note the large pieces of tile building rubble in the soil surrounding and covering the bones (Field Books: Poole-Fall 1970).

Forty-eight datable items from this cluster provided a range of introductory manufacturer's dates from 1759 to 1835, and a mean date of 1815.97 (Table 3). The most recently introduced item was a hand painted sprig patterned saucer in chrome colors with a manufacturing date range of 1835 to 1880 (<https://apps.jefpat.maryland.gov/diagnostic/> 2022- Painted Wares). It was recovered from the Room C trench on the south side of the Sacristy between 18 to 24 inches (46- 61 cm) below the surface, and signifies that deposition may have occurred here within the last two years of the presidio's occupation. The next most recent artifact from this cluster was a cobalt edge decorated pearlware soup plate manufactured between 1824 and 1840 (McAllester 2001:37). It was found in the 12 to 18 inch (30 – 46 cm) level of Unit South 35 East 30. The previous glass study (Van Wormer 2014:50-52) identified fragments of blown three-mold glass and a piece of pressed glass from this deposit recovered from a depth of 33 inches (84 cm), indicating a period of deposition after 1825 (McKearin and McKearin 1941:240–241, 336). The deepest recorded dated artifact is a large cobalt edge decorated pearlware plate manufactured between 1800 and 1830 (Hunter and Miller 2009:13). It came from the 36 to 48 inch (91 - 123 cm) level of Unit South 30, East 35. Two nineteenth century Mayolica platos included an Esquitlan Polychrome pattern from Unit South 25 East 40, made between 1800 and 1900 (FLMNH #S1404, 1411, 1414, 1415), and a Fine Line/Guanajuato Polychrome decorated piece from Unit South 30 East 30, manufactured between 1800 and 1850 (Cohen-Williams 1992; Fox and Ulrich 2008:108-109; FLMNH # 1651).

Intrusive artifacts occurred in three units. Pieces of a cobalt edge decorated plate produced after 1840 were found in Unit South 30, East 30 (Hunter and Miller 2009:13). No depth was recorded. In Unit South 35 East 35 a celadon Chinese rice - soup bowl produced after 1870 was recovered from the 15 to 27 inch (38 - 69 cm) level (Krase 1979:20). Sherds of three decal and multi color decorated early twentieth century vessels were found on the surface layer and from the west side wall clean up in Unit South 25 East 45. Either rodent burrowing or later burials could account for these post presidio occupation period materials in the deposit.

Given the disturbance by burials, an intact stratigraphic sequence does not exist for this deposit and the only solid conclusion that can be made is that it is household refuse thrown into the east end of the cemetery during the last 13 years (1824-1837) or less of the presidio's existence. However, the deposition may have occurred over a longer period and started as early as 1820. A small number of cross mends indicated that a small part of this refuse probably originated in the primary deposits in the Courtyard. However most cross mends do not represent vessels with pieces from different deposits but are from sherds originating within the same deposit, suggesting that much of the cemetery trash came from somewhere else in the Presidio outside of the Chapel complex and that both the cemetery and Courtyard deposits remained fairly stable following the presidio's abandonment.

Cluster Number Four is in the cemetery directly east of the Sacristy. Cross mends and dated artifacts suggested a contemporary relationship with Cluster Number One. Recovery included the usual mixture of tile rubble and artifacts randomly mixed with human and butchered animal bone. Articulated burials and casket remains were encountered below 40 inches (102 cm) from the surface. Cultural material was found to a depth of 60 inches (152 cm), however, below 48 inches (123 cm) quantities decreased significantly (Field Books: Teal-Spring 1971, Lawson-Spring 1972, Zanio-Spring 1973, Lawson-Summer 1975).

Eight datable artifacts from Cluster 4 had introduction dates ranging from 1770 to 1820, and a mean date of 1823.94 (Table 4). The most recently introduced items were a hand painted tin glazed, English Staffordshire religious figurine of Saint John produced between 1815 and 1820 (On line Winterthur Museum Collection "[St. John Bocage](#)" [2002.0030.094.004](#)) from Unit South 10 East 25, and a Chinese native ware rice - soup bowl with a Sino Islamic curvilinear decoration found in the 54 to 60 inch (137 – 152 cm) level of Unit South 5 East 20. These native wares, although not intentionally

Table 3: Cluster Number One Mean Date Calculations

TYPE	PATTERN NAME - ID	MNFG	DATE	MEAN	COUNT	PRODUCT	REFERENCE
English Transfer-Cobalt	Village Church AKA Rural Village; See Comments	-	1759	1759.00	1	1759.00	TCC # 1783 & 1060; Coysh & Henrywood 1982 Vol.1:386
Chinese Porcelain Export Ware	Nanking Butterfly & Diaper	-	1760-1800	1780.00	1	1780.00	Madsen & White 2009:98
English Undecorated	"Spode / 28"; Impressed.	Spode	1770-1833	1801.50	1	1801.50	TCC # Manufacturer Mark Chart; Kowalsky & Kowalski 1999:340 (B220b, 220i)
English Transfer-Cobalt	"[S]Pode"; Underglaze Cobalt Stamp.	Spode	1770-1883	1826.50	1	1826.50	TCC # 3786 & Manufacturer's Mark # 345
English Edge Decorated-Yellow	-	-	1775-1800	1787.50	1	1787.50	Hunter & Miller 2009:13
English Edge Decorated-Yellow Edge Decorated-Yellow	-	-	1775-1800	1787.50	1	1787.50	Hunter & Miller 2009:13
Banded Ware	-	-	1775-1812	1793.50	1	1793.50	Magid 2010: C-18, C-21
Handpainted Floral Cobalt	-	-	1775-1830	1802.50	1	1802.50	Magid 2010
Chinese Porcelain Export Ware	["Mandarin" Palette] Design; Enamel Polychrome Pattern # 6 (Described Below)	-	1780-1835	1807.50	1	1807.50	Mudge 1981; Felton & Schulz 1983:29; Schiffer, Schiffer & Schiffer: 1997: 68(183); 161(430); Nadler 2001:80, 82 (Fig. 73 The "Mandarin" Palette").
English Transfer-Cobalt	Chinese River Scene With Temple & Pyramids	Cambrian Pottery	1783-1810	1823.50	1	1823.50	TCC # 559 (See Also TCC # 627)
Chinese Porcelain Export Ware	Canton	-	1785-1853	1819.00	12	21828.00	Madsen & White 2009:100
Chinese Porcelain Export Ware	Enamel Polychrome Pattern	-	1785-1853	1819.00	11	20009.00	Mudge 1981; Felton & Schulz 1983:29; Schiffer, Schiffer & Schiffer 1997: 68(183);161(430); Madsen & White 2009:116-117+
Nursery Ware - Hand Painted Blue/White Floral	Unnamed Pattern (Punchard 1966:22)	-	1790-1810	1800.00	1	1800.00	Punchard 1996:22
English Edge Decorated-Cobalt Pearlware	-	-	1800-1830	1815.00	3	5445.00	Hunter & Miller 2009:13
English Edge Decorated-Green Pearlware	-	-	1800-1840	1820.00	4	7280.00	Hunter & Miller 2009:13
English Transfer-Blue	Boy Piping	Unidentified	1815-1835	1825.00	1	1825.00	TCC # 2013:1949; Coysh & Henrywood 1982, Vol. 1:53; Richard Halliday 3/2/16; personal communication to Susan D. Walter 2007.
English Transfer-Cobalt	Boston Harbor	John Rogers & Son	1815-1842	1828.50	1	1828.50	TCC # 4716; Larson 1950:153(360); Arman & Arman 2000, Vol. II:23 (80)
English Transfer-Red	A Reward For Diligence	Unknown But Probably Enoch Wood & Sons	1818-1846	1832.00	1	1832.00	TCC # 5927 The Molded & Painted Rim Design Shown In TCC For This Plate Was "Only Used By Enoch Wood & Sons" - TCC # 15567



Table 3: Cluster Number One Mean Date Calculations  
(Continued)

TYPE	PATTERN NAME - ID	MNFG	DATE	MEAN	COUNT	PRODUCT	REFERENCE
English Transfer- Cobalt	Sproughton Chantry AKA Rural Estate AKA Country Manor, "Stone China" Underglaze Cobalt Mark	Unidentified	1820- 1830	1825.00	1	1825.00	TCC # 2014#1667; Laidecker 1951; Williams & Weber 1998, Vol. 3
Chinese Porcelain Native Ware	Crisscross Band - Floral Spray	-	1820- 1850	1835.00	1	1835.00	Felton 2003; Nagel Auctions 2000.# Ts93.
English Edge Decorated- Cobalt Pearlware	-	-	1825- 1840	1832.50	1	1832.50	McAllester 2001:37
English Handpainted Sprig	Sprig Painted Wares In Chrome Colors	-	1835- 1880	1857.50	1	1857.50	<a href="https://Jefpat.Maryland.Gov">https://Jefpat.Maryland.Gov</a>
				Totals	48	87166.50	
				Mean Date =	87166.50/48 =		1815.97

produced for the foreign export market in China, were imported into California beginning around 1820 and up until 1850 (Felton 2003:4). The next most recent artifact, found in the 6 to 12 inch (15 – 30 cm) level of Unit South 20 East 25, was an India pattern transferware bowl produced by Spode of Stoke on Trent, England between 1815 and 1835 (TCC # 8). The glass study (Van Wormer 2014:50-52) identified fragments of blown three-mold glass in Unit South 20 East 25 produced in the eastern United States between 1820 and 1840 (McKearin and McKearin 1941:240 – 241, 336). The deepest recorded dated artifact was the Sino Islamic pattern Chinese Rice bowl from the 54 to 60 inch (137 – 152 cm) level of Unit South 5 East 20.

As with Cluster Number One, because of the disturbance by burials an intact stratigraphic sequence does not exist for this deposit and the only solid conclusion that can be made is that it is household refuse thrown into the east end of the cemetery some time during the last 17 years (1820 -1837) of the Presidio's existence. The majority of cross mends indicate a relatively horizontally stable deposit.



**Table 4: Cluster Number 4 Mean Date Calculations**

TYPE	PATTERN NAME - ID	MNFG.	DATE	MEAN	COUNT	PRODUCT	REFERENCE
Cane Ware	-	-	1770-1880	1825.00	1	1825.00	<a href="https://www.sotheby's.com/en/buy/auction/2029/wedgewood-and-beyond-english-ceramics-from-the-starr-collection/-a-wedgewood-caneware-footed-large-jeug-circa-1770-80">https://www.sotheby's.com/en/buy/auction/2029/wedgewood-and-beyond-english-ceramics-from-the-starr-collection/-a-wedgewood-caneware-footed-large-jeug-circa-1770-80</a>
English Edge Decorated-Yellow	-	-	1775-1800	1787.50	1	1787.50	Hunter & Miller 2009:13
English Transfer-Cobalt	Willow And Summer House (Susan Unidentified Pattern # 4)	Cambrian Pottery	1783-1810	1823.50	1	1823.50	TCC # 627 (See Also TCC # 559)
English Transfer-Cobalt	Fruit & Flowers (One Of The ) (#1)	Davenport, Or Joseph Stubbs	1794-1887	1840.50	1	1840.50	For Davenport = TCC # 2188, 3211, 3247 See Also 3226, 4257, 8956; For Stubbs = TCC # 7025
English Edge Decorated-Cobalt	-	-	1800-1870	1835.00	1	1835.00	Allen, Huddleson, Wooten & Farris 2013:40
English Transfer-Cobalt	India	Spode	1815-1835	1825.00	1	1825.00	TCC # 8
English Handpainted Tin Glazed	St. John	-	1815-1820	1820.00	1	1820.00	On Line Winterthur Museum Collection " <a href="http://www.winterthur.org/collections/early-staffordshire-peralware-bocage-figure-of-st-john-192877998135.html">St. john bocage</a> " <a href="http://www.winterthur.org/collections/early-staffordshire-peralware-bocage-figure-of-st-john-192877998135.html">2002.0030.094.004. picclick.co.uk/early-staffordshire-peralware-bocage-figure-of-st-john-192877998135.html</a>
Chinese Native Ware Exported To California Ca 1820-1850	Sino Islamic Curvilinear	-	1820-1850	1835.00	1	1835.00	Felton 2003:4
				TOTALS	8	14591.50	
				MEAN	14591.50 / 8 =		
				DATE	1823.94		

## Chapel Stratigraphy

Soil layers in the Chapel followed the general sequence found throughout most of the site (Figure 31). The surface Marston layer extended to a depth of between 6 and 12 inches (15 – 30 cm), where a definite soil change defined an “irregular contact with the second level” (Field Books: Scaramella-Spring 1965). Artifacts included blue on white porcelain, Mayolica, Native American Brown Ware, floor and roof tile, and bone and shell fragments, and later twentieth century items including nails and gun shells (Field Books: Bratz-Spring 1965, Scaramella-Spring 1965).

Level II consisted of a reddish brown – buff colored soil mixed with building rubble. It was between approximately 20 and 32 inches (51 – 81 cm) thick and extended to around 42 inches (107 cm) below the surface. A wide variety of artifacts came from this layer, including Native American Brown Ware, Mexican Mayolica and Galera Wares,

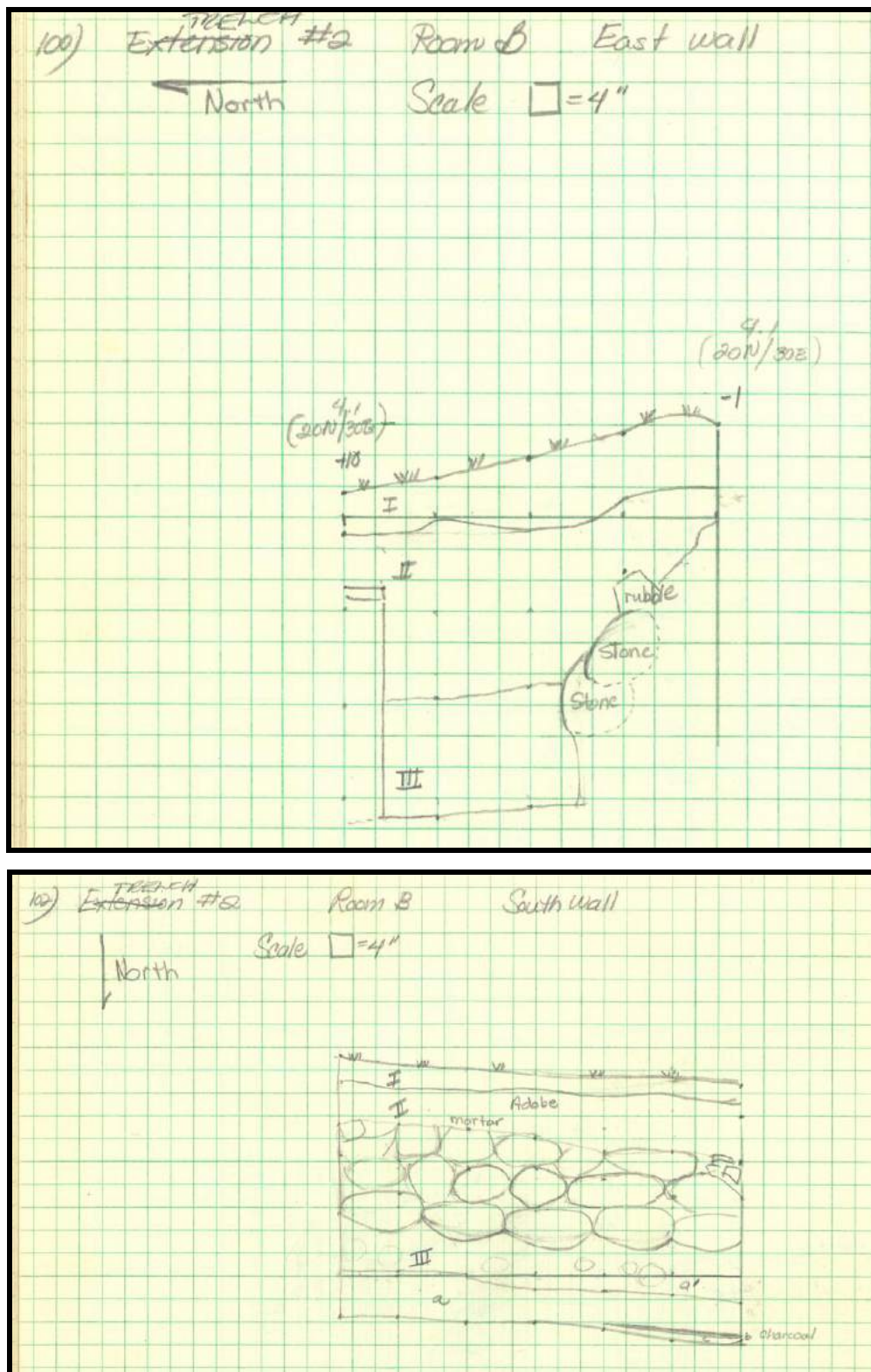


Figure 31: Chapel Excavation Room B Trench East and South Wall Profiles, Showing Stratigraphic Layers and Their Relationship to a Cobble Wall Foundation (Field Books: Bratz-Spring 1965).

porcelains, lithics, copper and iron fragments, plaster, floor and roof tile, and pieces of bone and shell (Field Books: Bratz-Spring 1965, Scaramella-Spring 1965).

Composed of a dark brown soil, Level III, where present and recorded, was around 14 inches (36 cm) thick, and extended to a depth of approximately 55 inches (112 cm) below the surface. Artifacts included lithics, Native American Brown Ware, and other artifact types present in the preceding levels, as well as glass beads and wood fragments (Field Books: Bratz-Spring 1965, Scaramella-Spring 1965).

Three dated items were recovered from the Chapel area and included a Nanking pattern Chinese export ware serving dish manufactured between 1765 and 1820 (Madsen and White 2009), a green edge decorated pearlware soup plate made between 1800 and 1840 (Hunter and Miller 2009:13), and a cobalt transferware Boston Harbor pattern saucer produced by John Rogers and Son of Longport, England between 1815 and 1842 (TCC # 4716; Larson 1950:153(360); Arman and Arman 2000, Vol. II: 23 [80]).

The nature of the deposit inside the Chapel ruins is not clearly understood. A large amount of butchered animal bone from these units listed in the Presidio Chapel Catalog (2005) indicates they are largely secondary refuse deposits. Given that the Chapel was used through the mid 1840s, when, how, and why presidio occupation period trash came to be dumped into its former rooms is not clear. Perhaps it was put there through disturbance of nearby refuse accumulations during dismantling of the Chapel ruins while salvaging building materials after final abandonment.

### **Courtyard North Wing Rooms Stratigraphy**

In the north wing room complex of the Courtyard the soil layers also followed the general sequence found throughout the site. Deposition of materials and the Marston overburden were shallower in the centers of the rooms and deeper at the wall mounds (Figure 32).

The Level I Marston layer ranged from 4 to 6 inches (10 – 15 cm) in depth in the shallower areas, and to around 12 to 16 inches (30 – 41 cm) against the walls (Field Books: Fenney-Spring 1969, Noble-Spring 1969, Roddy-Spring 1969, Reed-Spring 1969).

Level II consisted of building rubble and melted adobe wall material ranging between 12 and 20 inches (51 cm) in thickness. In many instances there was no distinction between Levels II and III so these designations were combined in the field notes (Field Books: Fenney-Spring 1969, Noble-Spring 1969, Roddy-Spring 1969, Reed-Spring 1969).

Where Level III was defined, as in Unit North - South 0 East 80, it consisted of a medium brown sand around 8 inches (20 cm) in depth (Field Books: Shoup-Summer 1969).

Original surfaces and floors in this section were encountered from 20 to 26 inches (51 - 66 cm) below ground surface. Artifact recovery differed mainly in quantity, with considerably fewer items, and an occasional twentieth century specimen recovered from Level I. The usual array of European, Asian, and Mexican ceramics, Native Brown ware, lithics, building rubble, metal items, glass beads, and bone and shell occurred in all three levels (Figures 33-34) (Field Books: Fenney-Spring 1969, Noble-Spring 1969, Reed-Spring 1969, Roddy-Spring 1969). As noted in the earlier discussion on horizontal distribution, very little Transferware was encountered in these units.

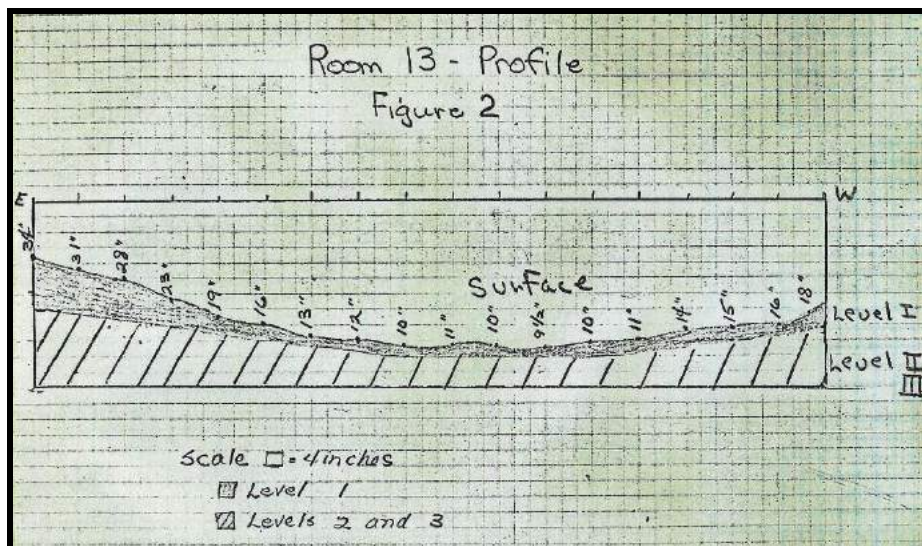


Figure 32: Courtyard North Wing Room 13 (later designated Rooms 6 and 7). This profile shows shallower deposits in the center of the room and an increase in depth at the edges adjacent to wall mounds (Field Books: Nobel- Summer 1969).

catalog. The following is a listing from Level I. Room A is now designated Room 13.

Level I contained

Room	Count	Description
13-1	8	pieces of shell
13-2	2	1944 s Lincoln pennies
13-3	1	red button, w/ 4 holes
13-4	1	shell (mother-of-pearl) button, <sup>4 holes</sup>
13-5	1	round wooden bead
13-6	1	glass marble
13-7	1	1 Silica - Sialic Flaked Core (Diegueno)
13-8	3	bone fragments
13-9	7	pieces Tizon Brown Ware (2 brown, 1 orange, 4 black)
13-10	1	blue & white feathered edge ceramic
13-11	2	Galara ware (mexican)
13-12	4	pieces white ceramic
13-13	1	ceramic, blue & black on white
13-14	1	piece white porcelain
13-15	1	piece green Tizon Brown ware

Figure 33: Listing of Level I Marston Layer Artifacts from Room 13. This list can be compared to the following list in Figure 34 from Levels II and III of the same excavation to see an example of the much greater artifact recovery typical of Levels II and III when compared to Level I. Also, note the twentieth century pennies, glass marble, and red button in Level I (Field Book: Nobel-Summer 1969).



Tues. Aug 5, 1969

The Weather was warm and clear. We spent some time photographing the pit. These pictures will appear in our final analysis paper.

We cataloged all artifacts from Levels II and III. A list follows:

Room 13-

16	- 1 green glazed, ribbed ceramic
17	- 1 white glaze; (plug)
18	- 1 white porcelain with red design
19	- 1 Blue, black, & yellow on white ceramic
20	- 1 Black, Brown, orange, & yellow on white ceramic
21	5 white glazed ceramic (5 pieces)
22	1 Black on white ceramic
23	1 Blue on Black ceramic
24	1 Black ceramic
25	1 Blue on white ceramic
26	6 Salara ware (6 pieces)
27	1 white porcelain
28	1 Blue on black ceramic
29	1 white porcelain
30	1 Brown, Blue, & orange on white ceramic
31	1 Fish vertebrae
32	1 scapula fragment (?)
33	1 bone disk (or epiphyseal plate?)
34	1 Metal button
35	(a) 8 large bone fragments; (b) 3 small <sup>herbivores</sup> fragments, <sup>herb.</sup>
36	1 glass fragment
37	2 pieces timber spikes, metal, corroded
38	74 pieces Tizon Brown ware
39	11 pieces shell - clam type
40	2 whole shells, type unknown
41	8 fragments shell, s-muscle, oyster, 1-2
42	8 fragments (pecten type) shell <sup>and dish</sup>
43	27 pieces thick plaster (3 with <sup>reddish</sup> paint?)
44	23 fragments of plaster
45	5 miscellaneous flakes

continued -

Room 13-	46	3	green flakes (site?)
"	47	8	quartzite flakes
"	48	3	choppers
"	49	1	stoneware (gray) with dark brown glaze.

This completes our part in the excavation of Room 13.

Figure 34: List of Artifacts Recovered from Combined Levels II and III Room 13 (Field Book: Nobel-Summer 1969).

Ironically, two of the three dated items recovered in these rooms included transfer decorated vessels: a blue pitcher/jug with the Boston State House pattern produced by John Rogers and Son of Longport, England between 1815 and 1841 (TCC # 5382, 2784, 7303; <https://www.sellingantiques.co.uk/304528/...>), was found in Unit North 25 East 70, and a child's nursery ware plate in Turkey pattern made by Enoch Wood and Sons of Burslem, Staffordshire, England, between 1818 and 1846 (TCC #10762; Larry Felton personal communication to Susan D Walter 2007), was recovered in Unit North 25 East 95. In addition, a cobalt edge decorated pearlware plate made between 1800 and 1830 (Hunter and Miller 2009:13) was found in Unit North 15 East 110.

Like those in the Chapel interior, the exact nature of the refuse in these rooms is not clear. Although the occurrence of butchered animal bone suggests that they may also be secondary deposits, listings of faunal material for these rooms in the Presidio Chapel Catalog (2005) seem to be significantly less than in the Chapel area. If meals were prepared in these quarters, which the quantities of Native American Brown Ware occurring here suggest as a possibility, then these deposits may be primary refuse. A more detailed study, which is beyond the scope of this project, is required to ascertain the exact circumstances of artifact deposition in the Courtyard's north wing.

## **Courtyard**

Courtyard stratigraphy also followed the general sequence found throughout most of the site. In the east end the overburden was 4 to 6 inches (10 – 15 cm) deep and overlay the Level II rubble, which extended to around 30 inches (76 cm) in depth. The usual classes of artifacts were found with typical lighter concentrations in the overburden. Excavations in the east half of the Courtyard along the southern defense wall revealed abundant evidence of food preparation areas. A beehive shaped hornos was located at the compound's southeast corner and discreet ash and charcoal lenses were encountered at the lower levels of excavation adjacent to it (Field Books: Sharrow-Spring 1968, Wheatbread-Spring 1968).

Further west toward the center of the Courtyard, but still in the east half, an outdoor kitchen area was encountered extending northward from the southern defense wall. Underlying the Level II rubble layer at between 12 and 17 inches (30 – 43 cm) below the surface were a series of stone foundations associated with high amounts of charcoal and discreet “fire pits” and a rock lined pit “oven” for baking food in the ground (Figures 35-36) (Field Books: Underwood-Spring 1968, Rutheford-Summer 1969, Clark-Fall 1970). The pit oven contained carbonized seeds including corn, lima beans, pinto beans, and small grains of either wheat or rice (Field Books: Rutheford-Summer 1969). Paul and Greta Ezell (1980) published a report on this feature.

Ten dated items from this kitchen area provided a range of introductory manufacturer’s dates from 1765 to 1827, and a mean date of 1832.25 (Table 5). The most recently introduced item was a cobalt transfer decorated unidentified square shaped vessel recovered from Unit South 25 East 75 that exhibited the London Views pattern produced by Enoch Wood and Sons of Burslem, England between 1827 and 1846 (Coysh and Henrywood 1982, Vol. 1:226; McCoy-Silvas TMI:30 [P116-354-7]; TCC 2014 [2441]). The next most recent artifact was a Chinese Native ware rice - soup bowl with a peach and fungus decoration found in Unit South 25 East 75, and imported into California beginning around 1820 and up until 1850 (Felton 2003). The glass study (Van Wormer 2014:50-52) identified fragments of blown three-mold glass in Unit South 20 East 85 produced in the eastern United States between 1820 and 1840 (McKearin and McKearin 1941:240–241, 336). The deepest recorded dated artifact is a porcelain Chinese Export Ware Canton patterned soup plate produced between 1785 and 1853 (Madsen and White 2009:100). It was found in the 30 to 36 inch (76 – 91 cm) level of Unit South 25 East 85. A nineteenth century Mexican Mayolica Esquitlan Black on Yellow chocolate cup from the 6 to 12 inch (15 – 30 cm) level of Unit South 20 East 85 was produced between 1800 and 1900 (Seifert 1977; FLMNH # 1430; Cohen-Williams and Williams 2004:5).

Table 5: Courtyard Kitchen Area Mean Date Calculations

TYPE	PATTERN NAME - ID	MNFG	DATE	MEAN	COUNT	PRODUCT	REFERENCE
Chinese Export Ware	Neoclassical Bands And Lines Pattern # 1 - "Late 18th Century Bands & Lines" Stringing (Madsen & White 2009:116-117+).	-	1765-1810	1832.50	1	1832.50	Madsen & White 2009:116-117+
Chinese Export Ware	Canton	-	1785-1853	1819.00	1	1819.00	Madsen & White 2009:100
Chinese Export Ware	Canton	-	1785-1853	1819.00	1	1819.00	Madsen & White 2009:100
Edge Decorated-Cobalt	-	-	1800-1870	1835.00	1	1835.00	Allen, Huddleson, Wooten & Farris 2013:40
Edge Decorated-Cobalt	-	-	1800-1870	1835.00	1	1835.00	Allen, Huddleson, Wooten & Farris 2013:40
Esquitlan Black On Yellow Mayolica	-	Yellow With Black Band	1800-1900	1850.00	1	1850.00	Seifert 1977; FLMNH # 1430; Cohen-Williams & Williams 2004:5
Transfer-Cobalt	Boston Harbor	John Rogers & Son	1815-1842	1828.50	1	1828.50	TCC # 4716; Larson 1950:153(360); Arman & Arman 2000, Vol.II: 23(80)
Transfer-Cobalt	London Views: St. Phillip's Chapel	Enoch Wood & Son	1818-1846	1832.00	1	1832.00	TCC # 2441; Coysh & Henrywood 1982, Vol.1:226
Chinese Native Ware Exported To California Ca 1820-1850	Peach & Fungus, Looks Like a White Celadon	-	1820-1850	1835.00	1	1835.00	Felton 2003:4
Transfer-Cobalt	London Views: St. Phillip's Chapel, Regent Street	Enoch Wood & Sons	1827-1846	1836.50	1	1836.50	Coysh & Henrywood 1982, Vol. 1:226; McCoy-Silvas TMI:30 (P116-354-7); TCC # 2014 (2441)
TOTALS					10	18322.50	
MEAN DATE					18322.50 /10 = 1832.25		



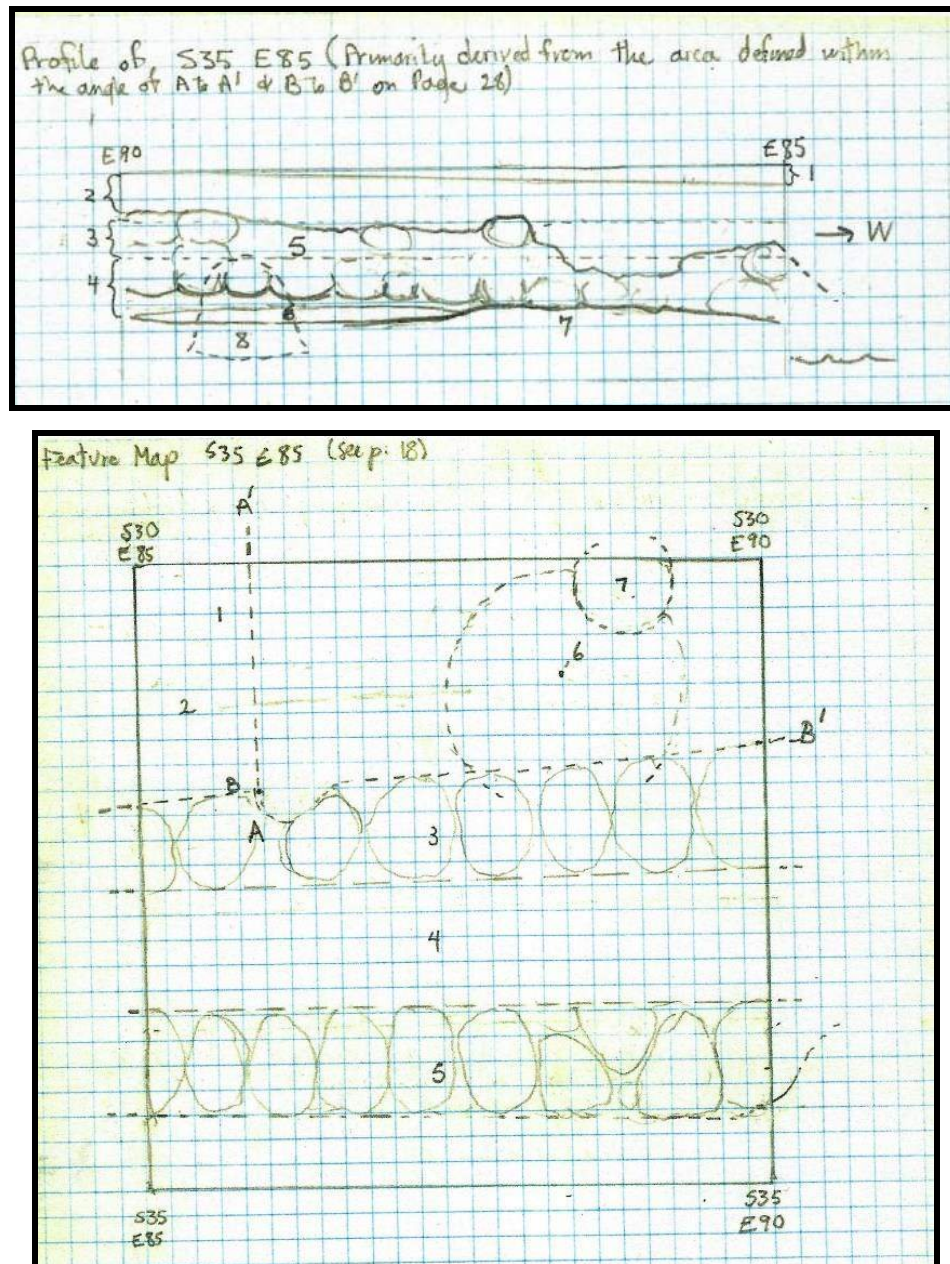
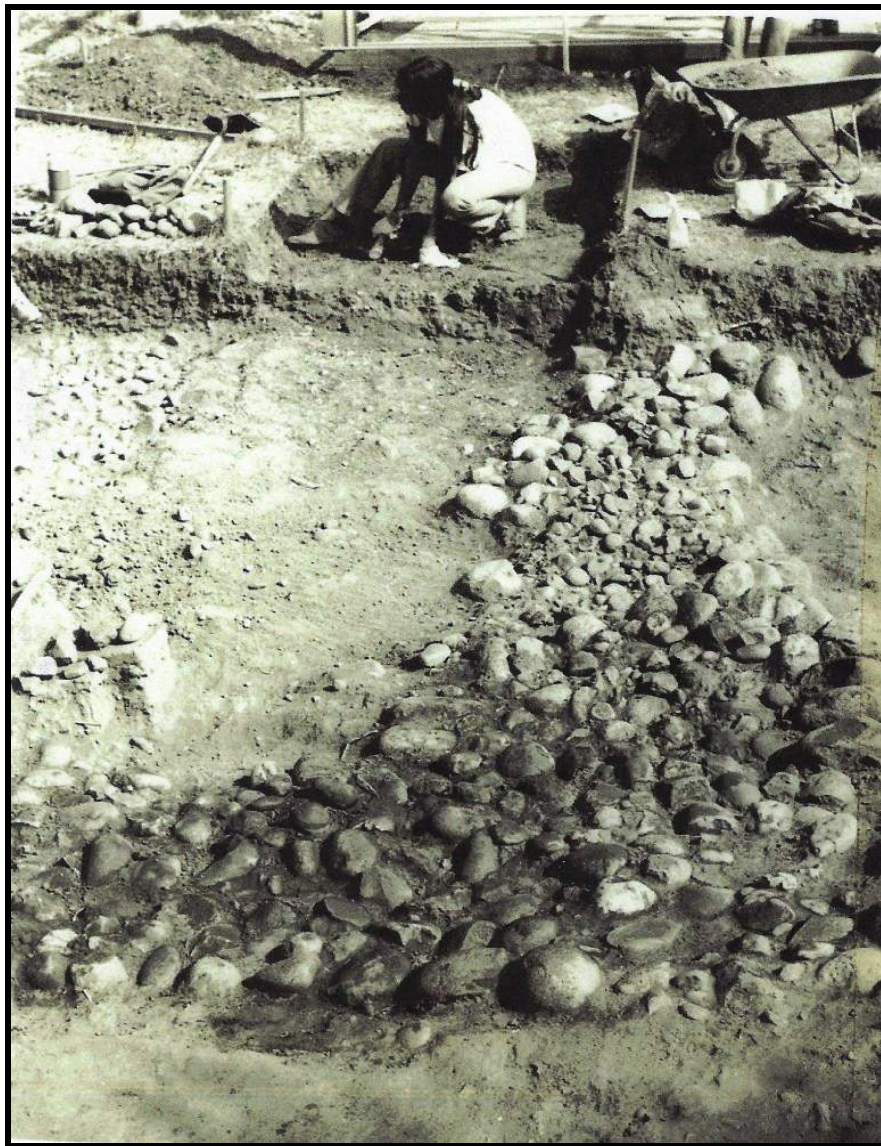


Figure 35: Profile and Plan View of a Cooking Hearth Adjacent to the Southern Defense Wall in Unit S35 E85. The views are oriented in the opposite directions so that west in the profile is to the right and west in the plan view is to the left. In the profile, number one is ground surface, number two is overburden to a depth of 4.5 inches (11.4 cm), and numbers three and four are the rubble layer with artifacts to a depth of 12 inches (30 cm). Number five in the profile is the southern defense wall. Numbers three, four, and five in the plan view are sections of the southern defense wall. Number six in both the plan view and in the profile is the hearth feature. Number seven in the profile is "unexcavated fire hardened slump." Number seven in the plan view and number eight in the profile are a cobble concentration (Field Books: Underwood-Spring 1968).





**Figure 36: Rock Alignments Associated with Courtyard Kitchen, Unit South 20, East 80 (Field Books: Rutheford-Summer 1969).**

In the west Courtyard, Cluster Number Three consisted of a concentration of artifacts that had accumulated in the lowest part of the yard associated with drainage systems where rubbish would have naturally collected. This area was recognized as a “trash pit” by the summer of 1969 (Field Books: Brager-Summer 1969, Site Map). Some units were excavated in 6 inch (15 cm) levels. The top shallow Marston layer consisted of lawn sod and contained the typical light density of presidio period and twentieth century artifacts. The underlying rubble layer began at 6 to 12 inches (15 – 30 cm) below the surface and continued to a depth of 30 to 42 inches (76 – 107 cm), producing the usual variety of Mexican, Asian, European and Native American ceramics, faunal material, and a variety of other items. In the center and along the western edge of the west half of the Courtyard rock alignments began to be uncovered between 12 and 28 inches (30 – 71 cm) below ground level. Excavation revealed a series of tile and cobble lined drains that conveyed water from this lowest area of the yard into the cemetery and beyond the southern defense wall (Figure 37) (Field Books: Gross-Spring 1969, Hedquist-Spring 1971, Woodhouse-Spring 1971, Zogg-Spring 1971).

Six datable artifacts from Cluster 3 had introduction dates ranging from 1785 to 1822 and a mean date of 1826.42 (Table 6). The most recently introduced items were three red/pink transfer decorated soup plates with the Polish Views: A Tear for Poland pattern manufactured by the Longport, England firms of George Phillips or Edward and George Phillips between 1822 and 1847 (TCC # 4945; Williams 1978:377). These were recovered from the 6 to 12 inch (15 - 30 cm) level of Units South 5 and 10 East 60. The next most recent artifact, found in Unit South 25 East 55, was a Boston Harbor pattern transfer decorated cup produced by John Rogers and Son of Longport, England between 1815 and 1842 (TCC # 4716; Larson 1950:153(360); Arman and Arman 2000, Vol. II: 23[80]). The glass study (Van Wormer 2014:50-52) identified fragments of blown three-mold glass in Unit South 5 East 70 produced in the eastern United States between 1820 and 1840 (McKearin and McKearin 1941:240–241, 336).

The deepest recorded dated artifact, from the 24 to 34 inch (60 – 86 cm) level of Unit South 20 East 65, is a porcelain Chinese Export Ware enamel polychrome decorated cup made between 1785 and 1853 (Mudge 1981; Felton and Schulz 1983:29; Schiffer, Schiffer and Schiffer 1997:68[183], 161 [430]; Madsen and White 2009:116-117). Pieces of a nineteenth century Mexican Mayolica Esquitlan Polychrome plato from the 6 to 8 inch (15 – 20 cm) level of Unit South 15 East 65, were made between 1800 and 1900 (FLMNH #S 1404, 1411, 1414, 1415).

**Table 6: Cluster 3 Mean Date Calculations.**

TYPE	PATTERN NAME - ID	MNFG	DATE	MEAN	COUNT	PRODUCT	REFERENCE
Chinese Export Ware	Enamel Polychrome Pattern # 15	-	1785-1853	1819.00	1	1819.00	Mudge 1962; Felton & Schulz 1983:29; Schiffer, Schiffer & Schiffer 1997: 68 (183); 161(430); Madsen & White 2009:116-117;
Hand painted Floral Polychrome	-	-	1795-1820	1807.50	1	1807.50	Magid 2010:C-22
Transfer-Cobalt	Boston Harbor	John Rogers & Son	1815-1842	1828.50	1	1828.50	TCC # 4716; Larson 1950:153(360); Arman & Arman 2000, Vol.II:23(80)
Transfer-Red/Pink	Polish Views: A Tear For Poland	George Phillips Or Edward & George Phillips	1822-1847	1834.50	1	1834.50	TCC # 4845; Williams 1978:377
Transfer-Red/Pink	Polish Views: A Tear For Poland	George Phillips Or Edward & George Phillips	1822-1847	1834.50	1	1834.50	TCC # 4945; Williams 1978:377
Transfer-Red/Pink	Polish Views: A Tear For Poland	George Phillips Or Edward & George Phillips	1822-1847	1834.50	1	1834.50	TCC # 4945; Williams 1978:377
					6	10958.50	
					Mean Date 10958.50/ 6 = 1826.42		



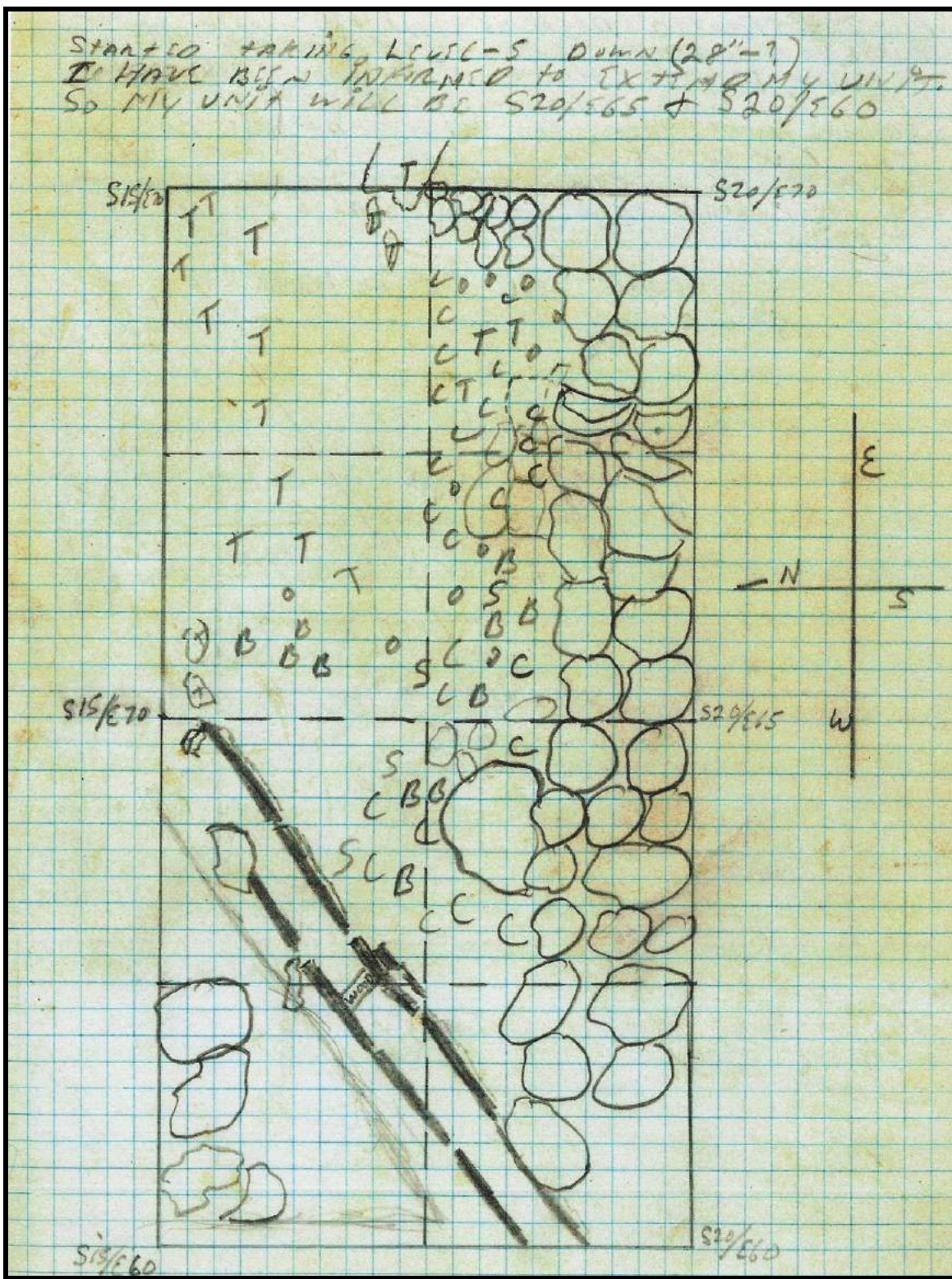


Figure 37: Cobble Alignments and a Segment of a Tile Lined Drain in Units S20 E60 and S20 E65. Legend: B = bone, C = charcoal, O = Tizon Brown Ware, R = rock, S = shell, T = tile (Field Books: Zogg-Spring 1971).

An extension of the Courtyard activity areas, Cluster Number Two was located in the extreme southeast portion of the excavation area. Generally, the stratigraphy consisted of alternating “lenses of building rubble and ash with artifacts” (Field Books: De la Fuente-Spring 1973), described as a “conglomerate of broken tile, Tizon brown ware, china, and broken animal bones” (Field Books: Campbell-Spring 1973). Unit depths ranged from around 28 to approximately 53 inches (71 – 135 cm) below the surface. A wide variety of objects and butchered animal bone was recovered. Concentrations of Native American (Tizon) Brown Ware were noted from all levels (Field Books: Huff-Spring 1968, Schaelehlin-Spring 1969, Myers-Spring 1969, Carry-Spring 1972).

The section appears to be an extension of the cooking area of the east Courtyard. It includes the beehive oven (horno) at the southeast corner of the Courtyard and adjacent area on the south side of the southern defense wall. Access was gained through a passage in the defense wall approximately 15 feet in length that extended west of the beehive oven. The south side of the oven actually sat in this gap and within the alignment of the wall at this point. Numerous architectural features occurred between approximately 6 and 12 inches (15 – 30 cm) below the top of the ground, including surfaces of ladrillo and adobe block pavers, alignments of adobe blocks, articulated tile roof fall, and post holes. These, combined with ash lenses, hearth features, and quantities of butchered bone and kitchen ceramics, indicate the presence of structures used for food preparation and consumption at this vicinity (Figures 38 - 43) (Field Books: Huff-Spring 1968, Schaelehlin-Spring 1969, Myers-Spring 1969, Runnels-Spring 1969, Hatch-Fall 1971, Carry-Spring 1972, Passino-Spring 1972).



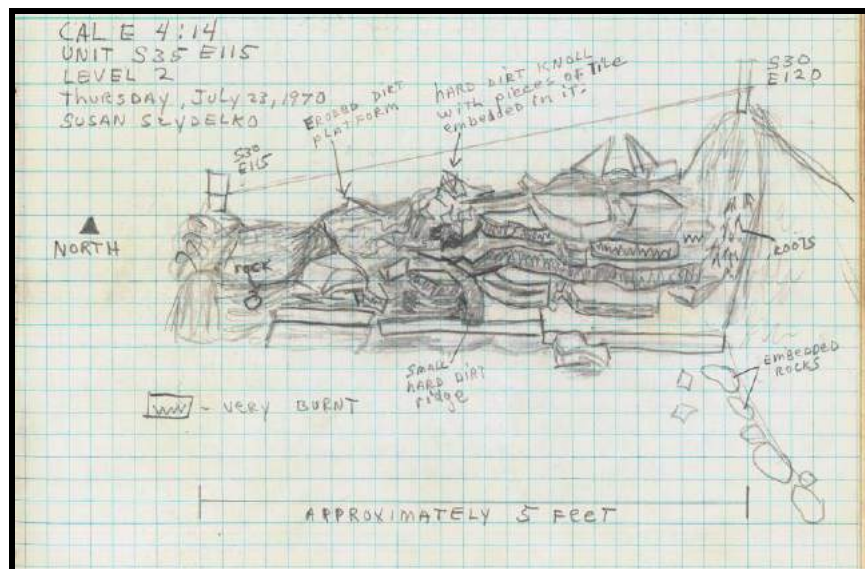


Figure 38: Drawing by Susan Szydelko of the 6 to 12 Inch (15 – 30 Cm) Level of Unit South 35 East 115 (Looking North), Showing Rubble Over Tiles of the Beehive Horno in the Southeast Corner of the Southern Defense Wall (Field Books: Szydelko-Summer 1970).

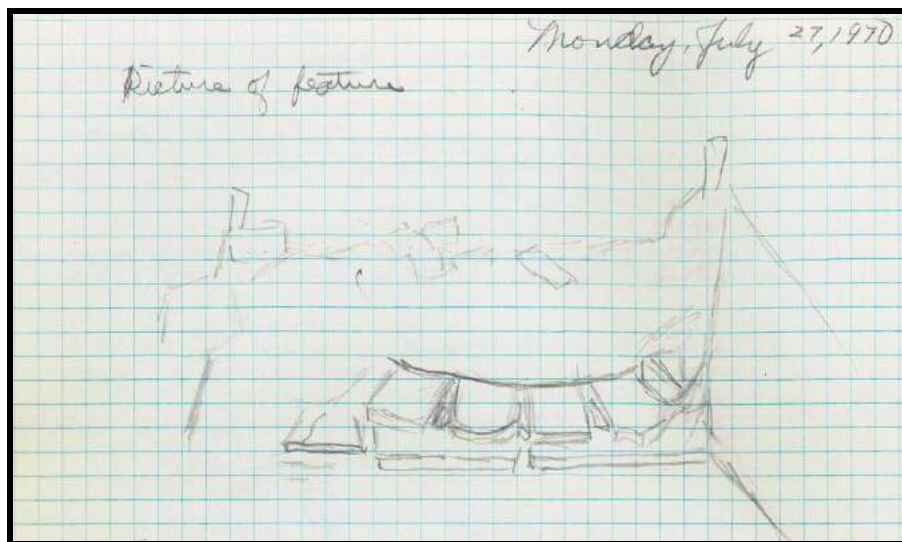


Figure 39: Exposed Tiles Around the Circular South Side of Horno, 24 Inches (61 Cm) Below Surface, Unit South 35 East 115 (Field Books: Szydelko-Summer 1970).

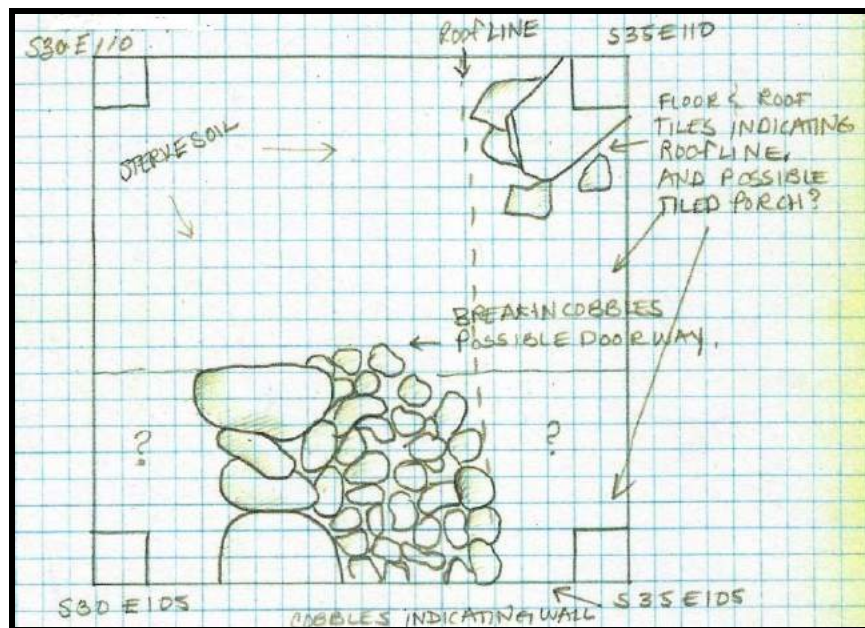


Figure 40: Drawing by Hoy Runnels of Unit South 35, East 105, 12 Inches (30 Cm) Below the Surface. Note the gap in the southern defense wall approximately 15 feet west of the beehive shaped adobe oven at the compound's southeast corner with floor and roof tiles indicating former structures south of the defense wall (Field Books: Runnels-Spring 1969).

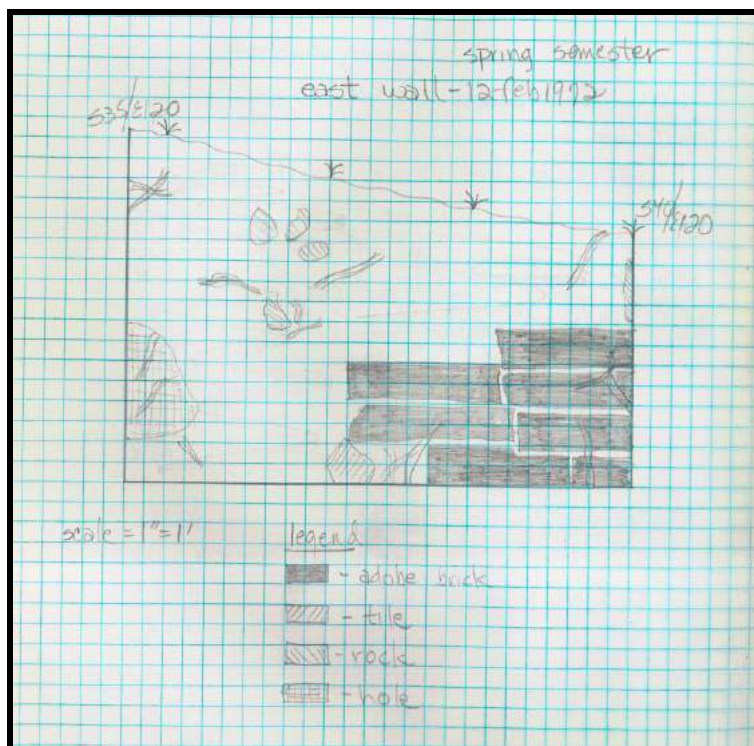


Figure 41: East Wall Unit South 40 East 115, Showing Articulated Adobe Blocks (Field Books: Carey-Spring 1972).



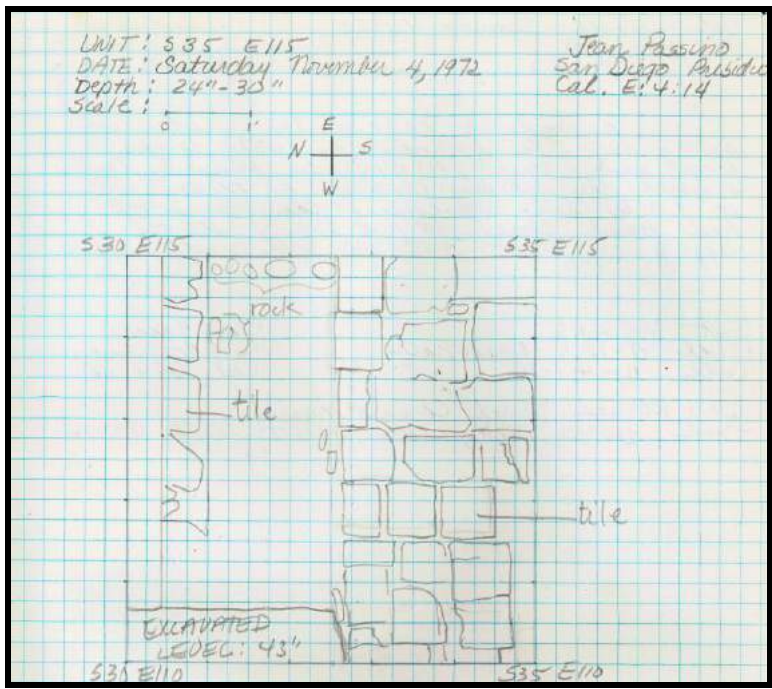


Figure 42: Tile Pavers in Unit South 35 East 110, 43 Inches (109 Cm) Below Ground Surface (Field Books: Passino-Fall 1972.).

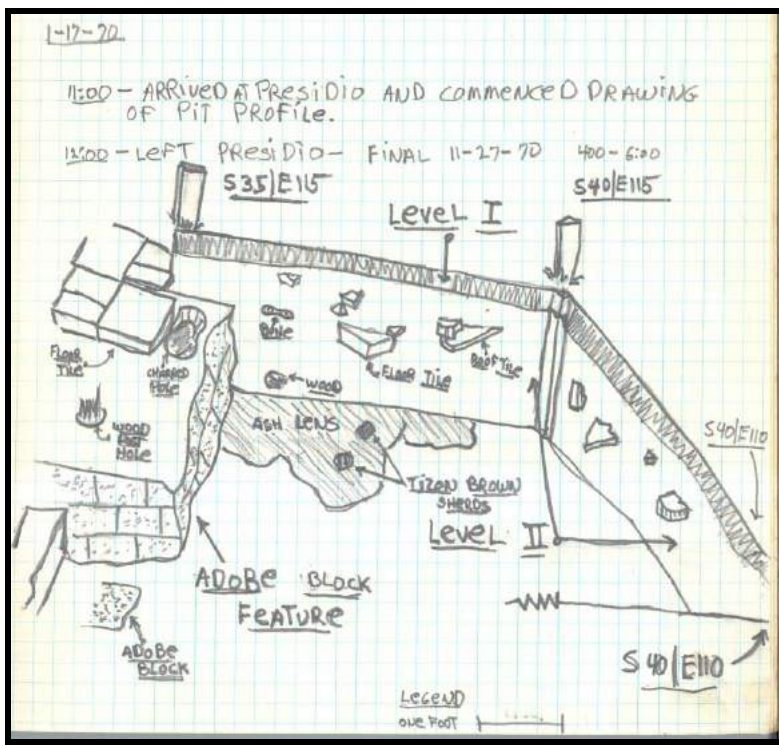


Figure 43: Stratigraphy of Unit South 40 East 110 Surface to 28 Inches (71 Cm) by Paul W. Myers, November 1970 (Field Books: Myers-Spring 1969).

Eleven dated items from Cluster Number Two provided a range of introductory manufacturer's dates from 1760 to 1820, and a mean date of 1814.00 (Table 7). The most recently introduced ceramic item was a Chinese Native ware plate with a peach and fungus decoration imported into California beginning around 1820 (Felton 2003:4). It was found in the 6 to 12 inch (15 – 30 cm) level of Unit South 40 East 105. The next most recent artifact, a plum (purple) transferware bowl exhibiting an unnamed Greek pattern manufactured by Copeland and Garrett of Stoke on Trent England around 1805 (TCC Database), was also the deepest recorded dated item, and came from the 24 to 30 inch (61 – 76 cm) level of Unit South 40 East 115. The glass study (Van Wormer 2014:52) identified fragments of pressed glass manufactured after 1825 from Units South 40 East 100 and Units South 35 East 105. Intrusive artifacts included pieces of two black/grey Gondola pattern transfer decorated plates produced circa 1840 from the 6 to 12 inch (15 – 30 cm) level of Unit South 40 East 100 (TCC # 6065; Williams 1978:278), and a cobalt edge decorated bowl manufactured between 1860 and 1890 from Unit South 35 East 100 (McAllister 2001:11). No depth was recorded for the later artifact.

**Table 7: Cluster Number Two Mean Date Calculations.**

TYPE	PATTERN NAME - ID	MNFG.	DATE	MEAN	COUNT	PRODUCT	REFERENCE
Chinese Export Ware	Nanking Butterfly & Diaper With Scales	-	1760-1800	1780.00	1	1780.00	Madsen & White 2009:98; Figure 4.64
Handpainted Floral Cobalt	-	-	1775-1830	1802.50	1	1802.50	Magid 2010
Chinese Export Ware	Nanking Butterfly & Diaper With Scales	-	1785-1800	1792.50	1	1792.50	Madsen & White 2009:98; Figure 4.64
Chinese Export Ware	Canton	-	1785-1853	1819.00	1	1819.00	Madsen & White 2009:100
Nursery Ware - Hand Painted Blue/White Floral	Unnamed Pattern	-	1790-1810	1800.00	1	1800.00	Punchard 1996:22
Edge Decorated-Cobalt	-	-	1800-1830	1815.00	1	1815.00	Hunter & Miller 2009:13
Edge Decorated-Cobalt	-	-	1800-1870	1835.00	1	1835.00	Allen, Huddleson, Wooten & Farris 2013:40
Edge Decorated-Cobalt	-	-	1800-1870	1835.00	1	1835.00	Allen, Huddleson, Wooten & Farris 2013:40
Edge Decorated-Cobalt	-	-	1800-1870	1835.00	1	1835.00	Allen, Huddleson, Wooten & Farris 2013:40
English Transfer-Plum (Purple)	Unknown Greek Pattern	Copeland & Garrett, Late Spode	1805	1805.00	1	1805.00	TCC # Database Accessed In 2013-2016
Chinese Native Ware Exported To California Ca 1820-1850	Peach & Fungus, Looks Like a White Celadon	-	1820-1850	1835.00	1	1835.00	Felton 2003:4
TOTALS					11	19954.00	
MEAN DATE				19954.00 / 11 = 1814.00			

## Site Formation Conclusions

The following conclusions are made from the data presented in this section. The site's stratigraphic sequences were designated as three general levels. Level I was the Marston layer or overburden put down under Percy Broell's direction in the late 1930s. Level II was either the rubble layer surrounding and extending out from the wall mounds, or original soil layers in those areas not covered by building rubble. Level III was only occasionally designated and consisted of materials that appeared to have been in place prior to their being covered by the formation of Level II (Field Books: Scaramella-Spring 1965). In most areas and semesters excavators dug in 6 inch (15 cm) levels within these broader designated stratigraphic units. Stratigraphic analysis as derived from student notebooks suggests most artifacts were recovered from Level II.

Based on artifact distribution and stratigraphic analysis, the Courtyard was a kitchen area and deposits there, including Cluster Number Two south of the southern defense wall, consisted of primary refuse made up of items discarded at or near the area where they were used for meal preparation and consumption.

Cemetery deposits were secondary refuse thrown into the east end of the cemetery through the discarding of trash. A small number of cross mends indicated that a small part of this refuse probably originated in the primary deposits in the Courtyard. However, most cross mends do not represent vessels with pieces from different deposits but are from sherds originating within the same deposit. This suggests that much of the household midden trash in the cemetery is not from the courtyard but came from somewhere else in the presidio outside of the Chapel complex, and that both the cemetery and Courtyard deposits remained fairly stable following the presidio's abandonment.

Deposits within the Chapel rooms appear to be secondary refuse, a conclusion based on the large number of entries for butchered animal bone from this area listed in the Presidio



Chapel Catalog (2005). Exactly how trash came to accumulate in the Chapel is not clearly understood, and will require more study.

Likewise, the nature of deposits in the rooms of the Courtyard's north wing is confusing. The number of listings of animal bone in the catalog is much less for these units than in the Chapel, so the smaller amount of faunal material that occurs there might be the result of food preparation and, consequently, the archaeological material might be primary refuse. In order to confirm this or another scenario of deposition, more analysis is also needed for this part of the site.

Temporal analysis showed that regardless of their origins all the deposits within the Chapel Complex are generally contemporary with each other and date to the final decades of the Presidio's occupation. The most liberal estimate and broadest interpretation of the probable deposition period timeline as shown in Figure 18 concluded that the deposits probably occurred between 1820 and 1837. Analysis within specific areas produced dates that were overall consistent with this conclusion. The list of mean manufacturing dates in Table 8 range over an 18-year period from 1814 to 1832. All are by and large contemporary with the overall site mean date of 1820. Although they did not produce enough artifacts to calculate mean dates, the few dated items from the Chapel and Courtyard north wing rooms represented the same periods. Chapel ceramic items had manufacturer ranges of 1765 to 1820, 1800 to 1840, and 1815 to 1842, while the Courtyard rooms material had dates of 1800 to 1820, post 1815, and post 1818. The combined mean dates and temporal ranges, along with the most liberal estimate and broadest interpretation of the probable deposition period timeline imply that the deposits probably occurred between 1820 and 1837, or over the final 17 years of the Presidio's operation.

Site formation processes then consisted of deposition of primary deposits in the Courtyard and secondary trash disposal in the eastern portion of the cemetery during the closing decades of the Presidio's habitation. Shortly following abandonment (probably within ten years) Presidio period refuse from unknown nearby areas, and contemporary to

that previously discarded in the Courtyard and cemetery, was apparently redeposited in the Chapel and the Courtyard north wing. As buildings were dismantled for construction materials, and then continued to erode over the following decades, debris and eroded adobe wall melt covered floors, and other living surfaces along with the artifact deposits. Finally, in the late 1930s the ruins were covered with silt from the San Diego River bed. The cultural material that was on the surface at this time became mixed with the imported overburden fill designated as the Marston level.

**Table 8: Chapel Complex Area Mean Dates**

AREA	MEAN DATE
Overall Site	1820.37
Cluster # 1	1815.97
Cluster # 2	1814.00
Cluster # 3	1826.42
Custer # 4	1823.94
Courtyard	
Kitchen	1832.25

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