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**UNIVERSITY OF CALIFORNIA**  
**ARCHAEOLOGICAL SURVEY**

No. 27

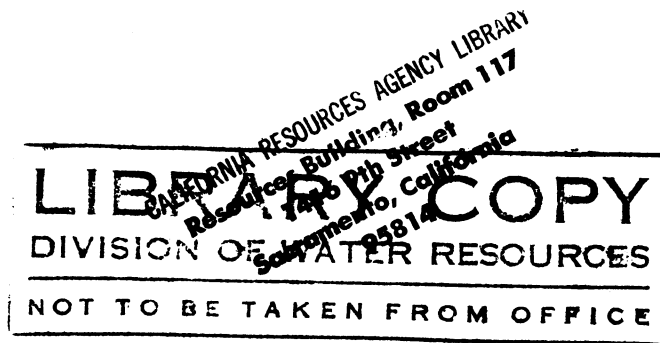
*Report*  
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SONOMA MISSION

AN HISTORICAL AND ARCHAEOLOGICAL STUDY  
OF PRIMARY CONSTRUCTIONS, 1923-1913.

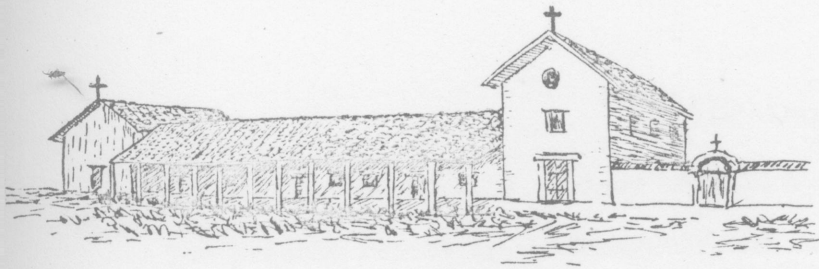
By James A. Bennyhoff and Albert B. Elsasser

Issued February 15, 1954

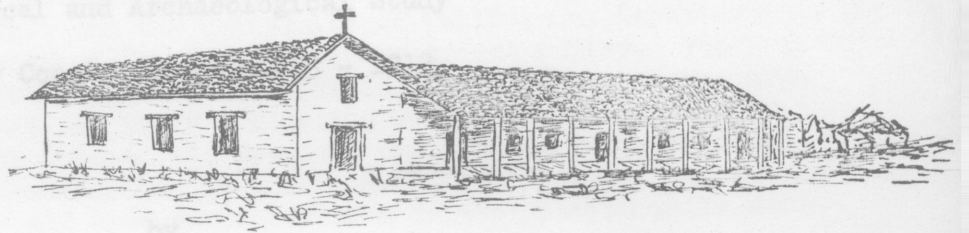


**The University of California Archaeological Survey**

**Department of Anthropology**  
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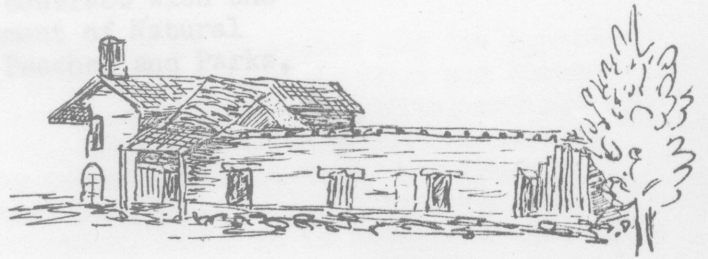
1832



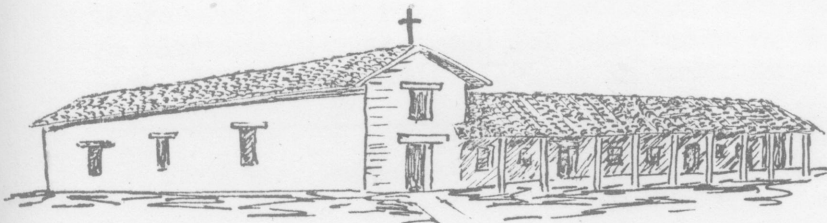
1842



1878



1906



1914

SONOMA MISSION

SONOMA MISSION

An Historical and Archaeological Study  
of Primary Constructions, 1823 - 1913.

by

J. A. Bennyhoff

and

A. B. Elsasser

Report on archaeological investigation at  
Sonoma Mission State Historical Monument  
during the summer of 1953 carried out by  
the Department of Anthropology, University  
of California, under a contract with the  
California State Department of Natural  
Resources, Division of Beaches and Parks.

## PREFACE

By R. F. Heizer<sup>1</sup> and T. D. McCown<sup>2</sup>

The present report by J. Bennyhoff and A. Elsasser is an account of their findings in the Quadrangle at Sonoma Mission as a result of archaeological investigations in July and September, 1953. The work was proposed by Dr. Aubrey Neasham, Historian of the State Division of Beaches and Parks, discussed in a conference at Berkeley, and finally stipulated in two contracts between the State of California, Department of Natural Resources, Division of Beaches and Parks, and the University of California, Department of Anthropology and University of California Archaeological Survey. The preparation and submission of this report are in satisfaction of one of the provisions of the contracts. At all times during the work either Bennyhoff or Elsasser remained on duty at Sonoma, and frequent opportunity was presented for discussion on progress and further planning of the excavation, Heizer and McCown acted as supervisors and made several visits to the Mission while excavation was in progress.

Preeminent in California's inheritance from the past stand the twenty-one Franciscan missions built between 1769 and 1823 along the coast from San Diego in the south to Sonoma in the north. For a century these have been a favorite subject for artists, writers, and the resort of tourists in search of authentic remains of the romantic past. Almost without exception the missions deteriorated physically as a result of disuse following their secularization in 1834. After 1850, when California became American, some sporadic attempts were made at repair or preservation, but the process of decay continued for the most part unchecked until about 1900, at which time determined efforts were begun to acquire the mission sites for the benefit of the public. Most of the missions have been partly reconstructed, one stimulus to this work being the effort to offset the destructive effects of the 1906 earthquake which severely damaged most of the then existing buildings and standing walls. These early efforts at rebuilding or reconstruction, while undoubtedly well-intentioned, are in many cases most inaccurately done.

If the long range view is considered, it may be advisable for the appropriate agencies, of which the California State Division of Beaches and Parks is one, to consider seriously a program aimed at accurate remodeling and reconstruction of the mission establishments. It is incumbent upon the authorities who administer these historic sites to make certain that they conform, within reasonable degree, to their original pattern. As a stimulus to modern architectural design for example (see Anonymous, 1924) it is important that historical accuracy be maintained. In order for such a program to be launched there would first have to be performed a survey of the missions of the sort so outstandingly achieved for New Mexico by the art historian and archaeologist, Dr. George Kubler (1940), in order to control the necessary information

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<sup>1</sup> Director, University of California Archaeological Survey.

<sup>2</sup> Chairman, Department of Anthropology, University of California (Berkeley).

upon which to base estimates of the amount and nature of the work desirable or required. By utilizing the dendrochronological dating technique (see Smiley, et al., 1953, pp. 40-48) much insight into the critical matter of the sequence of buildings and additions to them could be gained. The excellent survey of building techniques and materials used in construction of the California missions published recently by Elisabeth Egenhoff (1952) marks a second essential avenue of preliminary inquiry (see also relevant section on the materials and construction techniques used at Awatovi Mission in Montgomery, Smith and Brew, 1949). The great importance of contemporary pictures (original paintings, sketches or photographs) of missions is that these can often establish certain points concerning construction features, and also provide the main basis for determining the plan, size and relations of the buildings at certain dates. Although large collections of such pictures have been amassed, and are available at such centers as the California Historical Society, Society of California Pioneers, Bancroft Library, Huntington Library, State Library, Southwest Museum, and Los Angeles County Museum, there exists no central file of data, nor is there a central catalogue of such data which can be consulted by a student interested in a specific site. Such a survey and catalogue could be formed, and would be of the very greatest utility. A project of this sort could be supported by either a special grant of the State Legislature, or perhaps be conducted by the State Library or the State Historical Commission. Finally, although laboring this point here may be unnecessary, archaeological investigation of mission sites will, in every case, yield new information and provide accurate information on the location, plan and nature of the original construction features brought to light. This contention, we feel, has been amply illustrated by the limited excavations in the summer of 1953 at Sonoma Mission (more correctly known as Mission de San Francisco de Solano). Archaeology may also serve as a useful guide in determining which areas not now owned should be acquired for the future in order that the complete area of a mission be preserved. Many aspects of mission life can be illustrated by the recovery of material objects through excavation (cf. Caywood, 1950). This is nicely illustrated by the reports on the excavation of the Presidio and Mission of Santa Cruz de Terrenate in New Mexico (Di Peso, 1953), of Mission San Gregorio de Abo (Toulouse, 1949), and Awatovi Mission (Montgomery, Smith and Brew, 1949). These three reports are outstanding examples of the results which can be obtained through archaeological excavations and analysis of data.

The present paper written by J. Bennyhoff and A. Elsasser of the Archaeological Survey constitutes one more addition to the steadily accumulating archaeological literature dealing with historic sites. For California we now have published accounts of the excavation of a series of sixteenth century shellmound sites on Drake's Bay (Beardsley, In press; Heizer, 1941; Meighan, 1950; Meighan and Heizer, 1952); the location and nature of the flagpole base near the Custom House in Monterey where the American Flag was first raised officially in California (Beardsley, 1946); the location and remains of the sawmill built by Captain Sutter at Coloma and where Marshall discovered gold on January 24, 1848 (Heizer, 1947); the line and structural features of the stockade enclosing Fort Ross on the Mendocino County coast (Treganza, In press); the old lime kilns near Olema in Marin County (Treganza, 1951); and the Sanchez Adobe, San Mateo County (Drake, 1952). In Southern California a little work has been done at Purisima Mission, but no report has been published, and it is believed that some investigation was once made at San Fernando Mission (results also unpublished). More recently there has been

concluded the excavation of what is believed to be the Spanish chapel at Temecula (attached to the Asistencia at Pala). Of this work only preliminary reports of the findings have appeared (Anonymous, 1953). A survey of the Mother Lode buildings erected in the period 1848-1870 (Heizer and Fenenga, 1948) and of adobe structures of the San Francisco Bay counties (Bowman, 1951) show how numerous are such remains and how necessary are their preservation and further study.

California's record of historic archaeology<sup>3</sup> cannot be called outstanding. A bare beginning on an extensive problem has been made, and it is to be hoped that the appropriate organizations will be encouraged to initiate further investigations. One of the present authors has suggested some directions which might be taken (Heizer, 1950).

Elsewhere in the United States archaeological investigation of mission sites has been carried out, and for the sake of record we refer to reports concerning New Mexico (Kubler, 1940; Reuter, 1927; Toulouse, 1937, 1940, 1949; Montgomery, Smith and Brew, 1949; Arnold, 1930; Smith, 1952; Hodge, 1937; Tichy, 1939, 1944, 1946; Ely, 1935; Senter, 1934), Florida (Smith, 1948; Boyd, Smith and Griffin, 1937), and Washington (Garth, 1948, 1949). In Canada extensive research of this sort has been performed as attested by the reports of Jury (1945-48, 1951a, 1951b), and Kidd (1949, 1951).

Our chief recommendation, in view of the proven significance of archaeological results, is that before any repair, reconstruction, alteration, land acquisition, or landscaping be performed at any of the numerous State historical landmarks, parks or monuments, careful subsurface archaeological exploration be carried out.

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<sup>3</sup> See Harrington (1952) for definition of this term and a review of significant work in the United States.

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## FOREWORD

This report summarizes archaeological investigations at Sonoma Mission State Historical Monument carried out under a contract between the California State Division of Beaches and Parks and the University of California. The project was initiated by Dr. Aubrey Neasham, Historian for the State Division of Beaches and Parks. Upon consultation with Drs. R. F. Heizer and T. D. McCown of the Anthropology Department, it was agreed that the University of California Archaeological Survey would arrange for the needed equipment and crew, and perform the actual excavation. Work began on July 1, 1953 and continued until July 21; the results obtained seemed of sufficient importance to warrant continuation of the project between September 5 and 16, 1953.

The authors wish to express their appreciation to Dr. A. Neasham for his guiding interest in the current project and for historical data which he supplied. Drs. R. F. Heizer and T. D. McCown supervised the excavations and made helpful suggestions. We are indebted to the local State Division of Beaches and Parks personnel for their hospitality and their many and varied services. Mr. R. S. Coon and Mr. M. M. Gregory, Superintendent and Assistant Superintendent of State Park District 2, respectively, provided an outline of previous excavations, suggested potential areas of investigation, and arranged for special equipment and facilities needed for the project. The interest, records of previous excavation, and stimulating suggestions of Mr. F. Oltman, Park Ranger, were of great value. Mrs. D. V. Barbour, Curator of the Sonoma Mission State Museum, was a most gracious receptionist for visitors and gave useful historical data. Mr. A. Del Ponte contributed details on previous excavation and made helpful suggestions on excavation problems. The interest and aid of Mrs. D. Bruskey were appreciated.

The authors wish to express their gratitude to Mr. J. B. Tompkins and other staff members of Bancroft Library, University of California, for their help in the use of manuscript materials.

The following students performed the actual excavation and deepest thanks is expressed for their aid and interest in completing the project within the allotted time: L. R. Adams, Mrs. C. Bennyhoff, T. L. Bolt, R. H. Brooks, L. R. Butler, E. A. Carlson, B. A. Cox, J. T. Davis, Mrs. W. Elsasser, G. L. Grosscup, K. A. R. Kennedy, T. M. Moore, D. M. Pendergast, and R. J. Squier. Mrs. W. Elsasser, J. T. Davis, and Mrs. C. Bennyhoff aided in the preparation of the map and figures.

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## TABLE OF CONTENTS

	Page
I. Introduction .....	1
II. Historical Background .....	2
A. Source Material .....	2
B. The Original Wooden Chapel .....	4
C. The Adobe Church .....	4
1. Date of Construction .....	4
2. Original Appearance .....	5
3. Later Modifications .....	5
D. The "Second Adobe Church" .....	6
E. The Chapel .....	8
1. Date of Construction .....	8
2. Original Appearance .....	8
3. Later Modifications .....	9
F. The Priests' House .....	11
1. Date of Construction .....	11
2. Original Appearance .....	11
3. Later Modifications .....	12
G. Summary .....	16
III. Excavation .....	17
A. Sequence of Excavation .....	17
B. Building A: Description .....	21
1. Foundations and Walls .....	21
2. Tile Walkway and Drain .....	22
3. Feature 9 .....	24
4. Feature 15 .....	24
5. Ditches A and B .....	24
6. Wooden Posts .....	25
7. Feature 11 .....	25
8. Feature 10 .....	26
9. Feature 14 .....	26
10. Feature 16 .....	27
11. Roof Tile .....	27
C. Building A: Interpretation .....	27
1. Building A .....	27
2. Wall A .....	28
3. Wall B .....	29
4. Features 9 and 15 .....	30
5. Ditches A and B .....	31
6. Wooden Features .....	32
7. The Collapse of Building A .....	33
D. The Gateway Area: Description .....	34
1. Feature 17 .....	34
2. Feature 12 .....	34
3. The Gateway Drain .....	34

(continued on following page)

TABLE OF CONTENTS (continued)

	Page
E. The Gateway Area: Interpretation .....	33
1. Feature 12 .....	33
2. The Gateway Drain .....	33
3. Feature 17. ....	36
F. The Chapel Walkway: Description .....	38
G. The Chapel Walkway: Interpretation ....	38
H. Building B: Description .....	39
I. Building B: Interpretation .....	39
J. The East Chapel Wall: Description .....	40
K. The East Chapel Wall: Interpretation ...	41
L. The Well Area: Description .....	41
1. Field Stones .....	41
2. Roof Tile Drain .....	42
3. Wooden Rectangles .....	42
4. The Well or Cistern .....	43
M. The Well Area: Interpretation .....	43
N. Summary .....	44
Notes .....	46
Appendix I: Statement on Terminology .....	57
Appendix II: Artistic Portrayals of Sonoma Mission	59
Accurate Contemporaneous Pictures .....	59
Modified Pictures .....	61
Notes to Appendix II .....	66
Appendix III: Mission Photographs .....	72
Appendix IV: Childhood Recollections of Mr. E. T. Eheleben .....	74
Bibliography .....	75
Explanation of Illustrations .....	79
Explanation of Plates .....	80

ILLUSTRATIONS

Frontispiece. Sonoma Mission, 1832-1914. Reconstructions by the authors based on pictures and photo- graphs given in Appendices II and III.	
Map 1. Archaeological Excavations at Sonoma Mission.	At end.
Figure 1. Early Groundplan and Views of Sonoma Mission. ....	At end.
Figure 2. Cross-section Views of Tile Walkways. ...	At end.
Figure 3. Plan of Feature 15. ....	At end.
Figure 4. Construction Details of Sonoma Mission. ..	At end.
Plate 1. Views of Building A foundations, walkways, drain and wooden features. ....	At end.
Plate 2. Archaeological features of Sonoma Mission.	At end.

## I. INTRODUCTION

Sonoma Mission was the last of the chain of twenty-one missions to be built along the coast of Alta California for the conversion of the native Indian population to the Catholic faith. The site was blessed on July 4, 1823, the last year of Spanish rule of California. Construction of the mission proceeded during the Mexican Period, but the establishment functioned for a mere eleven years when Secularization in 1834 brought an end to the original activities. With the exception of limited church services and sporadic repairs,<sup>1</sup> the later history of the site is one of neglect until the partial Restoration of the Mission which began in 1911. This Restoration was made from limited historical data with no attempt to expose earlier foundations or assess the archaeological potential of the Mission area. The present report is a summary of the first concerted effort to determine just what remained of earlier Mission construction within the quadrangle area.

This paper is a preliminary statement because additional excavation is needed before the architectural remnants which were uncovered can be interpreted with certainty. As planned, the original purpose of the present project was merely to test the quadrangle area to determine whether more extensive excavation would be warranted. It was first intended that this report would be a summary of the results obtained with minimal interpretation and no historical background other than that offered by Hendry and Bowman (n.d.). If such had been the case, misinterpretations of the historical record would have been perpetuated and a variety of archaeological features would have been described as of unknown significance. Relatively late in the preparation of this report it became apparent that much more information was available in historical documents than had been utilized previously, information which was essential to any adequate interpretation of the history of Sonoma Mission. It appeared that the construction sequence proposed by Hendry and Bowman (n.d.) could be challenged, but to do so required a full review of the known facts. Investigation revealed a large number of scattered pictures of Sonoma Mission which contained contradictory details; before any part of one picture could be used the accuracy of the artist had to be established by a review of all pictures in conjunction with the historical record. The total result has been a lengthy report which deals with only the major construction features exposed by archaeology.

The description of portable artifacts was not finished. The majority of these represent earthenware, glass bottles, sawed mammal bones, nails, wire and similar items which cannot be dated accurately. Sherds of decorated chinaware will provide some approximate dates, but all specimens so far noted represent the full American Period, when the Mission quadrangle served as a garbage dump for certain residents of Sonoma. In all cases this refuse was found as fill, over earlier construction. No portable artifacts contemporary with the active life of the Mission have been identified. The absence of this section on American Period garbage therefore does not affect this report on the constructions. No Indian artifacts were recovered, other than one flake of obsidian. If the first cross was set up on the site of a former Indian village,<sup>2</sup> this occurred some distance from the location of the first wooden chapel. Perhaps the site of the 1834 Indian village is represented, shown in

Picture 10 to the north east of the Mission buildings. This Picture also shows outbuildings to the south of the Adobe Church, while other activities took place to the north of the present quadrangle. The lack of Mission Period refuse within the quadrangle indicates that most of the daily work of the Mission went on outside the area dealt with in this report.

With a more complete historical record available, a larger number of archaeological findings could be explained with some certainty, while the number of alternative interpretations for other problems could be reduced. Even though later excavation may indicate faulty reconstructions, it has been felt worthwhile to attempt some explanation of the available data. If the interpretations offered herein serve only to stimulate additional investigation, their purpose will have been fulfilled.

## II. HISTORICAL BACKGROUND

### A. Source Material

The history of the various constructions associated with the Mission San Francisco de Solano (hereafter referred to by its vernacular name, Sonoma Mission) is a research project in itself and beyond the scope of the present report. It had been assumed that the detailed study already made of this subject by Hendry and Bowman could be accepted as the best authoritative outline possible from the available records. As the analysis of the 1953 excavations proceeded, it became increasingly apparent that more specific information on the former buildings was needed to explain what archaeology had revealed; a check of certain sources indicated that Hendry and Bowman had made several interpretations which were not acceptable, they had missed a few sources, and they had not made full use of the available material. Time and facilities have not been sufficient to check all the known data, scattered in various parts of the state.<sup>3</sup> The following preliminary study will indicate the nature of the problems which exist; these results are offered not with the belief that they are definitive, but with the desire to stimulate additional research.

Details on the varied constructions at Sonoma Mission are scattered through a multifarious lot of documents. Mission records, official reports, and contemporaneous accounts by eyewitnesses usually provide factual data while reminiscences are often subject to doubt.<sup>4</sup> Vallejo appears to have written very little on his association with Mission construction.<sup>5</sup> A variety of county histories and popular books present original material on the Mission without documentation so that it is frequently impossible to separate tradition from fact.<sup>6</sup> A number of paintings and sketches are available which afford the clearest impression of the appearance of the Mission, providing much needed information which is not given by written descriptions. Because of the time span covered by the available pictures, and because of the special problems to which artistic portrayals are subject, it will be best to discuss the paintings and sketches first.

Unless substantiated by other evidence, no artistic creation can be accepted without qualification as factual because of the ability and frequent desire of the artist to simplify what he sees, and to modify actual conditions in favor of original or reputedly earlier appearances. In view of this

tendency, the absence of some feature is of less importance than the first portrayal of some remodeled structural part because there would be less desire to portray a non-original feature that was not seen by the artist. The judgment of each picture also depends on the artist involved; for Sonoma, Gibbs and the creators of von Geldern and Ryder pictures sought only to portray the existent Plaza or Mission; Deakin, Ford, Carter and all the artists associated with the Vallejo family usually sought to approximate the appearance of the Mission at some earlier date than when the picture was painted.

In addition, most of the available Mission pictures are so small or done in so sketchy a manner that many of the construction details are uncertain. With two exceptions, the present authors had to rely upon copies of the pictures, few of which have been reproduced with the clarity of the original. Several of these reproductions have been modified by later artists, so the copy shows details which differ from the original. Contradictory descriptions are given for some of the pictures which have been reproduced several times. Because of these special difficulties, and to avoid the repetition of source citations, each original picture has been given a number and is discussed in detail in Appendix II. In the text which now follows, each picture will be referred to only by the assigned number

The conclusions reached as to the date and significance of each picture can be briefly summarized as follows:

<u>Picture</u>	<u>Date of Origin</u>	<u>Value</u>
1.	1851	Deficient in detail.
2.	1852	Extremely vague.
3.	1874	A primary source; somewhat sketchy.
4.	between 1874-1881	Good, but incomplete.
5.	1889	A primary source, but incomplete.
6.	1903	Excellent, but within period of photographs.
7.	between 1874-(1881)	Good source, but modified.
8.	1881	Good source, but considerably modified.
9.	between 1881-1903	Unreliable because of restoration by artist.
	<u>Asserted Date</u>	
10.	1832	Reconstruction, but valuable because it is unique. Painted about 1874.
11.	1848	Sketchy; probably contemporaneous, made between 1852-1867.
12.	1839, 1840, 1845	Hypothetical; many details represent date of painting, 1879 (or 1883?).
13.	1836, 1846	Probably copied from No. 12; date of painting, 1883.
14.	1823	Hypothetical; probably a composite of several of the above, made in the 1920's.



Pictures 1 to 6 represent the Mission area as it existed when the artist saw it. Pictures 7 to 9 portray many contemporaneous features, but display a variable tendency toward restoration of earlier appearances. Pictures 10 to 14 were intended by the artist to represent the Mission at some specific date, all of which are earlier than the date when the picture was painted; they contribute information on certain alterations made after the asserted date of the painting which the artist must have seen but failed to eliminate. All pictures except No. 5 portray the south side of the Mission.

A total of seven photographs provide useful information on the appearance of the south side of Sonoma Mission between 1888 and about 1911. These have also been assigned numbers and the sources and brief comments are given in Appendix III.

The various Mission buildings for which documentary evidence is available will now be discussed. After establishing the date of erection, the original appearance will be summarized and then later modifications will be itemized by date, when possible. See Appendix I for the meaning of such terms as the "Adobe Church," the "Chapel," the "cupola," and other structural features.

## II B. The Original Wooden Chapel

Padre Jose Altimira blessed the site of the future Mission on July 4, 1823, and began construction in August.<sup>7</sup> The first chapel was a wooden structure, plastered inside and out with whitewashed mud; it was dedicated to San Francisco de Solano on April 4, 1824. Official 1824 records give variant dimensions for this building of 96.22 x 22 feet (preferred) and 93.5 x 27.5 feet.<sup>8</sup>

This structure was still standing in 1832 and was located on the site of the present Chapel.<sup>9</sup> Salvador Vallejo's reference to the "small store . . . that Dn. Mariano G. [Vallejo] converted into a church" can be interpreted to mean that this wooden church was still standing in 1840.<sup>10</sup> There is no adequate historical evidence for the construction of a building over the ruins of the first wooden chapel before the erection of the adobe Chapel in 1840.<sup>11</sup> It is therefore apparent that there is no support for the traditional burning of the chapel in 1826.<sup>12</sup>

## II C. The Adobe Church

### 1. Date of Construction.

The 1827 Mission annual report refers to the laying of the foundations of the Adobe Church,<sup>13</sup> and in the 1832 annual report it is noted that the "new church" had been roofed.<sup>14</sup> Forbes saw the partially completed Church in 1832 and established its location as immediately east of the Priests' House.<sup>15</sup> This location is also established by the 1854 ground plan of the Mission (Figure 1a) and supported by Pictures 10 and 12-14

## 2. Original Appearance.

The dimensions given in the 1832 Mission report are about 152.25 x 33.7 feet.<sup>16</sup> An 1859 description of the ruins gives measurements of 150 feet long, 30 feet wide clear of the walls inside, and over 30 feet high.<sup>17</sup> The statement by Salvador Vallejo<sup>18</sup> that the Adobe Church was about four times as large as the Chapel must be regarded as an excessive impressionistic estimate.

All portrayals of the Adobe Church (Pictures 10, 12-14) are based on recollections of the Vallejo family; errors to be seen in the representations of other buildings having better documentation indicate a low degree of accuracy for these recollections. One detail which can be checked from another source is the relative positions of the structures adjacent to the Church. The 1854 ground plan (Fig. 1a) offered in the Mission land claim and therefore reliable, shows the south wall of the Priests' House as flush with the front of the Church, with a straight walkway extending in front of both buildings. However, Picture 10 shows both the Priests' House and a low adobe wall (adjacent to the east side of the Church) set back some distance from the front of the Church. Pictures 12-14 portray the Priests' House and the wall as set back only a short distance from the Church front; if Picture 10 were correct, the east wall would not have shown from the angle at which Pictures 13 and 14 were painted.

Because of this lack of agreement, little emphasis can be placed on the following details shown in the pictures. A two-story building is always presented, which is supported by the 1859 observation of wall ruins 30 feet high, noted above. An attic window, a choir window, and a door in the south wall are always portrayed. Picture 10 (the most reliable) shows a square door, but Picture 14 (least reliable) depicts an arched door. Two windows have been portrayed in the east wall, four in the west. A simple cross was placed on top of the symmetrical, tiled roof. A low, tiled wall (surrounding the cemetery?) is shown extending eastward from the Adobe Church. No definite sign of the gateway between the Priests' House and the Chapel can be seen. Other details are not shown clearly enough in the available reproductions to warrant discussion (see the Appendix II discussion of the Day copy of Picture 10 for invented features).

## 3. Later Modifications.

The fate of the Adobe Church<sup>19</sup> is given by Salvador Vallejo who reported that up to the time of the arrival of Mariano Vallejo at Sonoma (1834) there was no other building except "a large church about four times as large as the small store, that about twenty-seven years ago [1847]<sup>20</sup> Dn. Mariano G. converted into a church; the destruction of the ancient church is due to the following fact . . . that Father Quijas sought to . . . raise the height of the church about 6 feet, but . . . no sooner had the roof been removed than a furious rain storm followed and caused the ancient wall to crumble to pieces."<sup>21</sup> Father Quijas signed the Mission records between 1833 and 1840.

Salvador Vallejo's statement is ambiguous, but all available evidence indicates that he meant: When Mariano arrived there was only a large church (the Adobe Church) and a "small store;" the latter was converted into a church. The "small store" in reality must be the first wooden chapel, which an eyewitness stated was still standing in 1832.<sup>22</sup> The

"ancient church" likewise refers to the Adobe Church. That this first adobe church was still standing in 1834 is indicated by the various pictures which were made from the recollections of M. Vallejo and his descendants (Pictures 10, 12-14). Local tradition has it that he lived in this building temporarily when he first arrived in Sonoma.<sup>23</sup>

Therefore, the collapse of the Adobe Church, as reported by S. Vallejo, must have occurred sometime after 1834. The collapse occurred before 1838,<sup>24</sup> and in the Mission report for 1840 Father Quijas stated that a new church had been built.<sup>25</sup> The dimensions and the lack of later reliable references to new construction indicate that the new church referred to by Quijas is the present Chapel (see Section II D). Supporting evidence for the collapse of the Adobe Church and the construction of the Chapel is given by three visitors: De Mofras in 1841 saw the ruined church; The Wilkes group in 1841 saw the "dilapidated" mission; Simpson in 1842 referred to a church built by Vallejo to replace a still larger one.<sup>26</sup>

Later references to these ruins are frequent,<sup>27</sup> and none of the contemporaneous pictures from 1851 on show any building occupying the site of the Adobe Church until about 1888 (Photo 1), when a wooden structure was built. In 1859 the walls still stood 30 feet high in places.<sup>28</sup> As indicated in Appendix II, Pictures 12-14 (which show the Adobe Church and Chapel together) are erroneous reconstructions.

Hendry and Bowman have also confused the later history of the location occupied by the Adobe Church. They propose that another adobe "house" (not a religious building) was constructed on this site in the 1830's, but their only evidence is the 1854 ground plan (Fig. 1a) and "several pictures" (only Picture 14 is cited, but Pictures 12 and 13 are implied by the description).<sup>29</sup> Such an interpretation is obviously wrong because the very building portrayed in the pictures referred to by Hendry and Bowman has a cross on it, and is clearly intended to represent the Adobe Church because of its similarity to this structure as shown in Picture 10. As already indicated, the Adobe Church was known to have been standing in 1832; no other church construction referred to in the Mission records of the 1830's is unaccounted for; the building shown on the 1854 ground plan was stated to be wholly in ruins; and the other accounts of 1853, 1842, 1841, 1840, and 1838 all refer to, or imply, ruins of the Adobe Church only.

#### II D. Hendry and Bowman's "Second Adobe Church"

Hendry and Bowman have so interpreted the available sources that they felt it necessary to hypothesize a "second adobe church" as having been built about 1835, of larger size than the present Chapel, but in the same location west of the Priests' House.

Their evidence is quite deficient, internally inconsistent, and the sources which they give can be interpreted in a much more satisfactory manner in terms of the Adobe Church and the Chapel. These authors<sup>30</sup> cite an 1835 Mission record reference to "the new church," but this reference in all probability applies to the Adobe Church which had only been completed in 1832 and with little doubt was still standing in 1835. Hendry and Bowman<sup>32</sup> then interpret the ruins referred to by de Mofras and Simpson in 1841-1842 to mean the remnants of this hypothetical 1835 building; however, as indicated in the discussion of the fate of the Adobe Church, these two

visitors were referring to the ruins of the Adobe Church, which were still sizable in 1859.

Again, with regard to the ambiguous statement of Salvador Vallejo (quoted in Section II C 3), Hendry and Bowman<sup>33</sup> interpret the "large church" to mean their hypothetical one built by Vallejo in 1835, which was then converted into the present Chapel. They go on to state that the "ancient church" which had its roof removed and then collapsed was "undoubtedly" the hypothetical 1835 structure. They merely "inferred that something happened to the first adobe church." As indicated in the discussion of the Adobe Church, the available facts can be interpreted in a more satisfactory way if Salvador's "large church" and "ancient church" are equated with the Adobe Church, his "small store" identified with the first wooden church, and the story of the roof removal and collapse of the church equated with the Adobe Church. It is unlikely that Salvador would have called an 1835 building "ancient;" if the account of the collapse of the church is applied to a later building, there is no accounting for the destruction of the large Adobe Church. Salvador's recollection is also given by Cerruti,<sup>34</sup> from hearsay current in 1874, who states that after the collapse of the Adobe Church the Chapel was built, with no reference to an intervening structure.

Hendry and Bowman are inconsistent in their own references to this second adobe church of 1835. They identify the church shown in Picture 2 as the 1835 structure,<sup>35</sup> yet on the same page discuss the construction of the "third adobe church" (the Chapel) in the same location in 1840; since Picture 2 is a contemporaneous painting of 1852, it is obvious that the structure represented is the Chapel. In their note on the "second adobe church," they accept as probably correct a statement that "Vallejo built the church in 1835 and added the 'ugly belfry.'"<sup>36</sup> The belfry reference clearly applies to the 1840 Chapel.

If the interpretation of these authors were accepted, it would mean that Vallejo built a church even larger than the Adobe Church at a time when he was much more interested in the secularization of the Mission and in laying out the pueblo of Sonoma, as well as building his own residence and barracks. If he did build such a church, one would expect documentary evidence (all reliable references apply to the 1840-1841 Chapel construction). Hendry and Bowman claim the building was completed, since Quijas reportedly removed the roof; therefore, in the various paintings of Sonoma made for the Vallejo family, one would expect Vallejo to have emphasized the large church which he supposedly erected, instead of consistently recalling the Adobe Church as having been the largest.

The only conclusion possible, without additional evidence, is that the "second adobe church" never existed, but has been inferred because of a repeated disregard by Hendry and Bowman for the fate of the Adobe Church.

## II E. The Chapel

### 1. Date of Construction.

As outlined in Section II C 3, the Adobe Church probably collapsed between 1834 and 1838. The Mission annual report for 1840 refers to a new church which had been built during that year and which was to be furnished during the coming year.<sup>37</sup> In 1841, the Wilkes group saw a little chapel under construction, and de Mofras mentions a chapel in addition to the ruined church; Simpson in 1842 saw a church (the Chapel) built by Vallejo to replace a still larger one (the Adobe Church).<sup>38</sup> Salvador Vallejo recalled that his brother converted a "small store" (the first wooden chapel) into a church.<sup>39</sup> The 1854 ground plan (Fig. 1a) shows the Chapel in the same location as the modern structure, and there are no reliable references to any additional construction between 1841 and 1854.

From this evidence it can be concluded that the present Chapel was built in its present location in 1840; the first wooden chapel was still standing in 1832 at least, and was probably razed when the adobe Chapel was built. As discussed in Section II D, there is no adequate evidence that another building had been constructed on the site of the first wooden chapel between 1832 and 1840.

### 2. Original Appearance.

The new church is described briefly in the 1840 Mission report as about 110 feet long, 16.5 feet wide, and about 18 feet high; it had a sacristy, baptistry, and a pulpit and had been whitewashed.<sup>40</sup> Though varying somewhat in dimensions, an 1859 account<sup>41</sup> probably would apply also to the original structure: length between 80 and 100 feet, width 20 feet inside the walls, height 18 feet; reference is made to the lack of finish -- the ceiling appeared through the naked joists, plain wooden benches served for pews, and the interior was lighted by three small, square windows. No picture is available for this period, but the reconstruction of the Chapel itself (not the other buildings) as given in Picture 9 is probably a good approximation for the 1840's and 1850's. Duflot de Mofras<sup>42</sup> states that Vallejo used the material of the collapsed Adobe Church to build his residence, and very likely some of these adobes were used in the construction of the Chapel as well.

Although arched windows and doors were more common for churches in Mission architecture, the weight of evidence favors rectangular openings in the original Chapel. The door and choir window were portrayed as rectangular in 1851 (Picture 1), three square windows were referred to in 1859, as noted above, and such a door and windows were painted in the reconstruction attempted in Picture 9. Newcomb, who did the most research on architectural details of the Mission, states that the arched door and windows were later modifications.<sup>43</sup> The architects responsible for the restoration felt that the evidence was sufficient to reproduce the rectangular forms. Picture 3 shows the door of the Adobe Church as rectangular, and the best portrayals of San Rafael Mission (quite similar in structural detail to Sonoma Mission) display a similar door.<sup>44</sup>

Available evidence indicates that originally there was no breezeway to the east of the Chapel, but that the Priests' House joined the Chapel (see the 1874 discussion in Section II F 3).

An eyewitness account of the bell frame in the late 1840's describes the structure as made with wooden pegs and the bell hung with rawhide.<sup>45</sup> It is probable that this frame was an original feature, set in front of the Mission, but the artistic portrayals of this frame are quite variable.<sup>46</sup>

### 3. Later Modifications.

Only those structural features which have chronological significance will be discussed below. Pictorial representations will be accepted as evidence only when a contemporaneous portrayal is probable, or when the picture can be verified from other sources.

No acceptable information is available on the 1841-1850 period. Pictures 11-13 are not accurate for the asserted dates. In 1851 and 1852 the Chapel was portrayed without a cross (Pictures 1 and 2). Services were being held in the building, and it is doubtful that the cross would have remained absent for any length of time. Either a temporary condition is represented, or the artists omitted the cross because of the small scale of the picture. Both pictures can be offered as evidence that the cupola had not yet been built, for this structure was so prominent as to exclude the possibility of accidental omission; neither artist was seeking to portray earlier conditions and doubtless would have shown the cupola had it existed.

An 1853 observer<sup>47</sup> reports that the Mission was left without priest, clerk, or bell-ringer, and that the bell had been dismantled. The 1854 ground plan (Fig. 1a) shows the Chapel as the only building in fair condition. During the 1840's and 1850's the Chapel apparently received little care. Archbishop Alemany filed claim to the original Mission property in 1853; the title was confirmed in 1855, and the property was restored to the Catholic Church in 1857,<sup>48</sup> after which the Chapel served as a parish church.

Then, in the late 1850's, a period of renovation began during which time structural details of the Chapel were considerably modified. In 1858 the old tile roof was replaced by shingles.<sup>49</sup> It was about this time that the original cupola with a cross was added to the front apex of the Chapel. An 1860 account discusses current improvements, but refers to the cupola as though it had been built a short time previously.<sup>50</sup> An 1859 account refers to square windows and describes crude internal furnishings, as described in Section II E 3.<sup>51</sup>

An 1860 letter reports that \$900 had been expended in repairs to the exterior, and that very summer M. Vallejo had already spent \$3,000 on interior furnishings, such as a ceiling, stucco, and pews.<sup>52</sup> The arched headers were probably added to the door and windows at this time.<sup>53</sup> As indicated in the previous section, the windows were portrayed and referred to as rectangular in the 1850's. Picture 3, done in 1874, and all later reliable portrayals until the Restoration represent arched windows.<sup>54</sup> An undated clipping refers to the cushions, carpets, and gas lights found in

the Chapel,<sup>55</sup> improvements which must date prior to 1881, when the Mission was sold. A fired brick facade was added to the front of the Chapel sometime before the same date.<sup>56</sup> In 1871 the Chapel had been placed in good repair.<sup>57</sup> This period (1858-1871) of renewed interest in the state of the Chapel will be called the Renovation.

Picture 3, made in 1874, portrays the "renovated" Chapel with arched door and windows and the first cupola, with a cross (Fig. 1b). It was shortly after this date that the Chapel and Priests' House were separated (see the year 1874, Section II F 3), so a probable door in the east wall of the Chapel was converted into the window shown in Picture 5 (Fig. 1c) about this time.<sup>58</sup>

Picture 4, sketched between 1874 and 1888, portrays the Chapel with a non-tile roof, the cupola with a cross, and the arched door and windows. Pictures 7, 12, and 13 date from the same period and show the same features except that the artists restored the tile roof. Picture 8 (1881) is an attempted restoration; only the arched door and windows are correct for this date.

In 1881 the Mission property was sold to S. Schocken.<sup>59</sup> The cross must have been removed at this time. The Chapel was then used for secular purposes, primarily for the storage of hay and wine, until 1902.<sup>60</sup> In 1888 the Chapel was photographed with the shingle roof, the arched door and windows, the fired brick facade, and the first cupola, with no cross (Photo 1).

Picture 5 appeared in 1889 (Fig. 1c). A section of the Chapel is portrayed from the rear, with a non-tile roof, the original cupola without a cross, and an arched window at the south end of the east wall. Of particular importance is the appearance of a sacristy, with an arched door and a rectangular window in the east wall, which adjoins the east wall of the Chapel. The sloping roof of the sacristy is shown as a continuation of the Chapel roof. If this picture is accurate, the sacristy was built after 1874 because Picture 3, if accurate, does not portray this structure.<sup>61</sup>

In 1902-1903 the Chapel and Priests' House were purchased with funds from various individuals and organizations and given to the state.<sup>62</sup> Picture 6, painted in 1903, shows the Chapel with the first cupola, without a cross, and an arched door and window. Photo 2 shows the same details, but Photo 3 portrays the Chapel a short time later with the cupola removed. In Photo 4 (pre-1906) the second cupola appears, with a tiled roof instead of the earlier flat roof and "comb." Photo 5 shows the Chapel after the 1906 earthquake, when the whole southwest corner collapsed,<sup>63</sup> but the cupola remained atop the roof.<sup>64</sup>

The two major expenditures for Restoration of the Mission occurred in 1911 and 1913.<sup>65</sup> Photos 6 and 7 show the Chapel with the southwest corner restored, and a rectangular door and window in the front wall, instead of the earlier arched openings. The three arched windows remain in the west wall, however. The cupola had been removed and replaced with a simple cross. These modifications appear to be more than makeshift repairs of the earthquake damage and probably represent the first step in the Restoration. If these photographs portray the completed 1911 Restoration activities, such additional changes as the construction of rectangular windows in the

west wall (and the elimination of the breezeway east of the Chapel) must represent the 1913 continuation of the Restoration. Adobe bricks from an old hotel were used in the Restoration of the Mission; <sup>66</sup> very likely some bricks were salvaged from the walls which collapsed during the earthquake.

Though extensive changes were made in the external and internal appearance of Sonoma Mission during the Restoration, few records are available. What little is known will be discussed in the archaeological section of this report. On June 14, 1914, Sonoma Mission was opened to the public as a museum.<sup>67</sup> It may be noted that the report of the Chapel burning in 1922 is probably incorrect; it was the wooden Catholic Church, constructed after the Mission property was sold, which burned.<sup>68</sup>

## II F. The Priests' House

### 1. Date of Construction.

The Sonoma Mission annual report of 1825 mentions that a house with a granary had been erected for the padre, but no dimensions or material are given; adobe buildings were being erected by this time, and it may be assumed that adobe bricks were used for this dwelling.<sup>69</sup> Hendry and Bowman concluded that this building is probably the same as the present Museum. The annual report for 1827 refers to the construction of new living quarters about 82 x 33 feet;<sup>70</sup> these dimensions agree with no known building, so Hendry and Bowman concluded that the location of the 1827 building is unknown. The Priests' House was modified in 1840, 1874, 1913, and at other undated times, so dimensions cannot be emphasized. It is not stated whether the 1827 house was intended for the padres or Indians. If a priests' house was intended, it could be assumed that the 1825 dwelling was built of temporary materials; it is unlikely that new living quarters for the padres would be built only two years after an adobe priests' house had been erected. If both the 1825 and 1827 reports refer to a priests' house, it is possible that an addition was made to the 1825 dwelling. Until additional information clarifies the intended use of the 1827 living quarters, the 1825 reference will be considered correct for the date of construction of the Priests' House (the modern museum).

The earliest positive identification of the Priests' House in its present location is in 1832, when an eyewitness testified in 1854 that the building to the east of the Chapel was the "curate's house" in 1832.<sup>71</sup>

### 2. Original Appearance.

No information is available on the original appearance or dimensions of the Priests' House. Picture 10 portrays the Mission as it supposedly appeared in 1832, as recalled by M. Vallejo. Since the General did not see the Mission until 1834, the later date would be preferable. A one-story building is shown, with a tiled roof and colonnaded porch, features which agree with later pictures. The east end of the building is not shown clearly, so the existence of a gateway at that time is not certain.



The original location of the Priests' House relative to the Adobe Church is confused. The best evidence would appear to be the 1854 ground plan of the Mission (Fig. 1a), which shows the south wall of the Priests' House flush with the front of the Adobe Church, with a straight walkway extending in front of both structures. Such a union to form a closed rear quadrangle is typical of most missions, including those of San Rafael, Dolores, San Jose, and Santa Clara. Picture 10, based on a Vallejo recollection, portrays the Priests' House set back some distance from the front of the Church, while Pictures 12 and 14, based on the same sketch and Vallejo family traditions, depict the House as set back a shorter distance. For reasons discussed under each picture in Appendix II, none of these artistic portrayals can be considered as reliable as the ground plan for details of location.

The following description is probably correct for the Priests' House of this 1834 period, and may apply to the original 1825 construction:

"The Mission house, divided by a wall just under the ridge of the roof, afforded two rows of rooms, each row of which faced the porches flanking the structure front and back. The ceiling beams of this building indicate that the attic was originally used, probably as a dormitory. . . The roofs, constructed of rough, unhewn rafters, covered with crosspieces and tiles, continued down to form porches, front and rear." 72

From this description it can be assumed that the interior rooms were divided by adobe walls, running north-south, and that the roof was double-pitched.

### 3. Later Modifications.

Only the more obvious changes can be determined from the available evidence. No descriptions of the interior of the Priests' House have been seen, and the variance in the pictures is such that one can only conclude that the artists took little care in portraying exact details for the south side of the Priests' House.

Pictures 3, 6 to 10, 12, and 14 portray this south front of the building in greatest detail and cover the period between (1834) and 1903, but no consistent chronological variation is evident. The number of columns varies from 6 to 10; four pictures show 7 columns, and two show 9. Photo 1 (1888) reveals 6 columns standing and space for at least 2 fallen posts; only 4 remained upright in Photo 2 (post-1903), but Picture 6 (1903) shows 7 columns.

Doors are seldom clearly differentiated from windows, and the location of both is chaotic when pictures are compared. The total number of combined doors and windows varies from 4 (three pictures) to 9 (two pictures); the other pictures show 5 (three pictures), 6 (one picture), and 7 (two pictures) openings. Picture 8 portrays 6 doors and windows, but Carter copied the picture with only 4 openings in the area shown by Ford; Picture 9 features 4 openings, but the Engelhardt copy shows 7. Photos 1 to 5 show 6 doors and windows and at least one sealed opening. Picture 6 (1903) is at variance with these photographs.

It is therefore apparent that the artists were not concerned with such minutiae. Extensive modifications were made during the Restoration, at least one opening had been sealed before 1888, and the west end of the Priests' House had been altered in 1874 and 1840, but little can be inferred from the available pictures on the minor changes which were made. The primary evidence for the alteration of doors, windows, and interior walls must come from observing the actual adobe walls free of plaster.

Despite secularization, the Priests' House was occupied until 1835, when Father Quijas chose to move his permanent residence to San Rafael.<sup>73</sup> The priest continued his services at Sonoma, with temporary residence, at least until 1841.<sup>74</sup>

Little can be determined from historical sources as to what modifications were made in the west end of the Priests' House when the Chapel was built in 1840. The 1854 ground plan (Fig. 1a) shows the two buildings as adjoining, with the south wall of the Priests' House flush with the front of the Chapel, as they are today. The same relationship is shown by Picture 3 (1874), and less clearly by Pictures 1 and 2 (early 1850's).<sup>75</sup> The two buildings were separated after 1874, but the position of the barricade in Picture 6 and Photos 2 and 3 also indicates that the front of the Chapel and the south wall of the Priests' House were in line.<sup>76</sup>

Pictures 1 and 2 (1851, 1852) portray the Priests' House without detail. Both pictures show the House as high as the Chapel, but all other pictures indicate that the Priests' House was lower than the Chapel.

Later references and pictures document the increasing disrepair of the Priests' House, with only occasional makeshift repairs. By 1853, Leyden had established a periodical depot in part of the Mission buildings, presumably the Priests' House.<sup>77</sup> In 1854, the building was stated to be in ruins.<sup>78</sup> In 1859 the structure was described as a "range of one-story adobes."<sup>79</sup> In 1871 all buildings except the Chapel were in a state of decay.<sup>80</sup>

Picture 3, made in 1874, shows the Priests' House in disrepair (Fig. 1b). The west end of the double-pitched roof had fallen; tile remained on only a section of roof, the naked beams having been exposed at the east end of the building and over the entire walkway. Only a black void appears beneath the roof apex at the west end. The south wall of the Priests' House is shown as adjoining the Chapel, and the westernmost column is depicted in front of the missing roof area, but no longer supports any roof beams. The east end of the House is not shown clearly enough to determine whether a gateway then existed next to the ruins of the Adobe Church.

The west end of the Priests' House is shown in some detail in Photos 3 and 4, taken between 1903 and 1906. The same tiled area of roof remains as in Picture 3, but the naked beams have been covered with shingles. The photographs clearly show a narrow section of north-south wall extending northward a short distance at a right angle from the south wall (also shown in Photos 6 and 7, post-1906). This west wall remnant is about as high as the south wall, and has a protecting cover. The roof and east-west roof beam extend a short distance west of this west wall section, and are supported by a post set within the breezeway. A wooden framework, built just behind and north of the west wall remnant, outlines an open

doorway while the area between the roof apex and the adobe wall is closed with boards. Nor does any accurate picture show a solid adobe west wall of the Priests' House. Pictures 4 and 8 (painted between 1874 and 1881) show only the black void beneath the roof apex, and Picture 6 (1903) portrays the wooden wall above the open door area. Therefore the adobe west wall with a door depicted in Picture 7, and the adobe west wall with an arched attic window shown in Picture 12, must be considered as inaccurate artistic restorations.

The evidence available thus indicates that the Chapel and Priests' House were joined together when the Chapel was built in 1840.<sup>81</sup> This union left a small room immediately adjacent to the Chapel (see Section III C 2). A probable doorway in the west wall of this room allowed access to the Chapel (see Section II E 3, 1874). The east wall of this room was only as high as the south wall of the Priests' House, the space above the ceiling serving as an attic.<sup>82</sup> Picture 10 indicates that a doorway led from this room to the outside.

At some time after 1874 the central section of the small room adjacent to the Chapel, and the west end of the roof of the Priests' House collapsed as shown in Picture 3 (Fig. 1b). Shortly after 1874 the west end of the south wall of the Priests' House was removed, forming the breezeway between the buildings where a room existed formerly. If Picture 12 was painted in 1879, the breezeway was formed by this date. Pictures 7 and 8 indicate that the breezeway was certainly in existence by 1881. Shingles were added to the tileless areas of the roof about this time, because Photo 1 (1888) shows the same tiled roof area as in Picture 3, with shingles replacing the naked beams of Picture 3.

The west end of the Priests' House was not filled in for some time. Pictures 4 (accurate) and 8 (some restoration) show the west end of the Priests' House as a black void, but by 1903 (Picture 6) the west end had been boarded up. Pictures 4, 7, 8, 12, and 13 were painted between 1874 and 1883, but display a variable amount of artistic restoration, as discussed under each picture in Appendix II. The breezeway is portrayed in all pictures and can be considered accurate. Picture 7 (painted between 1874 and 1881) presents the first definite indication of the gateway at the east end of the Priests' House (other artists omitted this opening). Picture 8 (1881) shows the first barricade built across the breezeway.

In 1881 the Mission buildings were sold to private interests,<sup>83</sup> and the Priests' House became a winery.<sup>84</sup>

Photo 1, dated 1888, shows the front of the Priests' House, separated from the Chapel by the breezeway, but without the 1881 barricade of Picture 8. The tiled area of the roof is the same as in Picture 3 (1874), but the naked beams of 1874 had been shingled. Two chimneys had been added toward the east end.<sup>85</sup> The gateway is shown indistinctly, and a picket fence then surrounded the Priests' House.

Picture 5, probably made in 1889, provides a unique view of the west section of the Priests' House from the rear (see Fig. 1c). The absence of a barricade across the breezeway is supported by Photo 1. The north roof is shown as tiled. Two posts of a colonnade are shown but no column supports the west end of the roof; such weak construction is not typical

of mission architecture, so another indication is provided that the colonnade and roof originally extended across the breezeway area. Wine barrels are shown behind the colonnade which is consistent with the use of the Priests' House as a winery at this time. Eheleben<sup>86</sup> stated that the barrels contained grape mash, and that only dirt walkways existed at this time.

By 1903 (Picture 6) a second barricade and a gate had been built across the breezeway, and the west wall of the Priests' House had been boarded up, except for a doorless opening at the lower south side. The artist omitted the east gateway, shown in earlier and later photographs. The tiled and shingled roof, the chimneys, the barricade and gate, and the fence shown in this picture are duplicated in Photos 2 and 3. Photo 2, taken after 1903, shows the Priests' House in considerable disrepair, with fallen columns, and loose shingles and roof tiles. Photo 3, taken a short time later, shows some attempt to repair the columns supporting the roof. In Photo 4, taken before 1906, the walkway roof has been stabilized by a new colonnade and the chimneys seem to have been removed.

While the renovated Chapel survived the 1906 earthquake essentially intact, Photo 5 reveals that the Priests' House suffered greatly from the long period of neglect. Virtually the entire roof collapsed, the top of the south wall crumbled, all but two of the colonnade posts had to be removed, and the boarded up east end suggests damage to the gateway area.<sup>87</sup> Photo 7 shows that the west end of the Priests' House did not fall; even the remnant of north-south wall in this area remained standing, essentially as it was in 1903 (Photo 3). The wooden construction in this area apparently stabilized the older adobe walls. The picket fence was removed in the cleanup. In 1910 local organizations raised funds to erect a covering of boards to protect the roofless adobe walls,<sup>88</sup> as shown in Photos 6 and 7.

The Priests' House apparently remained in this condition until 1913, when Restoration began.<sup>89</sup> Photos 6 and 7, dating from about 1911, show the Chapel as partially restored, but no modifications had yet been made in the Priests' House. It presumably was in 1913, when the second allotment of Restoration funds was made, that the southern half of the Priests' House was restored, and once again joined to the Chapel. The height of the building was increased, doors and windows were altered, the interior was modified, and other changes made which do not appear to be documented adequately.

## II G. Summary<sup>90</sup>

The first chapel erected on the site of Sonoma Mission was a temporary wooden structure, completed in 1824. It stood in approximately the same location as the later adobe Chapel, and was probably razed when the latter was built in 1840.

The first Adobe Church was begun in 1827 and finished in 1832. It stood just to the east of the Priests' House and was built by Indian laborers, under the direction of the padres. Secularization of the Mission two years after completion of the Adobe Church brought an abrupt end to the original function of the church. The Adobe Church collapsed between 1834 and 1838 when the roof had been removed and sudden rains weakened the structure. There is no satisfactory evidence that any later structure was erected on the site of this building until decades after the American period began. Nor is there acceptable evidence for the erection of any other church until the Chapel was built; previous claims for such a church rest on the misinterpretation of references to the Adobe Church, or its ruins.

The Adobe Chapel was built in 1840 on the site of the first wooden chapel, under the direction of Vallejo, to provide religious services for his troops and the increasing population of the town of Sonoma. Undoubtedly Indian laborers were employed for the construction, and many adobe bricks were probably salvaged from the ruined Adobe Church and re-used in the building of the Chapel. This Chapel has survived, with modifications, to the present day.

The Priests' House was probably erected in 1825, just east of the original wooden chapel. From 1832 on, at least, the Priests' House can be identified with the modern structure which now functions as a museum. The Priests' House was joined to the newly constructed Chapel in 1840. The Priests' House continued to serve as the priests' residence, at least temporarily, until 1842.

The remaining history of Sonoma Mission is primarily one of decay until the Restoration of the Chapel and Priests' House after 1910. The major exception is the period of Renovation from the late 1850's to the 1870's, when the Chapel functioned as the parish church. At various intervals within this time span, the Chapel underwent the following modifications: the roof was shingled, a cupola was added, doors and windows received arched headers, a facade of modern brick was added to the front, and the interior was completely refurnished. The Priests' House, no longer occupied by the Chapel officiates, appears to have been neglected; by 1874 the west end of the roof had fallen, and tile remained on only part of the roof.

Shortly after 1874 the Chapel and Priests' House were separated and a breezeway formed between the two buildings. A sacristy was built adjoining the east wall of the Chapel. By 1881 a barricade had been built across this breezeway. In 1881 the Mission property was sold to private interests; the cross was removed from the Chapel, and the buildings were used for such secular purposes as the storage of hay (Chapel) and as a winery (Priests' House). By 1888 the barricade had been removed from the breezeway, most of the Priests' House roof had been shingled, chimneys and

a fence had been added to the House, and several of the wooden columns had fallen. The west end of the House had been strengthened with wooden construction.

In 1903 ownership of the Mission property passed to the state. Another barricade and a gate had been erected across the breezeway by 1903. Shortly thereafter the Chapel cupola was removed, remodeled, and replaced; occasional efforts were made to repair the colonnade of the Priests' House. The 1906 earthquake left much of the Priests' House in ruins and caused the collapse of the southwest corner of the Chapel. Restoration began in 1911 and was essentially completed in 1913.

### III. EXCAVATION

#### A. Sequence of Excavation

Prior to 1953, the Division of Beaches and Parks had been engaged in several projects involving drainage and landscaping in the Mission quadrangle. During the course of this work, evidence of a tile walkway or floor was uncovered. When a drainage system was being installed adjacent to the outside of the foundation along the east wall of the chapel, tile paving was discovered lying below the surface. This drainage trench excavation was necessary to preserve the present chapel floor against excessive seepage, hence no precautions could be taken at this time to keep the newly-discovered tile intact.

In 1952 Division of Beaches and Parks personnel were engaged in a landscaping project in the quadrangle which disclosed more extensive evidence of a tile floor or walkway some 25 feet north of the museum, which extended almost the length of this building. When a large area of paving had been exposed work was stopped on this project, pending consideration of the import of this discovery.

These two events, in addition to other minor sporadic discoveries of both floor and roof tile in the quadrangle area, suggested the desirability of an investigation by trained archaeologists. Accordingly, the University of California Archaeological Survey was commissioned to make test excavations in the quadrangle area. The goal of such a project was twofold: first to provide data useful for building a more accurate picture than was then available of the Mission in its past days; second, to preserve any feature (such as a walkway, floor, or foundation) which might serve as a supplement to the indoor exhibits of the museum.

The University of California field crew arrived in Sonoma on July 1, 1953. A dry weed cover filled most of the quadrangle (Pl. 1a), except for the section of previously exposed tile paving north of the museum. After consultation with Park Service personnel on areas worthy of investigation, it was decided that the exposed paving was the most promising area in which to begin excavations.

The primary objective of the initial project was to determine only the nature of the subsurface remains rather than to expose completely the previous constructions. Therefore a rectangular grid system of 3 x 10 foot trenches with an east-west long axis was set up which would allow the investigators to follow the edges of structural features with some ease. A datum point was established at the corner formed by the juncture of the museum and chapel, and the grid system was laid out from a datum line parallel to the museum and the existent east-west trench previously dug by the local staff; east-west trenches were assigned letters, beginning at the east edge of the chapel, while numbers were assigned to the north-south trenches. As nothing of interest had previously appeared in the area between the tile paving and the museum, it was originally felt that no excavation would be needed in this area. Therefore, Trench 1 was laid out to include the south edge of the exposed tile. Later excavations indicated that stone and adobe construction did exist south of the tile paving, so the north-south grid system was expanded by use of negative numbers, -1 to -6.

The dry overburden was extremely compacted and a pick was usually required to loosen the soil. Upon the advice of Mr. Del Ponte, a member of the Museum staff, it was found that by soaking the soil for several hours with a sprinkler, the overburden could be removed more easily and much more quickly with a shovel. Excavated overburden was piled beside the trenches. During the second half of the excavation project, when it was desired to expose the archaeological remains more completely, the Park Service supplied a skip loader to remove the piles of back dirt. Trowels, ice picks, and brushes were used to expose all construction features. Artifacts such as china, glass, and nails, were kept by six inch stratigraphic levels; broken roof and paving tiles were separated and deposited in a corner of the quadrangle.

After clearing off the overburden of accumulated soil and refuse from around the already exposed section of tile paving, it was presumed that a walkway was represented, running east and west parallel to the north wall of the priests' house. First, there is a noticeable north-south pitch to the walk, such as would ordinarily be found on an outside structure which required a drainage slope. Second, the south border of the walkway is of tile bricks set on their edges. These tiles were laid against alternating courses of decomposed adobe bricks which rested on field stones suggesting a building foundation (these remains were designated as Building A). The walkway appeared to be an essential duplicate of the one on the south side of the museum.

The next step was to define the boundaries of the Building A walkway and the foundation. This was accomplished by digging narrow trenches about two feet wide out from the exposed tile sections, and by digging small pits in spots where the walkway would be expected to extend. Later, the entire walkway was exposed.

While the limits of Building A walkway were being determined, work was begun on the tile paving adjacent to the present chapel, using the method of digging small trenches and pits at selected intervals. This investigation was complicated by the fact that the entire western border of the chapel walkway had been disturbed by the previous excavation of the drainage

trench and by an earlier project involving concrete reinforcing of the east wall foundation of the chapel. The eastern border of the tile paving was also missing through some unknown cause.

While the disturbances mentioned above were not encouraging, the investigation of the tile paving near the chapel revealed stone foundations which had been encountered previously by the Park Service drainage excavations. A virtually complete field stone foundation for a small rectangular building was thereafter exposed and designated Building B. It appeared to have been built out from the east wall of the chapel. Most of the field stones were in place, and the intrusion of the northern and southern sides of the foundation through the entire width of the remaining tile paving was quite definite.

Three different locations for the original well of the Mission were offered by local tradition, one of which indicated the Mission quadrangle. When excavation of the edges of paved areas in front of existing doors failed to produce walkway evidence which might lead to a well, attention was directed to a rough circle of field stones appearing on the surface about forty feet north of the Building A walkway and sixty feet east of the chapel. Shallow excavation in and around the stone concentration, as well as in several nearby patches of weeds which had a more verdant growth than surrounding weeds of the same genus, failed to establish a connection with the walkways. However, there were found traces of what appeared to be a water transfer system or drain made of overlapping roof tiles, some of which were of early manufacture. The north end of this system appeared to be connected somehow with the "well" area, while the southern end terminated abruptly, with no indication of a continuation elsewhere. Efforts made to establish a connection between the "well" area and the walkways by the excavation of a narrow trench from the Building A walkway north to the suspected well area also failed.

Another association of the rock concentration were several partially decayed redwood boards. The significance of these boards was not immediately recognized and no attempt was made to follow their lead, since the presence of some modern roof tiles in the drain suggested a post-Mission construction. Later, during the mechanical removal of backdirt, similar fragments of redwood were encountered at a spot not more than twenty feet west of the "well" area. Ultimately an unmistakable redwood walk or perhaps foundation was exposed by excavation forming a border two feet wide about a rough square, with sides averaging sixteen feet. Contained in this square, and adjoining the south border of it was found what appeared to be the coping of a seven foot square redwood-walled well. Upon excavating the intervening area evidence of a previously dug hole, possibly a well or cistern, was found. There was no trace of any redwood wall or cribbing below the supposed coping. The circular hole, about six feet in diameter, apparently had been dug into the hard subsoil and later filled with soft dirt and refuse. No evidence of a wooden wall or cribbing system was encountered.

The Mission quadrangle had been used as a refuse dump by citizens of Sonoma from at least 1889<sup>91</sup> until after 1903. The Division of Beaches and Parks at one stage in the restoration of the Mission found it necessary to remove much of this refuse. Nevertheless, there are still



numerous fragments of glass bottles, chinaware sherds (mostly of ironstone), nails, spikes, and other metal fragments lying about on the surface or embedded in the quadrangle soil. In an effort to locate any features which might contain metal, such as buried firearms dating from the late Mexican Period, the quadrangle area was traversed with an "M-Scope" type of metal detector. The only tangible results of this were the location of several pieces of metal of the type mentioned above. It is possible that some of these fragments date from the Mexican Period, but their provenience as casual finds associated with refuse of a much later approximately known date precludes their having much value for historical reconstruction.

Thus far, all excavation had been within the quadrangle, in spots where there was definite expectation of finding some portion of a feature which was already known to exist. To complete the excavation test pits were dug in spots chosen at random, inside and outside of the quadrangle, and in areas where some expected but unknown feature might exist. The random test pits produced no fruitful results. On the other hand, two pits dug outside the quadrangle in selected spots yielded interesting evidence of older structures. One pit, east of the gateway, disclosed remains of an adobe wall (Feature 17). Another pit in the center of the gateway and directly under the drip line of the front walkway roof yielded redwood planking which has been tentatively identified as part of the "sleeper" or lower sill which formerly supported the wooden colonnade.

It has been described above how test pits were dug at selected intervals along the priests' house walkway in order to determine the extent or limits of the remains both of the walkway and the adjacent foundation. While this is a valid archaeological technique for establishing certain basic data, it has as an unsatisfactory aspect the possibility that the unexcavated area between two exposures might contain some artifactual disturbance or intrusion which would be overlooked unless the soil is removed. Fortunately, the desirability of having the entire walkway as a permanent outdoor exhibit at the Mission prompted the removal of all "islands" of soil. The result (in addition to the acquisition of a clean, exposed walkway as a worthy outdoor exhibit) was the recovery of a regular pattern of holes for the supposed upright posts of the north colonnade and of several wooden Features (Nos. 10, 11, 14) intrusive to the tile structure.

The various structural remains encountered during the excavation are described in detail in the following sections. See Map 1 for the extent of excavation and the location of archaeological features.

### III B. Building A: Description

The remains of a structure (herein designated Building A) were found adjacent to the north wall of the present museum building. These consisted of stone foundations, vestigial adobe walls, a tiled walkway and drain, remnants of wooden columns, and broken roof tile. Other wooden features were associated. The depth of overburden removed from these structural remains in 1953 varied because of the present ground surface which is 1.9 feet higher at the edge of the chapel than it is in the gateway area. No estimate of the depth of overburden which accumulated since Building A fell into ruin can be given, because the quadrangle area had been graded in such a way as to promote drainage away from the present buildings. It is certain that the overburden was once deeper over the entire area; the walkway and drain were already covered by earth in 1889 (see Appendix IV).

#### 1. Foundations and Walls.

The depth of the foundations below the present surface varied from 21 inches at the west end to virtually no overburden at the east end, where parts of the larger stones were already exposed before excavation. The foundations consist of unsorted field stones set in a blue-gray clay binder (Pl. 1b, g). The average width of the north and east sections is about three feet; only one layer of stones has been observed. The north-east corner of these foundations (Pl. 1b) is about 19 feet north of the vertical wall of the museum, and the foundations appear to be a direct continuation of those which support this existent building. The foundations for the north wall of Building A continue west from this northeast corner parallel to the museum wall for about 103 feet, where they have been cut off by modern drainage excavations.

A 30 inch gap (Ditch A) occurs in Trench 1A, 1B; the seven foot section of foundations which occurs to the west of this gap will be referred to hereafter as Wall A. At the east edge of Ditch A the foundations of a thinner wall (now only 20 inches wide) extend southward at a right angle to the north foundation wall for about 14 feet (Trench 1B to -5B), where the foundation has been cut through by modern drain pipe excavations. This remnant of a north-south wall will be referred to hereafter as Wall B.

The relationship of the stone foundations to the tile edging varies. At the east end of Building A the foundation stones occur less than two inches below the top of the tile edging. At the west end the stones are found about eight inches below the top of this walkway edging and two courses of adobe bricks fill the space between the stones and the top of the edging (Pl. 1g).

Remnants of adobe brick walls were found above the stone foundations, between 6 and 8 inches below the present surface. Buff-colored clay was most commonly used, and water seepage through these sun-dried bricks has caused them to merge with the natural soil which has been deposited around the walls. However, blue-gray clay was used for some of these bricks, and those which have retained their original outlines amid the yellow bricks provide a color contrast by which a positive identification can be made of former adobe walls (Pl. 1g). The same yellow and gray clayish mud was used

for mortar. The few adobe bricks which could be measured averaged about 20 x 11 x 3 inches.<sup>92</sup> The best preserved remnant of adobe construction is that of Wall B in Trench 1B to -5B (Pl. 1g), where five courses of adobe bricks (about 17 inches high) can be clearly identified below a zone of adobe bricks mixed with overburden.

In Trench 1B the north adobe wall of Building A is of the same height at the intersection with Wall B, but becomes progressively lower to the east until all trace of bricks disappears in Trench 1H and only the stone foundations continue. Very likely the eastern section of wall was scraped away when the quadrangle was graded.

Only two courses of adobe bricks remain over the foundation of Wall A in Trench 1A. This rarity of adobe, and the east gap in the foundation, indicate that this wall section received adverse treatment which did not affect Wall B or the north wall of Building A to the east of Ditch A.

## 2. Tile Walkway and Drain.

A paving of fired tile bricks was found along the entire length of the north wall of Building A,<sup>93</sup> set in blue-gray clay mixed with roof and paving tile rubble (Pl. 1e, left side; 1h - k). The average tile brick was rectangular, with dimensions of about 9 1/2 x 11 x 2 inches, but the size was not standardized; the width varies from about 8-3/4 to 10 1/2 inches, the length varies from 9 to 14 inches, and the thickness, though less variable, ranges from 1-3/4 to 2 1/2 inches. Square bricks do occur, but are not common. In addition, odd-sized bricks (such as 7 x 7, 7 x 4, 5 x 6 inches) were occasionally used. This variation suggests that several different molds were used in their manufacture. The bricks were incompletely fired; the surfaces are a dull red, but the interior always retains a thick carbon streak.

The south edge of the walkway, adjacent to the foundations of Building A, was lined with rather uniform rectangular tile bricks of average size, set on edge. The bricks were placed with the thick edge separating the foundation from the walkway, the wide side oriented east-west, and the long side set vertically in the ground (Pl. 1g - i). These bricks project less than one inch above the level of the walkway. This tile edging was complete except for the absence of two bricks in Ditch A and the absence of a number of bricks along the northeast corner of Building A, where the walkway bricks were also missing.

The flat paved walkway extends eastward from the modern drainage ditch (dug along the east side of the Chapel) into Trench J, a distance of about 94 feet. No paving remained along the northeast edge of Building A, but the tile edging indicates that the walkway originally did extend at least to the east end of the building. A single north-south row of three tile bricks was found along the west side of Wall B (Trench -4, -5B), at the south end of Ditch A.

The level walkway averages 8 feet wide (7 to 10 bricks), but the north edge is quite irregular and appears to have been broken off (Pl. 1j). An 18 inch gap (Ditch B) separates the level walkway from the shallow tile

drain (Pl. 1e). This drain is consistently 3 bricks wide; small sections of additional bricks adjacent to, and at the same level as, the south edge of this drain in Trench 3E, and 4H to 4I suggest that originally the tile walkway connected with the drain, and the present gap (two bricks wide) is intrusive. The present walkway slopes slightly downward to the north (toward the drain) in Trench B to G, the north edge being between 2 and 3 inches lower than the south edge. There is less than an inch north-south difference for the remaining east end of the paving. The drainway is another two to three inches below the north edge of the present walkway so, if the two tile areas were once connected, a step occurred in the middle of the present gap, between the two missing tiles. (A less likely alternative might be that the southern missing brick sloped sufficiently to take up the three-inch gap between the top of the walkway and the beginning of the drain.)

Most of the tiles are in a poor state of preservation. All are badly weathered and cracked, and many have disintegrated in position. As shown in Map 1, sections of the walkway are now incomplete. The 18 inch east-west gap in Trench 3G to 3J was formed when tile bricks were removed from a trench 18 inches deep, dug in 1952. None of the other missing tiles can be accounted for. The most extensive destruction is along the northeast section of Building A, where only one small remnant of bricks was found. A gap 28 inches wide in Trench 1 to 4 D and E contained Feature 10, described below. Another gap, 18 inches wide in Trench 1A, 1B to 4A, 4B represents Ditch A, which connected with Ditch B (Pl. 1e). This latter 18 inch gap, which separates the walkway from the tile drain, extends along the entire edge of the Building A walkway.

The shallow drain to the north of the walkway is formed by three orderly rows of tile bricks (Pl. 1e). It would appear that these bricks were manufactured specifically for the drain, because the dimensions and color differ from those of the walkway. The bricks used for the drain are larger and more uniform, averaging 10 x 13 x 1 1/2 inches with variation seldom exceeding one inch. Such bricks were probably considered too thin to serve as paving tiles to be walked on. The thinness may account for the slight but definite color difference, the drain tiles having a yellowish tinge not apparent in the dull red walkway bricks.

The bricks on either side of the center tiles slope slightly inward (Fig. 2b), thus forming a drainage channel about three inches deep. The bottom of the drain is about six inches lower than the walkway; if the northern edge of the walkway originally stepped or sloped down to the drain, as discussed above, a six inch channel was provided to carry off rain water.

The drain tiles are somewhat better preserved than those of the walkway, probably because they did not function as paving. However, the north edge has been broken off along the entire length of the drain, so that less than half of each brick now remains. The west end of the drain has been disturbed by the removal of tile in Trench C; no trace of the drain appears in the paved area farther west, closer to the chapel. The middle bricks, which form the bottom of the drain extend eastward without disturbance from this west break to beyond the northeast corner of Building A, where the modern metal drainpipes cut through the tile, forming a gap about 18 inches wide. Only 20 inches of drain tile were exposed beyond the pipes,

where excavation was halted at the edge of the road which passes through the gateway; the drain may continue farther east (see Section III E 3). The south row of tile bricks is well preserved for three quarters of its length, except for three small irregular insets between Trench G and J; up to one half of each brick has been removed from the remaining east quarter of the drain. The east section of the drain curved noticeably to the north (Pl. 1e).

No evidence of tile brick crosswalks extending into the quadrangle toward the well area was found, but more excavation along the north edge of the drain, especially in the area of the intersection of the Building A and Chapel walkways, is needed.

3. Feature 9. (Pl. 1d, j).

In Trench 4A some three paving tiles had sunk about 2 inches below the level of the adjacent bricks. This resultant gap had been filled in with two layers of short sections of broken roof tile, set in lime mortar.

4. Feature 15. (Pl. 1d, 1f).

As shown in Figure 3, an irregular section of tile paving (about 16 by 5 feet) had been laid over an irregular fill of broken walkway tiles in Trenches 5B, 6B, 5C and 6C. That the fill was not an earlier walkway is indicated by the irregular placement of the bricks, and by the broken sections which had been used. The fill was set in lime mortar. Both layers of paving tile covered an area of roof tile rubble.

This whole section of repaired paving was cut off from other tiled areas by Ditch A on the west, Ditch B on the south, and by a gap on the east side which terminated the Building A drain.

5. Ditches A and B.

Ditch A is represented by the 12 to 18 inch north-south gap in the Building A walkway where one or two tile bricks have been removed in Trench 1 to 4 A and B (Pl. 1d, g, 2d). The gap also cuts through the walkway edging, the adobe wall, and the stone foundations of Building A in Trench 1, -1, A and B, where the gap is about 30 inches wide. The Ditch would appear to extend southward to the tile paving along the west edge of Wall B in Trench -4B. Ditch A joins Ditch B in Trench 4B. The total length of Ditch A is therefore about 20 feet. A northward continuation of this Ditch is probably represented by the gap between the Chapel walkway and Feature 15, in Trench 5, 6, A and B.

That this gap in the Building A remains represents a ditch is indicated by a test pit dug to subsoil within the gap in Trench 2A, B. The removal of earth (filled with American Period refuse) to a depth of 17 inches below the walkway surface revealed that a ditch had been dug 4 1/2 inches into the subsoil within this gap (Fig. 4a). Excavation within the same gap at the north end of Wall B was carried to only 13 inches below the walkway surface. However, it was found that in addition to the adobe

wall and tile edging, even the foundation stones of Building A had been removed from within the limits of the gap (Pl. 1g). Thus another indication was provided that a relatively deep but narrow ditch was represented by the gap in the Building A remains.

Ditch B is represented by the east-west gap in the paving along the entire length of the Building A walkway (only the north edge was exposed in Trench 5K). The gap appears to extend to the north end of the gateway drain. The width of the gap averages 18 inches (two tile bricks) at the west and east ends, and this measurement can be taken as the original dimension. The gap widens to 36 inches in the central section of the paving, where more bricks have been removed from the north edge of the walkway during the installation of Features 10 and 14. This gap was not excavated to subsoil; only enough fill was removed to expose the bottom of the adjacent tile bricks.

#### 6. Wooden Posts.

The basal portions of a row of eight wooden posts were exposed along the north side of the existent Building A walkway. Each was separated from the other by an average distance of about 9 feet 5 inches (the range was 9 feet 2 inches to 10 feet). These posts will be referred to by number beginning at the west edge. Post 1 was about 9 feet east of the actual Chapel wall (not the footing), and, together with Posts 2 and 3, penetrated the subsoil through a gap in the walkway made by the omission of one tile brick (Pl. 1j). Posts 4 to 8 are now at the very north edge of the walkway, only partially enclosed by paving tile because of the removal of bricks to form Ditch B. No posts were found at the disturbed east end of the walkway; however, because of the orderly spacing of the existent row of posts, it is possible to infer that the row was completed at the east end by three additional posts; if these are placed the average 9 feet 5 inches apart as shown by x's on Map 1, the easternmost post (Post 11) would fall in line with the east edge of the Building A foundations. (It is possible that more posts once existed farther east.)

The posts were of redwood, originally about six inches square, but now in a disintegrated condition; none of the remnants projected above the level of the tile paving. Post 4 was indicated by the gap in the tile but no wood remained; removal of the dirt from within this gap revealed that small flattish field stones had been packed around the wooden column. It was felt best to leave the wooden posts in position without further exposure until adequate facilities were available to preserve the wood and to check on the possible existence of a wooden sill (or other foundations) beneath the posts and walkway. The disintegration of Post 7 allowed a probing measurement which suggested that the post extended at least 20 inches below the surface of the walkway.

#### 7. Feature 11. (Pl. 1h)

A poorly preserved structural feature of wood was found in Trench 1C, D, resting on the blue-gray clay binder over the stone foundations of Building A. Three horizontal boards, originally about 66 inches long, lay

abreast along the tile edging of the walkway. The remnant of the northernmost piece of wood (now about 1 x 4 inches) lay against and slightly above the tile edging, and over part of the middle board. This middle board (about 2 x 12 inches) and the southern board (about 2 x 4 inches) were on the same level about one inch deeper than the northern board. Square-headed nails (three were found loose but associated) were probably used to fasten the three boards together. The wood was intrusive through the adobe brick wall.

8. Feature 10. (Pl. 1i)

Remains of this wooden construction were found in portions of Trench -1D, E to 4D, E, resting on the gray clay foundation binder. It occupied a 28 to 30 inch gap dug through the adobe wall, the tile edging, and the tile walkway, and ended at Ditch B at the north edge of the walkway. The wood was only about one-half inch thick.

Two parts were indicated, divided just south of the tile edging. The southern part consisted of an open boxlike structure about 24 x 30 x 2 inches, running north-south. At the north end traces of wooden slabs (about 24 x 4 x 1/2 inches) extended west of this box at right angles, parallel to, and three inches south of, the tile edging. Only some six inches of the east-west member remained on the south side of the box. Slight traces of east-west boards were found at the south end also. On the north side of the tile edging, this box became a troughlike structure about 9 feet long, 24 inches wide at the south end flaring to 28 inches at the edge of the walkway, but deepening only slightly. The original height of this wooden feature could not be determined. Nails driven through the side boards into the bottom boards indicate that the structure had been at least partially prefabricated and then laid in place.

9. Feature 14. (Pl. 1k)

Feature 14 probably represents the fragmentary remains of some larger structure. It lay in Trench 3, 4F, within the gap between the tile walkway and drain, four inches north of the walkway, and at a depth of nine inches below the surface of the paving. The wood is intrusive through the mixed clay and rubble foundation of the walkway, resting on subsoil. The feature consists of a decayed plank or planks about 69 inches long and 4 inches thick, laid horizontally, parallel to the long axis of the walkway. There are remnants of two vertical 4 x 4 inch posts which penetrate the subsoil at 10 and 27 inches, respectively, from the west end of the horizontal planking. Less than two inches of the posts remain above the level of the planks. Because of the decayed condition of the wood, it is impossible to say whether the horizontal planking was cut or slotted to receive the posts or whether irregular lengths of board had been set between the posts. Post 6 (see Wooden Posts above) is about 6 inches due north of the east end of the planking, but its lineup at the proper interval with Posts 1 to 8 indicates that it is independent of Feature 14.

10. Feature 16.

Wooden planking, at least six inches wide and over 18 inches long, was encountered in Trench -1G, but was not exposed. It lay on the south edge of the Building A foundation, at a depth of nine inches from surface, and was covered by roof tile rubble and eroded clay from the foundation.

11. Roof tile.

Quantities of broken, curved roof tiles were found on the interior floor of Building A. No complete specimens were found, but the width averages 8 1/2 inches, the thickness averages 1/2 inch, and the height of the curve averages 3 inches. The exterior was smoothed, leaving long striations. The interior surface was left in a rough condition. The tiles were poorly fired, with a central carbon streak.

Smaller sherds were frequently used as rubble fill elsewhere, especially under Feature 15 (Pl. 1f) and over the well (Pl. 2h). Scattered pieces of roof tile were found throughout the overburden around Building A.

### III C. Building A: Interpretation

1. Building A.

If the above archaeological findings were to be interpreted without reference to specific historical data, relatively little could be determined as to the significance of the structural remains which were uncovered. Building A could represent (1) a continuation of the structure converted into the modern museum, (2) an earlier or later building, perhaps unfinished, or (3) a low quadrangle wall with a covered walkway. Fortunately, considerable detail is available on the history of Sonoma Mission, as presented in Section II, which allows a positive identification of the excavated structure as a continuation of the now existent museum; i.e., Building A is the remnant of the north half of the Priests' House. Sources which document the dated events given below will be found in chronological order in Section II F.

As indicated in the discussion of the original appearance of the Priests' House, this structure consisted of two rows of rooms separated by north-south walls extending at right angles between the outside walls and a central east-west wall. A double-pitched roof covered the building. Walkways and a roofed colonnade flanked the structure front and back.

The Priests' House was standing in 1889 in the area where the remains of Building A were found, separated from the Chapel by a breezeway (see Fig. 1c). Wall B of Building A (Trench 1B to -5B) agrees with the west end of the 1889 Priests' House. The north wall foundations of Building A can be identified with the north wall of the Priests' House. Wooden Posts 2 and 3 are in the same relative position as the columns shown for the 1889 structure, and the remaining wooden posts can therefore be



identified as the colonnade which supported the roof over the walkway.

The wooden columns, complete walkway, and drain indicate that Building A had been completed, despite the rarity of adobe wall remains. The condition of the walkway suggests considerable use. The foundations for the east wall of Building A are in line with the east wall of the museum. The distance between the north wall of Building A and the north wall (not the footing) of the museum is within a foot of the distance between the north and south walls of the museum, a satisfactory agreement in view of the modifications made on the museum building during the Restoration. The correlation between the archaeological and historical evidence is thus so complete that there is no need to discuss other alternative interpretations of Building A.

## 2. Wall A.

Wall A represents a continuation of the north wall of Building A, and together with the walkway edging and Post 1, provide evidence of the former union of the Priests' House and the Chapel, before the formation of the breezeway. Earlier excavations have destroyed the actual connecting foundations of the two Buildings, as well as the west edge of the Chapel walkway, so no adequate discussion of the nature of this union can be given. However, the uniformity of the tile edging and walkway of Building A suggest that the original Priests' House was at least as long as the existing foundations of Building A. It is probable that the Priests' House abutted the wooden chapel before 1840, with no breezeway, in order to form an enclosed quadrangle typical of other mission construction. It can be assumed that the original Priests' House had a west wall of adobe, because the temporary wooden chapel would not provide a strong west end for the new building. If these assumptions are correct, it would appear that the Priests' House originally extended farther west than the present east wall of the Chapel. As indicated in Sections II F 3, III C 2, the breezeway was formed from the westernmost room of the Priests' House. The breezeway was only 13 feet wide, between the Chapel wall and Wall B of Building A. If it is assumed that the outside edge of the east wall of the 1840 adobe Chapel was placed in the same location as the outside edge of the first wooden chapel, the three foot thickness of the west wall of the Priests' House (abutting the wooden structure) would reduce the width of the west room of the House to 10 feet, an unlikely room size for a newly erected building. It can be suggested that the original rooms of the Priests' House were square.<sup>94</sup> The north and south walls of the museum represent original adobe walls and are about 16 feet apart.<sup>95</sup> Using the approximate two foot thickness of Wall B as the normal thickness of interior walls, the space between Wall B and the east wall of Building A can be divided into five rooms, approximately 16 feet square (see Fig. 4c); the existent east room of the museum is just such a room, and can be considered original. The other two interior walls of the museum were probably built during the Restoration.<sup>96</sup> A square room (the sixth) west of Wall B would place the original west wall of the Priests' House about one foot west of the present interior east wall of the Chapel. Therefore the wooden Chapel (22 feet wide) extended beyond the west wall of the adobe Chapel.

It can thus be suggested that the west end of the Priests' House was torn down when the adobe Chapel was built in 1840. It is probable that the

east wall of the Chapel was built as a single unit to provide greater strength for the new building. A door was left in the east wall for access to the Priests' House (see Sections II F 3, 1874) and the north and south walls, as well as the roof, of the House were joined to the adobe Chapel.<sup>97</sup> This weak union, aggravated by settling of the buildings at the southwest corner of the quadrangle (see Section III C 4) was the probable cause of the collapse of the Priests' House roof shortly after 1874.<sup>98</sup>

Between 1874 and 1879 or 1881<sup>99</sup> Wall A was torn down to ground-level and Post 1 was removed to form the breezeway. Picture 5 (Fig. 1c) indicates that the north wall of Building A had not collapsed with the roof because Posts 2 and 3 can be identified in this sketch by their positions relative to the breezeway, and the complete tile roof implies that no damage occurred to the west end of the north adobe wall. Ditch A was later dug through the foundations of the north wall (see Section III C).

### 3. Wall B.

Wall B in all probability originally served as an inner wall separating two rooms within the north half of the Priests' House. The 20 inch thickness agrees well with the 24 inch thickness of the dividing walls within the museum.<sup>100</sup> It is most probable that for each wall in the south half of the Priests' House a corresponding wall existed in the north half. No division in the present museum correlates with Wall B, but as discussed below (Nos. 3 and 4), a correspondence does seem indicated with a former adobe wall shown in photographs.

Historical sources indicate that shortly after 1874 the breezeway was formed between the Chapel and the Priests' House, presumably because the west end of the House roof collapsed. The following factors support the identification of Wall B as the east edge of the breezeway:

1. The 17 inch height of the remaining adobe bricks in Wall B indicates that the breezeway could have extended no farther east than this wall. It is significant that Wall A, which occurs within the breezeway area, had been removed almost to the foundations; only two courses of adobe bricks now remain, below the level of the walkway.

2. The single row of tile bricks along the west edge of Wall B suggests that a walkway existed, or had been begun, along the wall. The lack of tile edging between the tile and adobe bricks indicates that this walkway section was not an original construction, but must have been laid after the breezeway was formed. Hard packed dirt floors were characteristic of mission living quarters, so it is improbable that this row of tile represents an interior floor.

3. The westernmost interior wall of the present museum cannot be accepted as the former east edge of the breezeway. The Chapel is about 22 feet wide, while the westernmost museum room is about 19 feet long; this 3 foot difference does not agree with any photograph of the breezeway, all of which show the gap between the Chapel and Priests' House as much narrower than the front of the Chapel.<sup>101</sup> Therefore, the present

west interior wall of the museum must have been built during the Restoration because less than 5 feet separate the west museum wall and Wall B.

4. Photos 3, 4, 6 and 7 reveal a short section of north-south adobe wall at the east edge of the breezeway (see Section II F 3, 1374) at a distance which agrees with the 13 foot gap between the original Chapel wall and Wall B. These two adobe sections can therefore be considered as the north and south ends of the same wall, separating interior rooms, the central sections of which collapsed with the roof, or were razed by 1881, when Picture 8 showed the west end of the Priests' House as a black void.

#### 4. Features 9 and 15.

Features 9 and 15 both suggest areas of settling, where the walkway sank below its original level because of excessive groundwater. For Feature 15, the broken sections of subtile, their chaotic placement, and their limited extent all argue against the possibility that an undisturbed earlier walkway is represented. The nature of the subtile and the localized concentration of roof tile rubble in this area indicate a fill over which the level walkway could be rebuilt. Settling of the Mission buildings in this area, particularly the Chapel, has been a recurrent problem and has required in modern times the strengthening of the foundations with a concrete footing, the installation of drains along the foundations, and the grading of the quadrangle to promote drainage away from the buildings.<sup>102</sup>

These sunken walkway sections were probably repaired during the earlier part of the Renovation. The use of lime mortar appears to date from this period because:

1. Lime mortar can be seen in the east interior wall of the Chapel where the plaster (gunnite) has been removed. This wall indicates three periods of construction. The original building of the Chapel is represented by reddish adobe bricks set in mud mortar.<sup>103</sup> The Restoration Period is indicated by modern brick and cement construction. A period of repair during which gaps in the wall were filled with lime mortar presumably represents the Renovation.

2. Lime mortar was used in the gateway drain, a construction which dates from the post-Mission Period (see Section III E 2).

3. Care with which the gateway drain was built, the extensive drainage system (Ditches A and B) which seems to be related to the gateway drain, the repair of the east Chapel wall, and the repair of the sunken sections of walkway, all evidence improvements in the Mission area which can best be associated with the Renovation (1858-1871). Historical references indicate a period of decay before these dates, and the repair of the Chapel and walkways was of no interest after the sale of the Mission in 1881.

The relaid walkway area of Feature 15 appears to have terminated the Building A drain, implying that the drain no longer functioned properly. It can be suggested that the settling of the southwest corner of the quadrangle after the construction of the Chapel had caused the Building A

drain to deposit its load toward the west, rather than toward the east as originally intended. The excess drain water which accumulated aggravated the settling, and may have caused the walkway to sink several inches. After the repair of the walkway, Ditch B was dug to replace the Building A drain (see below).

#### 5. Ditches A and B.

After a consideration of various possibilities, the available evidence seemed to indicate the interpretation given below for these gaps in the tile paving. Several crucial areas were not excavated sufficiently to eliminate the possibility of alternative explanations if different assumptions were to be made as to the archaeological content of the unexcavated sections. The alternatives are discussed in the several notes which follow.

Ditch A and Ditch B probably represent drainage ditches made to conduct ground water seepage away from the foundations of the Chapel and Priests' House. The similar width of the gaps in the paving, both of which average 18 inches wide in undisturbed sections, and the intersection of both gaps, suggest that Ditches A and B are related. Test excavations within one gap indicated the trough-like nature of Ditch A, and it will be assumed that Ditch B is similar. It will also be assumed that the fall of Ditch A is from south to north, and the fall of Ditch B is from west to east. 104

As indicated in the previous section, the need for drainage away from the southwest corner of the quadrangle is evidenced by modern improvements and by archaeological features. Ditches A and B begin and intersect in this area. The east end of Ditch B was not excavated completely, but enough can be seen to indicate that the Ditch extends to the north end of the gateway drain (see Note 109). This tile drain slopes to the south, and extends beyond the south wall of the museum. It can therefore be suggested that Ditches A and B served to conduct excess water from the southwest corner of the quadrangle to the gateway drain which then deposited the seepage load outside the quadrangle. As discussed in Section III E 2, the gateway drain probably dates from the Renovation.

It would appear that Ditch B dates from the Renovation also. The Ditch pre-dates the collapse of Building A (probably 1906) because it is roughly parallel to this structure and any excavation since the collapse of the walls (notably Restoration activities) would have been made closer to the museum. As can be seen in Map 1, the average 18 inch width of Ditch B is exceeded in the central section of the Building A walkway, where additional bricks have been removed along the south side of the gap to accommodate wooden structures (Features 10, 14). The nail construction of both, and the probable function of Feature 10 as a winery appurtenance, indicate with some certainty that these intrusions were made in the post-1881 period (see Section III C 6). Ditch B therefore is pre-1881. As indicated in the following discussion of Ditch A, this drainage system was started before the breezeway was formed. The first wooden chapel which occupied the site of the adobe Chapel probably was not heavy enough to cause settling. The adobe Chapel was not built until 1840, and some time would be required for severe displacement to occur from settling.

The extent of the drainage system and association of the carefully made gateway drain and lime mortar indicate that this archaeological feature dates from the Renovation. Just such a project as the defined drainage system would be needed to insure the relative permanence of the Chapel walls and make the Renovation worth while.

It was first thought that the drainage system post-dated 1874 because Ditch A appears to start within the breezeway. However, the breezeway is the ideal opening through which to promote drainage from the southwest corner of the quadrangle to outside the Mission area. Had the breezeway existed, there would have been no need for the extensive drainage system devised to transfer water to the gateway area. Therefore, it would appear that Ditch B existed before 1874, and Ditch A was dug southward through the breezeway after 1874. The single row of tile bricks along Wall B suggests that a tile walkway was removed when Ditch A was dug. The remaining bricks indicate that either the existing system was so satisfactory that there was no need to extend Ditch A clear through the breezeway, or the Mission was sold (1881) before the extension was completed.<sup>105</sup> The gap between the Chapel walkway and the Feature 15 paving suggests that Ditch A may have been dug northward along the Chapel walkway at the same time that Ditch B was dug.<sup>106</sup>

The narrow width of Ditches A and B suggests that there was no intention of installing a tile trough similar to the gateway drain throughout the drainage system (see Section III E 2).

It seems odd that Ditch B was dug in such a way as to expose the bases of the posts of most of the Building A colonnade. Had Building A been in good condition, it would be expected that Ditch B would have been dug through the tile drain, under the drip-line. Since this was not done, it can be suggested that the east section of the north colonnade roof was in disrepair or had been shingled without the original wide eaves which overlapped the tile drain. Thus when Ditch B was dug, the drip line fell just to the north of the colonnade. Shingles had been added to the Chapel by 1858; in 1874 the east section of the south roof of the Priests' House (and all the south colonnade roof) lacked roof tiles, and the foundation beams were exposed (see Fig. 1b). The roof of Building A may have been in equal disrepair but the location of Ditch B suggests that shingles had already been added to the east end of the Priests' House; the more extensive base required for a shingle roof may have acted against the construction of wide eaves.<sup>107</sup>

## 6. Wooden Features.

The condition of the wood in Features 10, 11, and 14 suggests that these constructions were roughly contemporaneous. All would appear to date from the post-1881 period.

Feature 10 was intrusive through the north adobe wall and walkway of Building A. The troughlike section was coterminous with the existent walkway, and may have functioned as a drain leading into Ditch B. That Feature 10 is later than the drainage ditch (see Section III C 5) is indicated by the removal of additional tile bricks from the south edge of

Ditch B, which was originally about 18 inches wide. The nail construction and the probable dirt cover over the tile paving at this time<sup>100</sup> also suggest that Feature 10 was later than Ditch B, and that the wooden drain did not originally empty into the tile drain. The boxlike section of Feature 10, south of the tile edging, is even more difficult to explain. That this southern portion does not represent a prefabricated extension of the wooden drain, shoved through a hole in the adobe wall, seems indicated by the east-west boards which lie within the limits of the adobe wall, parallel to the tile edging. Possibly a sluice box with a sliding bar to control the flow of drainage into the walkway duct is represented. Sediment from wine vats or waste pulp may have been collected in the sluice box. If such a use is correct, it seems apparent that an entire section of the north wall of the Priests' House must have been removed to allow space to operate a sluice box. Perhaps someone more familiar with winery activities could supply a more satisfactory interpretation of Feature 10.

Feature 11 would appear to be the remnants of a door sill. The intrusive nature of this feature and the use of nails indicate that the sill postdates the construction of the Priests' House. The semi-abandonment of the House until the 1880's suggests that this probable door was made while the Priests' House functioned as a winery.

Feature 14, of unknown significance, dates from the post-Mission period because it is clearly intrusive through the tile walkway. It is also later than Ditch B because more bricks have been removed from the south edge of the original 18 inch ditch to allow the insertion of Feature 14 (see Map 1). Too little is known of both Feature 14 and Feature 16 to warrant speculation on their function.

#### 7. The Collapse of Building A.

The west end of the Priests' House was still standing with a double-pitched, tiled roof and rear colonnade in 1889 (Picture 5, Fig. 1c herein). The best explanation for the collapse of Building A would appear to be the 1906 earthquake, when virtually the entire south roof of the museum building collapsed, as did the south colonnade. The excessive quantities of broken roof tile found on the interior floor of Building A in Trench -4, -5B (Pl. 1c) and Trench -1, -2G suggest that the whole roof of this north half of the Priests' House also fell in. If any sizeable portion of the north wall was still standing in 1913, it seems likely that the complete Priests' House would have been restored. Archaeology reveals that only half of the original structure was reconstructed when it was rejoined to the Chapel in 1913.

### III D. The Gateway Area: Description

#### 1. Feature 17.

A 36 x 20 inch test pit was excavated between the east edge of the isolated gateway wall and the east edge of State property. Excavation ceased when adobe bricks were encountered throughout the pit between 4 and 13 inches depth (Feature 17). The bricks were similar to the yellow and gray adobes set in mud mortar which were found in Building A. The bricks were 18 inches long and 3 inches thick (no width could be determined).

#### 2. Feature 12. (Pl. 1.1)

A test pit was dug in the center of the gateway directly under the drip line of the south colonnade roof to determine whether a tile drain still remained similar to that found along the north edge of Building A. At a depth of 14 inches below surface, two heavy redwood planks were encountered running east-west (Feature 12). The dimensions were 9 x 2, and 7 x 2 inches, and both planks continued into both sidewalls. These boards were in line with the present wooden columns of the front colonnade. About one and one-half months after the University excavations had been completed, Division of Beaches and Parks personnel dug a trench from the south edge of the quadrangle through the center of the gateway to a point just beyond the drip line of the front colonnade for the installation of drain pipes; this trench overlapped and went deeper than the excavated test pit. The broken west ends of the Feature 12 planks were exposed in this wider trench about 8 inches west of the original test pit.

#### 3. The Gateway Drain.

This later excavation also revealed a tile drain, running north-south through the center of the gateway (see Map 1), with a south fall for drainage. The following description of this drain is based on the detailed records made by Mr. Fred Oltman, of the local staff. The drain consisted of a trough, made of tile bricks set in lime mortar, some 60 feet long, 33 inches wide, 14 inches high, and 12 inches deep. Three adjacent bricks formed the bottom of the drain, while the vertical walls were built up of four courses of tile brick (Fig. 4b). Traces of wood over the drain indicated that it had once been covered. A small section of tile paving was also found just east of the north end of the gateway drain.

### III E. The Gateway Area: Interpretation

#### 1. Feature 12.

The apparent lineup of the wooden planks in Feature 12 with the present south colonnade at first suggested that the planks represented the foundation sill for the original colonnade. An unsatisfactory detail of this interpretation was the fact that the center line of the modern posts fell between the two existent sub-surface planks, but the Restoration posts undoubtedly were not placed in the exact position of the original colonnade. However, the more extensive excavation which later revealed the gateway drain suggested that the planks probably were the remnants of a wooden cover over the drain. The planks appear to have terminated a short distance to the west of the drain (details on the specific relationship of the planks to the drain are not available), and traces of wood were found over the entire length of the drain. The date of this drain, discussed below, would definitely indicate that the planks could not represent an original sill of the Mission.

However, if only a drain cover is represented by Feature 12, it seems discordant that the two terminal planks should be so well preserved, when only traces of wood were encountered along the entire remaining length of the drain. Photo 4 reveals that the south colonnade had been stabilized after 1903, a new line of posts having been placed inside the old colonnade. If the 1860's date suggested below for the drain is correct, a new colonnade sill could have been laid over the gateway drain after 1903. This date is consistent with the state of preservation of the Feature 12 planks. The latter were much better preserved than those of Features 10, 11, and 14, all of which with little doubt date from the 1880's - 1890's. The most acceptable interpretation of Feature 12 therefore would be that the wooden planks were remnants of the 1903 sill, placed over the drain of the 1860's, at a location slightly different from that of the Restoration colonnade.

#### 2. The Gateway Drain.

This construction would appear to be a covered drain to conduct water from the quadrangle to outside the Mission area. The size of the tile bricks, the trough construction, and the use of lime mortar, all appear as aberrant when compared with the squarish tiles, the shallow channel, and the clay mortar of the Building A drain. Therefore the gateway drain does not represent an original Mission construction. As indicated in Section III C 4, the care with which the drain was made, the use of lime mortar, and the probable association of Ditch B, support a Renovation date for the gateway drain. The apparent relationship between the exposed east end of the Building A drain and the north end of the gateway drain is probably fortuitous, resulting from the fact that both drains were built with reference to the east end of Building A.<sup>109</sup> In actuality, the Building A drain may extend on eastward (see Section III E 3).

It has been suggested (Section III C 5) that the gateway drain was built to carry off the drain water of Ditches A and B. There is no indication



that the Ditches were to be lined with tile bricks, but the use of tile may have been felt necessary in the gateway area because of the proximity of adobe walls on each side.<sup>110</sup> An unlined ditch might have allowed seepage and promoted settling of the east end of the Priests' House.

### 3. Feature 17.

Feature 17 represents an adobe wall. No adequate discussion can be given because too little of the feature was exposed. However, there need be little doubt but that the interpretation involves the Adobe Church, which collapsed between 1834 and 1838. This church was apparently the largest structure built at Sonoma Mission. It faced south, and extended about 150 feet along the east side of the present quadrangle. The available pictures provide no adequate data on the history of the east end of the Priests' House. All reconstructions (Pictures 10, 12-14) show the union of the Priests' House and Adobe Church, with no gateway, but Picture 10 is not clear, and the other pictures, all based on Picture 10, were the work of an inventive artist. No gateway is shown in the 1854 ground plan (Fig. 1a), but the buildings involved were stated to be in ruins. The original union of the Priests' House and Adobe Church would be typical of general mission architecture, in which an attempt was made to enclose a rear quadrangle with buildings or walls. Picture 3 (Fig. 1b herein) of the Mission in 1874 is vague, but there is the suggestion of roof timbers extending over a gap to the ruins of the Adobe Church. The first clear portrayal of a gateway is Picture 7 (1874-1881), but artists as late as 1903 (Picture 6) were omitting this gap. The gateway is indicated indistinctly in all pertinent photographs from 1888 on.

The east foundation wall of Building A is of the same width as the north foundation wall, while there is the suggestion that interior walls have a thinner foundation.<sup>111</sup> Therefore it would appear that the north-east corner of the outside of Building A has been exposed. However, if the Priests' House was built in 1825, it could have been planned as an independent building, and then extended to join the Adobe Church begun in 1827. The foundation walls of this extension could have been removed at any time after the collapse of the Adobe Church.<sup>112</sup>

The remnant of tile paving just east of the gateway drain (see Map 1) could represent a walkway along the west side of the Adobe Church. It could also be part of a north-south walkway along the east side of the Priests' House, the remainder of which could have been removed if the Priests' House had been extended to join the Adobe Church.

The Building A tile drain continues beyond the northeast corner of the foundations into the gateway area. It could have joined a north-south drain for the Adobe Church, or continued around an east walkway of the Priests' House.

The present east wall of the gateway is made of adobe set in mud mortar. Adobes were set in concrete for all Restoration construction, so the gateway wall predates 1913. However, the present length of the wall is the same as the width of the museum, which implies that the wall was shortened during the Restoration. Originally this gateway wall was

probably as long as the total width of the Priests' House. The mud mortar used in the present east wall of the museum, and the lineup of this wall with the east wall of Building A indicate that the present east wall of the museum is an original construction. There is little likelihood that the gateway wall could be a remnant of a longer Priests' House because it is not thick enough for an outside wall and the gateway area is too narrow for an original room. The gateway wall appears to have been no thicker, because there is no sign of the additional bricks needed to interlock the existing wall with additional construction on the east side. The gateway wall does not seem to represent a remnant of the Adobe Church because tile paving occurs to the northeast of the wall (Trench 3, 4L), yet there is no historic evidence of a jog in the west wall of the Adobe Church. It would therefore appear that the gateway wall was an isolated construction, probably as long as the Priests' House, built after the tile paving had been laid, and after the collapse of the Adobe Church.

The greater thickness of the adobe brick wall in Feature 17 implies that this wall remnant had no original relationship to the gateway wall. Feature 17 is not in line with the north wall of the museum. That the exposed adobe bricks do not represent the east end of a once longer Priests' House is suggested by the narrowness of the room that would then have existed in the gateway area. Therefore, Feature 17 probably is a section of the west wall of the Adobe Church. The apparent greater thickness of this archaeological wall is consistent with the greater size of the Adobe Church. The fact that the gateway drain was constructed through the gap between the Priests' House and Feature 17 suggests that the ruins of the Adobe Church still formed a wall along the east edge of the quadrangle when the drain was built. If no obstruction had then existed, it would have been much simpler merely to continue Ditch B eastward and south away from the Priests' House. The fact that the gateway drain is in the center of the present gateway implies that the gateway wall had been built before the drain; otherwise, the drain could have been placed farther away from the Priests' House foundation, along the ruins of the Adobe Church.

The following tentative reconstruction can be made; many details must be checked before it can be accepted. The Priests' House was built in 1825 as a distinct building;<sup>113</sup> the northeast corner of Building A corresponds to that of the original Priests' House. A roofed colonnade may or may not have existed along the east side, through the present gateway.<sup>114</sup> When the foundations of the Adobe Church were laid in 1827, the Priests' House was extended eastward to join the Church without a gap.<sup>115</sup> A tile walkway and drain probably existed along the west side of the Adobe Church; the drain may have joined that of Building A, and the drainage from both presumably was channeled through a subsurface conduit under the Priests' House, in the present gateway area. Shortly after the collapse of the Adobe Church, the gateway was formed by removing the north and south walls at the east end of the Priests' House. The gateway wall was constructed and a roof extended from the Priests' House.<sup>116</sup> The gateway drain was installed during the Renovation, in the same location as the original subsurface drain.<sup>117</sup> The foundations of the 1827 extension of the Priests' House across the gateway were removed during or after the Restoration. Additional facts will undoubtedly alter the above interpretation, but until such information is available there is no need to hypothesize alternative reconstructions.

### III F. The Chapel Walkway: Description

Remnants of tile paving were exposed along the east side of the Chapel, extending from Ditch B<sup>118</sup> northward for about 67 feet (Pl. 2a, Fig. 2a). The bricks average 9 1/2 x 11 x 2 inches, with less variation than was found in the walkway of Building A; the color is a similar dull red. The walkway slopes down to the south, with the north end 12 inches higher than the south end.

The paving is poorly preserved, as shown in Map 1. The entire west edge was removed by the 30 inch trench dug along the Chapel in modern times to provide adequate drainage. The entire east edge has been removed by an 18 inch gap (Ditch A), and farther north by additional disturbance. The existent walkway thus varies from about 4 feet wide (about 7 bricks) at the south end to 2 1/2 feet (about 3 1/2 bricks) at the north end, with occasional irregularities. The building B foundations are intrusive through the walkway.

### III G. The Chapel Walkway: Interpretation

The length of this paving indicates that a walkway is represented. The possibility of an interior floor is eliminated by the absence of wall foundations to the east and by the rarity of such paving within mission buildings. Unfortunately the original width of the walkway cannot be determined because both the west and east edges have been destroyed. However, it is probable that the walkway was laid when the Chapel was built in 1840. If the reconstructed location of the wooden chapel is correct (see Section III C 2), the existent paving is too far east to represent a walkway for the wooden structure (assuming that the Chapel walkway was originally no wider than the Building A walkway). The Chapel walkway bricks average somewhat larger than the Building A walkway bricks. A detailed study of bricks from both paving areas may provide evidence of a different date of manufacture.

The east edge of the Chapel walkway has been greatly disturbed. However, there is no evidence that the walkway was covered. No colonnade or drain remnants have been found, there is no suggestion of such a construction in Picture 3 (1874) or 5 (1889), and no colonnade existed on the west side of the Chapel since at least 1851. Additional excavation should be made in line with Post 1, however, to be sure that post remnants have not been covered with fill, and to determine whether Ditch A once extended farther north. No explanation can be given for the extensive damage done to the east edge of the Chapel walkway. The edge seems too irregular to represent only a drainage ditch. The construction of Building B after 1874 cut through the Chapel walkway.

### III H. Building B: Description

The well preserved foundations of a small structure (Building B) were found in Trench 7A, B to Trench 15A, B (Pl. 2a, d). The existent remains are about 21 feet 6 inches long, 15 feet wide, 1 foot 6 inches high, and 2 feet 4 inches thick. The west ends of the foundations were cut off by the modern drainage ditch dug along the Chapel; with little doubt Building B originally extended to the Chapel wall and had a width of just over 19 feet.

The foundations were built of two to three layers of fractured boulders packed with smaller field stones and rubble. The height and evenness of the walls suggest that the stones may have been set in a trench. Building B is intrusive through the Chapel walkway (Pl. 2f). No evidence of a floor or door sills were encountered. The foundations are well preserved except for the south wall where the stones have been removed from sections of the west end and the southeast inner corner.

### III I. Building B: Interpretation

Picture 5, made in 1889, shows a small building, in the same approximate location as Building B, as an annex of the Chapel (see Fig. 1c). The shingled roof is shown as a direct continuation of the Chapel roof, and a door extends to ground level without a step. No other reference is made to such a structure in the historic accounts. The small building is narrower than Building B, but this could easily be an artistic error. It will be assumed that Building B is the same as the 1889 structure. Whether this building served as a sacristy, baptistry, or some other function cannot be determined. It will be called a sacristy herein.

The Chapel walkway was probably laid in 1840, when the Chapel was built. The intrusive nature of Building B indicates that it post-dates the walkway. No evidence of the sacristy is to be seen in Picture 3 (Fig. 1b), sketched in 1874. The artist has provided an otherwise reliable portrayal of the Mission as it appeared, and it seems likely that had a sacristy existed in 1874 it would have been shown in Picture 3. Therefore Building B was apparently built after 1874. This is also suggested by the height of the stone foundations which appear to have been laid in a trench. Such a possibility is strengthened by the report that the walkway areas were covered with earth by 1889 (see Appendix IV). The paving certainly had no importance when Building B was constructed across it. The lack of a step up to the sacristy door in Picture 5 likewise indicates that the surface must have been about level with or higher than the stone foundations. The lack of adobe brick remnants on the foundations suggests that Building B was made of wood. None of the available evidence supports an identification of Building B as the original sacristy or baptistry of the 1840 Chapel.

Door 2 (Section III J 2) originally led from the Chapel into the sacristy. This door was later narrowed to form Door 3. The sacristy was apparently torn down sometime after 1889. The lack of wooden remnants in the foundation walls suggests that it did not fall into ruin. At this time,

presumably, Door 3 was sealed up with mud and adobe construction. This mud and adobe fill appears as a discordant feature in the above interpretation. The Chapel was used only for storage after 1881, and one would expect the doors to have been filled with wood, since adobe construction was not continued in the American Period. Whether this means that Picture 3 or 5 is in error cannot be determined without more investigation of the different adobe bricks used in the sealed doors and more search made for historical references to the sacristy.

### III J. The East Chapel Wall: Description

After the foundations of Building A had been exposed, the interior east wall of the Chapel was investigated for possible evidence of a former door leading into Building A from the Chapel. A disconformity in the adobe wall was revealed in a small area lacking the plaster (gunnite) cover, and a crack and darker area in the plaster suggested a former opening in the approximate area of Building B. Later more of the plaster was removed, and evidence for three doors and a window were revealed which had been sealed up at different times.<sup>119</sup> The sides of all doors had been plastered with a half-inch layer of mud and then whitewashed.

#### 1. Door 1. (Pl. 2b)

This was the northernmost door on the east side of the Chapel originally. The lintel is a square beam 7 1/2 inches thick and over 9 feet 3 inches long. The south end was charred and chopped, but the north end had been sawed through when the existing northeast door was built during the Restoration. Only the south edge of Door 1 remained, for the north edge was removed when the Restoration door was made.<sup>120</sup> Door 1 was 6 feet 9 inches above the modern concrete floor, and over 6 feet 4 inches wide;<sup>121</sup> the lintel extended 2 feet 9 inches beyond the south edge of the door. Door 1 had been sealed up with adobe bricks set in mud, but small areas of lime mortar also existed, notably under the lintel.

#### 2. Door 2. (Pl. 2c).

The north edge of Door 2 was 5 feet 6 inches south of Door 1; the lintel is 6 feet 7 inches above the present floor, and the door was originally 6 feet 4 inches wide. The lintel is 7 1/2 inches thick, originally was 9 feet 7 inches long, with a north and south overlap of 13 and 34 inches, respectively. The north end is 6 inches higher than the south end, relative to the modern cement floor. Door 2 had been narrowed to form Door 3 by the addition of a 17 inch column of adobe brick on the north side, and a 14 inch column of brick on the south side. A later intrusive window had been cut through the lintel.

#### 3. Door 3. (Pl. 2c)

Door 3 was made from Door 2 by adding adobe bricks to the north and south walls of Door 2. The resultant door was 2 feet 9 inches wide, and

slightly off center. It had been filled with adobe bricks. Later a window 4 feet 5 inches wide and 8 feet 3 inches high was cut through Doors 1 and 2, extending 12 1/2 inches below the lintel. This window had been filled in with the brick and cement construction of the Restoration Period.

### III K. The East Chapel Wall: Interpretation

No adequate interpretation can be given for the sequence of modifications in the Chapel walls until an analysis is made of the adobe bricks. Door 1 may represent an original 1840 door. The lime mortar under the lintel suggests that it may have been sealed during the Renovation. Door 2 was probably made at a later time than Door 1 (the lintel is lower), perhaps when the sacristy (Building B) was built after 1874. This door was then narrowed to form Door 3, perhaps because the width of intrusive Door 2 weakened the wall. The sacristy was apparently torn down after 1889, so Door 3 was probably sealed at that time, and a tall window made. The window was sealed during the Restoration.

### III L. The Well Area: Description

One of the questionable advantages in the archaeological investigation of wells or cisterns is that their destruction is often not left to chance or to the inroads of the weather. Usually, it seems, they are deliberately destroyed or filled in by man when there is no longer use for them, and the filling material is not composed of soil only. Often parts of a well might become veritable garbage or trash pits. Further, as the years pass, local legends might easily begin, not only concerning the location of a now disappeared well, but its contents as well. Swords, small cannons, rifles, and sometimes even caches of gold coins are reputed to have been thrown or hidden in such wells, usually near the bottom.

The well that must have been used in connection with Sonoma Mission has its own local legends, with differing locations. However, there was fairly definite surface evidence of some kind of water source or storage present in the Mission quadrangle, in the area designated as Trenches 17 to 23G to I. This evidence consisted of a concentration of field stones, a drain made of overlapping roof tile, two wooden rectangles, and the well or cistern itself.

#### 1. Field Stones.

Feature 4 (Pl 2e) in Trenches 19 to 21 I, was first recognized by a concentration of field stones lying in a rough circle about 8 feet in diameter and projecting in some places through the surface of the soil to a height of not more than three inches. The thought was entertained that these stones might be the remains of a broken-down low wall at the top of a well. Excavation to a shallow depth around these stones did not disclose any further evidence of a well in the immediate area such as a change

in the color or texture of the soil. It was discovered also that in the field stone concentration was a mixed assortment of broken roof tile and fragments of the type of rectangular red bricks known to be of American Period manufacture.

## 2. Roof Tile Drain.

During the investigation of the rock area, an alignment of overlapping roof tiles was encountered (Pl. 2e) in Trenches 19, 20 I, laid in such a way as to suggest a covered flume. The tiles, upon close inspection, proved to be of two types -- those identified as belonging to the Mission Period, and mold-made tiles, apparently of much later manufacture. The Mission Period tile had a central carbon streak in cross-section due to poor firing, and rough edges. The modern tile was fired red throughout, had angular edges, and a smoother surface.

The northwest end of the flume was found to be at the western edge of Trench 20 I. A section about 7 feet long was exposed, describing an arc that pointed in a southeasterly direction. The top of the covering tile was found at about 3 inches below the surface of the soil. Note being taken of the direction of the flume, test excavations disclosed its continuation south 6 feet to Trench 17 I, another 6 feet to Trench 14 I, and a final 12 feet to Trench 10 I, where the flume again terminated (Pl. 2g). An excavation in Trench 8 I failed to uncover any extension of the pipe. Thus, it was determined that there was a tile flume about 36 feet long, composed at its north end of about equal numbers of old and modern roof tiles. At the spots where it was investigated in the southern 25 feet or so, all of the tiles appeared to be of the modern type. The elevation at the northern end was found to be about 6 inches greater than that at the southern end.

## 3. Wooden Rectangles.(Pl. 2h)

In Trench 21 I also was uncovered a patch of redwood boards, each board about one inch thick and two feet long. Because of the decayed condition of the boards, their width could not be determined. They were lying abreast and extended, measuring in a line along their eastern ends, about 11 feet north to Trench 23 I. Here the direction of the line changed, now going west about 17 feet to Trench 23 G, then south about 16 feet to Trench 18 G, east 16 feet to Trench 17 I, and finally north again 4 feet. The line so followed thus turns out to form an approximate square, with the only notable disturbance being that of the tile flume extending through the western side. A mixture of paint thinner and linseed oil was applied to the decayed, dry wood immediately upon exposure, so that it would not curl or break.

Along the inside edge of the south side of this structure, traces of a redwood board one-half inch thick and about 6 1/2 feet long were found. The board was apparently lying on its side, and ran parallel to the middle 6 1/2 feet of the south side of the large square mentioned above. Following this lead, another smaller square, composed of fragments of similar boards lying on their edges, was exposed. Traces of a wooden square 6 to 7 feet on a side were thus outlined.

#### 4. The Well. (Pl. 21)

While these wooden structures were being exposed, it was noted that some of the soil surrounding them was of a definitely yellowish tinge, as opposed to the reddish or brown shade of the top soil of the quadrangle in general. The yellowish soil was thought to be clay which was derived from a much lower depth than 3 feet, which was about the maximum depth of the true top soil of the quadrangle. This soil feature, plus the presence of the smaller square composed of planks lying on their edges, now supposed to be the coping of the wall of a well, immediately suggested the spot where excavation for a well should begin. As this digging proceeded, no traces of a redwood wall or cribbing were found below the putative coping. To a depth of 2 1/2 to 3 feet, the soil was found to be a mixture of rubbish, wood fragments, the regular reddish topsoil and the yellowish subsoil. From 3 to 6 feet, where the excavation was discontinued, only the yellowish subsoil outlined an irregularly circular hole averaging 6 feet in diameter, which had been filled in with soft dirt and refuse. The top two feet of fill consisted of jumbled adobe bricks.

#### III M. The Well Area: Interpretation

The data gathered by excavating in the well or cistern area are not very conclusive. First, the exact function of the overlapping tile flume is not clear. If we assume that the hole near which the flume's northern part terminated was a well or water storage place, then it might follow that water was drawn from this source, dumped into the flume and allowed to flow south along the pipe -- but to where? The south end terminates abruptly. There is no way of telling at present whether or not the structure was ever completed. If it were completed and used, then the time of construction becomes a problem. It might have been an original Mission Period construction which had been reconditioned at a much later period, or, more likely, it might have been a later construction in which salvaged Mission Period roof tiles had been used.

The redwood planks laid around the rough square in which the well or cistern was located suggest a walkway more strongly than a foundation. The boards might have been sturdy enough to support a small covering for a well, or a "well house," but the 16 foot square certainly does not indicate a small covering structure. If the structure were a walkway bordering a well area, the contrast of the redwood with the tile walkway next to the Priests' House leads to a question regarding the time of construction. It seems quite inconsistent that a simple wooden walkway would be laid down at or about the same time that tile was being laid or used not far away. If, on further excavation, it is found that there is no trace of a tiled connection between the tile walkway and this redwood walkway, then the conclusion seems inescapable that the well or cistern dates from a time later than that of the Mission Period. The wood is in the same state of preservation as the wooden features which are intrusive into the Building A walkway, which probably dates from the 1860's-1890's.

Whether the circular excavation is a well or cistern cannot be decided until the bottom of it is reached in a future excavation. It is conceivable



that a relatively shallow hole, without siding or cribbing, could be used as a settling tank or cistern, the hard subsoil acting as a wall of sorts. It is much more likely that a fairly deep well would have, of necessity, a siding of stone or wood. It was thought at first that the traces of the 6 to 7 foot inner wooden square frame on the surface represented the coping of a wooden-walled lining or cribbing system, but it did not continue to any depth.

It is possible that there is yet cribbing with approximately the same outline as indicated on the surface, but at a lower depth in the excavation. This situation would easily have obtained by the rotting out of the higher timbers in a well.

In summary, whatever the function of the structures in the well or cistern may be, they appear most likely to be of the post-Mission Period. The evidence thus far suggests a cistern rather than a well. Whatever the case, further excavation is necessary. If this excavation determines that the structure is a cistern, then other clues must be followed in an effort to locate the actual well, if there is one in the quadrangle. This would include digging up the concentration of field stones, and in investigating further the patches of the quadrangle surface that show a more luxuriant growth of weeds than the surrounding soil. <sup>122</sup>

### III N. Summary

Prior to 1953 traces of earlier construction at Sonoma Mission had been noted occasionally when trenches were dug in the quadrangle area. According to certain local traditions a well existed behind the Priests' House, and the original Adobe Church stood to the east of the same building. Other traditions placed the well outside the Mission area and regarded the original Adobe Church as an imaginary creation of General Vallejo. Excavation has demonstrated the major extent of the subsurface remains within the quadrangle, indicated the existence of at least some sort of water container to the rear of the Mission buildings, and provided evidence for the historically documented adobe church east of the Priests' House. Archaeology has verified many details of Mission construction given in historical sources, and revealed previously unknown facts about the building of Sonoma Mission and the later modifications.

It can be suggested that the east and west walls of the first wooden chapel were slightly west of the respective walls of the adobe Chapel. Sections of tile walkway and an adobe wall have been exposed to the east of the Priests' House which in all probability are remnants of the Adobe Church, built in 1827-1832. Wall foundations, the tile walkway and drain, and remnants of the wooden colonnade of the north half of the 1832 Priests' House were exposed; these remains may represent the original 1825 structure. It seems likely that the original Priests' House extended farther west than does the modern museum. The original living quarters probably had two rows of six square rooms; the Chapel was constructed in 1840 so as to cut through the westernmost north and south rooms.

Archaeology has verified the union of the Priests' House and Chapel when the latter was built in 1840. A tile walkway was exposed along the

east side of the Chapel which probably was built at this time.

Groundwater in the southwest corner of the quadrangle appears to have caused gradual settling of the Mission buildings in this area. The north drain of the Priests' House may have ceased to function properly, and sections of the walkway began to sink. The Renovation of 1858-1871 is evidenced by repair of the Chapel wall, repair of the walkway, and construction of a ditch and tile-trough drainage system to carry seepage away from the Mission buildings.

Excavation has verified the formation of the breezeway, after 1874, which separated the Chapel from the Priests' House. A walkway was at least begun through the breezeway, but the drainage system was then extended part way through the gap between the Chapel and Priests' House. About this time a small annex to the Chapel was built which may have functioned as a sacristy.

After the sale of the Mission in 1881, the Priests' House was used for a winery. The adobe walls and tile walkway were modified for the construction of doors, drains and other wooden features. During this period a wooden walkway and coping was placed around the well or cistern, and a roof-tile drain was repaired or added (the entire well or cistern may date from this period).

It would appear that the north half of the Priests' House collapsed during the 1906 earthquake, or was so weakened that it had to be torn down. Only the south half of the building was restored in 1913.

More investigation is needed to substantiate and clarify many of the interpretations made in this report. However, the results already evident demonstrate the need for both archaeological and historical research to increase the meaning and value of historic monuments.

## NOTES

1. In this report the term "Restoration" will be capitalized whenever reference is made to the reconstruction of Sonoma Mission in 1911 and 1913. The capitalized term "Renovation" will always refer to the repairs and alterations carried out between 1858 and 1871.
2. Bancroft, p. 499.
3. Hendry and Bowman had access to certain original documents not available to the present authors, notably mission records and certain pictures. When their statements have not been verified, Hendry and Bowman have been cited as the source rather than the original reference, and such statements should be checked for any final report.

Hendry and Bowman sought to describe all adobe houses built in the Bay area; their report was written over a period of some five years. The dual authorship (Hendry died before the manuscript was completed) and the long period of preparation are reflected in certain irregularities in their report, examples of which are indicated below. Objections to several of their interpretations regarding the first and second adobe churches are given in chronological order in the present text. Reference to the important 1851 sketch by Gibbs was added to the discussion of certain Plaza buildings in Note 20, but no mention was made of this early representation of the Mission in their sections on the various church buildings. The Ford picture is discussed in Notes 5 and 14 in such a way as to imply different authorship for each note, no interrelationship having been made. Incomplete references to twelve of the fourteen available pictures of the Mission buildings are scattered in various notes, but only four of them are discussed in the section on Mission paintings (Note 5); no summary of the available pictorial evidence for the Adler buildings (adjacent to the Mission) is given, but references are again scattered through the text and notes. Such examples indicate the need to check any conclusions presented by Hendry and Bowman. It should be emphasized, however, that their report was never finished for publication, and in view of the scope of their investigations, the minor defects noted above detract but little from the invaluable aid furnished by this manuscript.

4. Typical examples of faulty recollections are the following: Cerruti, p. 103, has confused the reconstruction of the Chapel in 1840 with its Renovation in the 1860's. S. Vallejo, p. 34, recalled that the Chapel was erected in 1847, while all other evidence supports the 1840 date. Also, see Note 64 (Adler reference) and the discussion of Pictures 12 to 14, and Appendix IV.
5. A hasty review of the guide to the Vallejo Documents (Wright, 1953) revealed no information on building activities. Only one pertinent reference to the Mission was noted in the Historia (Vallejo, n.d.): on page 19, Vol. 3, he states that when laying out the Sonoma Plaza, "I left the small edifice that had been constructed for the church to the east of plaza." Presumably Vallejo was referring to the first wooden chapel.

6. Most of these popular works (such as Finley, Forbes, Murphy, Robinson, and Toumey and Emparan) provide a detailed summary of the early history of Sonoma Mission, giving facts which suggest that Bancroft (pp. 496-505) was the primary source used. The later history of the Mission is quite sketchy in these general accounts. When other source material is available, errors appear rather frequently in the undocumented statements. For example, Paulson (p. 87) gives the founding date of Sonoma Mission as 1820 (the site was not even blessed until 1823). Other examples are given in Notes 12, 59, and in Appendix II, Note 26, Reproductions.
7. Bancroft, p. 499; Forbes, p. 239.
8. Hendry and Bowman, pp. 157, 229 in Note 2; these authors have converted the Spanish vara into 2.75 feet. Most other writers (see Note 6 herein) have used a 36 inch vara which yields dimensions of 105 x 24 or 102 x 30 feet for the first wooden chapel. Additional variation may represent typographical errors (Murphy, p. 12, gives a width of 25 feet; Forbes, p. 240, gives a width of 34 feet). Bancroft, p. 505, interprets this building as an adobe structure.
9. Hendry and Bowman, p. 158. M. Vallejo probably saw this structure in 1834 when he arrived in Sonoma (see Note 5 above).
10. Vallejo, S., p. 34. See Note 22.
11. See Sections II D and II E 1.
12. There need be little doubt but that this tradition originated with M. Vallejo, many of whose statements on the early history of the area north of San Francisco bay, written decades after the events were supposed to have occurred, are quite suspect. The 1826 tale has been repeated many times (Houghton, p. 187; Murphy, pp. 12, 13 -- two fires; Tays, p. 118 -- 1827 date; Thomas, p. 118; Thompson, p. 10; M. Vallejo, 1878, p. 38; etc.). As pointed out by Finley (p. 49) the Mission records show a continual increase in baptisms, deaths, and crops from 1824 on through 1827.
13. Hendry and Bowman, p. 158.
14. Loc. cit.; M. Vallejo, 1878, p. 38, claimed that Sonoma Mission burned in 1826, made no reference to the 1827 construction and states that the new church was begun in 1830. Hendry and Bowman question the abandonment of the Mission, but accept the 1830 date and therefore propose that church foundations were laid in 1827, and that a new church was begun in 1830 on these old foundations, which was completed in 1832. As already indicated in Note 12, Vallejo's statements have no supporting evidence. The Mission records are therefore a more reliable source and it is probable that the building of the Adobe Church was a slow but continuous process, begun in 1827 and finished in 1832. (Murphy, p. 12, states that the Adobe Church had been built in 1829 but does not document her statement.)
15. Hendry and Bowman, p. 158.

16. Ibid., pp. 158, 159.
17. Anonymous, 1859b.
18. Vallejo, S., p. 34; repeated by Cerruti, p. 103.
19. Hendry and Bowman have consistently misinterpreted all references to the Adobe Church, as discussed under the "second adobe church."
20. The date is wrong; all contemporary sources indicate that the Chapel was built in 1840; Cerruti (p. 103) reported hearsay that the "church in the early days of California was quite a large building, about four times its present size, but . . . when the old building went to ruin. . ." the modern Chapel was built. Cerruti then confuses the construction of the Chapel (1840) with the renovation (1860), so his statements are not too reliable.
21. Vallejo, S., pp. 34, 35.
22. Hendry and Bowman, p. 158. Perhaps the wooden chapel was being used as a storehouse or mission store after completion of the Adobe Church.
23. Hoover and Rensch, p. 371; Hendry and Bowman, p. 167.
24. Carrillo recalled that in 1838 the ruins were plainly discernible (Hendry and Bowman, p. 160). Sutter visited Sonoma in 1839 and in his diary he refers only to a church building, out-houses, and Indian huts (Gudde, p. 35); this suggests that the Adobe Church might still have been standing but the comment is too brief to be emphasized.
25. Hendry and Bowman, p. 161.
26. de Mofras, p. 446; Wilkes, p. 210; Simpson, p. 319.
27. Anonymous, 1853; 1859a; 1860; Black survey and groundplan, 1854 (Hendry and Bowman, p. 167).
28. Anonymous, 1859b; good description of remains.
29. Hendry and Bowman, pp. 167, 168, Building No. 8.
30. Ibid., p. 159.
31. An 1888 photograph (Photo 1, see App. III) of the Priests' House and the 1840 Chapel is labeled "part of the old mission buildings and the new church," indicating the persistence of such relative terms.
32. Hendry and Bowman, p. 159.
33. Ibid., p. 161.
34. Cerruti, p. 103; see Note 20 herein.
35. Hendry and Bowman, p. 161.

36. Ibid., p. 229, Note 4. Evidence not used by Hendry and Bowman indicates that the "belfry," called a cupola herein, was not added until the late 1850's.
37. Ibid., p. 161. The actual construction had been completed, but the interior still had to be finished.
38. Wilkes, p. 210; de Mofras, p. 446; Simpson, p. 319.
39. Vallejo, S., p. 34.
40. Hendry and Bowman, p. 161, converting the vara into 2.75 feet. However, the modern Chapel is approximately 106 x 22 feet.
41. Anonymous, 1859b; the dimensions given are in better agreement with the modern measurements.
42. de Mofras, p. 446.
43. Newcomb, p. 303. Finley (p. 277) also lists these as later additions, but Newcomb may have been his source.
44. Egenhoff, Fig. 169; Newcomb, p. 304.
45. Houghton, p. 189.
46. Three artists have shown the form and position of the bell frame, but none of them were portraying contemporary appearances. In Pictures 9 and 14 the frame appears as a simple arch, but no source is known for the form, unless it was modified from the San Rafael bell frame (Coy, Pl. 86; Picture 9 and the San Rafael painting suggest the same artist). Pictures 12 and 14 show an elaborate roofed structure with four bells; this is undoubtedly another invention of Oriana Day (see Notes 21 to 24, App. II). In Picture 10, Day has shown a longer, lower roofed frame with chimes in front of the Adobe Church, as well as an L-frame and bell in front of an out-building (see Note 25, App. II). None of her creations can be authenticated. Finley (p. 277) refers to the Chapel chimes as an addition of Vallejo, but the nature of his comments suggests that his source was Picture 12 (see Note 54). The only bell frame noted for other missions is a rectangular form (similar to the present restored frame) depicted in several early pictures (Egenhoff, Fig. 113; Van Nostrand and Coulter, Plates 1, 4); the early dates would make this rectangular frame the most acceptable form for the Sonoma Mission bell frame.
47. Anonymous, 1853.
48. Guthrie, p. 27; Finley, p. 277.
49. Anonymous, 1860.
50. Loc cit. An 1859 observer, though providing an extended description of the Mission, does not refer to the cupola; most of the comments on the Chapel apply to the interior, however (Anonymous, 1859b).

The cupola has often been called a belfry, but apparently it was

only a decorative addition with no bell and no means of access (description by Mrs. D.V. Barbour, Curator of the Sonoma Mission State Museum). The tradition of the erection of the cupola in 1835 (Newcomb, p. 303) or 1841 (Hendry and Bowman, p. 162) is negated by the absence of the structure in Pictures 1 and 2 (1851, 1852).

51. Anonymous, 1859b.
  52. Anonymous, 1860. Cerruti, pp. 103-105, confirms part of this report, stating that when the local inhabitants resolved to replace the collapsed Adobe Church with the Chapel, only the walls and roof had been completed when the available money ran out. Mrs. Vallejo was then appointed to raise funds for furnishing the Chapel, but General Vallejo was so offended by such "begging" that he personally took charge of the project. He spent \$2700 on refurbishing the interior, including the statuary. Cerruti wrote his "Ramblings" in 1874 from hearsay, and has confused the 1860 renovation with the 1840 construction of the Chapel. Only the references to furnishing the Chapel can be accepted as pertinent to 1860.
  53. The three arched windows in the west wall of the Chapel were probably new openings made at this time because Photos 2 and 4 show three sealed, smaller square windows in between the arched openings.
  54. Finley (p. 277) states that Vallejo added the arched door and windows, but gives no source. He also lists the "belfry" and the bell frame and chimes as Vallejo improvements. Since the chimes appear only in Pictures 12 and 13, and all other improvements given by this author for other buildings are represented in these pictures, it would appear that these Day paintings were the source for Finley's statements.
- Picture 11, a poor sketch made between 1852 and 1867, shows at least one arched window as well as the cupola with a cross.
55. Anonymous, n.d.
  56. Photo 1. Mentioned by Newcomb, p. 303.
  57. Montgomery, p. 271. A new bell was bought in 1874 (Cerruti, p. 138).
  58. The window in Picture 5 may be the sealed window (see Note 119) or the present southernmost window in the east Chapel wall. See Section III J 3 for evidence of another window made from a door.
  59. Murphy, fc. p. 244. 1880 is given as the date by Newcomb, p. 303; Hoover and Rensch, p. 371; Finley, p. 277; Forbes, p. 241.
  60. Forbes, p. 241; Ryder, 1889; Carter, p. 180 (he gives 1882 as the last year that the Chapel was used for a church, but provides no source).
  61. See Appendix IV for a recollected account of the 1889-1894 Mission, and the following evaluation.
  62. Finley, p. 227; Hoover and Rensch, p. 271; Newcomb, p. 303.

63. Peixotto, p. 96, writing about 1910, states that winter rains caused the collapse of the southwest corner, but the earthquake is the much more probable cause.
64. Hendry and Bowman (pp. 162, 164, 165) refer to the Hittel painting of the Mission in 1907 as depicting the cupola with a cross. This painting has not been seen, but the cross is definitely an artistic addition; if the cupola is portrayed with the original top rather than a pyramidal one, the form of the cupola would also represent a reconstruction by the artist. The Adler recollection that the cupola was removed about the time of the World War (Hendry and Bowman, p. 161) is wrong; it is already absent in 1911 photographs.
65. Bromilow, p. 40; Hendry and Bowman (p. 162) refer only to the 1913 activity.
66. Hoover and Rensch, p. 371.
67. Guthrie, pp. 241, 242.
68. Hendry and Bowman (p. 162) state that the Chapel burned. The authors were informed by Mr. Fred Oltman, Ranger for State Park District 2, that this is incorrect.
69. Hendry and Bowman, p. 164.
70. Ibid., p. 165.
71. Ibid., p. 164.
72. Newcomb, p. 305. He spent six years preparing his book, which appeared in 1925, but he evidently had been taking notes for a much longer period. His reference to the "belfry [Chapel cupola] in its present state," and the absence of any mention of the earthquake or Restoration indicate that he saw the Mission before 1906, or obtained his information from a pre-1906 source.
73. Tays, p. 241.
74. de Mofras, p. 446; Wilkes, p. 210; both visitors merely mention the Priests' House.
75. The same union of the two buildings is shown in Picture 14 and the Carter copy of Picture 8, but neither picture is acceptable as primary evidence.
76. Picture 9 is definitely wrong in showing the barricade as extending from the front of the Chapel to the colonnade, rather than to the south wall of the Priests' House. More investigation is needed, however, because at least one and perhaps two lines of disconformity in the adobe bricks are shown in Photos 2 to 4 at the south end of the west wall of the Chapel, as though additions had been made to the front of the Chapel before 1906.
77. Anonymous, 1853.



78. Hendry and Bowman, p. 164. See Fig. 1a, herein.
79. Anonymous, 1859b.
80. Montgomery, p. 241.
81. This discussion is based only on historical sources and therefore applies only to the south side of the Priests' House. See Sections III C 2 and III C 3 for a more extended discussion based on archaeological findings.
82. Newcomb, p. 305.
83. See Note 59.
84. Carter, p. 180; Forbes, p. 241; see Appendix IV herein.
85. Only a trace of the north chimney can be seen because a tree obscures the south chimney. Picture 6 shows both chimneys.
86. See Appendix IV, herein.
87. Unfortunately none of the early 1900 photographs present a clear picture of the gateway because of various obstructions. A lattice-work garden structure hides the gateway area in Photo 5.
88. Guthrie, p. 241; Finley, p. 277.
89. See Note 65 and discussion of the Chapel Restoration. Hendry and Bowman (p. 165) are wrong in stating that the Priests' House was extended westward to join the Church in 1907. The first Restoration funds were not spent until 1911. Photo 6, published in 1911, shows the Chapel as partially reconstructed, but the Priests' House is still separate and protected with the wooden cover.
90. Hendry and Bowman discuss the various other buildings mentioned for the Mission area, but as they cannot be located no further mention will be made of them herein. The reader is referred to such popular works as Carter, Murphy, Newcomb, and Toumey and Emparan for summaries of the daily routine of Mission life and for reconstructions of the cultural atmosphere which prevailed at Sonoma Mission during its short life as a Mission and its longer period of decay.
91. Ryder, p. 10.
92. See Bowman, p. 57, for a description of the manufacture of adobe bricks. Newcomb, Chapter 7, gives a brief description of materials used in mission construction. Smith, Chapter 4, describes construction methods at Mission San Antonio; the dimensions given for adobe bricks, floor tile and roof tile (p. 35) are similar to Sonoma Mission measurements.
93. This walkway originally joined the Chapel walkway, but the line of this union has been destroyed. For discussion it will be convenient

to define the Building A walkway as the paving which extends from the Chapel to the east end of Building A, bounded on the north by Ditch B. The section of paving adjoining Wall A therefore will be discussed under the Building A walkway. The relaid paving of Feature 15 will also be included with the Building A walkway. The Chapel walkway will be defined as the paving which extends from the north side of Ditch B to the north end of the Chapel; the gap (Ditch A) at the west end of Feature 15 will be considered as the southeast border of the Chapel walkway.

94. The original room size probably can be checked by additional excavation within Building A to locate interior wall foundations. It should be noted that test excavations were made in Trench -2D and G which should have revealed such foundations. However, these test pits were not taken to subsoil. Feature 11 (a possible door sill built after 1881) is in line with one reconstructed wall, so it is possible that some interior walls were removed before 1906, especially when Building A functioned as a winery. If the original rooms were not square it is most likely that they were wider than 16 feet, which would place the original west end of the Priests' House, and the wooden chapel, still farther west than has been suggested in the text.
95. A five inch variation exists in the width of the museum rooms.
96. The westernmost interior wall certainly dates from this period (see Section III C 2, No. 3) and it is known that extensive interior modifications have been made in the Priests' House during and since the Restoration. The date of these interior walls can probably be checked by removal of the plaster coat.
97. The reconstruction offered herein can be checked to some extent by the removal of plaster from the east interior wall of the Chapel to determine whether any disconformity in the adobe bricks lines up with the north wall of Building A or the museum. Excavation along the west wall of the Chapel might reveal foundations of the wooden chapel. The foundations of the west wall of the Priests' House may still remain beneath the floor of the present Chapel.
98. Had the west wall of the Priests' House in 1840 been in line with the planned location of the adobe Chapel, it is probable that the east Chapel wall would have been constructed as a northward extension of the west wall of the Priests' House. That such was not done is suggested by the fact that it was the roof of the Priests' House which collapsed. Had the west wall of the Priests' House remained unaltered it is likely that the east wall of the Chapel would have separated when settling occurred, and the roof of the Chapel would have been damaged. See Note 102.
99. If Day painted Picture 12 in 1879, the breezeway had been formed by this date. If the painting was made in 1883, Picture 8 (1881) provides the first datable appearance of the breezeway.

100. Wall B was poorly preserved in Trench -5B, the only area where the thickness was checked, and a 24 inch thickness is probable. It is not established that any of the present interior walls of the museum represent original divisions of the Priests' House, nor that modern walls were restored with the original thickness. However, it does seem probable that the easternmost interior wall is an original construction (see Section III C 2).
101. The various pictures of the breezeway are not reliable for such a detail as width; most of them portray a narrow gap, but the breezeway in Picture 5 is definitely too wide.
102. Perhaps the greater depth relative to the walkway level, of the stone foundations at the west end of Building A also represents settling. If so, the weakened west end of the Priests' House before 1840 may have been one factor which prompted the construction of the Adobe Chapel so as to cut through the end of the Priests' House (see Section III C 2); the architects may have hoped to strengthen the living quarters by the construction of the east Chapel wall.
103. Adobe construction was used later for sealing up doors, but the bricks have a brownish hue and are less compact.
104. Both of these assumptions must be checked by excavation to subsoil within the gaps herein designated as Ditches A and B. The fall of both Ditches must be checked with datum plane measurements because the original surface has been altered. See Note 105 if the fall of Ditches A or B should not be in the direction assumed herein.
105. It seems clear that no drain existed in the breezeway area of the same dimensions as the gateway drain. Ditch A is too narrow, excavations in Ditch A revealed no tile drain as long as the gateway drain, and the three tile bricks beside Wall B are too narrow to have served as a cover for a drain 33 inches wide. However, since Ditch A was not taken to subsoil anywhere along Wall B, a possible alternative exists that a shorter tile drain was built clear through the breezeway, after 1874, which was narrow enough, or covered, so as to support the tile brick walkway along Wall B. A breezeway drain would also be indicated if the fall of the Ditches is reversed from that assumed in the text. This alternative was rejected because the absence of tile bricks along the northwest side of Wall B, in line with Ditch A, suggests that the walkway preceded the Ditch, and because of the factors discussed in the text which support a Renovation date for the drainage system.
106. This possibility must be checked by additional excavation to subsoil, though it appears that the east edge of the Chapel walkway has since been disturbed and evidence for Ditch A may have been destroyed.
107. This problem must be reviewed after additional excavation. Search should be made for Posts 9 to 11 (shown by x's on Map 1); these posts may have been removed when Ditch B was dug, indicating that the northeast corner of the Priests' House had already fallen. The missing walkway bricks in this area would support such a possibility, but the

position of the north end of the gateway drain argues against such a collapse, at least until after the Renovation. The tile rubble in Trench -4, -5B and Trench -1, -2G suggests that the roof tiles were left where they fell on the floor of the Priests' House, implying a 1906 date of collapse. The west end of the roof is shown with a tile cover in 1889 (Picture 5). Excavation of the interior of the east end of the Priests' House may reveal whether (1) the tiled roof collapsed in 1906 and the rubble was not cleared from the floor; or (2) the tiled roof collapsed earlier, the rubble was cleared away, and the east end of the building was shingled. The removal of walkway bricks from this northeast area suggests that some disturbance occurred to the east end of the Priests' House before 1906 which did not affect the remainder of the building.

108. Eheleben recalled no surface tile in 1889; only dirt walkways existed (see Appendix IV).
109. This reconstruction rests on the assumption that Ditch B continued through the unexcavated area in Trench 4K. However, should positive evidence indicate that Ditch B did not connect with the gateway drain, it would appear that the latter drain was built during the Renovation to receive rainwater carried by the older Building A drain. This possibility has been rejected because (1) there seems little need for such a large, elaborate drain to conduct the load carried by the shallower drain, and (2) because it appears that the Building A drain may no longer have functioned properly by the Renovation Period (see Section III C 4).
110. If the gateway wall did not then exist, the ruined walls of the Adobe Church did. See Section III E 3.
111. This suggestion rests on the single test made in Trench -5B to determine the width of Wall B. Unfortunately, the adobe bricks were not well preserved in this area, and the foundation stones were not exposed. See Note 100.
112. This removal could have occurred when the gateway was formed. In view of the removal of Wall A only to surface when the breezeway was formed, however, it seems more likely that the east foundations of the Priests' House extension were removed during or after the Restoration. The larger stones of the existent east wall of Building A protrude above the surface and would have been in the way when drain pipes, gravel road beds and similar improvements were installed.
113. That the Priests' House and Adobe Church were not laid out together in 1827 is suggested by the thickness of the east wall foundations of Building A. However, see Note 111.
114. No trace of such a walkway exists along the east wall of Building A. It may have been removed after the possible extension of the Priests' House to join the Adobe Church.
115. The primary evidence is documentary: the 1854 ground plan and the assumption that Vallejo erred only in minor details in his suggested

reconstructions shown in Pictures 10, 12-14.

116. The function of this wall is uncertain. A carriage "garage" may have been desired. More information on the occupants of the Priests' House during the Renovation is needed. While available facts suggest the reconstruction offered herein, definite facts must be obtained by exposing the north or south foundations of the gateway wall.
117. The different construction of this gateway drain still excludes it from being the 1827 conduit for the combined Priests' House and Adobe Church drains.
118. See Note 93.
119. Another window between the two southernmost windows in the east wall was sealed with modern brick and cement during the Restoration.
120. A stringer extended from the northeast corner of the Chapel to within 6 inches of this intrusive modern door. That this wooden stringer was not part of the south lintel was indicated by the different height, the rounded edges, and the charred, chopped south end.
121. The original width of Door 1 cannot be determined because no north end of the lintel or door remains, and doors were seldom put in the center of lintels.
122. Since the upper fill of the well or cistern consisted of many jumbled adobe bricks, above American Period garbage, it can be suggested that the well was finally filled in with the rubble which resulted from the collapse of the north half of the Priests' House in 1906. Mrs. D. V. Barbour, Curator of the Sonoma Mission State Museum recalled that the well was still open (with a board cover) during her childhood.

## APPENDIX I

### STATEMENT OF TERMINOLOGY

A number of construction features have been called various names in earlier references to Sonoma Mission. For example, the covered walkway has been called a porch, veranda, portico and similar terms. Little standardization is apparent in general mission literature. Certain labels were applied to archaeological remains and referred to elsewhere in the text without repeated definition. To reduce the need for multiple names, duplicate bibliographic citations, and cross-references, the following definitions are given for terms used in this report.

**Adobe Church:** the first church built of adobe at Sonoma Mission, between 1827 and 1832; the "First Mission Adobe Church" of Hendry and Bowman, pp. 158-159.

**arched door and windows:** "arched" refers to the curved headers placed on the Chapel openings during the Renovation (See Fig. 1b, c), as opposed to the rectangular openings in both the original and restored Chapel.

**barricade:** the wooden wall built across the breezeway. Two barricades seem to have been built. The first appears in Picture 8 (1881) but was gone by 1888 (Picture 5, Photo 1). A second barricade appears in Picture 6 (1903) and Photos 2 to 5.

**bell frame:** this term is used for any of the varied structures which supported the Mission bell and invented chimes in front of the Chapel, shown in Pictures 9, 10 (Day copy), and 12 to 14.

**breezeway:** in this report the term "breezeway" refers only to the gap which separated the Chapel from the Priests' House, formed between about 1874 and 1881 and eliminated in 1913. See "gateway."

**Chapel:** the existent chapel, built in 1840. The "Third Adobe Mission Church" of Hendry and Bowman, pp. 161, 162.

**colonnade:** the wooden posts which supported the walkway roof on the north and south sides of the Priests' House.

**cupola:** the tower-like structure added to the front of the Chapel during the Renovation. The first cupola is shown in Fig. 1b, c. Sometime between 1903 and 1906 this cupola was removed to have the roof top remodeled. This "second cupola" had been replaced by 1906 (Photos 4, 5), but was removed permanently during the Restoration. The cupola has also been called a belfry and tower.

**Ditch A:** the 18-inch north-south gap in the Building A walkway in Trench 4 to -3 A and B. (See Map 1). It may separate the Chapel walkway from the Feature 15 paving. The term "ditch" rather than "trench" has been applied to these archaeological features so as to avoid confusion with the grid system of Trenches used during the 1953 excavations.

- Ditch B: the 18-inch gap, running east-west, which separates the Building A walkway from the Building A drain (see Map 1).
- edging: the single row of vertical tile bricks placed between the foundations of Building A and the walkway.
- footing: this term applies to the concrete base added for support to the outside base of portions of the Chapel and Priests' House. It is represented on Map 1 by the two outermost lines around the west, north and east walls of the Chapel, and along the north wall of the Priests' House. The footing was added after the Restoration and should not be included in measurements of the original buildings.
- gateway: this term refers to the existent opening between the east wall of the Priests' House and the gateway wall (see Map 1). The term breezeway has not been used because of possible confusion with the use of this term for the opening between the Priests' House and the Chapel.
- gateway wall: the isolated adobe wall at the east edge of the present Mission property, connected to the Priests' House by the same roof (see Map 1).
- Posts: this term refers to the basal remnants of the wooden columns of the north colonnade; they have been numbered consecutively from west to east. Posts 1 to 8 still have evidence for their location. Posts 9 to 11 had to be reconstructed. See Map 1.
- Priests' House: the building constructed for the priests' living quarters, the south half of which is now represented by the museum and the north half of which is Building A.
- Renovation: the repair and refurnishing of the Chapel between 1858 and 1871.
- Restoration: the reconstruction of the Chapel and Priests' House in 1911, 1913.
- sacristy: this term has been applied to the small annex on the east side of the Chapel in Fig. 1c, and to the archaeological Building B. A baptistry or some other special room may be represented.
- walkway: this term refers to the tile brick paving along the north side of Building A and the east side of the Chapel. See Note 93.
- Wall A: the remnants of east-west foundations and adobe wall at the north end of the breezeway area, between the Chapel and Wall B, in Trench 1A (see Map 1).
- Wall B: the north-south adobe wall section in Trench 1B to -5B along the east edge of the former breezeway area (see Map 1).
- Well: the term "well" has been used to refer to the varied archaeological remains in Trenches 18 to 23 G to I, without implying that such was the function of the remains. A cistern may be represented.

## APPENDIX II

### ARTISTIC PORTRAYALS OF SONOMA MISSION

A total of fourteen distinct paintings, etchings, or sketches of Sonoma Mission were viewed by the present authors, of which only two (Pictures 6 and 12) were seen in the original. As discussed in Section II A, the nature of these pictures is such as to require a discussion of each one to ascertain the reliability of the subject matter portrayed. See the Statement on Terminology (App. I) for the meaning of Adobe Church, Chapel, and other structural terms used in the following discussion. Photos 1 to 7 are described in Appendix III.

Each original picture has been assigned a number. Those pictures which, from other evidence, can be substantiated as accurate portrayals of contemporaneous structural features will be discussed first; then those pictures which reveal an attempt to reconstruct earlier appearances rather than existent conditions, and are therefore less reliable sources, will be analyzed. The sources which substantiate the date at which any particular structural part was erected or disappeared will be found in the chronological outline given in the text under the pertinent building and specific year to which reference is made in the discussion below. Only those architectural remains which have chronological significance are mentioned in the following analysis.

#### Accurate Contemporaneous Pictures

Picture 1: Plaza at Sonoma, 1851. <sup>1</sup>

This sketch was made by Gibbs on Aug. 11, 1851. He was a passing visitor and presumably sought only to show the Plaza as he saw it. Nothing which he portrays is contradicted by established facts (see Picture 2). The only defects are the small size and lack of detail. Gibbs portrays the Chapel with a square door and no cupola; the omission of detail can be considered responsible for the absence of roof tile, side windows, and cross. The Priests' House is quite vague, with only the roof and columns represented; the fact that no roof apex is shown at the west end of the building supports other evidence which indicates that until 1874 the Priests' House and Chapel were joined as one building. No building is represented as adjacent to the east end of the Priests' House, but the roof of a problematical structure is shown farther east. <sup>2</sup>

Picture 2: Sonoma Plaza, 1852. <sup>3</sup>

This extremely vague water-color painting, made for von Geldern in 1852, <sup>4</sup> shows the whole Plaza. Hendry and Bowman <sup>5</sup> accept the picture as contemporaneous, and no contradictory evidence opposes this conclusion. An indistinct building which occupies the position of the Mission is shown as a single structure with an east-west long axis. It could be interpreted to represent the front end of the Chapel joined to the colonnaded south wall of the Priests' House. However, no door, cross, or cupola is represented on the Chapel, and the Priests' House is quite blurred. No building is shown as adjacent to the east side of the Priests' House, but a problematical structure appears farther east of the Priests' House. <sup>6</sup>



It is of importance to note that, though both pictures are deficient in detail, the von Geldern painting and the Gibbs Sketch (Picture 1) agree on the following features for the 1851-1852 period: no cross or tower is shown on the Chapel, the Chapel and Priests' House appear to be joined, and no building is shown between the Priests' House and a problematical structure to the east.

Picture 3: Renovated Chapel and Mission ruins, 1874. <sup>7</sup> See Figure 1b.

This drawing is dated and signed by Vischer. The fact that he portrays specific details of the ruins which agree with photographs indicates that this picture is an accurate portrayal of 1874. The Chapel is shown with the original cupola and cross (post-1860), and an arched door and choir window (post-1859). No sacristy as high as the Chapel roof appears (as one does in Picture 5).

The Priests' House is portrayed in a dilapidated condition. There is a gap between the roof of the Priests' House and the Chapel, but the jagged beams and the position of the westernmost column indicate that the section of the roof between the two buildings had fallen in. Fischer clearly shows a double-pitched roof, rather than the modern single-pitched form. Tile is missing from the east quarter of the roof, with uncovered beams depicted. No tile remained along the entire length of the roof over the walkway. Photo 1 (1888) shows these same untiled areas of the roof as shingled.

The west end of the Priests' House above the level of the south wall is represented as a black void, as though no wall then remained below the terminal roof remnant. Photos 2, 3, 6, 7 and Pictures 4, 6, and 8 show wood or a void in this area. However, the south wall of the House is shown as adjoining the Chapel, with no breezeway. Since the Chapel is shown in perspective, it is clear that the south wall of the Priests' House was directly in line with the south face of the Chapel. Additional evidence which confirms the continuous nature of this wall is afforded by the straight shadow of the horizontal colonnade beam shown against the south wall. The westernmost column in front of the Priests' House is located within the gap formed by the collapse of the roof, another indication that the breezeway was not an original feature.

The east end of the Priests' House is not clearly presented, but there is the suggestion of ruined walls (presumably the remnants of the Adobe Church). Vischer's title of his drawing indicates that he intended to show more ruined buildings than just the Priests' House.

Conclusion: This picture appears to be the most important source available on the appearance of the Mission in the 1870's. Until evidence is presented which demonstrates that too much emphasis has been placed on minor details in the present analysis, the Vischer painting will be considered as a time-marker for the separation of the Chapel and Priests' House, for the absence of an adobe west wall on the Priests' House, and for the partly shingled roof.

Picture 4: Plaza and Barracks of Sonoma. <sup>8</sup>

No artist or date can be given for this sketch. The Chapel is portrayed with a shingle roof (post-1852), arched door and windows (post-1859), and the original cupola with cross (post-1852 and pre-1881). Most of the Priests' House is hidden by other buildings, but part of the tiled, double-pitched roof,

separated from the Chapel by a breezeway (post-1874) does appear. The west end of the Priests' House is shown as a void (post-1874, pre-1903).

Conclusion: The architectural features represented indicate that Picture 4 was sketched after 1874 and before 1881. It can be accepted as a contemporaneous portrayal with no discordant features.

Picture 5: Rear view of the breezeway area, 1889.<sup>9</sup> See Figure 1c.

Ryder wrote a newspaper article on the old town of Sonoma with the implication that his description applies to the date of publication, 1889. One of the illustrations for the article is an undated, unique sketch of the breezeway area from the rear. The south end of the Chapel is shown with the original cupola but no cross (post-1881), a shingle roof (post-1858), and an arched window in the east wall (post-1859). A small narrow building (which we shall call the sacristy) is shown some distance toward the back of the Chapel, adjoining the east wall. The slanting non-tiled roof of the sacristy is a direct continuation of the Chapel roof (post-1874). An arched door and square window are shown in the east wall of the sacristy. The sketch shows nothing more of the north wall of the sacristy or of the Chapel.

The breezeway between the Chapel and Priests' House is shown without a barricade, and a dirt wagon track winds through the opening. This open breezeway, without a barricade, also appears in Photo 1 (1888).

Conclusion: Picture 5 can be accepted tentatively as an accurate portrayal for the year 1889. See the discussion of the excavation of the sacristy for variant evidence (Section III I).

Picture 6: Sonoma Mission, 1903.<sup>10</sup>

This water-color painting by Jorgensen portrays the Mission as it existed in 1903, and differs from photographs only in minor details. The Chapel is shown with the original cupola but no cross, an arched choir window and door, and with three side windows (these windows appear to be rectangular, but the detail is not clear).

The Priests' House is shown as separated from the Chapel by the breezeway, with a double-pitched, tiled and shingled roof. Two chimneys appear at the east end, on either side of the roof apex. The west end is shown as a board wall, with an aperture in the southern lower section. A barricade closes the gap between the buildings. A picket fence encloses the front of the Priests' House. A major omission is the gateway. No details to the north or east of the House are portrayed.

Conclusion: Picture 6 is correct for 1903, except for the omission of the gateway.

#### Modified Pictures

The following pictures portray the Mission as it appeared when the artist saw it, but display a variable tendency to reconstruct altered structural features.

Picture 7: Sonoma Mission. 11

Deakin painted the twenty-one missions between 1870 and 1899. He presents the Chapel with a tile roof, original cupola with cross, and arched windows and door. The Priests' House is shown as separated from the Chapel by the breezeway, and a door is depicted in the west end of the building; the whole roof is tiled and the gateway at the east end of the building can be discerned with some certainty.

The open breezeway indicates that the picture was painted after 1874. Therefore the tile roofs on the Chapel (pre-1858) and Priests' House (pre-1874) are artistic reconstructions. Pictures 3 (1874) and 4 (pre-1881) portray the west end of the Priests' House as an open void, which was filled with boards by 1903. Therefore Deakin's portrayal of an adobe wall and a door at the west end must be considered suspect until verified. The breezeway was closed with a wooden barricade by 1881, so the picture was probably painted before this date.

Conclusion: The separate Chapel and Priests' House indicate a post-1874 date, while the presence of the cross indicates a pre-1881 date. Unless Deakin purposely omitted the barricade, its absence would indicate that the painting was made before 1881. The picture provides the first definite indication of the gateway at the east end of the Priests' House.

Picture 8: Sonoma Mission, 1881. 12

Ford personally visited all the existent missions and published etchings of the buildings in 1883. This date, which appears in most reproductions, refers to the date of the etching, not to the original water color which was painted about 1881.<sup>13</sup> A cut down version of the Ford etching has been reproduced more frequently than any other Sonoma Mission picture, but these copies are not as clear or complete as the Ford original.

The Ford picture shows: a tile roof on the Chapel (gone since 1858); only a cross on the Chapel (replaced by a cupola with cross in the late 1850's); and the arched door and windows (added in the 1860's). The Priests' House is shown with a complete tile roof (incomplete since 1874). The breezeway between the Chapel and Priests' House (post-1874) is closed by the first wooden barricade. Ford does not portray the gateway, though it does appear in the earlier Picture 7. An unidentified structure<sup>14</sup> is shown some distance to the east of the Priests' House with a low wall (adobe or stone) around it. Another building appears some distance to the north of the Chapel, with suggestions of a tiled roof and picket fence.<sup>15</sup>

Conclusion: The tile roofs and absence of the cupola in the Ford picture indicate that the artist did not portray contemporaneous features, but sought to present more original appearances. In his introduction, Ford admits to such modifications when some feature was known to be of recent construction. The barricade will be accepted, but not the omission of the gateway.

In his simplified water-color copy of the Ford picture, Carter (see Note 12) eliminated the breezeway and baricade between the Chapel and Priests' House, showing the two buildings as connected. A window is placed in the south wall of the Priests' House within the former breezeway. Carter wrote after some years of study, so he may have seen Picture 3, or was told of the former connection of the buildings.

Picture 9: Chapel and Priests' House.<sup>16</sup>

This painting, by an uncertain artist, cannot be dated precisely. The crucial features are the presence of the barricade and picket fence. The barricade was present in 1881 (Picture 8) but the fence was not. The barricade was absent in 1888 and 1889 (Photo 1, Picture 5) but the fence did exist. Both the barricade and fence existed in 1903 (Picture 6), the year in which Picture 9 supposedly first appeared in print. Two possibilities therefore are apparent: (1) Ford painted Picture 9 after 1881 but before 1888 (see Note 16); or (2) an unknown artist painted Picture 9 between 1889 and 1903. Details of the Chapel are completely incorrect for either time period, and indicate the artist's desire to restore the original appearance. Picture 9 shows a cross but no cupola, a tile roof, and rectangular windows, but between 1852 and 1874 a cupola had been added, the roof had been shingled, and arches had been added to the tops of the door and windows.

The breezeway and barricade can be considered contemporaneous for either time period, but the details are incorrect. The artist portrayed the barricade as extending from the Chapel to the westernmost column, and invented a unique tile roof to cover the section of the breezeway immediately behind the barricade, implying that the walkway extended behind the barricade. Picture 8 (1881) and Photo 1 (1888) indicate that the barricade adjoined the south wall of the Priests' House.

The roof of the Priests' House is shown in some disrepair, as it was in the late 1800's, but the artist restored tile to the entire roof, though shingles had been added to much of the roof after 1874. A problematical structure<sup>17</sup> is shown to the east of the Priests' House (with a rail fence instead of the low wall of Picture 8). The suggestions of adobe ruins to the north of the Chapel (shown in the primary source only) must be considered dubious as no other picture or photograph of this time period shows them.

Conclusion: Picture 9 was painted between 1881 and 1888, or between 1889 and 1903. The artist was clearly seeking to portray an earlier appearance of the Mission, but succeeded only in creating a hypothetical scene of little historical value. Details of the reconstructed Chapel seem relatively correct for the 1841 structure, however.

Picture 10: Adobe Church and Priests' House; asserted dates 1832, 1823.<sup>18</sup>

This picture is inscribed with the date 1832. A note on the back of the photographic copy says, "Drawing by Vischer under instruction of M. G. Vallejo." Vischer came to Sonoma in 1874, so this picture is merely an artistic impression of the appearance of the Mission in 1832. The location of the Adobe Church is substantiated by the 1854 ground plan (Fig. 1a). An 1832 Mission report stated that the "new church" was roofed.<sup>19</sup> The Priests' House and the low wall to the east of the Adobe Church would seem to have been set further back from the front of the Church than they appear in Pictures 12 and 14; all three of these pictures are contradicted by the 1854 ground plan, which shows the south wall of the Priests' House as flush with the front of the Church, and a straight walkway extends in front of both buildings. The few other details which are clear are discussed under the year 1832 in the text. Hendry and Bowman discuss the validity of this sketch but their remarks are confusing.<sup>20</sup>

Conclusion: The basic structures in this picture are probably correct for 1834, when Vallejo arrived, but the relative positions appear to be inaccurate. No evidence is available with which to judge the accuracy of such details as doors and windows. The fact that such a picture was made from Vallejo's recollections suggests that the Adobe Church was still standing in 1834.

The copy of this sketch made by Oriana Day (see Note 18) provides a clear picture of the Mission area, but the artist borrowed and invented many details not shown in the original sketch.<sup>21</sup> Day assigned the founding date of the Mission (1823) to this painting though no building had yet been erected at that time. The basic details, including locations, agree with the Vischer original: Adobe Church, Priests' House, a low wall with a gate to the east of the Church, the Indian huts, and an out-building to the southeast of the Church. Wherever the original sketch is indistinct (it was based only on recollections), Day has inserted structural details from other missions, invented others, and portrayed them with her usual stylistic clarity.

For the Adobe Church the attic window is painted as round, while the choir window and door are shown as arched within a rectangular frame which Day borrowed from Santa Clara Mission.<sup>22</sup> The Priests' House is portrayed with two, perhaps three doors, no windows, and no gateway. The columns bear square capitals and bases,<sup>23</sup> and the colonnade rests on an elevated porch;<sup>24</sup> stairs are shown along the west wall of the Adobe Church, where Vischer has shown a rubble-like mass which does not represent stairs. An L-shaped bell frame is portrayed.<sup>25</sup>

Since none of the detail added by Day has any supporting evidence, and because of the definite inventive tendency displayed in other pictures by this artist, the Day copy of Picture 10 will be considered as an artistic creation of no value for present historical purposes.

Picture 11: Northeast section of the Plaza; asserted date 1848.<sup>26</sup>

This sketch accompanied an 1878 article by M. Vallejo, but nothing is known of the original picture. The appearance of a building west of the Barracks which was not built until 1852 indicates that the picture does not represent 1848 conditions; the portrayal of the Vallejo residence, which burned in 1867, provides the latest date at which a contemporaneous sketch could have been made. The Chapel is shown with a cupola and cross, as well as an arched window<sup>27</sup> (post-1859). The Priests' House is barely represented by a few pen strokes.

Conclusion: The sketch was probably made between 1859 and 1867. It is too incomplete to be of much value.

Picture 12: Sonoma Plaza; asserted dates 1839, 1840, 1845.<sup>28</sup>

Research by Hendry and Bowman indicated that this picture was painted by Oriana Day in 1879, guided by the boyhood recollections of Platon Vallejo, the son of Mariano.<sup>29</sup> That this picture is not a contemporary portrayal is indicated by a variety of structural features which were erected after 1839. The Chapel is shown with a tile roof (replaced by shingles in 1858), the original cupola and cross (constructed after 1852), and arched windows and door (post-1859). All these features existed in 1879 (as well as 1883).

The Priests' House is shown as separate from the Chapel (post-1874). The west end is depicted as a solid wall, with an arched window near the roof apex, but such a condition can be considered to be an artistic restoration only (see Section II F 3). A complete tile roof is portrayed on the Priests' House, but most of the roof had been shingled after 1874. The columns are shown as resting on an elevated porch, but no other evidence for such a construction is known other than Picture 13 and a copy of Picture 10, both of which were also painted by Day (see Note 24).

The Adobe Church is shown at the east end of, and adjoining, the Priests' House (see Picture 10); as discussed in Section II C 3, this structure and Chapel never existed contemporaneously; the Chapel was built in 1840 to replace the Church which collapsed by 1838. It is quite clear that Day was influenced by Picture 10, of which she painted a copy, as well as by recollections of the Vallejo family on the original appearance of the Adobe Church.

A four-posted bell frame with chimes is another of Day's inventions, for which no other evidence exists (see Note 46, Text); all references mention only a single bell.

Conclusion: Hendry and Bowman<sup>30</sup> concluded that Picture 12 is not accurate for 1839, because chimneys (an American introduction) are represented; the absence of an 1850 dwelling and the artist's restoration of the Vallejo residence (which burned in 1867) indicates that the picture best portrays the central part of the Plaza as it appeared in the 1840's. As regards the Mission area, Picture 12 portrays the essential features of the Chapel and Priests' House as they appeared in 1879, but restored the roofs. In addition, the artist reconstructed the Adobe Church and added the raised porch and west wall of the Priests' House, and the bell frame. The picture thus portrays a hypothetical Mission area which in actuality never existed as portrayed at any time. The picture cannot be used as a primary historical source, but certain details can be accepted as existent in 1879, when supported by other evidence. (See Note 21.)

Picture 13: Sonoma Plaza; asserted dates 1836, 1846.<sup>31</sup>

Oriana Day is credited with painting this picture in 1883.<sup>32</sup> For the Mission area, the same essential features are represented as in Picture 12, the Chapel, Priests' House, and Adobe Church all being shown. Only minor alterations have been made. The perspective is slightly different, the roof of the Priests' House is higher so the windows of the Adobe Church do not show, the location of the four post bell frame has been shifted, and a vague suggestion of the low wall to the east of the Adobe Church appears (also shown in Pictures 10 and 14). However, this wall as shown in Picture 10 would not have been visible from the angle at which Picture 13 was made. See Picture 10 for a discussion of the relative position of buildings. If the picture was painted in 1883, the artist ignored the barricade across the breezeway, built by 1881.

Conclusion: In all probability Picture 13 was copied from Picture 12, at least as regards the Mission area. The picture presents a hypothetical hodgepodge of structural features, some of which were erected as late as 1874, which were never contemporaneous. The picture is not accurate for 1836 or 1846, nor is it a reliable historical source. (See Note 21.)

Picture 14: Sonoma Mission; asserted date 1823.<sup>33</sup>

No artist or discussion is given for this unique portrayal. The intended date is implied by the appearance of "1823" on the Toumey and Emparan cover, under the buildings (perhaps only the date of founding is intended). The same three buildings are represented in the same perspective as in Picture 12. Arched windows and door in the Chapel (post-1859) shown with a tile roof and no cupola (both pre-1858 conditions) indicate that the picture is an artistic creation. Four windows appear in the west wall instead of the usual three.

The Priests' House is shown as connected to the Chapel (pre-1874) and the simple columns rest on the elevated porch shown in Pictures 12, 13, and the Day copy of 10 (see Note 24).

The Adobe Church is a duplicate of that in Picture 12; it had crumbled by 1838, again indicating the inaccuracy of this picture.

A low wall is shown to the east of the Adobe Church, similar to that in Picture 10, but farther south, and in greater detail than in Picture 13.

A fourth building appears at the rear of, but adjoining to, the Chapel. The only evidence for this structure is the 1854 ground plan (Fig. 1a), which shows this building in ruins.

Conclusion: Picture 14 clearly represents a composite artistic reconstruction of Sonoma Mission showing structural details which could not have been contemporaneous at any time. The available evidence suggests that the drawing was made in the 1920's specifically for the Toumey and Emparan book; the artist copied Picture 12 but removed the cupola, connected the Chapel and Priests' House, elaborated the low wall east of the Adobe Church, and reconstructed the northern annex. The sources for these modifications were Pictures 3 and 10 (made for the Vallejo family), or copies thereof, or memories of the co-author, Luisa Emparan, who was the daughter of Mariano Vallejo. Picture 14 therefore cannot be considered an authentic historical source.

#### NOTES TO APPENDIX II

1. Bushnell, Plate 12.
2. See Note 14.
3. Primary source: Bancroft Library Picture No. 1989 c-e (photograph of the presumed original; Egenhoff, Fig. 109 (photograph of the presumed original in the California Historical Society collections); Van Nostrand and Coulter, Plate 15 (same as Egenhoff); Hendry and Bowman, p. 234, refer to two other copies (not seen). A water-color copy (Bancroft Library Picture No. 1989 a, b, f) dated 1919 has modified certain details of the Plaza.
4. Hendry and Bowman, pp. 233, 234.
5. Ibid., p. 230.

6. See Note 14.
7. Bancroft Library Picture No. 1983 (photograph of original; signed by the artist and inscribed "Sonoma, June 1874," "Renovated chapel and ruins of the buildings of the ex-Mission San Francisco Solano." Egenhoff, Fig. 149.
8. Houghton, fc. p. 174; Murphy, fc. p. 168.
9. Ryder, 1889.
10. The original painting is on display in the Sonoma Mission State Museum, Sonoma, signed by Jorgensen and dated 1903.
11. Primary source: Deakin, last painting in book.  
  
Reproductions: Egenhoff, Fig. 170; Hendry and Bowman, p. 230, refer to a painting by Sparks done in the 1890's taken at least in part from the Deakin painting; no source is given and the picture has not been seen by the present authors.
12. Primary source: Ford, Plate 21 (this original published picture is the only complete reproduction; later copies cut off the right side of the picture). Hendry and Bowman, p. 230, state that the original water color is in the Stanford Memorial Museum (not seen).  
  
Photographic reproductions: Adams, p. 72; Bancroft Library Picture No. 1649; Coy, Plate 87; Egenhoff, Fig. 193; Houghton, fc. p. 194 (poor); Preta, p. 247 (poor).  
  
Painted copies: Carter, p. 181 (modified); Hendry and Bowman, p. 230, refer to a copy in Riverside (not seen).
13. Hendry and Bowman, p. 230, state that the Riverside copy is dated September 10, 1881. The original may have been painted a year earlier, but 1881 will be taken as the approximate date.
14. Hendry and Bowman make no attempt to identify this building (shown also in Picture 9), even though Ford portrays a tile roof and the building is presumably adobe. The position and orientation are correct for the Lewis Adler Frame Adobe, built in 1849 (Hendry and Bowman, Building No. 63, p. 220). Pictures 1 and 2 (1851 and 1852) also show a building in this approximate location, but the use of perspective in these pictures is so poor that it is possible that the artists intended to portray the Blue Wing Tavern across the street from the Mission (Hendry and Bowman, pp. 217, 234); both Gibbs and the von Geldern artist presented a building which is seemingly too large for the Adler Frame Adobe, but additional research is warranted to establish the identity of all these structures shown to the east of the Priests' House.

The uncut etching published by Ford also shows a building with a picket fence still farther east of the Mission area; though not previously identified as such, the location suggests the Adler Adobe Dwelling (Hendry and Bowman, Building No. 62, p. 219) built in 1848.



15. Hendry and Bowman, p. 167, conclude that this possible adobe building is not of the Mission period, but do not attempt to identify it. The structure is probably beyond the Mission property. A building is shown in the same location in a post-1906 photograph, perhaps of wood (Houghton, fc. p. 195; Bancroft Library Pictures, Nos. 1655, 3233).

16. Primary source: Bancroft Library Picture No. 1821, This is one of 22 Mission pictures, by various artists, which are supposed to have appeared in the San Francisco Chronicle Sunday Supplement between July 5 and November 29, 1903 (Sonoma Mission appeared on the latter date). However, the Chronicle Library has no record of such a series of Mission Pictures (letter to the authors, 12/29/53). The San Rafael painting in this series is the same as that given by Coy, Plate 86, who ascribes it to Ford. The technique of Picture 9 is so similar to the San Rafael painting that the same artist may well be represented. Ford continued to paint the Missions until 1888; he did not include San Rafael in his first group of pictures (1883) so Picture 9, if done by Ford, probably dates from the late 1880's ; Toumey and Emparan, p. 39 (photograph).

Modified copies: Newcomb, p. 304 (painting with a few insignificant details omitted); Engelhardt, p. 177 (sketch, with people added and other slight alterations made).

17. See Note 14.

18. Primary source: Bancroft Library Picture No. 1931 (photographic copy). Oriana Day painted an elaborated copy of this sketch (Egenhoff, Fig. 228; photograph with the asserted date 1823); presumably painted in 1882 or 1883 (ibid., p. 138); see Notes 21 and 29, below.

19. Hendry and Bowman, pp. 158-159.

20. Ibid., p. 229. They state that the picture "was done from a ground plan furnished by General Vallejo . . . The ground plan . . . shows the orchard to the southeast of the church at a distance about equal to that of the length of the priests' house." These remarks imply that the authors saw an actual Vallejo ground plan because the picture shows only Indian huts a short distance to the north and east of the church. No indication is given as to where Hendry and Bowman saw the ground plan. Nor is it clear what the authors meant by the comment that "the remark regarding the roof removed by Padre Quijas does not fully agree with the statement of Salvador Vallejo regarding the church building." The only reference to the roof removal is that of S. Vallejo (1874) and the present authors find no inconsistency in it.

21. Day has provided three paintings of Sonoma Mission (this copy of Picture 10 and the originals of Pictures 12 and 13). She also painted the other missions. While she utilized her own observations for basic structural features, her primary goal appears to have been to portray each Mission in its assumed original state (the founding dates were assigned to each picture, rather than the actual date of the painting). When older pictures and recollections did not yield sufficient details for a restoration, other missions and her own active mind provided the needed traits. Both

these sources are evident in all three paintings of Sonoma Mission (by such details as the elevated porch, door frames, columns, bell frames, and other elaborations as discussed for each picture in this Appendix), and also appear in her other mission pictures, as discussed below.

Deakin and Ford also painted all the missions at approximately the same time as Day, and we therefore have two independent paintings with which to check the accuracy of Day's restorations. A limited survey reveals that, in addition to Sonoma Mission, Day has restored San Rafael (gone by 1880), Santa Cruz, and Purisima (then in ruins) by following the sketch of the 1832 Sonoma Mission made by Vischer in 1874.

For San Rafael, the Day picture (Egenhoff, Fig. 227) shows the main buildings in the same relative locations as in the paintings of Deakin (Egenhoff, Fig. 169) and Ford (Coy, Plate 86; Newcomb, p. 304 upper). However, the following details in the Day picture differ from the other two paintings, and agree with Day's restoration of the 1823 Sonoma Mission: the height of the church, the arched door, the priests' house set back from the front of the church, the raised walkway, the right and left out-buildings, the low adobe wall, and the L-shaped bell frame. The triangular attic window appears to be an invention of Day; it has not been noted in any other mission buildings except those painted by Day of Santa Cruz and Purisima (see below).

The Ford, Deakin, and Toussaint painting of Santa Cruz Mission (Egenhoff, Figs. 165, 189, and 103, respectively) show essential agreement. All portray a central church with bell tower, a long priests' house, and a long wall, with no buildings in front of the church. Day (Egenhoff, Fig. 219) shows no bell tower, shortens the priests' house and wall to the same dimensions, and adds the two buildings in front of the church as well as the Indian huts, as shown in her Sonoma and San Rafael restorations; she also adds her special columns, triangular attic window, raised walkway, and L-shaped bell frame.

Ford and Deakin show Purisima Mission as one long, low building (Egenhoff, Figs. 156, 181). Day (ibid., Fig. 218) shows the front of a high church with the triangular attic window and arched choir window, and a door with a lintel arrangement featuring a circle (see Note 22), thus combining features of her Sonoma and San Rafael paintings. The priests' house is a shorter duplicate of that shown in the Sonoma painting. Two buildings are again shown in front of the main buildings in the same perspective, and the Indian huts are shown in the same location, as for Sonoma Mission. Other structural features have been added, which are shown by no other artists, but the influence of the Vischer sketch of the 1832 Sonoma Mission is still obvious.

It is thus apparent that Day has provided beautiful pictures of these Missions, which, unfortunately have little historical value.

22. Both wooden frames have overlapping joints and a central circle similar to details in the Day painting of Santa Clara Mission (Egenhoff, Fig. 215; less similar to her painting of Purisima Mission, ibid., Fig. 218; see Note 21). This frame, differing in some details, does appear in other pictures of Santa Clara Mission (shown by Egenhoff) as far back as 1849 (ibid., Fig. 102) and can be considered as correct for this mission.

23. Day has frequently depicted similar columns in her pictures of other missions. They are shown by other artists for several of the southern missions. Deakin portrayed them for San Rafael, but Ford did not, so Deakin probably also took them from some southern mission. See Egenhoff for the various reproductions.
24. The elevated porch is another special feature which Day added to a number of missions (Dolores, San Jose, Santa Clara, in addition to those discussed in Note 21 above) but which is not shown by other artists. It was probably taken from the southern missions, such as Santa Barbara, San Buenaventura, or San Luis Obispo. See Egenhoff for the pertinent pictures by various artists.
25. Another Day specialty (see Egenhoff, Figs. 219, 220, 227, 228). No such bell frame has been noted in other mission pictures, and it may be more than coincidence that Day has placed the bell frame in about the same position as that in which Vischer placed an Indian standing with an outstretched, bent arm holding some object. Vischer's Indian is indistinct, as are all his human figures, but it is apparent that a human is represented, quite similar to Day's bell frame.
26. Vallejo, M., 1878, p. 38. See Hendry and Bowman, p. 237, for discussion.
27. The choir window and door are shown as rectangular, but the sketch is so poor that such features cannot be emphasized.
28. Primary source: oil color painting in the Vallejo Home State Museum, Sonoma. This painting bears no signature or date, but the authors were informed by the curator that this was the Day original. This is also implied by Egenhoff, Fig. 229. However, Hendry and Bowman, p. 234, refer to the original as signed and dated 1879 by Oriana Day, now in the possession of Mrs. Della Peters, San Francisco, a granddaughter of Vallejo. Hendry and Bowman were informed by her that Day painted this picture from the boyhood recollections of Platon Vallejo (not Mariano Vallejo, as frequently stated). See Note 29 below. All discussion by the present authors is based on the painting in the Vallejo home because the small reproductions show the details with variable clarity.

Reproductions: several are given with incorrect artist and date. Egenhoff, Fig. 229 (incomplete photograph); Lyman, *fc.* p. 286 (clear photograph); Thompson, *fc.* p. 9 (poor etching; artist and date incorrectly given as Prudon, 1840); Toumey and Emparan, p. 61 (clear photograph; artist and date incorrectly given as Major Sherman, 1845); Ryder, 1889, provides a sketch which shows the central section of the Plaza (no Mission area) incorrectly dated 1840. An enlarged copy of the Mission area only is displayed in the Vallejo Home State Museum.

29. Hendry and Bowman, p. 237, state that the original painting is dated 1879 (see Note 28, above). However, Egenhoff (p. 138) gives the dates 1882-1883 for the Day paintings. As indicated in Notes 22-24 above, Day portrayed construction features in her copy of Picture 10 which she must have seen at more southerly missions (door frame from Santa Clara, columns and elevated porch from still farther south), indicating that she saw these first. If 1879 is the correct date, it is possible that she made notes on the southern missions before coming to Sonoma, and then returned south to

paint the Spanish churches in the 1880's. It is clear that her restorations of Santa Cruz and Purisima Missions were based on her copy of Sonoma Mission (see Picture 10 and Note 21 above), but there is little, if any, indication in her paintings that she even saw the Santa Cruz or Purisima ruins; she certainly was not influenced by what she saw.

There is no need to make further possible interpretations of Day's activities until more biographical data can be gathered. As regards Picture 12, the only structural feature which might have changed between 1879 and 1883 is the barricade, built across the breezeway sometime between 1874 and 1881. Since Day does not show the barricade, an 1879 date would be preferred; however, she does not show the barricade in her 1883 painting (Picture 13), so she obviously felt it to be too modern to portray.

In addition to the above problems, the confusion as to the artist, date, and sponsor of Picture 12, given in Note 28 above, indicate that the whole problem should be reviewed. The associations of Sherman and Prudon with the picture should be determined. Finley, p. 227, states that the Restoration of the Mission was guided by the Sketch made by Col. Victor Prudon in 1841. This statement could not refer to Picture 12, which portrays the very features the removal of which was desired; still another picture of Sonoma Mission is indicated if Finley's statement is correct.

30. Hendry and Bowman, pp. 234, 235.

31. Primary sources: Coy, Plate 103 (complete photo, but less clear than that in Egenhoff; the picture is labeled 1836); Egenhoff, Fig. 230 (incomplete photo, but the Mission area is shown more clearly than by Coy). The discussion by the present authors is based on both these reproductions.

Another photograph of the painting is displayed in the Vallejo Home State Museum, Sonoma, and the added caption states that the intended date is 1846. Hendry and Bowman (p. 236) refer to two copies (not seen) with a similar 1846 date.

32. The photograph of this picture in the Vallejo Home State Museum bears the added notes: "Photograph of painting by Mrs. Oriana Day of Boston, Mass., painted under the direction of General M. G. Vallejo. Painted in 1883." The possibility that Platon Vallejo was the sponsor should be considered, in view of his possible role in the painting of Picture 12. (Hendry and Bowman were unaware of this copy, concluding that the artist and date were unknown.) Egenhoff, p. 138, gives the dates 1882-1883 for all of Day's paintings, including Picture 13.

33. Toumey and Emparan, cover illustration.

## APPENDIX III

### MISSION PHOTOGRAPHS

The following seven photographs provide accurate information on the south side of the Mission as it appeared between 1888 and about 1911.

Photo 1: (Bancroft Library Picture No. 1985).

This photograph is inscribed on the back: "Mission San Francisco Solano de Sonoma 1888" "Part of the old Mission and the new church." The Priests' House and Chapel are shown, with no discordant features for 1888. The small photograph published by Forbes, p. 214, may be a different picture but the view is the same and the appearance of the Mission indicates a similar date for the photograph.

Photo 2: (Bancroft Library Picture No. 1987).

This photograph bears no inscription. However, it was taken in 1903 or shortly thereafter because the first cupola is represented on the Chapel. This cupola still existed in 1903 (see Picture 6), but was removed before 1906 (see Photo 3). The photograph shows two windows sealed up with adobe bricks in the northern half of the Chapel. The colonnade is in disrepair.

Photo 3: (Bancroft Library Picture No. 1986).

This undated photograph was taken about the same time as Photo 2 because the areas of remaining plaster are the same in both pictures. Photo 3 is somewhat later in time, however, because the cupola has been removed from the Chapel roof. The second cupola had been erected by 1906 (Photos 4, 5) so Photo 3 dates from between 1903 and 1906, after Photo 2. Lines of disconformity can be seen in the west adobe wall of the Chapel, near the front, suggesting a sealed window and two additions to the length of the Chapel wall. Some of the fallen colonnade posts of Photo 2 have been set up in a leaning position.

Photo 4: (Davis, p. 54).

This photograph was published in 1926, but the text (Davis, p. 116) indicates that the book was written before the 1911 Restoration. The appearance of the second cupola and the condition of the Chapel wall indicates that the photograph was taken between 1903 and 1906, after Photo 3. A sealed window is apparent to the south of the southernmost arched window. Two lines of disconformity at the south end of the west wall of the Chapel indicate additions; the size of these cracks suggest settling and indicate why the southwest corner of the Chapel collapsed during the 1906 earthquake (see Photo 5). The short section of north-south adobe wall at the west end of the Priests' House shows dimly. The colonnade has been stabilized with about 9 vertical posts; only one original post remains, in a leaning position. No chimneys are apparent on the Priests' House.

Photo 5: (Bancroft Library Picture No. 1988).

This photograph is dated "after the earthquake of 1906." The southwest corner of the Chapel and most of the roof and colonnade of the Priests' House

have collapsed. The walls of the Priests' House had been protected with a temporary tin cover, and the cleared colonnade posts and fence pickets were stacked in a pile in front. The second cupola remained atop the Chapel.

Photo 6: (Houghton, fc. p. 195; Bancroft Pictures Nos. 1655, 3233).

This photograph was published in 1911 and probably dates from the same year because the Chapel is shown as partially restored (the Restoration began in 1911). The Priests' House is shown with an extensive wooden cover. The picture has been touched up for publication. Plasterless areas on the Chapel wall have been filled in (compare with Photo 7). What appears to be a slanting post support for the west end of the Priests' House is actually an isolated post in front of the Chapel, shown clearly in Photos 4 and 6. Photo 6 provides the more extensive view of the Mission at this time, but it is less clear than Photo 7.

Photo 7: (Cole, p. 56; Levick, p. 8)

This single photograph was published in 1912 and 1914. The picture is essentially that of Photo 6 (the area included is smaller) but a different shadow line indicates that two distinct photographs are represented. Photo 7 must date before 1913, when the Priests' House was restored. Though incomplete, Photo 7 provides a very clear picture of the Chapel front and the west end of the Priests' House.

## APPENDIX IV

### CHILDHOOD RECOLLECTIONS OF MR. E. T. EHELEBEN

Mr. Emile T. Eheleben, of 536 Taraval Street, San Francisco, visited Sonoma Mission during the first week of the 1953 excavations and recalled certain details concerning the appearance of Sonoma Mission in the late 1800's.

He was born in 1884, came to Sonoma when he was five (1889), and left when he was ten years old (1894). His father, Frederick W. Eheleben, owned a saloon near the Mission, but the family lived in the present wooden house east of the present Museum which was owned by S. Schocken who also owned the Mission at that time.

Mr. Eheleben recalled that the Chapel was used as a barn during his childhood. The cupola still remained on the roof, and he described the east wall of the Chapel as plain except for a door near the center (no windows were recalled, and no building corresponding to the sacristy was mentioned).

The Priests' House was then separate and used as a winery; the walls were unplastered, and he felt that all doors and windows in the present Museum were modern and out of place. He remembered the beams as tied with rawhide on the inside. Barrels of grape mash were stored under a tile-roofed "shed" at the back of the House. Eheleben felt that the present timbers which project through the middle of the north wall of the Priests' House (Pl 1a) represent the height of this shed, but that it extended northward only half the distance between the present Museum and the foundations of Building A. Only dirt walkways existed around the Priests' House and Chapel at that time.

The quadrangle was recalled as the weeded area which it is today. He knew of no well or cistern. Children played in the area with an axled wheel (from a wheelbarrow), making an oval racetrack 6 to 8 inches deep in the area to the north of the newly exposed walkway. An artesian well across the present street to the west of the Mission supplied the water, stored in a tank; wooden pipes were used to conduct the water. A few old Indians lived in shacks at the northwest corner of the quadrangle. He recalled no dumping of garbage in the quadrangle or cactus patch.

Most of the details given by Mr. Eheleben agree with other 1888-1889 sources, notably Photo 1, Ryder, and Picture 5. The use of the Chapel as a barn, the cupola, the use of the Priests' House as a winery, the barrels of grape mash, the tiled "shed," and the artesian well. However, Mr. Eheleben's recollection of the west wall of the Chapel does not agree with Picture 5 (Fig. 1c) which shows a window at the south end and a sacristy protruding from the wall. The agreement between Picture 5 and the archaeological remains of Building A indicates that Mr. Eheleben's impression of the width of the rear "shed" is approximately correct, but he was confusing the present wall of the Museum with the then existent north wall of Building A. Ryder's contemporaneous account of 1889 indicates that garbage was being dumped in the cactus patch, at least.

Since the contemporaneous sources agree with the archaeological findings, those contradictions presented by the childhood recollections of Eheleben must be discounted. He arrived to see our 1953 excavations before the sacristy foundations, adobe walls, or well had been exposed, and we were not yet aware of the significance of the Building A foundations. Had he arrived at the end of our excavations, his memory no doubt would have been stimulated to a greater degree.

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## Explanation of Illustrations

### Map 1. Archaeological Excavations at Sonoma Mission.

(Sonoma Mission State Historical Monument General Map No. 18, drawn by B. J. Chrysler, was used for the base map.)

### Figure 1. Early ground plan and views of Sonoma Mission.

- a. 1854 groundplan of Sonoma Mission (from Bromilow, p. 37).
- b. Picture 3. Sonoma Mission in 1874 (from Egenhoff, Fig. 149).
- c. Picture 5. Sonoma Mission in 1889 (from Ryder).

### Figure 2. Cross-section views of tile walkways.

- a. North-South cross-section view of Chapel Walkway and Building B, looking west.
- b. Idealized North-South cross-section view of Building A walkway and drain, looking west.

### Figure 3. Plan of Feature 15.

### Figure 4. Construction details of Sonoma Mission.

- a. Cross-section view of Ditch A, looking south.
- b. Cross-section view of gateway drain.
- c. Reconstructed walls of the Priests' House.

## Explanation of Plates

### Plate 1. Views of Building A foundations, walkways, drain and wooden features.

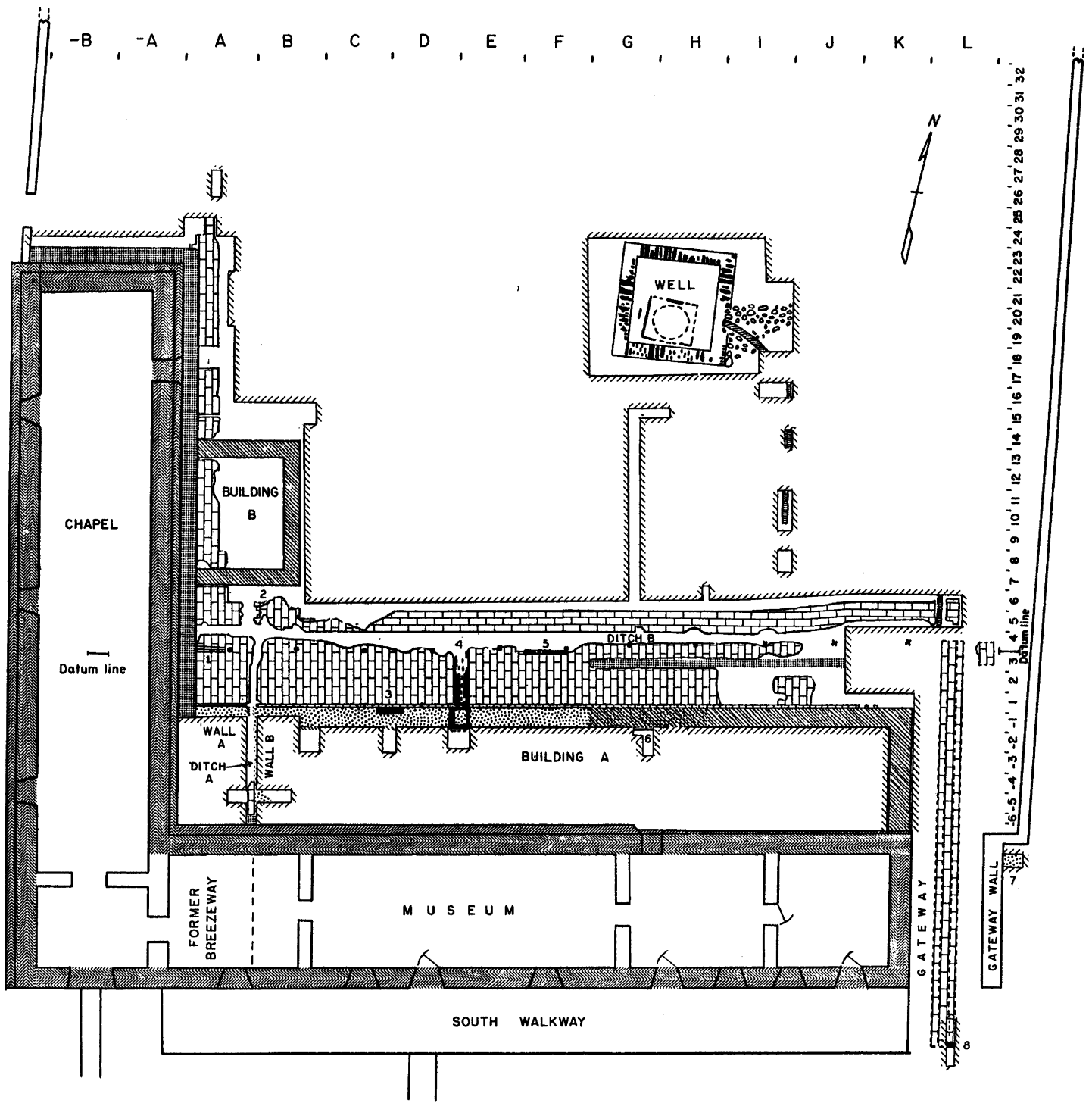
- a. Mission quadrangle, looking southwest, before excavation.
- b. East foundation remnant of Building A, looking south.
- c. Roof tile rubble at east edge of Wall B, within Building A.
- d. View of partially excavated southwest corner of quadrangle, looking southwest. "A" refers to Ditch A; "B" refers to Ditch B; "9" refers to Feature 9; "15" refers to Feature 15. South Wall of Building B appears in lower right corner.
- e. Tile drain and walkway of Building A, looking west. Ditch B separates drain from Walkway.
- f. View of Feature 15, looking northwest. Note double layer of tile bricks and roof-tile fill.
- g. View of Ditch A through walkway, edging, and foundations of Building A; Wall B in upper center; Wall A in lower right. View to southeast.
- h. Feature 11, along south edge of tile edging and walkway of Building A, looking north.
- i. Feature 10, laid through the tile walkway, edging and adobe wall of Building A, looking south.
- j. Feature 9, looking northwest, showing patch in Chapel walkway. Note broken north edge of walkway and omission of one brick for Post 1 (upper left).
- k. Feature 14, after exposure, looking south. Building A walkway above, tile drain below Feature. Arrows point to posts of Feature; the number "6" indicates Post 6 of the colonnade.
- l. Feature 12, before exposure of the gateway drain, looking north.

### Plate 2. Archaeological features of Sonoma Mission.

- a. View of Chapel walkway and Building B, looking south.
- b. East interior wall of Chapel, after removal of plaster, looking northeast. Door 1 appears at the left while the north side of Doors 2 and 3 can be seen at the right.
- c. East interior wall of Chapel, looking southeast, after removal of plaster. ---- = Door 2; ..... = Door 3; -.-.-.- = sealed window.

Plate 2 (continued)

- d. View of Building B, looking south. Ditch A in background.
- e. Roof tile drain and field stones of Feature 4, looking southwest. See Plate 2 h.
- f. North wall of Building B, looking east, showing intrusion of stone foundations through Chapel walkway.
- g. Detail of southern end of roof tile drain (Trench 8 I), south of Feature 4. View to north.
- h. General view of well area, looking west, before excavation of well. Well outline is shown by dotted line within wooden rectangles.
- i. View of partially excavated well or cistern, looking northwest.



MAP I. ARCHEOLOGICAL EXCAVATIONS AT SONOMA MISSION  
 July, September, 1953

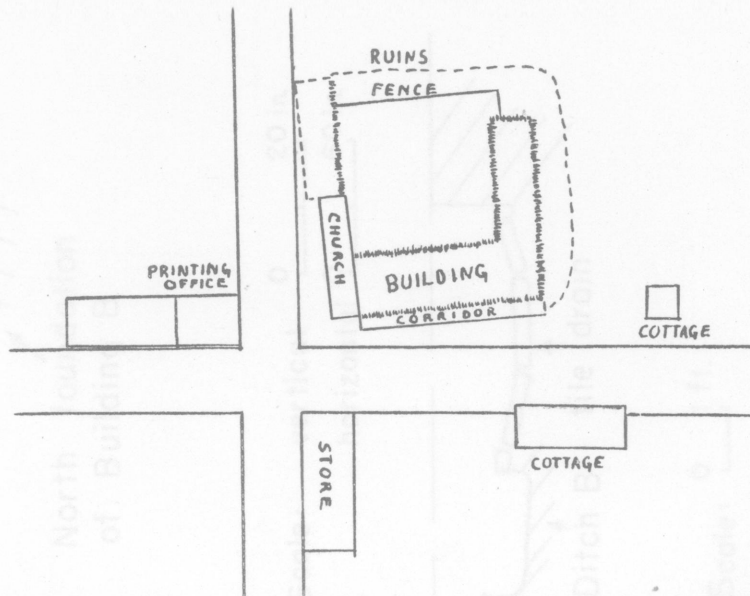
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LEGEND

- Existent buildings
- Exposed foundations
- Adobe brick walls
- Tile walkway
- Tile edging
- Building A drain

- Gateway drain
- Roof-tile drain
- Modern disturbance
- Wood features
- Posts
- Restored posts
- Limits of excavation

- | Numbered Features |               |
|-------------------|---------------|
| 1. Feature 9      | 5. Feature 14 |
| 2. Feature 15     | 6. Feature 16 |
| 3. Feature 11     | 7. Feature 17 |
| 4. Feature 10     | 8. Feature 12 |



a. 1854 Groundplan of Sonoma Mission



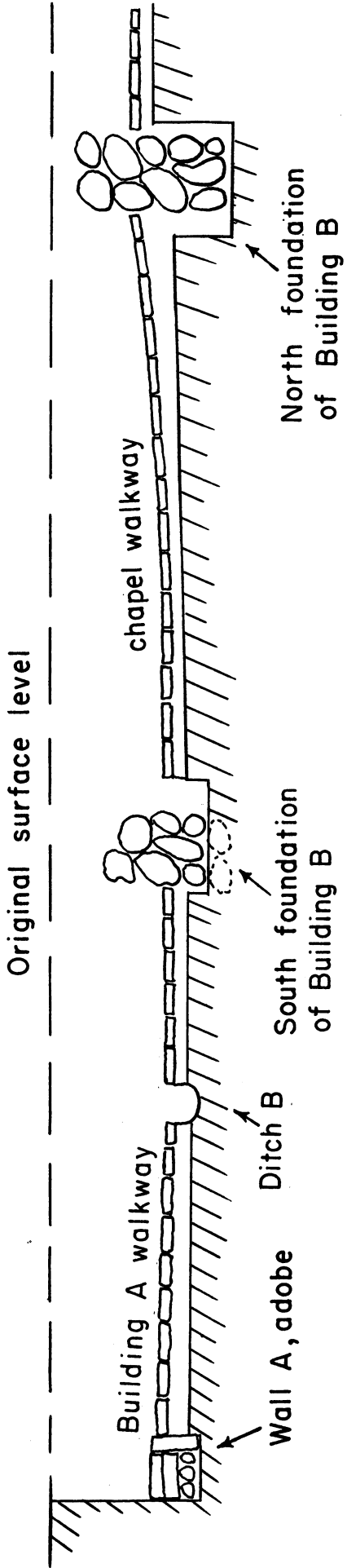
b. Picture 3. 1874



c. Picture 5. 1889

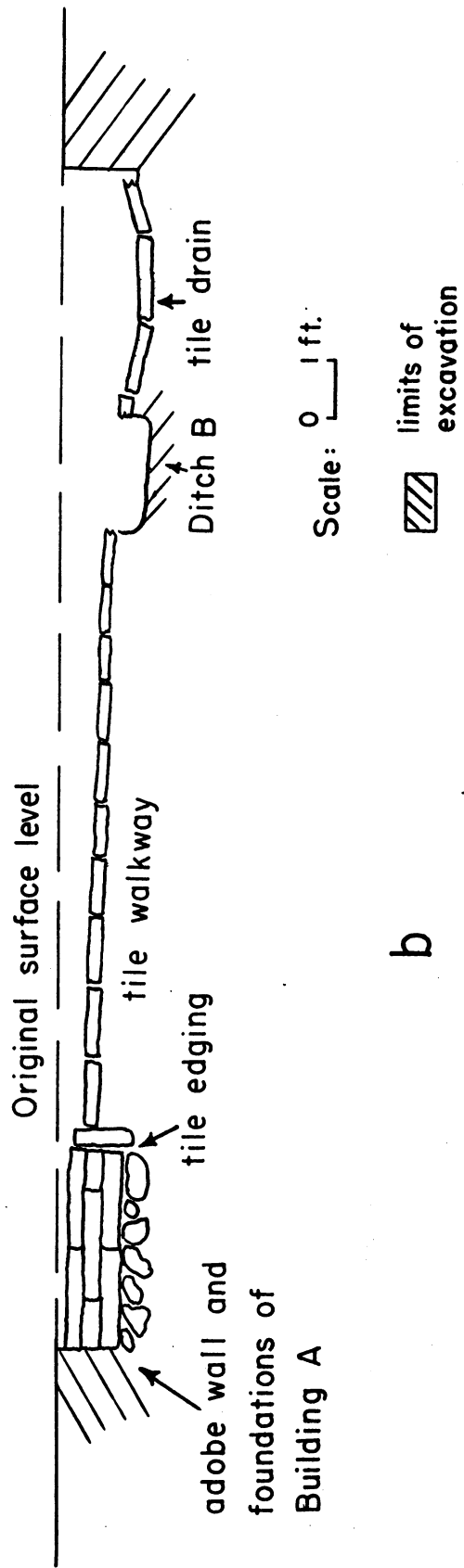
Figure 1





a

Scale: vertical 0 20 in.  
horizontal 0 60 in.



b

Figure 2

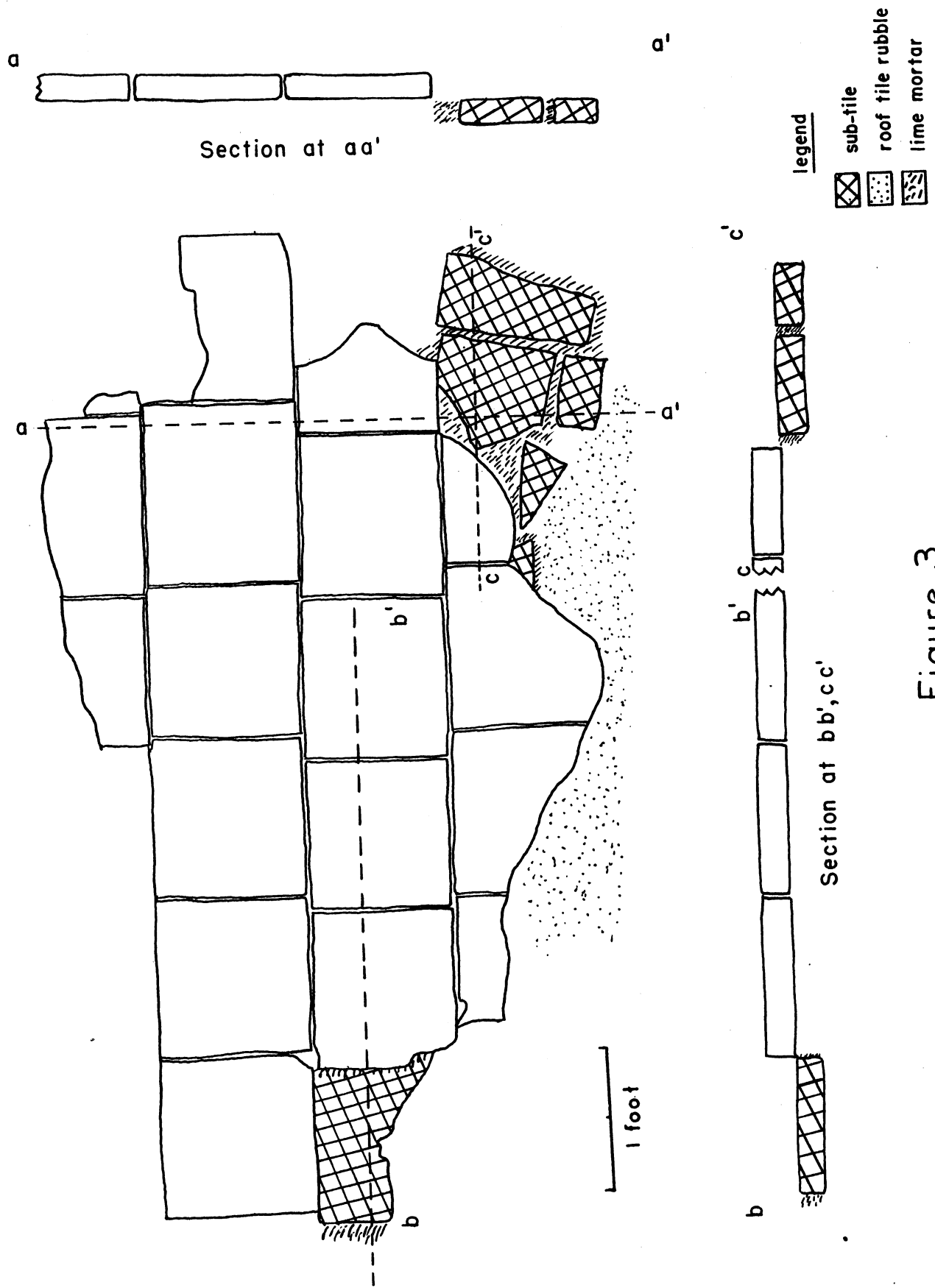
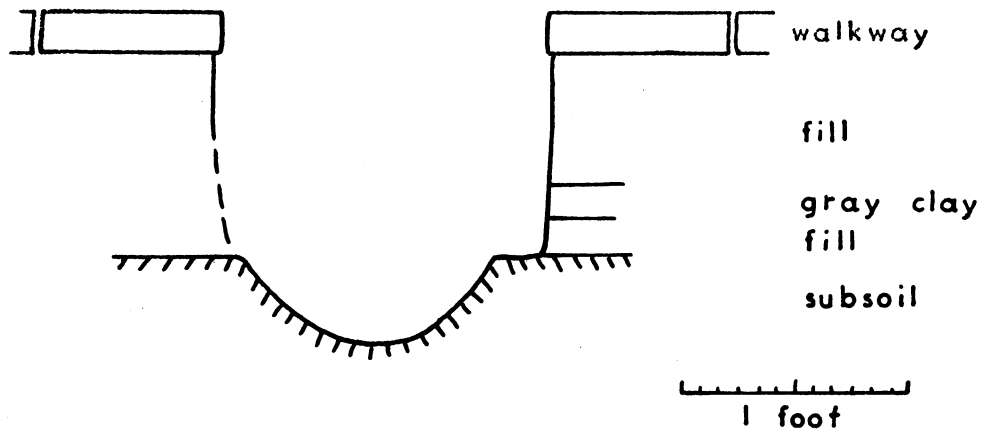
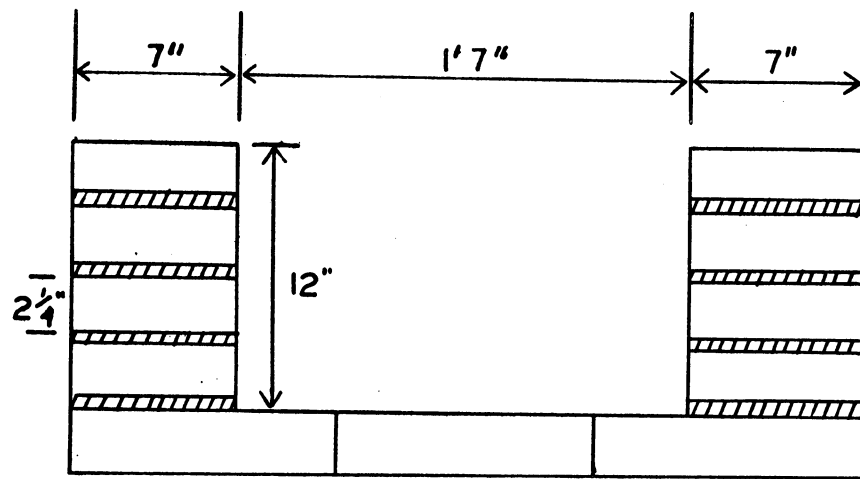


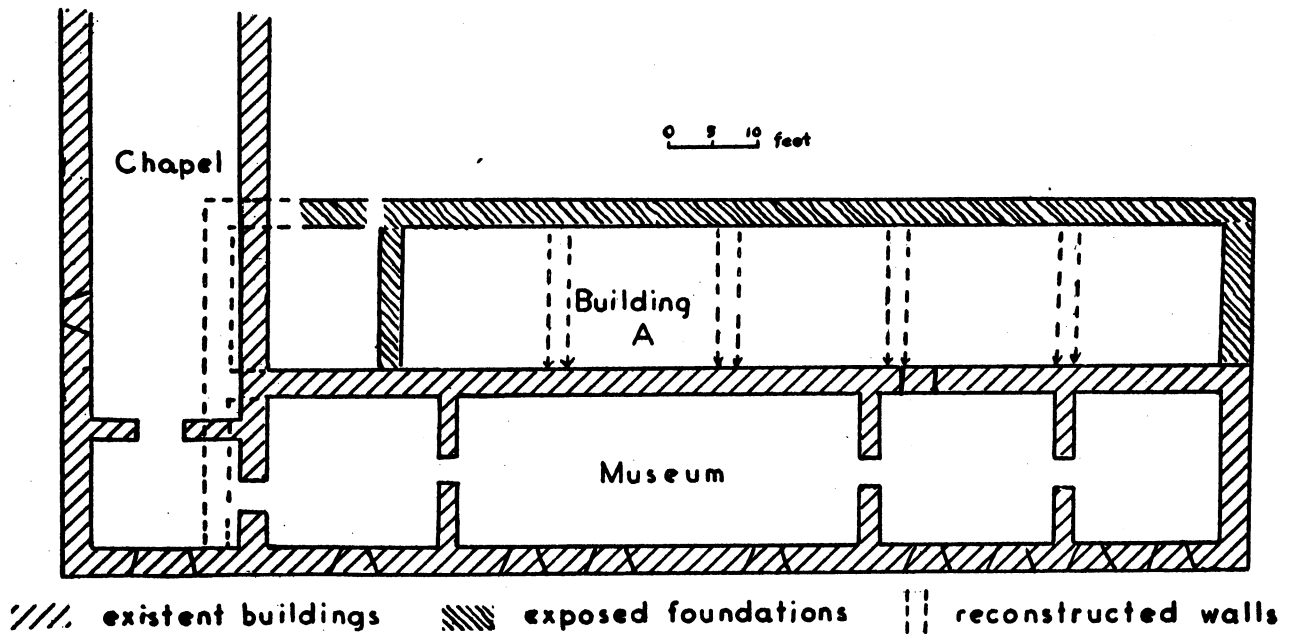
Figure 3



a. Cross-section of Ditch A

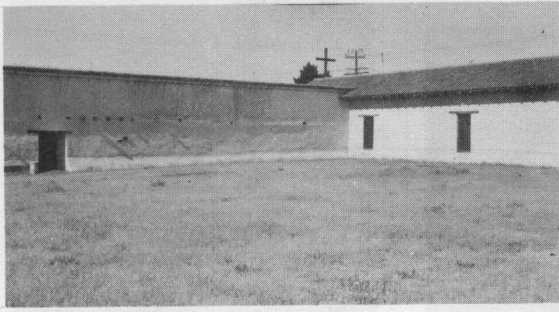


b. Cross-section of Gateway Drain



c. Reconstructed Walls of the Priests' House

Figure 4



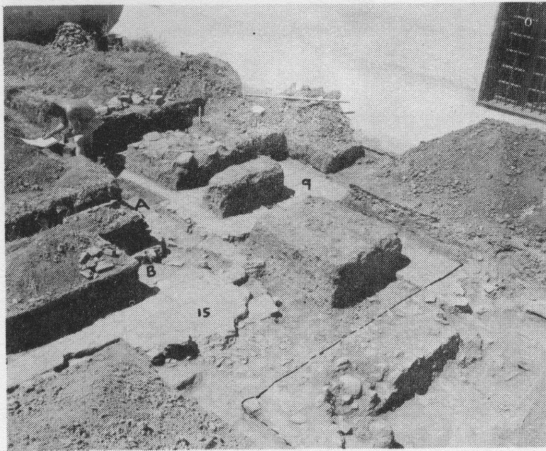
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b



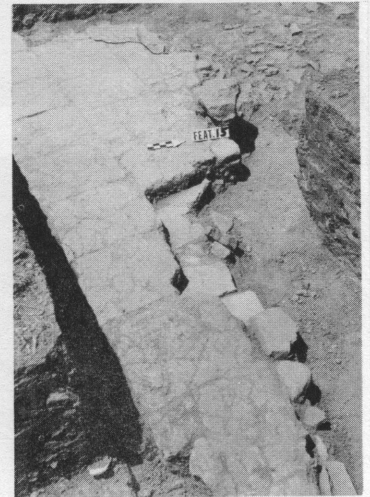
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d



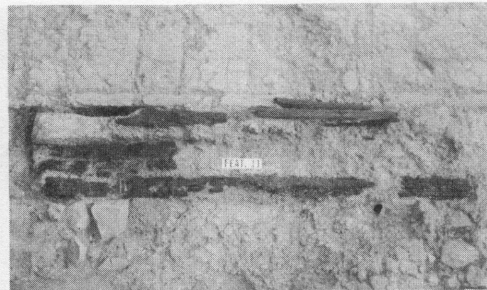
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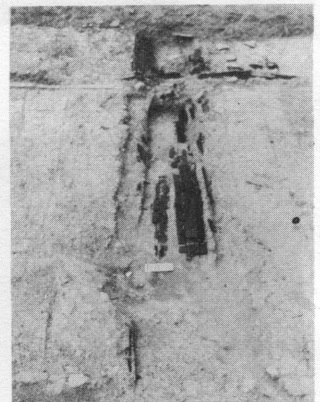
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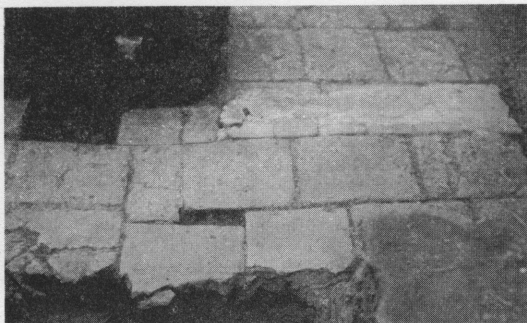
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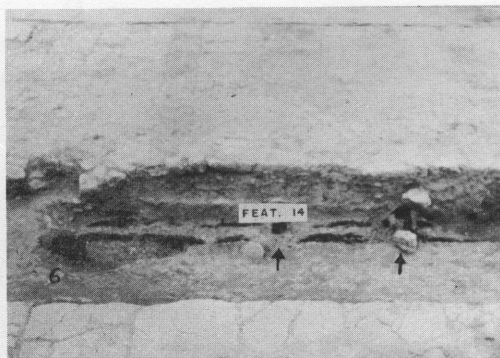
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i



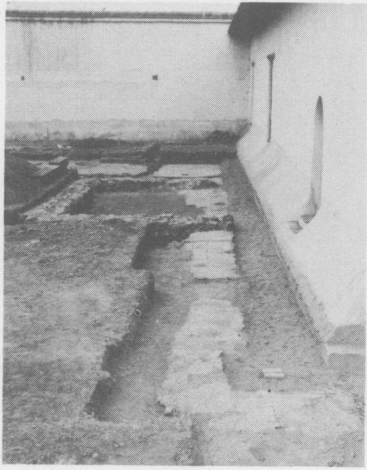
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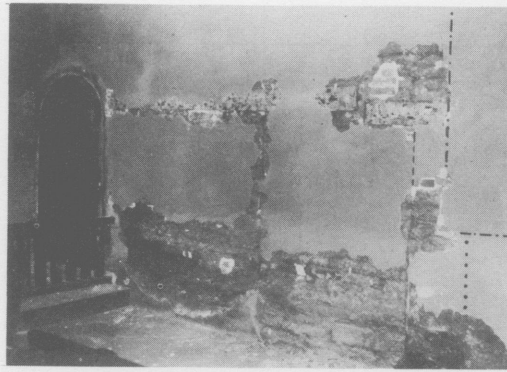
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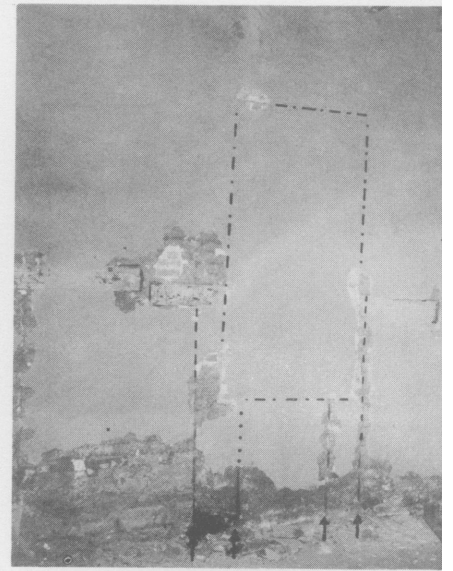
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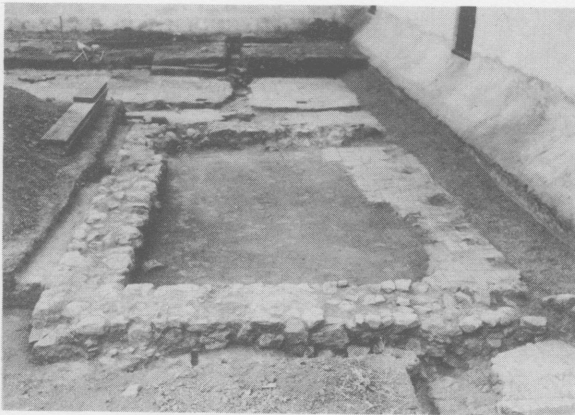
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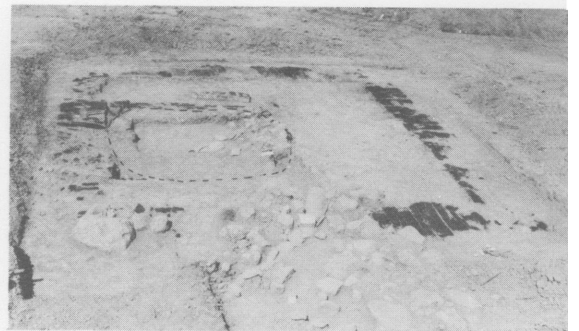
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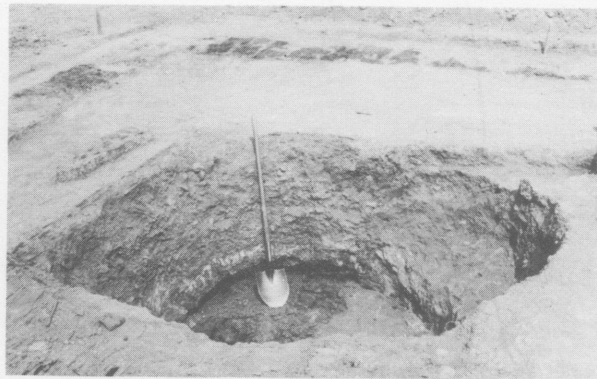
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