National Park Service
U.S. Department of the Interior

Eugene O'Neill National Historic Site,
Danville, California



Cultural Landscape Report
Eugene O'Neill National Historic Site

National Park Service Pacific West Region 2004

Final Draft
Cultural Landscape Report
Eugene O'Neill National Historic Site

National Park Service
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2004

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Introduction

Management Summary

Established in 1976, the Eugene O'Neill National Historic Site is located near the city of Danville, California, approximately 50 miles east of San Francisco. The property is the location of the Tao House, which was the residence of American playwright Eugene O'Neill and his wife, Carlotta between the years 1937 and 1944. While living at the Tao House, Eugene O'Neill wrote some of his most significant work, including *The Iceman Cometh* (1939), *Hughie* (1941), *A Touch of the Poet* (1942), *Long Day's Journey into Night* (1941), and *A Moon for the Misbegotten* (1943). The Tao House was listed in the National Register of Historic Places in 1971, and the entire property was designated a National Historic Landmark in 1976.

Today, the Eugene O'Neill National Historic Site is jointly administered between the National Park Service and the Eugene O'Neill Foundation. The National Park Service (NPS) is responsible for managing and preserving all resources, while the Eugene O'Neill Foundation: Tao House operates offices on the site and sponsors plays and public events related to the work of Eugene O'Neill.

Management of the historic site is outlined in the 1990 *Final Environmental Impact Statement & General Management Plan: Eugene O'Neill National Historic Site*. As documented in this plan, the primary management objective for the historic site is to preserve and restore the historic scene, including restoration of the Tao House and surrounding landscape.

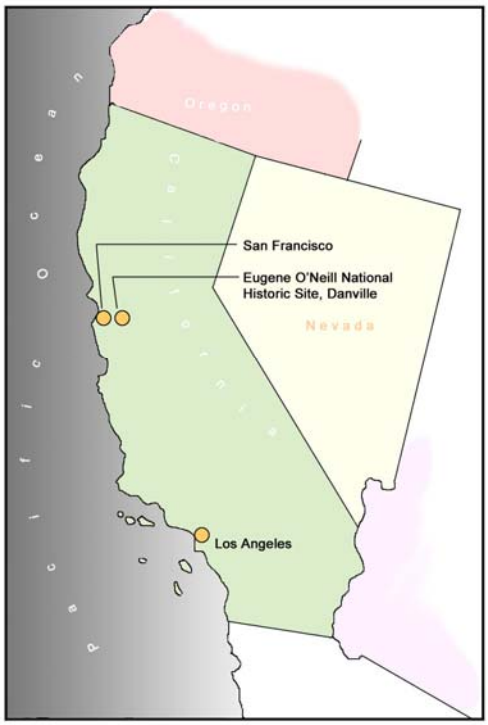
Since the historic site was established, a considerable amount of research and several historic studies have been completed. The primary baseline history for the site is the *Eugene O'Neill National Historic Site, Cultural Resources Study* (1979), by Gordon S. Chappell. This document provided much of the background information for the Site History and the Analysis and Evaluation sections of the Cultural Landscape Report. In addition, a *Historic Structures Report* for the Tao House, completed in 1979, provided

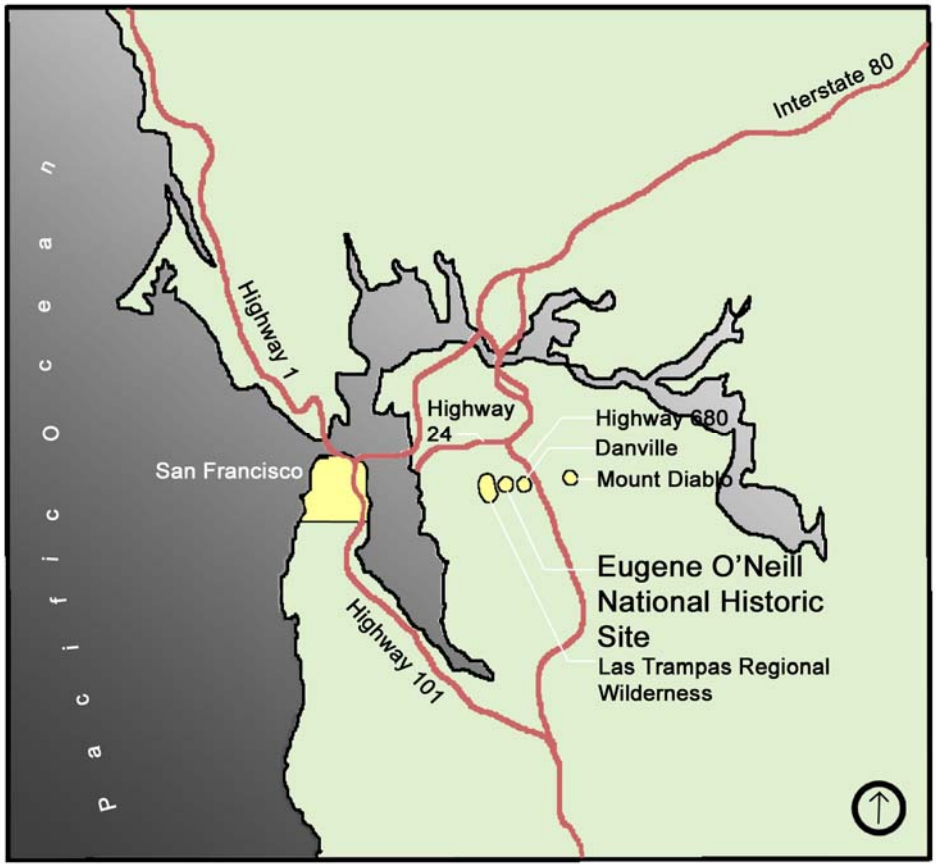
technical information about the Tao House, including some of the exterior patios and areas adjacent to the house. This work provided the basis for restoration of the Tao House to the period of significance (1936-1944).[1]

In addition to these research documents there are two reports that address the cultural landscape specifically. The *Tao House Courtyard: Historic Landscape Study and Design Proposal* by Cathy Gilbert was completed in 1986 and provided the documentation leading to the rehabilitation and restoration of the Tao House Courtyard on the southwest side of the residence. This work, which completed a major effort by the NPS to fully restore the primary buildings and courtyard to the O'Neill period (referred to in the document as the period of significance), was completed by the NPS in 1987. The other document addressing landscape resources at the historic site is the *Tao House Exterior Landscape: Historic Landscape Study* by Christina De Martini. Completed in 2002, this document was undertaken to compile historical information and data on existing conditions related to the grounds surrounding the Tao House. While a large amount of information was collected, this report did not evaluate the historical significance of the landscape, or prescribe treatments for preserving or managing the cultural landscape.

This Cultural Landscape Report (CLR) was undertaken to consolidate existing research and evaluate significant landscape resources surrounding the Tao House, in order to propose specific treatments for restoring the entire 13.17-acre site, as called for in the General Management Plan (GMP).

D1: LOCATION MAPS





Historical Summary

After winning the Nobel Prize in 1936, Eugene O'Neill and his wife Carlotta moved from their home in Georgia and purchased 157 acres of property near the town of Danville, California as the site for their new residence. The property, located on the eastern slope of Las Trampas Ridge, provided privacy and expansive views to the San Ramon Valley to the east, and east to Mt. Diablo. Here the O'Neills built the Tao House to serve as their residence for the next six years—a period during which Eugene O'Neill wrote some of his most important works. Both Eugene and Carlotta O'Neill participated in planning the development of the property, which eventually included the construction of 19 structures and the designed gardens surrounding the house.

A pervasive influence on the design of the house and landscape was the O'Neill's personal interpretation of the Chinese philosophy of Taoism. Taoism is a far ranging philosophy and way of life that centers on the belief that the eternal order of the universe is reflected in the harmony of nature. Although aspects of Taoism are reflected both in the layout of the grounds and in design elements of the Tao House, the O'Neills also incorporated other stylistic elements, drawing on both Mediterranean and Spanish design concepts.

Access to the property was through a gate and along a winding road to the upper terrace where the house was located. The house itself had several exterior patios, balconies, a loggia, and a large formal courtyard on the southwest side of the house, physically linking the house to the gardens and larger landscape. To the north of the house and down a slope, the O'Neills built a swimming pool with surrounding landscaping. Physically remote from the house, this area was one of the first to be developed by the O'Neills and was used most often by Eugene O'Neill when weather and health permitted.

The grounds surrounding the house were also landscaped and planted with a variety of materials, most of which were from local nurseries and growers. In general, plantings near the house were massed in planting beds to stabilize slopes, create privacy, and mark transitions to other areas. Especially on the east side of the house, plants were kept low in

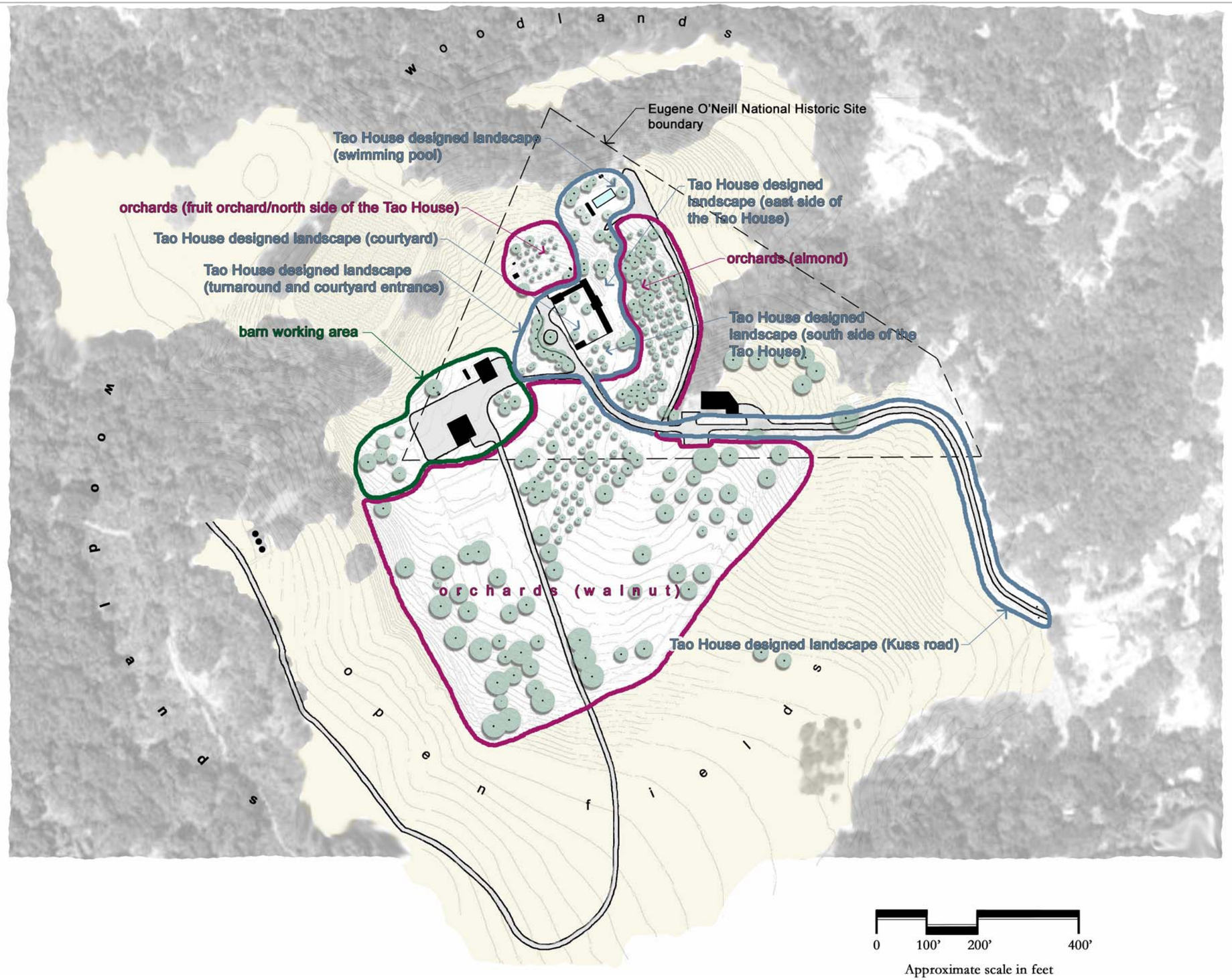
order to take advantage of views to the surrounding hills. These views were important attributes of the site for the O'Neills and were among the reasons for the choosing the site for their home.

In addition to the formal landscaped areas, the O'Neills maintained three relatively large orchards on their property. Wrapping around the house and down the slopes to the south and east, these orchards included walnut trees, almond trees and fruit trees. Hay and other crops were cultivated in outlying grasslands. A utility or work area was located near the barn located west of the courtyard. This multipurpose area was used to store machinery and materials, and was also the location for the chicken yard. Water for the property was supplied from springs located uphill, and piped from storage tanks to the house and gardens. A utility road provided access to the tanks from the work area.

The O'Neills lived at the Tao House until 1944, when they sold the property to Arthur Carlson. Today the historic site is managed by the NPS, with productions of O'Neill's plays administered by The Eugene O'Neill Foundation: Tao House. The book store is managed by Western National Parks Association (WNPA).

The Tao House was listed in the National Register of Historic Places on March 23, 1971, and designated a National Historic Landmark that same year. The significance of the site was recognized by Congress; legislation authorizing the property as a unit of the National Park Service was signed into Public Law by President Gerald Ford on October 19, 1976. This established the Tao House and 13.17 acres of the designed landscape as Eugene O'Neill National Historic Site.

Today, the cultural landscape managed by the NPS includes the majority of landscape features historically associated with the Tao House, including the swimming pool, portions of the original orchards, work areas, and all of the designed gardens surrounding the house. Located outside the NPS boundaries are several historic structures, such as the stone gateposts at the entry and the water storage tanks on the ridge above the house (currently managed by the East Bay Regional Park District).



CHARACTER AREAS

Cultural Landscape Report
Eugene O'Neill National Historic Site
National Park Service
Danville, California

Produced by
Pacific West Region Cultural Landscape Program
National Park Service
Seattle, Washington

D 2

Notes:

The character areas with common issues are grouped together.

Additional field checking completed by the Columbia Cascades Support Office and the Pacific Great Basin Support Office in 2003.

Information presented in this plan is derived from Autocad maps produced in *The Tao House Exterior Landscape: Historic Landscape Study*, 2002 by De Martini, and from historic photographs and air photos.

Plan drawn using Autocad 2002 and
Adobe Photoshop 7 by Michael J.Hankinson, NPS

Legend

- Tao House Designed Landscape
- Barn Working Area
- Orchards
- Open Fields
- Woodlands

Scope and Methodology

The scope of work for the CLR was developed by park and regional cultural resources staff in 2003. Primary work on the CLR was completed by a historical landscape architect from the regional office in coordination with park management, maintenance and resource staff.

Because much of the landscape history has been compiled, no new historical research was undertaken for this report. Rather, the CLR focuses on the analysis of historic and existing information in order to evaluate the significance of the landscape and identify resources contributing to the historical significance of the site. Research materials used in this report, including journals, diaries, and historic photographs are located in the park collection at the site. Field documentation to record existing conditions and identify plant materials currently on the site was conducted in two site visits during the course of the CLR project.

The CLR for Eugene O'Neill National Historic Site is divided into two parts. Part I includes the Management Summary, Existing Conditions, Site History, and Analysis and Evaluation of landscape characteristics and features. Existing Conditions describes the landscape as it exists today, and includes the documentation of landscape characteristics such as vegetation, circulation, and buildings and structures. The Site History describes the physical development of the cultural landscape by key time periods, as well as the design intent associated with implementation of the landscape plans. The Analysis and Evaluation describes the landscape characteristics and features comprising the cultural landscape, and indicates what features retain integrity in terms of location, design, setting, materials, workmanship, feeling, and association.

Part II of the CLR includes overall treatment strategies and recommendations for preservation of the historic designed landscape based on the analysis and evaluation of significant resources. The treatment section describes specific actions that can be taken to restore the physical appearance and material character of the designed landscape to the

O'Neill era, by removing elements that are not historic and reestablishing features and materials that comprised the landscape as designed and implemented by the O'Neills between 1937 and 1944.

All treatments proposed in Part II of the CLR are developed in compliance with the guidelines established by the National Park Service DO-28: *Cultural Resource Management Guidelines* (1997), *Guide to Cultural Landscape Reports: Contents, Process, and Techniques* (1998), and *The Secretary of the Interior's Standards for the Treatment Historic Properties, with Guidelines for the Treatment of Cultural landscapes* (1996).

Study Boundaries

This CLR addresses all of the resources historically associated with the property during the O'Neill residence at the Tao House between 1936 and 1944. Although the property purchased by the O'Neills originally covered 157 acres, the current NPS boundary includes only 13.17 acres of the original holding. Cultural resources outside of NPS boundaries (the stone gateposts, the springs, the water storage tanks, and the surrounding fields and hillsides associated with the O'Neill orchards and farming activities) are considered part of the cultural landscape and are addressed in the Site History and Analysis and Evaluation sections. However, because the resources are on lands managed by the East Bay Regional Park District, prescriptive treatments for preservation are predicated on developing management agreements and partnerships beyond the scope of this report.

The boundary of the cultural landscape and the study area for this report therefore begins at the stone gateposts and heads west towards the springs. From this point, the boundary extends northwest towards the pool area. From the north side of the pool area, the study boundary extends back to the stone gateposts.

Existing Conditions

The Eugene O'Neill National Historic Site is located in Contra Costa County on the western edge of Danville, California. The site is located within Las Trampas Hills on a relatively flat area, approximately 700 feet above sea level, providing sweeping views east to the San Ramon Valley and Mount Diablo. As a result of the steep topography, public and private land ownership, and limited access to the area, the hillsides around the Tao House are relatively undeveloped. Today, the hills that surround the historic site fall within the 3,458-acre Las Trampas Regional Wilderness, a unit of the East Bay Regional Park District.

Natural Systems and Features

Climate in the Danville area is moderated by marine air that moves across the Northern California Coast Range. Because of the marine influence, the average high temperatures in July and August are in the upper 80-degree range, while in winter the average low is in the middle 30-degree range; rainfall averages less than 15 inches per year.

The level bench where the Tao House is located lies in the eastern foothills of Las Trampas Ridge. Above the site, the ridge rises steeply—as high as 2,300 feet in elevation. To the north, a deeply-cut drainage conveys much of the water down the slope northeast of the site, and the landscape gives way to the steep slopes leading down to create the San Ramon Valley.

The springs that historically provided water to the Tao House are located on the hill above the site. Although the springs are physically located in Las Trampas Wilderness and managed by the East Bay Regional Park District, the NPS retains the water rights for the spring and maintains a viable system.

Because of the steep terrain and designation as a regional wilderness, most of Las Trampas Ridge has never been developed or intensively used (other than as rangelands).

Areas that were once a part of the O'Neill property are now managed as natural habitat areas. As a result, plant and animal diversity is high and includes a number of special status plants and animals. The landscape surrounding the Eugene O'Neill National Historic Site is currently comprised of two primary plant communities—grassland dominated by introduced species, and oak/bay woodlands on surrounding slopes. Prior to the period of significance, the O'Neill property may have supported a coast live oak savannah community, with a native bunch grass understory.[2] Oak/bay woodlands would have covered the steeper slopes and canyons much as they do today. Two special status species that are considered to be rare are located both on and adjacent to the site—valley oak (*Quercus lobata*) and Northern California black walnut (*Juglans hindsii*).

Spatial Organization

The spatial organization of the historic site is defined by five landscape character areas, including the Tao House designed gardens and Kuss Road, the working area around the old barn, three orchards, open fields, and the forest. Most of the cultural resources, including the primary historic structures, are preserved and interpreted. NPS offices are located in the caretaker's residence (non-historic), and offices for the Eugene O'Neill Foundation are housed in the new barn.

Buildings and Structures

Today, 18 of the original 19 buildings and structures remain at the site. Some of these structures are outside the designated NPS boundaries, within Las Trampas Regional Wilderness, or on private property. The structures located outside the NPS boundaries include the water catchment system, the north water storage tank, central water storage tank, south overflow water storage tank, stone gateposts, and the gravesite of the O'Neill's dog, Blemie.

The remaining buildings and structures on-site include the Tao House, the courtyard trunk room, the old barn, swimming pool, swimming pool change house, swimming pool

pump house, chicken coop, potting shed, incinerator, brick bench, and the garbage enclosure.

Two buildings at the Eugene O'Neill National Historic Site were constructed after the period of significance: the caretaker's residence that currently serves as the park headquarters, and the new barn that provides offices and facilities for the Eugene O'Neill Foundation.

Circulation

Primary access to Eugene O'Neill National Historic Site from Danville, California is via a NPS shuttle van. At the entry to the site, limited and gated access is along Kuss Road, which winds up the hill to the house. Visitors arriving on the van congregate at the turnaround for guided tours of the Tao House and its surrounding grounds.

Secondary roads, including the fire road, the road to the barn from the turnaround, and the road to the pool, are not accessible to the public in vehicles. Formal walkways within the courtyard and surrounding the house and around the swimming pool are brick, and informal walkways, many of which are historic, are surfaced with dirt.

Vegetation

A variety of plant materials installed at the Tao House by the O'Neills between 1938 and 1944 remain throughout the property. Vegetation in the Tao House Courtyard is largely a product of restoration efforts in the 1980s when over 90 percent of the non-historic plant materials were removed and replaced with plants that were present and characteristic of the design during the O'Neill period. Today, almost 20 years after restoration efforts, some plant materials in the courtyard have failed, but most of the vegetation planted during the restoration remains. Lawn covers the upper terrace on both sides of the entry walk; the clipped hedges line both sides of the main entry walk; the rock garden remains; the prominent arborvitae trees flank the main entry into the Tao House, and a magnolia

tree is sited in its original planter. Along the courtyard walls, creeping fig and star jasmine are clipped and maintained, while wisteria continues to grow along the second floor balconies of the Tao House.

Vegetation around the swimming pool area retains it overall historic character, with a number of trees and shrubs having survived the 57 years since the end of the historic period. Today, the pool is a rather private, quiet area that is enhanced by the surrounding plantings of coast redwoods (non-historic), a pine tree, and numerous shrubs from the historic period.

Vegetation on the north, south, and east sides of the Tao House has changed over time, but retains its historic character in terms of overall character. On the north side, a fruit orchard planted after the historic period remains sited close to the Tao House. On the south side, citrus trees, oleander bushes, and oak trees characterize the area, although two of the historic oak trees planted approximately 10 feet away from the courtyard wall recently died and were removed. Other existing trees, such as the purple-leaf plum trees, are also from the historic period although they are much larger and more mature than they were during the historic period. On the east side, two walnut trees, five coast redwoods, a California privet hedge, and a strawberry tree date to the historic period, while the heavenly bamboo shrubs were planted after the historic period.

The walnut orchard is a mixture of black walnut species, including eastern black walnut (*Juglans nigra*), Northern California black walnut (*Juglans hindsii*) and Southern California black walnut (*Juglans californica*). The trees are planted in a grid pattern and were probably grafted with English walnut (*Juglans regia*) during the O'Neill period. The almond trees in the orchard on the east side of the Tao House also date to the historic period, although several other trees in this area are not historic, including valley oak, coast live oak, and coyote brush.

The open fields surrounding the Tao House also remain from the historic period, although the eastern portions of the fields were reduced in size when the orchard was enlarged after the O'Neills sold the property in 1947.

At the turnaround, the loss of the giant oak tree (in December, 1995) that dominated the planting bed during the O'Neill period has altered the character of the space. Areas that were once completely shaded by the tree are now in full-sun, and the pervasive sense of enclosure the canopy provided is gone. The sycamores trees around the outer circle have become the defining features of the planting bed, and the eucalyptus, because of its height and size, has become the focal point. The hawthorns flanking the entrance to the courtyard are not historic, but mirror the original hawthorn plantings from the historic period. The chinaberry tree, which had died by the early 1990s, was removed by the NPS in 1997 leaving a stump, which remains today. A propagation slip was taken from the original tree and a new tree grown from this cutting, was planted in 1999, approximately 7 feet west of the original.

Small-Scale Features

A number of small-scale features remain at the historic site, including the stone gateposts, the brick bench, the birdbath, the garbage enclosure, several designed planting beds, the rock arrangement near the east terrace, Blemie's gravesite, barbed wire and metal fences, wood corrals, and garden furnishings.

Views and Vistas

Views from the Tao House to Mount Diablo and from the Tao House to the surrounding hills remain much as they appeared during the O'Neill period. Mount Diablo, now a California State Park, is protected from development and retains the landscape character and appearance it had during the historic period. However, the same is not true for the valley below. The San Ramon Valley east of the Tao House is now the setting for several growing communities, which includes Danville (pop. 43,000), Walnut Creek (pop.

64,000), and San Ramon (pop. 45,000). As a result, the view east from the Tao House has changed considerably and is dominated by new development.

EXISTING CONDITIONS

October 2003

Cultural Landscape Report
Eugene O'Neill National Historic Site
National Park Service
Danville, California

Produced by
Pacific West Region Cultural Landscape Program
National Park Service
Seattle, Washington

D 3

Notes:

Additional field checking completed by the Columbia Cascades Support Office and the Pacific Great Basin Support Office in 2003.

Information presented in this plan is derived from Autocad maps produced in *The Tao House Exterior Landscape: Historic Landscape Study*, 2002 by De Martini, and from historic photographs and air photos.

Plan drawn using Autocad 2002 and Adobe Photoshop 7 by Michael J.Hankinson, NPS

Las Trampas Wilderness

Eugene O'Neill National Historic Site boundary

Fruit orchard
Incinerator
Potting shed
Pump house
Swimming pool
Change house
Almond orchard
Tao House
Trunk room
Turnaround
Old barn
Chicken coop
Brick bench
Courtyard
Blemie's grave stone
Water storage tanks
New barn
Caretaker's residence (Historic site headquarters)
Historic site entrance gate
Walnut orchard
Stone gateposts
Spring/Water catchment system
Las Trampas Regional Wilderness Fire road
City of Danville lands
Cultural landscape boundary

0 100' 200' 400'
Approximate scale in feet

Legend

- Orchards/Designed Landscape Vegetation
- Open Fields
- Woodlands
- Historic Site boundary
- Cultural Landscape boundary

Site History

After winning the Nobel Prize in 1936, Eugene O'Neill and his wife Carlotta purchased 157 acres on Las Trampas Ridge near the town of Danville, California. There they built a new residence, later called the Tao House, which was to be their home for the next six years. The move from O'Neill's previous home in Georgia was made for several reasons. Eugene O'Neill's health was poor and they thought he would benefit from California's favorable climate. Moreover, the new site was remote and rural in character, and for both Eugene and Carlotta it offered the privacy and beauty they both desired.

In choosing the San Ramon Valley for their home, Eugene and Carlotta O'Neill selected an area with a rich agricultural heritage. The property purchased by the O'Neills was at one time part of the Dona Rafaela Soto de Pacheco cattle ranch, within the Rancho San Ramon.[3] When the O'Neills bought the property, remains from these earlier settlements were evident, including two small adobe structures, a wood barn, remnant fences, and a scattering of walnut, oak, and locust trees.[4]

Initial Planning 1937-1938

After a boundary survey of the property in June 1937, it became apparent that among the first issues associated with construction would be access to the building site. In order to proceed, the O'Neills would have to build over a mile of new road up a step slope to the level area where the house was to be sited. Based on natural grades up the ridge, the road would necessarily be narrow and winding. Securing this access involved negotiating a right-of-way with nearby landowners, notably Mabel Kuss. Although the process of obtaining the right-of-way was a somewhat contentious process, Mrs. Kuss finally signed the deed in July 1937, allowing the road to be built.[5]

While the right-of-way was being negotiated, the site plan for the property and design of the house were underway. Initially the O'Neills hired architect Frederick Reimers to design the house. Both Eugene and Carlotta had strong ideas about the architectural

character of the structure and how it was to be constructed. Carlotta told Reimers not only what she wanted the house to look like, but also expressed opinions about the use of specific materials.[6] For unknown reasons however, very shortly after hiring Reimers, he was replaced on May 7, 1937 by architect Frederick L. Confer who was to work with the O'Neills to finalize the design and complete construction of their residence.

As proposed, the main residence was to be partly Spanish Colonial in style, echoing the design of Casa Genotta, the house the O'Neills built in Georgia. Eugene O'Neill stated that he preferred the design to not only reflect elements associated with this style, but also wanted to have the builder use historic building techniques in constructing the house.[7] It was soon made evident by the architect and the builder, that while many of the O'Neill's ideas for the house could be incorporated into the design, others were not possible. Construction on the house began as soon as the road to the site was complete, in 1937.

Sited on the eastern edge of the land bench, the L-shaped house was oriented east to west. The west side of the building included the main entrance, while the east side of the house stepped down the slope. Constructed of concrete baselite block and painted white, the house had 15 rooms on two stories. The overhanging hipped roof had a moderate pitch and was covered with black, handcrafted terra cotta tiles.

Construction took place over the seven months, and on December 30, 1937, the O'Neills moved into their new home. When completed, the residence, later called the Tao House, included the framework of the exterior courtyard and loggia on the west side, and several balconies, patios, and terraces on the east side, providing views to the valley below.[8] As the O'Neill home approached completion, the small adobe structures were razed. The old wooden barn, located west of the new house, was retained and was used by the O'Neills throughout their residence at the property.

The Tao House Landscape

During 1937, as the O'Neills were acquiring furnishings for their new home, Carlotta began purchasing garden ornaments for the grounds from area merchants, including pottery elephants (later places along the walkway to the pool), a chaise lounge, an ancient hay wagon for "atmosphere," a metal hitching post, and an Italian-style, pre-cast concrete stone birdbath for the courtyard.[9] A jockey hitching post was placed in the driveway turnaround area.[10] The O'Neills were very deliberate in purchasing garden furniture and ornaments. This was true of large items as well as small features such as the lead seahorse feeder for the birdbath. These purchases indicate that, to some degree, Carlotta had plans for the grounds at the Tao House. Like the house itself, the landscape was created with purpose and intent reflecting both personal taste and period design convention.

Even as the Tao House was nearing completion, the O'Neills began planning for development of the grounds around the house. Just as aspects of Taoism had influenced the architecture and interior design of the house, the same concepts influenced various aspects of the garden design. In some cases, these expressions were quite subtle, such as the use of curvilinear and indirect walkways around the house, or the symbolic placement of individual stones. In other instances, it was very explicit, such as the use of Chinese characters on the entry post. From the beginning, however, the overall design of the grounds did not necessarily conform to the standards of any one particular landscape style; rather, it was the result of Eugene's and Carlotta's interests, preferences, and interpretations of Taoism mixed with the ideas and suggestions of those who helped them plan, design, and implement the design for the grounds.

The landscape surrounding the Tao House developed over several years according to functional need, proximity, use, and personal design intent. In general, landscaped areas close to the house were more articulated and formal. As one moved away from the Tao House, landscape areas still reflected purposeful design, but they were less formal and more functional in nature as reflected in the open character of work or utility areas and the massing of plants for slope stabilization. As design progressed from planning to implementation, several distinct landscape character areas surrounding the Tao House

developed. These areas included the entry from Kuss Road to the turnaround at the top of the hill, the courtyard garden on the southwest side of the house, the utility area on the north side of the Tao House, the ornamental gardens on the south and east sides of the Tao House, the swimming pool and related outbuildings, the work area around the old barn area and chicken coop, and the orchards. Outlying areas that were also part of the overall planning included the springs and water storage tanks on the hillside southwest of the residence, and the fields surrounding the Tao House, portions of which were used for growing crops.

All of these areas had a design and functional relationship to each other. In the end, the overall character of the property was that of a small, working farm, with a concentrated building cluster located in a rural setting surrounded by orchards, open fields and woodlands. Within this development were several more formal and private outdoor spaces, reserved for exclusive use by the O'Neills such as the courtyard, the swimming pool, and the east terrace.

Initial Implementation 1937-1940

After construction of an access road, development of the water system on the property became paramount. Water for the Tao House was supplied from a spring located approximately 150 feet up the hill, west of the residence. Three redwood storage tanks, 10,000 gallons each, were constructed near the spring. Pipes from the tanks to the site were installed by builder Lloyd Simpson in 1938. Water traveled downhill from these tanks, providing a head of pressure through the catchment and pipe system to a distribution box located near the guest trunk room outside the courtyard.[11] Over the years, the O'Neills enjoyed the walk up to water tanks, and although the climb was a difficult one, as Carlotta recorded in her diary on October 27, 1937, they were rewarded for the effort with views to the valley below.

The general structure of the gardens and planting beds surrounding the house were outlined while the house was being constructed. And although the gardens and beds were

in place quite early, they were further developed with walkways and detailed plantings. Beginning almost immediately after the house was completed in early 1938, work on the Tao House grounds was progressing at such a rate that plans to expand the landscaped areas and gardens were proposed before summer. While most of the suggestions (including one for construction of a dam, waterfall, and lake below the house) were considered too expensive, construction of a swimming pool was undertaken and completed in 1938.

Somewhat remote from the main activity around the residence, the swimming pool was located northeast of the Tao House and down the slope. In addition to the pool, a changing room was built on the southwest side of the pool and a small pump house with a filtration system was installed just north and downhill from the pool. The pool was used mostly by Eugene O'Neill when weather and health permitted. In many ways, the swimming pool and surrounding area was his personal garden, as he was responsible for siting the structures and plantings, which resulted in a private, secluded place for him to relax and exercise. Although the pool was completed by spring 1938, the space surrounding it was not immediately landscaped. Built on a hillside, with the paved deck largely elevated from the surrounding ground, the view was expansive. O'Neill told friends that he found the effect disconcerting and that the lack of enclosure gave him an eerie feeling when he used the pool. To obviate this effect, O'Neill planted an allepo pine, a Canary Island pine, and several casuarina trees near the east end of the pool to fill some of that empty sky.[12] In addition to the trees, supplemental shrubs and groundcovers were planted in the pool area to make it more private and comfortable for O'Neill.

In many ways, the grounds surrounding the house were designed in response to the interior configuration of rooms and functional areas. In this regard, the north side of the Tao House was designed with utility areas for work-related activities. Based on available historical data, it is believed that the north side of the Tao House was almost entirely reserved for use by the hired help. From the kitchen area and servant's living quarters in the house, this area provided easy access to areas associated with the operation of the

household such as the incinerator, garbage enclosure, and potting shed. By design the O'Neills spent little if any time in this area.

The south side of the Tao House, with no egress, served as a public facade for those arriving along Kuss Road. Plantings on the south side of the house and along Kuss Road—including mature oaks—created a somewhat formal setting for the Tao House when viewed from the road.

The east side of the house was clearly designed as a primary personal space linking exterior and interior spaces. The main terrace on this side of the house was 35 x 10 feet in size with steps and walkways linking it to the pool area to the north and around the south end of the house to the barn working area. A brick walkway linking the turnaround along the south side of the Tao House served as a transition between the working area of the property and the east terrace, a space used exclusively by the O'Neills.[13]

Of all the garden areas around the Tao House, the interior courtyard on the southwest side of the house was the most purposeful and integrated into the design of the house. The Tao House courtyard was defined by the main entrance to the house, the loggia, and garage wrapping around on two sides, and a 6-foot-high wall on the other two sides. The walls intersected a trunk room, which was built in the southwest corner of the courtyard. This two-room building was stylistically similar to the Tao House, and was used for storage.

On March 9, 1938, a landscape architect worked with the O'Neills to begin planting the courtyard garden. In addition, documentation suggests that O'Neill took advice about the design from several individuals ranging from Mr. Freeman (their driver) to Mr. Sandkuhle a nurseryman from Danville, Mr. McCray, and a "nice old Japanese gardener." McCray and the Japanese gardener both worked at the California Nursery in Danville, where the O'Neills eventually acquired the majority of the materials for the courtyard and other areas of the grounds.[14]

The courtyard measured 100 x 65 feet and was designed with two terraces. The upper terrace was relatively level and provided a transition between the courtyard gate and the house. A narrow brick walkway led from the entry gate to the lower terrace. The walk was lined with a boxwood hedge. Lawn was established on the upper terrace on either side of the walkway. A low rock wall separated the upper terrace from the lower terrace. The lower terrace extended along the loggia and the front of the house, and was, in many ways, an extension of the interior spaces. The lower terrace was more detailed and articulated than the upper terrace and had a rock garden in the north corner next to the house, and several planters and seating areas under the shade of the chinaberry tree. An L-shaped goldfish pool was also constructed on the lower terrace and planted with water lilies.[15] Some of the plants used in the courtyard included wisterias, planted so that they would climb and grow along the balcony railings, three birch trees and various ferns planted in the rock garden, hawthorn trees, star jasmine along the wall, and plumbago.[16] The overall result was a highly designed and symbolic garden that would, over the next several years, receive considerable use and attention from the O'Neills.

By spring 1938, on the northeast side of the Tao House, redwood trees were planted along the lower walkways to the pool, partially screening the area and providing privacy. Ice plants were planted along Kuss Road, in front of the kitchen, on the south side of the house and around the swimming pool for both ornamental and functional purposes (soil and slope stabilization). That same year, casuarina trees and Irish yews were planted around the house and pool. A new weeping willow tree was planted next to the trunk room in the courtyard and azaleas and rhododendrons received as gifts were also planted. Also, a few plant materials (possibly oak and bay) were taken from the surrounding hills and were used in the gardens as ornamentals.[17] Although little information on farming activity at the Tao House is available, it is known that the O'Neills were using the fields south and southwest of the house for growing hay, grain, and corn crops.[18]

Maintaining the new plantings around the house became an issue almost from the moment they were installed. Grazing deer and other wildlife in the area had devastated many of the new plantings to the point where, in 1938, the O'Neills erected a wire fence

encircling the south and east sides of the Tao House (including the almond orchard) and the swimming pool. This fence was at least 6 feet in height and was used to prevent deer from damaging the vegetation.

Adjacent to this area, in the vicinity of the old barn, a chicken coop and chicken yard were constructed to house a small collection of hens maintained by the O'Neills. This area was designed as a general work area with undifferentiated space for vehicles and storage of equipment, materials, and supplies. Eugene O'Neill was known to spend a great deal of time relaxing in this area, either visiting Blemie's grave, watching the chickens, or puttering back and forth as he pruned trees in the orchard.

By the spring of 1939, both Carlotta and Eugene were spending at least a portion of every afternoon in the landscaped areas around the house. Eugene spent a great amount of time at the swimming pool and in the courtyard garden, pruning hedges and performing other light gardening activities. Carlotta was also working regularly in the courtyard, especially during the drought of 1939, when she hand-watered plants in the courtyard to keep them alive.[19]

Completion of the Landscape 1940-1944

Between the years 1940 and 1942, the serenity of the gardens at the Tao House provided a strong contrast to the workings inside the house and the numerous personal and financial pressures on the O'Neills. Eugene O'Neill was in an intense phase of playwriting while fighting recurring illnesses. Both he and Carlotta were consumed with fears and concern over the war reports from Europe. During these months, Eugene O'Neill often extended his work in the garden to full days, spending many afternoons tacking vines to the patio wall and pruning hedges. More and more the gardens became pockets of respite and distraction. As Carlotta wrote in late 1940, "We sit in the patio and try to throw off all the thoughts of plays and work and the past…" The Tao House was where Eugene and Carlotta O'Neill created a final harbor; in Eugene O'Neill's words, it allowed him to focus on his writing and recreational pursuits.

While most of the gardens and developed areas of the property were planted and well established by 1940, the O'Neills continued to modify, expand, and embellish the grounds. Between 1940 and 1942, a variety of annuals and perennials including alyssum, begonias, and pansies were planted in the courtyard garden. In 1941, the goldfish pool on the lower terrace was filled and planted. A note in Carlotta's diary indicates that white begonias were planted "where the fish pond used to be in the patio." It is unclear why the change was made, but for the remaining years this L-shaped pool remained a planting bed. By the fall of 1942, azaleas were transplanted in the courtyard and plans were made to plant the pool bed in double white violets.[20] With the exception of one large magnolia tree, planted next to the house, and new plantings around the pool, few new plants were obtained for these areas.

Also in 1938, Blemie, the O'Neill's beloved Dalmatian dog, died and was buried west of Tao House "on the side of the hill under the pines." The grave was marked with a granite headstone and white-painted dimensional posts and rails around its outer edge.[21] It is clear that Eugene and Carlotta were very upset by the dog's death.[22]

One area of the property that received new attention was the orchard, located on the south and east sides of the building complex. Orchard trees existed on the property when the O'Neills bought the land in 1936, and as early as 1938, Eugene O'Neill was discussing the idea of expanding the orchards. By early January 1941, men from the California Nursery visited Tao House to discuss this work, in addition to other garden projects for the coming spring. As a result of these discussions, walnut trees were planted south of the house and on the far side of the access road by February 1941. The day after the walnut trees were planted, almond trees were also planted.[23]

The orchards (both walnut and almond) represented another aspect of the site that reflected Eugene's interest more than Carlotta's. She did not seem to want a walnut orchard even though they already had a small one on the property. By contrast, from the beginning, Eugene expressed an interest in the existing walnut orchard and was the instigator for its expansion.[24] Once the orchard was installed, Eugene spent many days

pruning trees in the gardens and orchards around Tao House.[25] He continued to prune the orchards quite often at the end of 1940, during 1941, and intermittently after that until the property was sold.[26] It is clear, based on diary accounts, that Eugene cared about the overall health of the orchards, worrying about the new walnut and almond trees dying from too much water in one instance and personally pruning the trees.[27]

In terms of the physical layout, trees were planted in rows around the Tao House (with exception of the north side). By 1940, Eugene purchased a second-hand tractor, disc, and harrow for use in farming the Tao House property.[28] According to Carlotta's diary, the orchards were disked, ploughed, or cultivated in spring, summer and fall.[29] Very soon after planting the orchard, the south and east slopes around the Tao House had the appearance of a small working orchard.

The almond orchard established by the O'Neills was planted in February 1941 by workers from the California Nursery and Mr. Freeman (the O'Neill's private driver). Prior to establishment of the almond orchard, the landscape in this area was grassland, which extended down the hill to the tree line.[30] The almond orchard had more than 83 trees in four to five rows below the house to the east, following the hill contours around to the south.[31] During this period, Carlotta did not comment on the almond orchard planting in her diary other than to note that the trees were planted and that Eugene often worked in the almond orchard.[32]

Little additional information about the gardens at the Tao House was recorded in Carlotta's diaries from 1942 until the O'Neills left the property in February 1944. Work itself came to a near standstill as the couple was consumed with other tasks and were generally in poor physical health. To a degree, a greater amount of time was spent on the courtyard and the swimming pool than any other area. More than ever, the courtyard became a passive, contemplative outdoor space. Through 1943 there were few diary entries relating to the gardens other than the patio was watered, the hedge pruned, and the roses cut for the house. Because of the war, full-time gardeners were unavailable, but the O'Neills did retain part-time help on a regular basis. Physically unable to do the work he

had enjoyed previously, Eugene O'Neill spent more time supervising the pruning work of others, walking around the grounds, bringing cut daphne and almond blossoms into the house, or simply sitting quietly in the courtyard.

The work of keeping the Tao House going was all too much for Carlotta, and by the end of October 1943, she had persuaded O'Neill to put Tao House on the market.[33] Toward the end of 1943, the O'Neills were actively interested in selling the property and in February 1944, found a buyer.[34]

The O'Neills offered the Tao House to Dr. Clifford Feiler, who declined it, for about $70,000. At that, the sale represented a substantial loss, for it had cost about $100,000. Finally in January 1944, they found a buyer, Oakland attorney Arthur Carlson and his heiress wife, and concluded the sale in February for about $60,000. After the O'Neills left the Tao House, Eugene said in a letter to Barrett Clark on April 27, 1944: "What we do know is that we go East when we do leave. We have both had enough of the coast." [35]

Transition: 1945-1976

The Carlsons did not move into the Tao House until 1945. Once they did move in, they began a series of renovations and remodels to both the house and exterior gardens. During this period, a new barn was constructed, as well as a caretaker's house. Horses were maintained on site and the Carlsons (later Millers, and finally Gerdes as a result of subsequent remarriages by Mrs. Carlson) also engaged in cattle ranching. A nearby seasonal stream was dammed in order to construct an irrigation/livestock pond west of the old barn.[36]

The Tao House received numerous alterations by the Carlsons, including the removal of balcony posts, the addition of new windows, and an enlarged porch on the lower courtyard. A new picture window on the east wall of the living room was added to provide a view of Mount Diablo across the San Ramon Valley.[37]

In early February 1947, the Carlsons undertook renovation of the grounds around the house and hired the firm of Osmundson, Staley and Gibson, Landscape Architects, with Henry Sander as consultant, to draw up plans. The majority of their work addressed the reconfiguration of the courtyard garden on the southwest side of the house. The new plans removed a number of the original O'Neill design features, and generally reconfigured the brick walk from the entry gate (widening and straitening) and lower terrace (simplifying and opening the useable space). The bird bath and paver stones in the northern part of the courtyard garden were left.

At some point after the O'Neills left the property, the six wrought-iron Chinese script characters were removed from the outer garden gate. These items were retained by Mrs. Gerdes, who later donated them to the Eugene O'Neill Foundation, Tao House.[38] At a somewhat later date, after completing the original alterations to the residence, builder Christiansen was called back to build a new barn.[39] Additional alterations to the swimming pool area occurred with construction of a new dressing room, brick barbecue fireplace, and wet bar.[40]

Public Ownership: 1975-Present

In 1975, U.S. Senator Alan Cranston and Representative George Miller introduced bills to the U.S. Congress calling for establishment of the Eugene O'Neill National Historic Site. In May 1976 the bill passed the Senate but stalled in the House because the Department of Interior had no funds for acquiring the house. California State Assemblyman Daniel Boatwright introduced an urgency bill to the Assembly calling for purchase of the Tao House with Collier Park Preservation funds. State Senator John Nejedly introduced a companion bill in the Senate and AB 4539 was signed into law in September 1974. Because of the state's action on October 19, 1976, SB 2398, calling for establishment of the Eugene O'Neill National Historic Site, was signed into law by President Gerald Ford. The state appropriated $250,000 for the purchase, and the Tao House was transferred to the federal government on June 12, 1980.[41]

Management of the property by the National Park Service has focused on restoration, interpretation, and maintenance of cultural resources. Major restoration efforts were undertaken by the National Park Service in the 1980s to restore the Tao House, the courtyard, garden and other features including various walkways and terraces—to reflect the original design characteristics from the period of significance. Today, tours and activities, conducted in partnership between the National Park Service and the Eugene O'Neill Foundation: Tao House, are regularly conducted on site.

Restoration of the Tao House exterior landscape began in 1986 following completion of *The Tao House Courtyard: Historic Landscape Study and Design Proposal*. This Historic Landscape Report augmented previous studies conducted at Eugene O'Neill Historic Site by further clarifying the historic character, landscape features, and historic structures associated with the Tao House Courtyard between 1938 and 1944 when the Tao House was designed, planned, and constructed. The primary purpose of the report was to collect the information required to restore the garden to the O'Neill period, and based on those findings, prepare construction documents for implementation of the restoration plan.[42]

By 1990, the *Final Environmental Impact Statement & General Management Plan: Eugene O'Neill National Historic Site* was completed. The document discussed five alternative plans and the basic management philosophy for the park; management issues included access, historic scene preservation and restoration, performing arts and related educational programs, and the site boundary.[43] Actions considered included removal of a non-historic building to restore the historic scene, development of visitor parking, modification of existing non-historic buildings or development of new structures for administrative uses, modification of a historic building for adaptive use, and development of a new access road. [44]

Today, the National Park Service is responsible for operation of the historic site, including ongoing preservation maintenance of historic structures and grounds, museum and archive collection management, and interpretation, including public tours and programs in the Tao House and around the grounds. The Eugene O'Neill Foundation

maintains offices and supports theater productions and public programs related to the life of Eugene O'Neill. Visitors arriving by shuttle can take a guided tour of the Tao House and the courtyard garden or take the self-guided tour of the grounds surrounding the main residence.

Site History Images



H 1. Oblique photograph showing the Tao House, related outbuildings, and orchards approximately six years after the historic period (EUON collection).



H 2. Photograph of Carlotta and Eugene O'Neill in the Tao House courtyard (EUON collection).



H 3. Photograph showing the Tao House and the gardens on the south and east sides of the structure circa 1940 (EUON collection).



H 4. Photograph of the turnaround and courtyard wall circa 1944 (EUON 1391 M, archive room).



H 5. Photograph of the west side of the Tao House and the turnaround. Note the wagon to the left of the photograph, the oak tree dominating the circle planting, and the wood-planked route from the turnaround to the old barn (EUON 1391 JJ, archive room).



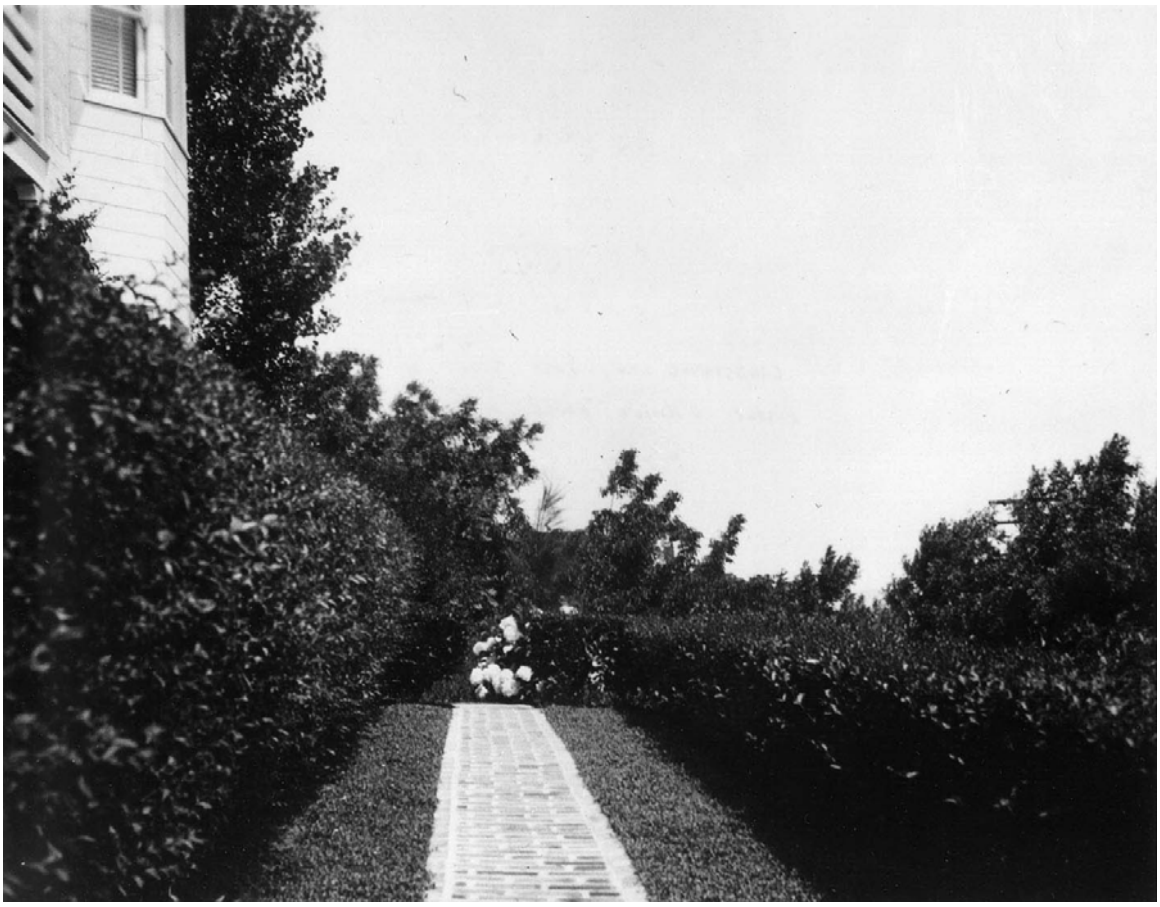
H 6. Photograph of the old barn taken from the turnaround, circa 1942 (EUON 1391 N, archive room).



H 7. Photograph of Eugene O'Neill looking east from the balcony window adjacent to his library (EUON historic photo binder).



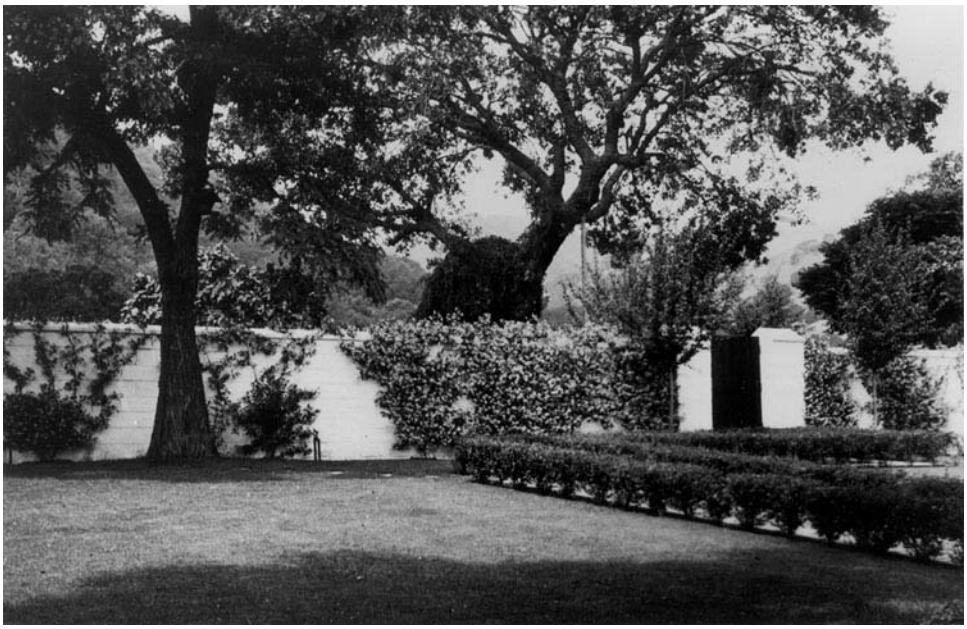
H 8. Photograph showing the east side of the Tao House circa 1942 (EUON collection).



H 9. Photograph of vegetation on east side of the Tao House. Privet hedges flank the brick walkway with a white hydrangea at the end of the axis (EUON 1391 Q).



H 10. Photograph showing the courtyard circa 1942. Note the birdbath on the right and the box hedges in the middle of the image (EUON collection, archive room).



H 11. Photograph showing the courtyard circa 1942. Note how the jasmine grows in a loose, informal manner on the courtyard wall (EUON collection).



H 12. Photograph of Eugene O'Neill, undated, looking at his jasmine plantings on the south side of the Tao House. O'Neill spent many hours tacking up and maintaining these plantings (EUON historic photo binder).



H 13. Photograph of the swimming pool as viewed from the east side of the Tao House in December 1940 (EUON 1391 FF).



H 14. Photograph of the swimming pool area in July 1941. Note the roof of the pump house to the left of the image (EUON 1391 J and K).

HISTORIC CONDITIONS
1944

Cultural Landscape Inventory
Eugene O'Neill National Historic Site
National Park Service
Danville, California

Produced by
Pacific West Region Cultural Landscape Program
National Park Service
Seattle, Washington

D 4

Notes:

Additional field checking completed by the Columbia Cascades Support Office and the Pacific Great Basin Support Office in 2003.

Information presented in this plan is derived from Autocad maps produced in *The Tao House Exterior Landscape: Historic Landscape Study*, 2002 by De Martini, and from historic photographs and air photos.

Plan drawn using Autocad 2002 and Adobe Photoshop 7 by Michael J.Hankinson, NPS

Fruit orchard
Incinerator
Potting shed
Pump house
Swimming pool
Change house
Almond orchard
Tao House
Trunk room
Turnaround
Old barn
Chicken coop
Brick bench
Courtyard
Presumed location of Blemie's grave stone
Water storage tanks
Walnut allee
Walnut orchard
Spring/Water catchment system
Stone gateposts
K u s s r o a d
F i r e r o a d

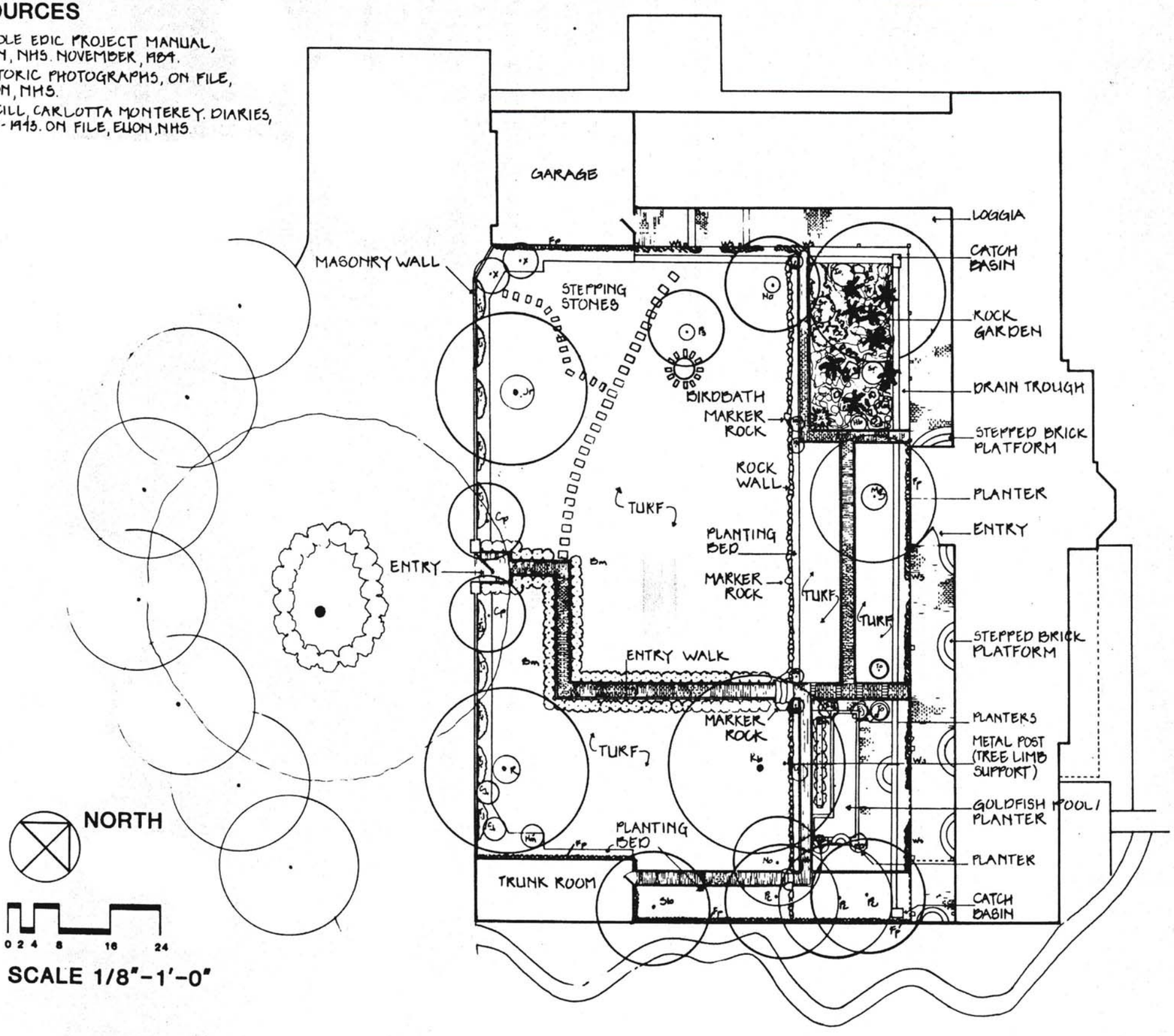
0 100' 200' 400'
Approximate scale in feet

Legend

- Designed Lanscape Vegetation
- Open Fields
- Woodlands

SOURCES

- CAROLE EDIC PROJECT MANUAL, EUON, NHS. NOVEMBER, 1984.
- HISTORIC PHOTOGRAPHS, ON FILE, EUON, NHS.
- O'NEILL, CARLOTTA MONTEREY. DIARIES, 1930-1995. ON FILE, EUON, NHS.



PLANT MATERIALS

KEY	BOTANICAL NAME	COMMON NAME	COMMENTS
TREES			
Cp	Crataegus phaenopyrum	Washington hawthorn	frames entry
Jr	Juglans regia	Walnut	pre-O'Neill
Kb	Koelreuteria bipinnata	Chinese flame tree	pre-O'Neill
Mg	Magnolia grandiflora	Magnolia	in planter
Pc	Prunus c 'Atropurpurea'	Purple-leaf plum	
Ps	Prunus subhirtella 'Pendula'	Flowering cherry	in planter
R	Robinia pseudoacacia	Black locust	pre-O'Neill
Sb	Salix babylonica	Weeping willow	
SHRUBS			
Bm	Buxus microphylla japonica	Boxwood	structure plant
Cj	Camellia japonica	Camellia	
Fj	Fatsia japonica	Fatsia	in planter
Hb	Hebe buxifolia	Hebe	marker plant
Hm	Hydrangea macrophylla	Hydrangea	
Lo	Ligustrum ovalifolium	Privit	
Pm	Podocarpus macrophyllus	Yew pine	in planter
Rh	Rhododendrun spp.	Azalea	in planter
To	Thuga occidentalis	Arborvitae	in planter
VINES			
Fp	Ficus pumila	Creeping fig	on walls
Tj	Trachelospermum spp	Star jasmine	on walls
Ws	Wisteria sinensis	Wisteria	on posts
ROCK GARDEN			
Aa	Agonium arboreum	Succulant	
Bc	Bergenia crassifolia	Bergenia	
D	Dichondra micrantha	Dichondra	ground cover
Io	Impatiens oliveri	Poor man's rhododendron	
Jc	Juniperus c 'Pfitzerana'	Pfitzer juniper	
Pm	Polystichum munitum	Fern	
Sr	Strelitzia reginae	Bird of paradise	

NOTES

PAVING

- All walkways and paths consisted of brick pavers (3¾"x8¾"x9"), laid on sand with bevelled 3"x6" liners.
- Paving on lower terrace, around pool, consisted of mortared brick.
- Paving under balcony and on NW side of loggia consisted of brick, laid on sand
- Stepping stones around birdbath and leading to W corner of courtyard were concrete pavers (1½"x6"x1'). Other stepping stones on upper terrace were mortared brick blocks.
- Steps down at rock wall were stone.

PLANTERS

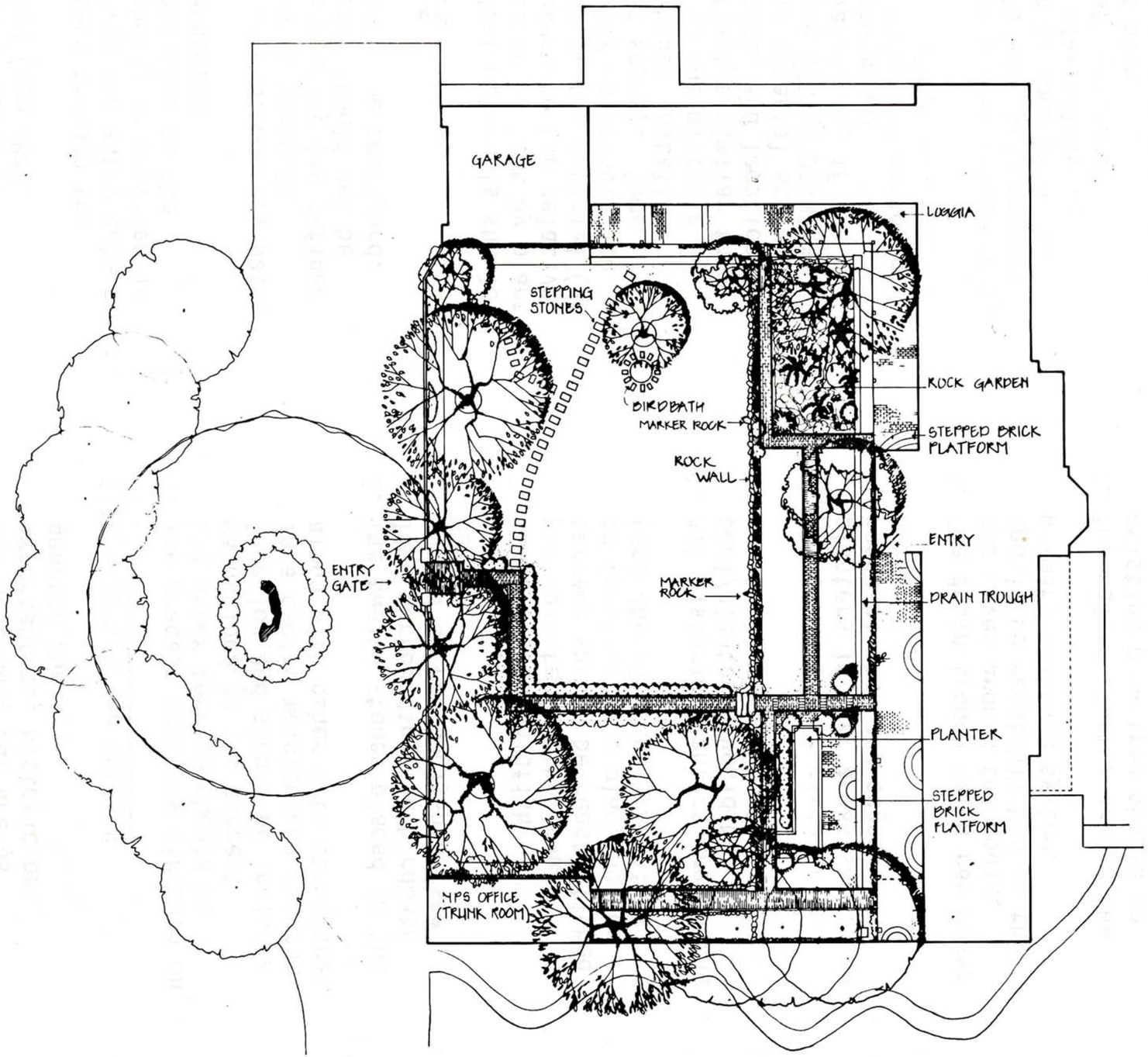
- All circular planters in turf areas were defined by a brick edge.
- Irregular planters in lower terrace were cut through brick.

OTHER FEATURES AND MATERIALS

- Goldfish pool/planter continious concrete wall, top at finished gr.
- Drain trough, gravel inside of wood liners - 6"-10" wide along eaves
- Plant materials depicted do not reflect mature specimens
- Where documentation is unclear, materials (noted with 'x' on plan) are significant for their mass, texture and scale.

DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
DRAWN: GILBERT	D 5	**HISTORIC BASE MAP**	
TECH. REVIEW:		THE TAO HOUSE COURTYARD EUGENE O'NEILL NATIONAL HISTORIC SITE	PKG. NO. / SHEET / OF
DATE: 7/86			

U.S. GOVERNMENT PRINTING OFFICE: 1984-[illegible]



NOTES

PAVING

- All walkways and paths are brick pavers (3¾"x8¾"x9"). laid on sand with bevelled 5"x6" liners.
- Paving on lower terrace surrounding L-shaped planter is mortared brick, running bond.
- Paving under balcony is brick paver on sand.
- Paving on loggia is mortared brick and brick on sand
- Stepping-stones on upper terrace are mortared brick blocks, (1'-0"x 1'-6"). Eighteen are original fabric and remain in place; six are original fabric and realigned to their historic location, and nine are (in kind) replacement blocks
- Pavers around birdbath are (1'x6") blocks, set in turf

PLANTERS AND OTHER FEATURES

- All circular planters in turf areas are defined by a brick edge
- Irregular planters in paving on lower terrace are cut through brick course and edged with brick.
- L-shaped planter on lower terrace is edged in cut granite
- French style drain along the eaves is backfilled with gravel and lined with wood, up to catch basins.

SOURCES

HISTORIC BASE MAP, TAO HOUSE COURTYARD, EUGENE O'NEILL NATIONAL HISTORIC SITE
EXISTING CONDITIONS MAP, TAO HOUSE COURTYARD, EUGENE O'NEILL NATIONAL HISTORIC SITE
HISTORIC LANDSCAPE REPORT (DRAFT BRIEF)

NORTH

0 2 4 8 16 24

SCALE 1/8"-1'-0"

DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
DRAWN: GILBERT	D 6	DESIGN PROPOSAL THE TAO HOUSE COURTYARD EUGENE O'NEILL NATIONAL HISTORIC SITE	PKG. NO. / SHEET / OF
TECH. REVIEW:			
DATE: 8/86			

U.S. GOVERNMENT PRINTING OFFICE: 1984-706-048

Analysis and Evaluation

Introduction

The analysis and evaluation of cultural landscape features is based on historical information, existing conditions, and an assessment of historic design intent. The purpose of this section is to analyze and evaluate individual features of the cultural landscape at Eugene O'Neill National Historic Site (and outside its boundaries within Las Trampas Regional Wilderness) and determine the components that contribute to the significance of the property.

A cultural landscape resource contributes to the significance of the site if it was present during the historic period (1937-1944) and retains physical integrity today. While some elements of the landscape (such as vegetation) change over time, the evaluation of individual features takes into account the nature of these resources (growth and condition), and also evaluates the degree to which the original design intent remains today. In some cases, design intent is documented in written records such as letters and diaries or in the context of stylistic or period design principles. References and endnotes are used to clarify assumptions about design intent related to the purpose or use of specific materials. In addition, it is important to note that because the Tao House and the courtyard have undergone restoration, and other features on the property such as walkways and plantings have been stabilized or in some cases, replaced with more sustainable materials, the evaluation considers the compatibility of these features in the context/framework of the original design.

Based on the evaluation, the cultural landscape at Eugene O'Neill National Historic Site retains a high degree of landscape integrity in the areas of design, form, setting, feeling, association, and materials. Landscape characteristics that contribute to the significance of the site include spatial organization, natural systems, circulation, buildings and structures, vegetation, small-scale features, and views and vistas. Today, these landscape characteristics and associated features remain and appear as they did when the Tao House

was designed and constructed to be the primary residence of Eugene and Carlotta O'Neill between 1937 and 1944.

Spatial Organization

Spatial organization refers to the purposeful design and layout of the landscape at the Tao House between 1937 and 1944. It is defined by the location, size and configuration of articulated areas associated with development of the property, including access and circulation systems, designed gardens, and land use activities. The relationship among individual areas provides the framework for understanding the cultural landscape as a whole.

Historically, a large portion of the designed landscape at Tao House was developed in conjunction with plans for the house itself, and in many ways was based on a clear separation of use and function. The O'Neills employed professional designers to assist them and develop many of their original concepts for the property. The earliest drawings for the house (1937) included concepts for a formal courtyard on the southwest side of the house, and foundation plantings surrounding the structure. The Tao House itself was located on the eastern edge of a level bench creating sweeping views from the house, east to the San Ramon Valley and Mount Diablo. With exception of the swimming pool located down the slope, most other structures built during the historic period were located west of the Tao House.

As development of the grounds progressed, functional components and infrastructure were designed quickly, setting the framework for construction. Two of these early developments—access and a water delivery system—were completed in 1937. These landscape components were designed based on function and within the context of natural topography. In a different way, landscape areas around the living area were more deliberate, based on specific design intent and personal aesthetics. As these areas were planned and developed, the grounds began to reflect a very strong separation between public and private areas surrounding the Tao House. This was evidenced in the gradation of spaces generally moving west to east through the property, beginning with the turnaround outside the courtyard (public space), through the courtyard to the house

(semi-public to private space), out to the terrace on the east façade of the house (private), and to the swimming pool located north of the house (private).

In addition to this organization of spaces, the designed landscape was also physically characterized by several distinct areas surrounding the Tao House: the entry system along Kuss Road to the turnaround; the courtyard; the north and south sides of the Tao House; the east terrace area; the swimming pool and related outbuildings; the barn working area including the chicken yard and chicken coop; the springs and water storage tanks on the hillside southwest of the residence; the orchards; and the surrounding hillsides and fields encircling the Tao House. All of these areas had a functional and spatial relationship to each other, and a specific role in the garden, which was reflected in access, proximity to the house, use of materials, function, and design detail within each area.

Access: Kuss Road and the Turnaround

Historic access to the property along Kuss Road was developed in 1937 and formed a rural corridor to the top of the level bench where the house was located. The road followed the alignment of a former wagon road that wound up the hill to the old barn. The end of the road was initially an undifferentiated space that eventually became formalized with a traffic circle, or turnaround with a large oak tree in the center. Today, Kuss Road retains its historic character including alignment and width. The turnaround also remains and continues to be used as a drop-off for visitors to the historic site.

The Tao House Courtyard

The Tao House Courtyard was a formal, private outdoor living space that was physically enclosed by the residence on two sides, and by a 6-foot-high concrete block wall, creating a very private space. A small structure—the trunk room—was built in the southwest corner of the courtyard. Similar in style to the Tao House, the trunk room was used for storage and had two rooms. From the entry gate to the courtyard, the landscape changed rather abruptly, from a semi-public space at the turnaround to a private, highly controlled

and designed garden. The courtyard measured 100 x 66 feet, and was designed and structured by two terraces.

The upper terrace, planted with lawn, was the larger of the two terraces, and was divided by the primary entry walk from the entry gate to the lower terrace. The walk to the lower terrace was very narrow and angular, turning to the right after entering the gate, and then left again back toward the house. While the lawn on either side of the entry walk was open, the steps down at the small stone retaining wall marked a major transition point to a more intimate and enclosed garden. A rock garden in the north corner of the lower terrace was just outside the O'Neill's kitchen by the loggia. The southern side of the lower terrace was broken by planters under the shade of a chinaberry tree.[45]

The courtyard garden was restored and rehabilitated by the National Park Service in 1987, and today appears much as it did during the historic period.

Designed Gardens Around the Tao House

The east terrace was designed as a relatively small exterior space (approximately 50 x 15 feet) attached to the house, allowing the O'Neills privacy and unlimited views to the San Ramon Valley and Mount Diablo from the house. The terrace also provided access to the walkway leading to the swimming pool, located down slope.

During the historic period, the north side of the Tao House was designed as a utility area providing access from the kitchen and servant's living quarters to the incinerator, garbage collection, and the potting shed. This area of the designed landscape has undergone some changes since the historic period, including the addition of a patio and establishment of several orchard trees nearby. Today this area contains a book store operated by the Western National Park Association (WNPA) and several features that have been added to the area. Because of these changes, this area of the landscape no longer retains the spatial organization of the original design.

The Swimming Pool

This area, like the courtyard, was designed as a private space, visually and physically separate from other areas of the Tao House. During the historic period, the pool area included the swimming pool, a change house on the south side of the pool, and pump house with filtration system located just north of the pool. Access to the pool from the house was along a brick walkway.

After the historic period, additional structures were added around the pool including a barbeque, shade structure, and an addition to the change room. These additions were all located within the footprint of the original pool terrace and were designed in a compatible manner. In this regard, the design of the pool and associated structures retains the spatial characteristics and relationship to other designed areas of the property. The pool and associated outbuildings remain in good condition.

Barn Working Area

Historically, the old barn, chicken coop, brick bench, and Blemie's grave were generally clustered in a multi-purpose utility area associated with the working farm component of the property. During the historic period, this area was generally open and informal—in contrast to the highly designed outdoor spaces near the Tao House. After the O'Neills left the property, a new barn was constructed in this area, and the fence enclosing the chicken yard was removed. The stone marking Blemie's gravesite was moved after the period of significance and is no longer located at its original site.

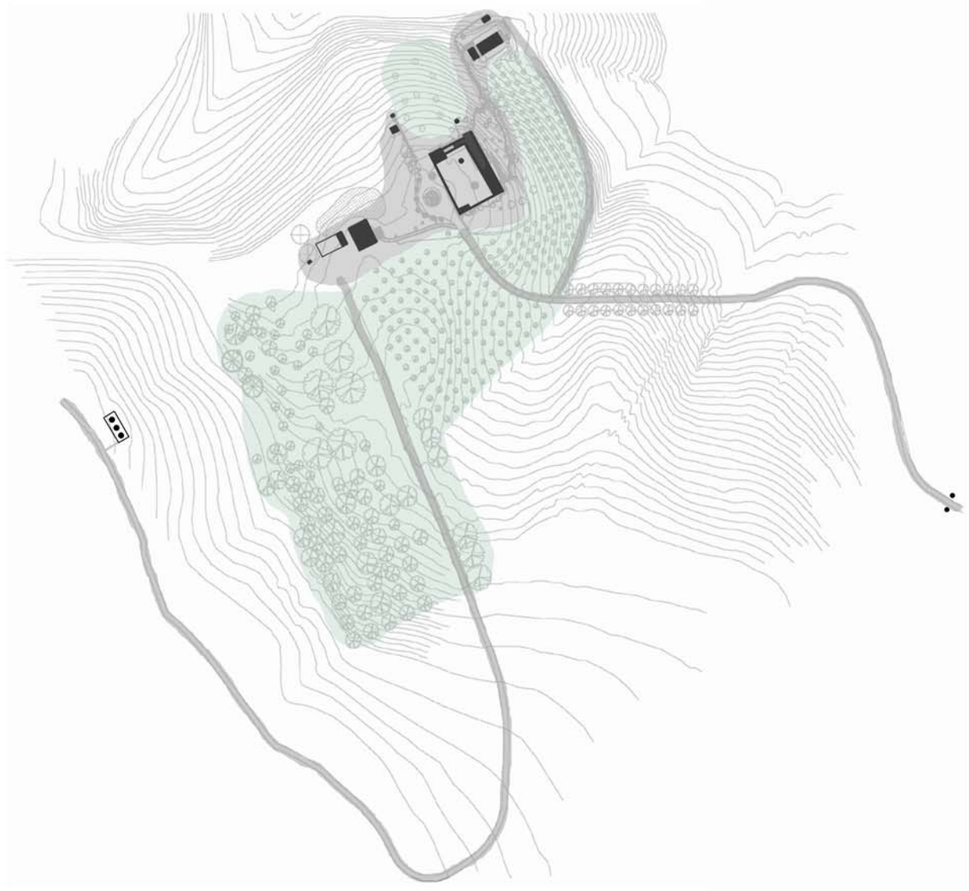
Today, the barn area is used by the NPS to store equipment associated with the maintenance and upkeep of the historic site. The new barn is visually compatible with the character of other structures, and is also used by the Eugene O'Neill Foundation: Tao House as a performance space.

The Orchards

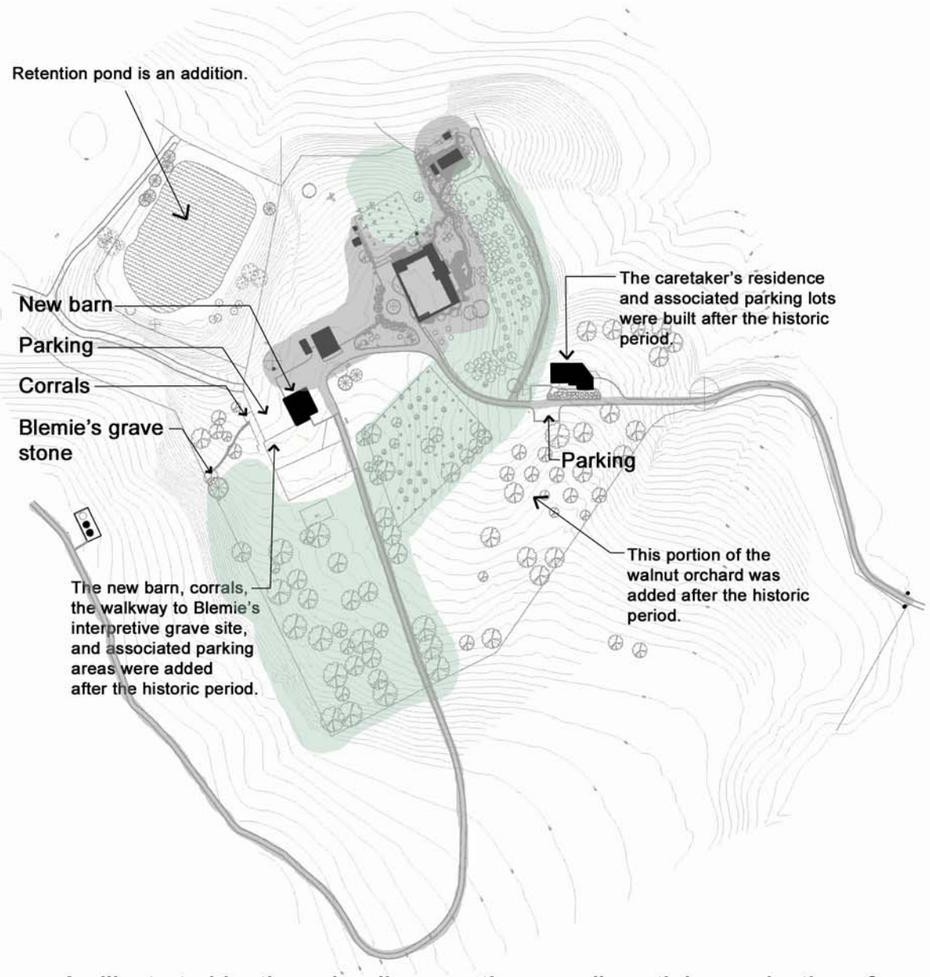
Prior to the O'Neill's purchase of the property, a small walnut orchard existed to the southwest of the site where the Tao House was built. By 1941, additional walnut trees were planted on the south and southwest side of the Tao House, and almonds trees were planted on the east side of the Tao House. Based on historic photographs, an allee of walnut trees was also established on Kuss Road, near the present day location of the park headquarters. A fruit orchard was located on the north side of the Tao House, although there are no photo documents or diary references available to identify plant types. Additional orchards were planted by the Carlsons in the fields historically used to grow grain directly south of Tao House and on the north side of Tao House.

The walnut, almond, and fruit orchards largely remain intact, although some trees have died over time. In several areas of all the orchards, dead (historic) trees were replaced by the NPS (in the 1990s). The allee of trees was removed sometime after the period of significance and replaced with parking areas on the north and south sides of the road.

Today, the historic spatial organization of the Tao House remains with a very high degree of integrity to the historic period. Changes to individual areas associated with the historic design have occurred in two areas—the north side of the house and the barn working area—but these changes are contained within each area and do not adversely effect the overall layout of the property. In addition, because use of the property has changed from private ownership to public management including public access and interpretation, adaptive reuse of these areas in a compatible manner is appropriate within the framework of the cultural landscape and design.



HISTORIC CONDITIONS 1944



As illustrated by the color diagram, the overall spatial organization of the developed areas around the Tao House, including roads, orchards, and the surrounding building complex, remains intact. Several structures were added, however, after the historic period including the caretaker's residence, the new barn, the retention pond, and the extension of the walnut orchard. Despite these additions, spatial organization is a contributing landscape characteristic.

EXISTING CONDITIONS

SPATIAL ORGANIZATION

Cultural Landscape Report
Eugene O'Neill National Historic Site
National Park Service
Danville, California

Produced by
Pacific West Region Cultural Landscape Program
National Park Service
Seattle, Washington

D 7

Notes:

Additional field checking completed by the Columbia Cascades Support Office and the Pacific Great Basin Support Office in 2003.

Information presented in this plan is derived from Autocad maps produced in the Tao House Exterior Landscape: Historic Landscape Study, 2002 by De Martini, and from historic photographs and air photos.

Plan drawn using Autocad 2002 and Adobe Photoshop 7 by Michael J. Hankinson, NPS

Legend

- Buildings and Structures
- Orchards
- Building complex and roads

Vegetation

Prior to implementation of landscape plans at the Tao House estate, the O'Neills consulted with landscape professionals and individuals from the California Nursery near Danville, California, discussing the design of the gardens and selection of plant materials for use in the courtyard and around the house. With few exceptions, virtually all of the materials used at the Tao House came from the local nurseries.[46]

Two aspects of vegetation are important characteristics of the Tao House landscape. One aspect is the plant material itself. Both individual specimen plants and plant groupings remain from the historic period and may be significant because they were purposefully planted as part of the original design. The other aspect of vegetation that is addressed in the analysis and evaluation is the intended function or symbolic value of the material as expressed by the O'Neills in journals and letters. In this regard, the evaluation measures the degree to which the original design intent is reflected in the surviving plant material. In terms of the overall evaluation of vegetation at the site, the use of specific materials is always conditioned by the degree to which the design intent remains. For example, if a plant material dates from the historic period, but no longer functions as originally intended by the O'Neills, it is considered non-contributing. This is primarily evidenced with some of the specimen plantings. For example, some trees such as the sycamores in the turnaround or the pine tree at the swimming pool, were planted during the historic period, but they no longer contribute to the character of the cultural landscape because they have literally outgrown their function in the design as originally intended by the O'Neills. The analysis of vegetation follows the general character areas described in "Spatial Organization."

The Courtyard

Historically, a variety of ground covers, small shrubs, and trees were used to define spaces and articulate ornamental areas in the courtyard. With few exceptions, the overall effect of the plantings was relatively formal and manicured. Boxwood shrubs were planted along both sides of the narrow brick entry walk, and clipped to maintain the shape and height. The lawn extended over the entire upper terrace and planting beds were

defined in narrow widths along the perimeter walls. A large chinaberry tree, located on the upper terrace (which predated construction of the Tao House) was incorporated into the design creating canopied shade on both the upper and lower terrace. A large portion of the lower terrace was paved with designated planters for specimen plants as well as annuals. The north end of the lower terrace included a relatively large rock garden with birch trees, ferns, and various perennials and annuals. Although the O'Neills made minor adjustments by adding annuals and planning small shrubs in available spaces, the primary framework and materials planted between 1938 and 1940 remained throughout their residence at the Tao House.

Major changes to the vegetation in the courtyard did occur after the O'Neills sold the property to the Carlsons in 1947. The Carlsons redesigned the courtyard garden, removing the boxwood hedges when they modified the entry walkway, and planting large shrubs on the lower terrace after they removed many of the small planters and generally opened the paving area.

Today, vegetation in the courtyard is the product of a landscape restoration completed in the late 1980s by the NPS. Based on research, this work allowed replacement of over 90 percent of the post-O'Neill garden with historically appropriate materials. Now almost 20 years old, some of these materials have been lost or are in poor condition due to micro-climate or other environmental factors. In addition, changes to the historic character of the courtyard garden have occurred with the loss and subsequent removal of the chinaberry tree (*Melia azedarach*) and the removal of the fatsia (*Fatsia japonica*) from the containers located on the edges of the lower terrace. In spite of these losses, the remaining vegetation is characteristic of the materials planted by the O'Neills, and continues to contribute to the character of the landscape.

The Turnaround

During the historic period, the turnaround at the top of the access road to the Tao House was aligned to circle around an existing valley oak tree. After the turnaround was designed, the middle of the circle was used as a planting bed. With advice from people at the California Nursery, the O'Neills planted the circle with a clipped evergreen hedge

along the outer edge and a mix of geraniums and other perennials in the center. On the outside perimeter of the turnaround, sycamore and eucalyptus trees were planted to define the edge of the paved road and create a visual barrier to the barn and larger landscape of the property. Shrubs, possible mock orange (*Pittosporum tobira*) clipped into rounded forms, lined the exterior wall of the courtyard. Two hawthorn trees were planted on either side of the courtyard gate, clearly marking the entrance to the Tao House.

Today, the loss of the giant oak that dominated the circle during the O'Neill period has changed the character of the turnaround. Areas that were once completely shaded by the tree are now in full sun, and the pervasive sense of enclosure the canopy provided is lost. The sycamores trees around the outer circle have reached mature heights and now are considerably taller than during the historic period. With the loss of the oak tree and the mature height of the sycamores, the proportions and scale of this area have been dramatically inverted. Rather than a single mature oak dominating the turnaround, the sycamores have become the defining features of the turnaround, while the eucalyptus, because of its mature height and size, has become a focal point that was never intended. A new valley oak tree was planted in the 1990s to replace the original tree in the center of the planting circle, but it is too small to produce the designed relationship among all the plantings originally intended by the O'Neills. In addition, the perennials originally planted in the circle have been lost over the years, as have many of the plantings along the courtyard wall. The English hawthorn trees (which have been replaced at least once since the historic period) and the mock orange trees remain. Collectively, these changes in vegetation affect the historic character of the design and plantings, and vegetation is considered non-contributing in this area.

Kuss Road

During the historic period, an allee of walnut trees was planted along Kuss Road near the turnaround. Ten trees were planted on both the north and south sides of the road. Today, only one tree on the south side of the road survives.[47] The allee is completely lost and is not a contributing feature.

South Side of the Tao House

During the historic period, a concentration of ground covers, small shrubs, and trees were planted on the south side of the Tao House, creating a rich garden setting as viewed from the approach to the house along Kuss Road. The south side of the Tao House was defined by the jasmine-covered courtyard wall on the north end; a privet hedge on the south and east ends; and a deer fence with a vine that appears to be a creeping fig (or some other kind of vine) on the west end. A curvilinear brick walkway ran east and west through this area, with lippia on the north side of the walkway and ice plant on the south side. Poplar, plum, oak, and an apple tree were planted along the brick walkway.

Over the years, some changes to the vegetation have occurred in this area. In some cases the size or even specie of trees and shrubs has changed. Some existing trees are historic, such as the purple-leaf plums, although they are much larger and more mature than they were during the historic period. Two coast live oak trees (*Quercus agrifolia*), which date to the historic period, were lost in 2003. Also missing are the historic poplar trees, an apple tree, jasmine on the courtyard walls, and some ground covers. In spite of these individual changes, this area retains its overall historic character, serving as the "public face" of the Tao House (as viewed from Kuss Road) and as a transitional space for pedestrians on the brick walkway.

East Side of the Tao House

Historically, the east side of the Tao House extending to the almond orchard and north to the swimming pool area was heavily planted with many structural and specimen materials. Trees included coast redwoods, casuarinas, coast live oaks, strawberry trees, an arborvitae tree, a poplar, and what appears in historic photographs as an apple tree. Shrubs, with the form and character of small barberry shrubs, were planted all along the east side of the Tao House, along with glossy privets and what may have been a flowering quince in the rock garden. In other cases, privet shrubs were used as formal hedges. Also, a single white-blooming hydrangea was planted along the upper brick walkway, which served as a focal point.

Today, many of the trees and shrubs remain from the historic period, and continue to function as originally intended in the design of the landscape. The redwoods, two walnut trees, a purple-leaf plum, and a strawberry tree survive from the historic period, along with two California privet shrubs (*Ligustrum lucidum*) and a privet hedge (*Ligustrum ovalifolium*) located along the brick terrace. Lippia, used through the grounds, remains from the historic period and is currently the only groundcover growing successfully in this area. It is relatively dense and healthy, growing directly adjacent to the brick terrace and on both sides of the upper brick path. Collectively, these materials continue to contribute to the character of the cultural landscape.

Swimming Pool

Because the swimming pool was built on a hillside, with a deck largely elevated from the surrounding ground, the landscape was open. Eugene O'Neill found the effect disconcerting and used plant materials to enclose the space and provide privacy. As early as 1938, O'Neill specified the establishment of several trees, including a Canary Island pine, an allepo pine, and several casuarina trees around the perimeter of the pool area.[48] A privet hedge was planted on the east end of the swimming pool and a cotoneaster hedge lined the brick walkway leading back toward the house. Ground covers were planted around the pool; lippia was planted on the north and south sides of the swimming pool early in the historic period, but this planting failed. By the end of the historic period, the O'Neills settled on dichondra. Ice plants were used to stabilize the slopes around the pool, and remain today.

Vegetation established around the swimming pool during the historic period remains today and contributes to character of the historic site, with a number of historic trees and shrubs having survived the 57 years since the historic period.

Barn Working Area

During the historic period a vine with the form and character of English ivy grew on the entire east façade of the old barn—the only example of ornamental vegetation grown in this area. Today, the vine is no longer present.

The Walnut Orchard

By 1938, the O'Neills were planning to expand the existing walnut orchards on their new property and by February 1941, men from the California Nursery were hired to plant the new trees.[49] Walnut trees were planted in a large grid pattern on the south and southwest sides of the Tao House. Based on field observations, the walnuts planted prior to the O'Neill occupation of the site were aligned 40-feet on center in a grid pattern, while the walnuts planted by O'Neill were aligned 25-feet on center.[50] Aerial photographs from 1939 and 1940 reveal that a mature orchard existed in the area that is now partially occupied by the new barn. In any event, by 1944, approximately 205 trees were planted in the orchard.

Today, many of orchard trees remain. Out of the original 205 trees in the orchard, approximately 102 trees remain. Of the 102 trees, 58 trees date to the historic period. They are a mixture of black walnut species possibly including: Eastern black walnut (*Juglans nigra*), Northern California black walnut (*Juglans hindsii*), and Southern California black walnut (*Juglans californica*).[51] All of these trees are on a 25-foot grid and were probably grafted with English walnut (*Juglans regia*) during the O'Neill period.[52]

The Almond Orchard

The almond orchard was planted within the same week as the walnut orchard in February 1941. By 1944, approximately 115 almond trees were planted. Today, there are 83 trees. Of the existing 83 almond trees in the orchard, approximately 36 are historic; the remaining trees were planted by the NPS over the years to replace missing trees. The new trees are compatible with the historic scene and were planted in the historic planting

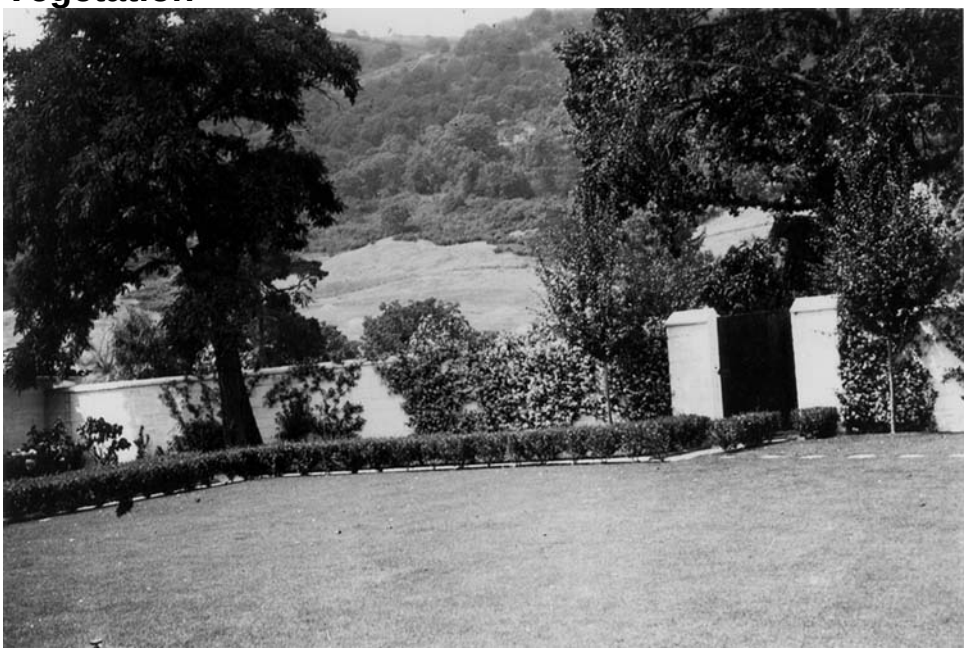
patterns. Although the full extent of the original almond orchard is not evident, the remaining trees contribute to the character of the cultural landscape.

The Fields

Prior to and after the historic period, the open lands surrounding the Tao House building complex were grazed, burned, and cultivated. The more intense cultivation and management of the landscape during the historic period most likely prevented coyote brush from colonizing disturbed areas around the site as much as it does today. In addition, land use history for the site indicates that some of the fields were historically dominated by non-native species. During the historic period, hay, grain, and corn were all harvested in the fields near Tao House.

Today, non-native grass and weed species dominate grassland and field areas around the Tao House. Yellow star thistle (*Sonchus spp*.) is a patchy but noticeable problem in grassland areas adjacent to the site, especially in the corral and around the pond. Native grasses and forbs may be present as well, but in much smaller numbers than the non-native grass and weed species. Coyote brush (*Bacharis pilularis)* is the dominant shrub on the edges of the grassland areas adjacent to the site. Other shrubs that may occur with the coyote brush include: blackberry (*Rubus spp*.), bush monkeyflower (*Mimulus aurantiacus*), poison oak (*Toxicodendron diversilobum*), California sagebrush (*Artemisia californica*), cream bush (*Holodiscus discolor*), and California coffeeberry (*Rhamnus californicus*).

Vegetation



A & E 1. Photograph showing vegetation in the courtyard. Note the boxwood hedge lining the entry walk and the two hawthorn trees that flank the entry gate (EUON collection, archive room).



A & E 2. Photograph taken in the summer of 1944 showing ice plant ground cover and a privet hedge in the foreground with a walnut tree in the background (EUON historic photo binder).



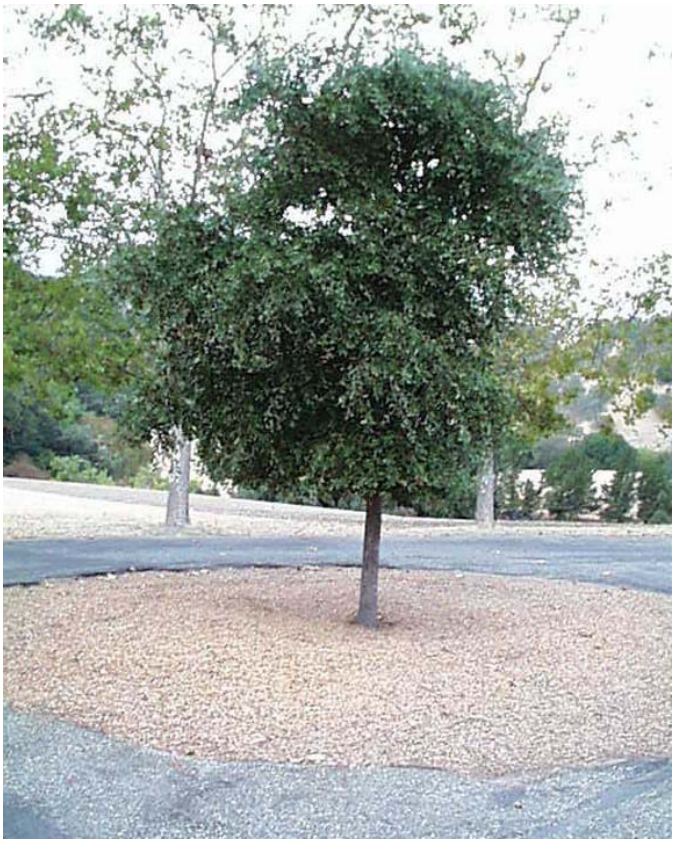
A & E 3. Photograph from July 1941 showing the turnaround. Note how the valley oak dominates the space, while the sycamore trees and shrubs are secondary in scale (EUON 1391 M).



A & E 4. Photograph taken in summer of 1941 showing the swimming pool, view towards the east. Note the dichondra ground cover in the foreground with an eclectic mix of evergreen trees and shrubs in the background. The trees and shrubs were planted in the background to create privacy and to fill the empty sky for Eugene O'Neill as he swam in his pool (EUON 1391 L).



A & E 5. Photograph showing restored courtyard (PWR 2003).



A & E 6. Photograph showing the turnaround circle and the newly planted valley oak tree. The oak tree replaced the original in 1996 (PWR 2003).



A & E 7. Photograph showing the walnut orchard located to the south of the Tao House. These trees are historic and contribute to the historic character of the site (PWR 2003).



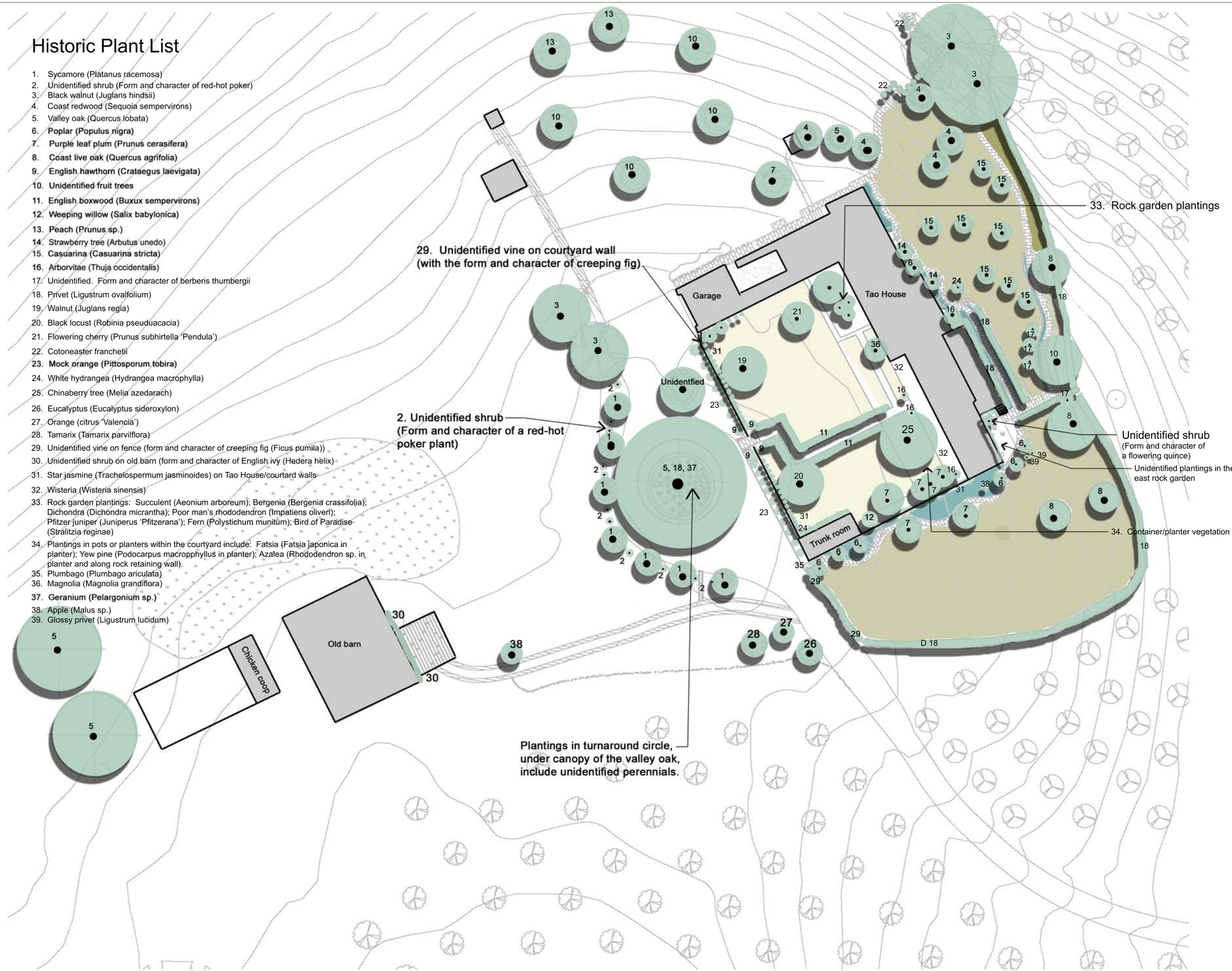
A & E 8. Photograph showing the almond orchard which is located on the south and east sides of the Tao House. A number of the trees in the orchard are historic (PWR, 2003).



A & E 9. Photograph of an oleander hedge growing on the east side of the Tao House. This hedge is non-contributing (PWR 2003).

Historic Plant List

1. Sycamore (Platanus racemosa)
2. Unidentified shrub (Form and character of red-hot poker)
3. Black walnut (Juglans hindsii)
4. Coast redwood (Sequoia sempervirons)
5. Valley oak (Quercus lobata)
6. **Poplar (Populus nigra)**
7. **Purple leaf plum (Prunus cerasifera)**
8. **Coast live oak (Quercus agrifolia)**
9. **English hawthorn (Crataegus laevigata)**
10. **Unidentified fruit trees**
11. **English boxwood (Buxux sempervirons)**
12. **Weeping willow (Salix babylonica)**
13. **Peach (Prunus sp.)**
14. Strawberry tree (Arbutus unedo)
15. **Casuarina (Casuarina stricta)**
16. Arborvitae (Thuja occidentalis)
17. Unidentified. Form and character of berberis thumbergii
18. Privet (Ligustrum ovalfolium)
19. Walnut (Juglans regia)
20. Black locust (Robinia pseuduacacia)
21. Flowering cherry (Prunus subhirtella 'Pendula')
22. Cotoneaster franchetii
23. **Mock orange (Pittosporum tobira)**
24. White hydrangea (Hydrangea macrophylla)
25. Chinaberry tree (Melia azedarach)
26. Eucalyptus (Eucalyptus sideroxylon)
27. Orange (citrus 'Valencia')
28. Tamarix (Tamarix parvilflora)
29. Unidentified vine on fence (form and character of creeping fig (Ficus pumila))
30. Unidentified shrub on old barn (form and character of English ivy (Hedera helix)
31. Star jasmine (Trachelospermum jasminoides) on Tao House/courtard walls
32. Wisteria (Wisteria sinensis)
33. Rock garden plantings: Succulent (Aeonium arboreum); Bergenia (Bergenia crassifolia); Dichondra (Dichondra micrantha); Poor man's rhododendron (Impatiens oliveri); Pfitzer juniper (Juniperus 'Pfitzerana'); Fern (Polystichum munitum); Bird of Paradise (Stralitzia reginae)
34. Plantings in pots or planters within the courtyard include: Fatsia (Fatsia japonica in planter); Yew pine (Podocarpus macrophyllus in planter); Azalea (Rhododendron sp. in planter and along rock retaining wall).
35. Plumbago (Plumbago ariculata)
36. Magnolia (Magnolia grandiflora)
37. **Geranium (Pelargonium sp.)**
38. Apple (Malus sp.)
39. Glossy privet (Ligustrum lucidum)



VEGETATION

Historic Conditions of the designed gardens for the Turnaround, Courtyard, South Side, East Side, North Side, and Barn Working Area

Cultural Landscape Report
Eugene O'Neill National Historic Site
National Park Service
Danville, California

Produced by
Pacific West Region Cultural Landscape Program
National Park Service
Seattle, Washington

D 8

Notes:

Additional field checking completed by the Columbia Cascades Support Office and the Pacific Great Basin Support Office in 2003.

Information presented in this plan is derived from Autocad maps produced in *The Tao House Exterior Landscape: Historic Landscape Study*, 2002 by De Martini and historic photographs.

Plan drawn using Autocad 2002 and Adobe Photoshop 7 by Michael J.Hankinson, NPS

Legend

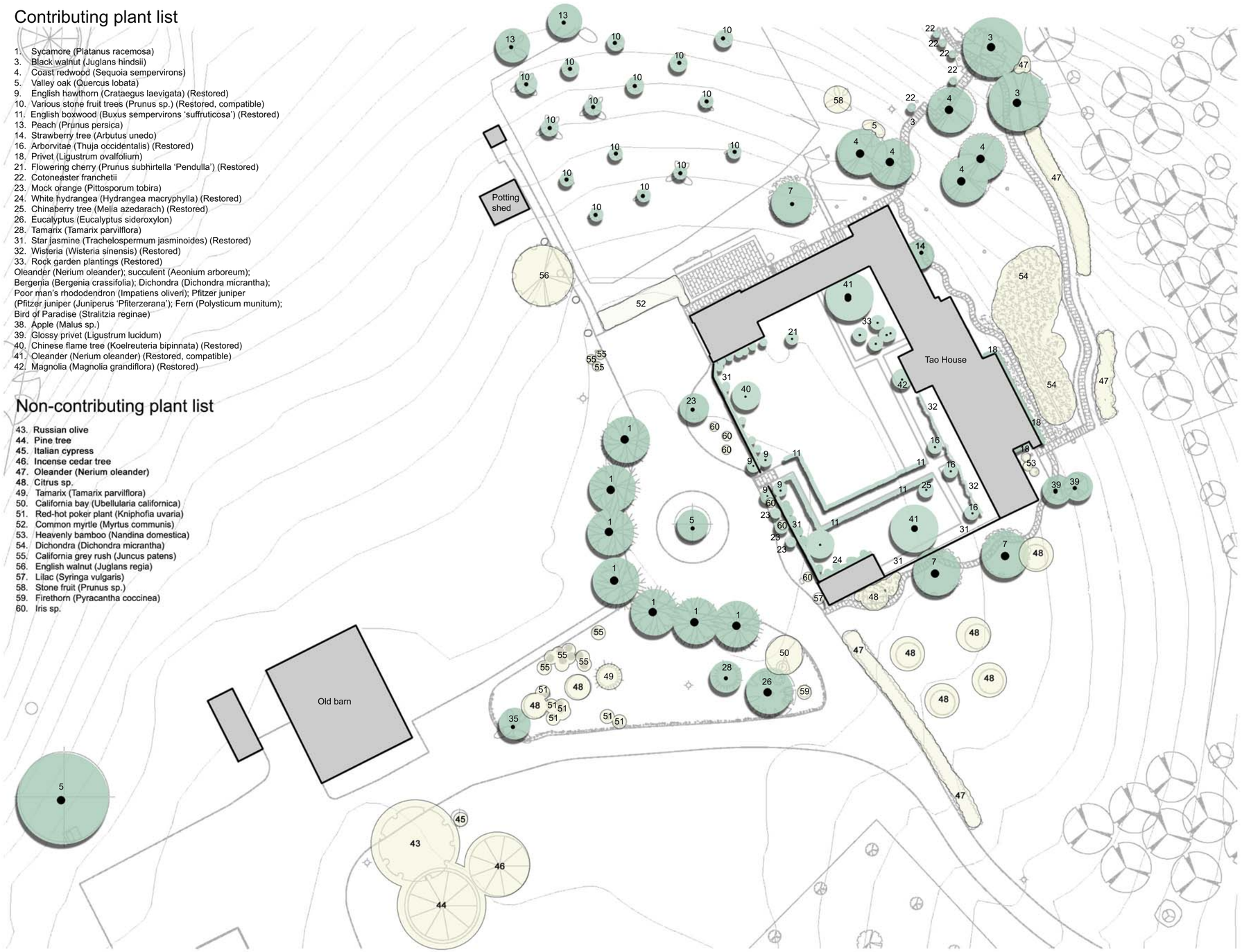
- Trees and shrubs
- Ground cover: ice plant
- Ground cover: grass
- Ground cover: lippia

Contributing plant list

1. Sycamore (Platanus racemosa)
3. Black walnut (Juglans hindsii)
4. Coast redwood (Sequoia sempervirons)
5. Valley oak (Quercus lobata)
9. English hawthorn (Crataegus laevigata) (Restored)
10. Various stone fruit trees (Prunus sp.) (Restored, compatible)
11. English boxwood (Buxus sempervirons 'suffruticosa') (Restored)
13. Peach (Prunus persica)
14. Strawberry tree (Arbutus unedo)
16. Arborvitae (Thuja occidentalis) (Restored)
18. Privet (Ligustrum ovalfolium)
21. Flowering cherry (Prunus subhirtella 'Pendulla') (Restored)
22. Cotoneaster franchetii
23. Mock orange (Pittosporum tobira)
24. White hydrangea (Hydrangea macryphylla) (Restored)
25. Chinaberry tree (Melia azedarach) (Restored)
26. Eucalyptus (Eucalyptus sideroxylon)
28. Tamarix (Tamarix parvilflora)
31. Star jasmine (Trachelospermum jasminoides) (Restored)
32. Wisteria (Wisteria sinensis) (Restored)
33. Rock garden plantings (Restored)
Oleander (Nerium oleander); succulent (Aeonium arboreum); Bergenia (Bergenia crassifolia); Dichondra (Dichondra micrantha); Poor man's rhododendron (Impatiens oliveri); Pfitzer juniper (Pfitzer juniper (Juniperus 'Pfiterzerana'); Fern (Polysticum munitum); Bird of Paradise (Stralitzia reginae)
38. Apple (Malus sp.)
39. Glossy privet (Ligustrum lucidum)
40. Chinese flame tree (Koelreuteria bipinnata) (Restored)
41. Oleander (Nerium oleander) (Restored, compatible)
42. Magnolia (Magnolia grandiflora) (Restored)

Non-contributing plant list

43. Russian olive
44. Pine tree
45. Italian cypress
46. Incense cedar tree
47. Oleander (Nerium oleander)
48. Citrus sp.
49. Tamarix (Tamarix parvilflora)
50. California bay (Ubellularia californica)
51. Red-hot poker plant (Kniphofia uvaria)
52. Common myrtle (Myrtus communis)
53. Heavenly bamboo (Nandina domestica)
54. Dichondra (Dichondra micrantha)
55. California grey rush (Juncus patens)
56. English walnut (Juglans regia)
57. Lilac (Syringa vulgaris)
58. Stone fruit (Prunus sp.)
59. Firethorn (Pyracantha coccinea)
60. Iris sp.



VEGETATION
Designed Gardens: Existing Conditions for the Turnaround, South Side, East Side, North Side, and Barn Working Area

Cultural Landscape Report
Eugene O'Neill National Historic Site
National Park Service
Danville, California

Produced by
Pacific West Region Cultural Landscape Program
National Park Service
Seattle, Washington

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Notes:

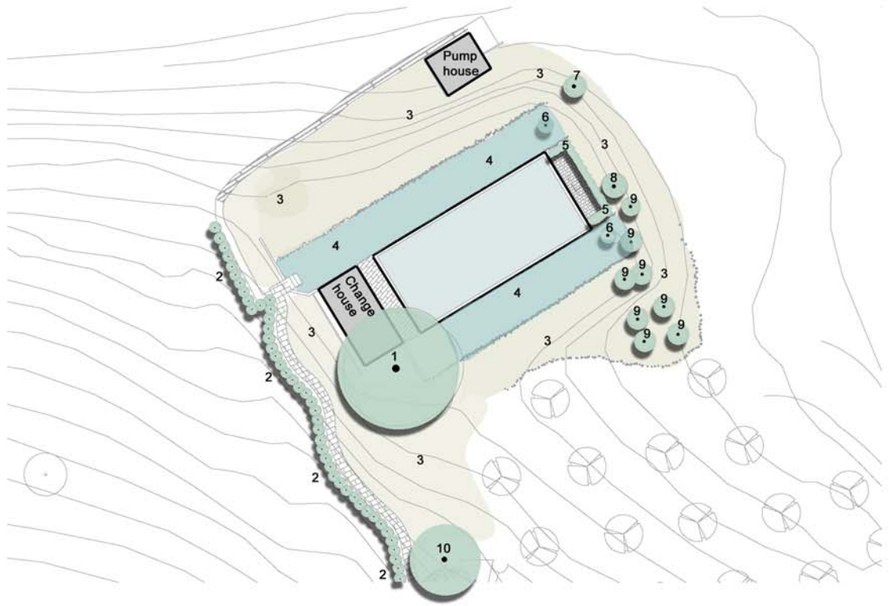
Additional field checking completed by the Columbia Cascades Support Office and the Pacific Great Basin Support Office in 2003.

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Plan drawn using Autocad 2002 and Adobe Photoshop 7 by Michael J.Hankinson, NPS

Legend

- Contributing vegetation: trees and shrubs
- Non-contributing vegetation



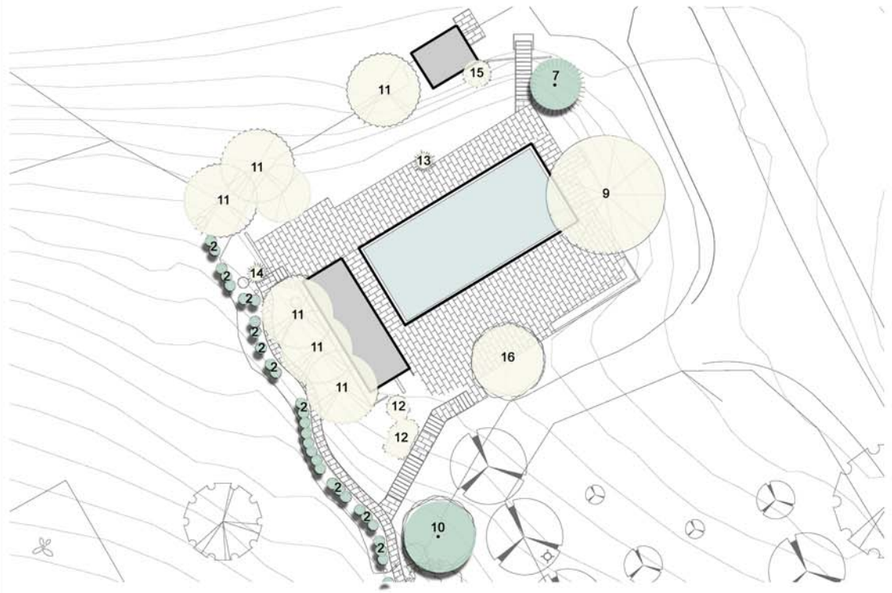
HISTORIC CONDITIONS 1944

Historic plant list

1. Salix sp.
2. Cotoneaster franchetii
3. Carpobrotus
4. Dichondra micrantha
5. Privet (Ligustrum ovalifolium)
6. Irish yew (Taxus baccata 'Fastigiata')
7. Casuarina (Casuarina stricta)
8. Allepo pine (Pinus halepensis)
9. Canary island pine (Pinus Canariensis)
10. Purple leaf plum (Prunus cerasifera)

Legend

- Buildings
- Trees and shrubs
- Ice plant ground cover
- Dichondra ground cover
- Swimming pool



Vegetation in the swimming pool area is a landscape characteristic that contributes to the historic integrity of cultural landscape. The non-contributing trees and shrubs were planted after the period of significance.

EXISTING CONDITIONS

Contributing plant list

2. Cotoneaster franchetii
7. Casuarina (Casuarina stricta)
10. Purple leaf plum (Prunus cerasifera)

Non-contributing plant list

9. Canary island pine (Pinus canariensis) (Historic but noncompatible)
11. Coast redwood (Sequoia sempervirons)
12. Oleander (Nerium oleander)
13. Pfitzer juniper (Juniperus chinensis 'Pfitzeriana')
14. Viburnum (Viburnum suspensum)
15. False hinoki cypress (Chamaecyparis obtusa)
16. Valley oak (Quercus lobata)

Legend

- Buildings
- Contributing trees and shrubs
- Non-contributing vegetation

VEGETATION
Swimming Pool

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National Park Service
Danville, California

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National Park Service
Seattle, Washington

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Notes:

Additional field checking completed by the Columbia Cascades Support Office and the Pacific Great Basin Support Office in 2003.

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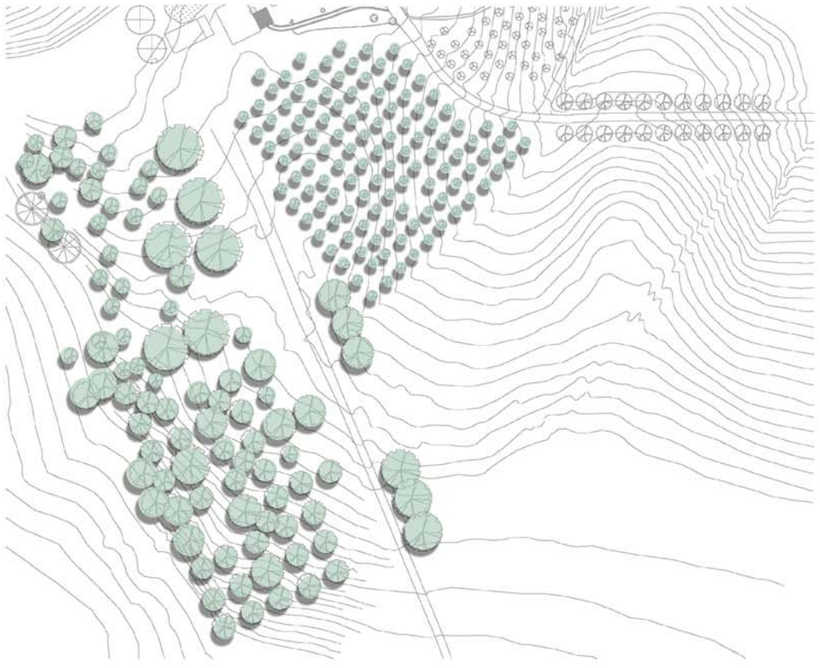
Plan drawn using Autocad 2002 and Adobe Photoshop 7 by Michael J.Hankinson, NPS

VEGETATION
Walnut Orchard

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Eugene O'Neill National Historic Site
National Park Service
Danville, California

Produced by
Pacific West Region Cultural Landscape Program
National Park Service
Seattle, Washington

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HISTORIC CONDITIONS 1944



The walnut orchard is an aspect of the landscape characteristic "vegetation" that contributes to the historic integrity of cultural landscape. The non-contributing trees were planted after the period of significance in an area that was formally an open field.

EXISTING CONDITIONS

0 10' 20' 40'
Approximate scale in feet

Notes:

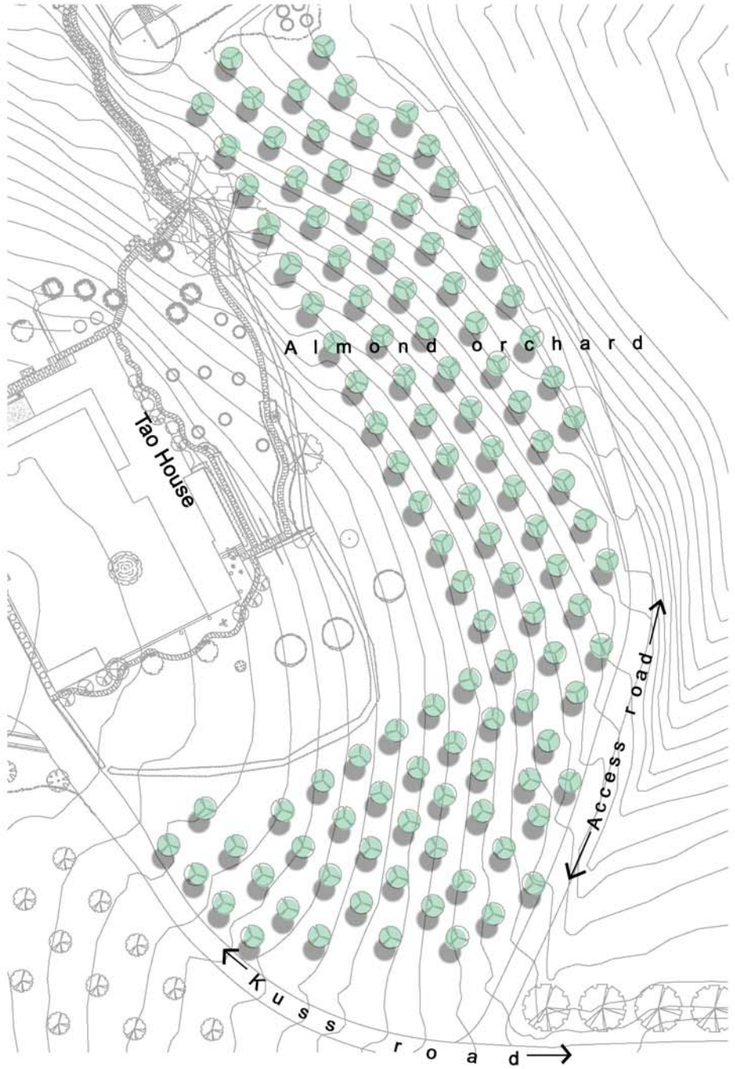
Additional field checking completed by the Columbia Cascades Support Office and the Pacific Great Basin Support Office in 2003.

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Plan drawn using Autocad 2002 and Adobe Photoshop 7 by Michael J.Hankinson, NPS

Legend

- Contributing walnut trees
- Non-contributing walnut trees



HISTORIC CONDITIONS 1944



The almond orchard is an aspect of the landscape characteristic "vegetation" that contributes to the historic integrity of cultural landscape. The non-contributing trees were planted after the period of significance in an area that was formally an open area.

EXISTING CONDITIONS

0 15' 30' 60'
Approximate scale in feet

VEGETATION
Almond Orchard

Cultural Landscape Report
Eugene O'Neill National Historic Site
National Park Service
Danville, California

Produced by
Pacific West Region Cultural Landscape Program
National Park Service
Seattle, Washington

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Notes:

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Plan drawn using Autocad 2002 and Adobe Photoshop 7 by Michael J.Hankinson, NPS

Legend

- Contributing almond trees
- Non-contributing almond trees

Circulation

Circulation systems at the historic site include primary and secondary roads, formal and informal walkways, and paths. Kuss Road remains the only means into the property. Secondary roads within the property include the fire road and road to the swimming pool. Formal walkways include the designed brick walkways around the Tao House. Informal walkways, located near the swimming pool, the north side of the Tao House, and at the turnaround, were developed based on functional needs, providing access to utility and work areas. Most of these paths were simple dirt footpaths, or in some cases, surfaced with wood planks.

Primary Roads

Kuss Road and the Turnaround[53]

LCS ID: 056495
Historic Site Number: EO21

Early access to the O'Neill property on the eastern slope of Las Trampas Ridge was along a narrow, dirt wagon road. This road existed when the O'Neills purchased the property in 1937. The road wound up the slope of the hill approximately 1 mile to the level area where the O'Neills planned to build their new home. In 1937, the O'Neills negotiated a 24-foot-wide easement with Mabel Kuss, who owned the land adjacent to their property, and began making improvements to the road. Within a few weeks after securing the easement, the road was graded and surfaced with gravel as far as the oak tree at the top of the slope by the courtyard gate. Historic photographs indicate that the road was narrow and approximately 10 feet wide[54]. A circular driveway was built at the end of the road around the large old oak tree, creating a turnaround and planting bed within. Throughout the historic period, Kuss Road remained the only access route to the site, requiring everyone coming to the Tao House to use this road, arriving at the house at the turnaround.

Several small-scale structures were historically associated with the road. A gate with two, mortared stone pillars 7 feet high was constructed to mark the edge of the O'Neill

property; and by 1938, a 36-inch culvert was installed to convey water from an intermittent stream.[55]

The turnaround at the top of the slope where the Tao House was sited served as a road, a parking place, and as a pedestrian walkway to the Tao House courtyard. After the turnaround was surfaced with asphalt, a planting bed was established in the middle of the circle. With advice from people at the California Nursery, Carlotta lined the outer edge of the planting area and planted the remaining portion with a variety of shrubs and trees.

After the historic period, a number of alterations were integrated into Kuss Road and the turnaround. A gate, culverts, and parking areas were added on the road.

When the boundaries for the historic site were established in 1976, the original stone gate pillars and gate were outside the NPS boundary. As a result, while the stone pillars remain in their historic location, they no longer mark a property boundary or support a gate. A new gate to the historic site was located approximately 100 yards north of the original gate on Kuss Road. There is a culvert under the road just west of the NPS office and another culvert east of the office that conveys water under the road.[56] There are two non-historic parking areas extending from the road adjacent to the NPS office. The first parking area is approximately 30 x 30 feet and is located next to the park office building. The second parking area is approximately 50 x 30 feet and is located next to the south walnut orchard. These parking areas are surfaced with chip seal asphalt, the same material found on Kuss Road.[57]

Today, Kuss Road follows its historic route from the San Ramon Valley, uphill past the original stone gate pillars, to the turnaround in front of the Tao House. The road remains approximately 10 feet wide and follows the natural contours of the surrounding landscape. At the turnaround, Kuss Road opens into a 36-foot-wide paved area that dead-ends about 9 feet from the edge of the garage.[58] Today, Kuss Road is a private road through a gated community. It is managed by a joint agreement between the National Park Service and the Kuss Road Property Owners Association. An electronic gate at the bottom of the road, approximately ½ mile south of the site, restricts general public access,

and currently visitors are shuttled to the historic site, by appointment, via NPS vehicles.[59] Both the road and the turnaround contribute to the historic site.

Secondary Roads

During the historic period, several roads were built to connect various work areas on the property, such as the fire road to the water tanks, the road to the barn area, the road to the pool, and the access routes through the almond and walnut orchards. These secondary roads were historically surfaced with wood, dirt or gravel and were approximately 10 feet wide.

In addition to these historic roads, two other roads were constructed after the historic period. One is an asphalt-surfaced extension from Kuss Road to a wide paved area linking the old barn, chicken coop, and new barn. The second is a fire road that leads from the new barn to the water pond, continuing on into Las Trampas Regional Wilderness.[60]

The Fire Road

In 1937, a fire road was built to provide access to the water tanks from the old barn area. Beginning on the southeast side of the old barn, the road extended south through the walnut orchard. Approximately 400 yards south of the old barn, the road curved west and climbed at a steep grade (to a maximum of 20 percent), following along the contours of the land. After curving northwest, the road continued for an additional 400 yards, terminating just above the water tanks approximately 150 feet above the Tao House. During the period of significance, the O'Neills used the fire road to access the water tanks. In her diary, Carlotta even referred to this route as a "stiff" walk.

Today, the fire road remains as the only route to the water tanks and the walnut orchard. It remains a dirt road, 10 feet wide, and follows a u-shaped route. The road grade ranges between level and 20 percent. As in the historic period, the road dead ends on a flat area just above the water tanks, where the road links to historic trails that were used to access the springs farther west.[61].

The character of the landscape surrounding the road has changed since the historic period as a result of grazing on East Bay Regional Park District lands southwest of the Tao House and associated building complex. A cattle gate is located on the road near the entry at the edge of the asphalt parking area by the new barn. Apart from this change, the alignment of the road passing through the walnut orchards and terminating near the water tanks remains.

Road to the Old Barn

Historic photographs indicate that the east side of the old barn had an area of approximately 20 x 20 feet surfaced with wood planks (which were part of the wood plank road system). Two narrow sets of wood planks curved from a point where the road met the circle to the front of the old barn. There is no information about why the O'Neills used wood planks for surfacing rather than dirt or gravel. One may speculate that the wood was recycled from the construction of the Tao House and was therefore an inexpensive surfacing alternative.

Today, the original alignment of this wood-planked route no longer exists. This segment of road was realigned and surfaced with asphalt after the period of significance.[62] As a result, this segment has lost integrity and does not contribute to the historic site.

Road to the Swimming Pool

An access road to the swimming pool was constructed around 1938. The dirt road, approximately 10 feet wide, began at a point on Kuss Road and then led north towards the swimming pool. The road continued downhill on the east side of the Tao House to provide access to the almond orchard, and ended at a point below the east end of the pool. The road was lengthened to extend uphill towards the Tao House after the period of significance. The original portion of the road was not changed, and today it retains a width of 10 feet and remains surfaced with gravel.

Today, the road from Kuss Road to the pool is in good condition and is contributing to the historic scene. The segment that was added after the period of significance and extends up the hill to the Tao House is non-contributing.

Primary Walkways

A number of brick walkways were constructed around the Tao House beginning in 1938, linking the residence to various areas such as the turnaround (through the courtyard), the trunk room, the swimming pool, and service areas.

The main walkway through the courtyard was 2 feet wide and surfaced with brick in a running bond pattern. The outer edges of the walk on both sides were lined with wood and further defined by a small clipped boxwood hedge. From the courtyard gate, the walk was designed with two 90-degree turns before reaching the lower terrace of the courtyard. On the lower terrace, the walkway split into two directions; one lead to the house, and the other, lead north towards the rock garden and the loggia. Another walkway in the courtyard was also surfaced with brick in a running bond pattern, and lead from the lower terrace to the trunk room. Brick stepping stones were also placed in an informal way to connect the main walkway across the lawn in the courtyard to the loggia by the garage.

A 3-foot-wide walkway, surfaced with brick in a running bond pattern, also encircled the entire Tao House and linked the swimming pool with the residence. This curvilinear route began on the south side of the trunk room, linked with the brick terrace by stairs on the east side of the Tao House, then continued north before the walkway diverged with one spur leading down to the pool area and the other leading to the north side of the house, where it finally terminated at the turnaround.[63] Informal walkways, surfaced with wood, linked the north side of the Tao House with the incinerator, garbage receptacle, and potting shed.

The 2-foot, 6-inch-wide brick walkway to the pool also took an indirect route, gradually moving down a slope to a set of three stairs that terminated on the brick patio (5 x 25 feet), on the north side of the change house.[64]

Since the period of significance, some modifications to the formal walkways have occurred.

In the mid-1940s, the Carlsons widened and realigned the main walkway in the courtyard using the original bricks. This walk was again modified in the 1980s when the courtyard was restored to the O'Neill period and the walkways were realigned to conform to the original design. The walkways surrounding the house were also modified. In the 1990s, the bricks were reinforced and set in concrete to stabilize them for visitor use associated with walking tours of the site.

The brick path around the north side of the house has also been modified. The width of the walk was widened approximately 1 foot, and a brick patio and stairs were added on the north side of the house to accommodate activities and access around the visitor center. Although the brick patio and stairs are considered non-historic, they are compatible with the historic character of other walkways.

Today, the walkways from the residence to the pool remain in good condition and retain the general character of the original design, including the curvilinear form, width, and alignment reflecting the original design intent of the O'Neills.

Informal Walkways

Informal walkways surfaced with dirt or wood planks were historically located throughout the Tao House property. Although these paths were never identified or mapped during the period of significance, they are specifically referred to in the O'Neill diaries.[65]

Informal walkways historically connected the Tao House with the barn, the incinerator/garbage area, and the filter house near the pool. In 1938, a wooden walkway was constructed from the turnaround to the old barn and work area. Photographic

evidence of the wood plank walkway indicates that dimensional lumber was used (2 x 6-inch planks).[66]

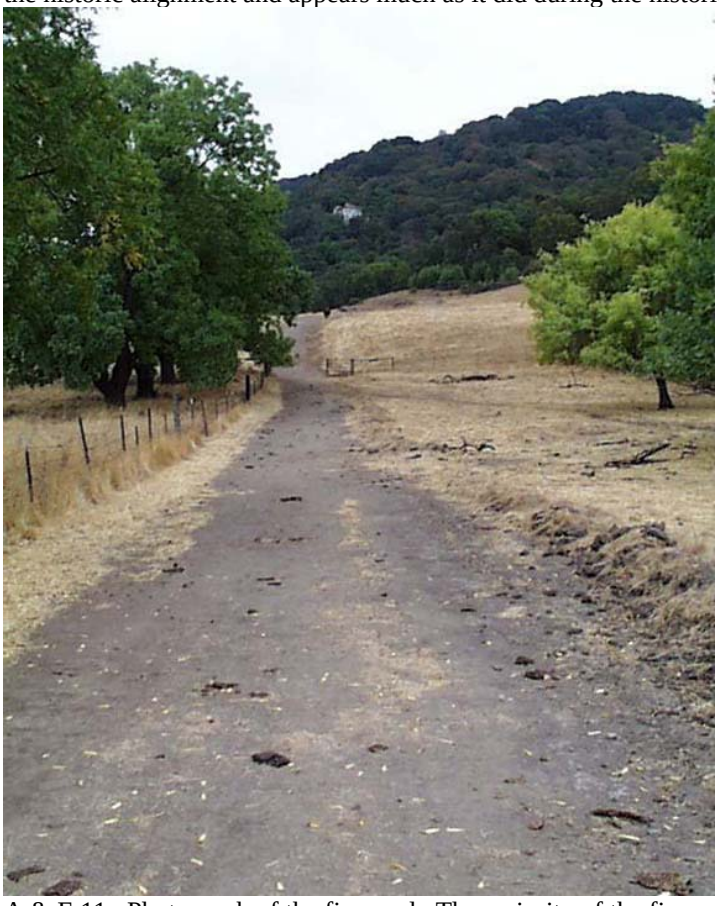
Today, the wood-planked walkway from the turnaround to the barn has been replaced by a 3½-foot wide asphalt walk, which separates a planting bed from the disked area in front of the barn. The wood planks leading to the garbage enclosure are historic and were positioned at a right angle to the brick path providing a walkway about 2 feet wide. The path to the potting shed and incinerator is composed of an asphalt-like aggregate and is 3½ feet wide.

Today, informal walkways do not contribute to the historic integrity of the site.

Circulation



A & E 10. Kuss Road, the entry road to the Tao House, winds through the open area. This road follows the historic alignment and appears much as it did during the historic period (PWR 2003).



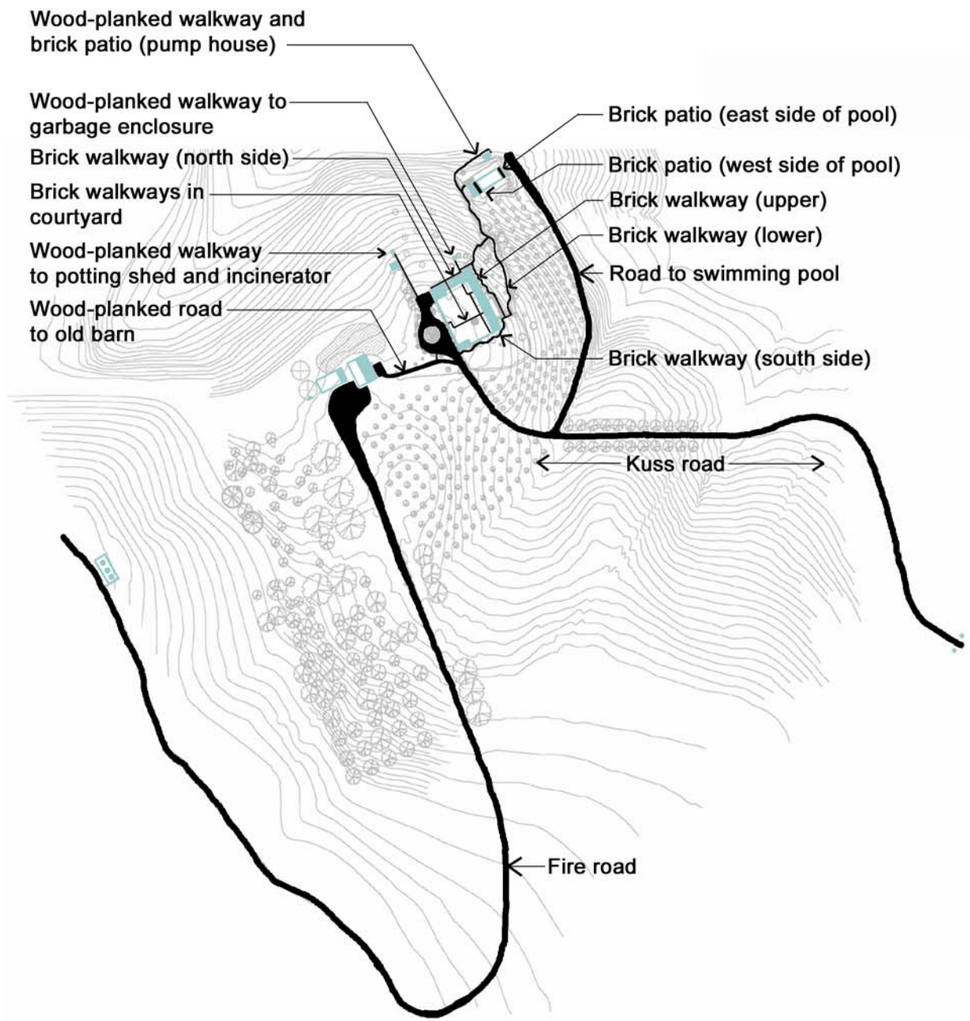
A & E 11. Photograph of the fire road. The majority of the fire road is aligned over East Bay Regional Park District land (PWR 2003).



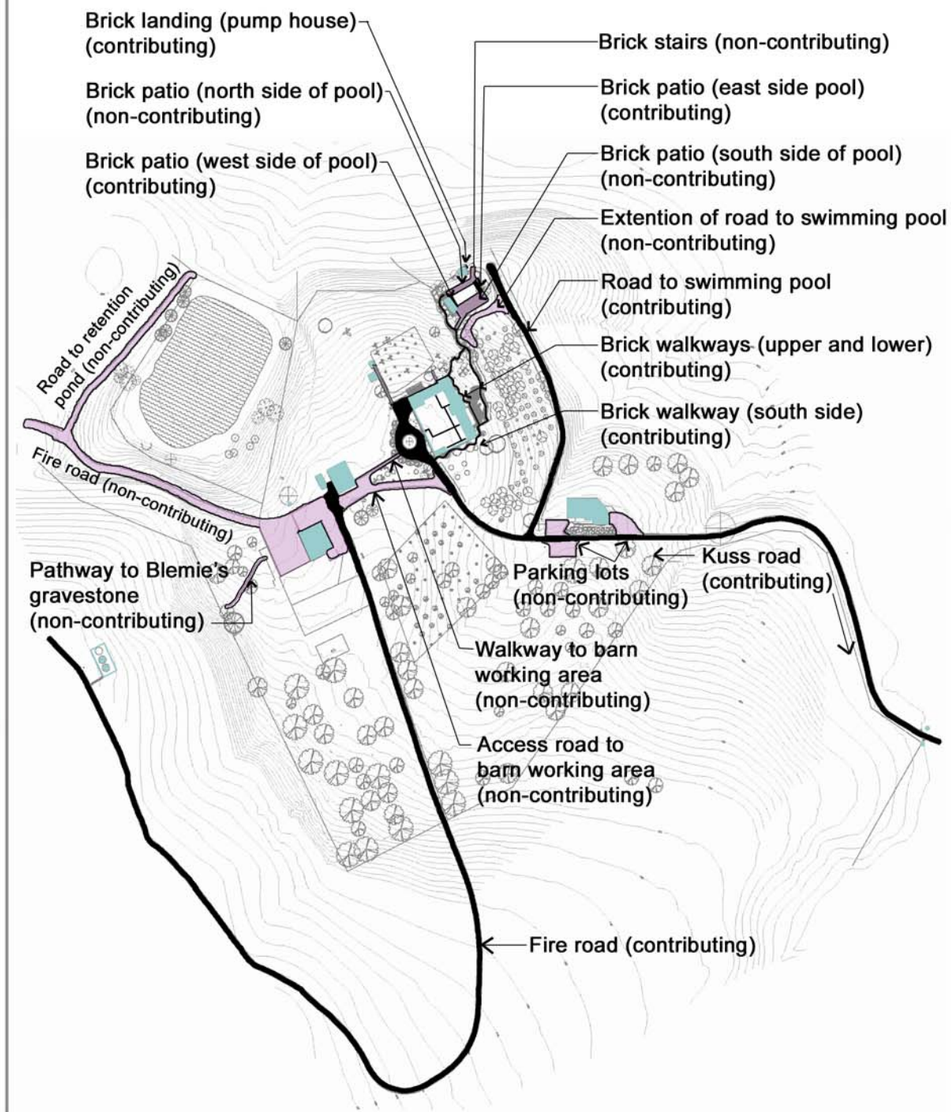
A & E 12. Photograph showing a typical curvilinear brick walkway laid in a running bond pattern on the south side of the Tao House (PWR 2003).



A & E 13. Photograph showing a typical curvilinear brick walkway on the east side of the Tao House (PWR 2003)



HISTORIC CONDITIONS 1944



EXISTING CONDITIONS

Circulation contributes to the historic integrity of the cultural landscape with a number of roads and walkways remaining from the period of significance.

CIRCULATION

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Eugene O'Neill National Historic Site
National Park Service
Danville, California

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Notes:

Additional field checking completed by the Columbia Cascades Support Office and the Pacific Great Basin Support Office in 2003.

Information presented in this plan is derived from Autocad maps produced in the Tao House Exterior Landscape: Historic Landscape Study, 2002 by De Martini, and from historic photographs and air photos.

Plan drawn using Autocad 2002 and Adobe Photoshop 7 by Michael J. Hankinson, NPS

Legend

- Contributing features
- Non-contributing features

Buildings and Structures

Between 1937 and 1944, The O'Neills had 19 buildings and structures on the property.[67] The predominant style of the buildings grouped around the courtyard (including the Tao House, the trunk room, and the garage) was similar to the Spanish Colonial Style. These buildings were either one or two stories in height with hipped, black terra cotta roofs. The remaining buildings were vernacular in style, resembling typical, late 19th-century California ranch structures with gable roofs and white painted shiplap or clapboard siding.

Each contributing building is listed in the following section with a corresponding List of Classified Structures (LCS) number used to cross-reference the buildings with the LCS. The LCS is an evaluated inventory of all historic and prehistoric structures that have historical, architectural, and/or engineering significance within parks of the national park system in which the National Park Service has, or plans to acquire, any legally enforceable interest.[68] In addition, historic site numbers used by the park to reference individual structures are also referenced. These numbers relate to park maintenance records and operations.

The following buildings and structures are found within the Eugene O'Neill cultural landscape and include the Tao House, trunk room, old barn, swimming pool, change house, pump house, chicken coop, potting shed, incinerator, and brick bench.

Buildings

The Tao House

LCS ID: 016020
Historic Site Number: EO01

The Tao House was constructed between 1937 and 1938 in an early California Ranch/Monterey Colonial style with Asian style influences in the interior.[69] The L-shaped structure was initially designed by architect Frederick Reimers and later completed by architect Frederick L. Confer. The walls were composed of concrete

baselite blocks set in a common bond pattern and painted white.[70] Wood detailing was incorporated throughout the house.

The hip-shape roof had a moderate pitch, with generous overhangs supported on shaped lookouts and covered with handcrafted black terra cotta tiles, sealed with white mortar at all ridges.[71] There were no gutters or downspouts on the courtyard side of the house, although near the loggia there is a drip-trough to take rainwater from the eaves.

The two-story structure contained 15 rooms. The first floor had a living room, a space for a player piano (known as Rosie's Room), a guest room, a dining room, a kitchen and pantry, two maid's rooms, a chauffeur's room, a party room, and garage. The second floor contained Carlotta's bedroom, Eugene's bedroom, the study, a dressing room, and three balconies.

Although the house was altered between the years 1944 and 1971, the NPS began restoring it in 1979 to reflect the condition of the structure when the O'Neills resided there.[72] In addition, some of the interior has been refurnished according to available historic information. The portion of the house that includes the garage has been rehabilitated and is today used for storage. The Tao House is listed in the National Register of Historic Places (1971) and is a National Historic Landmark (1976).

The Tao House Trunk Room

LCS ID: 016021
Historic Site Number: EO02

The trunk room was constructed between 1937 and 1938 in the southern corner of the courtyard with its main axis in a northeast, southwest line. Originally built as a storage room, the structure measured 10 x 25 feet with two rooms. The walls are reinforced concrete baselite block laid in a common bond pattern, painted white both on the interior and exterior. The hip-roof building had black terra cotta tile like the Tao House.

Although this contributing building historically served as a storage area, it was redeveloped as a guest quarters after the historic period, and today, the NPS uses the

trunk room for ranger offices. However, the structure retains its original architectural character and contributes to the significance of the historic site.

Old Barn

LCS ID: 016022
Historic Site Number: EO03

The old barn, constructed in 1880 and modified through 1920, was the only pre-O'Neill building retained during construction of the Tao House because it was structurally sound and provided much needed storage. Located west of the Tao House and courtyard, the barn was separated from the main building cluster and Kuss Road by a large plowed field. The barn (architecturally characterized as a typical California livestock barn from the era) was a simple 40 x 50-foot wood-frame building on a concrete foundation.[73] The wood-frame walls are finished with 1 x 12-inch vertical board and batten siding. There are several openings, including vehicle openings, loft doors, and windows. The roof is a simple, unsymmetrical gable.[74]

The building was rehabilitated in 1985. Today it is used by the NPS for vehicle storage and by the Eugene O' Neill Foundation as a performance space. Some recent changes to the building include new electrical circuits installed in 1999, and a new shingle roof and compacted floor installed in 2001.[75] Today, the old barn retains its original architectural character and is contributing to the historic site.

Swimming Pool Change House

LCS ID: 016024
Historic Site Number: EO05

Constructed in 1938, this rectangular wood-frame building was sited on the southwest end of the swimming pool and contained two dressing rooms, one for men and one for women. The gable roof was wood shingle. During the period of significance the east side of the building, which faced the pool, was approximately 24 feet in width, about the width of the swimming pool. The change house had two lavatories.

The change house was altered several times between the years 1944 and 1971. During this period the building was enlarged and a wet bar was added on the south side. The

floor is a simple reinforced concrete slab, with the new room using unglazed terra cotta tile flooring. The walls are wood-frame and have horizontal siding; there are two exterior doors and three windows.

Although the swimming pool change house was altered after the period of significance, it was rehabilitated in 1983 and today contributes to the significance of the historic site.

Swimming Pool Pump House

LCS ID: 016025
Historic Site Number: EO06

Built in 1938, this 11 x 14-foot building contained filtration equipment for the swimming pool. The structure was sited downhill from the pool on the north side. Access to the building was by a footpath aligned down the hill from the pool terrace to the structure. The walls were wood-frame, except for a reinforced concrete section where the building cut into the slope of the hill. The finish siding was white transite, which is comprised of asbestos and cement compressed into a thin and very durable material. The gable roof has wood shingles. According to the LCS, this building has not been altered since the period of significance. It was stabilized and rehabilitated in 1981 and a new pump was added in 1999.[76] The swimming pool pump house retains its historic character and contributes to the historic site.

Chicken Coop

LCS ID: 016026
Historic Site Number: EO07

Built between 1937 and 1944, the chicken coop located on the southwest side of the old barn historically provided space for O'Neill's chicken collection. The 11 x 27-foot structure was divided into three rooms; one room probably was for feed storage and the other two for the chickens.[77] The wood-frame building has horizontal drop siding, with a single small window at each end of the structure and two small windows on the north side. The building has a nearly flat shed roof.

A yard for the chickens was constructed and attached to the east side of the coop during the historic period. A wood and wire fence enclosed the yard. At the western end of the

chicken coop, Eugene O'Neill had a brick bench constructed so that he could spend time relaxing and watching the chickens.

The chicken coop was stabilized in 1981 and again in 1996. By 1998, the building was rehabilitated—the foundation was improved, wood with dry rot was removed, the roof was replaced, and the building was painted green.[78] Although the enclosed yard associated with the structure has been removed, the chicken coop remains today and contributes to the historic site.

Potting Shed

LCS ID: 016027
Historic Site Number: EO08

Constructed between 1937 and 1944, the historic function of this building is unknown.[79] The building was sited near the fruit orchard and on the edge of the plowed field that overlooked the water storage pond farther west. This 9 x 17-foot wood-frame building was constructed with a concrete foundation. The walls had horizontal siding painted green, enclosing an unfinished interior. There are two double-hung wood windows, one set of double doors, and one wood door on the north side.[80] The shed has a gable roof and a corrugated metal finish. The building was stabilized in 1981-1982 and rehabilitated in 1983.[81] The potting shed remains in good condition and contributes to the historic site.

Structures

Incinerator

LCS ID: 016028
Historic Site Number: EO09

Constructed between 1937 and 1944, the incinerator was a 6 x 8-foot, brick-lined structure built of concrete block, with a chimneystack projecting several feet above the incinerator.[82] The incinerator has an opening on the top and two ash removal openings.

This structure appears unaltered since the period of significance and is contributing to the historic site.

Central Water Storage Tank
LCS ID: 016031
Historic Site Number: EO12

This structure was constructed between 1937 and 1944. It was one of three redwood water tanks used to store water from the spring and supply the Tao House. The 10,000-gallon tank is located approximately 150 feet west of the Tao House on the hill.[83]

The foundation is concrete slab on grade. It has a "witches hat" board roof with eaves and peak decoration, straps, various pipes, and a wood ladder. Although this structure is located on land managed by the East Bay Regional Park District (EBRPD), the NPS maintains the structure through a management agreement. The structure was stabilized in 1981 and rehabilitated in 1985. Today the tank retains its historic character and contributes to the historic site.

South Overflow Water Storage Tank
LCS ID: 016032
Historic Site Number: EO13

This structure was built between 1937 and 1944 as one of three redwood water tanks used to store water from the spring and supply the Tao House. The 10,000-gallon tank is located approximately 150 feet west of the Tao House on the hill.

The foundation is concrete slab on grade. It has a "witches hat" board roof with eaves and peak decoration, straps, various pipes, and a wood ladder. Although this structure is located on land managed by the East Bay Regional Park District (EBRPD), the NPS maintains the structure through a management agreement. The structure was stabilized in 1981 and rehabilitated in 1985. Today the tank retains its historic character and contributes to the historic site.

Water Catchment System
LCS ID: 056496
Historic Site Number: Spring (The word spring is used as the official LCS number)

The water catchment system was constructed early in the development of the O'Neill property beginning in 1937. The system was designed to carry water from the spring to

the water storage tanks located east of the spring. The catchment system below the spring was constructed with concrete. Three connected units comprise the system, including two square chambers approximately 3 x 4 feet with plywood tops, one round collection basin, and a feeder pipe from spring.[84]

The catchment system was rehabilitated several times between 1944 and 1994 and restored in 1999. The system as a whole continues to function and contributes to the historic site.

Swimming Pool

LCS ID: 016023
Historic Site Number: EO04

The swimming pool is 24 x 53 feet (including the coping). It is constructed of reinforced concrete with a plaster finish and has a projecting tiled gutter and red tile rim. There are two metal ladders. Depths vary from 8 feet 3 inches at the deep end to 3 feet 6 inches at the shallow end, and the pool's capacity is about 50,000 gallons. During the historic period, there was an effort to purify the water, but the O'Neills did not use chlorine. Instead, the basic recirculation system involved two large round ball tanks filled with gravel. The pool water was never heated. A brick patio, much of which is historic, surrounds the structure.[85]

The swimming pool remains and contributes to the historic site.

Buildings and Structures



A & E 14. Photograph of the Tao House with the almond orchard in the foreground (PWR 2003).



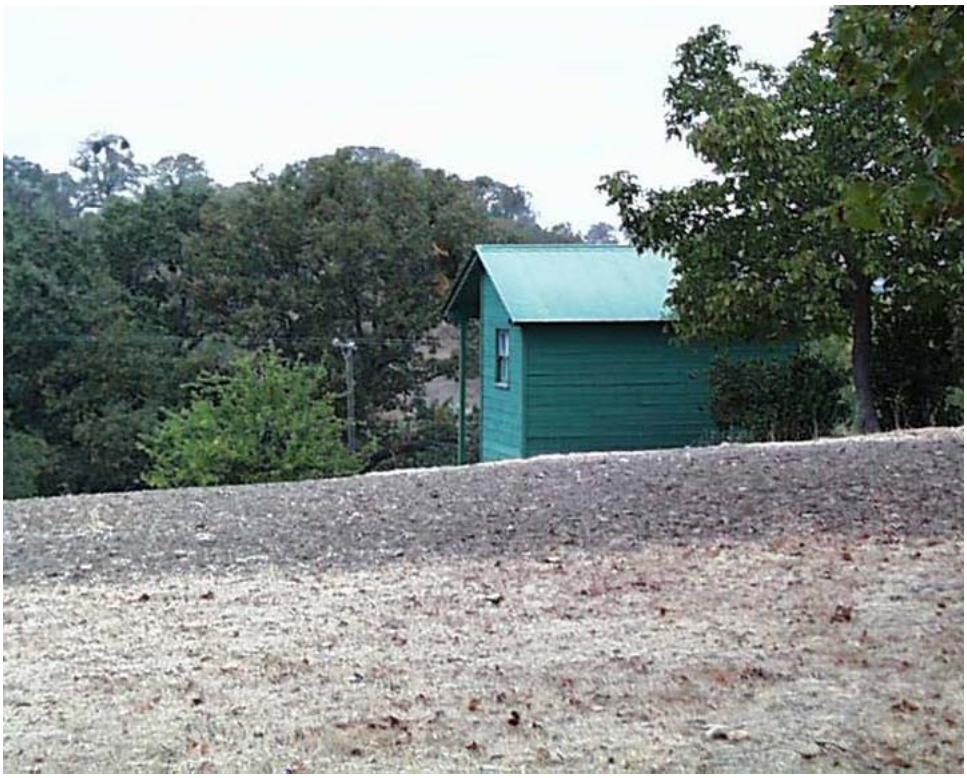
A & E 15. Photograph of the courtyard wall as viewed from the turnaround (PWR 2003).



A & E 16. Photograph of the new barn. This structure is non-contributing and is used to house historic site maintenance operations in addition to housing the Eugene O'Neill Foundation: Tao House collections (PWR 2003).



A & E 17. Photograph of the chicken coop on the left side of the image and the old barn on the right. Today, the old barn serves as a storage area and performance space for productions supported by the Eugene O'Neill Foundation: Tao House. These two buildings are contributing (PWR 2003).



A & E 18. Photograph of the potting shed. This is a contributing building (PWR 2003).



A & E 19. Photograph of the incinerator. Although this structure no longer functions in this capacity, it is a contributing building (PWR 2003).



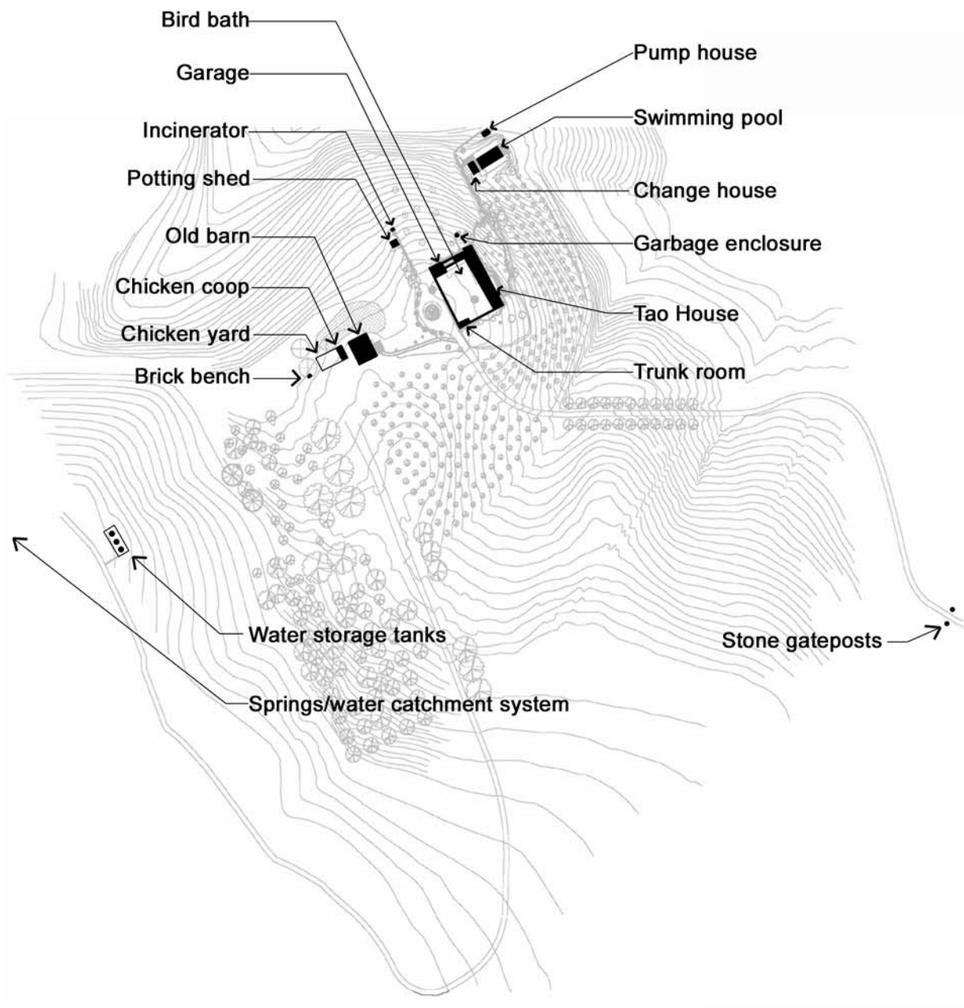
A & E 20. Photograph of the water storage tanks. The north water storage tank was destroyed by a tree. These tanks stored the O'Neill's water supply (PWR 2003).



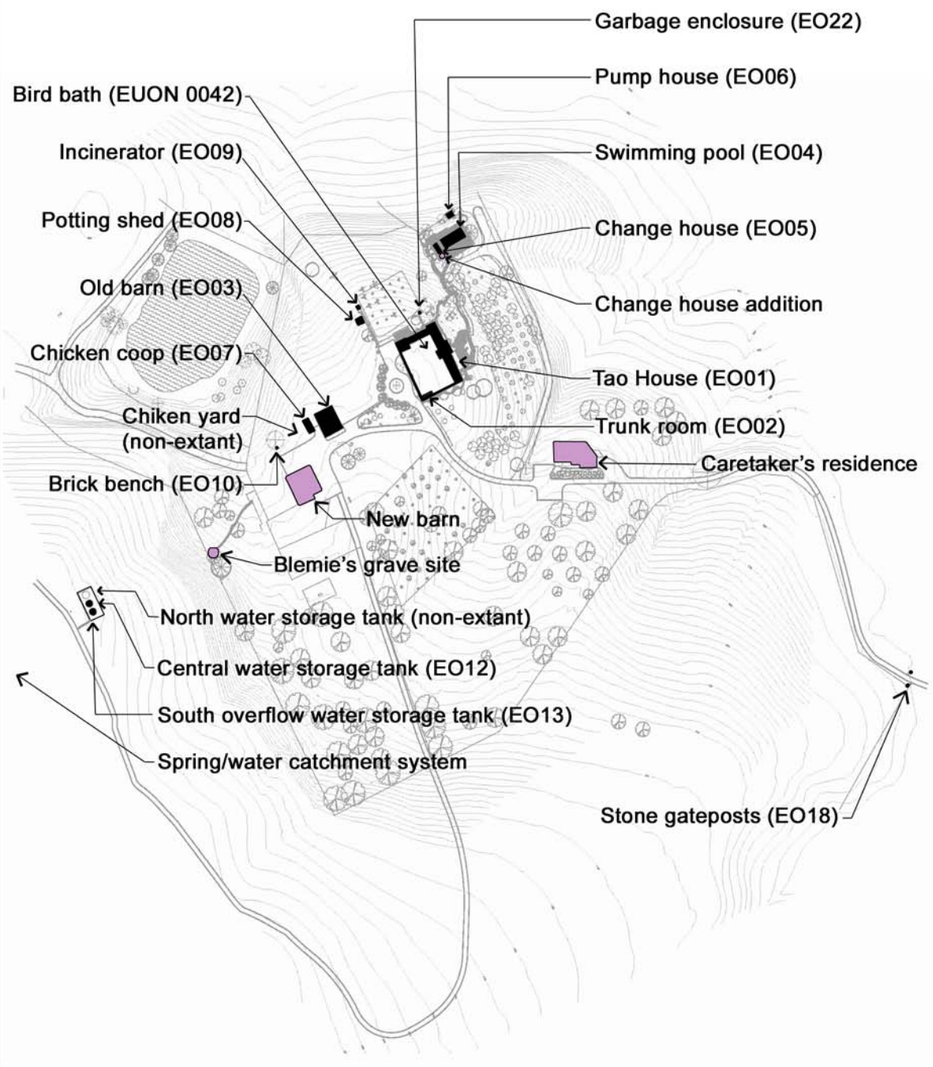
A & E 21. Photograph of the swimming pool. Although the pool is a contributing structure, many of the built features included in this image are non-contributing including the brick patio and white bench (PWR 2003).



A & E 22. Contemporary photograph of the swimming pool change house. This building was altered after the historic period when the Carlsons built an addition on the south side of the building (PWR 2003).



HISTORIC CONDITIONS 1944



Buildings and structures contribute to the historic integrity of the cultural landscape with 18 of the original 19 structures remaining. The north water storage tank was lost due to tree damage.

EXISTING CONDITIONS

BUILDINGS AND STRUCTURES

Cultural Landscape Report
Eugene O'Neill National Historic Site
National Park Service
Danville, California

Produced by
Pacific West Region Cultural Landscape Program
National Park Service
Seatlle, Washington

D 14

Notes:

Additional field checking completed by the Columbia Cascades Support Office and the Pacific Great Basin Support Office in 2003.

Information presented in this plan is derived from Autocad maps produced in the Tao House Exterior Landscape: Historic Landscape Study, 2002 by De Martini, and from historic photographs and air photos.

Buildings labeled EO22, EO06, etc. are historic site building identification numbers.

Plan drawn using Autocad 2002 and Adobe Photoshop 7 by Michael J. Hankinson, NPS

Legend

- Contributing features
- Non-contributing features

Small-Scale Features

Small-scale features at Eugene O'Neill National Historic Site include historic elements, such as the stone gateposts on Kuss Road, the brick bench near the chicken coop, the bird bath in the courtyard, the garbage enclosure on the north side of the house, and the Taoist inspired rock arrangement near the east terrace. Other small-scale features such as Blemie's granite gravestone, planting beds lined with stone or dimensional lumber, were realigned or relocated after the historic period. Other historic and non-historic features include barbed wire and metal fences, wood corrals, and garden furnishings.

Small-scale features included in the List of Classified Structures (LCS ID) or park maintenance files have reference numbers. If these records exist, the reference numbers are included with the description.

Tao House Stone Gateposts

LCS ID: 056490
Historic Site Number: EO18

Two cylindrical gate pillars marking the boundary of the O'Neill's property were constructed in 1938. Constructed using random course stone set in concrete, the pillars were 7 feet high and 3 feet in diameter. Carlotta described the pillars in her diary as "simple and country like!" Cylindrical in shape, they had a projecting stone cap ring near the top with a slightly rounded, depressed conical top, all of stone. The pillars supported a metal gate that historically, was controlled from the Tao House by an electrically activated latch.

Today, the stone gateposts remain in their original location, approximately 500 feet down Kuss Road outside the current NPS boundary. Each of the two gateposts is on separate properties. The post on the west side is on East Bay Regional Park District land; the post on the east side is on private land. These gates retain integrity and contribute to the character of the historic site.

Brick Bench

LCS ID: 016029
Historic Site Number: EO10

The brick bench, constructed by the fall of 1938, provided a place for Eugene O'Neill to relax and watch the chickens in the nearby yard. The bench is a 3 x 5 x 3-foot brick and mortared structure with a broad seat, moderate sloped back, and arm rests. A small brick platform in front is missing one brick. The bench seats two people and is oriented towards the chicken yard under a large oak tree. The chicken yard was removed after the period of significance. The bench has not been altered since the period of significance.

Tao House Courtyard Birdbath

LCS ID: 210899
Historic Site Number 0042

In 1938, the O'Neills purchased and placed a pre-cast concrete, Italian-style birdbath on the upper terrace of the courtyard. The birdbath consisted of a 36½ x 12-inch concrete bowl on an ornamental, cylindrical concrete pedestal. The pedestal was approximately 10 inches in diameter, flaring out to a somewhat wider cylindrical base. Surrounding the birdbath were 12 pre-cast paving stones carefully arranged in a circle. In 1998, the NPS stabilized and restored the structure.

Tao House Garbage Enclosure

LCS ID: 056497
Historic Site Number: EO22

The garbage enclosure, built between 1938 and 1944, served as a structural and visual screen for garbage cans. The structure consists of a 7 x 5-foot concrete pad with a 3½-foot-high lattice enclosure, painted white. Access to the structure from the Tao House is along a wood-plank walk.

Blemie [Gravestone]

LCS ID: 056494
Historic Site Number: BLEMIE

The gravesite for the O'Neill's Dalmatian dog, Blemie, was established in 1940 west of the Tao House "on the side of the hill under the pines" according to Carlotta's diary. The grave was marked with a granite headstone and posts were placed around its outer edge. After the period of significance, the granite headstone was moved from the gravesite and

left in a pile of rubble. When NPS personnel discovered the headstone in the 1980s, a new location for the gravesite was found based on the interpretation of Carlotta's diary.

Today, the grave is characterized by an inscribed, two-piece granite headstone, 2½ x 8 x 20 inches tall on a concrete pad. Surrounding the grave is a low wood fence of 1 x 6-inch boards and 4 x 4-inch posts. The gravesite is located west of the new barn outside the NPS boundary. Access to the gravesite is through two gates and then along a new 4-foot-wide gravel path. The historic granite headstone is surrounded by a reconstructed, white wood fence and is located under a walnut tree adjacent to the large pine on the hillside.

Planting Beds

Several planting beds, delineated with stone or dimensional lumber, were located on the west side of the Tao House courtyard and throughout the designed landscape in general. Today, remnant pieces of the wood edging used to delineate the historic planted area from the paved area suggest that the bed was 4 feet wide along its entire length from the courtyard gate to the far corner of the trunk house.[86]

Today, the planting beds demarcated with stone are not historic, although it is possible that many of these same stones were used to define the historic planting beds. After the period of significance, when the secondary road was realigned between the turnaround and the old barn, the planting beds associated with this road were also altered. Although realigned, the character of this planting area is compatible with the historic character of the site.

Fences

Because livestock from neighboring farms frequently wandered onto the O'Neill's property, one of their first tasks was to establish a wire fence around the perimeter of the property. Surveyors were hired and by April 1938, the first section of fence was erected along the south boundary. Photos from 1940 indicate that some segments of the fencing used on the O'Neill property are approximately 5 to 6 feet high. At this height, fencing would have been useful as a means to prevent deer as well as cattle from entering the property. It is not known, however, if a 6-foot-high fence was erected around the entire

157-acre property. A conventional barbed wire fence height would have been about 4 feet.

Today, barbed wire fences, with wood posts to about 4 feet in height, are located throughout the surrounding hillsides. Many of the posts are broken or failing. It is possible that some of these segments may have been located on the property line during the historic period. Some of these segments may be considered contributing if it could be proven that they date to the historic period. Most of these fences are in poor to fair condition.

Other fences are located throughout the historic site, but are not historic and do not contribute to the overall historic integrity of the site.

Garden Furnishings

During 1937, as the O'Neills were acquiring furnishings for their new home, Carlotta purchased garden ornaments for the grounds, including pottery elephants for the walkway to the pool, a chaise lounge at the pool, the birdbath for the courtyard, and a hay wagon for, as Carlotta described it in her diary, "atmosphere." These furnishings were located near the Tao House, where Eugene and Carlotta spent the majority of their outdoor leisure time. Among the largest ornaments was the hay wagon located between the turnaround and old barn on the raised planting bed. During the winter, garden furnishings were stored and brought outside during the month of April.

Two concrete pads (1.4 x 1.4 feet wide) were constructed at the top of the stairs connecting the east terrace with the walkway to the pool to act as pedestals for the two ceramic elephants that were approximately 2 feet tall. Today, the elephants are not original, but are replicas of those installed by the O'Neills. The chaise lounge and hay wagon were removed after the period of significance.

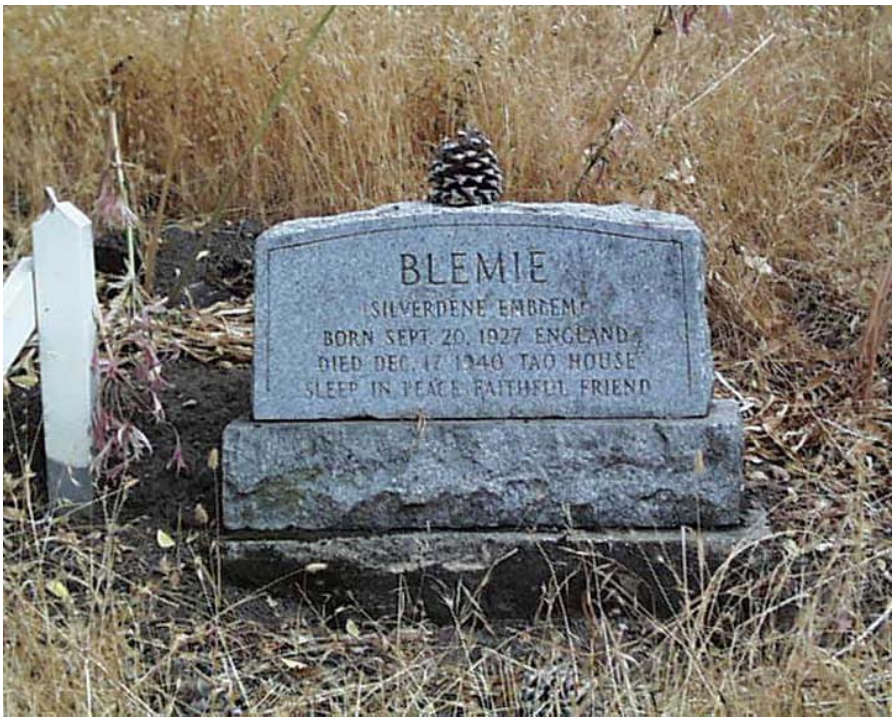
Small-Scale Features



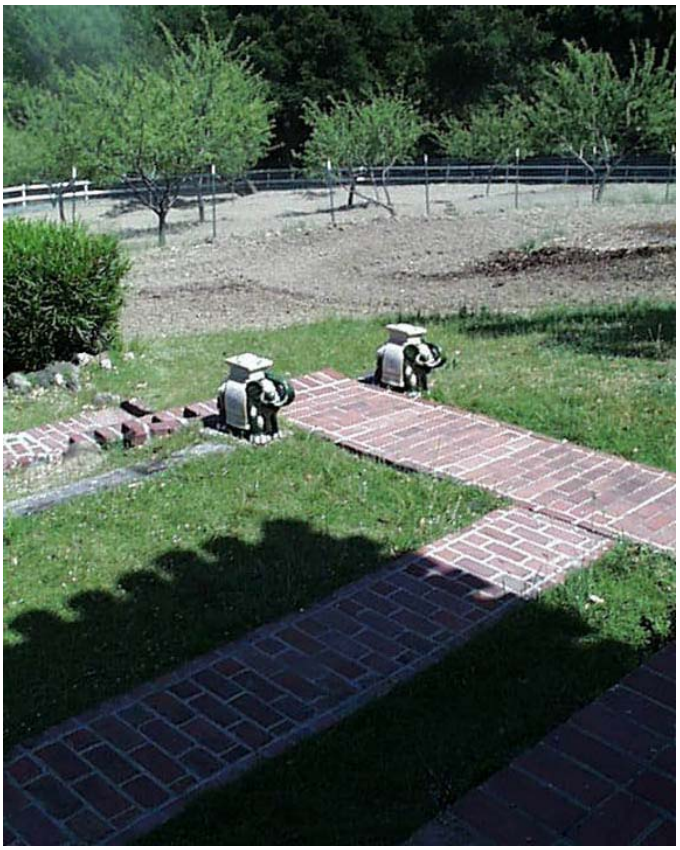
A & E 23. Photograph of the courtyard circa 1942. Note the birdbath with the pavers around its base (EUON collection).



A & E 24. Photograph of the old wagon located on the north side of the turnaround circa 1942 (EUON collection).



A & E 25. Photograph of Blemie's grave stone. Blemie was the O'Neill's beloved Dalmatian dog (PWR 2003).



A & E 26. Photograph of the non-contributing ceramic elephants located on the east side of the Tao House (PWR 2003).



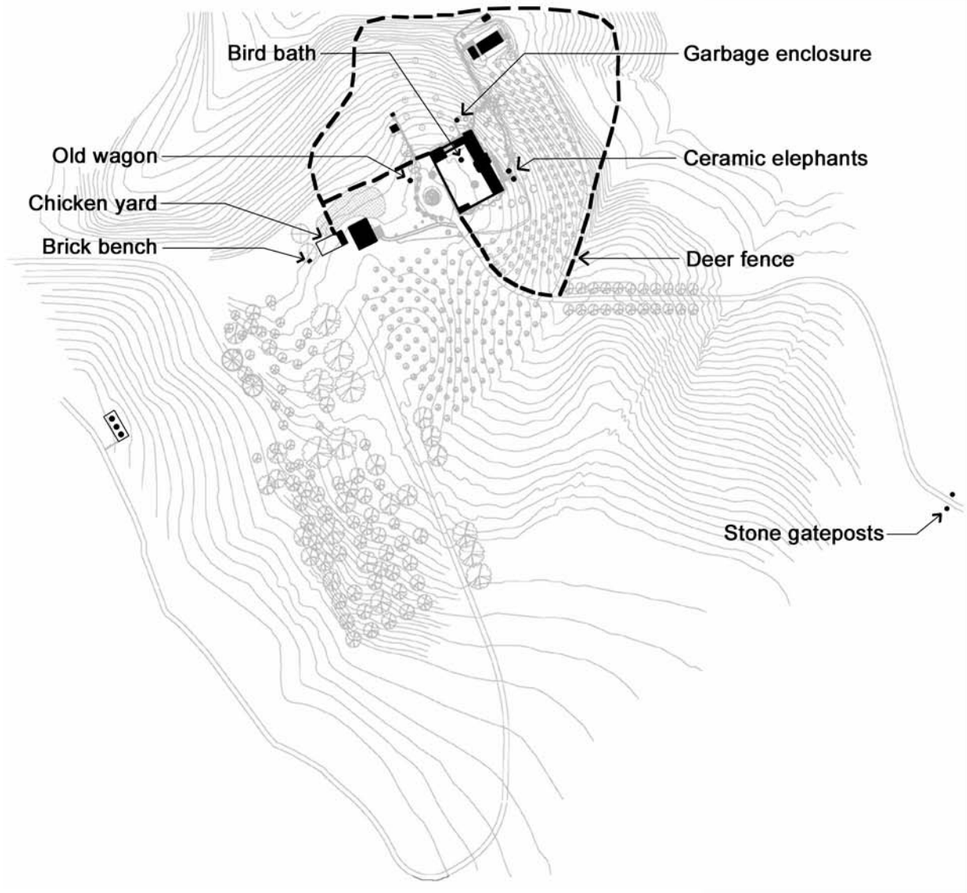
A & E 27. Photograph of the garbage enclosure. The structure is in poor condition (PWR 2003).



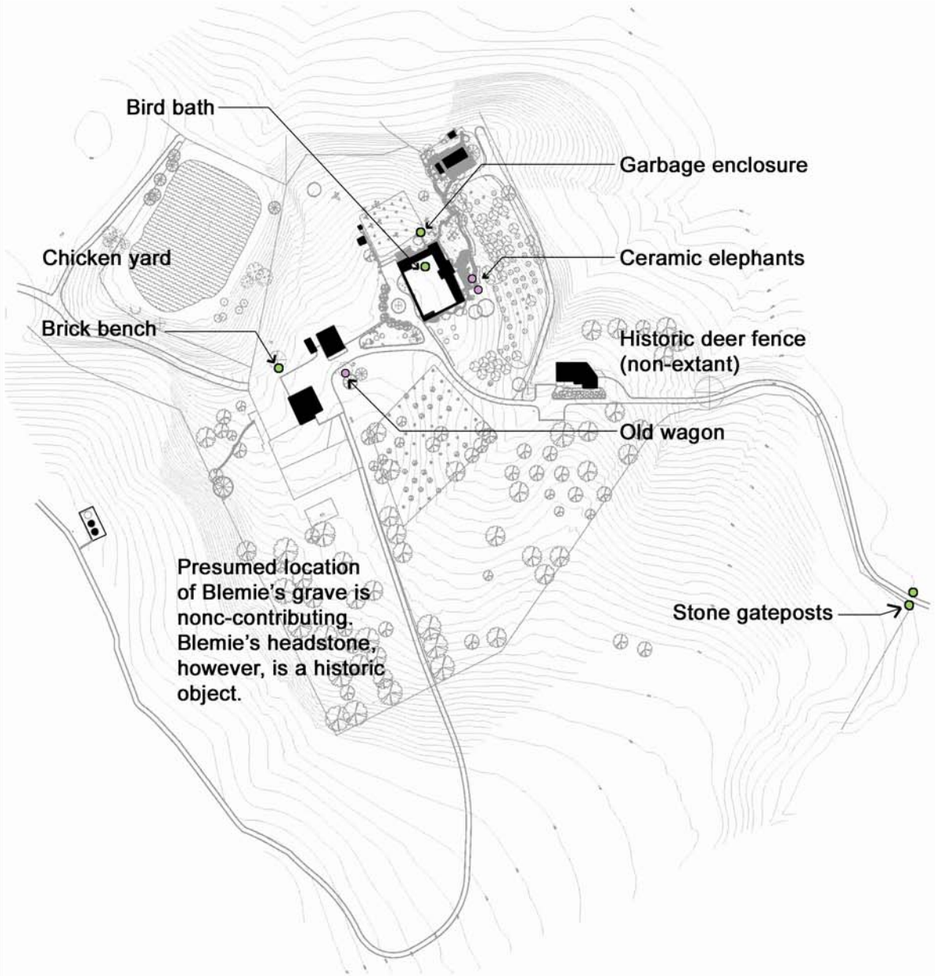
A & E 28. Photograph of the stone gateposts. These are contributing structures located off the historic site property (PWR 2003).



A & E 29. Detail of the south stone gatepost (PWR 2003).



HISTORIC CONDITIONS 1944



A number of small-scale features remain from the historic period including the brick bench, birdbath, garbage enclosure, and stone gateposts. Small-scale features contribute to the historic integrity of the cultural landscape.

EXISTING CONDITIONS

SMALL-SCALE FEATURES

Cultural Landscape Report
Eugene O'Neill National Historic Site
National Park Service
Danville, California

Produced by
Pacific West Region Cultural Landscape Program
National Park Service
Seattle, Washington

D 15

Notes:

Additional field checking completed by the Columbia Cascades Support Office and the Pacific Great Basin Support Office in 2003.

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Plan drawn using Autocad 2002 and Adobe Photoshop 7 by Michael J. Hankinson, NPS

Legend

- Buildings and structues
- Contributing features
- Non-contributing features

Views and Vistas

We have a beautiful site in the hills of San Ramon Valley with one of the most beautiful views I've ever seen. —Eugene O'Neill, letter to Barrett Clark, September 14, 1937.

Sited on the eastern slopes of Las Trampas Ridge, the Tao House was historically sited and oriented to take advantage of open and expansive views to the surrounding landscape. This setting was historically characterized by both open and distant views that influenced the design of the property. Most of these views remain today.

During the historic period, the Tao House east terrace and second floor balconies were designed to take advantage of open views to the San Ramon Valley and Mount Diablo—views that initially drew the O'Neills to this site. Views were also open from the water tanks located on the hills approximately 150 feet above the Tao House. Although the climb to the water tanks from the Tao House was a difficult one, the O'Neills were rewarded at the destination, with "beautiful views," as Carlotta remarked in her diary (October 27, 1937). Throughout the valley and closer to the Tao House, the area would also have appeared as an agricultural landscape with verdant walnut and almond orchard trees.

Today, the views of Mount Diablo and the San Ramon Valley from the Tao House and the surrounding hills remain, although changes have occurred to the landscape in the valley below. Mount Diablo, now a California State Park, is protected from development and therefore retains its historic character. Views on the east side of the residence also remain open, as the trees planted by the O'Neills and subsequently removed by the Carlsons, were never replanted by the NPS. Views from the water tanks and the surrounding hills also remain; however, a great deal of change to the valley has occurred. Once described by Eugene O'Neill in the late 1930s as "absolute country," the regional landscape in the valley east of the Tao House has changed considerably with the growth of Danville, Walnut Creek, and other nearby cities.

Views are a contributing landscape characteristic of the Eugene O'Neill National Historic Site. The views from the east side of the Tao House and the water tanks remain open and expansive despite urban growth in the valley.

Views and Vistas



A & E 30. View of the San Ramon Valley and Mount Diablo from the east terrace during the historic period (EUON collection).



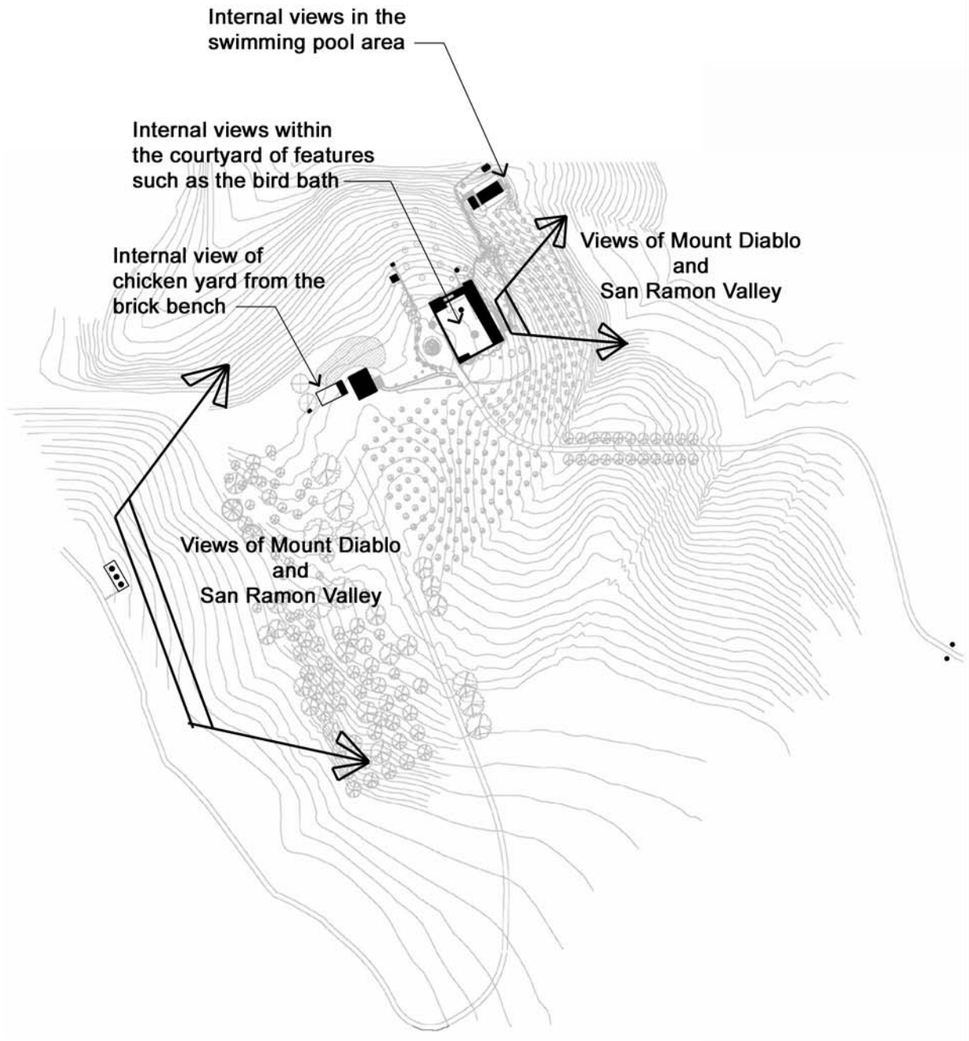
A & E 31. Contemporary view of the San Ramon Valley and Mount Diablo from the east terrace (PWR 2003).



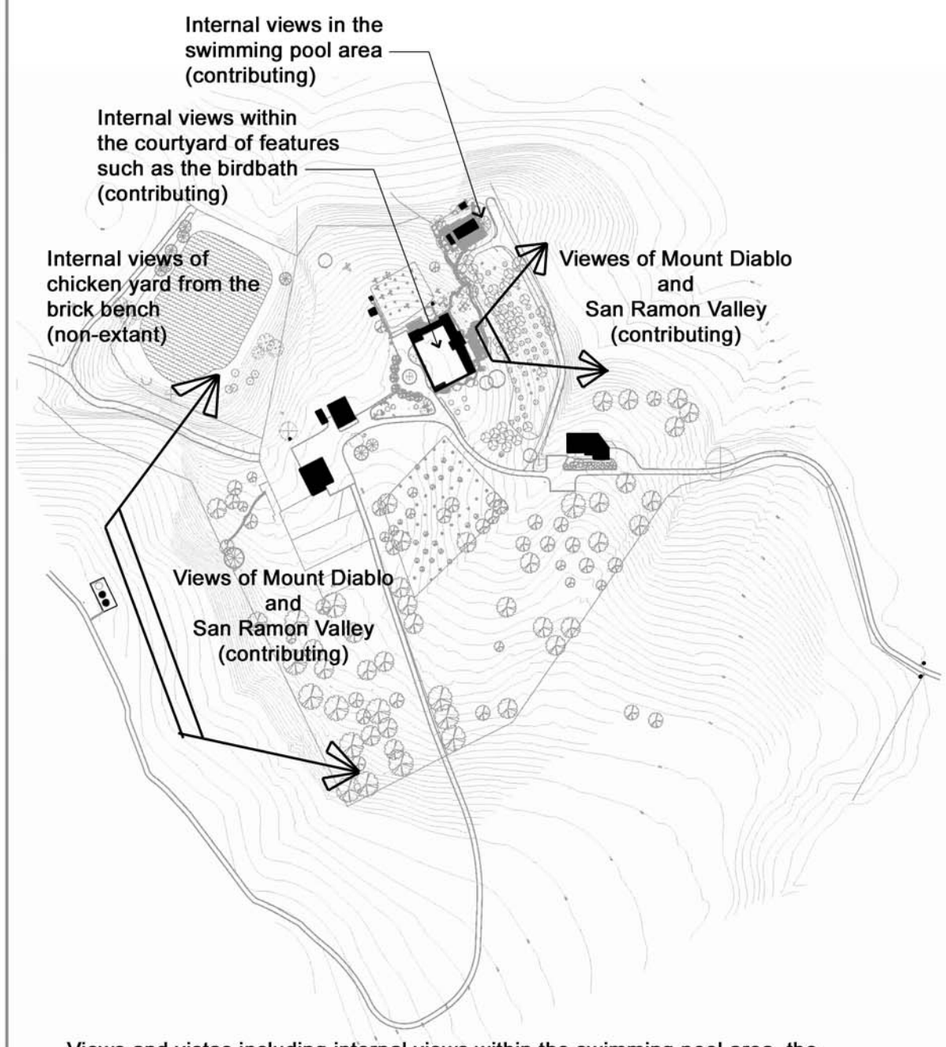
A & E 32. Historic view from the water tanks of the San Ramon Valley (EUON collection 2003).



A & E 33. Contemporary view of the San Ramon Valley from the water tanks (PWR 2003).



HISTORIC CONDITIONS 1944



Views and vistas including internal views within the swimming pool area, the courtyard, the chicken yard, and regional views of Mount Diablo and the San Ramon Valley remain intact and contribute to the historic integrity of the cultural landscape.

EXISTING CONDITIONS

VIEWS AND VISTAS

Cultural Landscape Report
Eugene O'Neill National Historic Site
National Park Service
Danville, California

Produced by
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D 16

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Plan drawn using Autocad 2002 and Adobe Photoshop 7 by Michael J. Hankinson, NPS

Legend

Buildings and Structures

Natural Systems

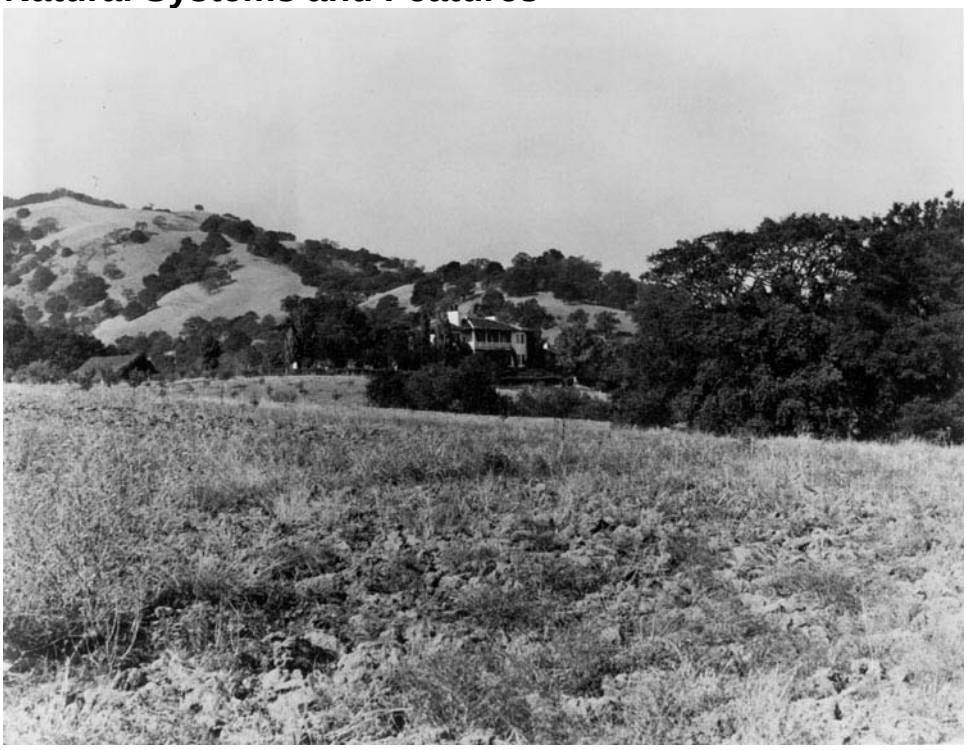
Historically, two natural systems had a strong influence on the design and development of the O'Neill property. The first was the natural topography, which provided limited space for siting buildings and constructing roads. The second natural system was the presence of a natural spring located just above the building complex, which was used to supply water to the property.

The hillsides above the Tao House were characterized by steeply sloping grassy areas fringed with oak and bay trees, providing the O'Neills with a significant amount of privacy. In some cases, the natural topography provided the opportunity to enhance design objectives. For example, the swimming pool, sited down the northeast slope below the house, was screened from view by the grade, providing additional privacy for O'Neill. Almost all of the other structures and landscape features constructed between 1937 and 1944, such as the barn and chicken coop, and the incinerator and potting shed located near the fields, were built in proximity to the main residence based on available building space and functional relationships.

The location of the springs on the hill above the building complex lead to the development of a gravity-fed catchment system, relying on the grade to provide the pressure required to create a reliable system. Water was channeled downhill from this spring via pipe to the three redwood water storage tanks, where the water was held in a distribution box located outside the courtyard wall near the trunk room.

Today, the level area continues to provide the setting of the Tao House, its associated buildings, and numerous landscape features such as the orchards, gardens, and terraces. Eugene O'Neill National Historic Site retains the water rights for the spring, although they are currently located within the East Bay Regional Park District. The form and structure of these topographic features remains today and contribute to the character of the cultural landscape.

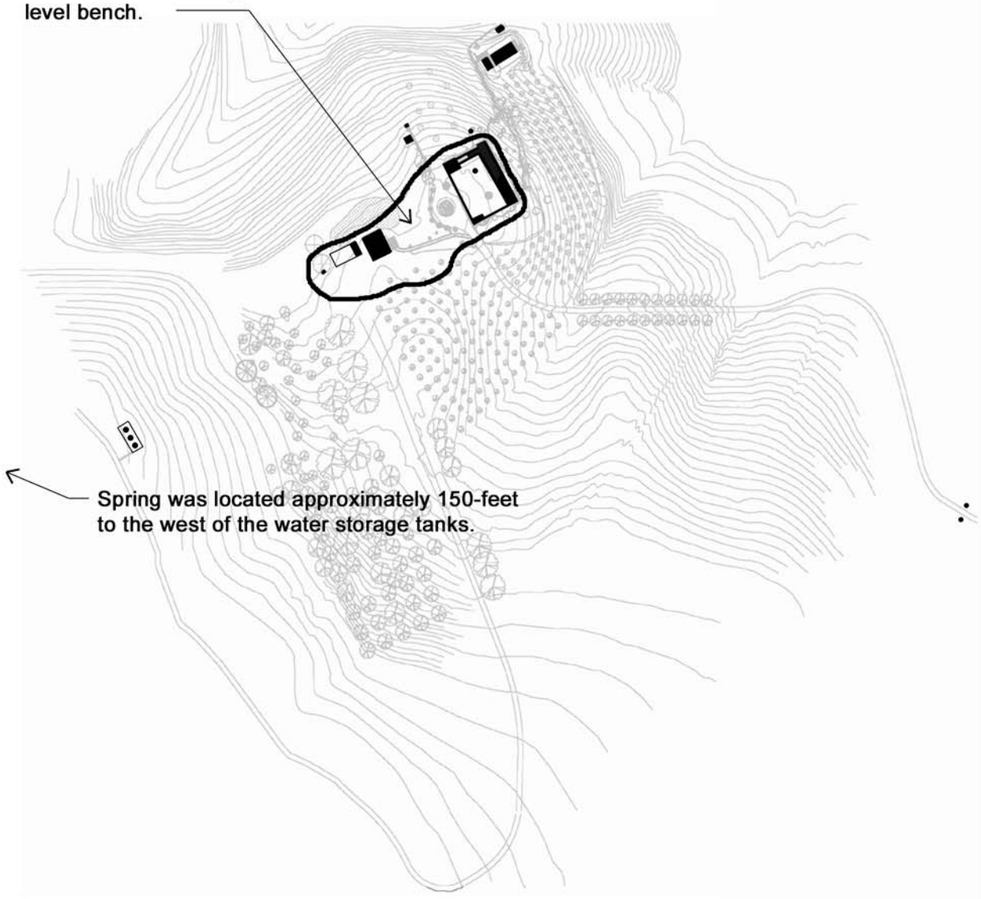
Natural Systems and Features



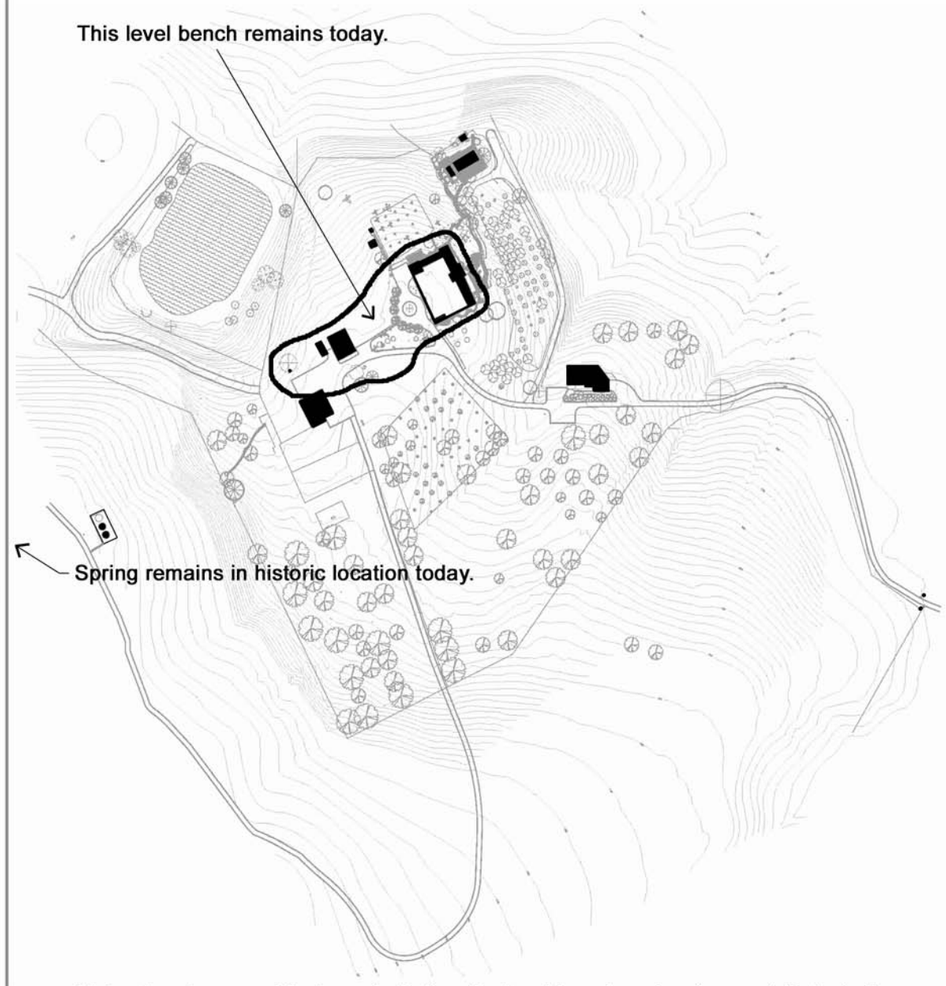
A & E 34. Photograph showing the Tao House perched on the level terrace during historic period (EUON collection).



A & E 35. Photograph showing the water catchment system located at the spring (PWR 2003).



HISTORIC CONDITIONS 1944



EXISTING CONDITIONS

Natural systems and features including the level bench and spring contribute to the historic integrity of the cultural landscape.

NATURAL SYSTEMS AND FEATURES

Cultural Landscape Report
Eugene O'Neill National Historic Site
National Park Service
Danville, California

Produced by
Pacific West Region Cultural Landscape Program
National Park Service
Seattle, Washington

D 17

Notes:

Additional field checking completed by the Columbia Cascades Support Office and the Pacific Great Basin Support Office in 2003.

Information presented in this plan is derived from Autocad maps produced in the Tao House Exterior Landscape: Historic Landscape Study, 2002 by De Martini, and from historic photographs and air photos.

Plan drawn using Autocad 2002 and Adobe Photoshop 7 by Michael J. Hankinson, NPS

Legend

Buildings and Structures

End Notes

[1] Restoration of the Tao House is considered an ongoing process over several years as funding becomes available. The most recent work was completed in 2003 when the roof was replaced.
[2] Deep soil deposits, abundant spring water from the hills, coupled with the number of valley oaks on site, strengthen this assumption.
[3]Chappell, 1979, 17. The ranch was part of a land grant awarded in 1833 to Dona Rafaela Soto de Pacheco. This property was later acquired by an American attorney and land speculator named H.W. Carpentier, who patented 8,917 acres in1866.
[4] Oakland artist Marius Schmidt painted a watercolor of the site about 1908, showing the two adobe buildings and Mount Diablo in the distance. One adobe building was roughly 43 by 33 feet in size, and the other, approximately 10 by 22 feet. Local tradition indicates that these structures may have been one of several lookouts or line camps for the ranch hands working on the Pacheco Ranch.
[5] Chappell, 1979,19-20. Carlotta O'Neill thought the road would cost $2,000, but when they received a bid on July 31, it was for $4,600.
[6] Chappell 1979, 19-21. A brief diary entry from Carlotta's diary her stated that she wanted… "Heavy white concrete blocks, inside and out—beautiful tiled roof—sway-back to look old—and as dark as we can get the tiles—dark tiles for the floors (downstairs) & deep brown finish—etc. closets, dressing rooms, etc."
[7] Specifically O'Neill wanted the house built just as the Franciscan missionaries and other early Californians had built their structures, using tools and materials of the late 18th and early 19th centuries. Builder Lloyd Simpson also recalled receiving instructions from O'Neill, saying "He wanted this to be just as the natives would have done with the tools they had, the Native Californians…" (Chappell, 1979)

[8] The name Tao House was first mentioned by Carlotta in her diary entry dated October 27, 1937. The name Tao House was first mentioned in Eugene O'Neill's diary the day they moved in on December 30, 1937. To both Eugene and Carlotta O'Neill, Tao House meant, or so they thought, "the right way of life," and it was spelled out on the entrance gates in four wrought iron Chinese calligraphy figures. Carlotta had consulted a Chinese friend, Mai-mai Sze, about it, who later would recall, "I didn't think it was particularly apt, but I thought, what does it matter, if it amuses them. The O'Neills had a naïve, romantic idea of China—the wisdom, the pageantry and so forth were superficially conceived and romanticized by them" (Chappell 1979, 30-33).

In the end, there was a mix of both Spanish and Chinese architectural influences on Tao House. As for the walls of the new residence, they would not be true adobe, but baselite blocks which simulated the appearance of adobe, although according to Simpson, O'Neill intended them to resemble stone, in contrast to the claim of one biographer that they "had been specially designed to resemble Chinese earthen blocks." Again, Carlotta O'Neill's diary documented the bricks as being intended by her to represent "old adobe bricks," typical of California Spanish colonial architecture (Chappell 1979, 18). Although Eugene O'Neill preferred indigenous Spanish building techniques, it would have been possible only had the house been built of genuine adobe. In fact, neither the materials nor the construction techniques represented anything like native California adobe construction. Furthermore, builder Lloyd Simpson recalled that the walls were supposed to be "exactly like stone inside and out." This once again emphasized the romantic naiveté of the O'Neills in the design of their house. The typical native Californian construction O'Neill wanted was of adobe bricks, not roughly dressed stone, although in rare instances stone buildings were built during the Spanish and Mexican eras. Carlotta meanwhile, referred in her diary at different times to these baselite bricks being "about the size of old adobe bricks" and to the walls being of "white stone," which of course they were not.

In addition to European architectural traditions, Asian traditions influenced the estate's design. O'Neill had long before become intrigued with certain aspects of Asian philosophy, while his wife was an almost compulsive collector of Asian, principally Chinese, antique objects d'art, jewelry, and furnishings. Chinese architecture, or at least Carlotta's conception of it, also influenced the design of the house itself, some typically Chinese colors were applied to its interior, and many of the furnishings were Chinese antiques. Carlotta would one day say, "I wanted to build a Chinese house. But I didn't have the money, so I built a

sort of pseudo-Chinese house." She would later tell her builder that she wanted "something primitive on the outside but with a Chinese interior" (Chappell 1979 17-18). During this phase of planning, discussions turned from the walls to the roof, which created further ambiguity in the design of the residence.

The ambiguity seemed to rest solely with the color and shape of he roof tiles, black rather than the more common red, and described by one O'Neill biographer as "black oriental-type tile," while another writer described them as "shaped to resemble oriental tiles." Builder Lloyd Simpson recalled, some thirty years after building the house, "The roof was an exact imitation of what they have on the missions," and further that "the only Chinese part was the interior…" As for coming from China, Simpson recalled that the tiles were designed by B. Bean and especially handmade by the Frost Roofing Company, then of Palo Alto, later of Monterey. He said they were "black and they were made over the shape of the design (mold) so that they come to a point at the knee and wider coming up and then they were all set, cemented, so they had the channels running down, all the valleys running down were lined with copper" (Chappell 1979, 17).

Carlotta also noted in her diary, at the time the residence was being designed, that their house was to be "a mixture of primitive Spanish with a suggested Chinese roof of tiles—with Chinese suggestions inside for our lovely old Chinese things—a mixture of patio and Chinese Court, etc.—etc.--." (Chappell 1979, 17).

[9] Gilbert, 1986, 9
[10] Cox, 1979, 24
[11] Cox, 1979, 80
[12] Chappell, 1979, 55
[13] In 1938, Carlotta mentioned working on her "miniature Japanese garden." This reference was likely about the garden space dedicated to three rocks sited near the Tao House east terrace. The stones were purposefully placed to resemble a Taoist arrangement. Today there is a rock arrangement in the planter area directly south of the east terrace consisting of three rocks. It is undetermined if the arrangement is historic.

[14] Carlotta's diary 1937-1944.
[15] This pool was later filled with soil converted to a planter for annuals.
[16] For a complete description of the courtyard and historic planting plan, see Appendix A.
[17] Gilbert, 1986, 11, 13, 17-18
[18] In one specific case, a man named Hal is mentioned in a diary entry stating: "harvested wheat on July 25 and again on August 6, 1939" (Chappell, 1979, 71) and in another case it is mentioned by Carlotta that Roberts was "disking corn field" that day (Carlotta's diary March 28, 1942).
[19] During the summer of 1939, a rather severe drought hit the valley. The springs behind Tao House were barely flowing and the water in the storage tanks was rapidly being depleted (Gilbert 1986, 13). As a result, the O'Neills drilled for water in July and rationed the existing water supply (Chappell 1979, 71). "Our lack of water," Carlotta dismayed, "is ruining our garden—must redo (the) patio…" The drought lasted well into August, and Carlotta recorded in her diary that they were watering plants in the patio by hand, using one pail of water at a time. The rains did not return until fall. However, the lawn in the courtyard, which had suffered severe drought stress, was overseeded and on the way to recovery by late October (Gilbert 1986, 13).

[20] Gilbert, 1986, 13-18
[21] After the period of significance, the granite headstone was moved from the gravesite and left in a pile of rubble. In the 1980s the headstone was found by NPS personnel and reset in a new location based on an interpretation of O'Neill diary entries. Archeological verification of Blemie's actual gravesite has not been undertaken.
[22] Having both, to a greater or lesser degree, rejected their own children, the O'Neills had bestowed on Blemie the affection that other people might have reserved for children, so the death of the dog struck the couple as forcefully as if the pet had been human (Chappell 1979, 94). Weeks later, Eugene expressed the O'Neill's feelings of loss for Blemie in a letter saying, "…Blemie, died a few days ago. He was thirteen, growing feeble, blind and deaf, and death was a mercy for him. But he had been with us ever since we have been married. We loved him and his passing has knocked both of us out. It was a poor ending for the year." (Letter from Eugene O'Neill to Dudley Nichols in letter) (Chappell 1979, 94-95).

[23] Chappell, 1979, 55 and 95. By 1941, walnut orchards covered a large portion of the O'Neill property. Although it is documented that O'Neill had both walnuts and almonds planted early in 1941, some of the walnut trees in the orchard directly south of the corral were planted prior to the O'Neill period. Photographic evidence suggests that the walnuts south of the new barn were planted prior to the O'Neill period, while the walnuts closest to the Tao House, directly adjacent to the new barn, were planted during the O'Neill period.
[24] Carlotta's diary, April 14, 1939, Feb. 18, 1940.
[25] Chappell, 1979, 74
[26] Carlotta's diary 1940-1943; Eugene's work diary 1925-1953
[27] Carlotta's diary Feb. 16, 1941; April 14, 1939
[28] Chappell, 1979, 87
[29] De Martini, 2002, 3-3, Carlotta's Diary, May 17, December 11, 1938 and April 28, 1940
[30] De Martini, 2002, 4-2
[31] De Martini, 2002, 4-4
[32] Carlotta's diary 1941-1943
[33] Feeling close to cracking up with worry and overwork, she wrote Eline Winther on October 29: "I feel imprisoned—and want to scream my way out…I want to go back where I belong. The East. I want to see my friends. People who are doing things. I would rather live in one room and be in the midst of activities. I can't stand this stuck away from living people…Pray we'll be able to sell."

Despite the fact they had obtained a cook, Carlotta was eager to get out of the Tao House and her ambiguous feelings about the place surfaced with a vengeance. She had once said, "I love the country because I love being away from people," and claimed that the privacy of Tao House and the beauty of their surroundings repaid her a hundredfold for her labors, but by the end of 1943 she was telling Myrtle Caldwell, "I loathe the country, for more than a few days. I always have! I have lied to everyone, & myself, all these years trying to make myself like it! I knew Gene couldn't work in a town" (Chappell 1979, 131).
[34] Gilbert, 1986, 19 and 21
[35] Chappell, 1979, 131-132
[36] De Martini, 2002, 8
[37] This process involved installing a concrete beam above to serve as the lintel, while the enlargement of the east downstairs porch was probably done at this same time. Posts, not considered structurally necessary and connected with the east upstairs balcony, were removed because they interfered with the view through the new picture window (Chappell 1979, 139). Other changes to the exterior of the residence included a new ornate patterned metal railing to replace the wooden railing. The Carlsons also made changes to the exterior landscape.
[38] Chappell, 1979, 140-141
[39] This was probably not until after the end of World War II, with its restrictions on construction and building supplies, although Mrs. Carlson recalled it as being in 1944. Christiansen remembered the barn as a fancy, new, up-to-date structure with polished asbestos sheet walls that could be washed in five minutes, two milking stalls, and facilities for butchering. The barn apparently also was used for square dances (Chappell 1979, 139).
[40] Chappell, 1979,41
[41] The Eugene O'Neill Foundation, Tao House Home page provided this information on page 1 of its homepage (www.eoneill.com/eof/tao_house.htm)
[42] Gilbert, 1986, 1
[43] Eugene O'Neill National Historic Site Final Environmental Impact Statement and General Management Plan, 1990, i and iii
[44] The plan, a guide for the site's management and development for 15 years, described the natural and cultural environment, related socio-economic factors, and the consequences of proposed actions and alternative plans. Within the plan, the environmental consequences were weighed and found to be largely positive, producing only minor negative impacts to the historic site (EUON GMP 1990, i).

[45] Gilbert 1986, 28 This tree is identified as a Chinese flame tree (Koelreuteria bipinnata). The historic tree was actually a Chinaberry tree (Melia azedarach).
[46] A list of plant materials used at the Tao House can be found in Appendix A.

[47] De Martini 2002, 3-2, 3-3, 3-4, 3-5
[48] Chappell 1979, 55
[49] Gilbert 1986, 17
[50] De Martini 2002, 3-4
[51] Sargent, vol. 1
[52] Carlotta's diary, Oct. 31, 1942. During the 1940s and 1950s, the black line virus devastated Contra Costa County's walnut orchards. In response to the virus, black walnut rootstocks "rejected" their infected English walnut grafts and then continued to grow as black walnut trees.[52] The O'Neills most likely planted an English walnut orchard, which then transformed as the rootstock took over the grafts during the Carlson period; however the trees are still considered to be historic.

[53] Although the turnaround is not officially part of the LCS designation for Kuss Road, this document considers the turnaround to be part of the road and arrival system, and is documented here as one structure.
[54] 1941 air photo (EUON collection)
[55] De Martini 2002, 5-6. This culvert replaced an earlier one.
[56] De Martini 2002, 5-6
[57] De Martini 2002, 5-6
[58] De Martini 2002, 5-6
[59] Gilbert 2002, 3
[60] De Martini 2002, 6-4
[61] De Martini 2002, 2-4
[62] De Martini 2002, 6-4
[63] There is little historic data regarding this area, but it is appears that this segment of the walk was more direct in alignment and sited close to the house linking utilities such as the kitchen with other informal walkways.
[64] It may be that the brick walk extended from the three path steps to the front of the change house, in order to provide access to and from the change house.
[65] Both Carlotta and Eugene spoke of walking along the fence that marked their property boundary. Eugene O'Neill often took walks alone or with others. These included walks in the "canyons," "hills," "meadow," and to the "south boundary," the "tanks," and the "springs." It is not clear if the O'Neills were using trails during any of their other walks, or were simply forging their own.

[66] Limited information exists regarding access to the pump house during the O'Neill period. Photo evidence from the 1980s shows a small wooden path to the west of the building. Barely recognizable remnants of this path remain today, although there are clues that point to its use. For example, the brick platform in front of the pump house extends beyond the structure by about two feet to connect to the original wood-planked walkway. This supports the assumption that this brick platform is historic. Further, based on the orientation of the cotoneaster shrub plantings, one may speculate that an informal historic path surfaced with painted wood extended beyond the pool area and circled west, providing access to the filter house; Carlotta and Eugene's own notes reference this walkway. Both Carlotta and Eugene mention his painting the "boardwalk" to the "filter house from the pool."

[67] Information in this section is taken from the List of Classified Structures (LCS) for Eugene O'Neill National Historic Site. The LCS is a NPS database of all structures found at the site. It does not categorize or differentiate between different types structures. For the purpose of analysis, this CLR distinguishes between buildings and other types of structures. For example, in this report, roads and walkways are described under the section on circulation. Small-scale structures such as the stone gateposts and the brick bench are described in the section on small-scale features.

[68] List of Classified Structures User's Manual. U.S. Department of the Interior, National Park Service, 1999.
[69] The stylistic term Spanish Colonial is not quite accurate for describing Tao House as this style designation usually refers to the more elaborate examples of churches and public buildings found in Mexico, Central, and South America. These more elaborate types of buildings are not found in California except at the missions, in a much simpler manner. Tao House is more accurately described as an early California Ranch/Monterey Colonial style. The style that came to be known as the California Ranch. The design of Tao House came more from this background. The O'Neills were not architectural historians, nor would they have known the evolution of the style. They were apparently more desirous of a look and feeling that they interpreted to be an example of Spanish
[70] White painted baselite bricks were chosen for the walls, in part, because they were thought to allude to the white adobe structures that characterized central Californian architecture at the time.
[71] The terracotta tile roof, black in color rather than the common red, was also derived from Mexican adobe architecture, although it has been thought that the O'Neills were referencing Asian architecture through this choice of color.
[72] Major restoration of the Tao House is considered an ongoing process. Work began on the house in the late 1970s and continues today. Some of the preservation work includes replacing the large window on the east side of the house and replacing the roof in 2003.

[73] LCS 2001, old barn, 2
[74] Cox 1979, 74
[75] LCS 2001, 3
[76] LCS 2001, pump house, 3
[77] LCS 2001, chicken coop, 2
[78] LCS 2001, 3
[79] Cox 1979, 77. The potting shed is not mentioned in the O'Neill diaries and there no historical photographic information. However, it may be assumed that this building served as some kind of storage area for garden-related items as it was used in this manner after the period of significance.
[80] LCS 2001, potting shed, 2
[81] LCS 2001, potting shed, 3
[82] Cox 1979, 77
[83] The third water tank was the North Water Storage Tank. This structure was damaged when a tree fell on it and it was removed by the NPS in 2001. The former LCS ID number was 016030, and the park structure number was EO11.
[84] LCS 2001, water catchment system, 2
[85] LCS 2001, swimming pool, 2
[86] Although there is no historic photographic evidence to support this assumption, it is logical to expect that the inner and outer circle perimeters of the turnaround may also have had a similar wood border treatment.

Part 2: Treatment

Introduction

The purpose of treatment is to provide long-term strategies for the preservation of historic features and the restoration of the historic landscape at Eugene O'Neill National Historic Site.

Treatment strategies for the cultural landscape are based on the 1990 General Management Plan (GMP), which calls for the preservation of the historic scene to the O'Neill era, restoration of missing features, and adaptive reuse of structures (rehabilitation) for interpretive and contemporary use of the historic site. The GMP defines two management zones: the historic zone and the development zone. Management within the historic zone focuses on restoration and preservation of the historic scene, including removal of nonhistoric structures. The majority of cultural landscape features that date to the O'Neill period are within the historic zone and will be preserved (including most of the 13.17-acre historic site). The development zone encompasses a small area of land around the noncontributing caretaker's residence (approximately 7,000 square feet.). Within this area, several new structures are proposed including a visitor contact area, public restrooms, National Park Service office space, a library, and housing. Recommendations made in this report address cultural landscape resources located within the designated historic zone. The design of new structures in the development zone is addressed in terms of compatibility but not in terms of programmatic needs.

The period of significance for the cultural landscape is 1937 through 1944. During this period, the O'Neills designed and constructed 19 buildings and structures, several formal gardens around the Tao House, and three orchards. Today, the site retains the majority of its historic features, including 18 of the original 19 buildings and structures, the formal gardens, and the orchards. The intent of this section is to provide recommendations and

guidelines that allow for the continued use of this property, while preserving the historic features and restoring the historic character of the site.

All treatment recommendations and guidelines in the Cultural Landscape Report are based on *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes* (1996) and NPS Director's Order 28: *Cultural Resource Management Guidelines* (1997). Three treatments are applied at the site: restoration, preservation, and rehabilitation. Restoration is the primary treatment allowing the reconstruction of missing features from the historic period. Preservation addresses the remaining historic features within the cultural landscape. Rehabilitation acknowledges the need to accommodate new uses at the site, while retaining the historic character of the cultural landscape.

Treatment strategies are organized at two levels: site-wide guidelines and recommendations, and individual management zone guidelines. Site-wide guidelines pertain to construction of new buildings and structures in the development zone, and recommendations pertain to preservation and restoration in the historic zone. The section, "Sitewide Guidelines and Recommendations with Development Zone Guidelines," provides statements about: overall site character, buildings and structures, circulation, and vegetation.

The section "Individual Management Zone Recommendations" provides more specific direction for managing the designed landscape. Five individual management zones are identified: Tao House designed landscape, the barn working area, orchards, open fields, and woodlands. Each management zone includes treatment recommendations, schematic plans, and annotated photographs. The narrative describes recommended treatment. Schematic plans illustrate the location and extent of treatment recommendations in relation to other areas of the site. Annotated photographs illustrate specific aspects of treatment and describe how to either preserve or reestablish the historic character of an individual feature.

The restoration, preservation, and rehabilitation treatment recommendations described in this report include all aspects of the cultural landscape; however, the majority of recommendations address treatment of ornamental vegetation in the formal gardens around the Tao House and, to a lesser degree, the orchards. In this regard it is important that recommendations made in this CLR be carried out in collaboration with the appropriate cultural resource advisors and certified horticulturalists and arborists specializing in both ornamental trees and orchard management. Additionally, all recommendations for treatment of vegetation are predicated on construction of a deer fence around the landscaped areas of the Tao House, including the turnaround, the south side of the Tao House, the east side of the Tao House, and the area around the swimming pool. If deer fencing is erected, then restoration and preservation of the historic vegetation can be accomplished. If management determines that fences are not appropriate, then replacement plant materials should be deer-resistant, sustainable, and compatible with the character of historic vegetation.

Finally, as discussed in this report, opportunities for partnership between the NPS and the regional park are encouraged for the purpose of protecting historic features that are not managed by the NPS (such as orchards, roads, structures, open fields, and woodlands) and are outside NPS boundaries. Specifically, it is recommended that the NPS work closely with the regional park to develop a fire plan and vegetation management plan for treatment of significant cultural resources located outside the 13.17-acre historic site.

Site-Wide Guidelines and Recommendations with Development Zone Guidelines

Site-wide guidelines and recommendations apply to the cultural landscape as a whole and include features in the historic zone, the development zone, and on regional park property. Development zone guidelines specifically apply to proposed new development. Guidelines and recommendations are discussed for the following:

- Overall site character

- Buildings and structures
- Circulation
- Vegetation

Overall Site Character

The site character is reflected in the overall design of the cultural landscape, including the features, materials, and designed spaces associated with the period of significance at the historic site.

Recommendation

1. Preserve historic character of the cultural landscape, including the O'Neills' historic orchards, open fields, the woodlands, the entrance road, the working area around the old barn, and the designed gardens around the Tao House and the swimming pool.

Buildings and Structures

During the historic period, the O'Neills constructed numerous buildings and structures which remain today, the majority of which are within the 13.17-acre historic site.

Recommendations

1. Preserve and maintain all the historic buildings, structures, and features that are identified in the List of Classified Structures (LCS) as part of a cultural cyclic maintenance preservation program.

2. Remove nonhistoric buildings and structures located in the historic zone, including the new barn, the asphalt road and parking area associated with the new barn, the nonhistoric addition to the swimming pool change house, and the non-historic portions of the brick patio and stairway located at the swimming pool.

3. Remove non-historic structures within the original O'Neill holdings but outside the NPS boundary, if feasible. For example, consideration should be given to the removal of the holding pond located on the north side of Tao House. This pond is highly visible and negatively impacts the historic scene.

Guidelines

1. If new structures and facilities are required within the property, they should be constructed within the development zone, as called for in the GMP.
New structures should be compatible in scale, color, massing, and size, and

should follow the guidelines and procedures defined in *The Secretary of the Interior's Standards for the Treatment of Historic Properties*.

Circulation

Kuss Road and the fire road date to the historic period and are located on private, regional park, and NPS land.

Recommendations

1. Maintain the historic alignment, width, and macadam surface and rural character of Kuss Road. The NPS should work in partnership with adjacent property owners to ensure the segment of Kuss Road—from the stone gateposts to the historic site entrance—retains its historic character.

2. Maintain the historic alignment, dirt surface, and rural character of the fire road, which begins from the working area and terminates at the turnaround above the water tanks.

Vegetation

Ornamental vegetation was planted around the Tao House by the O'Neills and later occupants. Today, the vegetation represents a mixture of historic, historic restoration, and nonhistoric species.

Recommendations

1.a. Funding should be requested for development of a Vegetation Management Plan to address specific maintenance and stabilization needs of the vegetation, including the designed gardens and the orchards surrounding the Tao House. The plan would present specific recommendations regarding vegetation best management practices and plant sustainability.

b. Consult with an arborist to assess the overall health of historic trees in the cultural landscape and recommend a plan for their long-term care and health.

i. If contributing ornamental orchard trees are found by an arborist to be failing, hazardous, or dead—replace the trees with plant material of the same species, using historic plant material, where feasible. When appropriate, use various vegetative reproduction methods, including seeds, root-cuttings, vegetative cuttings, grafting, and cloning.

1. Remove non-contributing plants, or do not replace them when they die, to reestablish historic character of the cultural landscape.

2. If a Vegetation Management Plan is not in place, consult with a regional historical landscape architect to assess if trees in the designed gardens around the Tao House are:

a. Out of scale, diminishing the original O'Neill design intent.
b. Creating unfavorable growing conditions for other vegetation under the canopy.
c. Creating adverse impact on other built features such as brick walkways, building foundations, or the swimming pool.

3. Consider developing a Master Gardener program at the Eugene O'Neill National Historic Site.

Individual Management Zone Recommendations

The cultural landscape management zones are divided into five categories:

Tao House designed gardens: This includes the gardens around the Tao House and Kuss Road—the courtyard, the entry road (Kuss Road), the turnaround, and the courtyard entry, the south and east sides of the Tao House, and the area around the swimming pool. These areas are characterized by ornamental plantings of trees, shrubs, hedges, ground covers, and formal brick pathways typically aligned in a curvilinear fashion.

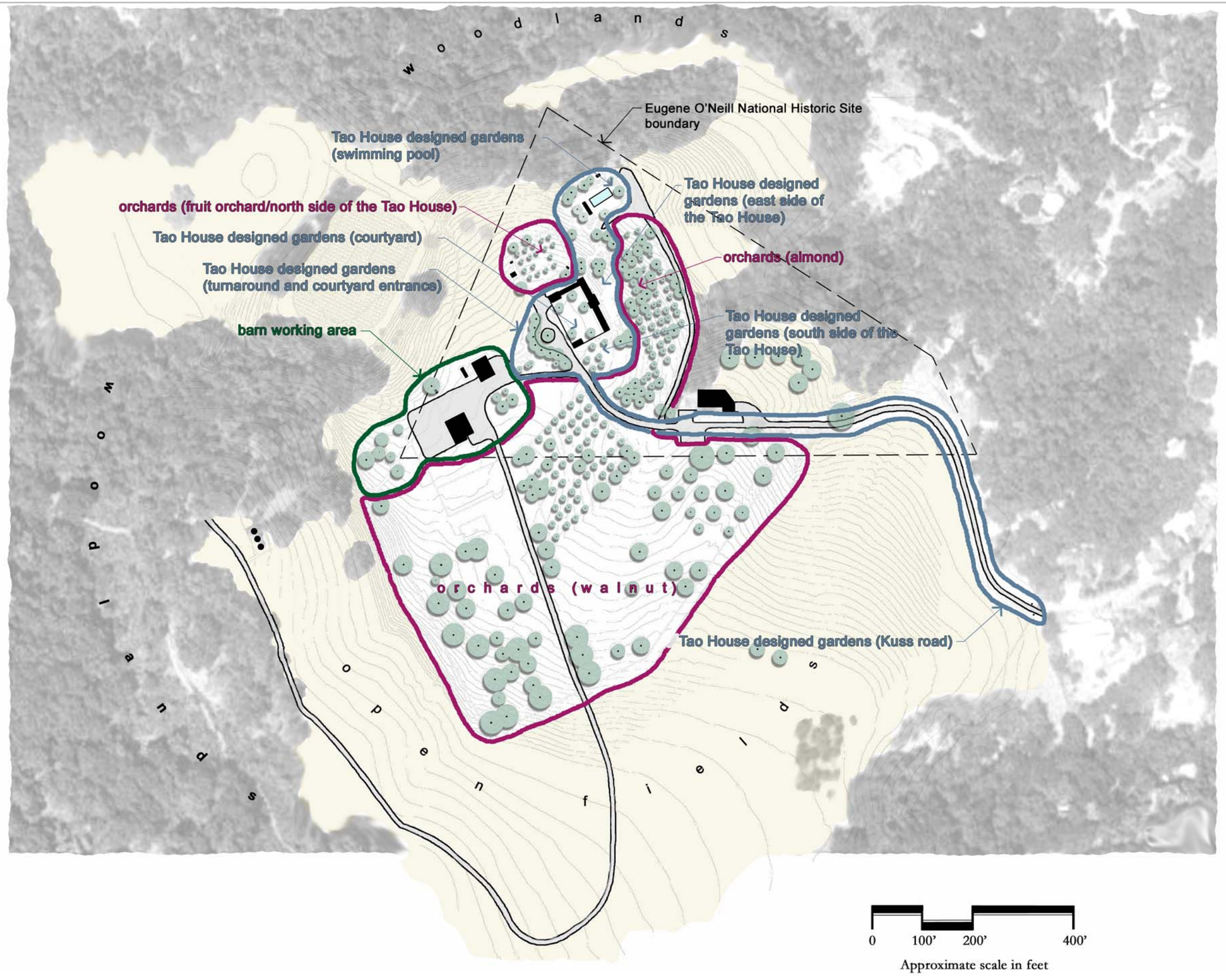
Barn working area: This area is centered around the old barn and is located west of the Tao House. The barn working area was historically used as a storage space for the tractor and as an area to support Eugene O'Neill's chickens and orchard activities. Other structures associated with this area are the chicken coop, the brick bench, and Blemie's (the O'Neill's dog) grave in an "unverified location."

Orchards: The orchards include three distinct groves: walnut trees on the south side of the Tao House; almond trees on the east side of the Tao House; and fruit trees on the north side of the Tao House. The orchards were all accessible by tractor and disked once a year in spring to prevent weed growth within the orchards; this practice continues today. The majority of the walnut orchard is located within regional park land, although the northern portion of this orchard is within the NPS boundary. The almond orchard and fruit orchard are located within the park boundary.

Open fields: The open fields were characterized by annual grasses or grain crops such as hay and corn, grown by the O'Neills, during the historic period. Today, these open fields remain. Individual landscape features associated with this management zone is the fire road, water storage tanks, and the stone gate posts. This management zone is within the NPS boundary and on regional park property.

Woodlands: The woodlands, largely comprised of native California bay and oak trees, surround the building complex and characterize the Tao House setting as a "remote" place. The spring is the individual feature associated with this management zone. This management zone is located primarily in East Bay Regional Park District land which surrounds the historic site on the north, west and south sides.

The following sections further describe treatment recommendations for the five individual management zones. Treatment recommendations for the Tao House designed gardens and orchards are divided into preservation and restoration issues. Each treatment recommendation is numbered and cross-referenced on a corresponding schematic plan and annotated photograph.



MANAGEMENT ZONES

Cultural Landscape Report
Eugene O'Neill National Historic Site
National Park Service
Danville, California

Produced by
Pacific West Region Cultural Landscape Program
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Notes:

The cultural landscape management zones including *the Tao House Designed Gardens* and *the Orchards*, are further divided into sub-categories with treatment recommendations addressing preservation issues first and restoration issues second.

Additional field checking completed by the Columbia Cascades Support Office and the Pacific Great Basin Support Office in 2003.

Information presented in this plan is derived from Autocad maps produced in *The Tao House Exterior Landscape: Historic Landscape Study*, 2002 by De Martini, and from historic photographs and air photos.

Plan drawn using Autocad 2002 and Adobe Photoshop 7 by Michael J.Hankinson, NPS

Legend

- Tao House Designed Gardens
- Barn Working Area
- Orchards
- Open Fields
- Woodlands

Tao House Designed Gardens Management Zone

The Courtyard

This section addresses restoration and rehabilitation issues that have arisen during the time since the NPS courtyard restoration was carried out in the late 1980s. Based on the condition assessment of the courtyard, the following recommendations should be considered to reestablish the original character of the space.

1. Reestablish historic plant material

a) Reestablish all missing vegetation in the courtyard, when feasible. Reference the plant list found in the appendix.

i. Reestablish Japanese aralia (*Fatsia japonica*) in pots under the chinaberry tree when growing conditions are favorable.

ii. Reestablish evergreen azalea (*Rhododendron 'ramapo'*) along the stone retaining wall after drainage problems are resolved.

2. Establish and maintain historic form and character of all plant material in the courtyard.

a) Re-establish the informal, cascading growth habit of the jasmine. (*Trachelospermum jasminoides*) and creeping fig (*Ficus pumila*) plants on the interior courtyard walls. Allow the plants to grow over on the wall exterior (Figures 4 and 5). Prevent the creeping fig from growing in unwanted areas such as the Tao House or the trunk room by pruning the creeping fig once it reaches the top of the wall.

3. Re-establish the chinaberry (*Melia azedarach*) tree to its historic location.

a) Remove stump of original chinaberry tree (Figures 1 and 2).

b) Replace stump with the sapling chinaberry tree (Figures 1 and 2).

c) Position tree to grow towards the Tao House in order to recreate the shady spot on the lower terrace (Figures 1 and 2).

4 a). Replace the Chinese flame tree (*Koelreuteria bipinnata*) with English walnut (*Juglans regia*) to reestablish the historic plant and character of this area of the courtyard.

5. Maintain the historic scale of trees in the courtyard.

a) With the exception of the chinaberry tree, the trees in the courtyard never reached maturity. As a result, consideration should be given to pruning or replacing of

trees when they grow out of scale. The trees should be managed to maintain the O'Neill design intent as indicated in historic photographs. Although there are no diary references or plans from the historic period that explain a definitive "design intent," it is important to note that, over time, some trees will begin to dominate other smaller shrubs and perennials. To prevent the loss of plant material over time, it may be necessary to selectively prune trees (Figures 1, 2, 3, and 4).

b) Do not allow the arborvitae (*Thuja occidentalis*) to grow above the top of the balcony railing (Figure 1). Consider having a horticulturalist reevaluate historic photographs by a horticulturalist to determine the historic plant species. Historic photos indicate that a conical-shaped thuja species was used to flank the Tao House entrance in the courtyard. A replacement plant species should be considered if a horticulturalist can accurately identify the historic plant species.

c) Reestablish the historic scale of trees in the courtyard with the chinaberry tree (*Melia azedarach*) as the largest tree in the space. The remaining trees in the courtyard should be maintained as smaller trees (Figures 1, 2, 3, and 4).

6 a. Reestablish the statue of Saint Christopher, which historically hung within a small, gable roofed structure on the south courtyard wall. Historic photographs and a diary entry refer to the statue and its location. The diary entry by Carlotta in 1941 says, : "This view is from the entrance door to the house! St. Christopher on the wall at the end of the brick walk!"

The Courtyard



Figure 1. Photograph of existing conditions in the courtyard (PWR 2003).

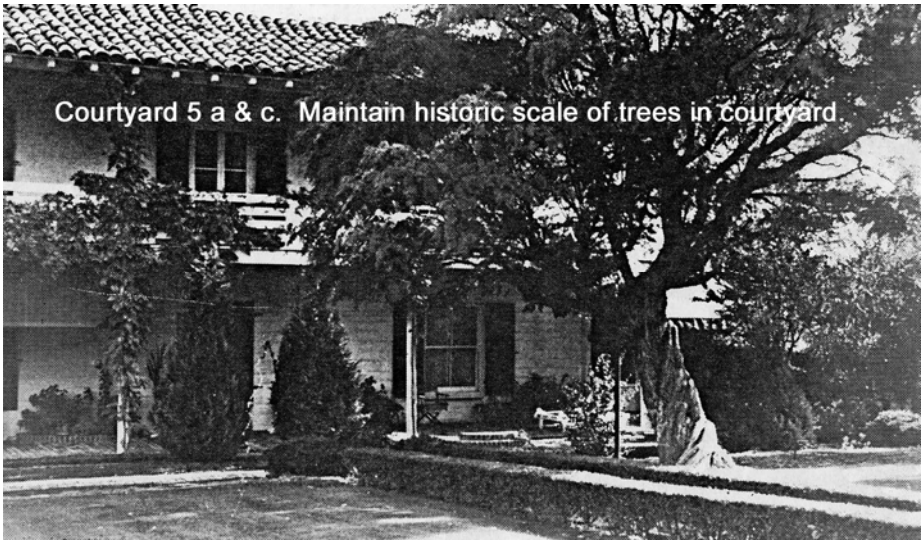


Figure 2. Photograph showing the Chinaberry tree in the courtyard in 1941 (EUON Collection).



Figure 3. Photograph of courtyard showing jasmine pruned into round forms. See photos below that show how jasmine was shaped during the historic period (PWR 2003).

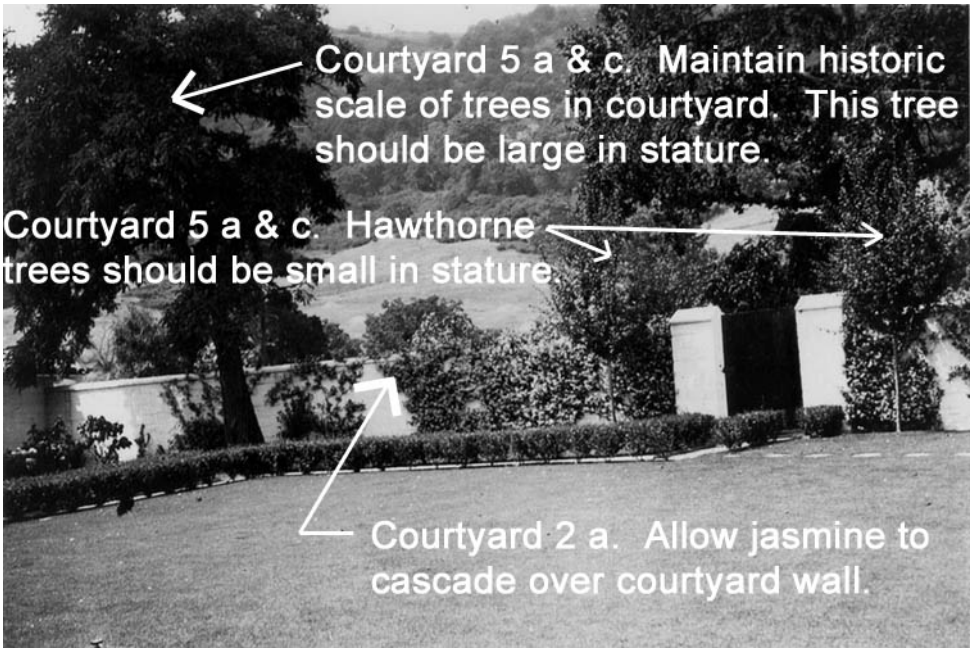


Figure 4. Photograph showing character of the courtyard in 1941 (EUON collection).

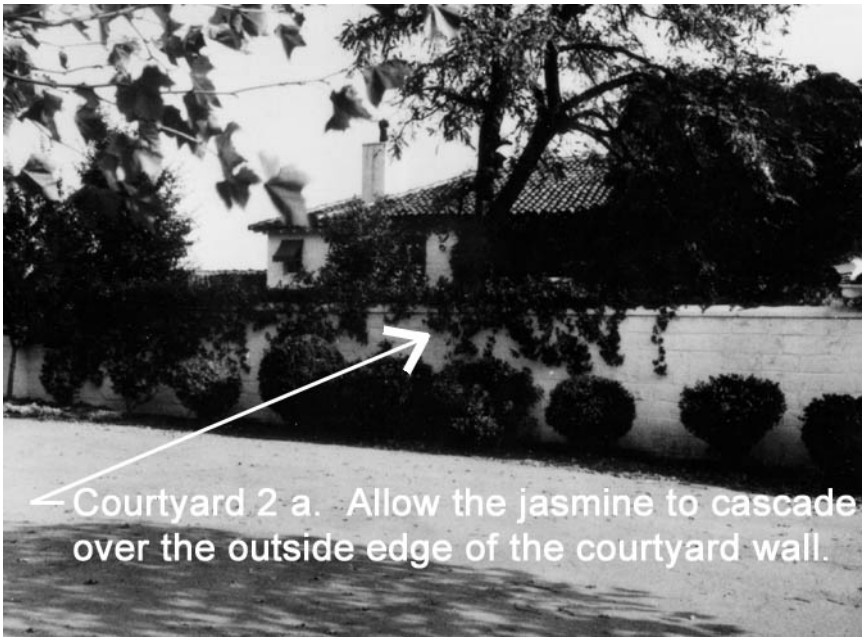


Figure 5. Photograph showing how jasmine grew in a loose, informal manner in the early 1940s (EUON collection).

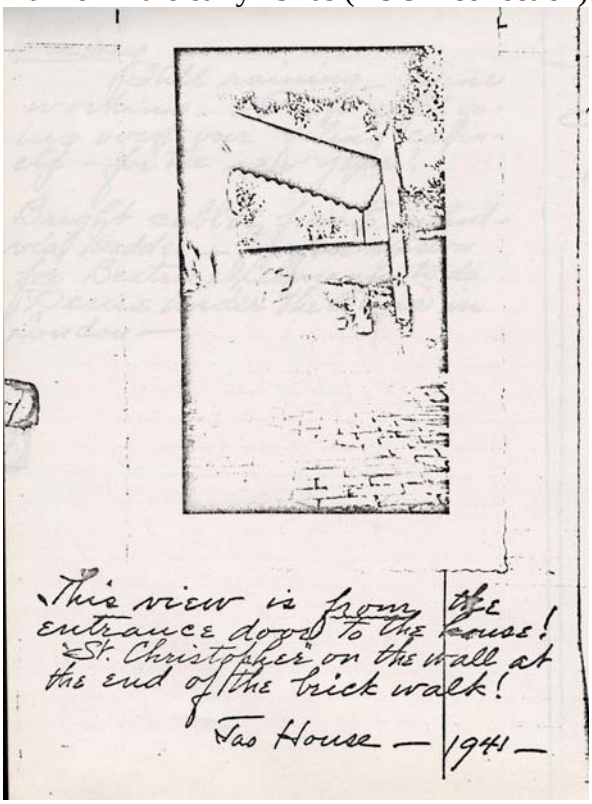


Figure 5.5. Image showing excerpt from the diary of Carlotta O'Neill. The text reads: "This view is from the entrance door to the house! St. Christopher on the wall at the end of the brick walk!" (Diary of Carlotta O'Neill, 1941). This statue remains in the historic site collection (Diary entry part of EUON collection. The original diary is located at Beinecke Rare Book and Manuscript Library, Yale University)

Kuss Road, Turnaround, and Courtyard Entrance

Kuss Road

1. Retain the historic character of Kuss Road and its small-scale features.

a) Retain current alignment, macadam surface, and width of Kuss Road (Figure 6).

b) Retain the stone retaining wall, culverts, and associated dirt drainages.

c) Retain, repair, and maintain the stone gateposts. Move the gateposts only if they are threatened (see the Existing Conditions map).

d) Retain one English walnut (*Juglans regia*) located on the south side of Kuss Road (see the existing conditions map). Although there are no historic photographs showing this tree, it is clear that this tree dates to the historic period and therefore should be considered historic.

e) Retain one valley oak (*Quercus agrifolia*) on the north side of Kuss Road. If reestablished, these trees can be used as part of the allee (see Existing Conditions map).

f) The metal fences, aligned on the north and south sides of Kuss Road between the historic site entrance gate and the caretaker's residence, is not historic but compatible with the historic scene.

2 a. Remove all oak trees from along the road to retain the open character of the fields. Entails removing three oak trees, which detract from the open character of the adjacent fields, to restore the historic design intentions of the O'Neills (see the Existing Conditions map).

3 a. Reestablish the allee of English walnut trees (*Juglans regia*) on Kuss Road, 18 trees total (Figure 6 and 26.5). Plant nine trees on the south side of the road and nine trees on the north side. New planting beds should be constructed in the parking lots to accommodate the trees. Trees should be planted 25 feet on center.

Kuss Road

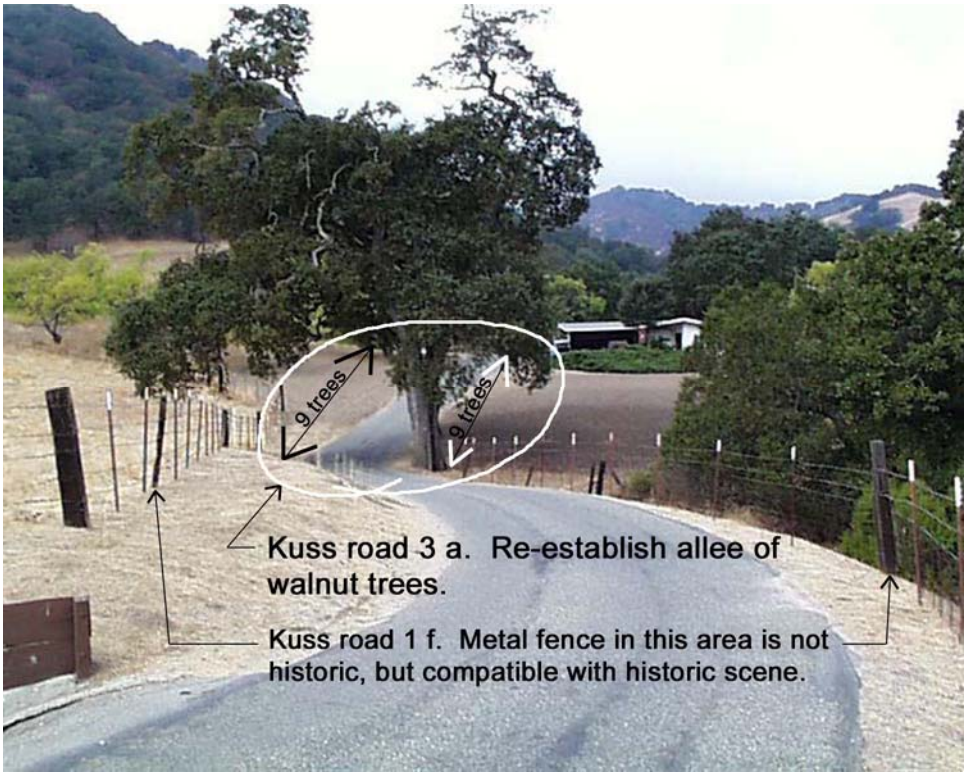
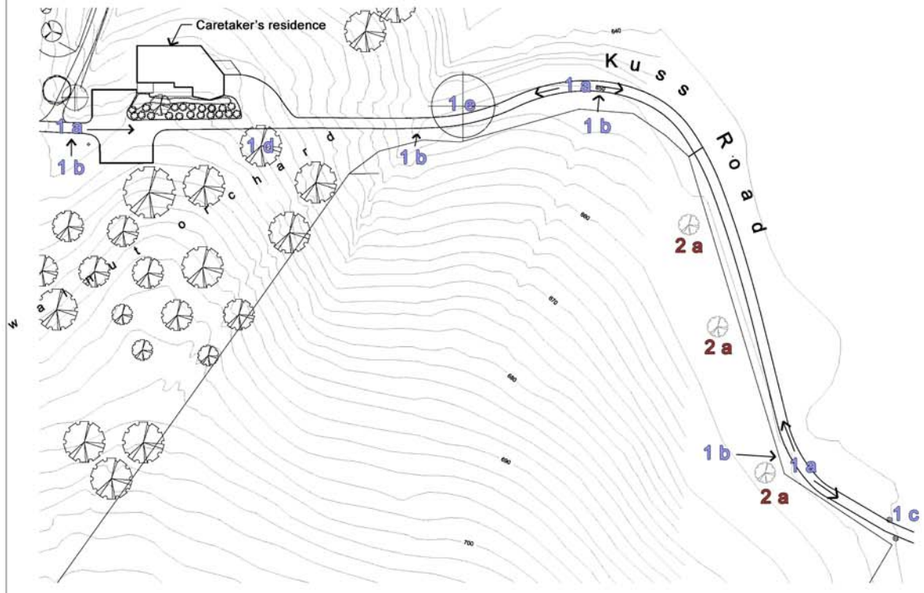
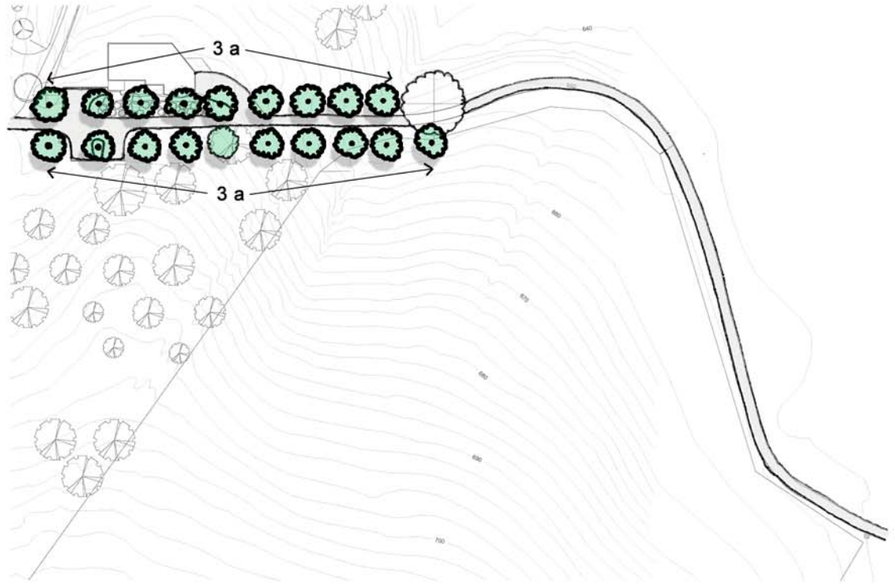


Figure 6. Photograph showing approximate location of proposed allee on Kuss road. The building in the background serves as park headquarters. The metal fence seen in this picture is probably not historic, but is compatible (PWR 2003).





EXISTING CONDITIONS

RETAIN

1 a. Retain current alignment, macadam surface, and width of Kuss road.
1 b. Retain the stone retaining wall, culverts, and associated dirt drainages.
1 c. Retain, repair, and maintain the stone gateposts. Move the gateposts only if they are threatened.
1 d. Retain 1 black walnut tree.
1 e. Retain 1 valley oak tree.

REMOVE

2 a. Remove all oak tree seedlings from along the road to retain the open character of the fields.

TREATMENT GUIDELINES

RESTORE

3 a. Re-establish allee of walnut trees (18 trees total).

0 50' 100' 200'
Approximate scale in feet

KUSS ROAD
Treatment Plan

- Existing Conditions
- Treament Guidelines

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Notes:

All LCS listed structures to be preserved.

All Treament recommendations are cross-referenced in the CLR part 2 under "Tao House Designed Landscape."

Treatment recommendations call for the preservation of historic features; the restoration of landscape features that are non-extant; and the removal of non-historic features.

Additional field checking completed by the Columbia Cascades Support Office and the Pacific Great Basin Support Office in 2003.

Information presented in this plan is derived from Autocad maps produced in *The Tao House Exterior Landscape: Historic Landscape Study*, 2002 by De Martini and historic photographs.

Plan drawn using Autocad 2002 and Adobe Photoshop 7 by Michael J.Hankinson, NPS

Legend

Existing walnut
Proposed walnut planting

Turnaround

4 a.. Retain current alignment, surfacing material, and width of the road (Figure 11). Maintain the historic alignment and width of Kuss Road at the turnaround and the surfacing material, which reflects the historic chip-seal material in color and appearance.

5 a. Retain rock edging (Figure 3). Retain the historic character of the rock edging as a single row of rocks used to define the western edge of the turnaround.

6. Retain historic vegetation.

a) Retain the Pittosporum tobira located in the planting bed north of the courtyard entrance (Figure 11).

b) Retain the apple tree (*Malus sp*.) located near the old barn (Figure 14).

c) Retain the *Tamarix parvifolia* located near the *Eucalyptus sideroxylon* (Figure 13).

d) Retain the *Eucalyptus sideroxylon* located near the rock edging along Kuss Road, unless the tree is considered hazardous. Replace the tree in kind if it continues to lose branches (Figure 13).

7. Retain sycamore trees and the valley oak.

a) Retain sycamore (*Platanus racemosa*) trees (Figure 9).

b) Retain the valley oak (*Quercus agrifolia*) tree (Figure 11).

8. Remove nonhistoric vegetation. See figure 14 which shows that the California bay tree, firethorn, and oleander shrubs were not in this location during the historic period.

a) Remove one California bay tree (*Umbellularia californica*) tree located near the turnaround entrance (Figure 14).

b) Remove one firethorn (*Pyracantha coccinea*) located near the *Eucalyptus sideroxylon* (Figure 14).

c) Remove three oleander shrubs (*Nerium oleander*) located near the Eucalyptus sideroxylon (Figure 14).

d) Remove one Valencia orange (*Citrus 'Valencia'*) located near the apple tree (Figure 13).

e) Remove one *Tamarix parvifolia* located near the apple tree (Figure 14).

f) Remove *Hypericum sp*. plantings from this location. There is no evidence that this plant existed or was available on the market during the historic period.

9 a. Remove the nonhistoric pathway linking the turnaround with the old barn (Figure 9). Removing the walkway will restore the open character of the area between the sycamore trees and the old barn.

10. Remove or move vegetation to historic locations (Figures 7, 9, and 13).

a) Remove California grey rush (*Juncus patens*) shrubs located near the apple tree (See Existing Conditions map and figure 14. Figure 14 shows no grey rushes in this area during the historic period).

b) Move seven red-hot poker plants and plant in pairs between the sycamore trees. Historic photographs showing shrubs planted in between the sycamore trees does not reveal the plant genus; however, the red-hot poker plants resemble the plants used historically both in form and character (Figures 9 and 13).

c) Move one Valencia orange (*Citrus 'Valencia'*) tree to a new location north of the *Eucalyptus sideroxylon* (Figure 13).

d) Move bulbs (*Amaryllis belladonna*) from the courtyard entry and plant inside the turnaround circle. These bulbs were not visible in any historic photographs (see figures 10 and 12); however, these plants are both compatible and deer-resistant and therefore could be placed in the planting circle to rehabilitate this area (Figure 7).

11. Reestablish vegetation in turnaround. The following recommended actions represent restoration, which will require sprays to prevent deer from damaging plantings. If the plants listed below can not be sprayed, consider rehabilitating this area with deer-resistant plants.

a) Establish ornamental plantings inside the turnaround circle. Align a privet (*Ligustrum ovalifolium*) hedge around the outer edge of the circle. Place a lush mixture of geraniums (*Geranium sp.*) and roses (*Rosa 'Lady Banksea'*) on the interior and allow the rose to grow up the valley oak tree when it matures (Figures 15 and 16). Plant a dwarf edible fig tree such as (*Ficus 'petite negra'*), not to exceed ten feet in height, on the western side of the circle bed. Historic photos indicate that the fig tree was pruned or "limbed up" to prevent branches from encroaching on the turnaround; prune the replacement fig in this manner. If the planting bed is restored, deer repellant will be necessary. If deer repellant can not be used, mulch the bed and consider using a combination of red-hot poker plants and amaryllis bulbs, which would be compatible and deer-resistant (Figures 8 and 16).

b) Use existing, on-site red-hot poker plants to reestablish the historic character of the unidentified plantings between the sycamores (Figure 10).

c) Reestablish two black walnut trees (*Juglans hindsii*) on the north side of the turnaround. The trees should be approximately 30 feet apart on the northern edge of the turnaround (Figure 15).

d) Establish one Valencia orange located north of the *Eucalyptus sideroxylon* (Figure 14).

12. Reestablish the scale and proportion of the valley oak and sycamore trees

a) Reestablish historic proportions of the valley oak tree (*Quercus lobata*), planted in the center of the planter circle. The valley oak should be the dominant plant in this zone (Figure 14).

b) Preserve the historic sycamore trees (*Platanus racemosa*). The sycamore trees should be secondary in size compared with the valley oak in the turnaround circle. A pruning regime should be enacted to reduce the overall height and spread of the seven historic trees to approximately 40 feet in height (Figure 9).

13 a. Site the old wagon in historic location, which is currently located adjacent to the new barn, in the historic location on the northwest edge of the turnaround to reestablish the historic character of the turnaround (Figure 14).

14 a. Restore the wood-planked road from Kuss Road to the old barn, and restore the wood-planked walkway from the turnaround to the wood-planked road. The walkway should be comprised of dimensional lumber, roughly 2 inches x 6 inches (Figures 12 and 14).

Courtyard Entrance

15. Retain vegetation at the courtyard entry.

a) Retain the replacement pair of Washington hawthorne trees (*Crataegus phaenopyrum*) flanking the entry gate (Figure 11).

b) Retain the mock orange shrubs (*Pittosporum tobira*). If restorative pruning is necessary to maintain plant health, consideration should be given to the genetic cloning of the plant material prior to restorative pruning (Figure 11).

c) Retain and restoratively prune the lilac (*Syringa sp.*). Although there are no historic photographs to confirm if the existing lilac is in its historic location, it has been determined in the field that this plant is likely historic.

16. Reestablish missing vegetation along courtyard entry.

a) Plant plumbago (*Plumbago auriculata*) or Lady Banksea rose (*Rosa 'Lady Banksea'*) to restore historic character of vegetation on southwest corner of the trunk room. Allow the plant to grow to approximately 5-6 feet in height (Figure 17).

b) Reestablish pittosporum with a dwarf variety such as (*Pittosporum tobira 'Wheeler's dwarf'*). Wheeler's dwarf is an option, not a requirement because other dwarf versions may also become available. Approximately 10 shrubs should be planted to the right of the courtyard gate and five to six shrubs to the left of the gate. All shrubs should be spaced 2 ½ feet on center. The plants should not be hedged, but rather clipped as individual, 3 foot tall, rounded shrubs (Figure 12).

c) Reestablish creeping fig on the wall (Figure 15). Prune this plant to prevent it spreading into unwanted areas such as the garage roof.

Turnaround and Courtyard Entry

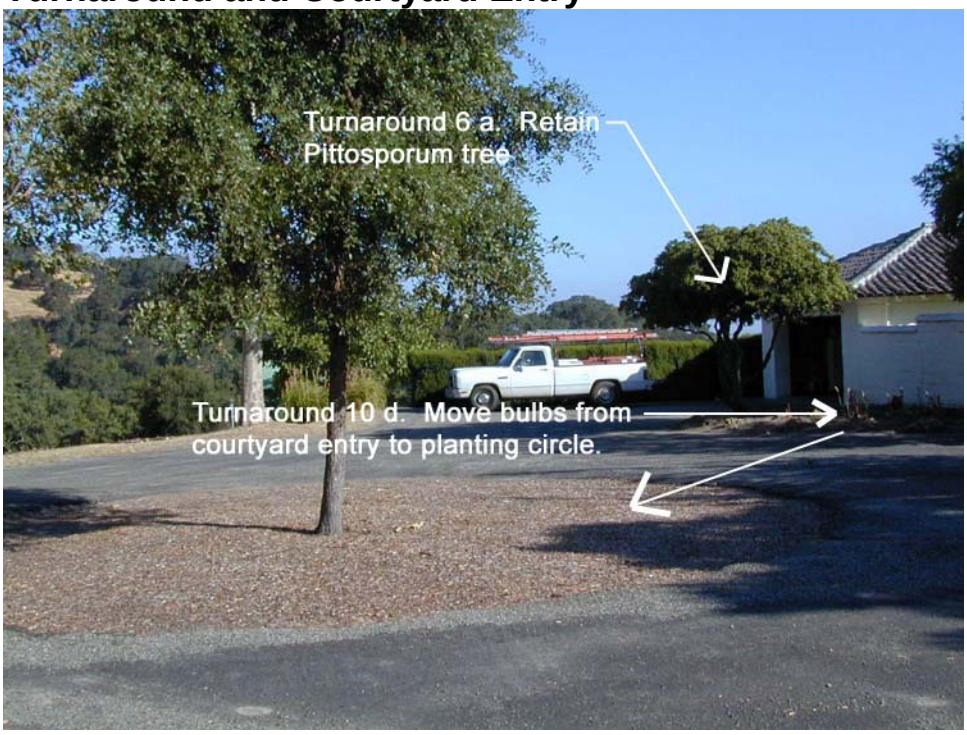


Figure 7. Photograph of turnaround and planting circle. The coast live oak is a replacement tree (PWR 2003).



Figure 8. Photograph showing densely planted circle bed in early 1940s (EUON cat #416).

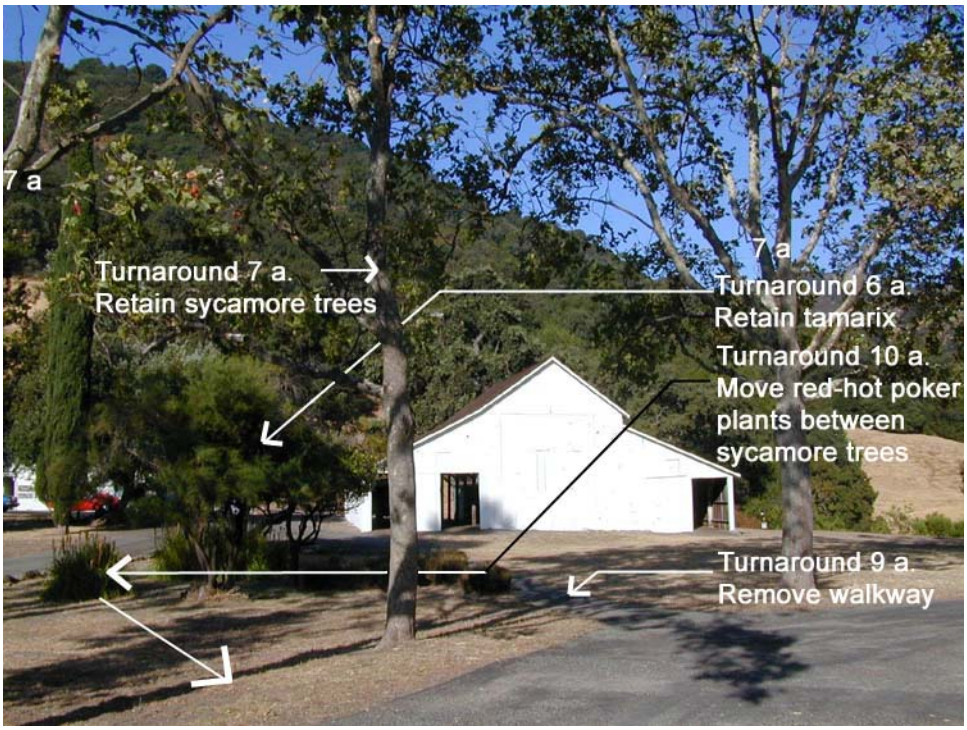


Figure 9. Photograph of turnaround and old barn (PWR 2003).

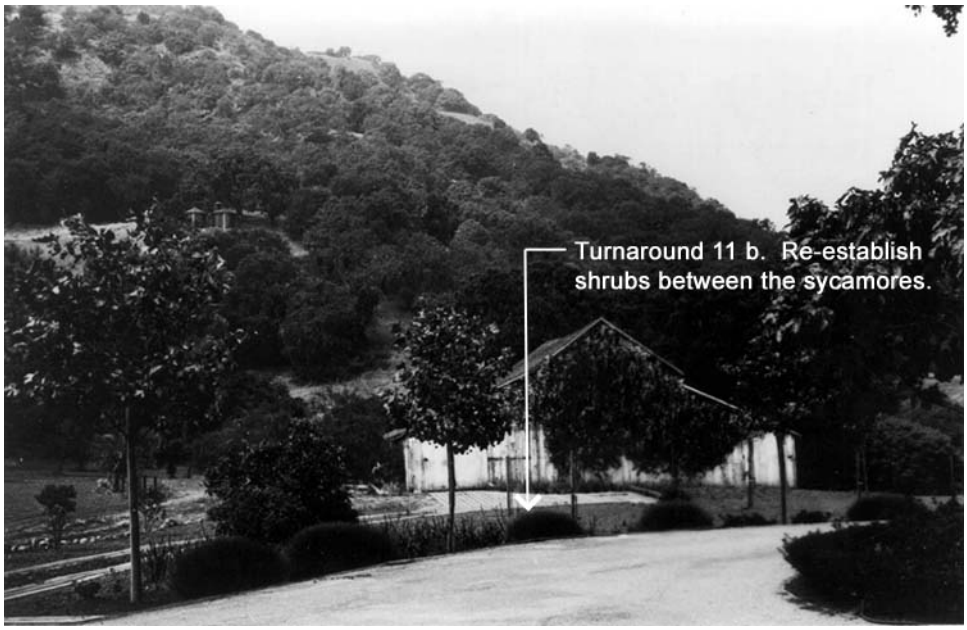


Figure 10. Photograph of turnaround and old barn in early 1940s. Note the heavily planted areas between the sycamore trees, ringing the outer edge of the turnaround (EUON 1391 N).



Figure 11. Photograph of turnaround (PWR 2003).

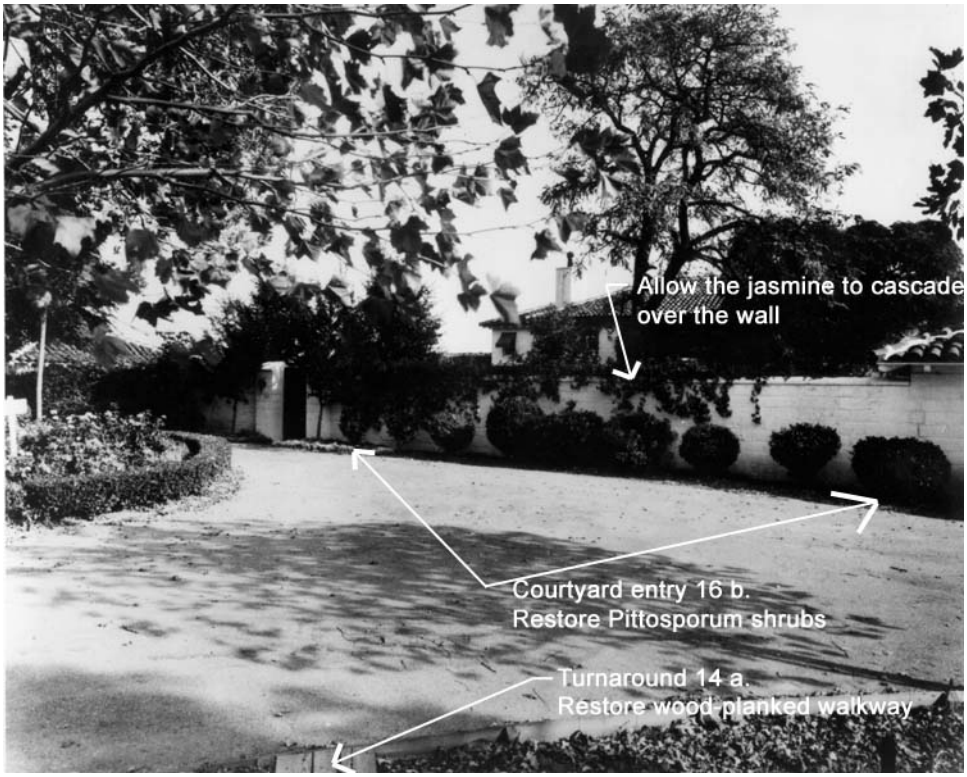


Figure 12. Photograph of turnaround during the historic period (EUON collection).

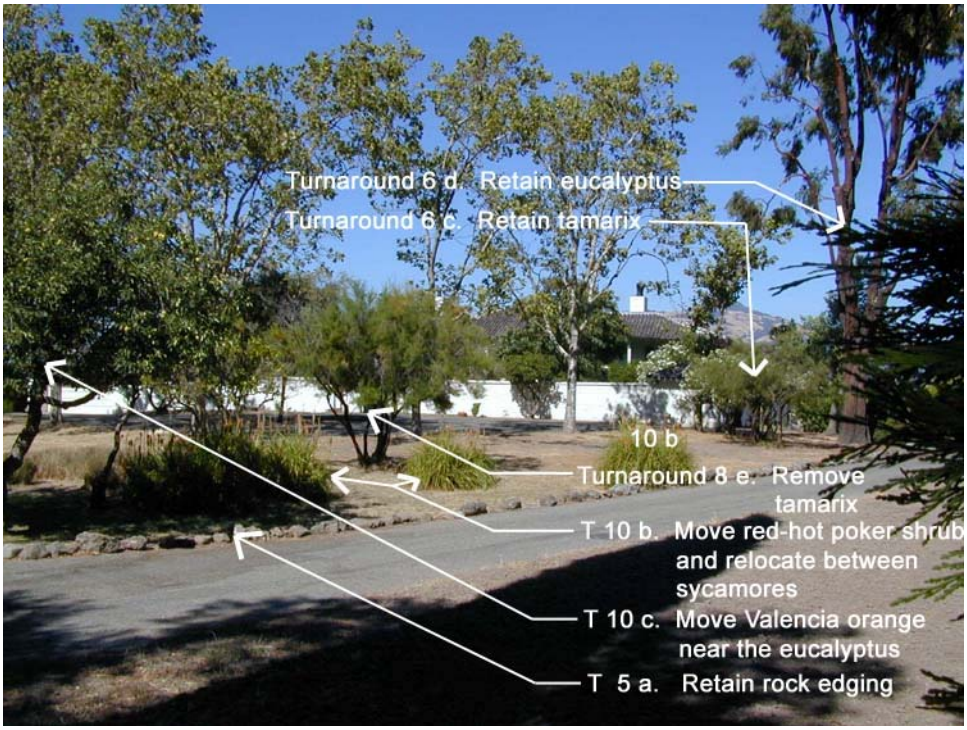


Figure 13. Photograph of turnaround area and the west side of the Tao House courtyard (PWR 2003).

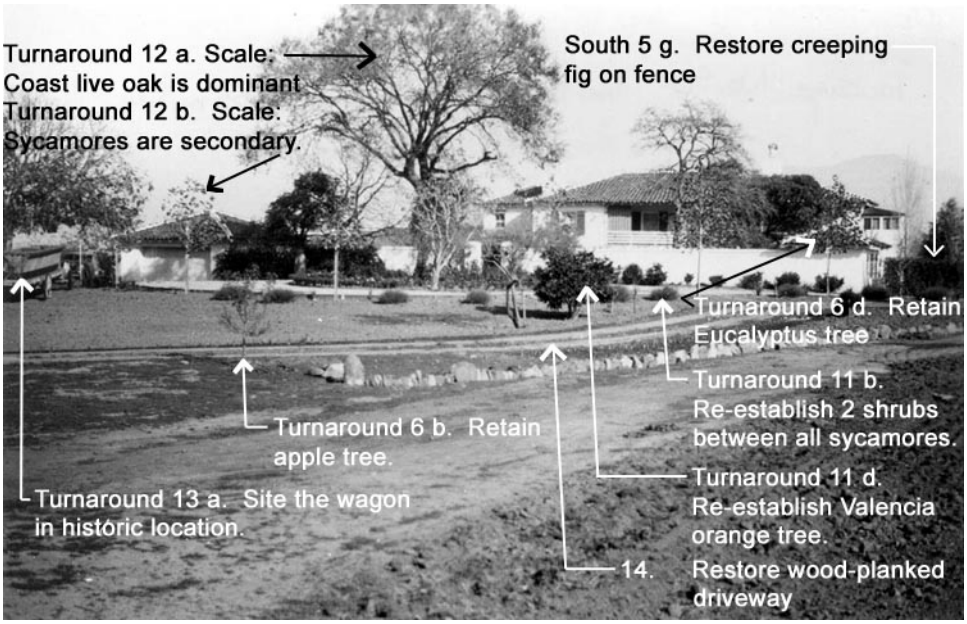


Figure 14. Photograph of turnaround and west side of the Tao House courtyard in 1938 (EUON 1391 JJ).

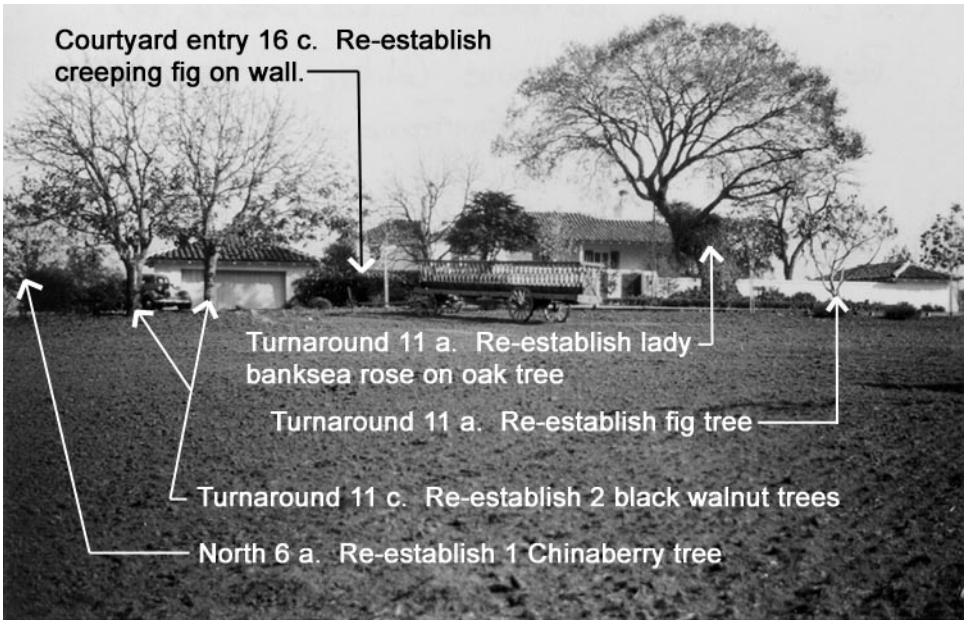


Figure 15. Photograph showing the turnaround area on the west side of the Tao House during the historic period (EUON 1391 HH).

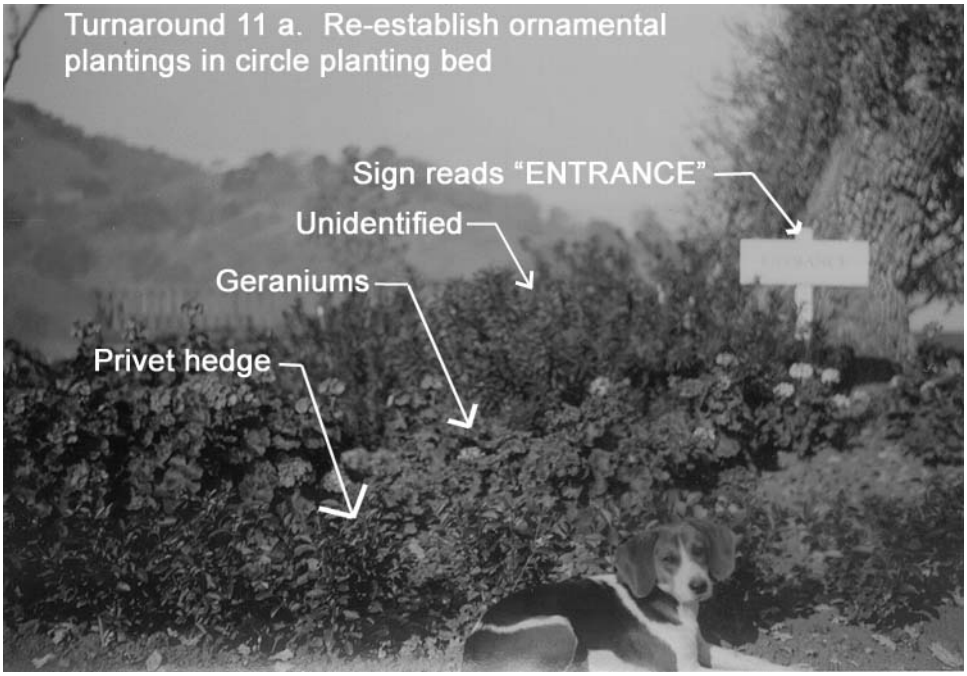


Figure 16. Photograph of circle planting in the early 1940s (EUON #416).



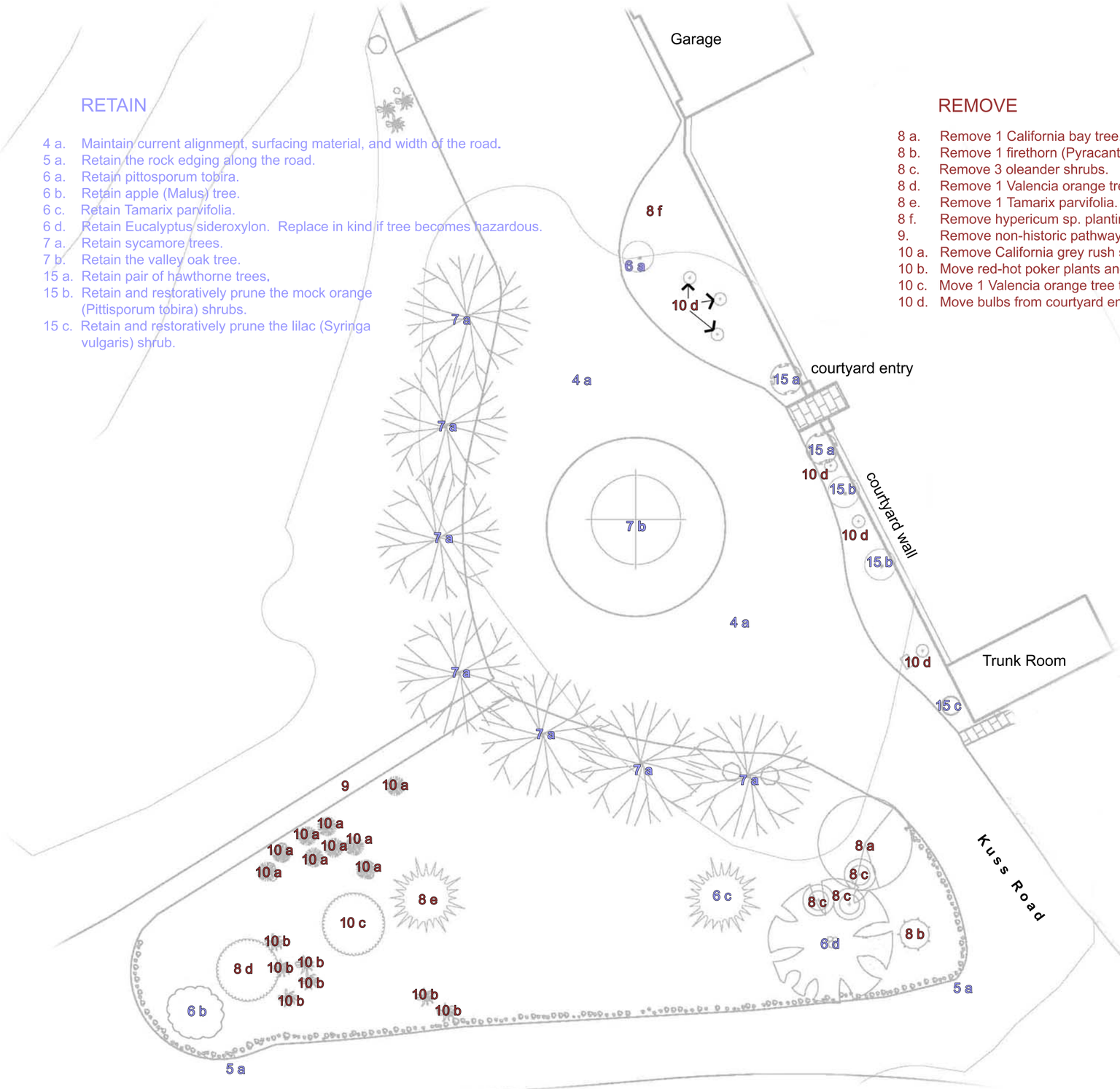
Figure 17. Photograph of Freeman, the O'Neill's driver in the early 1940s (EUON cat #416).

RETAIN

4 a. Maintain current alignment, surfacing material, and width of the road.
5 a. Retain the rock edging along the road.
6 a. Retain pittosporum tobira.
6 b. Retain apple (Malus) tree.
6 c. Retain Tamarix parvifolia.
6 d. Retain Eucalyptus sideroxylon. Replace in kind if tree becomes hazardous.
7 a. Retain sycamore trees.
7 b. Retain the valley oak tree.
15 a. Retain pair of hawthorne trees.
15 b. Retain and restoratively prune the mock orange (Pittisporum tobira) shrubs.
15 c. Retain and restoratively prune the lilac (Syringa vulgaris) shrub.

REMOVE

8 a. Remove 1 California bay tree.
8 b. Remove 1 firethorn (Pyracantha coccinea)
8 c. Remove 3 oleander shrubs.
8 d. Remove 1 Valencia orange tree.
8 e. Remove 1 Tamarix parvifolia.
8 f. Remove hypericum sp. plantings
9. Remove non-historic pathway linking the turnaround with the old barn.
10 a. Remove California grey rush shrubs.
10 b. Move red-hot poker plants and plant between the sycamore trees.
10 c. Move 1 Valencia orange tree to location north of the Eucalyptus sideroxylon.
10 d. Move bulbs from courtyard entry to circle planting.



0 5' 10' 20'
Approximate scale in feet

EXISTING CONDITIONS with TREATMENT GUIDELINES for the TURNAROUND and COURTYARD ENTRANCE

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Eugene O'Neill National Historic Site
National Park Service
Danville, California

Produced By
Pacific West Region Cultural Landscape Program
National Park Service
Seattle, Washington

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Notes

All LCS listed structures to be preserved.

All treatment recommendations are cross-referenced in the CLR part 2 under "Kuss Road, Turnaround, and Courtyard Entrance."

Treatment recommendations call for the preservation of historic features; the restoration of landscape features that are non-extant; and the removal of non-historic features.

Additional field checking completed by the Columbia Cascades Support Office and the Pacific Great Basin Support Office in 2003.

Information presented in this plan is derived from Autocad maps produced in *The Tao House Exterior Landscape: Historic Landscape Study*, 2002 by De Martini and historic photographs.

Plan drawn using Autocad 2002 and Adobe Photoshop 7 by
Michael J. Hankinson, NPS

Legend

Grey lines represent existing conditions.



Restore

10 c. Move the Valencia orange to historic location.
11 a. Re-establish ornamental plantings inside the turnaround circle.

1) Align a privet or boxwood hedge around outer edge of circle.

2) Re-establish geraniums within the circle.

3) Re-establish Lady Banksea roses within the circle. Allow to climb oak tree.

4) Plant dwarf edible fig 'Petite nigra' on the west side of the planter.

11 b. Re-establish red-hot poker plants.
11 c. Establish black walnut trees.
11 d. Retain Tamarix parvifolia.
12 a. Re-establish historic proportions of the valley oak by maximizing the height and spread of the tree.
12 b. Re-establish historic proportions of the sycamores by selective pruning to decrease tree size.
13 a. Site the wagon in historic location.
14 a. Restore wood planked road and walkway.
16 a. Re-establish Plumbago shrub.
16 b. Re-establish Pittosporum tobiria.

16 c. Re-establish creeping fig.

0 5' 10' 20'

Approximate scale in feet

RESTORATION PLAN for the TURNAROUND and COURTYARD ENTRANCE

Cultural Landscape Report
Eugene O'Neill National Historic Site
National Park Service
Danville, California

Produced by
Pacific West Region Cultural Landscape Program
National Park Service
Seattle, Washington

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Notes:

All LCS listed structures to be retained.

All treatment recommendations are cross-referenced in the CLR part 2 under "Turnaround."

Treatment recommendations call for the preservation of historic features; the restoration of landscape features that are non-extant; and the removal of non-historic features.

Additiional field checking completed by the Columbia Cascades Support Office and the Pacific Great Basin Support Office in 2003.

Information presented in this plan is derived from Autocad maps produced in *The Tao House Exterior Landscape: Historic Landscape Study*, 2002 by De Martini.

Plan drawn using Autocad 2002 and Adobe PhotoShop 7 by Michael J. Hankinson, NPS.

Legend

Black lines represent treatment recommendations that call for the preservation or restoration of features.

Grey lines represent existing features.

Existing vegetation to be retained.

Proposed plantings

South Side of the Tao House

1 a. Retain brick walkway in its present configuration. The current walkway follows the historic alignment and is constructed with the original bricks laid in a running bond pattern, repaired in the early 1990s with a concrete base (see the existing conditions map).

2 a. Retain historic vegetation including two plum trees. Maintain overall health of the two historic plum trees (*Prunus cerasifera 'Atropurpurea'*) with a yearly pruning regime that will enhance the overall branching structure and health of the trees (Figure 18).

3. Remove nonhistoric vegetation, including the oleander hedge and six citrus (*Citrus sp*.) trees.

a) Remove oleander (*Nerium oleander*) shrub if the deer fence is restored. Replace the oleander with creeping fig to grow on the proposed deer fence (Figure 18).

b) Remove or do not replace the citrus (*Citrus sp.*) trees. The citrus trees are not historic and were planted well after period of significance (see the Existing Conditions map).

c) Remove the creeping fig, since it was not planted in this location during the historic period.

4 a. Restore the deer fence. See figure 14 which shows the fence, covered by a vine, on the right side of the photo. Restore the 7-foot-high deer fence and align it from the southwest corner of the trunk room, around the almond orchard and pool, and terminate at a point north of the Tao House. Post and rails should be wood and painted white with a thin-gauge wire fencing material. Place posts 7-feet on-center (see Treatment map and Figure 14).

5. Reestablish missing vegetation including six poplar trees, five oak trees, privet hedge, jasmine, and ground cover plantings of Lippia and ice plant.

a) Reestablish six poplar (*Populus nigra 'Italica'*) trees in groups of threes in historic locations. Place the first three near the Tao House trunk room. Place the remaining three poplars on the southeast corner of the Tao House (Figure 19).

b) Reestablish two coast live oak trees (*Quercus agrifolia*) lost in 2003. Plant the trees in historic locations adjacent to the south side of the Tao House (Figure 20).

c) Reestablish jasmine (*Trachelospermum jasminoides*) on exterior courtyard wall. Allow plant to grow in a loose manner; allow plant to cascade over the top edge of the wall (Figure 19).

d) Re-establish privet hedge (*Ligustrum ovalifolium*). Align the hedge from Kuss Road, around the southern edge of the ornamental planting bed, to a point on the east side of the Tao House. The hedge will formally separate the ornamental planted area from the almond orchard. Prune hedge to approximately 2 feet in height (Figure 20).

e) Reestablish ground cover planting of ice plant (*Carpobrotus edulis*) in the historic location on the south side of the brick walkway to the end of the planting bed marked by the privet hedge (Figure 19).

f) Reestablish ground cover planting of lippia (*Phyla nodiflora*) in the historic location between the courtyard wall and the brick walkway (Figure 19).

g) Reestablish the creeping fig on the deer fence. This plant species is of a similar form and character of the plant depicted in the historic photograph (Figure 14).

h) Reestablish the apple (*Malus sp.*) tree (Figure 19).

6 a. Construct a French drain system to divert subsurface water flow away from the oak trees to prevent root rot (see the Treatment map).

South Side of the Tao House



Figure 18. Photograph showing the south side of the Tao House (PWR 2003).

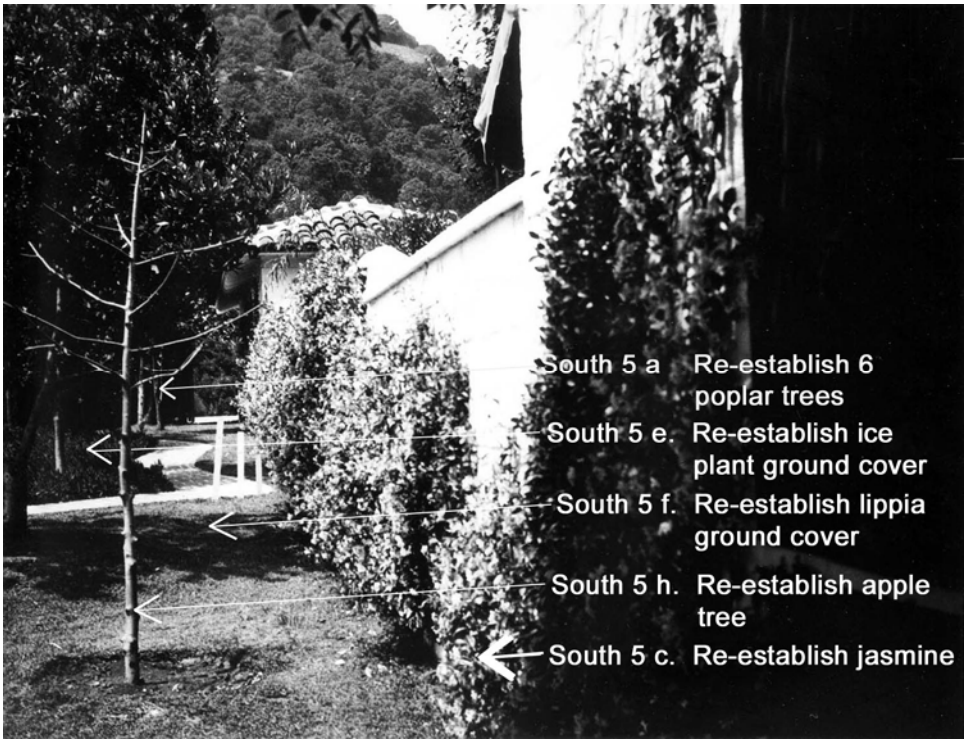


Figure 19. Photograph showing the south side of the Tao House in the early 1940s (EUON collection).

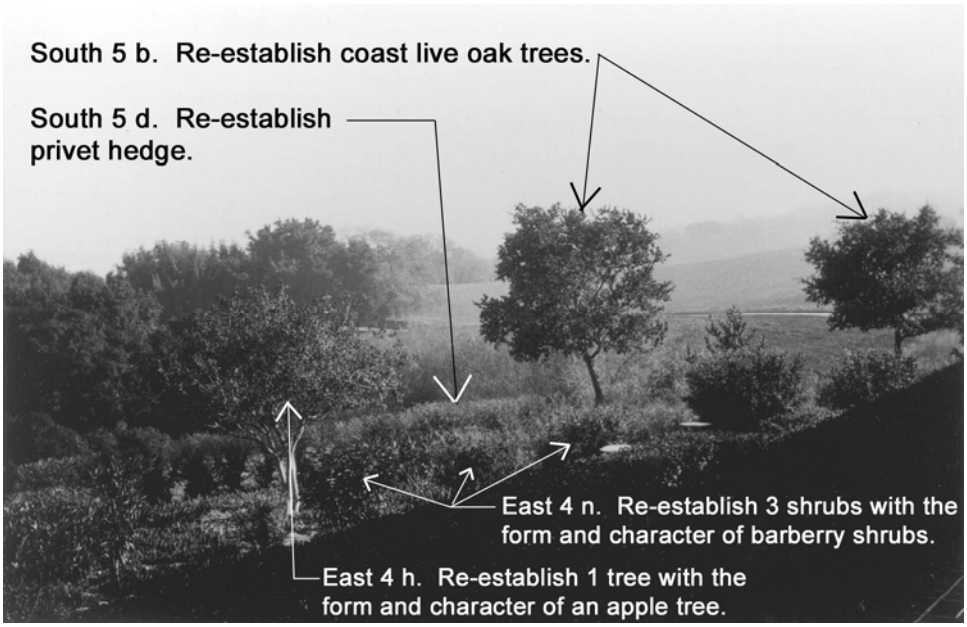


Figure 20. Photograph taken from the brick terrace on the east side of the Tao House in 1941, view towards the south (EUON 1391 BB).



EXISTING CONDITIONS with TREATMENT GUIDELINES for the SOUTH SIDE OF THE TAO HOUSE

Cultural Landscape Report
Eugene O'Neill National Historic Site
National Park Service
Danville, California

Produced by
Pacific West Region Cultural Landscape Program
National Park Service
Seattle, Washington

D 22

Notes:

All LCS listed structures to be retained.

All treament recommendations are cross-referenced in the CLR part 2 under "South Side of the Tao House."

Treatment recommendations call for the preservation of historic features; the restoration of landscape features that are non-extant; and the removal of non-historic features.

Additional field checking completed by the Columbia Cascades Support Office and the Pacific Great Basin Support Office in 2003.

Information presented in this plan is derived from Autocad maps produced in *The Tao House Exterior Landscape: Historic Landscape Study*, 2002 by De Martini and historic photographs.

Plan drawn using Autocad 2002 and Adobe Photoshop 7 by Michael J.Hankinson, NPS

RETAIN

1 a. Retain the brick walkway
2 a. Retain 2 plum trees
2 b. Retain creeping fig

REMOVE

3 a. Remove oleander hedge
3 b. Remove or do not replace citrus trees
3 c. Remove creeping fig

0 7.5 15' 30'
Approximate scale in feet

Legend

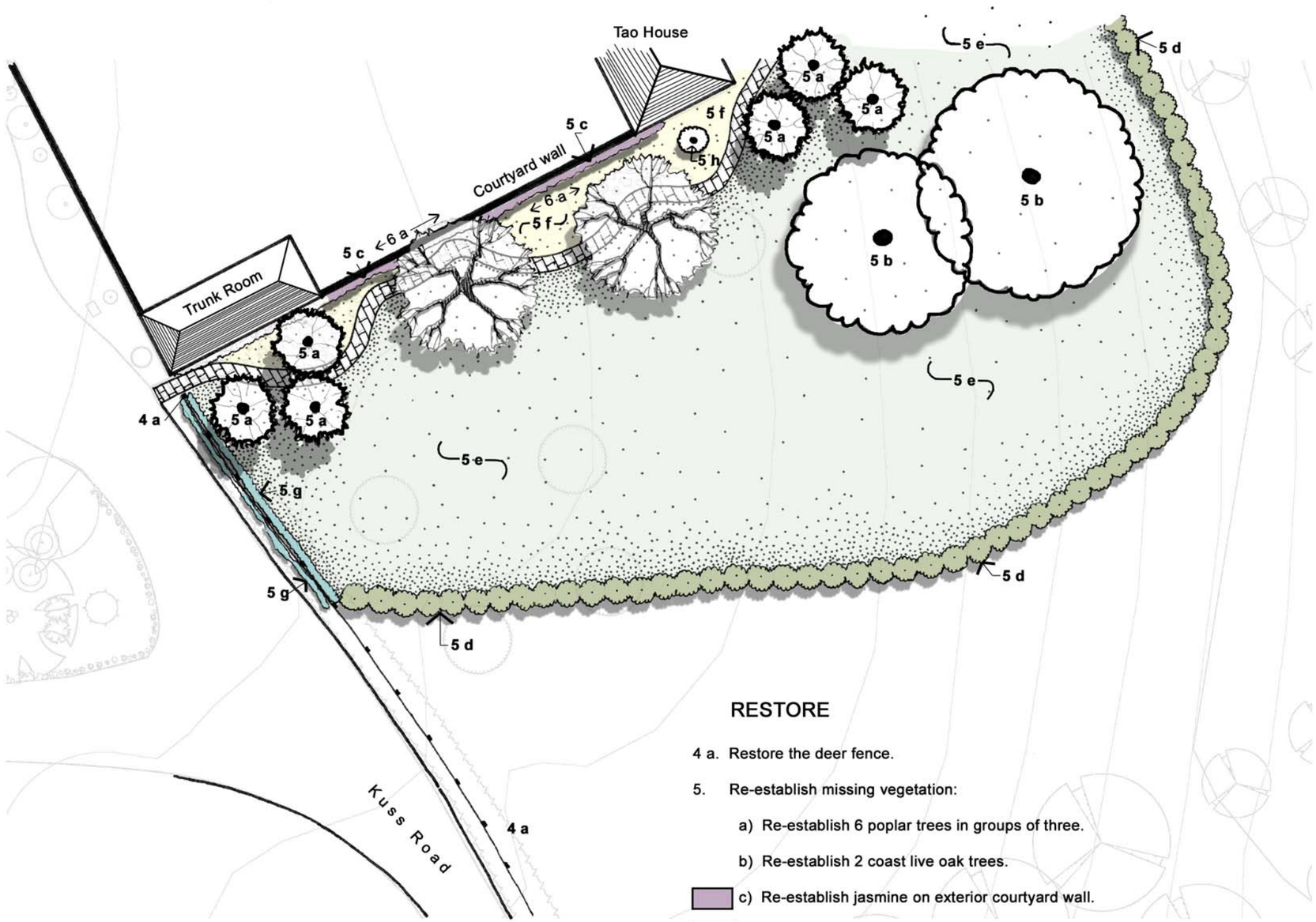
Grey lines represent existing conditions.

RESTORATION PLAN for the SOUTH SIDE of the TAO HOUSE

Cultural Landscape Report
Eugene O'Neill National Historic Site
National Park Service
Danville, California

Produced by
Pacific West Region Cultural Landscape Program
National Park Service
Seattle, Washington

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RESTORE

4 a. Restore the deer fence.

5. Re-establish missing vegetation:

a) Re-establish 6 poplar trees in groups of three.

b) Re-establish 2 coast live oak trees.

c) Re-establish jasmine on exterior courtyard wall.

d) Re-establish privet hedge.

e) Re-establish ice plant ground cover.

f) Re-establish lippia ground cover.

g) Re-estblish creeping fig.

h) Re-establish apple tree.

6 a. Establish French drain system.

Notes:

All LCS listed structures to be retained.

All treament recommendations are cross-referenced in the CLR part 2 under "South Side of the Tao House."

Treatment recommendations call for the preservation of historic features; the restoration of landscape features that are non-extant; and the removal of non-historic features.

Additional field checking completed by the Columbia Cascades Support Office and the Pacific Great Basin Support Office in 2003.

Information presented in this plan is derived from Autocad maps produced in *The Tao House Exterior Landscape: Historic Landscape Study*, 2002 by De Martini and historic photographs.

Plan drawn using Autocad 2002 and Adobe Photoshop 7 by Michael J.Hankinson, NPS

Legend

Black lines represent treatment recommendations that call for the preservation or restoration of features.

Grey lines represent existing conditions.

Existing vegetation to be retained

Proposed plantings

East Side of the Tao House

1. Retain historic features.

a) Retain the upper and lower brick walkways, and the brick walkway that links the north side of the Tao House with the lower brick walkway. The current walkways follow historic alignments and are constructed with the original bricks laid in a running bond pattern (Figures 23 and 25).

b) Retain three stones in the "rock garden" located adjacent to the east terrace, which were purposefully placed by the O'Neills (see the Existing Conditions map).

c) Retain and restore rock edging on western and eastern sides of the lower brick walkway. Remove the oleander to prevent further damage to this feature (Figures 23 and 24).

2. Retain contributing vegetation.

a) Retain the strawberry tree (*Arbutus unedo*) near the kitchen window (Figure 21).

b) Retain three coast redwood trees (*Sequoia sempervirens*) located east of the kitchen (Figure 25).

c) Retain the privet hedge on the north, south, and east sides of the brick terrace. Allow shrub to grow into its historic height and configuration as a clipped hedge, approximately 24 inches above the grade of the east terrace (Figure 25).

d) i) Retain two historic walnut trees (*Juglans hindsii*) located on the east side of the brick walkway (Figure 34).

ii) Retain one Japanese plum tree (*Prunus cerasifera 'atropurpurea'*) located on the east side of the brick walkway (Figure 34).

e) Retain two glossy privet plants (*Ligustrum lucidum*). These plants can be maintained as trees. Although there is no historic photographs showing these two trees, it has been determined in the field that these plants most likely date to the historic period.

3. Remove nonhistoric features including heavenly bamboo, oleander hedges, oak trees, almond trees, and the wood retaining wall.

a) Remove noncontributing planting of heavenly bamboo (*Nandina domestica*) from the rock garden (see the Existing Conditions map).

b) Remove the oleander (*Nerium oleander*) hedges along the lower brick walkway (Figure 23).

c) Remove the oak tree growing along the lower path among the historic walnut and plum trees (see the Existing Conditions map).

d) Remove the treated wood retaining wall located on the down-slope side of the upper walkway. Replace with a privet (*Ligustrum ovalifolium*) hedge and ground cover of ice plant (*Carpobrotus edulis*) to ensure stabilization of the slope (Figure 23).

e) Remove creeping fig in rock garden (Figure 25.5). Jasmine was planted on the this location of the Tao House during the historic period.

4. Reestablish missing vegetation in historic locations.

a) Re-establish eight casuarina (*Casuarina stricta*) trees located between the upper and lower brick walkways. Prune the trees to maintain views of the San Ramon Valley from the brick terrace (Figure 22).

b) Reestablish one live oak tree and site in historic location (Figure 26.5).

c) Reestablish two privet (*Ligustrum ovalifolium*) hedges.

i) Re-establish a hedge on the east side of the upper brick walkway; prune to 18 inches (Figure 26).

ii) Reestablish a privet hedge on the lower brick walkway; prune to 3 feet (see the Treatment map).

d) Reestablish the cotoneaster (*Cotoneaster franchetii*) as a formal hedge from the north side of the Tao House to the swimming pool.

i) Retain the historic 3-foot-on-center planting pattern by infilling new plants in gaps as necessary (see the Treatment map).

ii) Restore the historic character of the hedge by restoratively pruning the existing shrubs. Details regarding the restorative pruning process should be covered in a Vegetation Management Plan.

iii) Maintain as a formal, sheared hedge, 3-feet in height.

e) Reestablish ground cover of ice plant (*Carpobrotus edulis*) in between the privet hedge on the upper brick walkway and the privet hedge on the lower brick walkway (Figure 24).

f) Reestablish the lippia (*Phyla nodiflora*) on both sides of the upper brick walkway. This planting should extend the length of the brick terrace; each planting bed should be approximately 2-feet in width. Reestablish the lippia planting on the western side of the lower terrace (Figure 26).

g) Reestablish the white hydrangea (*Hydrangea macrophylla*) to return the focal point planted on the eastern side of the upper brick walkway (Figure 26).

h) Reestablish one tree with the form and character of an apple (*Malus sp.*) tree in historic location (Figure 20).

i) Reestablish one arborvitae (*Thuja occidentalis*) on north side of the brick

terrace (Figure 26.5)).

j) Re-establish one poplar tree (*Populus nigra 'Italica'*) to be planted on the western side of the brick walkway near the Tao House (Figure 22).

k) Reestablish one strawberry tree (*Arbutus unedo*) on the west side of the upper brick walkway (Figure 22).

l) Reestablish one deciduous tree, with the form and character of a peach (Prunus sp.) tree in the rock garden (Figure 26.5).

m) Establish a simple ground cover planting of dichondra (*Dichondra micrantha*) in the rock garden. Reestablish historic plant materials in this bed if historic photographic documentation becomes available (Figure 26.5).

n) Reestablish three shrubs with the form and character of Japanese barberry (*Berberis thunbergii*) (Figure 20).

o) Reestablish jasmine (*Trachelospermum jasminoides*) on the east side of the Tao House in rock garden (Figure 26.5).

East Side of the Tao House



Figure 21. Photograph showing east side of the Tao House (PWR 2003).

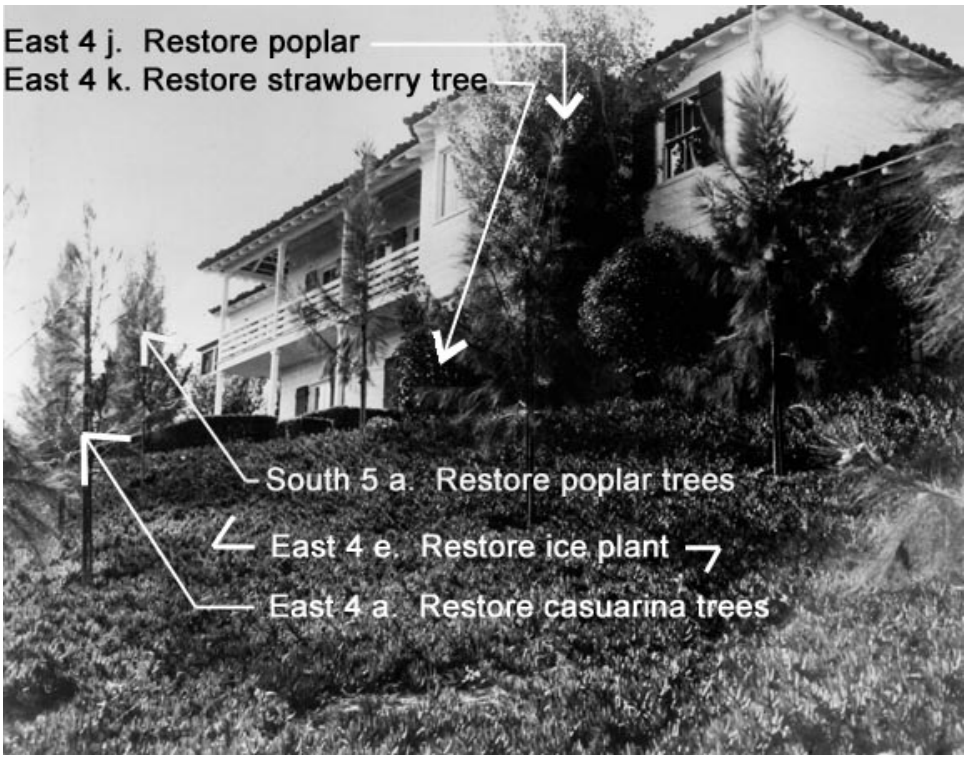


Figure 22. Photograph showing east side of the Tao House in 1944 (EUON collection).

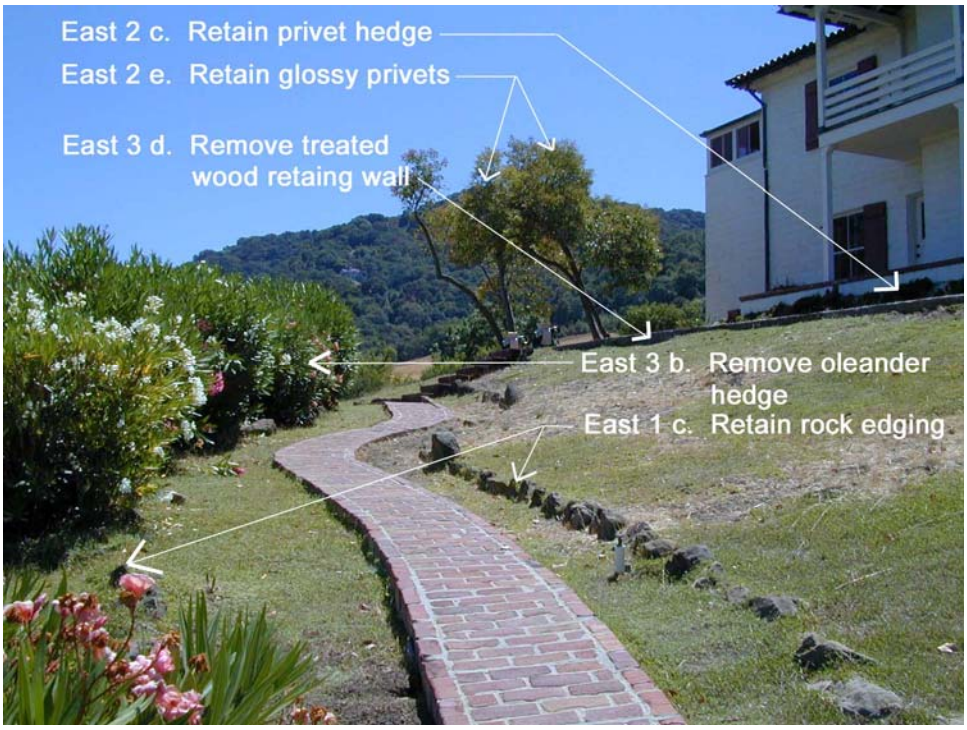


Figure 23. Photograph showing the east side of the Tao House and the lower walkway, view south (PWR 2003).

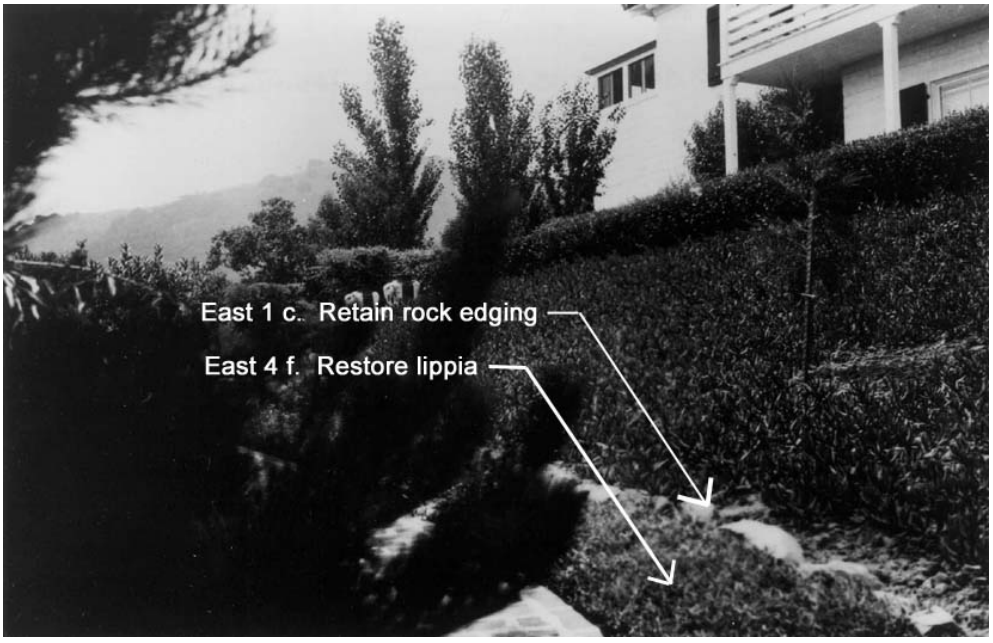


Figure 24. Photograph showing the east side of the Tao House in 1941 (EUON 1391 T).

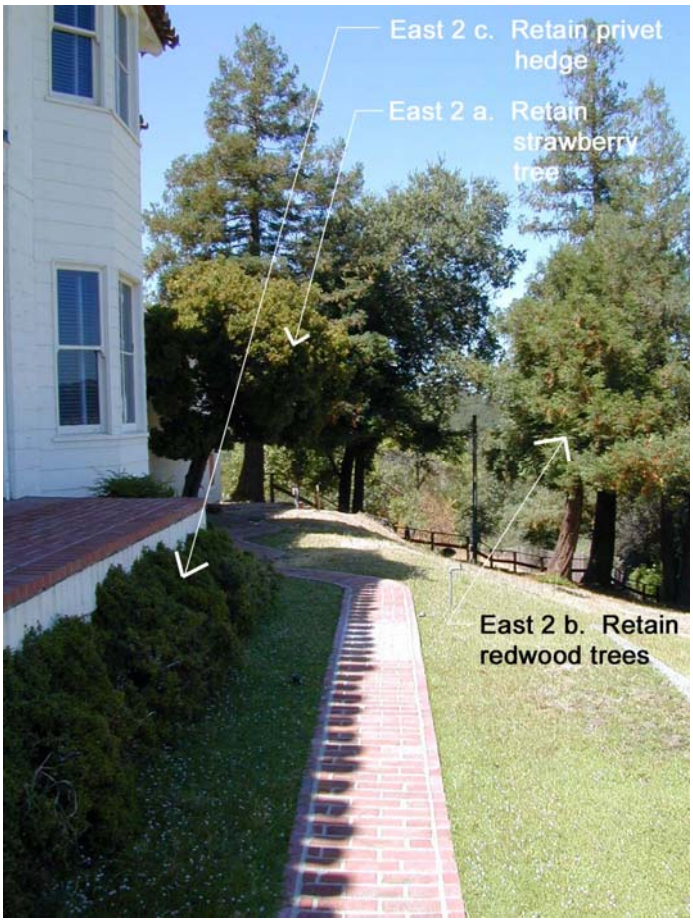


Figure 25. Photograph showing upper walkway on the east side of the Tao House (PWR 2003).

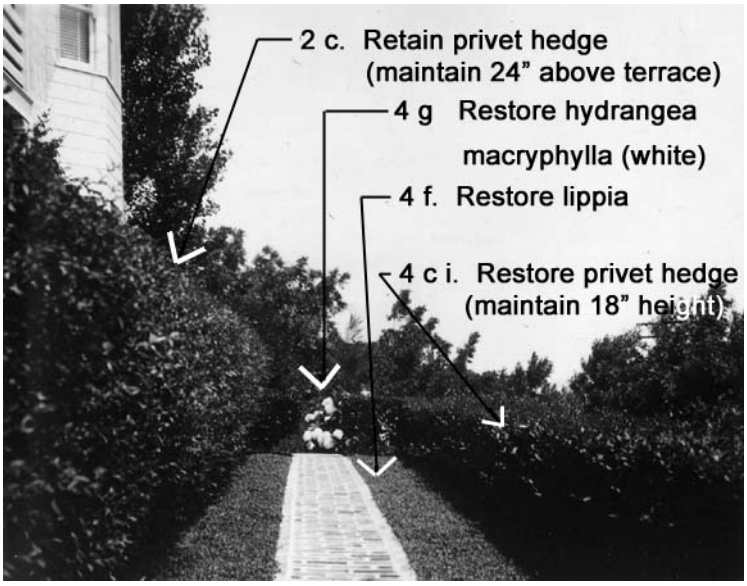


Figure 26. Photograph showing upper walkway on the east side of the Tao House in 1941 (EUON 1391 Q).

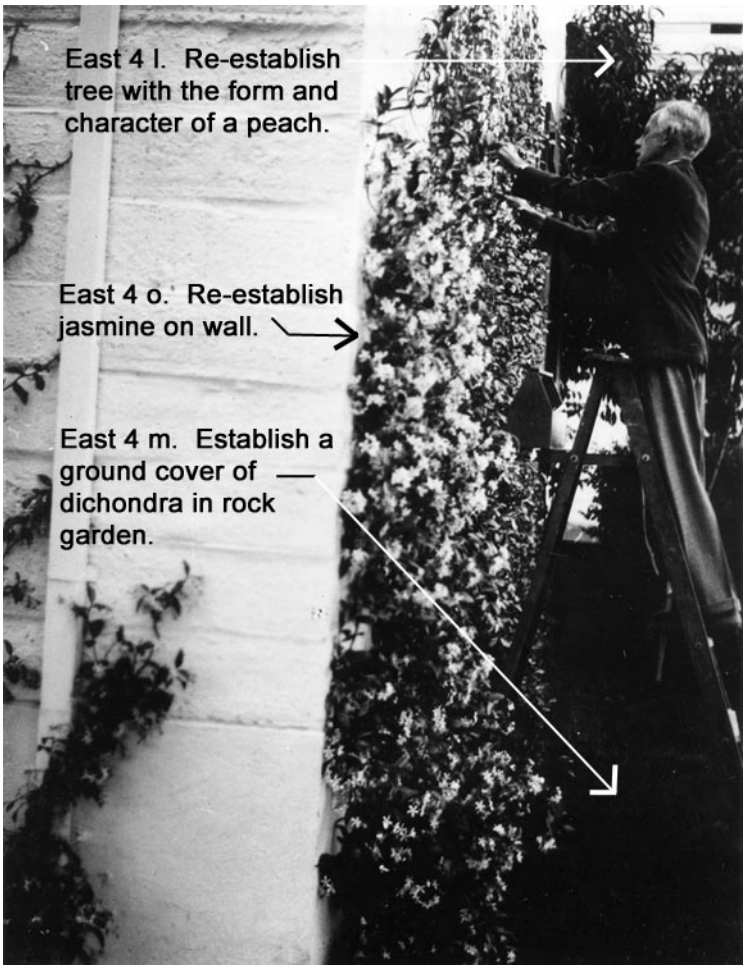
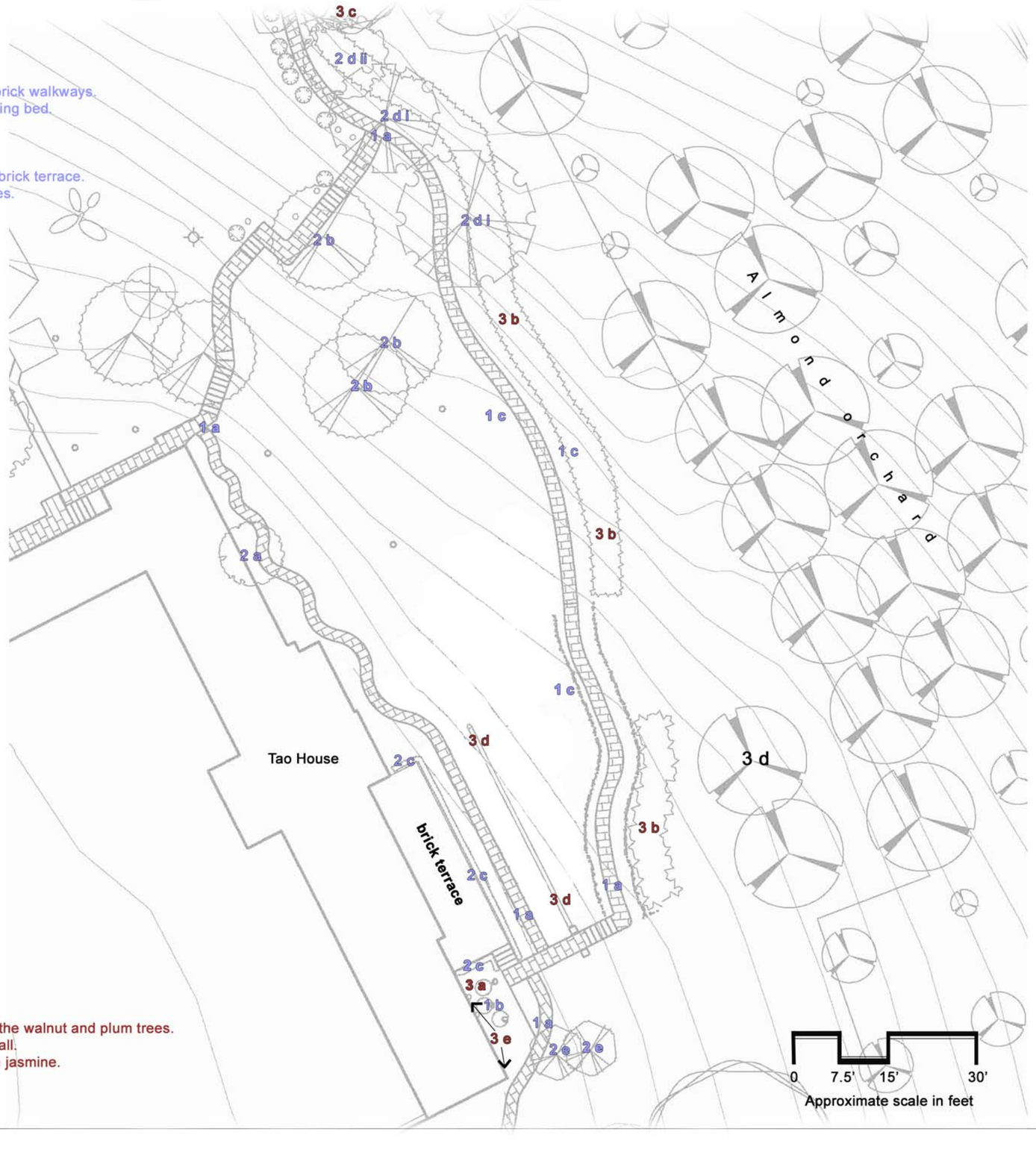


Figure 26.5. Photograph showing Eugene O'Neill tacking up jasmine in the rock Garden on the east side of the Tao House circa 1944 (EUON collection).

RETAIN

1 a. Retain the upper, lower, and north brick walkways.
1 b. Retain the three stones in this planting bed.
1 c. Retain rock edging.
2 a. Retain strawberry tree.
2 b. Retain 3 coast redwood trees.
2 c. Retain the privet hedge around the brick terrace.
2 d i. Retain 2 California black walnut trees.
2 d ii. Retain 1 Japanese plum tree.
2 e. Retain 2 glossy privet plants.



REMOVE

3 a. Remove heavenly bamboo.
3 b. Remove the oleander hedge.
3 c. Remove the oak tree growing among the walnut and plum trees.
3 d. Remove the treated wood retaining wall.
3 e. Remove creeping fig and replace with jasmine.

EXISTING CONDITIONS with TREATMENT GUIDELINES for the EAST SIDE of the TAO HOUSE

Cultural Landscape Report
Eugene O'Neill National Historic Site
National Park Service
Danville, California

Produced by
Pacific West Region Cultural Landscape Program
National Park Service
Seattle, Washington

D 24

Notes:

All LCS listed structures to be retained.

All treatment recommendations are cross-referenced in the CLR part 2 under "East Side of the Tao House."

Treatment recommendations call for the preservation of historic features; the restoration of landscape features that are non-extant; and the removal of non-historic features.

Additiional field checking completed by the Columbia Cascades Support Office and the Pacific Great Basin Support Office in 2003.

Information presented in this plan is derived from Autocad maps produced in *The Tao House Exterior Landscape: Historic Landscape Study*, 2002 by De Martini.

Plan drawn using Autocad 2002 and Adobe PhotoShop 7 by Michael J. Hankinson, NPS.

Legend

Grey lines represent existing conditions.

RESTORE

4 a. Re-establish 8 casuarina trees. Must be pruned to maintain views from second floor.

4 b. Re-establish 1 live oak tree.

4 c. Restore privet hedge.

4 d. Re-establish cotoneaster hedge.

4 e. Re-establish ice plant ground cover.

4 f. Re-establish lippia ground cover.

4 g. Re-establish 1 hydrangea shrub.

4 h. Re-establish 1 tree with the form and character of an apple tree.

4 i. Re-establish 1 arborvitae tree

4 j. Restore 1 poplar tree.

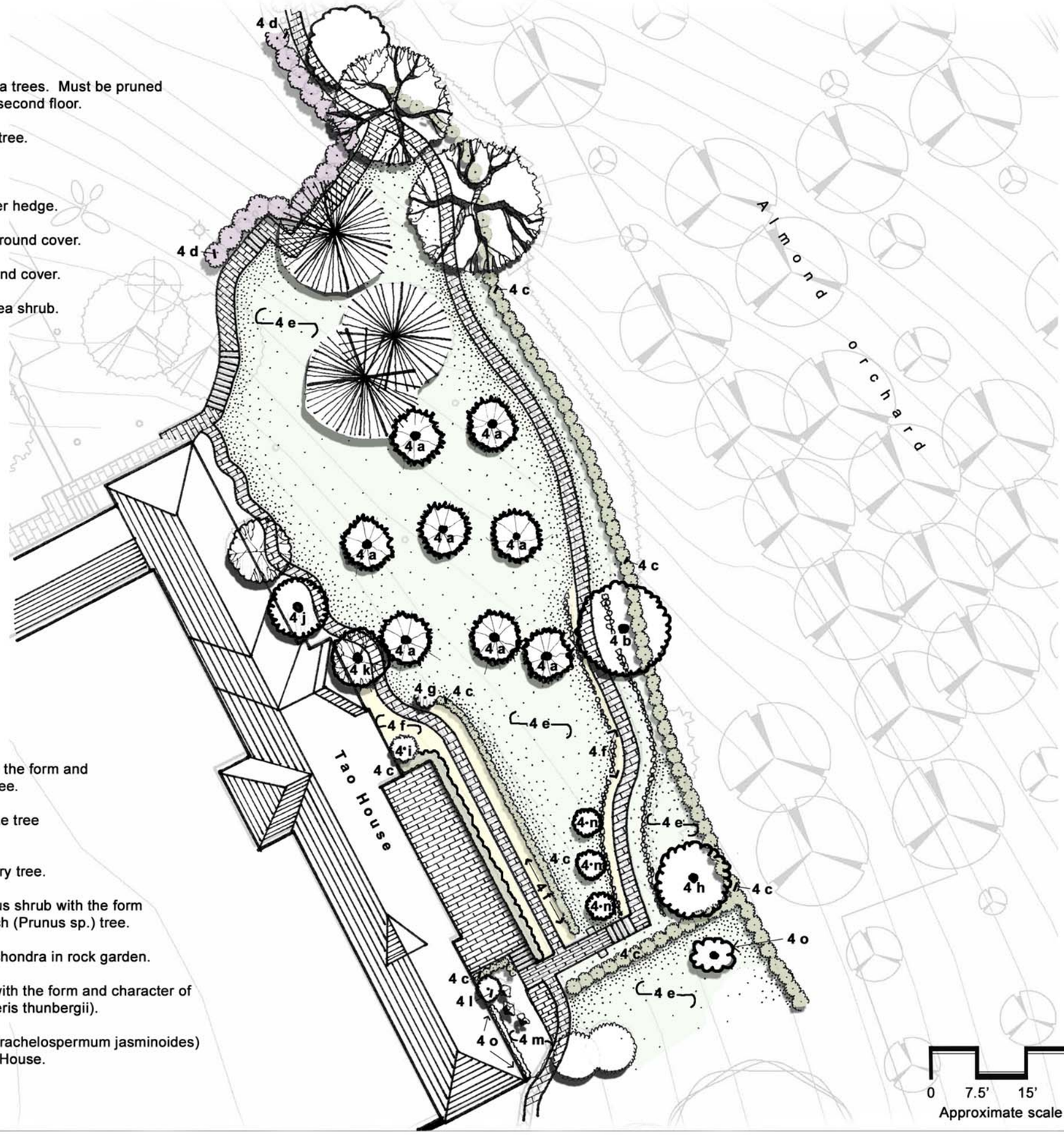
4 k. Re-establish 1 strawberry tree.

4 l. Re-establish 1 deciduous shrub with the form and character of a peach (Prunus sp.) tree.

4 m. Establish planting of dichondra in rock garden.

4 n. Re-establish 3 shrubs with the form and character of a barberry shrub (Berberis thunbergii).

4 o. Re-establish jasmine (Trachelospermum jasminoides) on east side of the Tao House.



RESTORATION PLAN
EAST SIDE of the
TAO HOUSE

Cultural Landscape Report
Eugene O'Neill National Historic Site
National Park Service
Danville, California

Produced by
Pacific West Region Cultural Landscape Program
National Park Service
Seattle, Washington

D 25

Notes:

All LCS listed structures to be retained.

All treatment recommendations are cross-referenced in the CLR part 2 under "East Side of the Tao House."

Treatment recommendations call for the preservation of historic features; the restoration of landscape features that are non-extant; and the removal of non-historic features.

Additiional field checking completed by the Columbia Cascades Support Office and the Pacific Great Basin Support Office in 2003.

Information presented in this plan is derived from Autocad maps produced in *The Tao House Exterior Landscape: Historic Landscape Study*, 2002 by De Martini.

Plan drawn using Autocad 2002 and Adobe PhotoShop 7 by Michael J. Hankinson, NPS.

Legend

Black lines represent treatment recommendations that call for the preservation or restoration of features.

Grey lines represent existing features.

Existing vegetation to be retained.

Proposed plantings

Swimming Pool

1. Retain the historic features, including the west and east brick patio segments, the historic brick walkway and stairway behind the change house, and the brick platform at the pump house (see Figures 27, 29, 31, and 33).

2. Retain contributing vegetation, including one casuarina tree and cotoneaster shrubs.

a) Retain the existing casuarina tree (*Casuarina stricta*) located on the northeast side of the swimming pool (Figure 31).

b) Restore and reestablish the cotoneaster (*Cotoneaster franchetii*) planting as a formal hedge from the north side of the Tao House to the swimming pool (Figure 34.5).

i) Retain historic 3-foot on-center planting pattern by infilling new plants in gaps as necessary.

ii) Restore historic character of the hedge through restorative pruning techniques, which should be described in a Vegetation Management Plan.

iii) Maintain as a formal, sheared hedge, 3 feet in height.

3. Remove noncontributing structures, including the brick stairway on the south side of the change house, the brick stairway to the pump house, the brick patios, and the white bench

a) Remove the brick stairway on the south side of the change house, to reestablish the original design scheme of a single, circuitous route linking the Tao House with the swimming pool (Figure 33).

b) Remove the brick stairway to the pump house; reestablish the historic walkway. Consider removing this stairway to re-establish the historic character of the area. Reestablish the wood-planked historic walkway for use as the primary access to the pump house, and paint the walkway white (see Eugene's diary entries November 1938 on the 8th, 14th, and 15th and Carlotta's diary entry for Nov. 8, 1938).

c) Remove the non-historic segments of the brick patios on the north and south sides of the swimming pool to restore the historic character of the swimming pool. Retain the historic brick patios on the west and east sides of the swimming pool (Figures 27, 29, 31, and 33).

d) Remove the white bench; re-establish historic seating. Re-establish the white reclining lounge chair and place on the east brick patio (Figures 29, and 30).

e) Remove noncontributing ladders located on the southeast and the northwest corners of the swimming pool.

f) Remove noncontributing addition to the swimming pool change house. This addition, located on the original building's south side, was added after the historic period.

4. Remove noncontributing vegetation, including one oak tree, one California bay tree, one oleander shrub, two juniper shrubs, one viburnum shrub, one hinoki false cypress shrub, and six coast redwood trees.

a) Remove one oak tree (*Quercus agrifolia*) on the south side of the swimming pool. This tree does not date to the historic period (see the Existing Conditions map).

b) Remove one California bay tree (*Umbellularia californica*) on the northwest corner of the swimming pool. Historic photographs do not show this tree which has been determined in the field to not date to the historic period (see Existing Conditions map).

c) Remove one oleander shrub (*Nerium oleander*) on the south side of the swimming pool and near change house to restore the historic scene (Figure 33).

d) Remove two Pfitzer juniper shrubs (*Juniperus chinensis 'pfitzeriana'*), one viburnum (*Viburnum suspensum*), and one hinoki false cypress (*Chamaecyparis obtuse*). Remove one Pfitzer juniper on the north side of the change house, and remove one Pfitzer juniper on the north side of the swimming pool. Remove one viburnum located on the northwestern side of the change house (Figure 31).

e) Remove six coast redwood (*Sequoia sempervirens*) trees. These trees were planted after the historic period (Figure 34 and 34.5).

5. Reestablish missing vegetation in historic locations around the swimming pool.

Trees in Swimming Pool Area

a) Remove all trees that are considered detrimental to the swimming pool structure. Consultation with an arborist is necessary to make this determination.

b) Remove the pine tree on the east side of the swimming pool and replace it with a casuarina tree (*Casuarina stricta*) or another low-growing pine tree such as a shore pine (*Pinus contorta var. contorta*), pinon pine (*Pinus edulis*), foxtail pine (*Pinus balfouriana*), or bristle cone pine (*Pinus aristata*). Although the pine tree is historic, it is no longer compatible, threatens the structural integrity of the swimming pool, and no longer serves as a privacy screen (Figures 27, and 29).

c) Reestablish seven casuarina trees (*Casuarina stricta*) on the south slope of the swimming pool (Figure 30).

d) Establish one shade tree on the south side of the change house. Although historically a willow (*Salix sp.*) was planted in this area, this genus is not recommended because the aggressive root system could damage the swimming pool or its associated infrastructure. Consider a substitute species such as weeping forms of Callistemons (*Callistemon viminalis*) which is similar in appearance. (see the Treatment map).

e) Reestablish one casuarina on the east side of the swimming pool where an allepo pine stood. Although the allepo pine tree was historically planted in this location, it would soon outgrow its space and no longer function as a privacy screen (see the Treatment map).

Hedges and Shrubs in Swimming Pool Area

f) Establish the privet hedge (*Ligustrum ovalifolium*) on the north, south, and east sides of the historic brick patio (this will require the removal of the patio addition). The hedge should be formal in appearance and not rise more than 18 inches in height. See the photograph of O'Neill sitting next to the hedge at the swimming pool (Figure 28).

g) Reestablish the Irish Yews (*Taxus baccatus 'Fastigiata'*). Plant one Irish yew near the southeastern end of the swimming pool and the other on the northeastern end of the swimming pool (Figure 28).

Ground Covers in Swimming Pool Area

h) Reestablish ground cover plantings on west side of change house. Use either dichondra (*Dichondra micrantha*), lippia (*Phyla nodiflora*), or ice plant (*Carpobrotus edulis*). Although there is no photographic evidence to verify which ground cover was historically established here, it is likely that one of these three plants were used. Of the three historic ground cover plants historically was used in this area, lippia (*Phyla nodiflora*) is the most adaptable in these soil conditions (see the Treatment map).

i) Reestablish the dichondra (Dichondra micrantha) ground cover plantings adjacent to the swimming pool. Early in the historic period, the O'Neills experimented with several ground cover plantings around the swimming pool. The O'Neills originally planted lippia (*Phyla nodiflora*), but discovered it was not establishing (Carlotta's diary, March 13, 1941). As a result, the O'Neills replanted with dichondra. Two separate beds were planted around the swimming pool. On the north side of the swimming pool, the first dichondra planting bed extended from the north side of the change house to the east end of the swimming pool. On the southern side of the swimming pool, the second dichondra planting bed extended from eastern edge of the change house to the east end of the swimming pool (Figure 28).

j) Reestablish ice plant (*Carpobrotus edulis*) on the northern slope and on the southern slope of the swimming pool. On the northern side, re-establish ice plant from the dichondra (*Dichondra micrantha*) planting down to the wood planked walkway. On the southern side, reestablish ice plant from the dichondra down to the rock retaining wall, located down-slope of the pool adjacent to the almond orchard (Figure 34).

6. Reestablish missing historic features (Figure 34).

a) Reestablish the rock edging on the southern edge of the planting area and the rock edging on the south and north sides of the swimming pool. Rock should match the size and color of the rock used as borders throughout the site.

b) Re-establish missing ladders. One ladder should be located on the northeast corner of the pool and the other on the southwest corner of the pool (Figure 34).

Swimming Pool

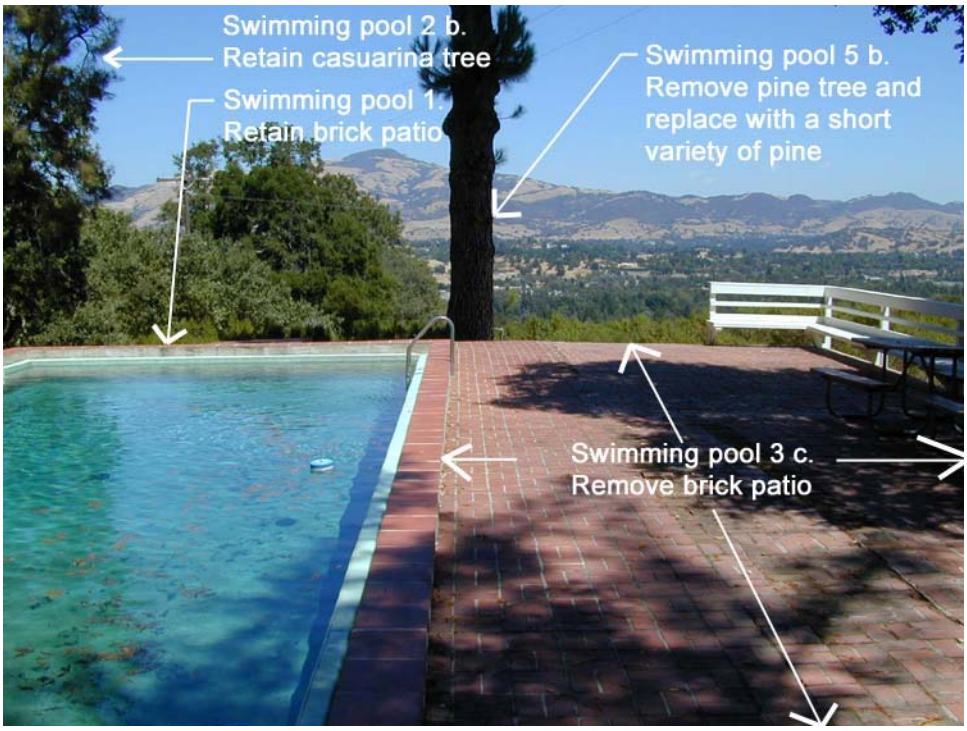


Figure 27. Photograph showing swimming pool, view towards the east (PWR 2003).

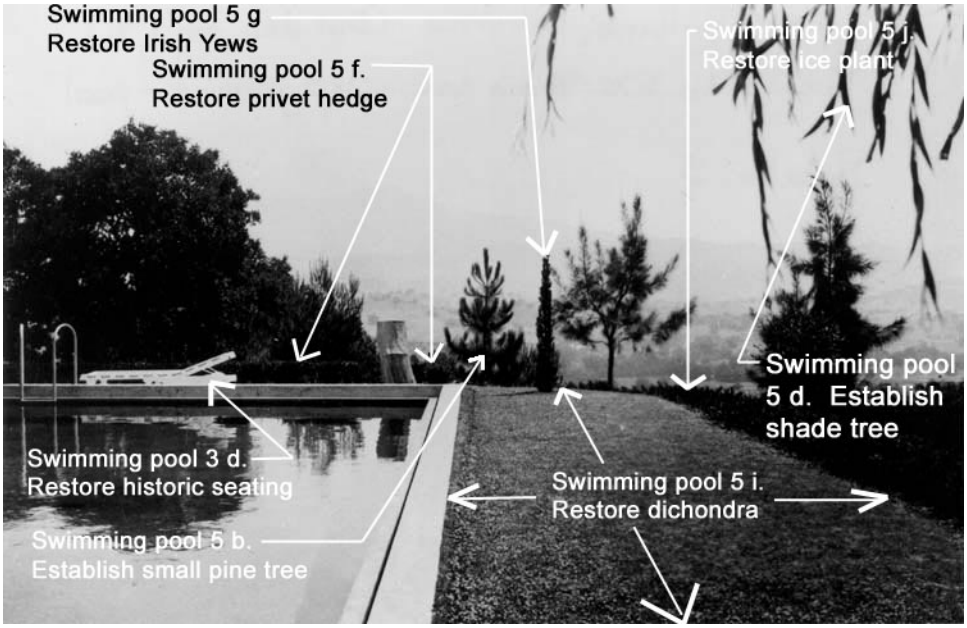


Figure 28. Photograph showing swimming pool in early 1940s (EUON 1391 P).

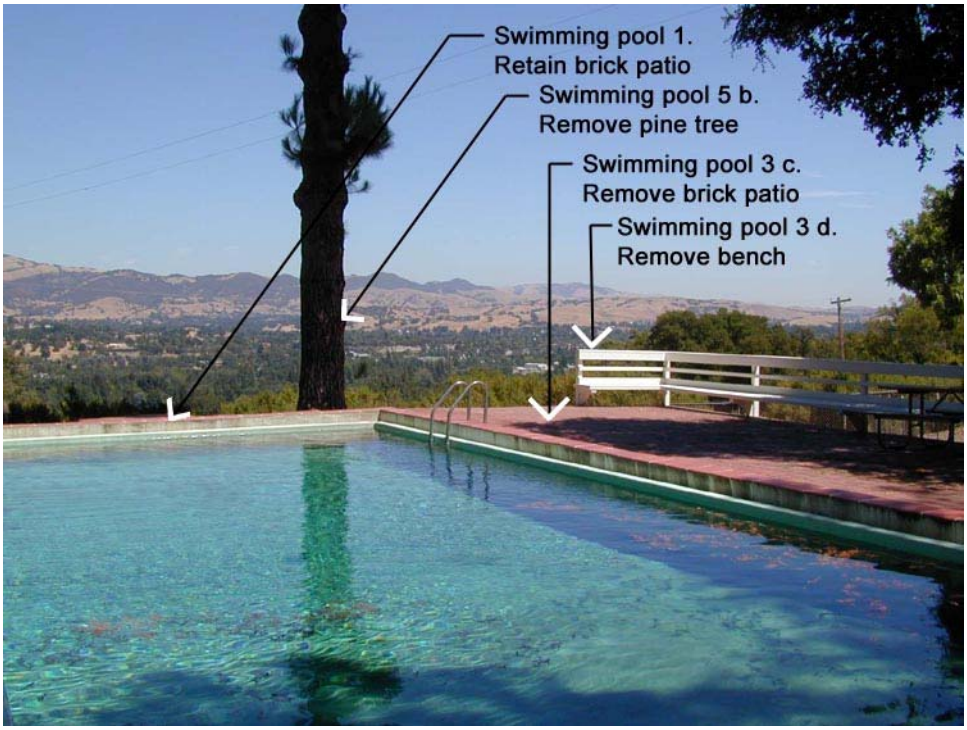


Figure 29. Photograph showing swimming pool, view southeast (PWR 2003).

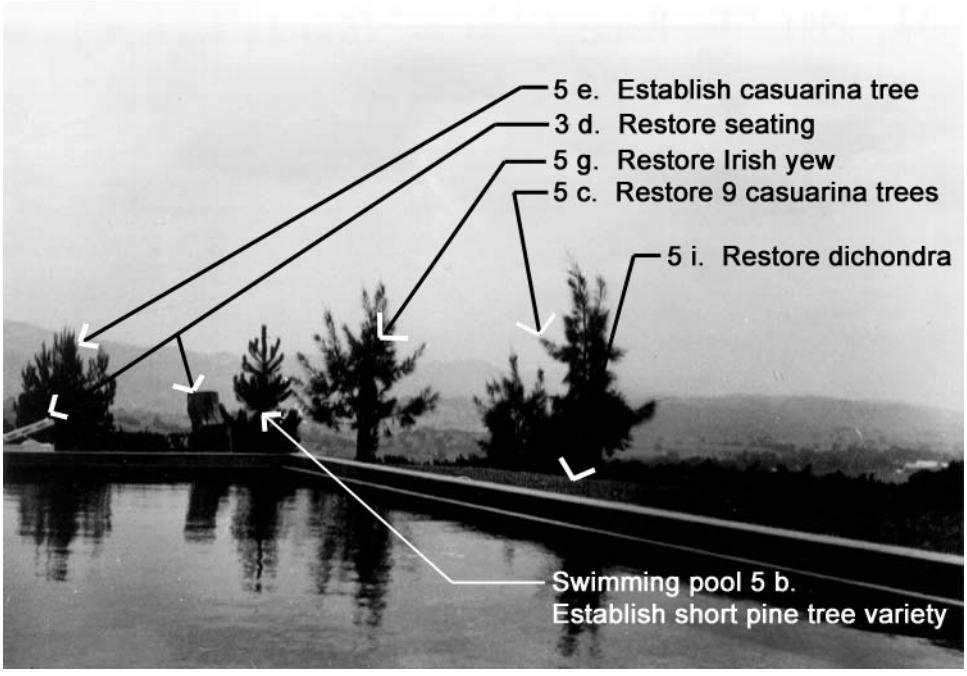


Figure 30. Photograph showing swimming pool in 1941 (EUON 1391 L).

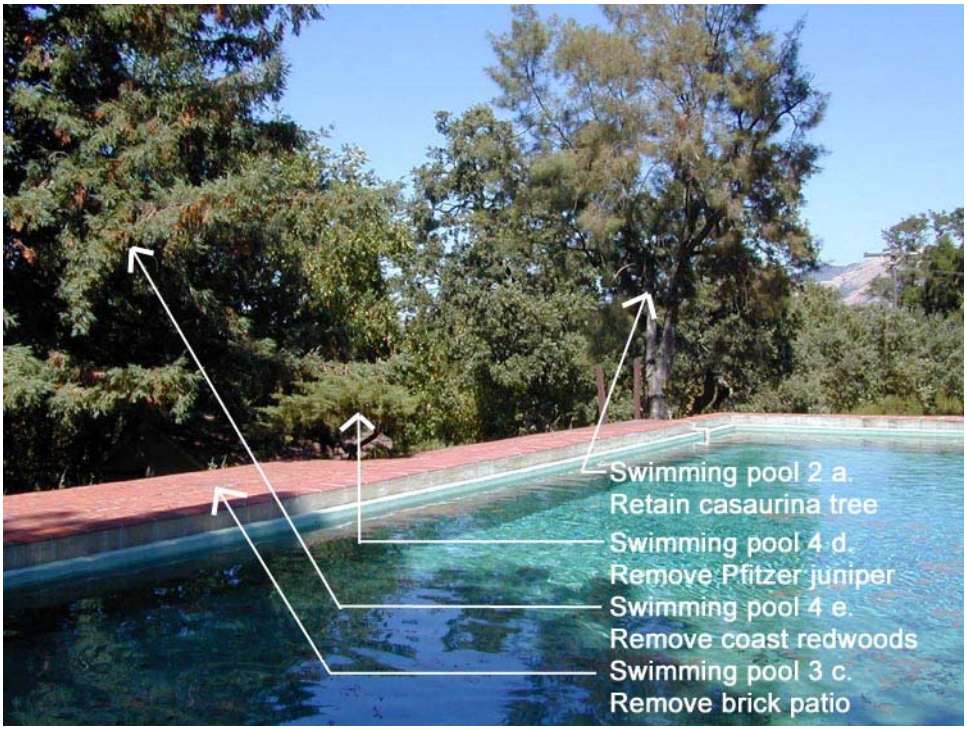


Figure 31. Photograph showing swimming pool, view northeast (PWR 2003).

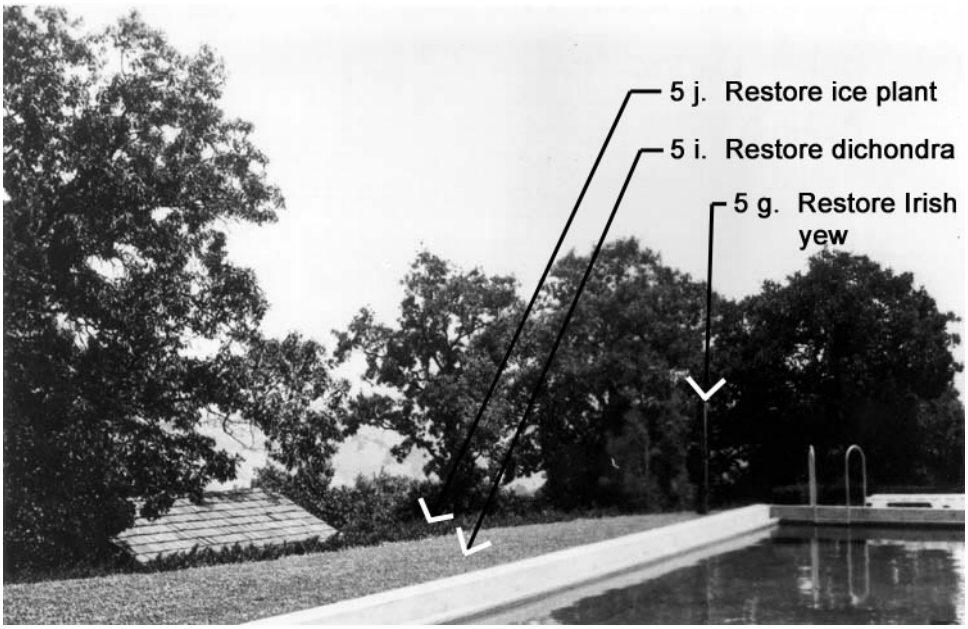


Figure 32. Photograph showing swimming pool in 1941 (EUON 1391 J and K).



Figure 33. Photograph showing change house (PWR 2003).

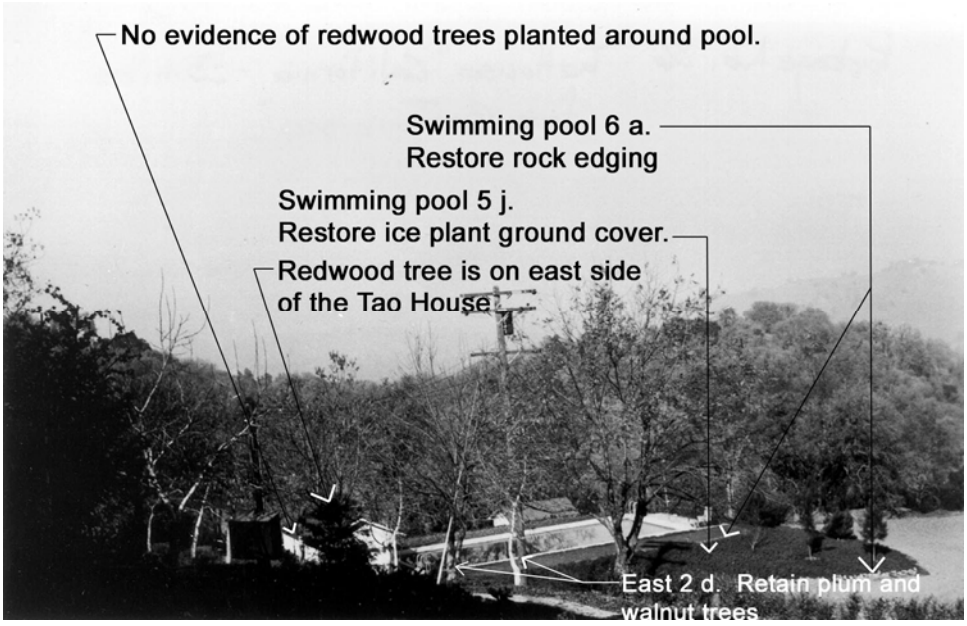


Figure 34. Photograph showing swimming pool in 1944 (EUON collection).

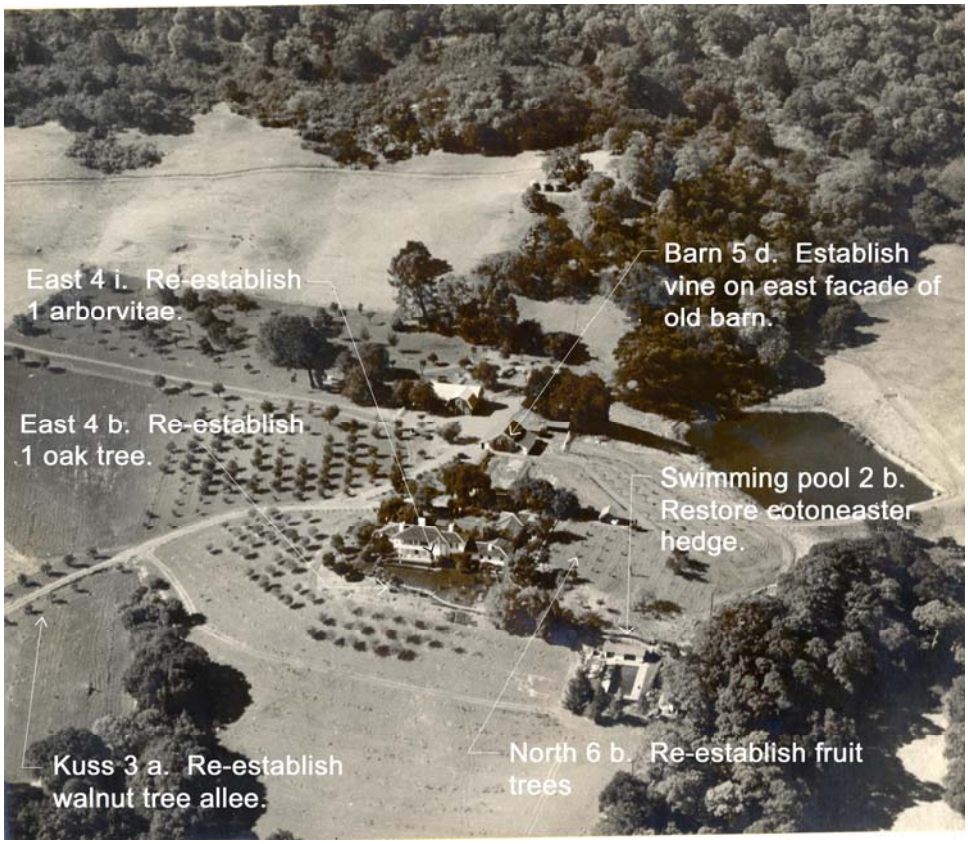
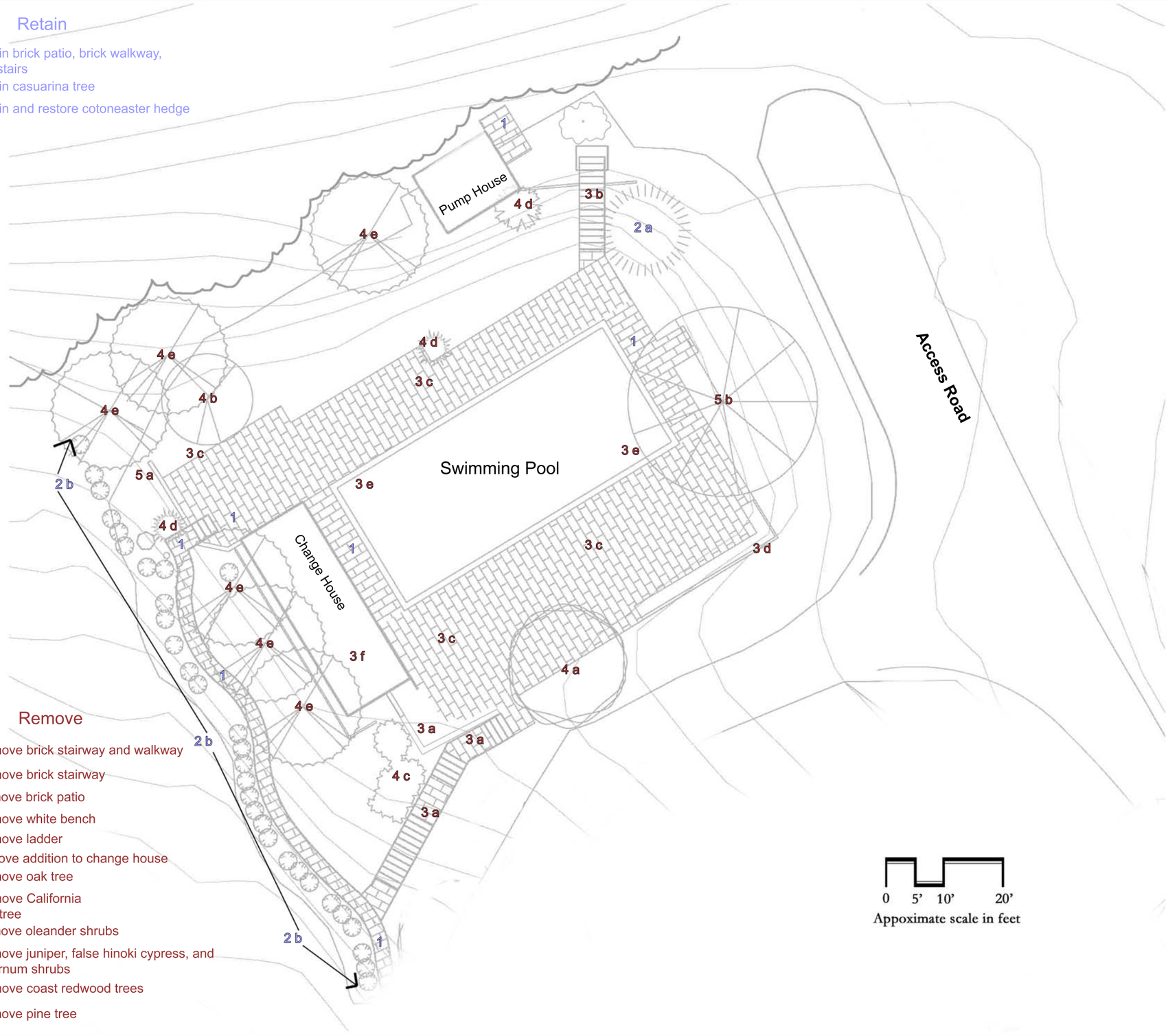


Figure 34.5. Photograph indicates that there were no redwood trees growing on the west and north sides of the swimming pool. In addition, this photo clearly shows a vine growing on the eastern face of the old barn (EUON collection. Photo circa 1952)



Retain

1. Retain brick patio, brick walkway, and stairs

2 a. Retain casuarina tree

2 b. Retain and restore cotoneaster hedge

Remove

3 a. Remove brick stairway and walkway

3 b. Remove brick stairway

3 c. Remove brick patio

3 d. Remove white bench

3 e. Remove ladder

3 f. Remove addition to change house

4 a. Remove oak tree

4 b. Remove California bay tree

4 c. Remove oleander shrubs

4 d. Remove juniper, false hinoki cypress, and viburnum shrubs

4 e. Remove coast redwood trees

5 b. Remove pine tree

0 5’ 10’ 20’

Appoximate scale in feet

EXISTING CONDITIONS with TREATMENT GUIDELINES for the SWIMMING POOL

Cultural Landscape Report
Eugene O’Neill National Historic Site
National Park Service
Danville, California

Produced By
Pacific West Region Cultural Landscape Program
National Park Service
Seattle, Washington

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Notes:

All LCS listed structures to be retained.

All treatment recommendations are cross-referenced in the CLR part 2 under “Swimming Pool.”

Treatment recommendations call for the preservation of historic features; the restoration of landscape features that are non-extant; and the removal of non-historic features.

Additional field checking completed by the Columbia Cascades Support Office and the Pacific Great Basin Support Office in 2003.

Information presented in this plan is derived from Autocad maps produced in the *The Tao House Exterior Landscape: Historic Landscape Study*, 2002 by De Martini and historic photographs.

Plan drawn using Autocad 2002 and Adobe PhotoShop 7 by Michael J. Hankinson, NPS.

Legend

Grey lines represent existing conditions.

RESTORATION PLAN
SWIMMING POOL

Cultural Landscape Report
Eugene O'Neill National Historic Site
National Park Service
Danville, California

Produced By
Pacific West Region Cultural Landscape Program
National Park Service
Seattle, Washington

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Notes:

All LCS listed structures to be retained.

All treatment recommendations are cross-referenced in the CLR part 2 under "Swimming Pool."

Treatment recommendations call for the preservation of historic features; the restoration of landscape features that are non-extant; and the removal of non-historic features.

Additional field checking completed by the Columbia Cascades Support Office and the Pacific Great Basin Support Office in 2003.

Information presented in this plan is derived from Autocad maps produced in *The Tao House Exterior Landscape: Historic Landscape Study*, 2002 by De Martini and historic photographs.

Plan drawn using Autocad 2002 and Adobe PhotoShop 7 by Michael J. Hankinson, NPS.

Legend

Black lines represent treatment recommendations that call for the preservation or restoration of features.

Grey lines represent existing conditions.

Existing vegetation to be retained.

Proposed plantings.

Pump House
Change House
Swimming Pool
Access Road
Restore

3 c 5 j 6 a 5 g 5 f 5 c 6 b 3 d 5 i 5 b 5 d 5 h

0 5' 10' 20'
Approximate scale in feet

2 d. Restore cotoneaster hedge
3 c. Restore wood walkway
3 d. Re-establish historic seating
5 b. Remove oversized pine tree. Replace with small pine species (see text)
5 c. Re-establish 9 casuarina trees
5 d. Establish a tree with the form and character of a willow tree or do not establish a tree (see text for explanation)
5 f. Re-establish privet hedge
5 g. Re-establish Irish Yew
5 h. Re-establish dichondra ground cover
5 i. Re-establish dichondra ground cover
5 j. Re-establish ice plant ground cover
6 a. Re-establish rock edging
6 b. Re-establish pool ladders

Barn Working Area

1. Retain the nonhistoric vehicle circulation route and parking area around the new barn until the new barn is removed.

a) Retain the current vehicle circulation system, until the new barn is removed as proposed for in the GMP (see the Existing Conditions map).

b) Retain the current storage/parking area on the west side of the new barn, until the new barn is removed. This "hidden" storage area preserves the historic scene by obscuring a dumpster and various pieces of equipment that would not have been on the site during the historic period (see Existing Conditions map).

2 a. Retain one historic oak tree on the north side of the brick bench. The shade from this historic tree (*Quercus agrifolia*) creates a space for the brick bench (see Existing Conditions map). Although there are no historic photos showing the brick bench under the tree, it has been determined in the field that this tree dates to the historic period.

3. Remove non-contributing vegetation (see Existing Conditions map for all four trees).

a) Remove one Russian olive (*Elaeagnus angustifolia*).

b) Remove one pine tree (*Pinus sp*.).

c) Remove one Italian cypress tree (*Cupressus sempervirens*).

d) Remove one incense cedar tree (*Calocedrus decurrens*).

4. Remove, or do not replace, noncontributing features including the new barn and corrals.

a) According to the GMP, the new barn could be removed to restore the historic scene in the future. If the new barn is removed, reestablish the original extent of the walnut orchard (see the Existing Conditions map).

b) Remove corrals located on the western side of the new barn. The corrals were added after the historic period to provide access for cattle grazing in regional park land. Today, cattle continue to graze and enter through the corrals, giving the false impression that the O'Neills owned and cared for livestock (See figure 37).

5. Restore missing features, including the chicken yard, wood-plank driveway, walnut orchard, and vine growing on east face of the old barn.

a) Restore the wood-planked, two-track system that began on Kuss Road and terminated on the eastern side of the old barn. This route should not supplant the current access road, but should roughly parallel the existing asphalt access road on the north side.

The road should have two tracks and be constructed of dimensional lumber. The wood-planked parking area on the east side of the old barn, should be constructed of the same dimensional lumber as the two-track road (Figure 36).

b) Restore area between the chicken coop and the brick bench by reestablishing the chicken yard between the brick bench and the chicken coop. The chicken yard, should be constructed of wood and chicken wire. Use historic photographs to determine the construction methods and approximate extent of the chicken yard (see the Treatment map).

c) Restore the historic extent of the walnut orchard if the new barn is removed (see the Treatment map).

d) Reestablish vine, such as *Hedera helix* on east façade of old barn. Because the old barn is a wooden structure (as opposed to the Tao House which is made of concrete brick) vines should not be allowed to grown on the structure itself, but rather on a trellis system. (See Appendix F, "Preservation Tech Notes: Restoring Vine Coverage to Historic Buildings," 1991 and Figure 34.5).

e) Reestablish tilled soil in the area north of the walnut orchard if the new barn and the parking lots are removed.

6. Area around Blemie's grave and trail (see the Existing Conditions map).

a) The original location where the O'Neills buried their dog "Blemie", has never been positively identified. The only photo of the gravesite from the period shows the gravestone encircled by a low fence at the base of a hill that is near an oak woodland and is surrounded by grass/pasture. References in Carlotta's diary indicate that the grave was located near two pine trees. The current location of the gravestone was chosen because of its apparent similarity to these historic references.

Establishing of this interpretive feature has inadvertently diminished the character of the historic open space. The trail to the grave, which extends from the barn area through the grasslands to the gravestone, was constructed to reduce the muddy conditions and provide easy access to the grave. However, because the trail was constructed as a sharply angled raised path, it does not blend well with the open space and clearly stands out as a non-historic feature. Actions that would help mitigate the visual effect of this nonhistoric interpretive feature, include:

i) Relocate the gravestone to the park collections or where it can be featured and interpreted as an exhibit.

ii) Retain the gravestone, but remove the trail. Restrict access and interpret the site from the nearby barn area.

iii) Modify the trail so that:

- The edges are not well defined.

- The trail alignment is curvilinear.
- The trail width meets minimum trail standards.
- Tread material blends with the color of the soil on the hillside.
- Vegetation is allowed to grow up adjacent to the trail.

Barn Working Area

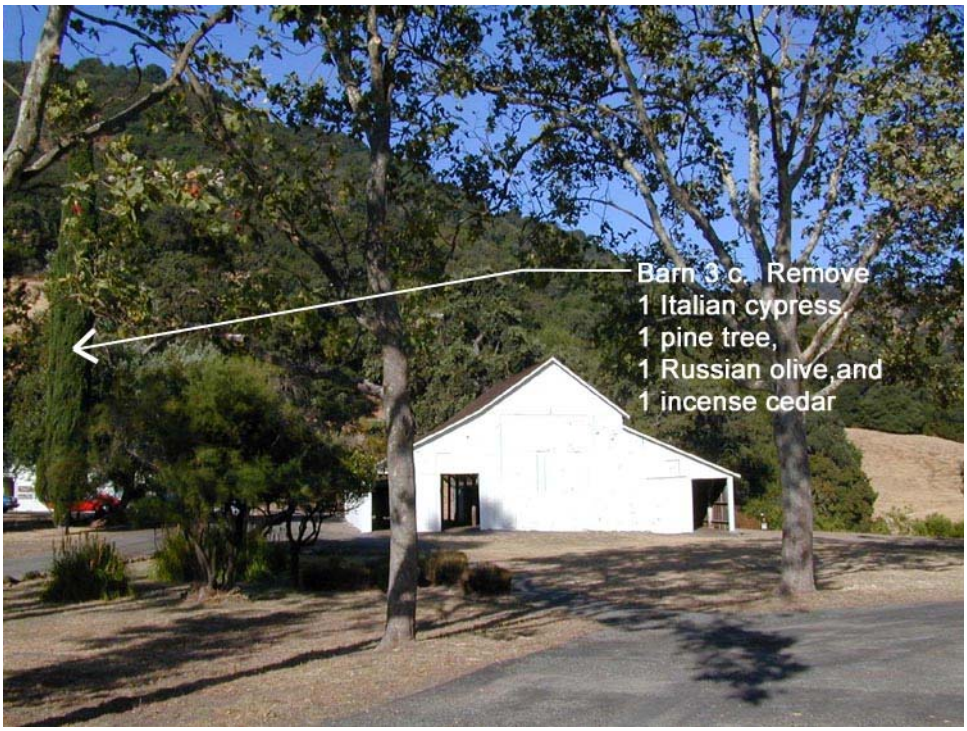


Figure 35. Photograph of old barn, view west (PWR 2003).

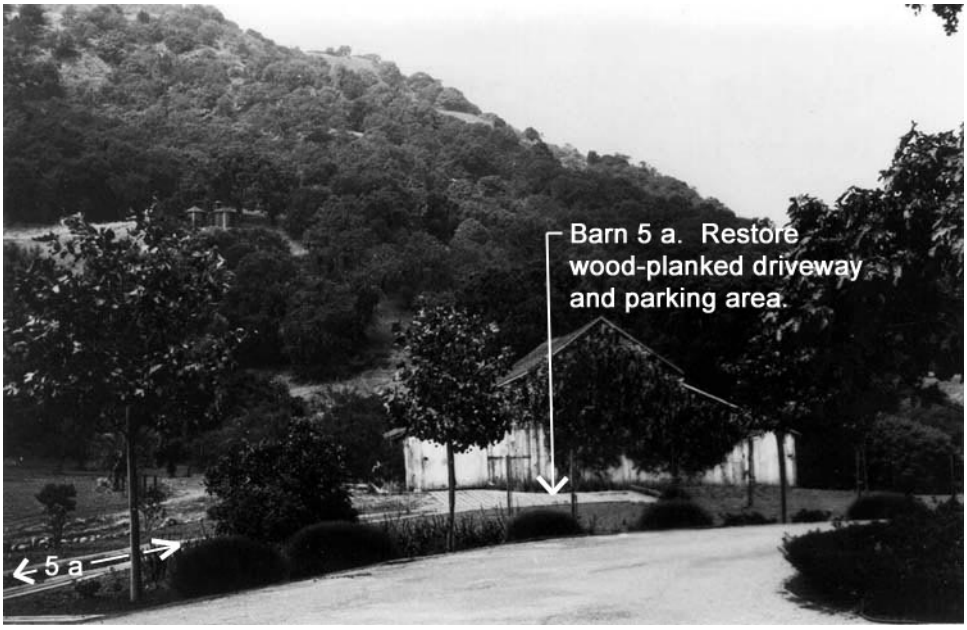


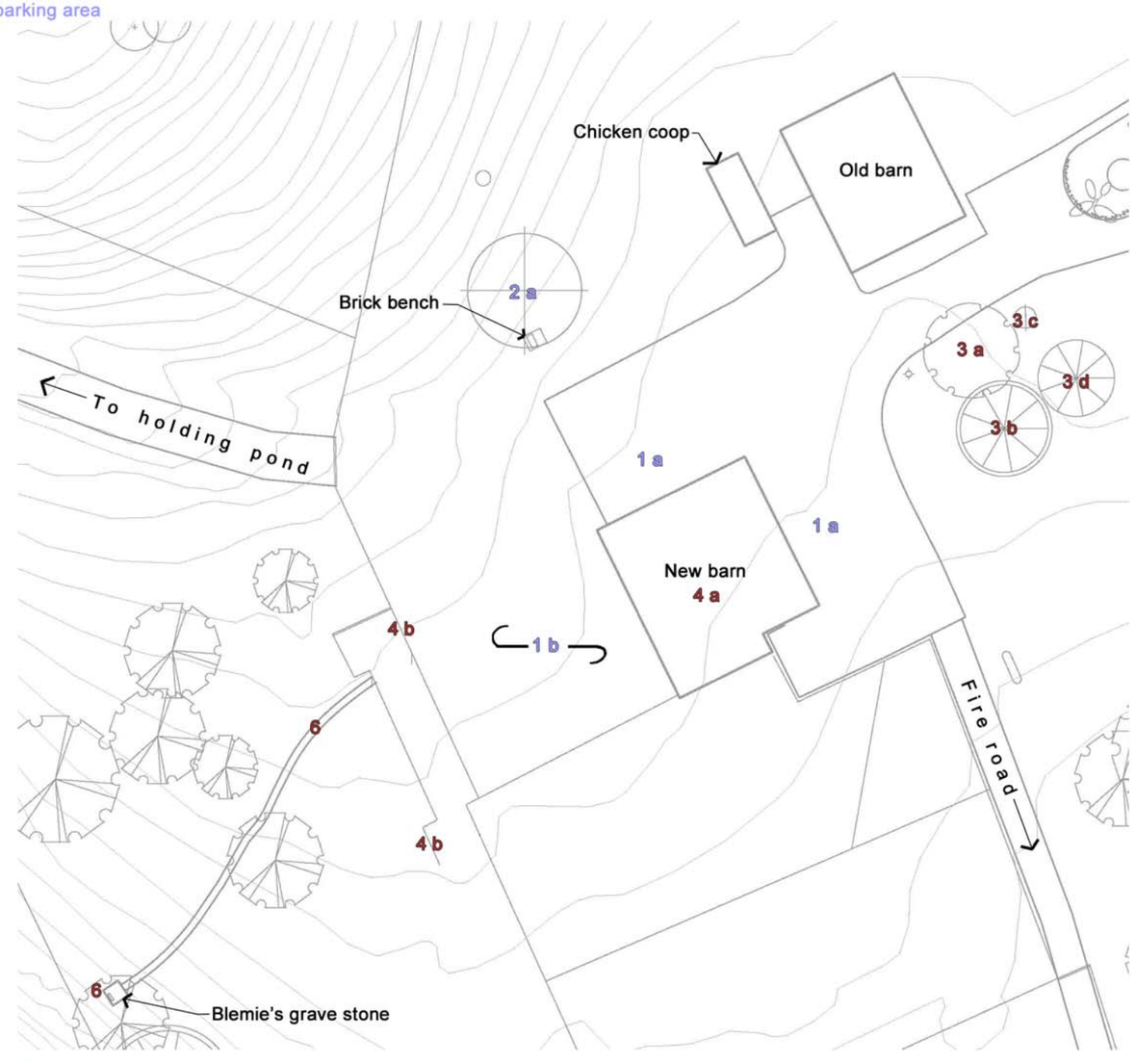
Figure 36. Photograph of old barn in 1941 (EUON 1391 N).



Figure 37. Photograph of corrals, view south (PWR 2003).

RETAIN

1 a. Retain the current vehicle circulation system, until the new barn is removed as proposed in the GMP.
1 b. Retain the storage/parking area
2 a. Retain oak tree



REMOVE

3 a. Remove 1 Russian olive tree
3 b. Remove 1 pine tree
3 c. Remove 1 Italian cypress tree
3 d. Remove 1 incense cedar tree
4 a. Remove or do not replace new barn
4 b. Remove corrals
6. See text for explanation regarding the path to Blemie's grave stone

0 50' 100' 200'
Approximate scale in feet

EXISTING CONDITIONS with TREATMENT GUIDELINES for the Barn Working Area

Cultural Landscape Report
Eugene O'Neill National Historic Site
National Park Service
Danville, California

Produced by
Pacific West Region Cultural Landscape Program
National Park Service
Seattle, Washington

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Notes:

All LCS listed structures to be retained.

All treament recommendations are cross-referenced in the CLR part 2 under "Barn Working Area."

Treatment recommendations call for the preservation of historic features; the restoration of landscape features that are non-extant; and the removal of non-historic features.

Additional field checking completed by the Columbia Cascades Support Office and the Pacific Great Basin Support Office in 2003.

Information presented in this plan is derived from Autocad maps produced in *The Tao House Exterior Landscape: Historic Landscape Study*, 2002 by De Martini and historic photographs.

Plan drawn using Autocad 2002 and
Adobe Photoshop 7 by Michael J.Hankinson, NPS

Legend

Grey lines represent existing condtions.



RESTORE

5 a. Restore the wood planked driveway and parking area
5 b. Restore the chicken yard
5 c. Restore the historic extent of the walnut orchard
5 d. Re-establish vine on east facade of old barn
5 e. Re-establish tilled soil

RESTORATION PLAN
Barn Working Area

Cultural Landscape Report
Eugene O'Neill National Historic Site
National Park Service
Danville, California

Produced by
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National Park Service
Seattle, Washington

D 29

Notes:

All LCS listed structures to be retained.

All treament recommendations are cross-referenced in the CLR part 2 under "Barn Working Area."

Treatment recommendations call for the preservation of historic features; the restoration of landscape features that are non-extant; and the removal of non-historic features.

Additional field checking completed by the Columbia Cascades Support Office and the Pacific Great Basin Support Office in 2003.

Information presented in this plan is derived from Autocad maps produced in *The Tao House Exterior Landscape: Historic Landscape Study*, 2002 by De Martini and historic photographs.

Plan drawn using Autocad 2002 and Adobe Photoshop 7 by Michael J.Hankinson, NPS

Legend

Black lines represent treatment recommendations that call for the preservation or restoration of features.

Grey lines represent existing conditions.

Existing vegetation to be retained.

Proposed plantings.

Orchards

Overall Recommendations

1. Fencing in orchards should be temporarily established to protect recently planted trees and should be temporary removed when the trees are not vulnerable to damage from foraging deer. Protective fences should not be confused with historic fences. It can be confirmed with historic photos that a fence was aligned around the almond orchard.

2. Retain and restore the historic extents of the orchards.

3. Replace diseased, declining, hazardous, or missing almond and walnut trees in kind. Selection of new trees for the almond and walnut orchards should be based on the following:

    a) Replace in kind whenever possible.

    b) Select tree varieties that were grown historically.

4. Establish pruning regime as part of cultural cyclic maintenance program. Establish a pruning regime for overall health. If the almond or walnut trees are evaluated and found to be in decline, hazardous, or dead, replace them in kind.

5. Retain practice of disking in walnut and almond orchards, but consider compatible alternatives. During the historic period, the almond and walnut orchards were disked under the direction of Eugene O'Neill. This practice continues today. Retain the practice of disking the fields in the orchards until an alternative best management practice is proposed and evaluated as part of a Vegetation (orchard) Management Plan.

Almond Orchard

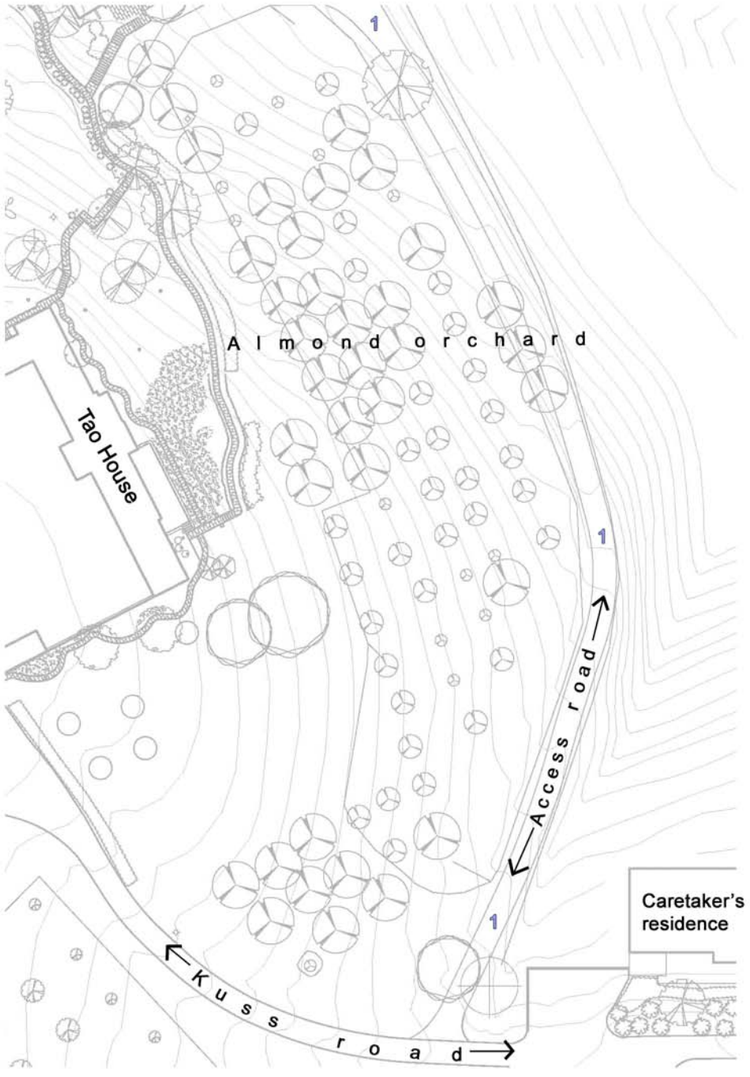
1. Retain the access road (see the Existing Conditions and Treatment maps). During the historic period, the O'Neills accessed the almond orchard using this single-lane, dirt and gravel road. It began at a point on Kuss Road, was aligned on the east side of the almond orchard, and terminated at a point near the swimming pool. Retain and maintain the access road in its current alignment, surfacing material and width.

2. Reestablish the historic extent of the almond orchard (see the Treatment map).

    a) During the historic period, the almond orchard extended from the east side of the Tao House to the south side of the Tao House. By 1944, there were approximately 115 almond trees. Today, there are 82 almond trees today. Re-establish the 33 missing almond trees to retain the historic extent of the orchard. Maintain the grid pattern established during the historic period with almond trees planted 25 feet on center.

b) Relocate six almond trees in nonhistoric locations.

3. Intersperse male and female trees to maintain almond production, or plant male plants to limit crop production.



EXISTING CONDITIONS

RETAIN

1. Retain the access road



TREATMENT GUIDELINES

RESTORE

2 a. Re-establish historic extent of almond orchord
2 b. Relocate 6 almond trees in non-historic locations

0 15' 30' 60'
Approximate scale in feet

Almond Orchard Treatment Plan

- Existing Conditions
- Treament Guidelines

Cultural Landscape Report
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National Park Service
Danville, California

Produced by
Pacific West Region Cultural Landscape Program
National Park Service
Seattle, Washington

D 30

Notes:

All LCS listed structures to be retained.

All treament recommendations are cross-referenced in the CLR part 2 under "Almond Orchard."

Treatment recommendations call for the preservation of historic features; the restoration of landscape features that are non-extant; and the removal of non-historic features.

Additional field checking completed by the Columbia Cascades Support Office and the Pacific Great Basin Support Office in 2003.

Information presented in this plan is derived from Autocad maps produced in *The Tao House Exterior Landscape: Historic Landscape Study*, 2002 by De Martini and historic photographs.

Plan drawn using Autocad 2002 and Adobe Photoshop 7 by Michael J.Hankinson, NPS

Legend

- Almond trees
- Access road
- Existing vegetation to be retained
- Proposed plantings

Walnut Orchard

1. Retain the fire road and maintain the road in its current alignment, dirt surfacing, and width.

2 a. Remove the noncontributing walnut trees planted after the historic period (see Existing Conditions map).

3 a. Reestablish the historic extent of the walnut orchard (see the Treatment map). In 1944, there were approximately 205 walnut trees. Today, there are 102 walnut trees in the orchard. Reestablish the 103 missing walnut trees, planting California black walnut (*Juglans hindsii*). Maintain the grid pattern established during the historic period with walnut trees planted 25 feet on center.

Walnut Orchard Treatment Plan

- Existing Conditions
- Treament Guidelines

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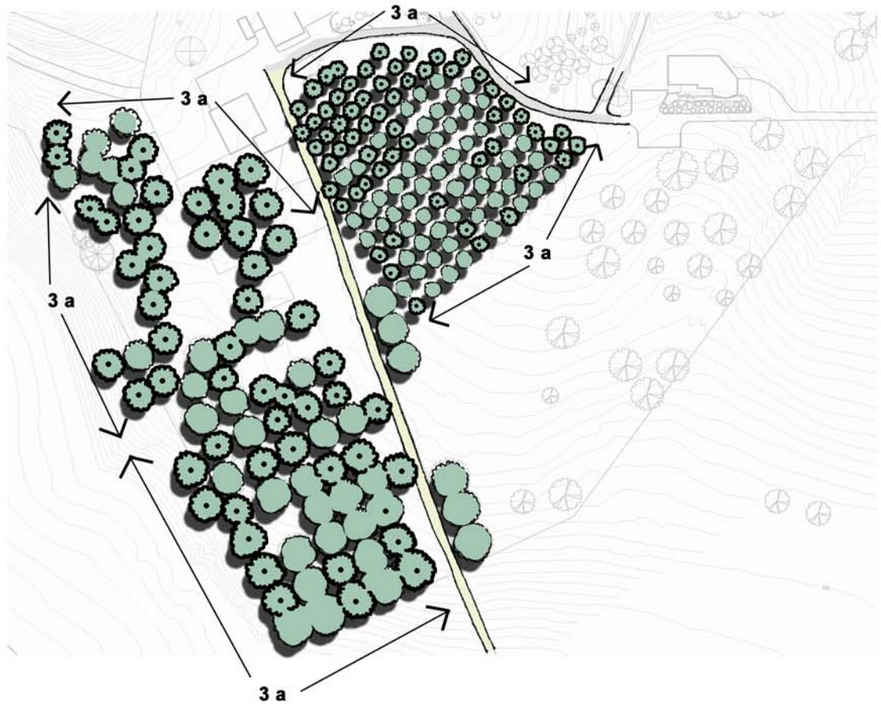
EXISTING CONDITIONS

RETAIN

1. Retain the fire road

REMOVE

2 a. Remove non-contributing walnut trees



TREATMENT GUIDELINES

RESTORE

3 a. Re-establish 103 walnut trees in historic locations

0 10' 20' 40'
Approximate scale in feet

Notes:

All LCS listed structures to be retained.

All treament recommendations are cross-referenced in the CLR part 2 under "Walnut Orchard."

Treatment recommendations call for the preservation of historic features; the restoration of landscape features that are non-extant; and the removal of non-historic features.

Additional field checking completed by the Columbia Cascades Support Office and the Pacific Great Basin Support Office in 2003.

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Legend

- Walnut trees
- Fire road
- Existing vegetation to be retained
- Proposed plantings

Fruit Orchard on the North Side of the Tao House

1. Retain historic features including the walkway to the potting shed and the brick walkway on the north side of the Tao House (see Existing Conditions map).

a) Retain the walkway to the potting shed and incinerator. (Note, though, that a lack of historic photo documentation exists to verify the historic surface material.)

b) Retain the historic brick walkway that connects the turnaround with the kitchen door.

2. Retain historic vegetation (see Existing Condition map).

a) Retain the plum tree (*Prunus cerasifera 'Atropurpurea'*).

b) Retain two redwood trees (*Sequoia sempervirens*).

c) Retain two Prunus sp. trees.

d) Retain one northern California black walnut (*Juglans hindsii*).

3. Retain *Prunus sp*. trees and extent of the orchard (see the Existing Conditions map).

4. Retain nonhistoric features, including the brick walkway, patio, the patio shelter, and the *Myrtus communis* hedge (see the Existing Conditions map).

a) Today, the brick patio is used by the NPS as a staging area for park visitors after tours, or as a gathering area for park personnel. Because the brick patio, established after the historic period, is compatible with the historic brick walkway—and useful for the NPS—it is recommended that this feature remain.

b) Retain the patio shelter. This covered space is very useful to the park as a gathering space for park for tour groups.

c) Retain the *Myrtus communis* hedge which functions to screen the non-contributing patio from the turnaround.

5. Remove non-contributing vegetation (see list below).

a) Remove one non-historic English walnut (*Juglans regia*).

b) Remove one *Prunus sp.* tree.

c) Remove one valley oak tree (*Quercus lobata*).

d) Remove four viburnum (*Viburnum suspensum*).

e) Remove one firethorn (*Pyracantha coccinea*).

f) Remove or relocate 3 red-hot poker (*Kniphofia uvaria*).

g) Remove the rosemary (*Rosmarinus officinalis*) from the north side of the brick patio.

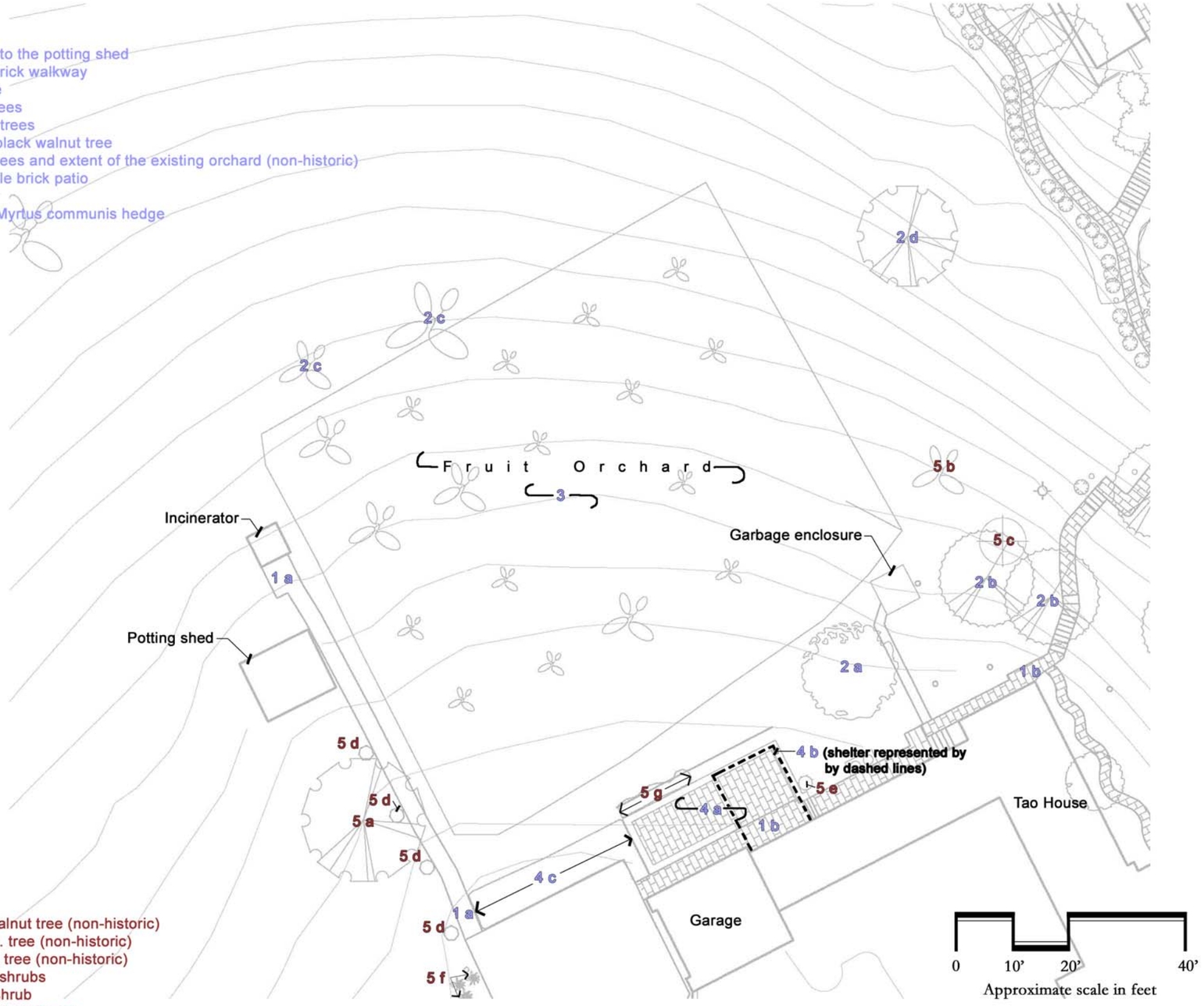
6. Re-establish vegetation in historic locations.

a) Re-establish the chinaberry tree (*Melia azedarach*) in the planting bed to the north of the turnaround (Figure 15).

b) Establish three Prunus sp. trees in the fruit orchard (Figure 34.5). There is limited photographic documentation of the north side of the Tao House that dates to the period of significance. As a result, it can not be determined where trees should be specifically planted. In general, however, consider planting all fruit trees in the existing grid pattern.

RETAIN

1 a. Retain the walkway to the potting shed
1 b. Retain the histoirc brick walkway
2 a. Retain the plum tree
2 b. Retain 2 redwood trees
2 c. Retain 2 prunus sp. trees
2 d. Retain 1 California black walnut tree
3. Retain Prunus sp. trees and extent of the existing orchard (non-historic)
4 a. Retain the compatible brick patio
4 b. Retain patio shelter
4 c. Retain non-historic Myrtus communis hedge



REMOVE

5 a. Remove 1 English walnut tree (non-historic)
5 b. Remove 1 prunus sp. tree (non-historic)
5 c. Remove 1 valley oak tree (non-historic)
5 d. Remove 4 viburnum shrubs
5 e. Remvoe 1 firethorn shrub
5 f. Remove 3 red-hot poker shrubs
5 g. Remove rosemary planting

EXISTING CONDITIONS with TREATMENT GUIDELINES for the FRUIT ORCHARD and the NORTH SIDE of the TAO HOUSE

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Eugene O'Neill National Historic Site
National Park Service
Danville, California

Produced by
Pacific West Region Cultural Landscape Program
National Park Service
Seattle, Washington

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Notes:

All LCS listed structures to be retained.

All treament recommendations are cross-referenced in the CLR part 2 under "Fruit Orchard/North Side of the Tao House."

Treatment recommendations call for the preservation of historic features; the restoration of landscape features that are non-extant; and the removal of non-historic features.

Additional field checking completed by the Columbia Cascades Support Office and the Pacific Great Basin Support Office in 2003.

Information presented in this plan is derived from Autocad maps produced in *The Tao House Exterior Landscape: Historic Landscape Study*, 2002 by De Martini.

Plan drawn using Autocad 2002 and Adobe Photoshop 7 by Michael J.Hankinson, NPS

Legend

Grey lines represent existing conditions.

RESTORATION PLAN
FRUIT ORCHARD and the NORTH SIDE of the TAO HOUSE

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Danville, California

Produced by
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Notes:

All LCS listed structures to be retained.

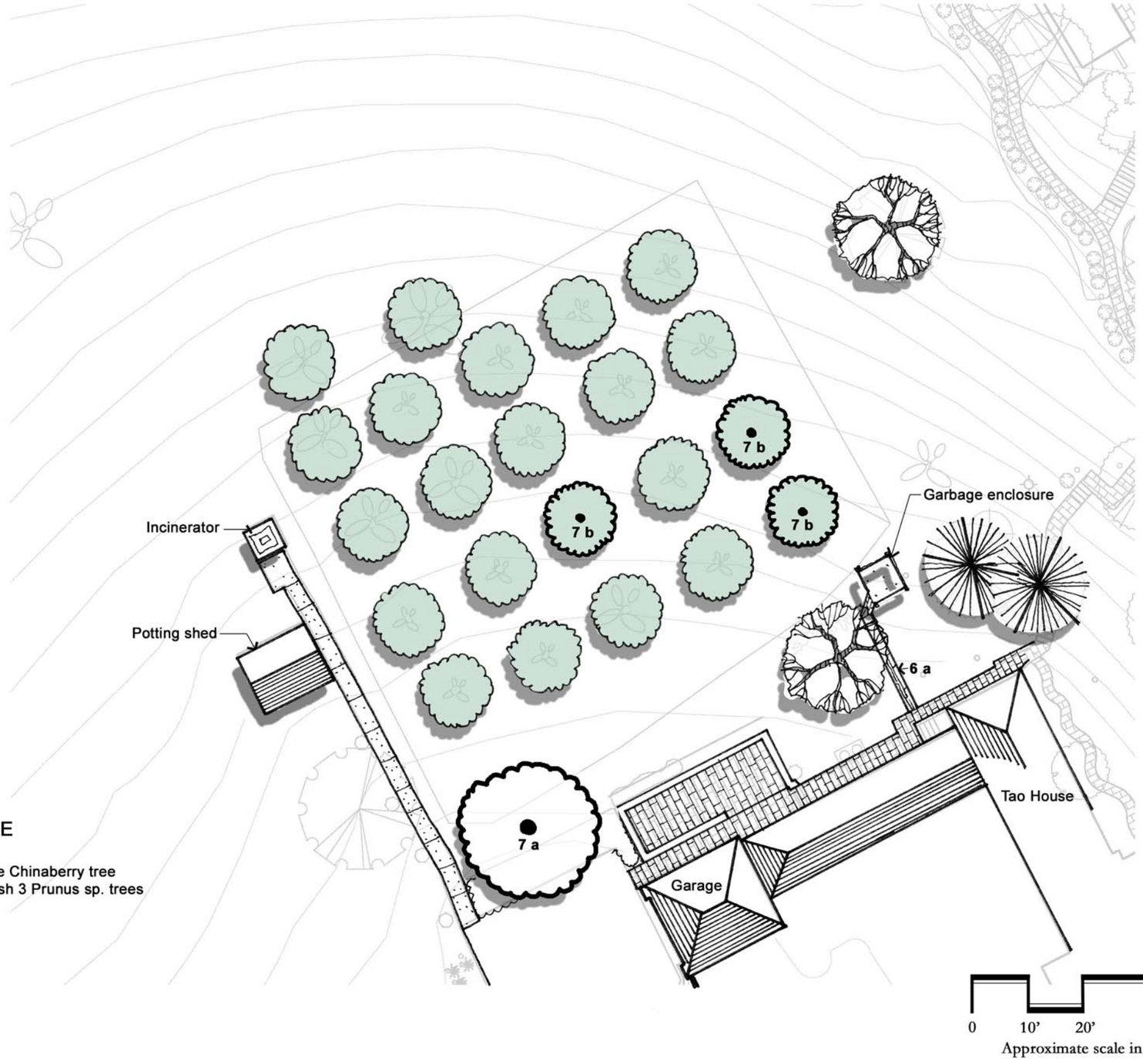
All treament recommendations are cross-referenced in the CLR part 2 under "Fruit Orchard/North Side of the Tao House."

Treatment recommendations call for the preservation of historic features; the restoration of landscape features that are non-extant; and the removal of non-historic features.

Additional field checking completed by the Columbia Cascades Support Office and the Pacific Great Basin Support Office in 2003.

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Plan drawn using Autocad 2002 and Adobe Photoshop 7 by Michael J.Hankinson, NPS



RESTORE

6 a. Restore Chinaberry tree
6 b. Establish 3 Prunus sp. trees

Legend

Black lines represent treatment recommendations that call for the preservation or restoration of features.

Grey lines represent existing conditions.

Existing vegetation to be retained.

Proposed plantings

Open Fields

1. Retain the open character of the fields.

a) Retain the open, pastoral character of the fields by maintaining the current practice of annual grazing.

b) Reestablish the historic extent of the open fields. Do not replace the walnut trees planted by the Carlsons after the historic period.

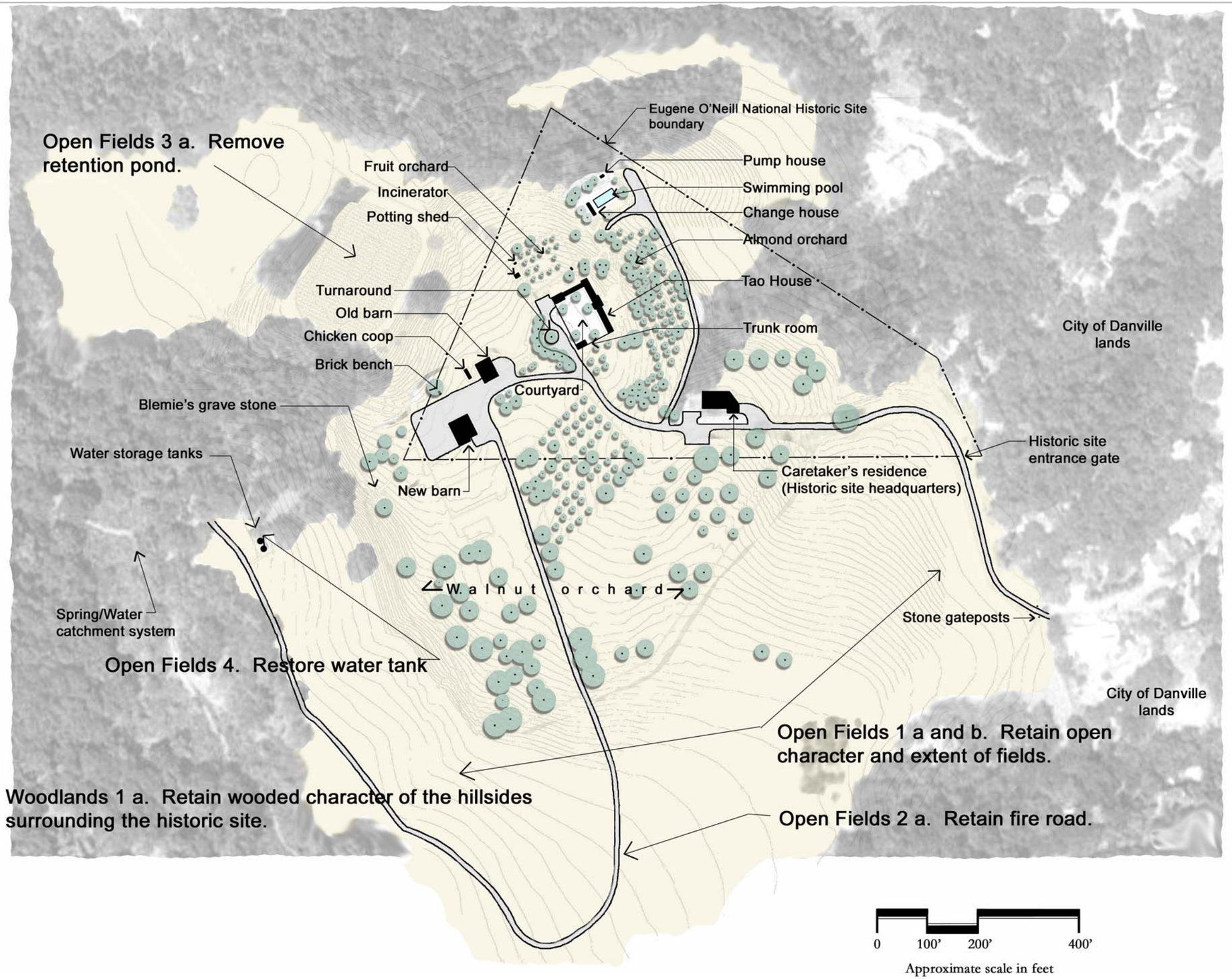
2. Retain historic features, including the fire road, water storage tanks, and the water catchment system. Maintain the rural character of the fire road as an unpaved, narrow road.

3 a. Remove non-historic features including the retention pond. The retention pond was constructed in a naturally wet area after the historic period by the Carlsons, who used the water to support their cattle operation. Consider removing the retention pond. The pond has never been useful to the NPS in operating the historic site; however, the regional park may need the pond because cattle graze in the general area throughout the year.

4. Restore the missing water storage tank.

Woodlands

1 a. Retain the wooded character of the hillsides surrounding the historic site. The wooded Las Trampas hills characterize the Tao House setting as a remote place. Retain the wooded character of the surrounding hillsides by preserving the trees in this area. If the trees in the surrounding hillsides are lost due to natural causes, consider reestablishing them to maintain the historic setting.



OPEN FIELDS AND WOODLANDS

October 2003

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Notes:

Additional field checking completed by the Columbia Cascades Support Office and the Pacific Great Basin Support Office in 2003.

Information presented in this plan is derived from Autocad maps produced in *The Tao House Exterior Landscape: Historic Landscape Study*, 2002 by De Martini, and from historic photographs and air photos.

Plan drawn using Autocad 2002 and Adobe Photoshop 7 by Michael J.Hankinson, NPS

Legend

- Orchards/Designed Landscape Vegetation
- Open Fields
- Woodlands
- Historic Site boundary

Bibliography

Graphics, maps and photographs:

Aerial photographs on file. Eugene O'Neill National Historic Site. Archive room cabinet H, drawer H-7. 1939, 1940 from the Contra Costa County Historical Society, Martinez, California; 1952, 1966, 1976, 1986, 1990, and 1999 from Pacific Aerial Surveys, Oakland California, (510)632-2020, Contact : Dave Ruiz.

Coffey Survey. June 1937. JW Wilson & Company Inc. Engrs. Survey #2624 for Mr. Ralph Coffey. Original mylar on file, Eugene O'Neill National Historic Site, archive room cabinet H, drawer H-2.

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Appendix A

Plant lists

Courtyard Restoration

Trees

Washington hawthorn	(*Crataegus phaenopyrum*)	Flanks the entry
Walnut	(*Juglans regia*)	Upper terrace
Chinese Flame Tree	(*Koelreuteria bipinnata*)	Lower terrace
Evergreen magnolia	(*Magnolia grandiflora*)	Lower terrace
Purple leaf plum	(*Prunus 'Atropurpurea'*)	Lower terrace
Flowering cherry	(*Prunus subhirtello 'Pendula'*)	Upper terrace
Black locust	(*Robinia pseuduacacia*)	Upper terrace

Shrubs

Boxwood	(*Buxus microphylla japonica*)	Upper terrace
Camellia	(*Camellia japonica*)	Upper terrace
Hebe	(*Hebe buxifolia*)	
Hydrangea	(*Hydrangea macrophylla*)	Upper terrace
Wax Leaf Privet	(*Ligustrum ovalifolium*)	
Yew pine	(*Podocarpus microphylla*)	Planter
Azalea	(*Rhododendron spp*.)	Planter
Arborvitae	(*Thuja occidentalis*)	Planter
Oleander	(*Nerium spp*.)	Lower terrace

Vines

Creeping fig	(*Ficus pumila*)	Courtyard wall
Star jasmine	(*Trachelospermum spp*.)	Courtyard wall
Wisteria	(*Wisteria sinensis*)	Balcony posts

Rock Garden

Aeonium	(*Aeonium arboretum*)
Bergenia	(*Bergenia crassifolia*)
Dichondra	(*Dichondra micrantha*)
Poor man's rhododendron	(*Impatiens sodenii*)
Pfitzer juniper	(*Juniperus c. 'pfitzeriana'*)
Western sword fern	(*Polystichum munitum*)
Bird of paradise	(*Strelitzia reginae*)

Turnaround

Contributing

California sycamores (*Platanus racemosa*); California bay (*Umbellularia californica*); ironbark eucalyptus (*Eucalyptus sideroxylon*); mock orange (*Pittosporum tobira*); and Northern California black walnut trees (*Juglans californica*)

Non-contributing

valley oak (*Quercus lobata*); lilac tree (*Syringa vulgaris*); firethorn (*Pyracantha coccinea*); viburnum (*Viburnum suspensum*); oleander (*Nerium oleander*); Pfiter juniper (*Juniperus chinensis 'Pfitzeriana'*); lilies (*Lilium spp*.); yellow star thistle (*Sonchus spp*.)

South Side of the Tao House

Contributing
Coast live oak (*Quercus agrifolia*); purple-leaf plum (*Prunus c 'Atropurpurea'*); creeping fig vines (*Ficus pumila*)

Non-contributing
Citrus trees (*Citrus spp*.); glossy privet trees (*Ligustrum lucidum*); oleander (*Nerium oleander*); lilies (*Lilium spp*.); lippia

Swimming Pool

Contributing

Casuarina (Casuarina stricta); Cotoneaster (*Cotoneaster franchetii*) and dwarf cypresses (*Cupressus spp*.)

Non-contributing
Canary Island pine (Pinus Canariensis) This tree, although historic, no longer contributes to the historic scene because it no longer serves as a privacy screen—a design intent of O'Neill's; Coast live oak (*Quercus agrifolia*); Oleander (*Nerium oleander*); Pfitzer juniper (*Juniperus chinensis 'pfitzeriana'*); Viburnum (*Viburnum suspensum*) California bay (Umbellularia californica)

East side of the Tao House

Contributing
Walnut (*Juglans regia*); Redwood (*Sequoia sempervirens*); and Strawberry Tree (*arbutus unedo*); Privet (*Ligustrum ovalifolium*); Heavenly Bamboo (*Nandina domestica*)

Non-contributing
Oleander (*Nerium oleander*); creeping fig vines (*Ficus pumila*)

Walnut Orchard

Contributing
Northern California Black Walnut trees (*Juglans hindsii*)

Non-contributing

English walnut trees (*Juglans regia*) compatible with the historic scene
Northern California Black Walnut trees (*Juglans hindsii*). These were planted after the historic period and expanded the walnut orchard. Russian olive (*Elaegnus angustifolia*); Italian cypress (*Cupressus sempervirens*); incense cedar (*Calocedrus decurrens*); pine (*Pinus spp*.)

Almond Orchard

Contributing
Almond (*Prunus dulcis*)

Non-contributing
Valley oak (*Quercus lobata*); coast live oak (*Quercus agrifolia*); black walnut tree (*Juglans regia*); Coyote brush (*Baccharis pilularis*)

Open Fields

Non-contributing vegetation:
Yellow star thistle (Sonchus spp.); blackberry (Rubus spp.); bush monkeyflower (Mimulus aurantiacus); poison oak (Toxicodendron diversilobum); California sagebrush (*Artemisia californica*), cream bush (*Holodiscus discolor*) and California coffeeberry (*Rhamnus californicus*)

Appendix B

Implementation Strategy
Restoration of the Cultural Landscape
Eugene O'Neill National Historic Site

Introduction

The following implementation strategy outlines elements from the Cultural Landscape Report: Eugene O'Neill National Historic Site, Part 2 (Treatment) which can be phased over time based on park operations, management objectives, funding, and partnership opportunities. While the primary treatment for the designed landscape at the Tao House as defined in the General Management Plan and in this report is restoration of the historic ground, several aspects of the treatment plan require additional actions prior to full implementation. Primary among these actions is the need to protect newly planted vegetation from the deer population. Historically the O'Neills established a deer fence around the property for the same reasons. The deer fence was approximately 7-feet in height, erected with dimensional lumber post and rails, and enclosed with a thin-gage wire mesh.

Although full restoration of the landscape is predicated on the need to re-establish a deer fence, implementation of several treatment recommendations is possible without a fence.

The following strategies for implementation outline those actions as well as the phasing for full restoration when and if a fence is erected to protect the outlying areas from damage by deer. The implementation strategy is organized by management zone as defined in the CLR. For each area, treatment actions defined in Part 2 of the CLR are grouped under two headings; those actions that can occur without a fence being built, and those actions that require the fence to be constructed. All actions in the implementation strategy are tied to specific recommendations in the CLR and are cross-referenced to maps and annotated photographs illustrating the detail and location for each action. In general, all preservation and removal actions described in the CLR Part 2 can be accomplished with or without a deer fence.

Management Zone: *Tao House Designed Landscape*

Courtyard
All actions can be accomplished without restoring the historic deer fence.

Kuss Road, Turnaround, and Courtyard Entry
Actions that can be accomplished without construction of a deer fence:

- Kuss Road: 3 a. Re-establish allee of English walnut trees (temporary fence will be required until trees mature).
- Turnaround: 10 a. through 10 d. Move vegetation to historic locations.

- Turnaround: 12 a. Re-establish the scale and proportion of the valley oak and sycamore trees.
- Turnaround: 13 a. Site the old wagon in historic location.
- Turnaround: 14 a. Restore wood planked road and walkway.

Actions that require a deer fence or deer protection (chemicals or cages):

- Turnaround 11 a. through 11 d. Re-establish vegetation in the turnaround circle.
- Courtyard Entry 16 a. through 16 c. Re-establish missing vegetation along courtyard entry.

South Side of the Tao House

Actions that do not require an historic deer fence:

- South 6 a. Construct French drain system.

Actions that require historic deer fence:

- South 5 a. through 5 h. Re-establish missing vegetation including trees, shrubs, and ground covers.

East Side of the Tao House

Actions that do require historic deer fence:

- 2 c. Retain and restore privet hedge along the brick terrace.
- 4 a. through 4 o. Re-establish missing vegetation in historic locations.

Swimming Pool

All actions do not require historic deer fence:

Management Zone: *Barn Working Area*

All actions do not require the construction of a deer fence.

Management Zone: *Orchards*

All actions do not require construction of a deer fence except when restoring trees. Saplings will require temporary fencing for protection

Management Zone: *Open Fields*

All actions can be accomplished without restoring the historic deer fence.

Appendix C

The following diary entries by Carlotta and Eugene O'Neill specifically pertain to the Tao House landscape and are presented in chronological order.

Quotations

"*Two days ago we waded through the mud out to his [Blemie's] grave beneath the pines at the foot of the hill to place a Christmas wreath on it."* Letter to Sophus Winther, Dec. 26th 1942, p. 539.
(Bogard, T. and Jackson.R. Bryer eds. 1988. Selected letters of Eugene O'Neill. New Haven: Yale University Press.)

"God if you only knew how I long to get back to and in the sea. One thing our ranch in the San Ramon Valley taught me was that no matter how beautiful the hills and woods and meadows, and a valley of orchards with fertile earth, I can admire it objectively but not in any deep spiritual sense. I don't belong. I am not it and it is not me. Beach grass is the only verdure I really understand, dunes are my hills, the beach-sun is my only sun and the sea is the symbol of the mystery of life to which I belong, and has been for me since I was a small boy." Letter to Elizabeth Shepley Sergeant, Dec. 4th 1944, p. 566.
(Bogard, T. and Jackson.R. Bryer eds. 1988. Selected letters of Eugene O'Neill. New Haven: Yale University Press.)

Diaries of Carlotta Monterey O'Neill, 1938-1943

(Copy on file, Eugene O'Neill National Historic Site, park office library.)

April 22, 1937	Gene and I both love the Bryant property – between Walnut Creek and Danville – about 2500 ft. (alt.) up on hills looking across the San Ramon Valley to Mt. Diablo! It is more than we wanted and more expensive! Beautiful views and lovely rolling hills.
July 1, 1937	All the newspapers have run a story about our buying this place – in the San Ramon Valley . . . Freeman making garden chaise-lounge!
July 9, 1937	Simpson arrives after luncheon. We drive to our "property" – settle on the best site for the house - .
August 23, 1937	Gene decides pool should be in ravine in front of house –
August 27, 1937	The Simpsons to luncheon – afterwards we discuss new house – swimming-pool, hand ball court (?), out-house, new road, water system, a patio!
Sep. 3, 1937	Go to Stanton Studios – order a garden chair, cover and foot rest for Gene –
Sep. 4, 1937	Go to Chinatown – get 2 more large pottery elephants for garden walk to pool!
Oct. 11, 1937	I go to San Francisco – find another elephant - & some pottery that will help the garden walk & pool.
Oct. 21, 1937	- the new road is really a boulevard! (It should have gold on it!) Hope it lasts!
Oct. 27, 1937	Go over to "Tao House," everything seems to be going on nicely- Walk up to water tanks – stiff walk – beautiful view –
Nov. 2, 1937	. . . Simpsons want to see me at Tao House. . .I go over <u>everything</u> with the Simpsons – marking what is <u>right</u> or <u>wrong</u>!
Nov. 4, 1937	The "tree surgeon" is there. We discuss how we can save some of the old trees in the patio and the orchard. –
Nov. 8, 1937	Gene and I go to Tao House – we walk to water tanks and springs –

Dec. 6, 1937	Gene goes with me to Tao House. He, Freeman and Blemie walk over the hills – which gives me time to go over the house –
Dec. 7, 1937	Go over to Tao House with Sandkuhle of the Sunset Nursery to discuss and select trees and shrubs for patio, entrance court, outside gardens and swimming pool area.
Dec. 8, 1937	Later, Miss Kuss calls, and leaves a coloured picture of an adobe house (very simple) that years back stood on the spot where Tao House now stands! When this was all an old Spanish "grant" - .
Jan 4, 1938	Tell Carl what to do…putting the board walks all about until we can get to laying the brick walks.
Jan.. 9, 1938	- after luncheon Gene and I take a walk around the grounds – (<u>not</u> around our 158 acres!) – to the water tanks, etc. –
Jan. 12, 1938	They have commenced building an incinerator—concrete.
Feb. 9, 1938	One of the worst (!) storms to ever hit California has come in directly from the Pacific…The Umbrella trees in the patio broken to pieces.
Feb. 23, 1938	Men at work on bath house—and front terrace, etc.
Feb. 24, 1938	Gravel put on road. We wake to find 7 cows in our front garden—and from then on the day is filled with discussions of fences, boundary lines, cattle guards, etc.
Feb. 27, 1938	Editor of country paper arrives to ask about <u>mountain lion</u> on our place!!
March 2, 1938	Sandkukle comes up to see about gardeners and planting.
March 3, 1938	Gene takes a long walk – goes around the fences area to see just what is necessary in the way of fencing for protection against animals, etc. –
March 8, 1938	Surveyors at work on wire fence. Old barn being cleaned out.
March 9, 1938	Sandkukle going over garden lay-out with me. Brings Donald McCray to work in garden.
March 15, 1938	Eleanor brings me a garden book.
March 20, 1938	- and Gene takes me on two walks – in the Canyons – They are quite lovely –
March 30, 1938	Paul working down on the road – Miss Kuss driving him mad! Digging new culvert – 36" deep.
March 31, 1938	McCray and Paul at work in patio and gardens—After luncheon Gene and I help Freeman and Geo, pile bricks!!
April 2, 1938	Again—4 men working—1, grading, 2 garden…
April 5, 1938	McCray working in garden and men in filter house--
April 6, 1938	Beautiful day—6 men working today. Dukie photographs fields, wild flowers, etc. – with his movie camera –
April 8, 1938	Men working in patio awnings, grading and filter house at pool.
April 13, 1938	Warmer day—swimming pool almost finished—paths being put in on all sides. Sandkukle sends up motor cultivator—it frightens all the birds away…Men putting in south boundary fence.
April 15, 1938	Cameron finishes grading at the pool—all working at walks—it will be an endless job—McCray plants 3 birches in patio and 5 wisteria.
April 16, 1938	Swimming pool is finished—can be filled next week
April 17, 1938	Receive azaleas from Felton—and beautiful rhododendrums [sic] from Paralee…
April 19, 1938	Porch furniture arrives
April 20, 1938	…Final touches to swimming pool-and start water running!! Hurrah for Genie!
April 21, 1938	We find water <u>not</u> filling <u>tanks</u> as we expected____!?
April 22, 1938	Mother, Cymo and Polly come to lunch. And, afterwards sit on upper porch watching men put in lawn____(Bent—Seaside)

April 23, 1938	Kuhlman turns up after luncheon and talks with Gene about water supply__
April 25, 1938	Sandkukle brings up plants, shrubs, and trees for in front of house__Cameron plowing—Paul cleaning at the side of house where fence is going up
April 26, 1938	Parallee and I to go to nurseries to see and search for floweres for planting.
April 27, 1938	Outside getting a bit more cleared each day—Can't do much more spring planting—will furnish in the Fall.
May 1, 1938	The grass is beginning to show in the patio. The clover and oats are up around the swimming pool--Take Blemie for a walk to the water tanks –
May 2, 1938	Kamlin here talking fences with Gene –
May 3, 1938	After luncheon Gene and I work in the garden…Kuklman arrives and goes over water supply with Gene. Suggessts a dam to make lake below waterfall !!!! ($$$)
May 4, 1938	Sun and breeze—Sandkukle sends up plants—Cameron comes to talk about cutting—our hay—and suggests planting a walnut orchard!!
May 5, 1938	Ralph comes in afterwards – they discuss "walnut grove" – (oh, "No" – please!)
May 7, 1938	Attend to outside work—watching what is being done!
May 11, 1938	Plant 10 redwoods as a screen by pool (I wonder who will benefit by all this planting—expense and yearning to have things lovely for my beloved Gene?!) Plant hawthorne [sic], star jasmine (which Gene loves!) plumbago and groups of ferns.
May 12, 1938	Gene swims in his new pool for the first time—
May 13, 1938	Go to San Francisco, early to Chinatown to buy clay receptacles for cigarette ends for porches, the terraces, and the pool.
May 16, 1938	Kukleman [sic] here after luncheon and Gene walks up to the springs with him—Water all right—but not as pure as springwater should be!!!?
May 17, 1938	Hay all cut and piled – Gene talks with Cameron about our hills that are too steep to be ploughed and is worried about our having so much land! Sandkukle brings plants for rock garden in corner of patio—and move shrubs
May 18, 1938	Picking and throwing out rocks for the rock garden
May 20, 1938	Go to buy white table and chair for patio porch
May 21, 1938	Sun—a lovely day—In the morning attend to the garden orders—re lawn—pipes at springs, --filled with root fiber, when this is cleaned out, the water pouring down the hillsides—thousands of gallons wasting daily
May 23, 1938	…I go over house and garden orders…
May 25, 1938	Parallee phones and sends me lovely Lady Banksia roses – I love them!
June 3, 1938	After dinner we walk the dogs down to the gate -.
June 4, 1938	Harry Lee comes over to see about the spring and his car gets stuck in the "spring" road!
June 11, 1938	Freeman working well and arranging tomato patch –…talk with McCray about putting more lawns in patio---…
June 14, 1938	We plant grass in 2 more beds in patio.
June 17, 1938	After luncheon talk to Smith about road. All patching finished__gravel oiling and rolling begins Monday.
June 19, 1938	After tea we walk 'round the upper orchard—Freeman planting tomatoes all day!
June 20, 1938	Some animal eating all the plants we have put on our rock wall.

June 22, 1938	"Roller" breaks down so work on road stops. Dukie takes photographs--. We have coffee—I water the front garden.
June 25, 1938	Men, finish work on road--. Water front garden.
June 28, 1938	Water the garden. Gene takes Blemie for a walk to the water tanks –
June 29, 1938	Water the garden.
July 2, 1938	Gene . . . takes Blemie for a walk up to the springs!
July 3, 1938	A warmer day—but wind brisk enough to break all my lovely white petunias, by the entrance gate!
July 6, 1938	. . . and discuss "gates" (in fences) with Cameron – (All really unnecessary, but as I am looked upon as not too bright (!) I must at least discuss it –
July 8, 1938	Lead "sea-horse", fountain --feeder arrives--for bird bath in patio. His is quite nice--Freeman kills large rattlesnake when on a walk with Blemie!
July 9, 1938	Gene . . . – talks with Sandkuhle Jr. about taking over some of our land for growing purposes – not purchase.
July 10, 1938	walk to gate
July 13, 1938	walk to tanks
July 18, 1938	We begin work on the patio gold-fish pool.
July 19, 1938	Water the gardens after dinner.
July 23, 1938	Water the garden.
July 29, 1938	Buy porch table and flower stand from Soong. We find black worms in the earth causing the ruin of part of our lawns and our weeping elms! Grasshoppers eating our clover!
Aug. 2, 1938	We have cherry on the terrace—and after dinner set in the patio—Lovely there
Aug. 6, 1938	Ralph calls to see about the Sandkuhle contract – Dukie shows us some of his movies –
Aug. 13, 1938	McCray brings Beta Beta to kill the worms in the lawn.
Aug. 22, 1938	Wayne comes to look at umbrella tree. We hope to save it—
Aug. 23, 1938	Kuhlman lunches…and he Gene walk up to the springs to see about the problem of roots growing into the pipes! Naturally the water attracts them.
Aug. 25, 1938	Bring home a charming very small Japanese cypress!
Aug. 27, 1938	Gene works—Planting box hedge—beside pool—Lawsoniana cypresses and while stocks—
Sept. 3, 1938	We go to see the chicken house Freeman has built—
Sept. 7, 1938	After lunch work on my miniature Japanese garden.
Sep. 11, 1938	Young Sandkuhle comes up to get contracts –
Sept. 27, 1938	Go to Sunset nursery to see about plants
Oct. 3, 1938	Young Sandkuhle brings me contract – we talk about what is to be done –
Oct. 11, 1938	Young Sandkuhle comes up to tell me six large sacks of walnuts have been stolen!
Oct. 13, 1938	Paul has finished the walk at the pool
Oct. 14, 1938	Wooden walk being made from road to barn….Freeman finishing chicken house
Oct. 18, 1938	Wayne transplants 2 oaks from the hills.

Oct. 19, 1938	Arranging work at gate entrance—and in patio and garden.
Oct. 20, 1938	Lovely oak moved down from the hills.
Oct. 26, 1938	Another Bay tree planted. Crocus bulbs planted—Arrange pinks in the Japanese fashion--…Then Gene and I walk down to the Gate—Paul has put up the grey stone posts---simple and country like!
Oct. 27, 1938	walk to gates and springs. The last Bay trtee put in on the south side of the house.
Oct. 28, 1938	Stone pillars finished at Gate…I pick up walnuts after luncheon. Order 100 white hyacinth bulbs
Nov. 2, 1938	– over fields to tanks
Nov. 3, 1938	Men are still working on the road.
Nov. 4, 1938	…make "notes" to give McCray for outside plantings—At last! Men finish road work—Cameron finishes Gate!
Nov. 7, 1938	We take a walk to the knoll –
Nov. 8, 1938	After luncheon he [Gene] paints the walk to the filter house from the pool!!
Nov. 20, 1938	Sandkuhle Jr. and Hall arrive with tractor and cultivator and go chugging through the fields –
Nov. 21, 1938	Home to find Sandkuhle Jr. – burning grass on our hills! It spreads and spreads! by dark 5:30 it looks like hell let loose – fire department arrives – (I am terrified!) When fire dept. learn Sand has ploughed "fire lanes" they return to Danville – By 9 P.M. only one flame left – must be a tree stump burning!
Nov. 25, 1938	We have a "clean-up" all around old barn and chicken house
Nov. 26, 1938	See to outside work—Paul finishes brick seat and leaves, he has been on this job for 16 months.
Nov. 27, 1938	After luncheon we go out to watch the "firing" – some of the branches from the pines catch fire – quite a job to put them out. Sandkukle Jr. comes over and burns off grass in far pasture—and in orchard field.
Dec. 10, 1938	After luncheon Gene and I work in the patio. Trim all the wisteria [sic] and renail it—in open form to posts.
Dec. 11, 1938	Sandkuhle Jr. ploughing.
Dec. 13, 1938	They have finished all the ploughing
Dec. 14, 1938	Man comes from Basalt Co., to fill up cracks in bricks—so storms can not push water through
Dec. 16, 1938	Freeman has asked permission to make vegetable garden—
Dec. 21, 1938	Privet planted on the front terrace
Jan. 3, 1939	McAmie comes to talk with Gene about tree for the patio—and settles for a magnolia—(75.00) and I order a ginko [sic]
Jan. 7, 1939	Arrange places for new garden plantings.
Jan.. 16, 1939	Gardeners clearing, 'round pool—preparing for plantings.
Jan. 17, 1939	I go about seeing what is really being done in the gardens
Feb. 14, 1939	Fussing around all A.M. in the gardens—Pruning small trees
Feb. 16, 1939	Some of our fruit trees are bursting into blossom—
Feb. 24, 1939	Garden so lovely—
Mar. 5, 1939	Mother comes to tea—give her eggs and flowers to take home.
Mar. 15, 1939	Gene…works in the garden
Mar. 16, 1939	We sit in patio and read after luncheon—

Mar. 18, 1939	Work in garden…pumping water out of swimming pool and using it for garden
Mar. 21, 1939	I…work in garden after lunch—
Mar. 22, 1939	Go to nursery to select plants for outside patio wall. Gene loves sweet climbing jasmine—so buy a lot for the concrete walls and house--…We read bit then work in the garden with fire hose emptying pool.
Mar. 23, 1939	Ralphs calls and goes over road with Gene—Arrange flower beds…
Mar. 24, 1939	…look up Joe Silva for gardening.
Mar. 27, 1939	…Gene and I work in the garden—
Mar. 28, 1939	…after luncheon work in the garden—Gene joins me –after tea—and works until dinner—We are pruning and weeding—
Mar. 29, 1939	…After luncheon I work in the garden—Gene rests and joins me after tea. Yasuo doing good work in the garden—Japanese can do anything!
Mar. 31, 1939	After luncheon we work in the garden.
April 1, 1939	…Gene…works in the garden with me—
April 3, 1939	Talk with Yasuo re spending more time in kitchen and less in garden—
April 5, 1939	Water the patio
April 6, 1939	Water the patio
April 7, 1939	Work a bit in the garden—Plan lippia on the terrace…Gene…works in the garden
April 8, 1939	I…arrange potted flowers for the patio. Luncheon-work in the patio all afternoon—Gene and I tie up poplar
April 10, 1939	Gene working in garden all afternoon.
April 11, 1939	Luncheon, then we work in garden
April 14, 1939	Gene and I work all afternoon in the garden…Gene prunes 2 walnut trees in the field! It is his sense of symmetry that makes him do things like that.
April 16, 1939	I work in garden…
April 18, 1939	Work in garden before and after luncheon
April 19, 1939	Work in garden all day…Gene…comes in garden and works with me.
April 20, 1939	Gardener doesn't turn up so I water the patio—
April 22, 1939	Roberts burning the grass back from the water tanks. We find huge gopher snake in the patio…work in garden
April 23, 1939	Gene works in garden
April 26, 1939	Work in garden all afternoon
April 27, 1939	Gene…works with me in the garden
April 28, 1939	Wayne calls to look at the trees.
April 29, 1939	Gene and I work in garden. Roberts still working at burning the dry grass –
May 1, 1939	Gene works until nearly 3 p.m.—Then works in garden. Gene trims the hedge.
May 2, 1939	Gene works…until 3 P.M., then comes out in the garden and works with me
May 6, 1939	I work in the garden

May 7, 1939	Afternoon in the garden
May 8, 1939	Roberts sprays trees.
May 14, 1939	…After luncheon—then we go to the patio and plant some water lilies in the pond.
May 16, 1939	Work in garden
May 19, 1939	…Gene…working at lippia around his swimming pool.
May 20, 1939	We work in garden—Gene cutting lippia until he is exhausted.
May 23, 1939	Luncheon—we work in garden—tea—more work in the garden
May 24, 1939	Work in garden after luncheon—Gene has his first swim—then continues to work in garden
May 25, 1939	Mr_____brings me photographs of Tao House—These are dreadful because they were done before the landscaping was done.
May 26, 1939	I water the patio
May 27, 1939	Gene…works in garden around the pool
May 31, 1939	After luncheon he works in the garden all afternoon
June 3, 1939	Freeman and I work in patio all afternoon
June 6, 1939	Gene works—swims and works in garden!
June 7, 1939	After his lunch Gene swims and works in garden—Freeman busy with chickens and fish pond.
June 9, 1939	I…fuss about in the garden
June 10, 1939	Gene and I work hard all day--…and in the garden—
June 11, 1939	Herman making "fire lanes" through the dried grass with the tractor –
June 12, 1939	Gene…works in garden…
June 16, 1939	We rest a bit after luncheon and then work in the patio
June 17, 1939	Gene…works in garden…
June 18, 1939	Gene…works in garden
June 21, 1939	Later…Gene prunes the hedge
June 22, 1939	Work in garden after tea
June 24, 1939	I work in garden all afternoon
June 25, 1939	We work in the garden
June 26, 1939	Gene swims and works in the garden
June 27, 1939	Gene…works at the plantings around the pool
June 30, 1939	Work after [lunch] in the garden, with Gene
July 1, 1939	Chinese elm and acacia blown over
July 2, 1939	Prunes hedge—
July 3, 1939	Our lack of water is ruining our garden—must re-do patio…The Chinese elm is tearing itself to bits! We have to "Top" it.
July 4, 1939	Freeman gives patio a good watering
July 16, 1939	Freeman…and I go up to springs and find that water stream is very small. This means our garden must be sacrificed. Heartbreaking—we have worked so hard!

July 17, 1939	Water no better—give orders about usage in house and garden.
July 19, 1939	Our lovely garden drying up for want of water!
July 20, 1939	Garden drying up! We can only water with a pail!—I can't bear to see them dying when we tended them with such care and love.
July 23, 1939	We water plants in patio by hand—re water shortage
July 26, 1939	Harvesting going on - . Best crop in the valley Camp says!
July 29, 1939	We work in the garden
July 31, 1939	Gene works in garden
Aug. 1, 1939	See about 75 quail taking a morning walk just below my bedroom window . . .
Aug. 2, 1939	They start bailing hay!
Aug. 3, 1939	We are still watering plants by watering cans and praying for rain…Gene…fusses about in the garden—
Aug. 27, 1939	Gene…putters in the garden
Sept. 7, 1939	Gene…trims hedge
Sept. 11, 1939	A thunder and rain storm—about quarter to seven. It lasts just long enough to wash the dust from the trees and plants
Oct. 17, 1939	After dinner I tell Gene the stone patterns I would like in the patio and he draws the designs for me for the stone mason
Oct. 21, 1939	Water lawn—grass is coming up again in the patio with seeding and top soil.
Oct. 27, 1939	Gene and I walk with Blemie to South boundary of our land. Go over all gardens.
Nov. 15, 1939	After luncheon we work in garden until dusk—I bring Gene his tea <u>in</u> the patio
Nov. 16, 1939	After luncheon Gene works in the garden
Nov. 18, 1939	Gene works in the garden
Nov. 20, 1939	Gene works in garden
Nov. 23, 1939	We work in the garden
Nov. 26, 1939	Work in garden
Nov. 27, 1939	Work in garden
Dec. 20, 1939	Freeman works on the tree surgery until 10 p.m.
Dec. 29, 1939	Dad remembers me with wonderful flowers in pots for the patio
Jan. 10, 1940	Gene goes out <u>in the rain</u> and prunes wild lilac tree.
Feb. 5, 1940	After luncheon he (Gene) works in the garden
Feb. 11, 1940	After luncheon we walk through the patio around the house to the swimming pool.
Feb. 18, 1940	Gene prunes in the orchard
Feb. 21, 1940	Freeman and Roberts help me make a rock garden. They lift all the heavy rocks for me. Gene busy, also, in the garden.
Feb. 29, 1940	Gene works…and works in garden—Cutting his hedge
March 2, 1940	After luncheon Gene works in garden

March 5, 1940	Planting privet hedges in the patio—and at the swimming pool
March 6, 1940	We are busy planting—
March 7, 1940	Having more privet hedges planted—also sweet alyssum, begonias, and pansys
March 9, 1940	Gene works in garden
March 13, 1940	Gene works in garden
March 14, 1940	Garden work progressing…after luncheon Gene putters about in the garden.
March 19, 1940	After luncheon Gene works in the garden
March 20, 1940	Beautiful day—all the leaves and blossoms are unfolding what is lovelier than a garden in spring! Gene works all afternoon in the garden
March 21, 1940	After luncheon, Gene works in the garden
March 23, 1940	After luncheon we work in the garden
March 31, 1940	After luncheon Gene works in garden
April, 1, 1940	Men…spraying trees for caterpillars etc. –A lot of outside work going on. I am going over house accounts—and garden accounts! Mercy—how the outside bills do count up!
April 10, 1940	Gene rises about 10—sits down in the patio. He tacks vines to the patio wall and after luncheon cuts his hedge
April 11, 1940	Gene works in garden a bit <u>before</u> luncheon—and from after tea until dinner. I…work in the patio arranging potted plants.
April 16, 1940	Gene has been working in the garden
April 18, 1940	…after tea he (Gene) starts pruning his pet hedge
April 28, 1940	Herman is ploughing orchard and around incinerator –
May 8, 1940	Gene…cuts the hedge
May 29, 1940	Ralph look over grain and gets after Herman.
June 4, 1940	Herman plows “fire lanes” around the house –
June 7, 1940	Herman sends boys up to cut hay – they are hopeless. . . . to try to decide what is best to do -. Am dead against burning the hay – the fire spreads too quickly – it is too dangerous!
June 8, 1940	Herman has 2 boys here culling the wheat – and what a time they are having!
June 12, 1940	Men cutting hay –
June 23, 1940	Gene…cuts the hedge
July 7, 1940	Find my large tree fern almost dead from dryness! Freeman gives the patio a good soaking after some drought
July 11, 1940	Gene…cutting his hedges
July 25, 1940	Our lippia in terrible condition from not enough water –
July 27, 1940	Gene buys a tractor! <u>Why?</u>
July 29, 1940	After luncheon, Gene works in the garden. Parallee calls – brings me a very beautiful hanging basket of fuschia –
July 30, 1940	The lawn in patio starting to fall apart! (I have) man from nursery to come up! He shows us that the lawn hadn’t been raked enough before cutting—(it is packed with dead grass)—and cut worms are work at the roots

Aug. 2, 1940	Gene…works in the garden for a bit.
Aug. 5, 1940	Gene cuts hedges…
Aug. 8, 1940	Discover four large rattlesnakes have been killed close to house and pool!
Aug. 14, 1940	Gene…works in the garden
Aug. 15, 1940	Man comes to spray shrubs
Aug. 22, 1940	Beautiful day. Wysteria [sic] has beautiful blossoms some clusters 16" long and thick with bloom lavender and pale pink…Parallee sends us a beautiful deep blue hyacinth she had especially grown from me—Also a charming pot of lilies –of –the-valley and Forget-me-nots!
Aug. 27, 1940	I am very busy with house and garden plans
Aug. 28, 1940	Gene…works in garden
Aug. 29, 1940	Gene…works in garden
Sept. 5, 1940	Gene…works in garden
Sept. 12, 1940	Gene…works in garden
Sept. 14, 1940	Gene…works in garden
Sept. 18, 1940	Gene…works in garden
Sept. 19, 1940	Roberts and Freeman picking up the ripe walnuts
Sept. 25, 1940	Gene…works in garden
Sept. 26, 1940	Gene…works in garden
Sept. 28, 1940	Gene…works in garden
Oct. 3, 1940	Gene works at pruning and I in the rock-garden
Oct. 8, 1940	Gene…works in garden tacking up climbing fig and jasmine
Oct. 9, 1940	- Roberts burns south pasture – the wind brings all smoke our way-
Oct. 10, 1940	- Roberts burning grass away from water tanks –
Oct. 11, 1940	I type and sit out on the patio—and "sniff" the flowers!—A garden is such a lovely thing, especially to those who have created it! The birds love it too, and the large Italian birdbath I had put up for them.
Oct. 13, 1940	- Tonight I feel as if I were walking in a dream! (or a nightmare?) Down at the pool – a Persian garden – in the moonlight! Here more work and news of bombings . . . ! Which is real for us?!
Oct. 18, 1940	Gene - . . . – and trims cotoneasters. I put new potted flowers in the patio—mostly pale pink and white pelargoniums
Oct. 20, 1940	Gene works in garden
Oct. 21, 1940	After luncheon Gene works in garden
Oct 26, 1940	Gene works in garden. Fields are lovely after burning and rain.
Oct. 30, 1940	After luncheon…Gene…works in garden
Nov. 12, 1940	After luncheon Gene and I work with Freeman and the 2 gardener boys pruning the large oak and the large fig tree—in the circle
Nov. 13, 1940	We work in garden—another large limb cut from oak.
Nov. 14, 1940	After luncheon we work in garden. I twist my back pruning rose bushes!

Nov. 16, 1940	Gene works in garden
Nov. 18, 1940	After luncheon we sit out in the patio and try to throw off all the thoughts of plays and work and the past…
Nov. 24, 1940	Gene works in garden after luncheon
Nov. 26, 1940	Gene…works in garden
Nov. 28, 1940	Gene works in garden after luncheon—
Dec. 4, 1940	Gene works in garden for a short while after luncheon
Dec. 5, 1940	Roberts burning grass around springs –
Dec. 10, 1940	Gene…works a bit in the garden after luncheon. McCray arrives about 3 p.m. from the California Nursery to talk of walnut and almond trees we want to plant. Also, other garden plantings.
Dec. 11, 1940	Roberts and the gardener boys are transplanting privet and cotoneaster, etc.
Dec. 14, 1940	- He [Gene] walks with Roberts, back in the hills to the 'Jones' spring.
Dec. 17, 1940	We bury him [Blemie] on the side of the hill under the pines.
Jan. 7, 1941	Men come from California Nursery to look over ground…to see about planting almonds and walnuts.
Jan. 10, 1941	Gene prunes a few shrubs—we lunch in the patio and remain there until time for tea
Jan. 11, 1941	Gene putters around the garden and we have luncheon in the patio
Jan. 14, 1941	[Parallee] brings me my dwarf cedar form Podesta and Baldocchi's…Gene works in garden from 3-5
Jan. 21, 1941	Gene…goes out in that cold wet garden and tries to work
Jan. 28, 1941	Gene works in the garden until tea time
Jan. 29, 1941	We work for a bit in the garden
Feb. 1, 1941	Henry brings out Irish yews!
Feb. 2, 1941	Gene works in garden until tea
Feb. 3, 1941	A lovely sunny day, we sit in the patio and have some cherry and then luncheon.
Feb. 4, 1941	They are planting almond trees today.
Feb. 12, 1941	Gene working outside in garden
Feb. 13, 1941	Gene works in garden
Feb. 14, 1941	After luncheon, Gene works in garden with others pruning oaks and bays!
Feb. 16, 1941	After luncheon he (Gene) returns to pruning trees until tea time. Gene worrying about our new walnut and almond trees dying from too much water!
Feb. 18, 1941	After luncheon, Gene goes out to superintend the tree pruning. Walk down to oaks . . .
Feb. 22, 1941	We lunch and sit in the patio in the sun.
Feb. 24, 1941	After luncheon gene works at pruning for a bit
March 4, 1941	After lunch (Gene) goes out to see how the newly planted almonds are getting on. Is amazed to find so many sprouting
March 5, 1941	Plant white begonias where the fish pond used to be in the patio. And plant a weeping—willow by the dog--house

March 6, 1941	Fuss around the garden. Ground too wet for planting. Roberts and the boys planting the plants on the roadside. After lunch Gene sits in the patio in the sun. Parallee…comes…brings me lovely white hydrangea! Roberts and the boys planting ice plant on the road-side.
March 8, 1941	(I) go through the different gardens making notes of planting to be done…
March 9, 1941	Gene works…and works in the garden
March 10, 1941	…in garden trimming privet hedges….After luncheon plant sweet alyssum in patio and around the swimming pool
March 12, 1941	Gene works…in garden—prune hedges
March 13, 1941	Gene discusses, with Roberts the condition of the "lippia"—we'll have to tear it all out and put in another lawn!
March 16, 1941	Gene works—lunches—and works all afternoon tacking up the "climbing fig" on the house and patio walls. Freeman busy with tree surgery in the patio.
March 17, 1941	Gene…works in garden
March 19, 1941	Gene rise…goes into garden and just sits quietly…the men come to spray the oaks
March 20, 1941	Gene…works in garden…we are planting ice plant in front of kitchen—sweet alyssum below hedges.
March 22, 1941	Gene…tells Roberts where to plant Casuarinas—(on Diablo Side of the house)…I…plan garden work
March 23, 1941	I go over garden and household wants
March 24, 1941	Gene…goes out to garden work
March 25, 1941	There seems to be much activity around the pool, bath house and garden.
March 27, 1941	After luncheon Gene in the garden--…planting extra casuarina trees and Irish yews by pool
March 28, 1941	Wake to rain—marvellous for garden and all new plantings
April 2, 1941	After luncheon Gene works in the garden—digging!
April 4, 1941	Gene…tacks up vines
April 11, 1941	Beautiful "snow-drift" azalea
April 12, 1941	We receive beautiful camellia tree from Julie. Work in garden after luncheon—plant Julie's tree in the patio. Gene upset upon finding some almond trees dying—He gives me a beautiful white azalea.
April 13, 1941	We sit in patio sun—take a walk all over the garden
April 17, 1941	After luncheon we start to work in the garden but it is too cold!
April 22, 1941	…Go over garden with Roberts—to see about plantings. Freeman getting garden furniture out for me
May 1, 1941	(Gene)…works in garden tacking up vines
May 4, 1941	(Gene) suns himself in the patio—
May 17, 1941	Gene…prunes walnut trees in orchard
May 19, 1941	Gene continues pruning walnut trees in the orchard
May 21, 1941	Gene trims hedge on terrace—We eat on the terrace—Beautiful evening—Gene's beloved jasmine is so wonderfully fragrant--!
May 23, 1941	Gene trims hedges all afternoon
May 25, 1941	Gene…prunes trees in the orchard

May 27, 1941	Gene…works in orchard after his tea
June 6, 1941	Gene…sits in sun in the patio
June 11, 1941	We discover the walnut tree in the patio is dying!
June 12, 1941	Tree surgeon calls to see dying walnut in patio, treats same
June 14, 1941	Gene…works in garden
June 15, 1941	Gene prunes walnut trees
June 18, 1941	Walnut tree in patio and sycamores have treatment by tree surgeon
July 3, 1941	After luncheon we sit in the patio for a bit.
July 27, 1941	After luncheon we sit in the patio.
August 4, 1941	We walk through the large meadow – This is such a beautiful home—and we've worked so hard in the gardens and out plantings behaved as if they wanted to show us how much they have appreciated out care----and our love!
August 11, 1941	Gene works in garden after luncheon until 6:30 p.m.!
August 16, 1941	Freeman kills large rattlesnake – by the pool!!!
August 21, 1941	Gene works in garden
August 26, 1941	Man starts working on rock garden to save walnut tree
Sept. 14, 1941	He (Gene) works in the patio tacking up jasmine—we have tea in the patio
Oct. 7, 1941	I water side garden
Oct. 12, 1941	Gene—works in the garden
Oct. 20, 1941	Gene…works in the garden
Oct. 25, 1941	Brick mason have repairing bricks by the pool
Oct. 27, 1941	- and arrange to send 25lb. Sacks of walnuts (from our trees) to friends and children.
Oct. 31, 1941	Gene…talks to Roberts about outside work
Nov. 10, 1941	After luncheon we prune shrubs in the Circle
Nov. 12, 1941	Freeman and I put in the posts at Blemie's grave – with the headstone it looks like the grave of a well beloved!
Nov. 14, 1941	After luncheon we walk over the meadow to the creek! We hear the snakes slither in the undergrowth (how I hate snakes!) All through there is a very lady-like jungle! With harmless animals! The rattlesnakes live up in the huge rocks, a miniature cliff dwellers cave. The birds have all gone South – most of them –
Nov. 25, 1941	Gene…works in the garden for a bit
Nov. 26, 1941	Gene works in garden
Nov. 27, 1941	Roberts planting dichondra around the swimming pool—
Dec. 4, 1941	Gene…works in garden for a bit
Dec. 16, 1941	…Storm…3 trees blown over…Gene works in garden until tea
Dec. 17, 1941	Gene prunes the hedge. I can see his [Blemie's] headstone from my window.
Dec. 18, 1941	…prunes in garden—until tea
Dec. 20, 1941	Gene…prunes hedges

Dec. 22, 1941	Gene…works on the tall hedge
Dec. 26, 1941	Gene can't work –so goes to garden to work before luncheon and continues after
Dec. 31, 1941	Gene prunes trees before tea
Jan. 12, 1942	Gene…works in the orchard pruning with Roberts'
Jan. 15, 1942	Gene…talks with Roberts about pruning
Jan. 16, 1942	…We go out to talk to the nice old Japanese gardener from the California Nursery.
Jan. 17, 1942	Gene works…and prunes trees
Jan. 19, 1942	Gene goes out and brings me back some almond blossoms and daphne
Feb. 8, 1942	Gene in the garden
Feb. 9, 1942	…Gene…prunes in the garden
Feb. 15, 1942	Gene works in garden after luncheon.
Feb. 18, 1942	Freeman planting onions?
Feb. 19, 1942	Gene goes out and brings me back some almond blossoms and daphne
Feb. 23, 1942	After luncheon Gene works in garden.
Feb. 27, 1942	After luncheon I water dichondra in patio and all transplanted azaleas.
Feb. 28, 1942	Letter from Ralph re all our plantings.
March 5, 1942	Gene and I water the garden.
March 6, 1942	I water the patio…
March 22, 1942	…I have worked so hard to give Gene what he most craved—a lovely home…Planning, working with architects, builders, landscape gardeners, etc. etc…
March 27, 1942	Water the patio
March 28, 1942	Roberts disking corn field – Frogs singing in Gene's pool and I love them!
March 29, 1942	Water the garden in front of house—quite a chore
March 30, 1942	Gene works in the garden pruning--…Freeman hoeing around the roots of small walnut trees...Peterson comes out to see about working in garden <u>one</u> day a week?!
April 15, 1942	Gene…goes into garden after luncheon
April 18, 1942	After, luncheon Gene goes in garden—
April 19, 1942	I…sit in the patio for a bit along.
May 16, 1942	After luncheon we go in the patio for a bit
May 19, 1942	Sit out on terrace…I water dichondra in South garden
May 23, 1942	Gene takes a short walk then works in garden for about 1-1/2 hour. Rather puttering! Seems rather listless
May 24, 1942	Freeman water patio for me…
June 7, 1942	Freeman works all day in his vegetable garden and outside.
June 8, 1942	Freeman trimming all the hedges
June 10, 1942	Water patio after dinner

June 11, 1942	I spend 3 hours watering the garden. Quite a chore
June 17, 1942	Freeman works in the corn field – "does" the water softener – and waters the garden.
June 21, 1942	Freeman helps me water all the gardens
June 25, 1942	…Men take the weeds from the sides and the center of the road to prepare it for re-doing!
June 27, 1942	After dinner I water patio and Valley Garden—
July 2, 1942	After dinner he sits in the patio while I water the lawn, shrubs and plants.
July 19, 1942	Water garden after supper
Aug.	Lunch and dinner outside chores with Roberts
Aug. 8, 1942	Haskell sends Norris Brothers to try and get deer – as they are eating all our vegetables and becoming too destructive. They seem to have sensed we were very strict about no one killing them!
Sept. 20, 1942	Water the patio before dinner
Sept. 22, 1942	Water the front garden
Oct. 2, 1942	Water the patio
Oct. 7, 1942	Jack picking walnuts – bad crop – blight.
Oct. 26, 1942	Roberts working – burns some land over –
Oct. 31, 1942	Cyn, Mother, and Jerry to tea. Cyn picks a sack of delicious English walnuts.
Nov. 4, 1942	Gene…sits in the patio for a bit—tea
Nov. 7, 1942	Roberts burning off the hillsides.
Nov. 24, 1942	We plan pool bed in double white violets—even, the leaves are fragrant
Dec. 1, 1942	We sit in the patio for a bit after luncheon
Dec. 14, 1942	After luncheon he [Gene] tries to prune a bit in the garden
Dec. 15, 1942	We work in garden before tea
Jan. 3, 1943	Gene…tries to prune young, almond trees. Does small ones—
Jan. 4, 1943	Gene…tries to prune a few more almond trees
Jan. 5, 1943	Before tea (Gene) does about 20 minutes pruning
Jan. 6, 1943	(Gene) prunes a bit
Jan. 7, 1943	Gene works in garden until tea
Jan. 8, 1943	. . . and we go out together and prune roses.
Feb. 6, 1943	After luncheon (Gene) and I sit out in the patio in the sun for about an hour.
Feb. 13, 1943	Gene…works in the garden pruning, for a bit –I do my usual job—and water plants, etc.
Feb. 14, 1943	Gene…prune in the garden.
Feb. 22, 1943	…blossoms lovelier each day—
March 12, 1943	Gene…goes out and does a bit of pruning
March 24, 1943	Haskell here…painting garden furniture
April 4, 1943	Roberts starts with tractor cultivating. After lunch he (Gene) tries to cut the hedge for a bit

April 5, 1943	Gene…cuts the hedge in the patio—for a bit
April 6, 1943	Gene…prunes the hedge
April 7, 1943	Gene…continues to prune hedges
April 8, 1943	Gene working on patio hedge
April 9, 1943	Gene…finishes cutting patio hedge
April 10, 1943	Gene…continues pruning hedges and flowering peach
April 11, 1943	Gene…cuts hedge at pool, etc.
April 17, 1943	Gene…prunes hedges…luncheon—go out and work in the patio
April 19, 1943	After luncheon, Gene prunes more hedges—I water the patio after tea. Roberts still running the tractor.
April 28, 1943	Gene…out pruning the young almond trees
April 29, 1943	Gene still working in almond orchard
April 30, 1943	Bettencourt arrives to spray all the oak trees.
May 1, 1943	Gene works in almond orchard
May 3, 1943	Gene works in almond orchard
May 5, 1943	Gene works . . .in almond orchard - . . . as Roberts is still cutting his hay - .
May 17, 1943	Send sacks of our walnuts to the marines
May 28, 1943	(Gene) pruning the hedge on the terrace. Thank goodness we have electric clippers
June 13, 1943	After luncheon he (Freeman) trims all the hedges for Gene
June 27, 1943	I water patio
July 5, 1943	…Water the patio…
July 10, 1943	(Freeman) trims the hedges, not finishing until after dinner.
July 28, 1943	Water the patio
Dec. 2, 1943	Pruning all the geraniums
Dec. 22, 1943	(receives red azaleas and white one)
Nov. 15. 1943	Trees golden in color – in a grey mist!
Dec. 2, 1943	In the morning I prune all the geraniums –

O'Neill, Eugene. Work Diaries 1924-1953. Copy on file. Eugene O'Neill National Historic Site, park office library.

Nov. 30, 1937	To house with C[arlotta]—long walk with Freeman along boundary lines property
Jan. 9, 1938	walk over estate with C[arlotta].—fine day—beautiful place with on of the finest views ever seen—feel will be happy home once we're settled—and well!
March 2, 1938	Walk around boundaries of ranch
March 3, 1938	w[alk]. Boundaries ranch C[arlotta]

May, 10, 1938	Ralph [Coffey] & Telefer about possibility walnut orchard
July 9, 1938	Talk with Herman [Sandkuhle Jr.] on contract for farming ranch
Oct. 27, 1938	Wayne finished transplanting [bay] trees from hill
Nov. 8, 1938	paint boardwalk [from filter house to pool]
Nov. 14, 1938	painting boardwalk
Nov. 15, 1938	paint boardwalk
July 25, 1939	Hal harvesting wheat
July 27, 1940	buy tractor (2nd hand) disque, harrow
Sep. 15, 1940	pruning walnut trees near pool
Oct. 20, 21, 25-28, 1940	cut c[otoneaster]. Hedge
Nov. 12, 1940	work p[running]. fig trees
Dec. 14, 1940	long walk with Roberts in search of new spring
Feb. 4, 1941	walnut trees put in
Feb. 5, 1941	almond trees put in
March 22, 1941	new casuarina trees put in
May 17, 1941	work on trees in walnut orchard
Nov. 22, 1941	w[ork]. g[arden]. on iceplant
Jan 16, 1942	man from Cal. Nursery to prune trees
Oct. 31, 1942	Cyn, Nell [Tharsing], Gerry to pick walnuts
April 28, 29, 1943	w[ork pruning]. Almonds

Appendix D

Eugene O'Neill N.H.S.

Inventory of Native and Non-native Vegetation on John Muir National Historic Site, Eugene O'Neill National Historic Site, and Port Chicago National Monument

Fall 2002

Eric P. B. Jepsen
Andrew G. Murdock

In Cooperation with:
PRBO Conservation Science

- *Species listed in* ***Boldface*** *are native to California*
- ***Species followed by an asterisk (*) are planted ornamentals/fruit trees***

LATIN NAME	COMMON NAME
Aceraceae	
❑ *Acer macrophyllum*	Big-leafed maple
Amaranthaceae	
❑ *Amaranthus albus*	Tumbleweed

❑ ***Amaranthus blitoides***	Prostrate pigweed
❑ ***Amaranthus powellii***	Powell's pigweed
❑ *Amaranthus retroflexus*	Rough pigweed
Anacardiaceae	
❑ ***Toxicodendron diversiloba***	Poison oak
Apiaceae	
❑ *Anthriscus caucalis*	Bur-chevril
❑ ***Heracleum lanatum***	Cow parsnip
❑ ***Osmorhiza chilensis***	Wood cicely
❑ ***Sanicula crassicaulis***	Pacific snakeroot
❑ *Torilis arvensis*	Field hedge parsley
❑ *Torilis nodosa*	Knotted hedge parsley
Aristolochiaceae	
❑ ***Aristolochia californica***	Dutchman's pipe
Asteraceae	
❑ ***Agoseris grandiflora***	California dandelion
❑ ***Achillea millefolium***	Yarrow
❑ ***Artemisia douglasiana***	California mugwort
❑ ***Aster chilensis***	Common California aster
❑ ***Aster radulinus***	Broad-leaved aster, Woodland aster
❑ ***Baccharis pilularis***	Coyote brush
❑ *Carduus pycnocephalus*	Italian thistle
❑ *Centaurea solstitialis*	Yellow star thistle
❑ *Chamomilla suaveolens*	Pineapple weed
❑ *Cirsium vulgare*	Bull thistle
❑ *Cynara cardunculus*	Artichoke thistle
❑ ***Filago gallica***	Fluffweed
❑ *Gnaphalium luteo-album*	Cudweed
❑ ***Helenium puberulum***	Sneezeweed, Rosilla
❑ *Hypochaeris glabra*	Smooth cat's ear
❑ *Hypochaeris radicata*	Hairy cat's ear
❑ *Lactuca serriola*	Prickly lettuce
❑ ***Madia gracilis***	Slender tarweed
❑ *Picris echioides*	Bristly ox-tongue
❑ *Senecio vulgaris*	Groundsel
❑ *Silybum marianum*	Milk thistle
❑ *Soliva sessilis*	South American soliva
❑ *Sonchus asper* ssp. *asper*	Prickly sow thistle
❑ *Taraxacum officionale*	Dandelion
❑ *Tragopogon porrifolius*	Salsify
❑ *Xanthium spinosum*	Spiny cocklebur
Blechnaceae	
❑ ***Woodwardia fimbriata***	Giant chain fern
Boraginaceae	
❑ ***Amsynchia menziesii* var. *intermedia***	Common fiddleneck
❑ ***Cynoglossum grande***	Grand hound's tongue
❑ *Myosotis latifolia*	Forget-me-not
Brassicaceae	
❑ *Brassica rapa*	Field mustard
❑ *Capsella bursa-pastoris*	Shepherd's purse
❑ ***Cardamine californica***	Milkmaids
❑ ***Cardamine oligosperma***	Bittercress

- ❑ ***Lepidium nitidum* var. *nitidum*** Poorman's peppergrass
- ❑ *Raphanus sativus* Wild radish
- ❑ *Sisymbrium officinale* Hedge mustard
- ❑ *Sinapis arvensis* Charlock

Caprifoliaceae

- ❑ ***Lonicera hispidula* var. *vacillans*** California honeysuckle
- ❑ ***Sambucus mexicana*** Black elderberry
- ❑ ***Symphorocarpus albus* var. *laevigatus*** Snowberry

Caryophyllaceae

- ❑ *Polycarpon tetraphyllum* Four-leafed allseed
- ❑ *Spergula arvensis* Spurrey
- ❑ *Spergularia rubra* Sand spurrey
- ❑ *Stellaria media* Chickweed

Convolvulaceae

- ❑ *Convolvulus arvensis* Bindweed

Cucurbitaceae

- ❑ ***Marah fabaceus*** California manroot

Dryopteridaceae

- ❑ ***Dryopteris arguta*** Wood fern
- ❑ ***Polystichum munitum*** Western sword fern

Equisetaceae

- ❑ ***Equisetum telmateia* ssp. *braunii*** Giant horsetail

Ericaceae

- ❑ ***Arbutus menziesii*** Madrone

Euphorbiaceae

- ❑ *Chamaesyce maculata* Spotted spurge
- ❑ ***Eremocarpus setigerus*** Dove weed, Turkey mullein
- ❑ *Euphorbia peplus* Petty spurge

Fabaceae

- ❑ ***Lathyrus vestitus* var. *vestitus*** Hillside pea
- ❑ ***Lupinus nanus*** Sky lupine
- ❑ *Medicago arabica* Spotted bur clover
- ❑ *Medicago polymorpha* California bur clover
- ❑ *Trifolium dubium* Little hop clover, Shamrock
- ❑ *Trifolium glomeratum* Clustered clover
- ❑ *Trifolium hirtum* Rose clover
- ❑ *Trifolium subterraneum* Subterranean clover
- ❑ *Vicia benghalensis* Purple vetch
- ❑ *Vicia sativa* ssp. *nigra* Spring vetch

Fagaceae

- ❑ ***Quercus agrifolia*** Coastal live oak
- ❑ ***Quercus kellogii*** Black oak
- ❑ ***Quercus lobata*** Valley oak

Geraniaceae

- ❑ *Erodium botrys* Long-beaked stork's bill
- ❑ *Erodium cicutarium* Red-stemmed stork's bill
- ❑ *Erodium moschatum* Whitestem filaree
- ❑ *Geranium dissectum* Cut-leaved geranium

Hippocastanaceae

- ❑ ***Aesculus californica*** California buckeye

Hydrophyllaceae

- ❑ ***Nemophila heterophylla*** Canyon nemophila

Iridaceae

- ❑ ***Sisrynchium bellum*** Blue-eyed grass

Juglandaceae

- ❑ ***Juglans californica* var. *hindsii**** California black walnut
- ❑ *Juglans regia** English walnut

Juncaceae

- ❑ ***Juncus patens*** Spreading rush
- ❑ ***Juncus xiphioides*** Iris-leafed rush

Lamiaceae

- ❑ *Lamium amplexicaule* Clasping henbit
- ❑ ***Satureja douglasii*** Yerba buena
- ❑ ***Stachys ajugoides* ssp. *rigida*** Hedge nettle

Lauraceae

- ❑ ***Umbellularia californica*** California bay

Liliaceae

- ❑ ***Calochortus albus*** White globe lily
- ❑ ***Dichelostemma capitatum* ssp. *capitatum*** Blue dicks
- ❑ ***Dichelostemma congestum*** Round-toothed ookow
- ❑ ***Chlorogalum pomeridianum* ssp. *pomeridianum*** Wavy-leaved soap plant
- ❑ ***Smilacena stellata*** False solomon's seal
- ❑ ***Trillium chloropetalum*** Giant trillium

Malvaceae

- ❑ *Malva nicaeensis* Bull mallow

Moraceae

- ❑ *Ficus carica* Fig

Myrtaceae

- ❑ *Eucalyptus globulus** Tasmanian bluegum

Onagraceae

- ❑ ***Clarkia affinis*** Chaparral clarkia
- ❑ ***Clarkia purpurea* ssp. *quadrivulnera*** Winecup clarkia
- ❑ ***Epilobium brachycarpum*** Annual fireweed
- ❑ ***Epilobium ciliatum* ssp. *ciliatum*** Willow herb

Oxalidaceae

- ❑ *Oxalis corniculata* Wood sorrel
- ❑ *Oxalis pes-caprae* Bermuda buttercup

Papaveracaeae

- ❑ ***Eschscholzia californica*** California poppy

Pinaceae

- ❑ ***Pinus sabiniana**** Grey Pine

Plantaginaceae

- ❑ *Plantago lanceolata* Lanceleaf plantain, English plantain

Poaceae

- ❑ *Aira caryophylla* Hairgrass
- ❑ *Avena barbata* Slender wild oat
- ❑ *Avena fatua* Wild oat
- ❑ *Briza minor* Quaking grass
- ❑ ***Bromus carinatus* var. *carinatus*** California brome
- ❑ *Bromus diandrus* Rip-gut brome
- ❑ *Bromus hordeaceus* Soft chess
- ❑ *Cynodon dactylon* Bermuda grass
- ❑ *Cynosorus echinatus* Hedgehog dogtail
- ❑ *Dactylis glomerata* Orchard grass

❑ ***Deschampsia elongata***	Slender hairgrass
❑ ***Elymus glaucus***	Blue wildrye
❑ *Hordeum marinum* ssp. *gussoneanum*	Mouse barley
❑ *Hordeum murinum* ssp. *leporinum*	Foxtail barley
❑ *Lolium multiflorum*	Italian rye grass
❑ ***Melica torreyana***	Torrey melic
❑ *Phalaris aquatica*	Harding grass
❑ *Phalaris minor*	Littleseed canary grass
❑ *Piptatherum milliaceum*	Smilo grass
❑ *Poa annua*	Annual bluegrass
❑ *Polypogon monspeliensis*	Rabbit's foot grass
❑ *Triticum aestivum*	Wheat
❑ *Vulpia bromoides*	Brome fescue
❑ *Vulpia myuros* ssp. *myuros*	Fox-tail fescue
Polygonaceae	
❑ *Polygonum arenastrum*	Common knotweed
❑ *Rumex crispus*	Curly dock, Yellow dock
❑ *Rumex pulcher*	Fiddle dock
Polypodiaceae	
❑ ***Polypodium calirhiza***	California polypody
Portulacaceae	
❑ ***Calandrinia ciliata***	Red maids
❑ ***Claytonia perfoliata* ssp. *perfoliata***	Miner's lettuce
Primulaceae	
❑ *Anagallis arvensis*	Scarlet pimpernel
Pteridaceae	
❑ ***Adiantum jordanii***	Maidenhair fern
❑ ***Pentagramma triangularis***	Goldback fern
Ranunculaceae	
❑ ***Ranunculus californicus***	California buttercup
Roseaceae	
❑ *Cotoneaster franchetii*	Franchet cotoneaster
❑ ***Heteromeles arbutifolia***	Toyon
❑ *Rubus discolor*	Himalaya blackberry
❑ ***Rubus ursinus***	California blackberry
❑ *Prunus cerasifera*	Cherry plum
❑ ***Potentilla glandulosa* ssp. *glandulosa***	Sticky cinquefoil
Rubiaceae	
❑ *Galium aparine*	Bedstraw
❑ *Galium murale*	Tiny bedstraw
❑ ***Galium porrigens* var. *porrigens***	Wall bedstraw
❑ *Sherardia arvensis*	Field madder
Salicaceae	
❑ ***Salix lasiolepis***	Arroyo willow
Saxifragaceae	
❑ ***Lithophragma heterophyllum***	Hillside woodland star
Scrophulariaceae	
❑ ***Mimulus aurantiacus***	Sticky monkey flower
❑ ***Scrophularia californica***	California figwort
❑ *Veronica persica*	Persian speedwell
Solanaceae	
❑ ***Solanum americanum***	Small-flowered nightshade

- ❑ ***Solanum umbelliferum*** Blue-witch nightshade

Typhaceae

- ❑ ***Typha latifolia*** Broad-leafed cattail

Urticaceae

- ❑ ***Urtica dioica* ssp. *holosericea*** Stinging nettle, Hoary nettle
- ❑ *Urtica urens* Dwarf nettle

Verbenaceae

- ❑ ***Phyla nodiflora* var. *nodiflora*** Common lippia

Viscaceae

- ❑ ***Phoradendron macrophyllum*** Big leaf mistletoe
- ❑ ***Phoradendron villosum*** Oak mistletoe

Vitaceae

- ❑ *Vitis vinifera* Grape

Zygophyllaceae

- ❑ *Tribulus terrestris* Puncturevine

Appendix E

Deer Control Fencing

The following information on deer control fencing and repellents is taken from research conducted by Kitti Jensen, NPS, in 2003 for Manzanar National Historic Site. This information is for reference.

FENCING

The preferred approach for elk or deer exclusion is the construction of at least an 8 foot high woven-wire fence that completely encloses plants. This is the only reliable method. Fences reaching 5, 6, or even 7 feet are excellent deterrents, but do not always provide complete exclusion. An eight foot fence can be expected to last 20 to 30 years and may cost $6.00 to $8.00 per foot to install. Woven-wire fencing is more expensive than other types of fencing. However, this type of barrier is practical for plats ranging from 25' x 25', up to 50 or more acres.

The placement of an absolute barrier need not be an eyesore if attention is given to details of construction, including proper setting of corner posts, a wide gate frame for easy access, and addition of native plants used for screening to landscape the fence.

Electric fencing is an option and is less expensive. The polytape live-stock electrical fencing coated with peanut butter can be effective but is temporary. The poly-tape fence apparently attracts deer and elk with its bright color and peanut butter odor. The animals make nose-to-fence contact when they approach, receiving a substantial shock and quickly learn to avoid such fenced areas. Polytape fences are portable, have a life expectancy of more than 15 years, and can be installed for $0.10 to $0.25 per foot. Also, combinations of electronic shock with either attractants or malodorous repellents are more effective than electric fences alone.

This is a permanent fence with a 20 to 30 year lifespan. Materials include high-tensile, smooth steel wire (200,000PSI, 12 ½ inch gauge) with accessories to maintain up to 250 lbs. wire tension. A high-quality fence energizer that delivers a minimum of 5,000 volts at a maximum pulse is essential. Installation and material costs range from $0.50 to $1.50 per foot. Costs are reduced by increasing the area to be fenced. Identify any electric fence with warning signs placed at 100 foot intervals, with at least one sign on each fence border.

With electrical fencing of any design it is important to remember that:

A quality energizer that delivers a minimum of 5,000 volts is a must.

High-tensile fences require strict adherence to construction guidelines (i.e., corner assembly, wire configuration and maintenance).

Cost of construction decreases with increasing size of the plot to be fenced.

REPELLENTS

The majority of ungulate repellents are targeted for deer.

Deer Away/Big Game Repellent (37% Commercial putrescent egg solid)

This material is primarily an odor-based repellent, and has been used extensively in western conifer plantations. It is reported to be >85% effective in field studies, and is registered for use on fruit trees prior to flowering, and ornamental and Christmas trees. Apply it to all susceptible new growth and leaders. Applications weather well and are effective for a minimum of 5 weeks with heavy feeding pressure by deer. A one-gallon liquid kit costs about $26 and covers 15 to 18, 4-foot ornamental shrubs or 100-150 seedlings.

Deer-Off Repellent Spray (3.1% egg solids, 0.0006% capsaicin, and 0.0006% garlic)

Deer-Off is a combination odor and taste-based product registered for use on flowers, grass, bulbs, ornamental shrubs, edible crops, plants seedlings and trees. Deer-Off is available as a spray and should be applied to all leaves, stems and branches at the beginning of each season. Treatment must be repeated after heavy rains or as new growth emerges, and if the effects of the previous treatment appear to be wearing off. A one-pint kit of Deer-Off cost about $28.00, makes about 1 gallon of spray, and treats up to 200 ornamental shrubs 4-reet in height, or approximately 2,000 square feet of plants depending on surface conditions and size of plantings.

Hinder (ammonium soaps of higher fatty acids, 13.8%)

This odor-based product is one of the few repellents registered for use on edible crops. Hinder can be applied directly to home gardens, ornamentals, annual and perennial flowers, and fruit trees until 1 week before harvest. Its effectiveness is usually limited to 2 to 4 weeks but varies because of weather and application technique. Reapplication may be necessary after heavy rains. Apply at temperatures above 40-degrees F. One gallon of liquid costs about $40, and when mixed with 100 gallon of water will cover one acre. Hinder can also be painted full strength on the bark of trees to prevent rabbits from chewing the bark. Hinder is compatible for use with most pesticides.

Miller's Hot Sauce Animal Repellent (2.5% capsaicin)

This taste-based repellent is registered for use on ornamentals, fruit and nut trees, bushes, vines and hay bales stored in the field. Apply it with a backpack or trigger sprayer to all susceptible plant parts, such as leaders and young leaves. Do not apply to fruit-bearing

plants after fruit set. Vegetable crops also can be protected if sprayed prior to the development of edible parts. Weather ability can be improved by adding an anti-transpirant such as NU-Film-17 or Vapor Gard. Hot Sauce and Vapor Gard cost about $80 and $30 per gallon respectively. Eight ounces of Hot Sauce and 2 quarts of anti-transpirant mixed with 100 gallons of water will cover 1 acre. THE 10x and 100x concentrations approved for ornamentals have effectively prevented both deer and elk damage to trees.

Nott's Chew-Not (20% thiram)

Thiram, a fungicide that acts as a taste-based repellent, is registered for use on dormant trees and shrubs. A liquid formulation is sprayed or pained on individual trees. Although thiram itself does not weather well, adhesives such as Latex 202-A or Vapor Gard can be added to the mixture to increase its resistance to weathering. Thiram-based repellents also protect trees against rabbit and mole damage. Two gallons of 42% thiram cost about $50 and when mixed with 100 gallons of water will cover 1 acre.

Tree Guard (0.20% dentonium benzoate)

Tree Guard is a taste-based repellent registered for use on shrubs, ornamental plants, conifers and non-bearing deciduous trees. Tree Guard is available as a ready-to-use spray and costs about $40.

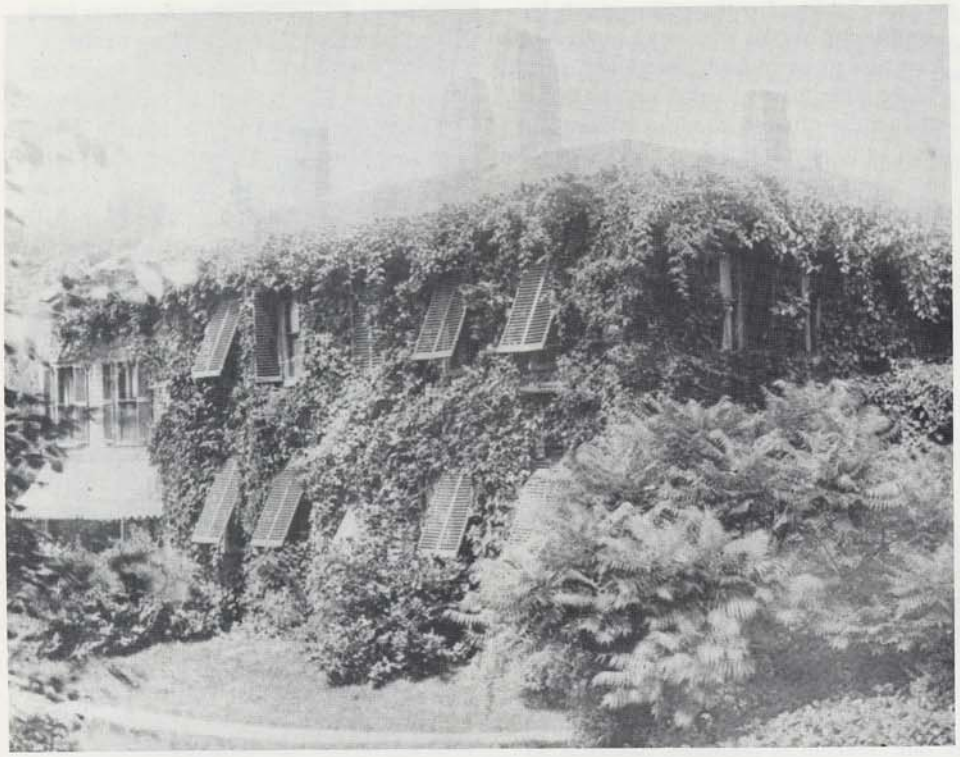
Appendix F

Preservation Tech Notes

PRESERVATION
Tech Notes

U.S. Department of the Interior
National Park Service
Cultural Resources

Preservation Assistance Division



SITE

NUMBER 1

Restoring Vine Coverage to Historic Buildings

Karen E. Day
Preservation Assistance Division
National Park Service

FAIRSTED
Frederick Law Olmsted
National Historic Site
Brookline, Massachusetts

In 1883, Frederick Law Olmsted Sr., noted landscape architect and planner, established his home and office in Brookline, Massachusetts. Olmsted's improvements to the two-acre site transformed the farm into a picturesque suburban estate, which he called Fairsted. Olmsted employed elements from the picturesque and pastoral styles, including an abundance of climbing vegetation on stone walls, trees, and buildings.

To help unify the architecture and the landscape Olmsted planted two twining vines, *Wisteria sinensis* (Chinese Wisteria) and *Actinidia arguta* (Bower Actinidia), which would cover the house. The vines masked the angularities of the building, and thus accomplished Olmsted's intent of obscuring the distinction between the natural and the manmade. The vines climbed profusely on the south side of the house, twining around waterspouts, window boxes, and shutters. Olmsted installed strapping to provide vine support, that ran vertically and horizontally along the facade.

The vines that covered Fairsted are an important visual and historic feature, reflecting Olmsted's interpretation of the ideal garden suburb and his landscape design principles. Unfortunately, the vines eventually contributed to the deterioration of the clapboard house, necessitating that some alternative method be found to protect the building facade from future damage and while still supporting the historic plant material.

Problem

Vines can damage historic clapboard or masonry buildings in a number of ways. Roots growing near buildings retain moisture and can put pressure on foundations, displacing materials and providing entry points for water, insects, and rodents. The primary damage caused by all vines is due to moisture. The shade created by extensive vegetation cover prevents the sun from drying the covered wall, and also reduces the drying effect from air circulation. Moisture from condensation, rain water, and plant transpiration is thus slow to evaporate and creates an environment conducive to paint failure, wood rot, and deterioration of soft masonry. The continuous presence of moisture on masonry buildings can weaken mortar and cause structural deterioration. When water trapped in cracks and openings freezes, the ice expands— pressure that can further damage the masonry.

In addition, vines cause other forms of damage depending on their individual

Where vegetation is essential to the integrity of a historic property, historically significant plant materials and other landscape features should be preserved and maintained while taking steps to protect and maintain historic buildings.

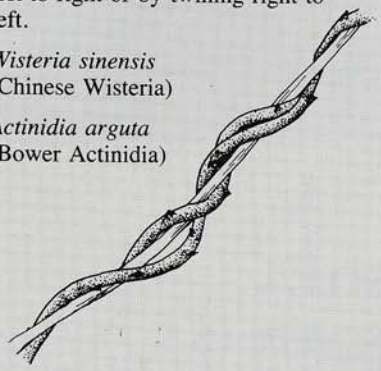
Vine Types

Twining

Vines may climb by twining from left to right or by twining right to left.

Wisteria sinensis
(Chinese Wisteria)

Actinidia arguta
(Bower Actinidia)

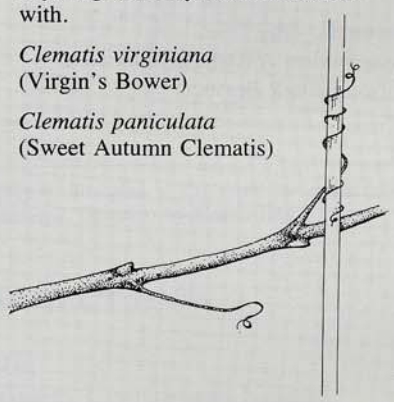


Tendril

The tendrils wrap themselves around anything that they come in contact with.

Clematis virginiana
(Virgin's Bower)

Clematis paniculata
(Sweet Autumn Clematis)

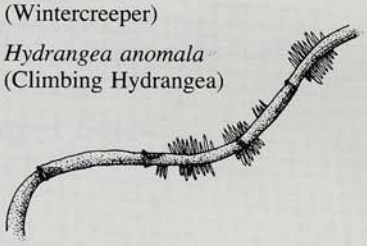


Aerial

Small roots firmly attach the vine to either wood or masonry.

Euonymous fortunei
(Wintercreeper)

Hydrangea anomala
(Climbing Hydrangea)

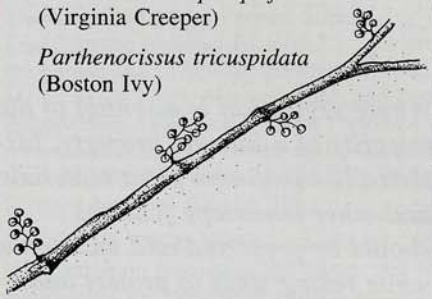


Creeper

This vine clings by sending out small tendrils with adhesive discs that attach themselves to surfaces.

Parthenocissus quinquefolia
(Virginia Creeper)

Parthenocissus tricuspidata
(Boston Ivy)



growth habits. *Twining* vines climb by sending out shoots that wrap around objects and grow in both length and width. As the vine grows thicker, it can constrict these objects, causing features such as louver shutters to snap under the increasing pressure. Furthermore, the spreading shoots penetrate openings and crevices. In time, the growing vine can loosen and separate building materials.

Like twining vines, *tendril* vines wrap around objects for support. Because they are actually extended leaves, tendrils do not grow in width, only in length. Both twining and tendril vines, however, can break weather seals on wooden facades, separating wood shingles and siding, as well as fascia and soffit boards on porches. Other vine types include *Aerial* vines which grow small roots along the length of the stem. These rootlets cling to the wall and can force their way into crevices. The fineness and density of the rootlets makes removal difficult. *Creeping* vines have tiny adhesive pads that cling to the building surface. Commonly found on masonry brick buildings, creeping vines do not generally cause extensive damage to structures while growing, although they may abrade softer mortar. However, they attach themselves so thoroughly to the building surface that paint, mortar, and brick are likely to be damaged when the vines are removed.

In 1980, The National Park Service began structural restoration of the house at Fairsted. To facilitate this work, the historic vines were removed from the facade and cut back to the ground. Since the vines were both historic plant material and an important feature of the property, complete removal was avoided. The vines were kept at ground level, but pruned frequently to prevent reattachment to the house. This situation resulted in weakened plant growth and an appearance quite different from



Figure 1. Historic plant materials can be retained while restoration of the historic structure is underway. The *Wisteria* and *Actinidia* vines that were historically used by Olmsted, were cut back during the restoration of Fairsted in 1988. Photo by Charles Pepper, courtesy of the Olmsted National Historic Site.

Olmsted's intention *(see figure 1)*. Furthermore, long-term frequent pruning risked a higher incidence of pest-related problems to the plants and restricted their natural climbing habit. It was therefore important to the public site that a new trellis system be devised that would protect both the historic vegetation and the historic structure, while re-establishing the appearance of a "vine clad mansion."

Historic Fairsted Trellises

Development of a new trellis system began with research into the materials, techniques and hardware used in New England between 1880 and 1930, as well as specific investigation into the various techniques used at Fairsted during those years. Historically, the east elevation of the house had two trellis structures supporting *Wisteria sinensis* (Chinese Wisteria). Photographs from as early as 1884 show a wooden trellis system at the entry porch and a spiraled steel strapping system along the house facade *(see figure 2)*. Remnants of these systems, such as eyebolts and hooks, were found intact at several locations on the structure. The kitchen wall had an interesting trellis consisting of posts with protruding pegs located between windows. Holes in the post indicated that pegs could be added or removed depending on the growth of the plant.

Solution

After investigating the various types of historic trellis systems at Fairsted, four criteria for the new trellis systems were established to address particular preservation issues. An ideal system would:

1. provide an appropriate historic appearance;
2. suit the specific vine growth characteristics;
3. minimize the impact of the anchorage and support structure of the trellis to the historic building facade; and,
4. provide direct access to the building for preservation and maintenance purposes.

In order to meet both the above criteria and also to test alternative solutions, four different trellis systems were designed and installed for use in a two-year test phase *(see figure 3)*. The first system used spiraled steel strapping; the second, aircraft cable; and the third modular pipe. The fourth system combined strapping and piping.

Installation and Monitoring

The experimental trellis systems were constructed and installed on the south and west elevations (where the historic plant material is located) in 1989, and have been monitored for the past two years *(see figure 6)*. Plant growth and development, ease of removal, appearance, and effect on the historic structure are being observed and documented regularly. Some recommendations for modification have already been made.

The steel strapping system (system 1), although painted, has shown a great amount of rust. The use of galvanized steel, painted with a zinc oxide primer and a finish coat would have discour-



Figure 2. View of the west elevation at Fairsted which shows a steel strapping trellis system built as early as 1884. Photo courtesy of Olmsted National Historic Site.

Figure 3. The four experimental systems developed at the Olmsted National Historic Site, and some advantages and drawbacks to each.

System 1 — Spiraled Steel Strapping

Fabrication

Materials: ⅛″ x ½″ spiraled steel strapping, hooks, snap hooks, eyebolts, and F & M rings.
The steel strapping trellis is modeled after the historic design (c. 1885) developed by Olmsted. Spiraled metal strapping were attached to the house by a series of hooks and metal eyebolts. The eyebolts for this system, as well as the attachment devices for the other trellis systems, are held at least 6″ away from the house to allow for air circulation between the plant material, trellis system and building facade. The strapping was fed through intermediate F & M rings located at regular intervals vertically and horizontally along the side of the house.

Maintenance

The ends of the spiraled strapping are fitted with snap hooks so that the trellis system can be removed for maintenance purposes, thus creating a flexible trellis system.

Evaluation

The spiraled steel strapping is an appropriate support for the growth habit of twining vines. The metal strapping is also effective in recreating the historic appearance of the trellis, and is also the least visible of the systems. The steel, although treated with paint, has already shown a great amount of rust, so an alternative material should be considered.

System 2 — Aircraft Cable

Fabrication

Materials: ⅜″ aircraft cable, eyebolts, and hooks.
⅜″ aircraft cable was substituted for the spiraled strapping in the first system. A system of eyebolts and hooks was used to secure the aircraft cable to the house.

Maintenance

The cable system is similar to the spiral strapping system in that it is flexible. The aircraft cable is attached to the eyebolts with snap hooks that allow the wire and vine to be removed from the building facade without damaging the trellis system, the building, or the historic vegetation.

Evaluation

The texture and twist of the cable support and guide to the twining vines. Like the spiral strapping, the vines grow around the cable, so the structure is not visible. The weight of a mature vine growing on the cable will make removal and replacement difficult for one person on a ladder. A temporary pulley system might be used to aid in hoisting the vines back into place.

System 3 — Modular Pipe

Fabrication

Materials: galvanized metal pipe, fittings, eyebolts, and swivel sockets.
This modular pipe system is composed of galvanized metal pipe and a series of pipe fittings. This system was hinged at the base to allow the rigid trellis structure to be tilted away from the house. The support pipes were anchored in the ground by inserting them in galvanized metal sleeves that were placed 4′ below the ground surface and 6″ away from the house. The top portion of the trellis structure was secured to the house by a bolt and clamp combination.

Maintenance

More than one person is required to remove this system. The rigid system folds out away from the house on the swivel sockets near the base of the house (see figure 4).

Evaluation

Although the rigid system allows the vegetation to remain stable, the pipe structure may also have problems with the weight of fully mature vines. The tilting frame may prove to be difficult to lift back into position. The twining vines do not provide enough coverage to conceal the structure completely.

System 4 — Combination

Fabrication

Materials: spiraled steel strapping, galvanized metal pipe, fittings, eyebolts, and swivel sockets.
This solution is a combination of spiraled strapping, galvanized metal pipe and fittings. Eyebolts will separate the strapping from the supporting pipe structure. Swivel sockets near the base of the pipe structure allow the trellis to be tilted away from the house. This combination system provides a historic trellis appearance with the addition of rigid support. The vines are physically separated from the house, thus reducing potential damage to the facade.

Maintenance

The spiraled strapping can be unhooked from the pipe system for limited maintenance or the entire structure can be removed for more extensive repair.

Evaluation

The weight of a mature vine must also be considered in this solution. This pipe and strapping combination is not historically accurate in appearance. The twining vines cover the strapping, but the pipe structure behind is exposed.



Figure 4. The pipe and strapping system, constructed with swivel sockets, allows the rigid support system to fold down away from the house. The strapping can also be removed from the pipe support for limited maintenance. Photo by Karen Day.

aged rapid rusting. The flexible aircraft cable (system 2), with the added weight of a mature vine will make removal and replacement difficult for one person. A temporary pulley system is recommended to aid in hoisting the vines back into place. The third design is a rigid modular pipe system (system 3). Although the rigidity of the system is advantageous to the stability of the vegetation, the weight of the vines may also be prohibitive for easy removal and replacement. The combination strapping and pipe system (system 4) does not recreate a historically accurate appearance. The system was designed in order to remove the vines on the strapping without removing the pipe supporting system. The vines growing on the strapping do not provide sufficient coverage to hide the pipe system behind. Furthermore, additional maintenance is required to keep the vines from growing on the pipe. After the multi-year test period is complete, one of the four systems will be selected, modified as needed, and installed to the east, south and west facades of the house *(see figure 7)*.

Conclusion

The trellis system solution will restore a feature that contributes to the unique character and appearance of the historic suburban estate, and thus reinforces the interpretation of the Olmsted National Historic Site. The systems discussed here were developed individually to meet the unique requirements of the property. This trellis development process, which considered the building appearance and historic character of the site in addition to the growth habits of the plant, historical trellis materials, and maintenance needs, can be applied to other sites with different needs and considerations. However, climbing vegetation should not be added to historic buildings if it did not occur historically since careful management and maintenance is required. The vines that covered Fairsted were an integral part of the historic character of the site. When vegetation is essential to the integrity of a historic property, historically significant plant materials and other landscape features should be preserved and maintained while taking steps to protect and maintain historic buildings.

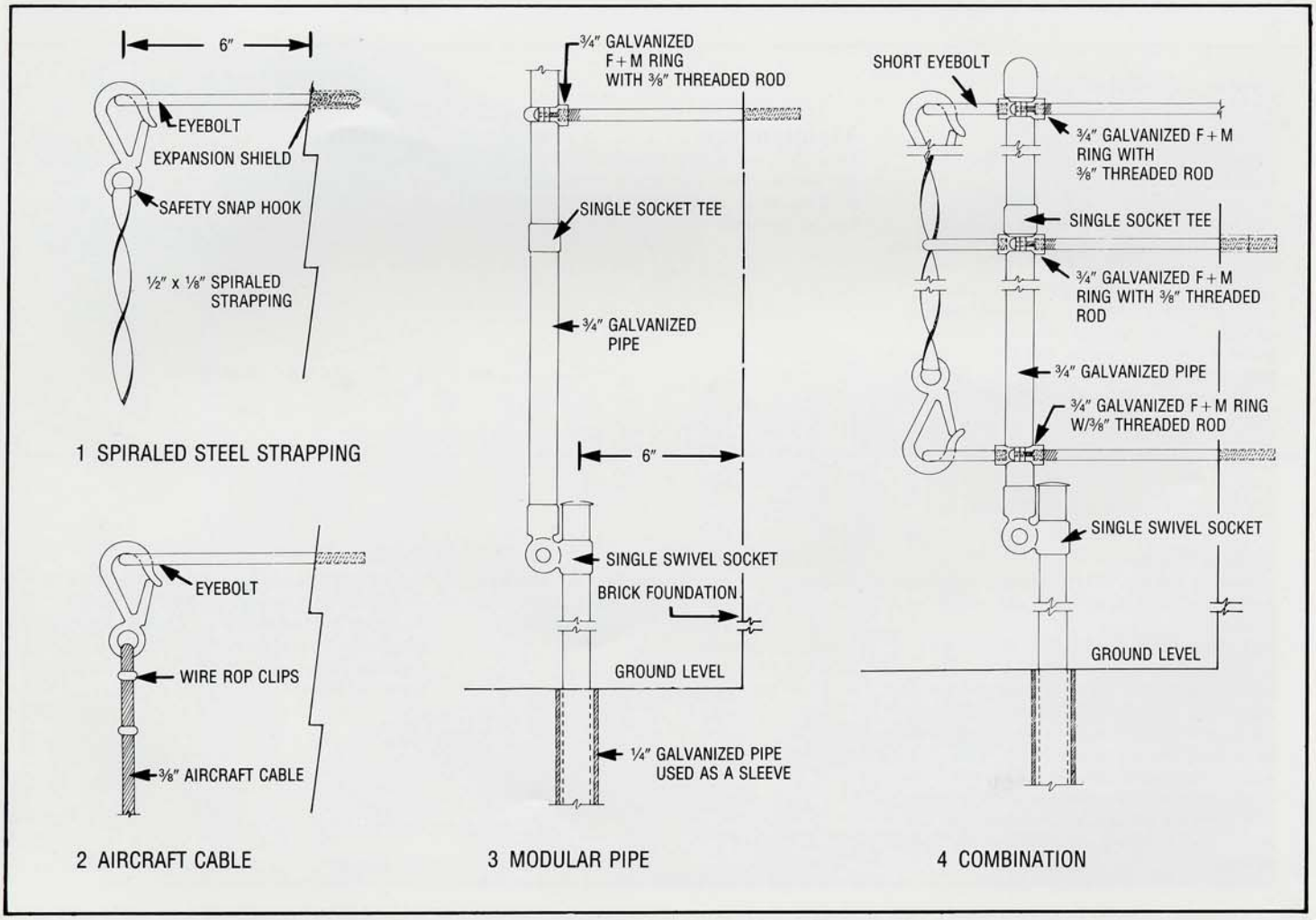


Figure 5. Details of the four experimental trellis systems. Drawings by Sharon Runner, National Park Service.

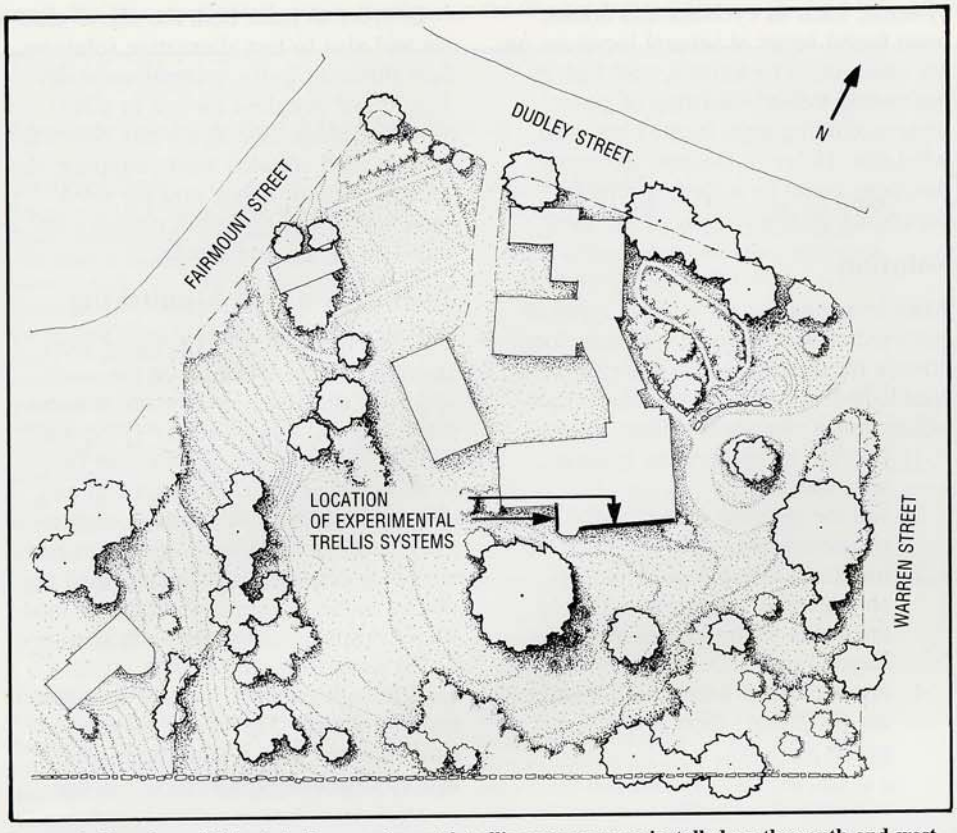


Figure 6. Site plan of Fairsted; the experimental trellis systems were installed on the south and west elevations. Drawing by Karen Day.



Figure 7. View of south facade, the experimental trellis systems have been in place for two growing seasons. Photo by Karen Day.

PROJECT DATA

Site:
Frederick Law Olmsted National Historic Site
99 Warren Street
Brookline, MA

Owner:
National Park Service
U.S. Department of the Interior
Washington, DC

Project Dates:
Spring 1989-Fall 1991

Project Supervisor:
Charles Pepper
Supervisory Horticulturist

Project costs:
Materials: $5,000

Materials:

System #1
spiraled steel strapping
hooks
snap hooks
eyebolts
F & M rings

System #2
air craft cable 3/8″
eyebolts
hooks

System #3
galvanized metal pipe
pipe fittings
galvanized metal sleeves
bolt and clamp combo

System #4:
spiraled steel strapping
galvanized metal pipe
fittings
eyebolts
swivel sockets

This PRESERVATION TECH NOTE was prepared by the National Park Service. Charles E. Fisher, Preservation Assistance Division, National Park Service, serves as Technical Editor of the series. Thanks go to Charles Pepper, Supervisory Horticulturist, Frederick Law Olmsted National Historic Site, for providing information on the project and reviewing the draft. Special thanks go to Lauren Meier, Ward Jandl, Michael Auer, and Tom Jester, of the Preservation Assistance Division, National Park Service, for their review and comments on the draft. Cover Photo: Historic view of south facade of ''Fairsted''. Courtesy of the Frederick Law Olmsted National Historic Site.

Preservation TECH NOTES are designed to provide practical information on innovative techniques and practices for successfully maintaining and preserving cultural resources. All techniques and practices described herein conform to established National Park Service policies, procedures and standards. This Tech Note was prepared pursuant to the National Preservation Act Amendment of 1980, which direct the Secretary of the Interior to develop and make available to government agencies and individuals information concerning professional methods and techniques for the preservation of historic properties.

Comments on the usefulness of this information are welcomed and should be addressed to Tech Notes, Preservation Assistance Division, National Park Service, P.O. Box 37127, Washington, D.C. 20013-7127. This publication is not copyrighted and can be reproduced without penalty. Normal procedures for credit to the author and the National Park Service are appreciated.

ISSN: 0741-9023 PTN-35 October 1991

Appendix G

O’Neill Property Deed

caused this instrument to be executed and its corporate seal to be affixed hereto by its officers thereundo duly authorized this 10th day of March, 1938.

OAKLAND TITLE INSURANCE AND GUARANTY COMPANY,
Trustee

(((((CORP'T SEAL)))))

OK HAS

By H. A. Steinbach, Vice-President
By Charles D. Morando, Asst. Secretary

State of California)
County of Alameda) ss.

On this 10th day of March A. D. One Thousand Nine Hundred and Thirty-Eight, before me D. Rott a Notary Public in and for said County of Alameda, and residing therein, duly commissioned and sworn, personally appeared H. A.Steinbach and Charles D. Morando known to me to be the-President and Assistant Secretary, respectively, of OAKLAND TITLE INSURANCE AND GUARANTY COMPANY, Trustee herein, the corporation that executed the within instrument, and they acknowledged to me that such corporation executed the same, as such Trustee.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal at my office in the said County of Alameda, the day and year in this certificate first above written.

(((((NOT'L SEAL)))))

D. Rott
Notary Public in and for the County of Alameda,
State of California.

Recorded at the request of Contra Costa County Title Co., Mar. 12, 1938, at 11 A. M.
5
Copied- HP Compared-Book- Document-

Ralph Cunningham, County Recorder

---oooOooo---

W. E. H.
Rel. 16 - (9-36)-5M-6-37-(60160)

No. 3088

THIS DEED OF TRUST, made this 28th day of January, 1938, between CARLOTTA MONTEREY O'NEILL herein called the Grantors, AMERICAN SECURITIES COMPANY, a corporation, herein called the Trustee, and AMERICAN TRUST COMPANY, a corporation, herein called the Bank,

WITNESSETH: That for a valuable consideration, the Grantors, who are indebted to the Bank, in the sum of Twenty Thousand and no/100 Dollars ($20,000.00), and who have agreed to pay the same, with interest, to the Bank, or its order, in lawful money of the United States, according to the terms of a certain promissory note, or notes, of even date herewith, for the purpose of securing the payment of said note, or notes, and of the moneys, with interest thereon, that may be paid or advanced by or may otherwise be owing to the Trustee or the Bank under this instrument, and also such additional moneys as may be hereafter borrowed by the Grantors, or any of them, from the Bank, and also the payment of all other moneys and indebtedness now owing, or to become owing, from the Grantors, or any of them, to the Bank, do hereby grant, bargain, sell, convey and confirm unto the Trustee, with power of sale, all that certain real property situate, lying and being in County of Contra Costa, State of California, bounded and particularly described as follows:

PARCEL ONE: LOTS FOUR (4) and FIVE (5) and the West one-half (W. 1/2) of the southeast one-quarter (SE 1/4) of Section 24, Township 1 South, Range 2 West, Mount Diablo Base and Meridian, containing one hundred forty-nine and sixty-one one-hundredths (149.61) acres, more or less.

EXCEPTING FROM PARCEL ONE: The rights granted in the deed from H. O. Marshall to J. C. Jones, et al, dated June 24, 1912 and recorded June 24, 1912 in Volume 182 of Deeds, at page 106, as follows:

(A) "A right of way for a road thirty (30) feet in width through the southeast quarter (S.E 1/4) of said Section 24, Township 1 South, Range 2 West, Mount Diablo Base and Meridian, following the general line of the creek in a general southwesterly and northeasterly direction and as near the bottom of the canon containing said creek as practical."

(B) "A right to lay and maintain a pipe line across said southeast quarter of said Section 24, Township 1 South, Range 2 West, in such location north of the canon and crossing said quarter section as said parties of the second part may select, together with the right of ingress and egress to and from the same and upon the express conditions, however, that said pipe line shall be buried at least ten inches deep and that the owners of said pipe line shall be responsible in damages to the owners of said quarter section for any and all damages which may arise out of the breaking of said pipe line or the ingress or egress of the owners thereof to the same."

PARCEL TWO: Portion of Lot 1 in Section 19, Township 1 South, Range 1 West, Mount Diablo Base and Meridian, described as follows:

COMMENCING at the southeast corner of Lot 5 in Section 24, Township 1 South, Range 2 West, Mount Diablo Base and Meridian from which point a 27 inch White Oak Tree bears south three degrees west (S. 3° W.) distant seventy-five and ninety one-hundredths (75.90) feet (for the purpose of this description the bearing of the southern boundary line of said Lot 5 will be taken as north eighty-eight degrees

For Reconveyance See Volume 672 Official Records, page 1

fifty-nine minutes east (N. 88° 59' E.); thence from said point of commencement running north thirty-five degrees ten minutes forty-two seconds east (N. 35° 10' 42" E.) nine hundred seventy-eight and eighty-nine one-hundredths (978.89) feet to the actual point of commencement of this description said point being a point on the northern boundary line of the lands now or formerly of Starkweather, as said boundary line now exists; thence from said point of commencement north twelve degrees seventeen minutes west (N. 12° 17' W.) fifty-four (54) feet; thence north fourteen degrees thirty-two minutes west (N. 14° 32' W.) one hundred fifty-five (155) feet; thence north twenty degrees fifty-one minutes five seconds west (N. 20° 51' 05" W.) fifty-two and eighty-two one-hundredths (52.82) feet; thence north twenty-three degrees thirteen minutes west (N. 23° 13' W.) four hundred seventy-seven (477) feet; thence north twenty-four degrees twenty minutes west (N. 24° 20' W.)Ninety-one (91) feet; thence north thirty-six degrees three minutes five seconds west (N. 36° 03' 05" W.) three hundred twenty-one and twelve one-hundredths (321.12) feet; thence north eighteen degrees forty-eight minutes ten seconds west (N. 18° 48' 10" W). three hundred twenty-seven and ninety-eight one-hundredths (327.98) feet to an iron pipe in the western boundary line of the lands of Kuss, as said boundary line now exists, from which said last mentioned point, the actual point of commencement bears south twenty-three degrees forty-one minutes fourteen seconds east (S. 23°41' 14" E.) distant one thousand four hundred sixty-seven and sixteen one-hundredths (1467.16) feet, said iron pipe being on the east line of Section 24 above referred to; thence south along said east line to the north line of the parcel of land now or formerly of Starkweather; thence south eighty-eight degrees twenty-three minutes east (S. 88° 23' E.) along said north line five hundred eighty-nine and ten one-hundredths (589.10) feet to the point of commencement.

PARCEL THREE: The right of way as provided for in the deed from Edward Kuss, et al, to Contra Costa County Title Company, dated July 21, 1937 and recorded January 21, 1938 (File No. 840), and as provided for in the deed from Le Roy A. Macomber, et ux, to Contra Costa County Title Company, dated January 3, 1938 and recorded January 21, 1938, (File No. 841).

TOGETHER with the improvements now or hereafter situated thereon (said real property and improvements being hereinafter referred to as "said property").

TO HAVE AND TO HOLD the same unto the Trustee upon the trusts and agreements herein expressed, to-wit:

FIRST: The Grantors shall pay prior to delinquency all taxes and assessments which are, or shall be, a lien upon said property, or any part thereof, including assessments on appurtenant water stock, and shall pay, at maturity, all other charges, encumbrances and liens which are, or shall hereafter be, or appear to be, a lien or encumbrance on said property, or any part thereof.

Second: The Grantors shall at all times keep the said property insured against loss or damage by fire and earthquake and such other risks and in such amounts as shall from time to time be required by the Bank in companies and in form satisfactory to the Bank, the policies for which shall be payable to and held by the Bank as further security. Any amounts collected under any such policies may be applied by the Bank upon any indebtedness secured hereby and in such order as the Bank may determine or, at the option of the Bank, the entire amount so collected, or any part thereof, may be released to the Grantors.

Third: The Grantors shall appear in and defend any action or proceeding purporting to affect the security hereof, or the rights and powers of the Trustee or the Bank hereunder.

Fourth: The Grantors shall keep said property in good condition and repair; not remove or demolish any building thereon; complete or restore promptly, and in good and workmanlike manner, any building which may be constructed, damaged or destroyed thereon; pay, when due, all claims for labor performed and materials furnished therefor; comply with all laws affecting said property or requiring any alterations or improvements to be made thereon; not commit or permit waste thereof; not commit, suffer or permit any act upon said property in violation of law; cultivate, irrigate, fertilize, fumigate, prune and do all other acts which, from the character or use of said property, may be reasonably necessary, the specific enumerations herein not excluding the general.

Fifth: If the Grantors shall fail to do and perform any of the acts and things or make any payment herein provided, then the Trustee or the Bank, without obligation so to do, and without notice and without releasing the Grantors from the obligation thereof, may make, do or perform the same and for such purpose pay and expend such sums as either of them may deem necessary or proper in connection therewith, and if there be commenced or pending any suit or action affecting said property, or any part thereof, or the title thereto, or if any adverse claim for or against said property, or any part thereof, be made or asserted, the Trustee or the Bank may appear in said suit or action and retain counsel therein and defend the same or otherwise take such action therein as it may be advised, and may settle or compromise the same or the said adverse claim, and shall be the judge of the legality or the validity of any claims, taxes, assessments, charges, liens, or encumbrances and the amount

necessary to be paid in satisfaction thereof, and the Grantors shall pay to the Trustee and the Bank respectively, on demand, all moneys, which they shall respectively pay or expend pursuant to the provisions, or any of them, herein contained, including reasonable attorneys' fees incurred, together with interest upon each of said amounts until paid from the time of the payment thereof at the rate of 7% per annum, and said moneys shall be secured by this deed of trust. The Bank may extend the time of payment of principal or interest or alter the rate of interest of any notes or obligations secured hereby or renew the same without discharging the Grantors, or any successor in interest of said Grantors in the said property, from liability on said notes or obligations.

Sixth: In case the Grantors shall well and truly pay, or cause to be paid at maturity, in the lawful money aforesaid, the said promissory note, or notes, and all moneys herein agreed to be paid by the Grantors, and all debts secured hereby, and the interest thereon, and also the reasonable expenses of this trust, as herein specified, then the Trustee, upon delivery of the promissory note, or notes, hereinabove described shall, at the request of the Bank and cost of the Grantors, reconvey, without warranty, the property then held hereunder. The Trustee may, at any time, upon request of the Bank and cost of the Grantors, reconvey to the Grantors, without warranty, any part of said property without affecting the personal liability of any person for the payment of any of said indebtedness or the lien of this deed of trust upon the remainder of the said property hereby conveyed. The recitals in such reconveyance of any matters or facts shall be conclusive proof of the truthfulness thereof. The Grantees in such reconveyance may be described as "the person or persons legally entitled thereto."

Seventh: If default be made in the payment of the said promissory note, or notes, or any installment of principal or interest thereof, according to the terms thereof, or in the payment of any of the other moneys herein agreed to be paid or repaid or secured hereby, or of any interest thereon, or in the performance on the part of the Grantors of any of the obligations of this instrument by them agreed to be kept and performed, or if the said property, or any part thereof, be subjected in any way to proceedings in abatement under any present or future law or ordinance, or in case any change is made in the title to all or any part of the said property, all sums hereby secured shall, at the election of the Bank, forthwith become due and payable, without notice, and the Bank may cause the said property to be sold in order to accomplish the objects of these trusts, and upon demand of the Bank the Trustee shall sell the whole, or such portion of said property as the Trustee shall deem necessary to accomplish the purposes of these trusts, and such sale may be made in any manner provided by law, and if none is provided, then by first giving notice of the time and place of sale in the manner and for a time not less than that required by law for the sales of real property on execution. The Trustee may, from time to time, postpone such sale by public announcement or proclamation thereof made at the time and place appointed and, from time to time thereafter, may postpone such sale in like manner, and at the time and place of sale so appointed, or to which such sale may have been postponed, it may sell the property as a whole, or in parcels as the Trustee may determine, at public auction to the highest cash bidder in lawful money of the United States. The Trustee in conducting such sale may act either through the agency of one of its officers or one of its attorneys or of an auctioneer. Upon the happening of any such event of default the Bank may at its option bring an action to foreclose the instrument as a mortgage or to enforce any of the covenants hereof. The Bank, or the holder of said note or notes, may bid and purchase at any such sale by the Trustee or at any sale in such foreclosure action.

Eighth: Upon such sale, the Trustee shall make and execute and, after due payment made, shall deliver to the purchaser, or purchasers, a deed, or deeds, without warranty, of the property so sold, and shall apply the proceeds of sale thereof, in payment (firstly) of the expenses of such sale, together with reasonable expenses of this trust, including reasonable counsel fees and cost of securing evidence of or for search of the title to said property, or any part thereof, subsequent to the execution hereof; in payment (secondly) of the said promissory note, or notes, and of the amount of principal and interest thereon then remaining unpaid and the amount of any other moneys, with the interest thereon, herein agreed or provided to be paid by the Grantors; and in payment (thirdly) of all other moneys or indebtedness due or owing from the Grantors, or any of them, to the Bank, and secured hereby, and the balance of the proceeds of such sale, if any, shall be paid to the Grantors, or whomsoever may be lawfully entitled to receive the same, upon lawful demand being made therefor.

Ninth: In the event of a sale of said property, or any part thereof, and the execution of a deed, or deeds, therefor under these trusts, the recitals in such deed of any matters or facts shall be conclusive proof of the truthfulness thereof, and shall be effectual and conclusive against the Grantors, and the receipt for the purchase money recited or contained in any deed executed to any purchaser, as aforesaid, shall be a sufficient discharge to such purchaser from all obligation to see to the proper application of the purchase money according to the trusts aforesaid,

and generally any and all of the recitals contained in said deed of the acts and things done and proceedings taken by the Trustee or the Bank shall be conclusive against the Grantors as to the acts, things or proceedings so recited.

Tenth: The Bank may, at any time by instrument in writing, appoint a new Trustee in the place of any Trustee named herein or acting hereunder, which instrument, executed and acknowledged by said Bank, and recorded in the office of the County Recorder of the County or Counties where said property or any part thereof is situated, shall be conclusive proof of the proper substitution of such new Trustee, who shall have all the right, estate, powers and duties of said Trustee predecessor.

Eleventh: The Trustee may at any time, at its option, commence and maintain suit in any court of competent jurisdiction and obtain the aid and direction of said court in the execution by it of the trusts, or any of them, herein expressed or contained, and may in such suit obtain orders or decrees, interlocutory or final, of said court directing the execution of said trusts, and confirming and approving its acts, or any of them, or any sales or conveyances made by it, and adjudging the validity thereof, and directing that the purchasers of the property sold and conveyed be let into immediate possession thereof, and providing for orders or other process, requiring the sheriff of the County in which said property is situated to place and maintain the said purchasers in quiet and peaceable possession of the property so purchased by them, and the whole thereof.

Twelfth: The Trustee or the Bank may enter said property and inspect the same at any time during the existence of this trust. If default be made by the Grantors in the performance of any of the covenants hereof, or in the payment of any indebtedness secured hereby, or if any of the events of default specified in paragraph Seventh hereof occur, the Trustee may, upon request of the Bank, without the necessity of instituting any action or legal proceedings, or may by a Receiver appointed therefor in an action to foreclose or in an independent action or proceeding, (all notice of such appointment being hereby expressly waived) enter upon and take possession of all or any part of said property and exclude the Grantors therefrom and use, operate, manage and control said property and perform such acts of repair, irrigation, cultivation or preservation as may, in the judgment of either of them, be necessary or proper, and said Trustee or Receiver, as the case may be, may (whether or not possession shall havebeen so taken) collect and receive the rents, income and proceeds therefrom, which rents, income and proceeds are hereby assigned to the Trustee, and said Trustee or Receiver may apply the same as hereinbefore specified with respect to the proceeds of the sale of said property and exercise such other powers as may be necessary or proper. The failure of the Trustee to collect such rents, income or proceeds or exercise its rights under said assignment shall not constitute a waiver of said assignment or rights or estop the Trustee from collecting said rents, income or proceeds or exercising its rights at any time. The receipt of any such rents, income or proceeds, or any other moneys, shall not cure or waive any default or notice of default hereunder, or invalidate any act done pursuant to such notice. No remedy in this deed of trust provided shall be exclusive of any other remedy provided herein, or at law, or in equity. All expenses incurred with any such acts or proceedings, including counsel fees, shall be repaid to the Trustee and shall be secured by this deed of trust.

Thirteenth: It is expressly agreed that the trusts created hereby are irrevocable by the Grantors.

Fourteenth: The obligations of the Grantors hereunder are joint and several and if this instrument be executed by but one person or grantor, the word "Grantors" as used herein shall be construed as singular, and this instrument shall be binding upon the heirs, successors and assigns of all of the parties.

IN WITNESS WHEREOF, the Grantors have executed these presents the day and year first hereinabove written.

Witness: --

Carlotta Monterey O'Neill

State of California,)
County of Alameda) ss.

On this 3rd day of February A. D., One Thousand Nine Hundred and Thirty-eight, before me, Ralph Coffey a Notary Public in and for said County of Alameda, residing therein, duly commissioned and sworn, personally appeared CARLOTTA MONTEREY O'NEILL known to me to be the person whose name is subscribed to the within and foregoing instrument and acknowledged to me that she executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year last above written.

(((((NOT'L SEAL)))))

Ralph Coffey
Notary Public in and for said County of --,
State of California.

Recorded at the request of Contra Costa County Title Co., Mar. 12, 1938, at 11 A. M.
36
Copied- HP Compared-Book-H. P Document- B. W.

Ralph Cunningham, County Recorder

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