
National Park Service
Cultural Landscapes Inventory

2005



Scotty's Castle
Death Valley National Park



National Park Service
U.S. Department of the Interior

Pacific West
Regional Office

Cultural Resource
Programs

CULTURAL LANDSCAPES INVENTORY (CLI) PROGRAM
2011 Condition Assessment Update for:

Scotty's Castle
Death Valley National Park

Death Valley National Park concurs with the condition assessment update for Scotty's Castle as identified below:

CONDITION ASSESSMENT: **FAIR**

Good: indicates the landscape shows no clear evidence of major negative disturbance and deterioration by natural and/or human forces. The landscape's cultural and natural values are as well preserved as can be expected under the given environmental conditions. No immediate corrective action is required to maintain its current condition.

Fair: indicates the landscape shows clear evidence of minor disturbance and deterioration by natural and/or human forces, and some degree of corrective action is needed within 3-5 years to prevent further harm to its cultural and/or natural values. If left to continue without appropriate corrective action, the cumulative effect of the deterioration of many of the landscape characteristics will cause the landscape to degrade to a poor condition.

Poor: indicates the landscape shows clear evidence of major disturbance and rapid deterioration by natural and/or human forces. Immediate corrective action is required to protect and preserve the remaining cultural and natural values.

Sarah Casper

Superintendent, Death Valley National Park

9/20/2011

Date

Please return to:

Vida Germano
CLI Coordinator
National Park Service
Pacific West Regional Office
1111 Jackson Street, Suite 700
Oakland, CA 94607-4807
(510) 817-1407
(510) 817-1484 (fax)

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Proposed Revisions in the CLI Database for Scotty's Castle rev. 8/11/11

1. Chronology

It is proposed that the following entries in **bold** be added to the chronology section:

<u>2005</u>	<u>AD</u>	<u>2005</u>	<u>AD</u>	<u>Stabilized</u>	Targeted portions of loose stucco on the Powerhouse were repaired and conserved, or replaced.
<u>2005</u>	<u>AD</u>	<u>2005</u>	<u>AD</u>	<u>Stabilized</u>	Broken or missing terra cotta roof tiles were replaced or repaired as necessary on the Scotty's Castle Main House, Annex, and Guest House.
<u>2005</u>	<u>AD</u>	<u>2005</u>	<u>AD</u>	<u>Stabilized</u>	The Romanesque columns that support the entry porch on the south side of the Chimes Tower were stabilized.
<u>2010</u>	<u>AD</u>	<u>2010</u>	<u>AD</u>	<u>Rehabilitated</u>	The Cookhouse was rehabilitated. The building was damaged in 1991 due to a fire. As a result of the rehabilitation, the building has the same footprint, massing, roof pitches/lines and exterior appearance as the original structure.

2. Stabilization Description

It is proposed that the existing stabilization measures and stabilization cost explanatory be removed from the database in order to provide more up-to-date information in the future. See proposed stabilization measures description in the box below.

Existing Stabilization Measures Description:

Assess root damage to the watercourse structure. Remove vegetation causing damage.

Existing Stabilization Cost Explanatory Narrative:

The structural integrity of the watercourse must be assessed by park staff. The evaluation should determine where the vegetation is damaging the structure. Tasks should be determined, the number of crew to complete the job, and budget. Buildings have not yet been assessed for stabilization measures or costs (An historic structures report is currently in draft).

Proposed Revisions in the CLI Database for Scotty's Castle rev. 8/11/11

Proposed Stabilization Measures Description:

1. Remove encroaching vegetation (such as mesquite, creosote and palm trees) near the foundation of the watercourse to stabilize structure.
2. Stabilize historic concrete post and barbed wire fence surrounding the historic district.
3. The riparian area near the stables is growing and rapidly encroaching outward toward the employee parking area. While the encroaching vegetation is not threatening to undermine any buildings or structures, the vegetation needs to be thinned.

Additional recommendations for the stabilization of individual buildings can be found in the *Death Valley Scotty Historic District Historic Structures Report* prepared for the National Park Service by Carey & Co. Inc., 2009, pgs. 347-363

3. Condition

It is proposed that the Scotty's Castle cultural landscape condition assessment remain as "fair." New information is noted in **bold**. Existing condition information associated with the 2005 assessment will be maintained in the database.

Condition Assessment	Condition Assessment Date	Condition Assessment Explanatory Narrative
Fair	9/9/2005	The structural integrity of the watercourse is being compromised by root encroachment.
Fair	11/18/2010	The condition of the Scotty's Castle cultural landscape has been assessed as fair. Although individual features or elements associated with the landscape may be in good, fair, or poor condition, collectively, the overall landscape is in fair condition. The inventory unit shows clear evidence of minor disturbances and deterioration by natural and/or human forces, and some degree of corrective action is needed within 3-5 years to prevent further harm to its cultural and/or natural values.

Proposed Revisions in the CLI Database for Scotty's Castle rev. 8/11/11

4. Impacts to Inventory Unit

Proposed additions to the impacts section are listed below:

Impact Type	External or Internal	Impact Explanatory Narrative
Exposure To Elements	Both Internal and External	Several buildings, structures and circulation features have been adversely affected as a result of exposure to elements such as wind, rain and sun.
Encroaching Vegetation	Internal	Encroaching vegetation, including mesquite, creosote and palm trees is negatively impacting the foundation of the watercourse.

Encroaching Vegetation	Internal	Encroaching vegetation along the fence line is negatively affecting the concrete posts and barbed wires. Posts have also suffered from exposure to elements and deferred maintenance.
Theft	External	Theft of objects found in dump sites in Tie Canyon has been problematic.
Erosion	Both Internal and External	As a result of the dynamic nature of this environment, several features have been adversely affected by erosion. Objects and materials that date to the period of significance are washing down Tie Canyon and concrete fence posts have been displaced, especially near Bonnie Clare Road.

Operations on Site	Internal	Park and contractor vehicles parked in inappropriate locations detract from the historic character of the site.
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Encroaching Vegetation	Internal	The riparian area near the stables is growing and rapidly encroaching outward toward the employee parking area.
-------------------------------	-----------------	--

Proposed Revisions in the CLI Database for Scotty's Castle rev. 8/11/11

		<p>Historically, the vegetation in this area was less dense as a result of occasional burning and grazing activities. Today, the character of the riparian area is significantly different than what existed during the period of significance. Selective thinning should be considered to reduce the density of the vegetation.</p>
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Cultural Landscape Inventory: Scotty's Castle

Death Valley National Park concurs with the general findings of this Cultural Landscape Inventory, including the Management Category and Condition Assessment as listed below:

MANAGEMENT CATEGORY B: **Should be preserved and maintained**

CONDITION ASSESSMENT: **Fair**


Terry Baldino
for _____ *9-9-05*
Superintendent, Death Valley National Park Date

Please return this form to:
Erica Owens
CLI Coordinator, Seattle Office
National Park Service
909 1st Ave, Floor 5
Seattle, WA 98104

SCOTTY'S CASTLE
DEATH VALLEY NATIONAL PARK

California SHPO Eligibility Determination

Section 110 Actions Requested:

- 1) SHPO concurrence on the boundary established for Scotty's Castle, a site within the Death Valley Scotty Historic District (listed on the National Register of Historic Places in 1978)
- 2) SHPO concurrence with expansion of the period of significance from 1922-1931 to 1907-1954.
- 3) SHPO concurrence that the Setting, as identified in the CLI, contributes to the significance of the site.
- 4) SHPO concurrence with the addition of structures to the List of Classified Structures (LCS). (See chart below)

1) I concur, I do not concur with the boundary established for Scotty's Castle, a site within the Death Valley Scotty Historic District (listed on the National Register of Historic Places in 1978)

2) I concur, I do not concur with the proposed period of significance expansion for the Scotty's Castle as described in the Cultural Landscape Inventory (CLI).

3) I concur, I do not concur that the **Setting** as described in the CLI contributes to Scotty's Castle (see the following landscape characteristics: natural systems and features, spatial organization, topography, circulation, and vegetation).

4) The following structures, located within the Death Valley Scotty Historic District, are **already listed on the National Register of Historic Places** as contributing elements:

LCS number	LCS Structure Name	NRIS Number
000250	Scotty's Castle	78000297
057834	Scotty's Castle Annex	78000297
007613	Scotty's Castle Chimestower	78000297
007612	Scotty's Castle Hacienda-Guest House	78000297
007614	Scotty's Castle Powerhouse and Pavilion	78000297
007615	Scotty's Castle Gas House	78000297
007616	Scotty's Castle Cookhouse	78000297
007617	Scotty's Castle Motel Unit/Garage	78000297
007624	Scotty's Castle Swimming Pool	78000297
056095	Scotty's Castle Scotty's Cabin	78000297
007620	Scotty's Castle Stable	78000297
007621	Scotty's Castle Entrance Gates	78000297
007619	Scotty's Castle Solar Heater	78000297
007622	Scotty's Castle Gravel Separator	78000297

057836	Scotty's Castle Wishing Well	78000297
056094	Scotty's Castle/Lower Grapevine Ranch Fence Lines	78000297
056103	Scotty's Castle Scotty's Grave	78000297
007623	Scotty's Castle Powder Storage	78000297
056093	Scotty's Castle Tie Canyon Wash House	78000297
056101	Scotty's Castle Tie Canyon Storage Area	78000297
056102	Scotty's Castle Upper Tie Canyon Storage Area	78000297

Based on the information provided in the CLI, the following previously unevaluated structures have been identified as **contributing** to Scotty's Castle:

LCS number	LCS Structure Name	Date Built	Concur	Do not Concur
461552	Scotty's Castle Watercourse	1930	X	
461557	Scotty's Castle Retaining walls (dry stack stone and concrete)	1925-31	X	
461559	Scotty's Castle Entrance Road	1929	X	
461562	Scotty's Castle Building Complex Access Roads	1922-31	X	
461564	Scotty's Castle Tie Canyon Access Roads	1928	X	
461566	Scotty's Castle Spring Access Road	1922-26	X	
461567	Scotty's Castle Tile Courtyard (between Scotty's Castle and Annex)	1927	X	
461581	Scotty's Castle Stone Walkways at Cook House and Guest House	1931	X	
461586	Scotty's Castle Concrete Driveway at Scotty's Castle Motel Unit/Garage	1930	X	

Based on the information provided in the CLI, the following previously unevaluated structures have been identified as **not contributing** to Scotty's Castle because they were constructed after the period of significance:

LCS number	Structure Name	Concur	Do not Concur
NA	Ticket Booth	X	
NA	Gas Pumps	X	
NA	Restroom	X	
NA	Administrative portable trailer	X	
NA	Storage shed (adjacent to portable trailer)	X	
NA	Three structures at spring	X	
NA	Gas Tank House addition	X	
NA	Visitor parking lot	X	
NA	Fire hydrant shelters	X	
NA	Fire Cache (moved and altered after the period of significance)	X	

Reasons/comments why any 'Do Not Concur' blocks were checked:

The features evaluated in this submission are components of the setting of Scotty's Castle and supplement the buildings and features identified in the 1978 National Register nomination. There is no concurrence at this time that these features constitute a separately eligible cultural landscape district. However, the documentation provided appears to establish a strong foundation for a cultural landscape nomination.

Concurrence is contingent on the modification of the evaluation document as follows: The

Expansion of Period of Significance:

The period of significance remains that defined in the National Register listing. The expansion of the period of significance is not adequately supported. While the property was owned and occupied by an initial owner from 1907-1922 and some small development occurred on the property at that time, there are no physical remains from that period, other than an initial trail later expanded into the road linking the Castle and the Lower Vine Ranch. The road derives its significance from its association with the expansive development under Scott and Johnson. The fact that there was a prior owner who established occupancy and utilized the available natural water source does not demonstrate a continuity or linkage from the early period of settlement to the period of Walter Scott and Albert Johnson's development of the property. Likewise, although the Gospel Foundation of California owned the property following Johnson's death, they did not contribute in any notable way to the development or alteration of the property and the changes they made, as described in the evaluation, were minor. Therefore the proper period of significance remains the one identified in the 1978 nomination. Under current National Register standards, the period of significance might well end in the 1930s when Johnson was forced to limit his development due to financial reverses.

Relationship of Lower Vine Ranch and Scotty's Castle

The extensive descriptions of Vine Ranch included in this evaluation should be shortened. It is redundant with the descriptions provided in the separate Lower Vine Ranch evaluation. A brief discussion of the relationship of the ranch to the Castle and a delineation of features that are common to both (fence, perimeter road etc.) is all that is necessary. The inclusion of the lengthy ranch material is confusing since the evaluation asks only for concurrence with the addition of features at the Scotty's Castle locale.

Steve D. Nikeselle DSHRO 9/28/05
California State Historic Preservation Officer Date

Please return forms to the attention of:
Kimball Koch

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Inventory Unit Summary & Site Plan

Inventory Summary

The Cultural Landscapes Inventory Overview:

CLI General Information:

Cultural Landscapes Inventory – General Information

The Cultural Landscapes Inventory (CLI) is a database containing information on the historically significant landscapes within the National Park System. This evaluated inventory identifies and documents each landscape's location, size, physical development, condition, landscape characteristics, character-defining features, as well as other valuable information useful to park management. Cultural landscapes become approved inventory records when all required data fields are entered, the park superintendent concurs with the information, and the landscape is determined eligible for the National Register of Historic Places through a consultation process or is otherwise managed as a cultural resource through a public planning process.

The CLI, like the List of Classified Structures (LCS), assists the National Park Service (NPS) in its efforts to fulfill the identification and management requirements associated with Section 110(a) of the National Historic Preservation Act, National Park Service Management Policies (2001), and Director's Order #28: Cultural Resource Management. Since launching the CLI nationwide, the NPS, in response to the Government Performance and Results Act (GPRA), is required to report information that respond to NPS strategic plan accomplishments. Two goals are associated with the CLI: 1) increasing the number of certified cultural landscapes (1b2B); and 2) bringing certified cultural landscapes into good condition (1a7). The CLI maintained by Park Historic Structures and Cultural Landscapes Program, WASO, is the official source of cultural landscape information.

Implementation of the CLI is coordinated and approved at the regional level. Each region annually updates a strategic plan that prioritizes work based on a variety of park and regional needs that include planning and construction projects or associated compliance requirements that lack cultural landscape documentation. When the inventory unit record is complete and concurrence with the findings is obtained from the superintendent and the State Historic Preservation Office, the regional CLI coordinator certifies the record and transmits it to the national CLI Coordinator for approval. Only records approved by the national CLI coordinator are included on the CLI for official reporting purposes.

Relationship between the CLI and a Cultural Landscape Report (CLR)

The CLI and the CLR are related efforts in the sense that both document the history,

significance, and integrity of park cultural landscapes. However, the scope of the CLI is limited by the need to achieve concurrence with the park superintendent resolve eligibility questions when a National Register nomination does not exist or the nomination inadequately addresses the eligibility of the landscape characteristics. Ideally, a park's CLI work (which many include multiple inventory units) precedes a CLR because the baseline information in the CLI not only assists with priority setting when more than one CLR is needed it also assists with determining more accurate scopes of work.

In contrast, the CLR is the primary treatment document for significant park landscapes. It, therefore, requires an additional level of research and documentation both to evaluate the historic and the existing condition of the landscape in order to recommend preservation treatment that meets the Secretary of Interior's Standards for the treatment of historic properties.

The scope of work for a CLR, when the CLI has not been done, should include production of the CLI record. Depending on its age and scope, existing CLR's are considered the primary source for the history, statement of significance, and descriptions of contributing resources that are necessary to complete a CLI record.

Inventory Unit Description:

The Death Valley Scotty Historic District is an area of Regional significance in the fields of 20th century architecture, folklore and social history, and of local significance in the fields of archeology, art and invention. (Individually, the main castle and Annex are of Regional significance in those fields, and all other structures are of local significance.) The Scotty's Castle complex serves as a reminder of the excesses of mining promotion during the early 20th century, the frontier romanticism connected with it, and the conspicuous consumption practiced by the wealthy during the 1920s. The architecture typifies their values. The district as a whole is closely associated with one of the best known and most colorful figures produced by the American mining frontier—Death Valley Scotty (Walter Scott). Lower Vine Ranch served as the residence for Death Valley Scotty. Scotty' lived in the main residence between 1930 and 1952. He spent the last two years of his life living at Scotty's Castle when he became old and infirm.

Scotty's Castle, a property covering 300 acres, is located within the Grapevine Canyon at an elevation of 3000 feet. The historic extent of the property is physically defined by a perimeter fence that was built by Albert Johnson in the 1920s. Several buildings and structures remain and are characteristic of a small, working ranch. Features include Scotty's Castle and annex, the powerhouse, the chimestower, guest house, stables, garage bunkhouse/hotel, entrance gate, and gravel separator.

The building complex at Scotty's Castle appears much like a small Spanish village, with a number of single-story buildings tightly clustered together and distinguished by red roof tiles and adobe walls. Although the National Register Nomination (1978) lists ten contributing buildings at Scotty's Castle, the List of Classified Structures (LCS) names twenty-two including primary buildings such as Scotty's Castle, annex, guest house, gas tank house, power house, chimes tower, long shed bunkhouse, stable, and entrance gate. In addition, several other structures such as the watercourse and the stone retaining walls at Scotty's Castle may be considered contributing resources because they were built during the

Scotty's Castle

Death Valley National Park

historic period and were part of the overall design scheme for the property.

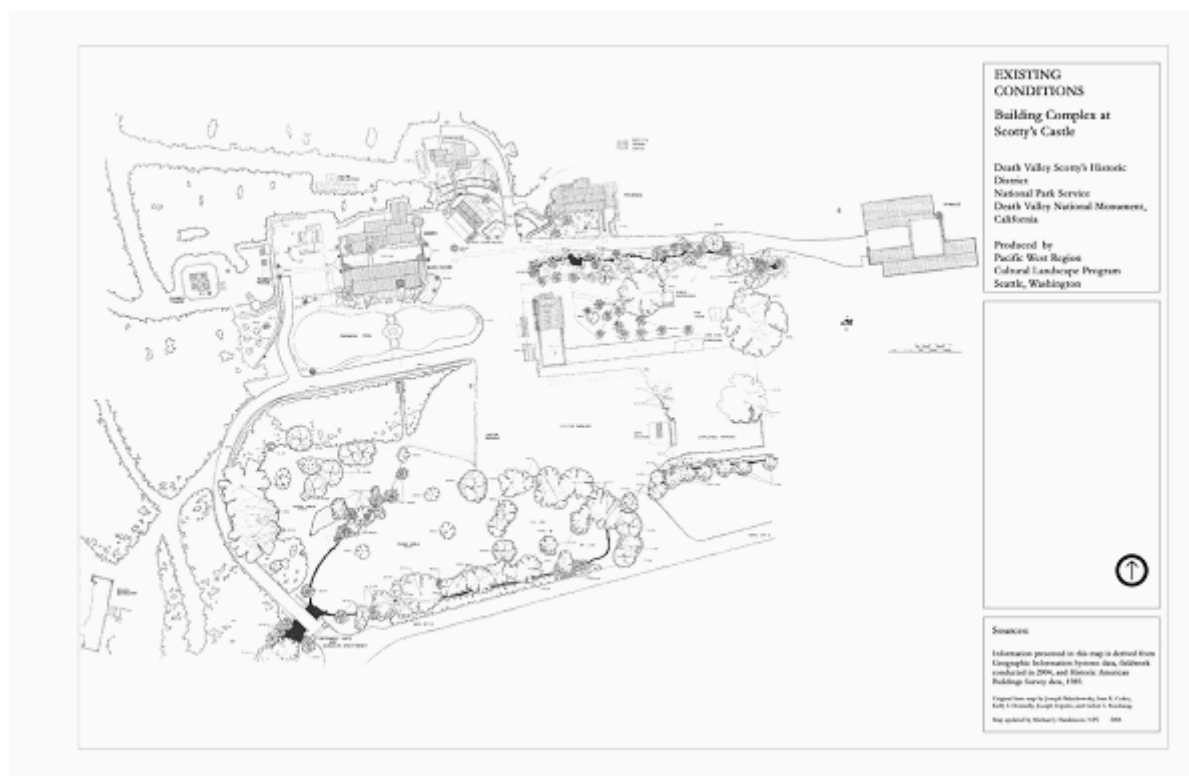
The Death Valley Scotty Historic District is an area of Regional significance in the fields of 20th century architecture, folklore and social history, and of local significance in the fields of archeology, art and invention. (Individually, the main castle and Annex are of Regional significance in those fields, and all other structures are of local significance.) The Scotty's Castle complex serves as a reminder of the excesses of mining promotion during the early 20th century, the frontier romanticism connected with it, and the conspicuous consumption practiced by the wealthy during the 1920s. The architecture typifies their values. The district as a whole is closely associated with one of the best known and most colorful figures produced by the American mining frontier—Death Valley Scotty (Walter Scott).

Today, Scotty's Castle retains integrity and is in an overall state of good condition. The cultural landscape displays the seven aspects that determine integrity as defined by the National Register of Historic Places: location, design, materials, workmanship, setting, feeling, and association through the retention of the relevant landscape characteristics. Together, these landscape characteristics and associated features convey the significance of the historic site with the majority of historic fabric remaining from the historic period of significance, 1907-1954.

Site Plan



Site plan showing the grounds of Scotty's Castle. The green line follows the approximate fence line around the property; the Castle is located within the building complex (PWR 2005). A larger version of this map is located in the appendix.



Site plan showing the building complex at Scotty's Castle (HABS 1991/PWR 2005). A larger version of this map is located in the appendix.

Property Level and CLI Numbers

Inventory Unit Name:	Scotty's Castle
Property Level:	Component Landscape
CLI Identification Number:	725096
Parent Landscape:	725095

Park Information

Park Name and Alpha Code:	Death Valley National Park -DEVA
Park Organization Code:	8130
Park Administrative Unit:	Death Valley National Park

CLI Hierarchy Description

Scotty's Castle is a component landscape of Death Valley Scotty Historic District. Both Lower Vine

Scotty's Castle
Death Valley National Park

Ranch and Scotty's Castle are located within the boundaries of Death Valley Scotty Historic District, the parent landscape.

Concurrence Status

Inventory Status: Complete

Completion Status Explanatory Narrative:

This CLI was a conversion from the Death Valley Scotty Historic District Cultural Landscape Report. Fieldwork, research, writing, and graphics were completed by Michael Hankinson.

Concurrence Status:

Park Superintendent Concurrence:	Yes
Park Superintendent Date of Concurrence:	09/09/2005
National Register Concurrence:	Eligible -- SHPO Consensus Determination
Date of Concurrence Determination:	09/28/2005
Data Collection Date: 08/11/2005	Recorder: Michael Hankinson
Data Entry Date: 08/11/2005	Recorder: Michael Hankinson

Geographic Information & Location Map

Inventory Unit Boundary Description:

Beginning at a point where Bonnie Clare road and the entrance gate intersect, the property is defined by a perimeter fence that was constructed during the period of significance. The fence runs south from the entrance gate over a mile, parallel to Bonnie Clare road until it reaches cottonwood corner. The boundary turns west approximately one quarter mile, then leads north on the western side of the Grapevine Canyon for two miles until it reaches the north end of Tie Canyon. At Tie Canyon, the boundary leads east until it reaches the springs. The boundary encompasses the springs then leads west where it links with the entrance gate.

State and County:

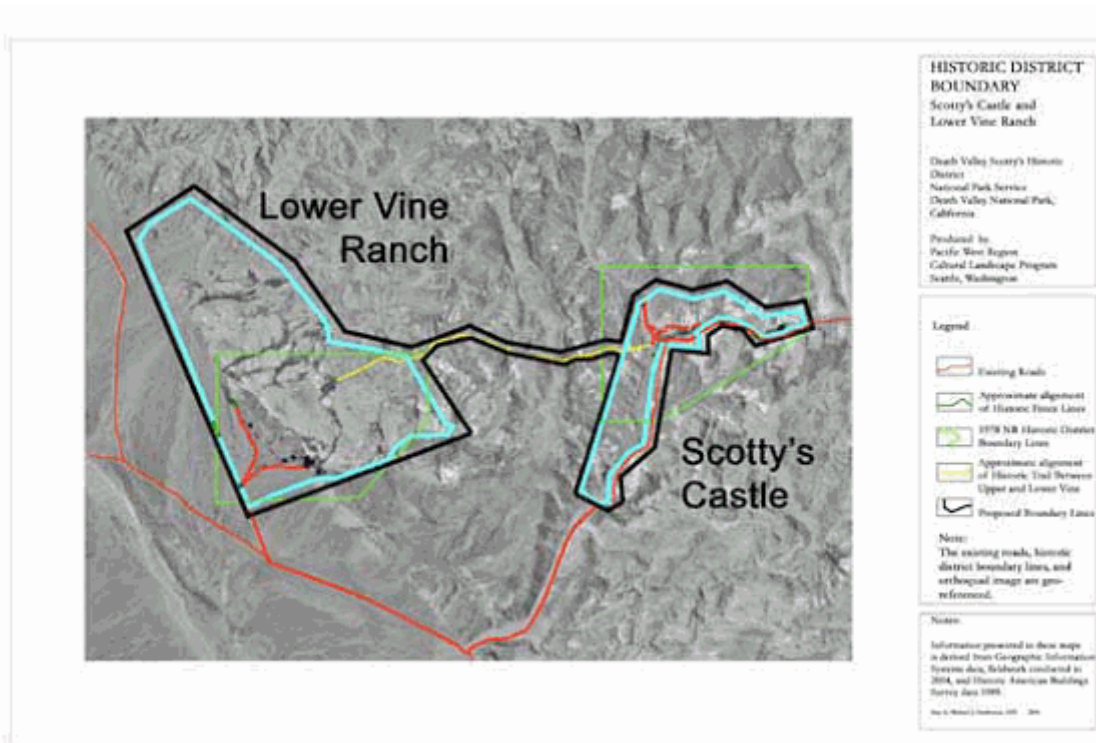
State: CA
County: Inyo County

Size (Acres): 300.00

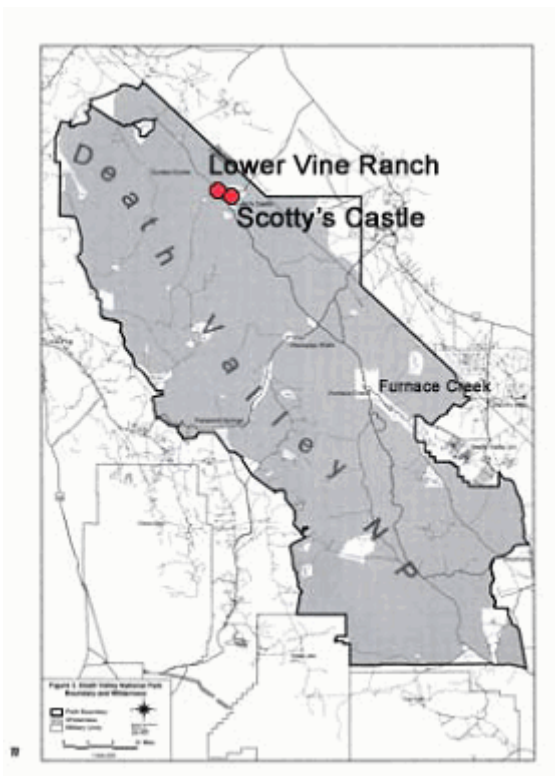
Boundary UTMS:

<u>Source</u>	<u>Type of Point</u>	<u>Datum</u>	<u>UTM Zone</u>	<u>UTM Easting</u>	<u>UTM Northing</u>
USGS Map 1:62,500	Area	NAD 83	11	469,700	4,097,230
USGS Map 1:62,500	Area	NAD 83	11	469,000	4,097,230
USGS Map 1:62,500	Area	NAD 83	11	469,000	4,099,080
USGS Map 1:62,500	Area	NAD 83	11	471,395	4,098,250
USGS Map 1:62,500	Area	NAD 83	11	471,395	4,098,250

Location Map:



Location map showing Death Valley Historic District. Scotty's Castle is located within the heart of the Grapevine Canyon, approximately three miles east of Lower Vine Ranch (PWR 2005).



Location map showing Death Valley Scotty Historic District located in the northeastern portion of Death Valley National Park. The historic district includes Scotty's Castle and Lower Vine Ranch (PWR 2005).

Management Information

General Management Information

Management Category: Should be Preserved and Maintained

Management Category Date: 04/01/2005

Management Category Explanatory Narrative:

The GMP calls for the preservation of cultural resources. The cultural landscape meets National Register criteria, is compatible with the park's legislated significance, and has a continuing or potential purpose that is appropriate to its traditional use or function.

Agreements, Legal Interest, and Access

Management Agreement:

Type of Agreement: Concession Contract/Permit

NPS Legal Interest:

Type of Interest: Fee Simple

Public Access:

Type of Access: With Permission

Explanatory Narrative:

Scotty's Caslte is open daily. Public access is limited to daily hours, a staff-led tour of the interior of Scotty's Castle, and a self-guided walking tour.

Adjacent Lands Information

Do Adjacent Lands Contribute? No

National Register Information

Existing National Register Status

National Register Landscape Documentation:

Entered Inadequately Documented

National Register Explanatory Narrative:

This Cultural Landscape Inventory was submitted to the California SHPO for consensus determination on the cultural landscape features and findings of the CLI as a whole.

Existing NRIS Information:

NRIS Number:	78000297
Primary Certification:	Listed In The National Register
Primary Certification Date:	07/20/1978
Name in National Register:	Death Valley Scotty Historic District (78000297)

National Register Eligibility

National Register Concurrence:	Eligible -- SHPO Consensus Determination
Contributing/Individual:	Contributing
National Register Classification:	Site
Significance Level:	State
Significance Criteria:	B - Associated with lives of persons significant in our past C - Embodies distinctive construction, work of master, or high artistic values

Area of Significance:

Area of Significance Category	Area of Significance Subcategory
Landscape Architecture	None
Architecture	None
Invention	None

Statement of Significance:

The following statement of significance is taken primarily from the 1978 National Register of Historic Places nomination, but has been modified to meet CLI requirements:

Scotty's Castle and Lower Vine Ranch are component landscapes located within the Death Valley

Scotty's Castle

Death Valley National Park

Scotty Historic District listed on the National Register in 1978. The district is regionally significant under Criterion B for its association with one of the best known and most colorful figures produced by the American mining frontier—Death Valley Scotty (Walter Scott). It is also locally significant under Criterion C for its unusual and extravagant use of Spanish-styled architecture built in a remote desert location and for the use of experimental building techniques and materials by its owner, Albert Johnson. This CLI recommends expanding the original period of significance (1922-1931) to 1907-1954, to span the entire development period, first by Jacob Steininger and later by Albert Johnson through the continued use and development of the property by the Gospel Foundation of California. Now owned and managed by the NPS, the Scotty's Castle complex and Lower Vine Ranch serve as reminders of the excesses of mining promotion during the early 20th century, the frontier romanticism connected with it, and the conspicuous consumption practiced by the wealth during the 1920s.

Criterion B

Scotty's Castle and Lower Vine Ranch are significant at the regional level under Criterion B for their association with Walter Scott (a.k.a. Death Valley Scotty). Scott made himself a legendary character by his constant publicity-seeking tactics, including the "Scott Special", or "Coyote Special" – a Santa Fe train which, under his direction, set a record in 1905 for the fastest run between Los Angeles and Chicago. The train was financed by one of Scott's "grubstakers." He attained notoriety for the 1906 "Battle of Wingate Pass," a fake skirmish staged to frighten other "grubstakers" from pursuing the location of his alleged gold mines. The "Battle" went awry and resulted in Scott's brother being seriously wounded. Several participants were arrested, but later escaped prosecution. These stories and various tall tales involving Scott made national headlines. Thus, Scott created his own myth.

By 1916, Scott had lived in the Death Valley region for over a decade and had devoted most of time to publicizing one or more mysterious, but actually non-existent gold mines. For a time, he had been "grubstaked" by several persons who hoped to reap a share of the mining profits. A mid-western insurance magnate named Albert Johnson met Scott in 1904 when Scott tried to swindle the insurance man as he had several other easterners. Out of this dubious encounter, Johnson developed a friendship with the swindling, pseudo-pro prospector and publicity hound Scott, which lasted several decades. Johnson visited Scott at Death Valley and discovered that the climate dramatically improved his health. In 1916, he purchased the Grapevine tracts, which now form the heart of the Death Valley Scotty Historic District for use as a campsite during his visits to the region.

Johnson's motive for the construction of the Castle and Ranch remain imperfectly understood. Apparently, Johnson took strong pleasure in the publicity-demanding antics of the untrustworthy Scott, with his tall tales and "western frontier miner" image, to such an extent that he was Scott's financial support for the better portion of his life. Scott took credit for building the Castle complex. Johnson encouraged this misconception, and once identified himself only as Scott's banker. Regardless of exact motives, the end result of Johnson's construction program was a truly fantastic desert palace, presided over by one of the most colorful characters of the southwestern deserts.

Criterion C

Scotty's Castle

Death Valley National Park

Scotty's Castle

Scotty's Castle meets Criterion C for its local architectural significance for the use of Spanish-styled architecture in a remote setting and for technological inventions and experiments. The choice of Spanish-style for the Castle and Annex area is not unusual in California architecture, but is particularly unique in this isolated location. The use of stucco and red mission tile on wood frame and concrete buildings, required enormous amounts of building materials to be hauled in to the isolated site at great expense. The structure would not have been out of the ordinary in Beverly Hills, but it certainly seems extraordinary at its site on the outskirts of Death Valley. Construction with local, available material would have been a far more economic choice. However, concern with economy was not a major factor in the design.

In 1922, Johnson originally built three simple frame and stucco structures, the largest of which was two stories high and 96 feet long. Albert Johnson preferred this simple, unadorned style of architecture, symbolic of his straightforwardness. His wife, Bessie Johnson, preferred the Mission Revival buildings of Stanford University, and proceeded to convince her husband to remodel the buildings in "Provincial Spanish" as she called it, with an old Stanford friend engineer Matt Roy Thompson as head of construction. To create unity, designer Charles A. MacNeilledge used a common vocabulary of materials throughout the building complex including stucco, wood, and metal. Stucco was muddy brown and creamy beige in color with scratches on the surface, giving a "weathered adobe" appearance to all of the buildings.

Emphasis of Castle complex buildings was on the fine, hand-crafted details and architectural furnishings. All the furnishings, except for the European antiques, were designed and built in a workshop in Los Angeles which Johnson created for the sole purpose of outfitting the Castle. MacNeilledge, the designer perhaps most responsible for the design stipulations of the Castle, took great pains in specifying every detail of the furnishings and fittings, down to the last hand-wrought iron door hinge. The tile work in the Main House and Annex is considered by experts at the Tile Institute of America to be some of the better examples of their craft on the west coast. "The Tile Industry News" calls the work at the castle: "a monument in itself to the tile industry."

The overall architectural importance of the Castle area is in its 1920s upper middle class approach to architecture. At that time, the contemporary idea of quality rested in details or appearance such as the carved beams and tile work, rather than with structural integrity and an honest of materials in relation to the building. For example, the powerhouse is a reinforced concrete structure, but it is finished on the exterior with stucco scored in imitation of ashlar masonry. The wood frame walls of the Main House and Annex are finished with stucco, which gives the buildings the illusion of being constructed of adobe.

While Bessie Johnson was allowed her freedom in choice of design and style, Albert Johnson pursued his interest in invention and technology with inclusion of the solar water heater, the Pelton hydro-electric wheel, the use of "Insulex" and the hundreds of feet of utility tunnels connected with the Castle. Matt Roy Thompson, head of construction, aided and abetted Albert Johnson. Johnson experimented at the Castle with several construction techniques and materials including reinforced concrete, wood frame, hollow building tile, "Insulex" foam insulation and stucco. Unfortunately, the use of these materials and

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techniques have led to several problems such as spalling concrete, cracked stucco, stucco and mesh backing separating from the structure, broken tiles, and advanced deterioration in the environmental control systems.

Lower Vine Ranch

While all this construction was underway at the Castle, Johnson had a small, finely crafted bungalow, garage and shed built at Lower Vine Ranch. Planning for the ranch began as early as 1926, when MacNeilledge produced a conceptual drawing called “Scotty’s Ranch House.” MacNeilledge prepared a set of working drawings for three different ranch houses at the Lower Vine site – employing a new design motif. Rather than the Spanish style used at Scotty’s Castle, Scotty and MacNeilledge designed a modest wood bungalow style for the residence and garage using redwood siding and simple gable roofs. The wood structures do not purport to be of any material other than wood. The complex has an architectural unity and harmony with the material chosen and the way in which that material is used. The structures were executed with a clarity and relative simplicity of design which is a refreshing change from the Castle architecture. In 1927, M. Roy Thompson supervised the construction of a reservoir and loop road around the perimeter of Lower Vine Ranch to provide access along the perimeter of the property during construction of the fence. The road was functional, but as Thompson put it, it was to be “a very scenic auto driveway.”

The bungalow, with associated out-building and reservoir, served as a residence for Death Valley Scotty, and sometimes a retreat for Albert Johnson – a place to escape the attention naturally drawn to the increasingly fantastic desert castle. The ranch served as the principal dwelling place for Scotty, who later moved into the Castle when he became old and infirm.

Conclusion

Construction within the historic district ended after 1931 due to the large financial losses Johnson suffered during the great Depression. Johnson considered commencing building again several years later, but never did. Bessie Johnson died in an automobile accident in 1943. When Albert Johnson died in 1948, the property had already been deeded to the Gospel Foundation of California, an evangelistic corporation founded by Johnson in 1947 to “carry on the work of the Lord.” The Gospel Foundation gave tours through the Castle and provided accommodations for guests. Death Valley Scotty was allowed to live at the ranch and later at the Castle until his death in 1954. The National Park Service acquired the property from the Gospel Foundation in 1970 for \$850,000.

Today, the Death Valley Scotty Historic District retains integrity and is in an overall state of good condition. The Scotty’s Castle and Lower Vine Ranch component landscapes display the seven aspects that determine integrity as defined by the National Register of Historic Places: location, design, materials, workmanship, setting, feeling, and association through the retention of the relevant landscape characteristics. Contributing buildings and structures constructed by 1931 at Scotty’s Castle included the ornate complex featuring the Main Castle building with its Annex, Guest House, Chimes Tower, Powerhouse, Stable, Garage, and Gas House. A swimming pool and a gate house were under construction in 1931 when work halted and were never completed. Non-contributing and intrusive structures at Scotty’s Castle are the transformer station, the modern gas station, the park fee collectors’

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structure, motel restroom, the spring house, the reservoir house, the modern restroom (trailer) and the modern concessions building (trailer).

At the Lower Vine Ranch, contributing buildings and structures constructed include a ranch house, garage, various sheds, blacksmith shop, bridges, roads, reservoirs, corrals, and fences. In 1954, the ranch was closed and mothballed under orders of the Park Superintendent and has remained closed since that time. As a result, very few changes have impacted the landscape and there are no non-contributing or intrusive structures within the component landscape boundary. Together, these landscape characteristics and associated features convey the significance of the historic district and component landscapes with the majority of historic fabric remaining from the historic period of significance, 1907-1954.

National Historic Landmark Information

National Historic Landmark Status: No

World Heritage Site Information

World Heritage Site Status: No

Chronology & Physical History

Cultural Landscape Type and Use

Cultural Landscape Type: Designed

Current and Historic Use/Function:

Primary Historic Function: Estate Landscape

Primary Current Use: Recreation/Culture-Other

Current and Historic Names:

Name	Type of Name
Steininger Ranch	Historic
Death Valley Ranch	Historic
Scotty's Castle	Both Current And Historic

Ethnographic Study Conducted: Yes-Restricted Information

Associated Group:

Name of Group: Panamint Shoshone

Type of Association: Both Current And Historic

Chronology:

Year	Event	Annotation
AD 1872	Established	Albert Mussey Johnson (1872-1948) was born into an affluent family from Oberlin, Ohio.
AD 1880	Established	The first known Euro American occupant of the site in Grapevine Canyon was a German immigrant named Jacob Steininger, who is known in Death Valley lore as the “Hermit of Death Valley.”
AD 1880 - 1907	Established	Based on historical documentation from the late 1880s, portions of the Grapevine Canyon were relatively lush with vegetation growing in draws and seasonal streams fed by natural springs on the west side of the canyon.
AD 1880	Established	Based on historical documentation from the late 1880s, portions of the Grapevine Canyon were relatively lush with vegetation growing in draws and seasonal streams fed by natural springs on the west side of the canyon.
AD 1880	Built	Steininger built a homestead on about fifteen acres on a small rise near the foot of the canyon wall (See photo 2 DEVA 43298). These buildings sat near the foot of the north canyon wall above the flood plane. The Steininger property in the canyon was partially fenced and included several sheds, a chicken coop, livestock pens and horse corrals.
AD 1880	Built	South of the main buildings in a fertile draw, Steininger planted a vegetable garden, a vineyard, and orchard. Steininger’s agricultural activity—cultivating grape vines, planting melons, fig and other fruit trees, as well as vegetables and alfalfa, was apparently self sufficient, but it is likely he also provided produce to a limited number of miners, prospectors and passersby.

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AD 1904	Established	<p>Albert Johnson first met Walter Scott (“Death Valley Scotty”) in Chicago this year. By this time, Scotty was a nationally renowned character who had acquired his considerable skills for showmanship and attracting publicity from one of the masters of the era: Buffalo Bill Cody. For twelve years, Scotty was a wrangler and trick rider for the Buffalo Bill Wild West Show. The Wild West Show traveled widely throughout the country, a road show that also toured throughout Europe.</p>
AD 1906	Established	<p>A prospector discovered the corpse of man who had been murdered on the Lower Vine property. The investigation spurred by the murder left an unusually well documented record of small-scale farming and ranching enterprises in this remote, arid locale.</p>
AD 1906	Built	<p>This account of the development at Grapevine Canyon and at the Lower Vine also included a description of transportation routes in the area. The main route was a “regularly traveled road from Bonnie Clare to Ubehebe past the Steininger Ranch. It is a good plain road. It must be an old road or well traveled road.” Part of the road between the two Grapevine ranches was “very good” but parts were rocky and others gravelly.</p>
AD 1906 - 1907	Purchased/Sold	<p>Between 1906 and 1907, Steininger sold his properties to four individuals who already had farming and ranching operations in the general area: Adlophus West, Fred Sayer, W.W. Yandel, and Beveridge Hunter.</p>
AD 1906	Established	<p>Steininger had been granted a patent on the whole of his property, the portion of it that lay on the future site of Scotty’s Castle, as well as the acreage at the Lower Vine, he actually obtained a legal patent only to the land at the Lower Vine. Steininger claimed the upper ranch purely out of longtime possession, but nothing had been recorded other than the water rights that had been finalized in April 1907</p>

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AD 1907	Established	Between these years, Johnson made the trip to Death Valley frequently. He was living a life of transition during this time, ascending into the presidency of The National Life Insurance Company of the USA, but also desiring to slow down and vacation more often. This new position, along with his vast holdings in various investments, made Johnson independently wealthy, giving him the freedom to visit Death Valley for extended periods. Touring the desert with Scotty, he grew to love the landscape and the benefits to his health. He believed that horseback riding helped his back pain—he also described how the hot tubs in the Grapevine Canyon left him feeling “greatly cleansed & refreshed.”
AD 1907	Established	Holding an engineering degree (Cornell, 1892), Albert Johnson had achieved some success in mining enterprises, having taken a loan from his father to invest in a profitable, though short-lived, zinc mine in Joplin, Missouri. Scotty’s promise of gold in Death Valley, a relatively unexplored region of California, appealed to Johnson.
AD 1909	Established	At some time between these years, 1909 and 1915, Johnson had several canvas-walled, platform tents built for sleeping and storage. The tent platforms stood slightly northwest of the developed area of the former Steininger property.
AD 1921	Explored	Johnson and Scotty continued to explore Death Valley, always using the Grapevine Canyon as their base. During these years, Johnson did not alter the landscape in any significant way, only adding several temporary canvas tents. The landscape appeared much as Steininger had left it—as a small ranch.
AD 1921	Planned	Having acquired the former Steininger ranch several years earlier, Johnson had evidently decided over the course of the year, back home in Chicago, to begin building a permanent vacation home in the canyon, one suitable for a gentleman of his means, and with the necessary amenities to make his wife Bessie comfortable.

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AD 1922	Established	In addition to abundant water, the Grapevine Canyon had a number of other natural features for development. Two important ones: climate and topography were crucial because the 3000' -elevation and surrounding hills tempered the extreme climatic conditions of Death Valley. The natural springs nearby influenced the eventual design of the grounds and related infrastructure.
AD 1922	Built	Johnson initiated construction of a residence, garage, and cook house. These buildings were clustered closely together just west of Steinger's original cabin.
AD 1923	Built	These early buildings at Scotty's Castle were simple in design with little ornamentation. The residence was a rectangular two-story wood-frame structure with stucco siding. The rectangular form was by design. Johnson wished to convey that everything at this home "was on the square," as he put it. The garage and cook house, also built in this style, were single story buildings with multiple rooms used to house and feed the workman and to store supplies. Apparently, this architectural motif was unacceptable to Bessie Johnson, however, who instead preferred that the buildings reflect a Mediterranean influence—an architectural style she saw as a student at Stanford College.
AD 1923	Planned	As the first permanent buildings began to take shape, Johnson decided to consult Frank Lloyd Wright on plans for his desert property. In the winter of 1923, Wright traveled to Death Valley with Johnson to see the canyon site. Johnson hired the famous architect to prepare sketches, and Wright produced at least twenty different renderings of the main residence with a pronounced vertical element on the structure, strongly resembling a church steeple.
AD 1923	Planned	While Johnson rejected these plans, saying they resembled a "mausoleum," they did illustrate to Johnson how the canyon setting could accommodate a large development.
AD 1924	Planned	With scale of construction increasing, by the end of the 1924, Johnson had made the decision to hire other design and construction professionals to assist in the development and implementation of his plan for the property.

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AD 1925	Established	<p>Matt Roy Thompson arrived on the job in October of 1925 at the request of Johnson's wife, Bessie, whose influence over Thompson was immediately noticeable. Soon after his employment, he submitted sketches proposing new façades, arches, and tiles for the existing buildings—all images that resembled the architecture found at Stanford, where the two had first met.</p>
AD 1925	Designed	<p>Thompson was involved in almost every aspect of site development with exception of the buildings: from the construction of new roads to the establishment of new ornamental plantings to the development of a complex infrastructure system of pipes and tunnels. He also built earthen dams, a lake, a swimming pool, and cleared and graded over thirty acres at Scotty's Castle and at Lower Vine ranch. Among Thompson's most important designs, were the development of new roads at Scotty's Castle, the lake—a kind of moat at the entrance gate and the plantings at Cottonwood Corner and the entrance gate.</p>
AD 1926	Established	<p>Johnson also hired a Canadian-born interior designer, Charles A. MacNeilledge. MacNeilledge had redecorated Johnson's office at National Life Insurance Company and the library of the his Sheridan Avenue residence in Chicago. MacNeilledge set up a furniture workshop and studio in Los Angeles where he would oversee both the construction and purchase of interior furnishings.</p>
AD 1926	Designed	<p>In order to maintain the demanding workload, MacNeilledge hired Hungarian architect Martin D. de Dubovay, a man who could provide technical assistance, had excellent drafting skills, and vast project experience in Europe and South America. De Dubovay would go on to design several buildings at the ranch as well as draw several important perspective sketches providing a vision for the full extent of Scotty's Castle and its grounds.</p>

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AD 1926	Designed	<p>The architectural style chosen for the building complex was a Spanish style. To create unity, MacNeilledge used a common vocabulary of materials throughout the building complex including stucco, wood, and metal. Stucco was muddy brown and creamy beige in color with scratches on the surface, giving a “weathered adobe” appearance to all of the buildings. Whether it was real or simulated did not matter, the goal in weathering the surfaces was to make the buildings appear old.</p>
AD 1926	Designed	<p>MacNeilledge chose redwood because he liked the color. It was used in places of high visibility including doors, doorways, window and door lintels, gates and porches. All of the wood was treated through a burning process termed “antiquing,” increasing the appearance of age. Metal, used for lighting fixtures and on the gates as decorative hinges, were fashioned into such shapes as a bobcat, roadrunner, and snake. MacNeilledge also designed weathervanes depicting vignettes of Scotty in the desert.</p>
AD 1926	Designed	<p>Johnson and Thompson made mention at times that some buildings should be arranged in a particular way. For example, they sited the north side of the stables to maximize the open space between it and the existing mule barn. They sited the chimes tower in its location to maximize the sound qualities through the canyon. They sited the entrance gate, away from the building complex as a portal onto the property, which was an important component of the arrival sequence to the site.</p>

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AD 1927	Designed	Although construction was well underway, it was not until 1927 that Martin de Dubovay, an architect working under MacNeilledge, produced a drawing of the proposed building complex. He drew an oblique black and white perspective, illustrating the arrangement and architectural style of buildings, roads, and gardens. It evoked the Mediterranean scene MacNeilledge envisioned, with the repetition of palms and with the entire building complex unified by a single Spanish architectural style. It depicted the entire extent of the grounds—from the stables to the chimes tower—emphasizing the swimming pool in the foreground, the main residence in the background, and the chimes tower on the left. The drawing also included a small sunken garden at the tunnel entrance in the lake, an orchard, and an extensive planting of cacti and Joshua trees behind the building complex.
AD 1929	Established	On the recommendation of MacNeilledge, Albert Johnson hired Los Angeles landscape architect Dewey R. Kruckeberg to develop a landscape plan for the estate. Prior to Kruckeberg, Matt Roy Thompson had planted numerous willow trees at the lake and planted palms and fruit trees within the building complex. Although Thompson wanted to continue with his work, Johnson made the decision to turn all of the landscape design and planting work to Kruckeberg.
AD 1926	Planned	Johnson spent this year gearing up for future construction and on the construction of new buildings and structures related to utility or support. The stables (east wing), chicken coop, and workshop/shed— all designed by Johnson — were completed. Thompson also oversaw the construction of several fences (with wood posts) and conducted preliminary work on the new cook house and the “Commissary.”

AD 1926	Built	<p>One of M. Roy Thompson's first jobs on site was to construct a water catchment and distribution system to provide water for domestic use, electricity, and later a fire suppression system. The water catchment system was simply a reservoir with a headgate, which controlled the flow of water through a pipe linked to the building complex. The exact dimension of this system, or a detailed understanding of how it worked, is unknown. Another structure was built near the water catchment system, a gravel pit linked by pipe, which was used as a washing system to sift out sand and gravel for generation and mixing concrete on site. It worked with men who pushed wheelbarrows of dirt up a forty-foot incline, dumped them onto a ten-foot length of sloping corrugated iron and washed it all down over a half-inch screen to sift out sand. The gravel separator replaced this structure.</p>
AD 1927	Built	<p>Clearing, grading, and construction activities began at the annex, guest house, stables, and gas house and the road to the stables was widened to improve access. Approximately two acres were modified to build foundations.</p>
AD 1927	Built	<p>Construction activities included several residential and support buildings including the main residence, gas tank house, annex, and gravel separator. Other new buildings constructed during this season included the completion of the main residence, a and Construction of these structures required an excavation in the slope in front of the cookhouse and east of the annex and the one-story, two room gas tank house.</p>
AD 1927	Built	<p>Phase two of the construction of the main residence (Scotty's Castle) included the additions such as turrets, balconies, a sunroom, and patios. Building materials included stucco, wood, and hand wrought iron. The brushed stucco finish of the exterior walls was colored in off-white, and textured to create the outward appearance of a weathered building. There was an entrance gate of hand-wrought iron hinges, handles and latches on all doors and window screens, and massive redwood beams that were hand-finished with an alcohol torch.</p>

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AD 1927	Built	Plans for the construction of the annex began during this time. The existing building, redesigned by MacNeilledge, had two stories and was tied to the main residence with a bridge and a formal courtyard paved in tile. The annex housed several guest rooms and the pipe organ. In the stables area, the barn was redesigned with arched openings, stucco exterior, and a tile roof.
AD 1927	Built	In October, work began on a second building, called the shed or new barn, but was delayed by design changes. The structure was constructed with concrete walls, and a tower on the east end of the structure, originally conceived as the chime tower, but altered as a "bird loft." A flat roof connected the two buildings and covered a portion of the courtyard.
AD 1927	Built	The gas tank house was a service station built this year that supplied fuel for the ranch vehicles and heating gas for the buildings. It accommodated cars in the south bay and housed two gasoline tanks in north end. The single-story building was approximately 1000 square feet and included multiple rooms. The building sat on a concrete slab, had adobe walls, and a gable roof of red-clay tiles.
AD 1927	Built	Thompson also built a new gravel separator about a half of a mile closer to the building complex, near the mouth of Tie Canyon, to placate Albert Johnson's concerns regarding the slow production of concrete. The gravel, washed with water and sorted into various sizes over a set of screens of diminishing sizes, converted sand and gravel into concrete for the production of footings, tunnels, foundations, retaining walls, and fence posts. Constructed of 8"x8" railroad ties and timbers of various sizes, it held together with steel reinforcing bars in an interlocking crib system, forming a U-shape. It had a retaining wall up to eighteen feet high on the east elevation and graded on the west elevation to accommodate dump trucks.

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AD 1928	Built	Development in 1928 focused on the area around the residential structures at the site. Clearing and grading for the structures, ornamental plantings, road building, and building construction were all underway. A great deal of clearing activities centered on the area around the chimes tower and the access road (from Tie Canyon)—with much of the fill from this excavation used on the entrance road. Grading for the swimming pool also began at this time—with fill from this excavation used to create the entrance road south of the pool. Thompson established plantings of willows in the lake area.
AD 1928	Established	Thompson planted hundreds of willows throughout the lake area, while he and Johnson made other plans for this area including a proposal for a grand entrance—a gated entrance flanked by two towers set over a moat. The entrance road would consist of a long stretch of fill, and aligned in a sweeping curve to Scotty's Castle.
AD 1928	Built	In January of this year, Johnson capitalized on the closure of the Tidewater Railroad in 1928 by purchasing thousands of railroad ties, stockpiling them in Tie Canyon for use as a fuel to heat the buildings.
AD 1928	Built	Work also began at the pool. The interesting curvilinear design was shaped, at least partly, to accommodate the reinforced concrete bridge that would span over it. The addition of the new bridge required Thompson to move the alignment of the entrance road ten feet to the south. The extravagant curvilinear swimming pool was intended as a major focal point of the building complex. The base of the structure was left unfinished, while the walls comprised of reinforced concrete, were never tiled. Approximately 240 feet long, and divided into two pear-shaped pools, with a concrete bridge between them. The swimming pool was fifteen feet at its deepest end and the entire structure was encircled by a chain and metal post fence. Several windows were installed for underwater viewing from the basement of Scotty's Castle.

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AD 1928	Built	The chimes tower, at five stories, was much higher than any other buildings in the complex. As a result, the distinctive roof of red mission tile capping the tower was visible almost a mile away from Bonnie Clare Road. The building was located on the west end of the building cluster and included a small apartment and observation deck. The building also featured a Howard clock, metal casement windows, and wood doors with reinforced hand-wrought fittings.
AD 1928	Built	The entrance gate was Spanish in style and used to span the moat, with two crenellated towers, two stories high. An arch framed a pair of massive wooden gates with hand-wrought iron fittings connecting them to the towers. Three-foot-high curving walls were built along the edge of Bonnie Clare road.
AD 1929	Built	Additional roads were aligned in Tie Canyon as more and more railroad ties were delivered. The road to the solar heater was built this year, linking with the chimes tower access road. Several access roads were also constructed in the lake area—the most notable example forded the stream in the lake (north of the entrance gate); it was aligned from Bonnie Clare and crossed directly toward Scotty's Castle.
AD 1929	Built	Thompson laid a concrete walkway and driveway around much of the longshed.
AD 1929	Built	Dewey Kruckeberg constructed several stone walkways at the cook house and guest house and planted a number of ornamentals—cacti at the watercourse, olive trees at the cook house, flowers in beds and pots and palms at Scotty's Castle.
AD 1929	Built	Thompson planted more willows and palms in the area close to a proposed pool structure at the end of the tunnel, in an effort to frame, soften, and balance the Scotty's Castle building profile.
AD 1929	Built	The year 1929 saw the addition of several new utility buildings and structures including the powerhouse, solar heater, and a small shack in Tie Canyon, referred to as the wash house.

AD 1929	Built	<p>In a departure from the “Spanish” architectural style, the power house referenced the European gothic in architectural style. It had flying buttresses and a concrete façade. The concrete was made to appear as large cut stones set in a running bond pattern. It also had an exterior staircase, a hexagonal pavilion, an arched doorway with wood gate, a crenellated parapet roofline, an overhanging tower, and a flat roof with two skylights. Albert Johnson was responsible for the machinery on the interior, which supplied the building complex with electricity. During the 1930s, the building housed three generators including an eighteen-inch Pelton water wheel.</p>
AD 1929	Built	<p>The solar water heater represented another way Albert Johnson harnessed nature for use at Scotty’s Castle. Purchased in 1929 from the Day and Night Company, the heater conveyed spring water through copper tube piping. It had eight black-painted solar panels set on a concrete slab and heated water over the solar panels, storing the water within the insulated tanks. The solar water heater only worked a short time before it was abandoned by 1930.</p>
AD 1930	Established	<p>By 1930, Albert Johnson had changed his priorities in the construction of buildings. Instead of completing the swimming pool or entrance gate, he turned his attention to the Lower Vine ranch and asked MacNeilledge to design Scotty’s ranch house. While MacNeilledge was occupied with the Lower Vine, Thompson remained focused on landscaping and road building at Scotty’s Castle.</p>

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AD 1930	Built	<p>The earthworks conducted at Scotty's Castle between the years 1930 and 1931 by Thompson were perhaps the most extensive of all the construction seasons, and furthermore, had the greatest visual impact on the site in regards to setting. During this year, Thompson built a two-mile stretch of Bonnie Clare Road and greatly altered the grounds of Scotty's Castle with the construction of the lake, entrance gate dam, and entrance road (See photo 35 DEVA 40820). Furthermore, in the construction of these large-scale landscape features, Thompson removed several roads used during construction in the lake area. Fill was added to the entrance road raising the overall grade of the roadbed by several feet. Thompson conducted a large amount of grading around the entrance gate in order to create a depression in the earth. Based on available water channeled from the spring the lake was designed to be approximately one acre in size and four feet at its deepest point.</p>
AD 1930	Built	<p>This area was excavated mainly around the entrance gate. On the west side of the structure, a substantial earthen dam was constructed to contain the spring fed water in the lake. The earthen dam rose approximately fifteen feet from the ground, was thirty feet wide at its base and ten feet across the top. Leading to this low point, where the water collected at the dam, were two ditches that were excavated to convey water to this feature. The ditch that carried the most volume of water extended all the way to the spring, 1/2-mile up the canyon, while the other was secondary, conveying water from the watercourse. The fill used to create the curvilinear entrance road also served as a dike to retain water and to direct its flow under the entrance gate.</p>

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AD 1930	Built	This dike (entrance road prism) rose at least ten feet above the grade of the lake, was approximately twenty feet across at its base and twelve feet across the top of the road. The 1930 grading plan, and the letter by Thompson regarding it, clearly illustrates that this lake was designed as a water feature. The plan illustrated the intersection of Bonnie Clare Road and the entrance road, showing the existing topography with spot points and proposed grading with topo-lines. In a letter accompanying the grading plan from M. Roy Thompson to Albert Johnson dated February 17, 1930, Thompson expressed his design intentions, noting location of roads in relation to the lake and dam.
AD 1930	Built	In 1930, Kruckeberg's original plan for the watercourse behind the guest house was abandoned in favor of another location, the cactus garden. The new garden was called the watercourse. It was narrow, approximately 50 feet wide, but almost 450 feet long. The design integrated ornamental plants with large stepping stones, pathways, and a stream fed by the spring. The garden created a series of intimate spaces for sitting with shallow ponds and small waterfalls to cool the air.
AD 1930	Established	Planting began at the watercourse under the supervision of Kruckeberg. Although the plan called for a mix of cacti along the watercourse, special attention was given to the collection of "large cacti" from Arizona to be personally retrieved by Kruckeberg who took several trips into the desert.
AD 1931	Built	Nearly all construction on the grounds of Scotty's Castle slowed to a glacial pace. Only two major landscape projects were completed that year on the grounds of the estate: the perimeter fence and the earthen dam at Cottonwood Corner.
AD 1931	Established	It was not until the spring of 1931, several years after the stock market crash in 1929, when all construction activities at Scotty's Castle ceased. By this time, America was in the throws of the Great Depression, Johnson's financial resources were drained, and several banks, of which he had invested heavily, were closed.

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AD 1931	Planned	Johnson decided to develop Scotty's Castle as a tourist attraction. During this time, there was a movement afoot in Congress to create Death Valley National Monument, which would inevitably attract tourists. In order to accommodate tourists and visitors, several modifications and improvements were necessary.
AD 1931	Built	In the early 1930s, a developer from Los Angeles by the name of Eichbaum constructed a new road from Stove Pipe Wells to Grapevine Junction, providing convenient access to Scotty's Castle. Eichbaum also helped to promote Scotty's Castle while Johnson responded by improving visitor amenities at Scotty's Castle.
AD 1934	Established	Johnson chose to capitalize on the growing interest in Scotty's Castle. He hired people to conduct informal tours of the building.
AD 1936	Established	By 1936, he hired and trained official tour guides who took visitors through Scotty's Castle at one dollar per person. Johnson also sold mementos to increase the income, selling such items as an anthology of stories of Scotty (written by Bessie) and guidebooks.
AD 1943	Established	Albert's wife, Bessie died in an automobile accident traveling over a mountain pass, forty miles south of the ranch. Albert was at the wheel and had lost control of the car. Bessie was killed instantly.
AD 1943	Established	After Bessie's death, coupled with Johnson's failing health, it became increasingly difficult for him to visit Scotty's Castle and to maintain the property. Because of the restrictions on rubber and gasoline during the war, visitation was severely curtailed as well. Maintenance costs during this time were increasingly difficult to meet. As a result, Scotty's Castle fell into decline.

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AD 1946	Established	After the war had ended, Johnson established a charity named the Gospel Foundation of California and hired a social worker, Mary Liddecoat, as president. A year later, he included the Gospel Foundation in his will. After the death of Albert M. Johnson in 1948, the Gospel Foundation managed the property. In these years, Scotty's Castle was operated as a motel and tourist site. The guest house was divided into four separate units, while the limited number of suites in Scotty's Castle was available for a premium price.
AD 1948	Established	The wishing well was "finished" with the addition of tiles.
AD 1948	Established	An addition to the gas tank house was completed sometime in the 1950s.
AD 1948	Established	Additional stones, placed in undocumented areas, were placed to raise the pool level in the watercourse.
AD 1948	Established	The entrance court (turnaround) was surfaced with asphalt at some point after Johnson's death.
AD 1948	Established	On a smaller scale, Liddecoat removed safety hazards around the site. For example, she cut the ends of the exposed rebar at the swimming pool and entrance gate and flattened the bottom surface of the swimming pool.
AD 1948	Established	Liddecoat also made changes in the landscape by planting ornamentals throughout the building complex, apparently relying on a rather small plant pallet of oleanders and palms brought from Los Angeles. Liddecoat planted the oleander near the cook house, castle, swimming pool, and along the entry road—pruning them to prevent them from flowering. Palms were sometimes grown by seed—the parent trees were located in the watercourse. The palms were established throughout the complex, but concentrated on the south side of the stables, where a number of cottonwood trees had naturalized creating a dense blanket of greenery. She also planted dwarf peach trees east of the gas house, producing fruit for many years. Although it is unknown if Liddecoat planted in the watercourse, historic photographs reveal that it was less densely planted than today. Liddecoat probably planted additional cacti in the guest house garden.

Scotty's Castle
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AD 1954	Established	Scotty died this year, six years after the death of Albert Johnson. He was buried on the hill above the chimes tower next to his dog, Windy. A cross, erected prior to the death of Scotty, remains as a powerful symbol, high above the grounds of Scotty's Castle.
AD 1954	Established	Liddecoat made several modifications to structures at Scotty's Castle, but after Scotty's death in 1954, mothballed the buildings at the Lower Vine ranch.
AD 1968	Established	By this year, a flash flood scoured parts of the grounds of Scotty's Castle destroying vegetation in some places.
AD 1970	Established	Ownership of the Scotty's Castle transferred to the National Park Service. The NPS purchased the property for \$850,000 using the funds through the Land and Water Conservation Act of 1965. The Act prohibited the use of these monies for purchasing furniture, so the Gospel Foundation donated the furnishings as part of the transaction.
AD 1970	Established	At this time, Mary Liddecoat remained the president of the Gospel Foundation, having had twenty-two years' tenure.
AD 1970	Planned	The National Park Service could not begin planning improvements or modifications at the site until a condition assessment on the existing facilities could be completed. In general, The Gospel Foundation did not maintain detailed records of operations at Scotty's Castle, lacking even the most basic information concerning facilities maintenance and visitation. The NPS also needed to evaluate the infrastructure throughout the property, to determine the capacity and condition of the water, sewer, and electrical systems and the ability of these systems to accommodate new uses, now was almost fifty years old.
AD 1970 - 1975	Altered	Storms caused damage to Scotty's Castle and its immediate vicinity. The second floor of the Scotty's Castle south porch roof was partially removed from its decorative metal posts by a wind storm during the winter of 1973-74. Thereafter, Park Service personnel attached wooden posts to support the weakened porch roof. The following year a flash flood occurred in the canyon, causing some minor damage to the site.

Scotty's Castle
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AD 1970 - 1980	Built	Modifications were also made to the grounds. The most obvious alterations required to accommodate the visiting public were made to the circulation system. The entrance road was closed to traffic and a new entrance and parking lot was located near the picnic area south of Scotty's Castle. Additionally, several other parking lots were created to handle overflow parking—one in Tie Canyon and the other adjacent to the new entrance along Bonnie Clare Road. Another set of parking lots, to accommodate NPS vehicles and staff, were added near the stables and long shed bunkhouse. More subtle changes also occurred over time. For instance, several new buildings were added at the springs, when a new water catchment system was constructed.
AD 1974	Built	NPS employees designed and built a ticket booth located west of the garage. The new structure was built over a concrete island that was used as the base for two gasoline pumps. Their design was modeled after a photograph taken in the 1950s of the original structure. An NPS administrative building (a portable trailer) was sited near the stables.
AD 1979 - 1980	Established	The NPS inspected the main house and annex during the winter. This assessment of the property identified a number of deficiencies that would impede normal park operations. The most pressing concerns addressed the need to provide for the health and safety of the visiting public.
AD 1991	Destroyed	The cook house burned due to an electrical fire in April.
AD 2006	Established	Scotty's Castle remains a popular tourist attraction. Today, the majority of buildings, circulation systems, the extensive fence surrounding the property, and some of the greenery remains intact or, as in the case of the greenery at the entrance gate and cottonwood corner, closely resembles historic conditions and original design intent. Albert Johnson's original idea to create an out of the ordinary estate in the desert is today a tribute to his ingenuity and remains a physical legacy to the excesses of the "roaring twenties."

Physical History:

Pre 1880: Traditional Land Use in Northern Death Valley

Death Valley National Park is part of the ethnographic territory of the Panamint Shoshone Indians. Like many Indian Groups of the Great Basin area, subsistence in arid lands with scant vegetation and limited water sources, required mobility, a pattern of life that responded to the seasons. Archeologists have generally concluded that, despite a territory that extended from Death Valley east into the Great Basin, the overall population within the current boundaries of Death Valley National Park did not exceed 100 people at any one time [1]. Small groups of families, or sometimes single, extended, families lived together or came together, especially for hunting, mourning, or community ceremonies [2].

The Panamint Shoshone dwellings on the floor of Death Valley were occupied most of the year, until the scorching summer temperatures drove families to the higher altitudes. During the fall harvest, the Panamint Shoshone traveled west from the Grapevine Canyon to the Panamints to camp and collect pinyon nuts in the juniper and pinyon tree forests. The pinyon nuts were ground into a type of mush or soup. Mesquite beans, another local material, were also collected and processed into flour. Both were dietary staples and provided food through the winter months [3]. Archeological evidence suggests that natural springs scattered throughout Death Valley provided additional habitation sites, including the abundant springs and seeps in Grapevine Canyon. Situated in the northern portion of Death Valley, Grapevine Canyon provided an east-west corridor from the floor of Death Valley east to the points in the Great Basin.

Within Grapevine Canyon, documentation indicates that the Panamint Shoshone people occupied a seasonal campsite located near a series of natural springs on the western side of the canyon. The settlement was known by the name of Mahunu and consisted of about 30 people [4]. Located at an elevation of 3000 feet, this site provided water and shelter from extreme climate between the summer and fall harvest. Collectively, the springs were comprised of a series of alkali sources that occur intermittently between Grapevine Canyon, in the vicinity of Scotty's Castle and the Lower Vine ranch, on the western bajada of the Grapevine Mountains. These springs—known collectively as Grapevine Springs, range in elevation from 3000 feet in Grapevine Canyon, to just over 2000 feet at the southwest corner of the Lower Vine ranch property. During this period, vegetation in the vicinity included wild grapes, which grew in profusion, grasses, reeds and other riparian vegetation. This relatively lush area was undoubtedly one of the most desirable habitation sites in all of Death Valley [5].

The natural qualities of the Lower Vine ranch property also included plentiful water and other natural resources to support human occupation making this area a desirable site for the Panamint Shoshone beginning as long as 10,000 years ago[6]. Vegetation supported by a series of seeps in the mesa east of the Lower Vine ranch included reeds, tules, and grasses all of which were used for a variety of domestic purposes by the native people. Survival depended on gathering seeds from various grasses, as well as seeds from native vegetation such as evening primrose and pincushion cactus. Based on archeological survey, historic, and ethnographic documentation, this area was used by the Panamint Shoshone as recently as the early 1900s.

Early Descriptions of the Landscape: 1880-1907

The first known Euro American occupant of the site in Grapevine Canyon where Scotty's Castle now stands was a German immigrant named Jacob Steininger, who is known in Death Valley lore as the "Hermit of Death Valley." Steininger was an important early figure in Death Valley history and laid the groundwork for the development of Scotty's Castle. Although little information about his life exists, historic records indicate that he lived on the property between the years 1880 and 1907, but did not hold a patent for the Grapevine Springs until 1906 [7]. Documentation dating to the turn of the century sheds light on the physical development of the Steininger properties in the upper Grapevine Canyon and Lower Vine.

Based on historical documentation from the late 1880s, it is apparent that portions of the Grapevine Canyon were relatively lush with vegetation growing in draws and seasonal streams fed by natural springs on the west side of the canyon. Steininger built a homestead on about fifteen acres on a small rise near the foot of the canyon wall. These buildings sat near the foot of the north canyon wall above the flood plane. Steininger's property in the canyon was partially fenced and included several sheds, a chicken coop, livestock pens and horse corrals. In addition, south of the main buildings in a fertile draw, Steininger planted a vegetable garden, a vineyard, and orchard. Steininger's agricultural activity—cultivating grape vines, planting melons, fig and other fruit trees, as well as vegetables and alfalfa, was apparently self sufficient, but it is likely he also provided produce to a limited number of miners, prospectors and passersby[8].

In 1906, the Lower Vine ranch, and the exact chain of legal ownership, fell under scrutiny when a prospector discovered the corpse of man who had been murdered on the property [9]. The investigation spurred by the murder at the Lower Vine ranch left an unusually well documented record of small-scale farming and ranching enterprises in this remote, arid locale. Descriptions of both the Lower Vine and Grapevine Canyon that emerged as part of the public record offer a glimpse at these earliest permanent settlements on the property that Johnson later developed as his desert retreat, the Scotty's Castle [10].

The Lower Vine property included a camp identified by a notice nailed to a tree as "Scotty's Camp" which included two stone cabins that had not been "kept up." According to the witness, the campsite consisted of "some boxes and a piece of canvas and some brush thrown up as a kind of windbreak . . . and there was water nearby." About 600 yards away from the camp, the springs' site was marked by "trees, wild grapevines, grass, kind of a jungle there." The springs ran into a common channel that filled a reservoir held by a dam. The camping ground was located behind the reservoir in a grove of trees. Weeds and willows grew in the reservoir, which overflowed due to an abundance of water. The road to Ubehebe passed close to the reservoir. Dehy testified, "At that place there was a little patch of alfalfa covering about . . . an acre with little patches of alfalfa scattered over it and a little stream of water."

Steininger's Lower Vine property had a generally less-organized appearance than his homestead in the canyon. One witness described the main structure as

“a great large boulder there in the side of a hill [with] other rocks laid up around to make walls to the building and it had a tule roof over it with a wooden floor...This rock house or cabin...did not have the appearance of anyone having lived there recently. There were no articles around, no stove, tables or anything in it. There was a door. It was closed, just so it would swing back and forth, no latch on it”

A journalist stated that a house, described as a shanty, stood near a large willow tree. The house was located about 600 feet from the water source. Watermelons grew in the garden, and one man noted a pasture, and another account spoke of tomatoes, onions and cucumbers. A sketch map, produced in the court case, showed the upper ranch gardens enclosed by fence with irrigated crops of grape, melon and other fruit, alfalfa, pasture, and wheat growing [11].

This account of the development at Grapevine Canyon and at the Lower Vine also included a description of transportation routes in the area. The main route was a “regularly traveled road from Bonnie Clare to Ubehebe past the Steininger Ranch. It is a good plain road. It must be an old road or well traveled road.” Part of the road between the two Grapevine ranches was “very good” but parts were rocky and others gravelly. In addition to the trees and wild grapevines, testimony from the court indicated that “thorny brush, willow-like trees, and cactus plants that grew three feet high” were also located in the area. For unknown reasons, between 1906 and 1907, Steininger sold his properties to four individuals who already had farming and ranching operations in the general area: Adlophus West, Fred Sayer, W.W. Yandel, and Beveridge Hunter [12].

At the end of 1906, Steininger received the patent for the Grapevine Springs portion of his ranches. One day after the patent was confirmed, on December 27, 1906, Steininger sold a one-half undivided interest in both his properties, including water rights, to Ben H. Yandell. The other portion of Steininger’s land was located on the parcel Johnson developed as the Lower Vine ranch. The following April 15 [1907], Steininger and Yandell entered a 30-day lease to protect the property “from the encroachments and claims of others, and [to] use his best efforts to improve and cultivate the same....” Three days later, Steininger sold the remainder of his interest in the two ranches to Yandell. The deed is the first to note Steininger’s “possessory claims or right” to the upper ranch [13]. Although it appeared that Steininger had been granted a patent on the whole of his property, the portion of it that lay on the future site of Scotty’s Castle, as well as the acreage at the Lower Vine, he actually obtained a legal patent only to the land at the Lower Vine. Steininger claimed the upper ranch purely out of longtime possession, but nothing had been recorded other than the water rights that had been finalized in April 1907 [14].

Steininger was an important early figure in Death Valley history, and laid the groundwork for the subsequent development of Scotty’s Castle [15]. It is the first documented evidence of Scotty’s presence in the Grapevine area, and provides a context for understanding why Scotty brought Johnson to this part of Death Valley on their first trip through the region in 1909.

Johnson and Scotty: 1904-1921

Albert Johnson first met Walter Scott (“Death Valley Scotty”) in Chicago in 1904 under less

than auspicious circumstances. By this time, Scotty was a nationally renowned character who had acquired his considerable skills for showmanship and attracting publicity from one of the masters of the era: Buffalo Bill Cody. For twelve years, Scotty was a wrangler and trick rider for the Buffalo Bill Wild West Show. The Wild West Show traveled widely throughout the country, a road show that also toured throughout Europe; Annie Oakley was one of Scotty's fellow performers in the popular review. After Scotty left the Buffalo Bill show, he ended up in Cripple Creek, Colorado and, unsuccessfully, attempted prospecting for gold. Around 1902, Scotty began peddling a scheme that led him to meet his long-term partner in the Scotty's Castle, Albert Johnson [16].

Albert Mussey Johnson (1872-1948) was born into an affluent family from Oberlin, Ohio. Johnson's father, Albert H. Johnson, was one of the country's early industrialists, whose business interests included whole or partial ownership of railroads, banks, and mines, as well as a stone quarry and utility company. The elder Johnson demonstrated the importance of staying ahead of emerging technologies, having successfully transformed the Oberlin Gas Lighting Company, of which he was president, to a state-of-the-art producer and distributor of electrical power. In the 1890s, electricity was a considered a cutting edge technology, and in renovating the former gas company, Johnson allowed Oberlin to become one of the first towns in the area to have electric-powered street lights. His father's example must have made a lasting impression on the young engineer. The mechanical systems he designed for the Scotty's Castle demonstrate Johnson's enduring interest in exploring innovative, or emerging, technology, especially insofar as new technologies might improve the efficiency of power generation [17].

Holding an engineering degree (Cornell, 1892), Johnson had achieved some success in mining enterprises, having taken a loan from his father to invest in a profitable, though short-lived, zinc mine in Joplin, Missouri. Scotty's promise of gold in Death Valley, a relatively unexplored region of California, must have had great appeal to Johnson. Johnson had seen his father successfully develop and market electricity, becoming the sole owner of the local utility company in his hometown of Oberlin, Ohio. In fact, this interest in energy production is manifest in the mechanical systems that Johnson introduced on his property, using Grapevine Springs and its abundant water supply to generate electricity, and setting solar heat-collecting panels to capture, store, and distribute the heat of Death Valley's sun to provide domestic hot water. On the whole, these must have been very satisfying technical achievements for the engineer. Mrs. Johnson, represented a more practical point of view when she claimed that by generating power on-site, they could "leave lights burning about the Castle day and night and . . . never get a bill at the end of the month" [18].

Albert Johnson was living a life of transition during this time, ascending into the presidency of The National Life Insurance Company of the USA, but also desiring to slow down and vacation more often. This new position, along with his vast holdings in various investments, made Johnson independently wealthy, giving him the freedom to visit Death Valley for extended periods [19]. Between the years 1907 and 1921, Johnson made the trip frequently. He grew to love the landscape and the benefits to his health. For instance, he believed that horseback riding helped his back pain—he also described how the hot tubs in the Grapevine Canyon left him feeling "greatly cleansed & refreshed"[20].

The Grapevine Canyon site included plenty of shade, and the shacks Steininger had left behind provided Johnson with facilities, crude as they were, including showers. At some time between 1909 and 1915, Johnson had several canvas-walled, platform tents built for sleeping and storage. The tent platforms stood slightly northwest of the developed area of the former Steininger property, and were partially shaded by cottonwoods. A photo of the Grapevine Canyon site taken during this time shows these tents on a spot that appears to be in roughly on the same location as the Johnson's Guest House, or "hacienda," at the building complex.

By 1916, Johnson sought to purchase the upper and lower ranches of the Grapevine Canyon from Dolphus S. West, who turned out to be a squatter and not a legal owner of either property [21]. Apart from building a vacation home in the desert, his reason for acquisition of the land was undocumented [22]. Everything in his character, however, pointed to the probability that he wanted control of this property for the possibility of monetary gain through the control of lands adjacent to active mining locations [23]. There would be many more years of legal wrangling before Johnson would finally settle the matter of legal ownership of the property. Despite these legal matters, Johnson and Scotty continued to explore Death Valley, always using the Grapevine Canyon as their base. During these years, Johnson did not alter the landscape in any significant way, only adding several temporary canvas tents. The landscape appeared much as Steininger had left it—as a small ranch.

Until 1921, Steininger's footprint from the turn of the century left a shack (Scotty's original castle), a privy, the agricultural fields (vineyard and vegetable garden), an orchard (pears and figs), and a single lane, dirt surfaced ranch road through the property. In the early 1920s, Steininger's Grapevine Canyon property was unique in Death Valley with water and soils rich enough to cultivate as a small working farm and a welcome oasis.



Image of the main residence, view north, circa 1923. The original residence was a two story square structure with no ornamentation (DEVA 43242).

Initial Design and Construction: 1921-1924

Johnson's annual Death Valley vacation in the winter of 1921 was, in many ways, like his previous visits—he spent time on horseback, touring the region with Scotty, and camping in Grapevine Canyon. Accommodations during these early years were rudimentary, just the tents augmented by a crudely built outhouse and nearby shower structure which, like the tent platforms, were built from scrap pieces of lumber (possibly railroad ties), with canvas sheeting for. These facilities, if not uncomfortable for Mr. Johnson, were, at best, inadequate for Mrs. Johnson's needs. Having acquired the former Steininger ranch several years earlier, Johnson had evidently decided over the course of the year, back home in Chicago, to begin building a permanent vacation home in the canyon, one suitable for a gentleman of his means, and with the necessary amenities to make his wife Bessie comfortable [24].

Even with Johnson's sizable personal wealth, building a suitable residence in such a remote location was a daunting proposition. Transporting materials over miles of rough dirt roads was accomplished at great expense, and the remote location made it difficult to find skilled labor nearby. What the property did have, however, was water, plenty of it and fortunately located. Located east of the old Steininger ranch were a series of seeps that yielded enough water to give Johnson confidence that the plans he had for the property could be realized.

In addition to abundant water, the Grapevine Canyon had a number of other natural features for development. Two important ones: climate and topography were crucial because the 3000'-elevation and surrounding hills tempered the extreme climatic conditions of Death Valley. The natural springs nearby influenced the eventual design of the grounds and related infrastructure [25].

By 1922, Johnson initiated construction of a residence, garage, and cook house. These buildings were clustered closely together just west of Steininger's original cabin. A total of thirteen buildings and structures were completed by 1931 [26].

These early buildings at Scotty's Castle were simple in design with little ornamentation. The residence was a rectangular two-story wood-frame structure with stucco siding. The rectangular form was by design. Johnson wished to convey that everything at this home "was on the square," as he put it [27]. The garage and cook house, also built in this style, were single story buildings with multiple rooms used to house and feed the workman and to store supplies. Apparently, this architectural motif was unacceptable to Bessie Johnson, however, who instead preferred that the buildings reflect a Mediterranean influence—an architectural style she saw as a student at Stanford College.

As the first permanent buildings began to take shape, Johnson decided to consult Frank Lloyd Wright on plans for his desert property. In the winter of 1923, Wright traveled to Death Valley with Johnson to see the canyon site. Johnson hired the famous architect to prepare sketches, and Wright produced at least twenty different renderings of the main residence with a pronounced vertical element on the structure, strongly resembling a church steeple. While Johnson rejected these plans, saying they resembled a "mausoleum," they did illustrate to Johnson how the canyon setting could accommodate a large development. In addition, some of the designs proposed by Wright may have influenced elements of the property as it was built, especially the location of the pool between the house and the entry, preserving a view down the canyon toward the Panamint Mountains [28]. Meanwhile construction continued at the site. A new structure was built between the garage and the toe of the slope. The building included a dining room for the small construction crew, designed with a prominently cantilevered concrete slab roof that extended the full length of the 158'-long building.

With scale of construction increasing, by the end of the 1924, Johnson had made the decision to hire design and construction professionals to assist in the development and implementation of his plan for the property [29].

Scotty's Castle
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Scotty's Castle and annex were completed in the late 1920s. Albert Johnson is pictured on top of the turret looking down the Grapevine Canyon. View of image is northwest (Alb 15937 DEVA 14018).



Image of the gravel separator in 1929, view west. This utility structure was used to manufacture concrete (DEVA 40790).

Design of Scotty's Castle: 1925-1931

Albert Johnson and his designers transformed the Grapevine Canyon from a small farm with a shack to an estate of thirteen substantial buildings and associated outdoor spaces. He created a building cluster with a grand residence, chimes tower, and several support buildings, arranged along the toe of the canyon, and unified the structures with a single architectural motif. He integrated roads, ornamental vegetation, and rockeries to create a dramatic arrival sequence and areas of repose. Johnson also designed for utility—taking advantage of an existing canyon to stage construction activities and to store building materials. Much of the design and eventual implementation became a collaboration effort between Albert Johnson and three unique individuals who would help Johnson define his estate. The following examines the design of Scotty's Castle by considering the intentions of all these men and touches on how the layout was implemented.

Matt Roy Thompson

Matt Roy Thompson arrived on the job in October of 1925 at the request of Johnson's wife, Bessie, whose influence over Thompson was immediately noticeable. Soon after his employment, he submitted sketches proposing new façades, arches, and tiles for the existing buildings—all images that resembled the architecture found at Stanford, where the two had first met [30].

Documentation suggests that Thompson was involved in almost every aspect of site development with exception of the buildings: from the construction of new roads to the establishment of new ornamental plantings to the development of a complex infrastructure system of pipes and tunnels. He also built earthen dams, a lake, a swimming pool, and cleared and graded over thirty acres at Scotty's Castle and at Lower Vine ranch. Among Thompson's most important designs, were the development of new roads at Scotty's Castle, the lake—a kind of moat at the entrance gate and the plantings at Cottonwood Corner and the entrance gate.

In Thompson's design of Bonnie Clare Road, the first question concerned how the new alignment would approach Scotty's Castle. In 1929, Johnson discussed at length the realignment of the road with Thompson [31]. At this time, Thompson wrote how he wanted an "impressive approach to the buildings" [32]. A year later, well into the construction phase of the road, Johnson added an idea calling for a "...pleasant approach of green, coming up from the south..." at cottonwood corner [33]. Unfortunately, neither man elaborated further on how the road alignment would accomplish their stated desire to "impress" the visitor.

Once the realignment was completed, Bonnie Clare Road became an integral component of the arrival sequence between the intersection at Grapevine Junction to Scotty's Castle. From the junction, the road led into Grapevine Canyon following the narrow corridor and providing open views to Cathedral Rock, past the plantings at cottonwood corner. After cottonwood corner, the road curved sharply to the north and continued following the lay of the land, rising and falling over drainages, where visitors encountered distant views of the chimes tower. The road led to greenery planted around the entrance gate.

Through the portal, the entrance road, guided the visitor to the main residence. Also designed and constructed in 1929, this road was the western edge of the lake and required the greatest amount of fill to create. The narrow road, ten feet in width, began at the entrance gate and led to Scotty's Castle in a graceful arc, rising at a gentle grade, approximately ten feet above the lake, past the swimming pool, and ending at the turnaround [34]. The remaining internal roads were secondary, used to link buildings and storage areas together.

MacNeilledge/de Dubovay

In 1926, Johnson also hired a Canadian-born interior designer, Charles A. MacNeilledge. MacNeilledge had redecorated Johnson's office at National Life Insurance Company and the library of the his Sheridan Avenue residence in Chicago. MacNeilledge set up a furniture workshop and studio in Los Angeles where he would oversee both the construction and purchase of interior furnishings [35]. He was also largely responsible for the overall designs and selection of materials used in all four of the main buildings including: redwood, stucco, ceramic tile, and metalwork. In order to maintain the demanding workload, MacNeilledge hired Hungarian architect Martin D. de Dubovay, a man who could provide technical assistance, had excellent drafting skills, and vast project experience in Europe and South America. De Dubovay would go on to design several buildings at the ranch as well as draw several important

perspective sketches providing a vision for the full extent of Scotty's Castle and its grounds [36].

The architectural style chosen for the building complex was a Spanish style [37]. To create unity, MacNeilledge used a common vocabulary of materials throughout the building complex including stucco, wood, and metal. Stucco was muddy brown and creamy beige in color with scratches on the surface, giving a "weathered adobe" appearance to most of the buildings. Whether it was real or simulated did not matter, the goal in weathering the surfaces was to make the buildings appear old [38]. MacNeilledge chose redwood because he liked the color. It was used in places of high visibility including doors, doorways, window and door lintels, gates and porches. All of the wood was treated through a burning process termed "antiquing," increasing the appearance of age [39]. Metal, used for lighting fixtures and on the gates as decorative hinges, were fashioned into such shapes as a bobcat, roadrunner, and snake. MacNeilledge also designed weathervanes depicting vignettes of Scotty in the desert. Although these materials were chosen by MacNeilledge because they supposedly evoked a Spanish style of architecture, it is also true that this style was common throughout the state of California at the time, also referred to the "Mission" style.

Apart from the use of a common pallet of materials, it appears the buildings were purposefully aligned on an axis, an implied horizontal line that ran east to west through the site, although it is probable that Johnson never intended to create an axis as a design statement. Rather, Johnson may have been influenced by the natural topography of the canyon and oriented Scotty's Castle for pragmatic reasons on the north slope to capture views of the canyon and Panamint Mountains to the southwest—before even considering the arrangement of the support buildings. The linear arrangement, east to west, may have been in response to confines of the narrow canyon, which trended in this direction. In other words, the axis described above may have come about by chance because the narrow topography would have limited Johnson's options.

Johnson and Thompson made mention at times that some buildings should be arranged in a particular way. For example, they sited the north side of the stables to maximize the open space between it and the existing mule barn [40]. They sited the chimes tower in its location to maximize the sound qualities through the canyon [41]. They sited the entrance gate, away from the building complex as a portal onto the property, which was an important component of the arrival sequence to the site [42].

Although construction was well underway, it was not until 1927 that Martin de Dubovay, an architect working under MacNeilledge, produced a drawing of the proposed building complex. He drew an oblique black and white perspective, illustrating the arrangement and architectural style of buildings, roads, and gardens. It evoked the Mediterranean scene MacNeilledge envisioned, with the repetition of palms and with the entire building complex unified by a single Spanish architectural style. It depicted the entire extent of the grounds—from the stables to the chimes tower—emphasizing the swimming pool in the foreground, the main residence in the background, and the chimes tower on the left. The drawing also included a small sunken garden at the tunnel entrance in the lake, an orchard, and an extensive planting of cacti and Joshua trees behind the building complex [43].

MacNeilledge also produced other landscape plans at the turnaround and the arcade (between Scotty's Castle and powerhouse) that were never fully constructed or left totally unimplemented. The first drew attention to the wishing well, which was left incomplete in 1931, and a very elaborate paving for the turnaround, which was never implemented. The proposal was to surface the turnaround area in a mosaic pattern using multi-colored pebbles embedded in concrete. Another unimplemented mosaic was proposed for the arcade walkway surface. The pattern was symmetrical in design and embellished with six patterns in the center with banding mosaic patterns along its edges. The unimplemented design was approximately fifty feet long, ten feet wide at castle, and opened up to thirty feet wide at the power house.

Kruckeberg

In 1929, on the recommendation of MacNeilledge, Albert Johnson hired Los Angeles landscape architect Dewey R. Kruckeberg to develop a landscape plan for the estate (See photo 20 DEVA 40875). Prior to Kruckeberg, Matt Roy Thompson had planted numerous willow trees at the lake and planted palms and fruit trees within the building complex. Although Thompson wanted to continue with his work, Johnson made the decision to turn all of the landscape design and planting work to Kruckeberg [44].

Initially, Johnson hired Kruckeberg to capitalize on his horticultural skills. He had previously worked at Theodore Payne Nurseries in Los Angeles and was a landscape architect. Kruckeberg's attempts at plantings, however, saw limited success over time—as opposed to his rock work at the cook house, guest house, and watercourse. In 1929, Kruckeberg produced an overall site plan largely based on the original landscape plans developed by Albert Johnson and C.A. MacNeilledge as illustrated by de Dubovay. In addition to designing and supervising the construction of rock walls, he installed plants at the guest house, castle, cook house, long shed bunk house, and watercourse. His plantings did not survive past the historic period, despite Kruckeberg's attempt to create a watering schedule to manage them [45].

Although Kruckeberg's plan focused on an area of approximately fourteen acres out of a 300-acre property, less than seven acres of the grounds were ever implemented [46]. Kruckeberg's design intent was to create a planting plan that would complement with the Spanish Style and character already established by the architecture. In addition, Kruckeberg's plan focused on the arrival sequence, with hedges and trees planned along the entry road creating a physical and visual link with Thompson's plantings by the entrance gate. Landscape plantings areas designed by Kruckeberg differed in character depending on location—from the informal park setting of the lake to the foundation plantings of cacti around the guest house; from the informal plantings over an articulated stream channel, the watercourse, to the agrarian character of the existing orchard, vineyard, and vegetable garden [47].

In the plan, foundation plantings were small in scale and texture and primarily confined to designated planting beds. As proposed, there was an interesting mix of formal hedges, cacti, ground covers, mature palms, and olive trees. Overall, the simple pallet of plant material was

Mediterranean in character, and somewhat formal in design. It was implemented in a several areas, but the guest house planting seemed to be the only bed that was fully planted [48]. Other foundation plantings consisted of olive trees and wildflowers at the cook house and hedges, grass, and palms at Scotty's Castle; the courtyard featured a grape trellis, potted flowers, and cacti in beds.

Kruckeberg's plan for the watercourse echoed this desert cacti theme—with the preliminary landscape plan calling this zone a "cactus garden." The actual implementation, however, seems to have been less ambitious. Instead of cacti, historic photographs show that two saguaro cacti, several palms, some ocotillo, and a few other smaller unidentified shrubs were actually planted, rather sparsely, in this bed [49].

The orchard, vineyard, and vegetable garden, also included in Kruckeberg's planting plan, depicted existing conditions probably first established during the Steininger era. Johnson's plan was to enhance this agrarian area.

In addition to plantings, Kruckeberg designed various rock features including a system of concentric retaining walls at the cook house, stone work at the watercourse, and the rockery at the guest house. These features highlighted Kruckeberg's expertise as a mason.

Kruckeberg and MacNeilledge used a mix of materials throughout the estate, a simple reflection of hierarchy—with expensive materials reserved for the important areas around Scotty's Castle and inexpensive, less ornate, materials for support buildings. The Scotty's Castle courtyard was made of tile, a material that was expensive to import, ornate, and fragile. They were laid out in a herringbone pattern and spanned the area between Scotty's Castle and the annex. Its use, especially in the 1920s, was probably viewed as extravagant and a reflection of the Johnson's good taste and wealth. The guest house and cook house were less important than Scotty's Castle. Here, Kruckeberg designed flagstone steps, which appeared less formal than Scotty's Castle, yet was architecturally interesting and suitable for guests. They were set in mortar and laid in an elegant, curvilinear style. The walkways at the long shed bunk house, a building reserved for employees, were made of concrete. This simple material was suitable to meet basic needs, but certainly not elegant. In character, it resembled a typical driveway and sidewalk found in a suburban setting. Like Kruckeberg's other work, the watercourse walkways were simple, curvilinear pathways or stairways made of stone that varied in size. Here, the stone was less refined than the guest house treatment, appearing oversized, almost rustic, and natural [50].

Scotty's Castle
Death Valley National Park



The stables was designed as a support building where Scotty spent time tending to the horses. The corral, seen in the foreground, was in use throughout the historic period. View north (DEVA 40712).



Image of the guest house in the background and watercourse in foreground. Bessie is pictured sitting on the edge of a pool in the watercourse (DEVA 20256).

Construction of Scotty's Castle: 1925-1931

Between 1925 and 1931, projects at Scotty's Castle ranged from finish work in the residence to road construction, installation of mechanical systems, and tunneling for utilities [51]. Carpenters and other tradesmen, under the supervision of MacNeilledge, layed foundations and built the

structural framework for almost all of the buildings—roofing and stucco work was also underway. At the main residence and the guesthouse, craftsmen followed the designer's evolving but always exacting specifications to achieve the right "antique" finish on all exposed woodwork, metal, and tile work throughout the residence. These finishes were also applied throughout the site, including the annex and guest house, and on landscape structures including the entrance gates, exterior fencing, and grillwork. A crew of electricians from Los Angeles spent a month onsite, installing custom light fixtures of every type—from massive chandeliers in the residence, to exterior lights [52].

Other work crews were building and installing thousands of reinforced concrete fence posts to encircle the entire property. Shoshone laborers used shovels and sometimes dynamite to excavate for the fences and mules hauled wagonloads of materials to various locations in the canyon [53]. The fence was distinctive and a somewhat permanent element in the landscape because they were stout, white in color, about seven feet high and strung with barbed wire. There was no mistaking Johnson's property boundary: each post was inscribed with an "S" and a "J" for Scotty and Johnson. More than 3100 of these posts were produced. Construction supervisor Thompson designed roads, dams, and cleared and graded building sites. He built public and private roads for access, earthen dams to form the large ornamental lake near the entrance to Scotty's Castle and to retain spring water at Cottonwood Corner. He also built retaining walls in front of the guest house and on the bluff west of the residence to hold back the hill under the power house.

Other landscaping projects included the installation of the solar-heated water delivery system, which involved digging a network of ditches to deliver water from the collecting tank behind the annex to several nearby buildings, including the guesthouse, cookhouse and main residence. In January of 1930, a steam shovel was used to excavate the power house and finish the trenches for the hot water pipes. Ornamental rockwork, designed and supervised by Kruckeberg, was also in progress including a grotto as well as stairs and edging along walkways.

The following is a summary of the annual construction activities undertaken by Albert Johnson and his design team.

1926 and 1927

Between the years 1926 and 1927, nearly seven acres at the site had been cleared and graded of building sites and new access roads. Approximately a half mile of new road was constructed with the utility access roads and the road to the stables widened. A total of nine new structures were constructed during this period including the main residence, the old gravel separator, up canyon at the spring (abandoned that year), the new gravel separator near the entrance gate, powder storage structure, an access road to the old gravel separator, annex and courtyard, guest house, gas house, cook house, long shed, and stables. Up to this point, little landscaping work was undertaken, but as the building complex became more defined plans for the grounds were underway.

Buildings

Johnson spent 1926 gearing up for future construction and on the construction of new buildings and structures related to utility or support. The stables (east wing), chicken coop, and workshop/shed— all designed by Johnson — were completed. Thompson also oversaw the construction of several fences (with wood posts) and conducted preliminary work on the new cook house and the “Commissary” (Annex) [54].

By 1927, construction activities included several residential and support buildings including the main residence, gas tank house, annex, and gravel separator. Other new buildings constructed during this season included the completion of the main residence. Construction of these structures required an excavation of the slope in front of the cookhouse and east of the annex and the one-story, two room gas tank house [55].

Phase two of the construction of the main residence included additions such as turrets, balconies, a sunroom, and patios. Building materials included stucco, wood, and hand wrought iron. The brushed stucco finish of the exterior walls was colored in off-white, and textured to create the outward appearance of a weathered building. There was an entrance gate of hand-wrought iron hinges, handles and latches on all doors and window screens, and massive redwood beams that were hand-finished with an alcohol torch.

When Scotty’s Castle was completed, the two-story structure contained ten rooms, three covered porches, and a large courtyard of red-clay tile between Scotty’s Castle and annex building. It contained approximately 5800 square feet on two floors. The Johnson’s bedrooms were located on the second floor, and the main floor contained the primary living areas, where the Johnson’s entertained guests. Scotty’s bedroom was located on the main floor of this building.

Plans for the construction of the annex began during this. The building as seen today was redesigned by MacNeilledge to include two stories and was tied to the main residence with a bridge and a formal courtyard paved in tile [56]. The annex housed several guest rooms and the pipe organ. In the stables area, the barn was redesigned with arched openings, stucco exterior, and a tile roof. In October, work began on a second building, called the shed or new barn, but was delayed by design changes. The structure was constructed with concrete walls, and a tower on the east end of the structure, originally conceived as the chime tower, but altered as a “bird loft.” A flat roof connected the two buildings and covered a portion of the courtyard [57].

The gas tank house was a service station built this year that supplied fuel for the ranch vehicles and heating gas for the buildings. It accommodated cars in the south bay and housed two gasoline tanks in north end [58]. The single-story building was approximately 1000 square feet and included multiple rooms. The building sat on a concrete slab, had adobe walls, and a gable roof of red-clay tiles.

Thompson also built a new gravel separator about a half of a mile closer to the building complex, near the mouth of Tie Canyon, to placate Albert Johnson’s concerns regarding the slow production of concrete [59]. The gravel washed with water and sorted into various sizes

over a set of screens of diminishing sizes, converted sand and gravel into concrete for the production of footings, tunnels, foundations, retaining walls, and fence posts. Constructed of 8"x 8" railroad ties and timbers of various sizes, it held together with steel reinforcing bars in an interlocking crib system, forming a U-shape. It had a retaining wall up to eighteen feet high on the east elevation and graded on the west elevation to accommodate dump trucks.

Landscaping

In 1926, one of M. Roy Thompson's first jobs on site was to construct a water catchment and distribution system to provide water for domestic use, electricity, and later a fire suppression system [60]. The water catchment system was simply a reservoir with a headgate, which controlled the flow of water through a pipe linked to the building complex. The exact dimension of this system, or a detailed understanding of how it worked, is unknown. Another structure was built near the water catchment system, a gravel pit linked by pipe, which was used as a washing system to sift out sand and gravel for generation and mixing concrete on site. It worked with men who pushed wheelbarrows of dirt up a forty-foot incline, dumped them onto a ten-foot length of sloping corrugated iron and washed it all down over a half-inch screen to sift out sand [61]. The gravel separator replaced this structure.

In 1927, Clearing, grading, and construction activities began at the annex, guest house, stables, and gas house and the road to the stables was widened to improve access. Approximately two acres were modified to build foundations.

1928-1929

During the construction season of 1928, new buildings included the chimes tower, swimming pool, entrance gate, and wishing well. A great deal of consideration went into the siting of the chimes tower, which was located on a knoll west of Scotty's Castle—a location that maximized the sound quality of the chimes, allowing it to be heard throughout the Grapevine Canyon [62]. Approximately eleven acres of land was altered by the end of the construction season. Over one mile of access roads were constructed through Tie Canyon with a short ¼-mile section of road to the chimes tower.

Buildings

The chimes tower, at five stories, was much higher than any other buildings in the complex. As a result, the distinctive roof of red mission tile capping the tower was visible almost a mile away from Bonnie Clare Road. The building was located on the west end of the building cluster and included a small apartment and observation deck. The building also featured a Howard clock, metal casement windows, and wood doors with reinforced hand-wrought fittings [63].

The entrance gate was Spanish in style and used to span the moat, with two crenellated towers, two stories high. The unfinished structure included an arch framed a pair of massive wooden gates with hand-wrought iron fittings connecting them to the towers. Three-foot-high curving walls were built along the edge of Bonnie Clare road.

The year 1929 saw the addition of several new utility buildings and structures including the

powerhouse, solar heater, and a small shack in Tie Canyon, referred to as the wash house.

In a departure from the “Spanish” architectural style, the power house referenced the European gothic in architectural style. It had flying buttresses and a concrete façade. The concrete was made to appear as large cut stones set in a running bond pattern. It also had an exterior staircase, a hexagonal pavilion, an arched doorway with wood gate, a crenellated parapet roofline, an overhanging tower, and a flat roof with two skylights [64]. Albert Johnson was responsible for the machinery on the interior, which supplied the building complex with electricity. During the 1930s, the building housed three generators including an eighteen-inch Pelton water wheel.

The solar water heater represented another way Albert Johnson harnessed nature for use at Scotty’s Castle. Purchased in 1929 from the Day and Night Company, the heater conveyed spring water through copper tube piping. It had eight black-painted solar panels set on a concrete slab and heated water over the solar panels, storing the water within the insulated tanks. The solar water heater only worked a short time before it was abandoned by 1930 [65].

Landscaping

Development in 1928 focused on the area around the residential structures at the site. Clearing and grading for the structures, ornamental plantings, road building, and building construction were all underway. A great deal of clearing activities centered on the area around the chimes tower and the access road (from Tie Canyon)—with much of the fill from this excavation used on the entrance road. Grading for the swimming pool also began at this time—with fill from this excavation used to create the entrance road south of the pool. Thompson established plantings of willows in the lake area.

In January of 1928, Johnson capitalized on the closure of the Tidewater Railroad in 1928 by purchasing thousands of railroad ties, stockpiling them in Tie Canyon for use as a fuel to heat the buildings. Work also began at the pool. The interesting curvilinear design was shaped, at least partly, to accommodate the reinforced concrete bridge that would span over it. The addition of the new bridge required Thompson to move the alignment of the entrance road ten feet to the south.

Thompson planted hundreds of willows throughout the lake area, while he and Johnson made other plans for this area including a proposal for a grand entrance—a gated entrance flanked by two towers set over a moat. The entrance road would consist of a long stretch of fill, and aligned in a sweeping curve to Scotty’s Castle [66].

The extravagant curvilinear swimming pool was intended as a major focal point of the building complex. The base of the structure was left unfinished, while the walls comprised of reinforced concrete, were never tiled. Approximately 240 feet long, and divided into two pear-shaped pools, with a concrete bridge between them. The swimming pool was fifteen feet at its deepest end and the entire structure was encircled by a chain and metal post fence. Several windows were installed for underwater viewing from the basement of Scotty’s Castle.

In 1929, additional roads were aligned in Tie Canyon as more and more railroad ties were delivered. The road to the solar heater was built this year, linking with the chimneys tower access road. Several access roads were also constructed in the lake area—the most notable example forded the stream in the lake (north of the entrance gate); it was aligned from Bonnie Clare and crossed directly toward Scotty's Castle. Thompson laid a concrete walkway and driveway around much of the longshed. Dewey Kruckeberg constructed several stone walkways at the cook house and guest house and planted a number of ornamentals—cacti at the watercourse, olive trees at the cook house, flowers in beds and pots and palms at Scotty's Castle. By summer, many of these plants died [66]. In addition, Thompson planted more willows and palms in the area close to a proposed pool structure at the end of the tunnel, in an effort to frame, soften, and balance the Scotty's Castle building profile [67].

1930-1931

By 1930, Albert Johnson had changed his priorities in the construction of buildings. Instead of completing the swimming pool or entrance gate, he turned his attention to the Lower Vine ranch and asked MacNeilledge to design Scotty's ranch house. While MacNeilledge was occupied with the Lower Vine, Thompson remained focused on landscaping and road building at Scotty's Castle.

Landscaping

The earthworks conducted at Scotty's Castle between the years 1930 and 1931 by Thompson were perhaps the most extensive of all the construction seasons, and furthermore, had the greatest visual impact on the site in regards to setting.

During this year, Thompson built a two-mile stretch of Bonnie Clare Road and greatly altered the grounds of Scotty's Castle with the construction of the lake, entrance gate dam, and entrance road. Furthermore, in the construction of these large-scale landscape features, Thompson removed several roads used during construction in the lake area. Fill was added to the entrance road raising the overall grade of the roadbed by several feet. Thompson conducted a large amount of grading around the entrance gate in order to create a depression in the earth. Based on available water channeled from the spring the lake was designed to be approximately one acre in size and four feet at its deepest point.

This area was excavated mainly around the entrance gate. On the west side of the structure, a substantial earthen dam was constructed to contain the spring fed water in the lake. The earthen dam rose approximately fifteen feet from the ground, was thirty feet wide at its base and ten feet across the top. Leading to this low point, where the water collected at the dam, were two ditches that were excavated to convey water to this feature. The ditch that carried the most volume of water extended to a point near where the reservoirs are located today, while the other was secondary, conveying water from the watercourse. The fill used to create the curvilinear entrance road also served as a dike to retain water and to direct its flow under the entrance gate. This dike (entrance road prism) rose at least ten feet above the grade of the

lake, was approximately twenty feet across at its base and twelve feet across the top of the road. The 1930 grading plan, and the letter by Thompson regarding it, clearly illustrates that this lake was designed as a water feature. The plan illustrated the intersection of Bonnie Clare Road and the entrance road, showing the existing topography with spot points and proposed grading with topo-lines. In a letter accompanying the grading plan from M. Roy Thompson to Albert Johnson dated February 17, 1930; Thompson expressed how this plan would meet Johnson's design goals.

Enclosed is the sketch and survey of present and proposed conditions at entrance gates and pools in the lower field. While Mr. MacNeilledge was here last week we discussed the best location for the gate, bridge and walls, and this sketch shows them about as he thought they should be. I have indicated a proposed water level of 65' (our datum—main house floor 100'), or 4' below the bridge grade as the plan calls for that much head-room; and because 72' is the best grade for the road at that point to fit the topography.

I recommend that the bottom of the lower pool be filled to the top of the present manhole at grade 6.77', thus making the water 4 ½ feet deep at its center; and that the upper lake be excavated to a maximum water depth of four feet so that the upper lake will drain naturally through the proposed bridge into the lower pool and manhole, and thus render the pipe line extension and intake in the upper lake unnecessary. We will have ample dirt to carry out this plan.

The 1930 oblique air photo shows that this grading plan was nearly completed by this time.

In 1930, Kruckeberg's original plan for the watercourse behind the guest house was abandoned in favor of another location, the cactus garden. The new garden was called the watercourse. It was narrow, approximately 50 feet wide, but almost 450 feet long. The design integrated ornamental plants with large stepping stones, pathways, and a stream fed by the spring. The garden created a series of intimate spaces for sitting with shallow ponds and small waterfalls to cool the air.

Installation of the stonework was laborious. Kruckeberg used large boulders trucked in from a local quarry. A construction crew moved the stones with heavy equipment. Construction began on the east end of the watercourse and progressed west. To create the stream, Kruckeberg used mortar between the stones to direct the flow of water. He arranged the stones to create small waterfalls and depressions giving the stream a natural appearance. He created stone staircases with cheek walls—stone curbs used to support the stairs—set in mortar and several dry-stacked retaining walls in the grotto area. He also added a huge boulder carved out to make a bench for sitting and another boulder with Panamint Shoshone petroglyph.

Planting began at the watercourse under the supervision of Kruckeberg. Although the plan called for a mix of cacti along the watercourse, special attention was given to the collection of "large cacti" from Arizona to be personally retrieved by Kruckeberg who took several trips into the desert [68]. Historic photographs reveal that several shrubs were also planted along the watercourse. While it is difficult to identify the specific materials, it is evident that only saguaro

cacti were planted. A picture dated 1950 and another dated 1955 confirm that a number of California fan palms (*Washingtonia filifera*) were located on the west end of the stream. Based on this evidence, it is likely that this area was heavily planted with mesquite, willow, and juniper at some point near the end of the period of significance or at some point just after [69].

By 1931, nearly all construction on the grounds of Scotty's Castle slowed to a glacial pace. Only two major landscape projects were completed that year on the grounds of the estate: the perimeter fence and the earthen dam at Cottonwood Corner.

Conclusion

It was not until the spring of 1931, several years after the stock market crash in 1929, when all construction activities at Scotty's Castle ceased. By this time, America was in the throws of the Great Depression, Johnson's financial resources were drained, and several banks, of which he had invested heavily, were closed [70].

The unfinished buildings and landscape at Scotty's Castle was expressive of an ambitious and comprehensive plan to construct an expansive and largely self-sufficient residential estate. That the project was never completed is immediately evident in the state of buildings throughout the site today. Some are obviously unfinished, such as the gate house, the swimming pool, and columns extending along the west plaza. Others, such as the gravel separator, intended as a temporary structure, remains, giving the overall impression of an abandoned construction site. A combination of expanding the scope of the project in the late 1920s, coupled with the increased pace of construction and the effects of the Great Depression, was both a flawed planning process and bad luck [71].

Construction activity reached its height somewhere between the years 1929 and 1930, but by the spring of 1931, work tapered off and finally ceased altogether in the spring. By 1930, the most important components of the designed landscape were in place at Scotty's Castle, despite the early work stoppage. Today, the majority of buildings, circulation systems, the extensive fence surrounding the property, and some of the greenery remains intact or, as in the case of the greenery at the entrance gate and cottonwood corner, closely resembles historic conditions and original design intent. Albert Johnson's original idea to create an out of the ordinary estate in the desert is today a tribute to his ingenuity and remains a physical legacy to the excesses of the roaring twenties [72]. Flush with personal wealth, Johnson designed more than a vacation home. Instead, he designed an estate with a castle in a very unlikely location—Death Valley. In doing so, Johnson demonstrated his economic class, creative expression, and power to harness nature.

Post Construction: 1932-1954

Albert Johnson lacked a steady income once the life insurance company was sold, although he retained substantial private property holdings: the homes in Chicago and Hollywood, Shadelands Ranch (Bessie's childhood home), and Scotty's Castle. His financial situation was serious enough, however, that by 1931 Johnson was forced to sell his Chicago home [73]. It was during

the early 1930s that Johnson began to shift his attention to developing Scotty's Castle as a tourist attraction. During this time there was a movement afoot in Congress to create Death Valley National Monument, which would inevitably attract tourists. In order to accommodate tourists and visitors, several modifications and improvements were necessary. In the early 1930s, a developer from Los Angeles by the name of Eichbaum constructed a new road from Stove Pipe Wells to Grapevine Junction, providing convenient access to Scotty's Castle [73].

Eichbaum also helped to promote Scotty's Castle while Johnson responded by improving visitor amenities at Scotty's Castle. By 1934, individuals on Johnson's staff conducted informal tours. Johnson chose to capitalize on this interest in the building. By 1936, he hired and trained official tour guides who took visitors through Scotty's Castle at one dollar per person. Johnson also sold mementos to increase the income, selling such items as an anthology of stories of Scotty (written by Bessie) and guidebooks [74].

In 1943, Albert's wife Bessie died in an automobile accident traveling over a mountain pass, forty miles south of the ranch. Albert was at the wheel and had lost control of the car. Bessie was killed instantly. After this incident, coupled with Johnson's failing health, it became increasingly difficult for him to visit Scotty's Castle and to maintain the property. Because of the restrictions on rubber and gasoline during the war, visitation was severely curtailed as well. Maintenance costs during this time were increasingly difficult to meet. As a result, Scotty's Castle fell into decline [75].

In 1946, after the war had ended, Johnson established a charity named the Gospel Foundation of California and hired a social worker, Mary Liddecoat, as president. A year later, he included the Gospel Foundation in his will. After the death of Albert M. Johnson in 1948, the Gospel Foundation managed the property. In these years, Scotty's Castle was operated as a motel and tourist site. The guest house was divided into four separate units, while the limited number of suites in Scotty's Castle were available for a premium price [76]. According to Mary Liddecoat, the long shed was used as a motel unit during these years, primarily for overnight accommodations [77].

Scotty died in 1954, six years after the death of Albert Johnson. He was buried on the hill above the chimes tower. About a year later, Windy, Scotty's dog, was buried next to him. A cross, erected prior to the death of Scotty, remains as a powerful symbol, high above the grounds of Scotty's Castle.

Gospel Foundation Era at Scotty's Castle: 1954-1970

The Gospel Foundation staff made several modifications to structures at Scotty's Castle, but after Scotty's death in 1954, the buildings at the Lower Vine ranch were mothballed. The wishing well was "finished" in the late 1940s with the addition of tiles. An addition to the gas tank house was completed by 1955 [78]. Additional stones, placed in undocumented areas, were placed to raise the pool level in the watercourse [79]. The entrance court (turnaround) was surfaced with asphalt at some point after Johnson's death. On a smaller scale, she removed, what she considered, various safety hazards around the site. For example, she cut the ends of the exposed rebar at the swimming pool and entrance gate and flattened the bottom

surface of the swimming pool [80].

Liddecoat also made changes in the landscape by planting ornamentals throughout the building complex, apparently relying on a rather small plant pallet of oleanders and palms brought from Los Angeles [81]. Liddecoat planted the oleander near the cook house, castle, swimming pool, and along the entry road—pruning them to prevent them from flowering. Palms were sometimes grown by seed—the parent trees were located in the watercourse [82]. The palms were established throughout the complex, but concentrated on the south side of the stables, where a number of cottonwood trees had naturalized creating a dense blanket of greenery. She also planted dwarf peach trees east of the gas house, producing fruit for many years [83]. Although it is unknown if Liddecoat planted in the watercourse, historic photographs reveal that it was less densely planted than today. Liddecoat probably planted additional cacti in the guest house garden. By 1968, a flash flood scoured parts of the grounds of Scotty's Castle destroying vegetation in some places [84].

National Park Service Property: 1970 – Present

Ownership of the Scotty's Castle transferred to the National Park Service in 1970. At this time, Mary Liddecoat remained the president of the Gospel Foundation, having had twenty-two years' tenure, assisted by a former executive of Johnson's National Life Insurance Company, Walter Webb, managing the property as a tourist attraction on a modest scale. These divestitures proved beneficial for the foundation, which was awarded tax-exempt status once it no longer owned the property [85].

The NPS purchased the property for \$850,000 using the funds through the Land and Water Conservation Act of 1965. The Act prohibited the use of these monies for purchasing furniture, so the Gospel Foundation donated the furnishings as part of the transaction [86].

The National Park Service could not begin planning improvements or modifications at the site until a condition assessment on the existing facilities could be completed. In general, The Gospel Foundation did not maintain detailed records of operations at Scotty's Castle, lacking even the most basic information concerning facilities maintenance and visitation. The NPS also needed to evaluate the infrastructure throughout the property, to determine the capacity and condition of the water, sewer, and electrical systems and the ability of these systems to accommodate new uses, now was almost fifty years old.

Between 1970 and 1975, storms caused damage to Scotty's Castle and its immediate vicinity. The second floor of the Scotty's Castle south porch roof was partially removed from its decorative metal posts by a wind storm during the winter of 1973-74. Thereafter, Park Service personnel attached wooden posts to support the weakened porch roof. The following year a flash flood occurred in the canyon, causing some minor damage to the site [87].

The NPS inspected the main house and annex during the winter of 1979-80. This assessment of the property identified a number of deficiencies that would impede normal park operations. The most pressing concerns addressed the need to provide for the health and safety of the visiting public. A second series of building condition inspections during the following summer led to

discovery of major cracks in several trusses in the great hall of Scotty's Castle. Throughout the 1980s various maintenance issues were dealt with including leaks, the addition of a fire detection system, and improvements to the infrastructure of Scotty's Castle and annex [88].

Modifications were also made to the grounds. The most obvious alterations required to accommodate the visiting public were made to the circulation system. The entrance road was closed to traffic and a new entrance and parking lot was located near the picnic area south of Scotty's Castle. Additionally, several other parking lots were created to handle overflow parking—one in Tie Canyon and the other adjacent to the new entrance along Bonnie Clare Road. Another set of parking lots, to accommodate NPS vehicles and staff, were added near the stables and long shed bunkhouse. More subtle changes also occurred over time. For instance, several new buildings were added at the springs, when a new water catchment system was constructed.

Within the building complex, several structures were added. In 1974, NPS employees designed and built a ticket booth located west of the garage. The new structure was built over a concrete island that was used as the base for two gasoline pumps. Their design was modeled after a photograph taken in the 1950s of the original structure. An NPS administrative building (a portable trailer) was sited near the stables in order to provide office space for staff following the cook house fire.

The NPS also identified that buildings located in the flood plain of Grapevine Canyon were a concern. Buildings such as the entrance gate and the gravel separator were especially vulnerable. The gravel separator endured several flash floods that swept down the canyon, and partially buried the structure in debris. Over the years, this building was stabilized to prevent further damage [89].

Development at Lower Vine Ranch: 1922-1931

Introduction

Scotty's Castle, the grand complex of Spanish-styled buildings set in the upper Grapevine Canyon, was not Death Valley Scotty's home. Scotty's home, built in the late 1920s, was located on the Lower Vine ranch property. In 1929, Albert Johnson built a simple and elegant cabin with several out buildings at the base of Grapevine Canyon. This development, known as Scotty's ranch house, was his residence for nearly three decades, from 1929 through 1952. While on the Lower Vine, Scotty was more or less in retirement. He was no longer a publicity seeker, but instead a man who was "content to watch the sun paint colors on his favorite mountain" [90]. Between the years 1952 and 1954, Scotty became too ill to take care of himself and was forced to live at Scotty's Castle. Caregivers from the Gospel Foundation supported him during the last years of his life [91].

In 1926, Albert Johnson began improvements of the 1128-acre Lower Vine property. He built a water system with ditches and reservoirs for domestic and agricultural use, a road for construction of the perimeter fence, and a small residence with out-buildings [92]. After construction, Scotty lived at the ranch until the early 1950s. After Scotty moved permanently to

Scotty's Castle, near the end of his life, the Lower Vine ranch was mothballed with only minor changes made to the landscape.

Prior to any new development at Lower Vine ranch, Johnson's had to attain water rights. He hired Edwin Giles, the county surveyor of Esmeralda County, Nevada to attain these rights. In his assessments, he described the physical condition of Lower Vine ranch between the years 1922 and 1926 saying

...the only improvements [to the ranch] consisted of a vacant and empty frame shack of one room, a small field of some two or three acres, that had at one time been cultivated, but was at the time of my visit in 1922, overgrown with grass and weeds, and two or three small fig trees, stunted from lack of attention and care [93].

Water Systems

Soon after Johnson acquired the water rights to the property, he had M. Roy Thompson begin construction of a ditch system to feed a reservoir. This system was critical to Johnson because he had to show use of his water to maintain the rights. The ditches, constructed to harness water that flowed from springs in the hills above Scotty's ranch house, supplied water to a reservoir on the northern side of the property (adjacent to Hunter's cabin—a structure that was built before the turn of the century) and to a smaller one above Scotty's Ranch House. The ditches were dug out over steep and sometimes rocky terrain. Once completed, they required ongoing maintenance because they easily filled with sediment. In 1928, just a year after their construction, Johnson had work crews clean them out above Hunter's cabin to prevent water from overflowing their banks. Improvements such as these were made to the ditch system off and on during this decade [94]. It is unknown what the dimensions of the ditches were or precisely how they led to the reservoirs. Fieldwork conducted on site in 2004, revealed they had filled with a great deal of sediment, were overtaken with vegetation, and had the character of small, ephemeral streams.

The reservoir located at Hunter's cabin, approximately 50' x 50' x 6 feet deep, was large enough for use as a swimming hole. The earthen walls of the reservoir were approximately four-feet high and ten-feet wide. A small culvert and stone headwall located on the southern end of the structure controlled the flow of water into the adjacent fields. Thompson noted in February 1929, that the springs produced about 575 gallons of water per minute to the reservoir.

Another reservoir was constructed from springs closer to the residence. It was smaller in scale than the one at Hunter's cabin and described in 1929 by Thompson as 8' x 10' x 4' deep. It is unknown how many gallons per minute flowed into this structure. In addition to ditches, a two-inch pipe conveyed water from the reservoir to Scotty's Ranch House.

In January of 1929, Johnson requested that the ditch system include a lateral (spur line) to carry water to the public right-of-way along the road (to provide water for passersby), and collect in

a “small pond” near the south entry gate (DEVA 40672). When the boundary fence was built, and the gate erected at the south entry in January 1929, Thompson photographed the small water body, describing it as an “oasis.” A separate one-inch water line linked the reservoir above Scotty’s ranch house to a small pool at the entrance gate. The shallow pool, formed by a berm and planted with several shrubs around the perimeter, was removed at an unknown date and replaced with a more substantial structure. The new container was a rectangular-shaped, mortared stone trough about the size of a bathtub. It was placed on a concrete slab foundation and lined with concrete [95]. It is unknown how long this feature was operable.

Roads

During the historic period, a single road, aligned between the entrance gate and main residence, provided Scotty access to his ranch house. This road was narrow, curving over the desert floor, and surfaced with dirt, fording the small ephemeral creek that intersected the road midway between the entrance and the residence. From the entrance gate, the road turned east and led indirectly to the building complex. Within the complex, the road provided access to corrals, a hay platform, and the domestic buildings. It appears from historic photographs that the road was not well-defined within the building cluster, appearing more as undifferentiated open space between the buildings and corrals.

The road to the reservoir was approximately ten feet wide and one half mile long. It provided access from the gate to the reservoir (near Hunter’s cabin) up a slight grade, terminating near the small building cluster.

A trail linking Scotty’s ranch house with the reservoir was in place at some point during or after the historic period, although no historic documentation has been found describing this trail, fieldwork in 2004 revealed that traces of the trail was evident in most places. Along the trail, a single S/J fence post was erected along this trail for unknown reasons. Perhaps it marks the grave of one Scotty’s many pets, as was his custom.

In 1927, M. Roy Thompson supervised the construction of the loop road around the perimeter of Lower Vine ranch to provide access the perimeter of the property during construction of the fence. The road was functional, but Thompson put it, that it was to be “a very scenic auto driveway” [96]. By the end of October, with the road almost complete, Johnson wrote Thompson to compliment him on his work, saying, “I am pleased with the new road you are putting in. As you say, this will be a very pretty scenic road to drive around the place on...” [97]. In the final days of construction work crews also constructed a small bridge in the northeastern portion of the property [98 and 99]. By December 18, the narrow road surfaced with dirt was approximately five mile long, and finally complete [100].

Buildings and Structures

In 1927, the need for a fence took on some urgency as government surveyors were presently

working their way north through Death Valley. Johnson was under pressure to demonstrate maximum beneficial use of the water through improvements to the land [101]. Design and construction of the perimeter fence was supervised by Thompson, but the construction crew was led by a man named Maxwell. The fence was distinctive in the landscape because the posts were stout, white in color, about seven feet high. It appears from historic photographs that the fence was strung at the entrance gate with welded wire mesh and strung with barbed wire in other segments. The majority of posts were inscribed with an “S” and a “J” for Scotty and Johnson. More than 3100 of these posts were produced.

Between the years 1928 and 1931, several small structures were constructed near the reservoir in an area adjacent to Hunter’s cabin. The changing room for swimming at the reservoir was the largest of these buildings. It was 16’ x 18’ with a canvas roof, horizontal siding halfway up the walls, a single doorway, and an iron stove. Another structure, apparently used for outdoor recreation at the reservoir and as a storage area, was a 12’ x 20’ wood structure with tongue and groove flooring and a stone foundation [102].

Buildings

It seems planning for the Lower Vine building complex began as early as 1926, when MacNeilledge produced a conceptual drawing called “Scotty’s Ranch House.” The design was a pueblo style single-story bungalow with enclosed patios and verandas—a design that appeared very similar to the guest house, resembling it in architectural style, scale, and massing and was actually produced before the present day guest house was designed and constructed. MacNeilledge prepared a set of working drawings for three different ranch houses at the Lower Vine site—employing a new design motif. Rather than the Spanish style used at Scotty’s Castle, Scotty and MacNeilledge designed a modest wood bungalow style for the residence and garage using redwood siding and simple gable roofs [103].

The corral system on the Lower Vine was completed in stages. The yard furthest from the house was completed in 1927. The posts and top rail were of wood, with four strings of barbed wire. A circular training area was added to the feeding area by 1931, with the feed shed completed just to the east at the same time. An additional corral was added on the mesa above the residence with an additional supply of hay stored in it [104].

Construction of Scotty’s Ranch House began in September, 1929. Workers were shuttled between Scotty’s Castle and Lower Vine ranch, depending on the status of current projects [105]. Historic photographs reveal that Johnson used a large workforce at Lower Vine ranch during this time, explaining how work progressed so rapidly. The foundation for the house was completed by the end of the month of September. The trusses were up in two weeks after that, and the walls were filled with insulex, the same insulation used with success at Scotty’s Castle. By November 23, the ranch house was nearly complete. The siding was up, windows and screens were installed, and the roof shingles were laid [106]. During the first week in December, Johnson’s crew stained the structure with a redwood finish, the same used on the Scotty’s Castle trim [107]. MacNeilledge completed the interior in the winter. The garage was constructed in March 1930, using the same materials and stain as the residence [108]. The last

structure added to the building complex was the blacksmith shop. This open-air structure had a simple tin roof and stick frame.

Vegetation

With the completion of the fence line in 1929, the labor force plowed a five acre alfalfa field with wheat or oats as a cover crop in addition to melons and pumpkins [109]. Scotty chose to supervise this work himself, rather than M. Roy Thompson, so that he could “make proper affidavits as to his long usage of the water and be able to establish rights...in his own name” [110]. These activities were abandoned, however, by 1930 once the water rights were settled [111].

Other plantings at Lower Vine ranch were purposeful, but with no emphasis on formality or the Spanish/Mediterranean aesthetic seen at Scotty’s Castle. Historic photographs of Scotty’s ranch house show what appears to be a mix of cottonwood and mesquite trees planted randomly throughout the small building complex, providing shade near the residence and garage. Unfortunately, historic photographs do not reveal total numbers of trees established during the 1930s.

Lower Vine Ranch in the Gospel Foundation Era—Present

In the 1950s, after the death of Walter Scott, The Gospel Foundation mothballed the Lower Vine ranch property. The property was left in this state until the NPS took over management of the property in the 1970s. Between the end of the historic period and the 1970s, it appears that vegetation was left to naturalize throughout the building complex. By the late 1970s, cottonwood and mesquite trees grew wild and died near Scotty’s Ranch House. The NPS removed these trees to protect them. Crews cut down dead trees with chainsaws or pulled them by their roots, placing the branches in burn piles. In addition, several stumps and grapevines were removed between the blacksmith forge and garage, though the exact locations were not recorded. Vegetation growing behind Scotty’s ranch house was removed with a backhoe. Apparently, the brush and sediment grew so thick that water overflowed its banks, flooding buildings and corral [112].

End Notes

1 Deal and D’Ascenzo, 1987:13; Craib, 1978: 36; Wallace: 1977

2 Pearson, 2003, 14.

3 Deal & D’Ascenzo, pp. 12-15; Death Valley National Monument Historical Background Study, Office of Archeology and Historic Preservation, Washington, DC: 1969: 30

4 Deal & D’Ascenzo, 1986, 15

5 Lingenfelter: 18

6 Deal & D'Ascenzo, 1986, 134.

An archeological survey conducted in 1986 documented extensive resources related to historic, and prehistoric, ethnographic occupation and use of the land at the Lower Vine ranch. Dense concentrations of archeological features were mapped in more than 50 sites. These sites include features such as circular surface depressions, rock foundations and other evidence of semi-permanent Shoshone occupation at the Lower Vine ranch (Deal & D'Ascenzo, 1986, 35-38). In addition to these prehistoric archeological features, historic and ethnographic documentation indicates that the site was used until recent times, as late as the first decades of the twentieth century (Pearson, 2003, 14).

7 Livingston, DRAFT HRS, 2004: 5-19

8 Livingston, 60% draft HRS, 2004, 23-24.

A recollection of a trip through Grapevine Canyon in the late 1880s published in the Daily Nevada State Journal, recorded the travelers' relief at reaching the spring-fed canyon, noting they were "glad to get out of the wash and sight the streaks of 'living green,' which forms the peculiar feature of Grape Vine Springs." The article's author, George Nichols, described the springs as "both large and numerous; cold, warm and hot..." and noted the grass and vegetation that gave the mesa "a most beautiful and inviting appearance." After four or five miles of "miserable road, sandy, rocky and cut up by washes" they arrived at home of Steininger. The visitors prospected and hunted rabbits, ducks and quail, all of which were "plentiful." Nichols wrote, "Jake had brought a stock [of quail] over from Owens River and was giving them a chance to breed, which they seemed to be doing finely." He noted the grape vines, abundant mesquite and the "stone bath at the springs which is a curiosity. The waters of these springs possess medicinal qualities of no mean order, and if located in any place near civilization, would be of great value." The ranch also kept "a band of horses," and agricultural products included "vegetables for [Steininger's] own use, and some fruit trees and alfalfa. The rabbits and rats are a great nuisance; there are herds of them, and they destroy corn, vegetables and fruit as they ripen." (Livingston, 60% draft HRS Death Valley Historic District, 12-13).

Shortly after the Nichols article was published, an account appeared in the Inyo Register, this one even more revealing: (Livingston, 60% draft HRS Death Valley Historic District, 13).

A HERMIT. —Down at Jake Stennacher's [sic.] "Grape-Vine Ranch," in the Amargosa Mountains bordering Death Valley, grape vines are in bloom. At that lonely location, Stennacher has lived for a dozen years or more, with no human companion. He has a bunch of thirty or forty mustangs, two diminutive alfalfa fields and three or four hundred grape vines. He makes wine, and occasionally sallies out into the world as far as some of the surrounding camps, themselves almost deserted. He seems perfectly contented with his hermit-like existence, and says his place will become a famous pleasure resort some of these days "when a railroad comes along," on account of the hot mineral springs near there.

The reference to the railroad is an important detail in the above-description, in that it captures

the optimism, then pervasive in the region, that recent mineral strikes in Goldfield and other mines in the vicinity, would create a new market for the goods and services that typically followed in the wake of productive mines. This optimism toward economic prosperity, not to mention an expansion in the area's transportation systems in the form of railroad connections to the remote region, held forth until 1928, when the short-lived Tonopah-Goldfield Railroad shut down. Although this meant that Johnson's Scotty's Castle would not be as closely tied to regional transportation networks as he most likely anticipated, it did provide him with the opportunity to acquire building materials, especially railroad ties, which were used to create forms for concrete foundation, to outline roads through the construction site, to edge planted areas, and those that weren't used were stockpiled behind the Castle site, in a place called "Tie Canyon," to provide a practically limitless supply of firewood.

At the end of 1906, Steininger received the patent for the Grapevine Springs portion of his ranches. One day after the patent was confirmed, on December 27, 1906, Steininger sold a one-half undivided interest in both his properties, including water rights, to Ben H. Yandell. The other portion of Steininger's land was located on the parcel Johnson developed as the Lower Vine ranch. The following April 15 [1907], Steininger and Yandell entered a 30-day lease to protect the property "from the encroachments and claims of others, and [to] use his best efforts to improve and cultivate the same...." Three days later, Steininger sold the remainder of his interest in the two ranches to Yandell. The deed is the first to note Steininger's "possessory claims or right" to the upper ranch (Livingston, 60% draft HRS Death Valley Historic District, 18) Deeds Book 6 Pages 524-525, Book 11 Page 90, ICRO; Exhibit K, Case 1005, ICCO. Steininger signed the last deed with an X. [other refs incorrect date Dec 2]).

Although it appeared that Steininger had been granted a patent on the whole of his property, the portion of it that lay on the future site of the Castle, as well as the acreage at the Lower Vine, he actually obtained a legal patent only to the land at the Lower Vine. Steininger claimed the upper ranch purely out of longtime possession, but nothing had been recorded other than the water rights that had been finalized in April 1907 (Livingston, 60% draft HRS, 2004, 20-21).

9 In the ensuing investigations, which were reported in the Inyo County newspapers, the Lower Vine property was described as a "perfect stronghold" due to the constructed and natural battlements and availability of water; the outlaws rustled cattle at nearby settlements and would likely have held them in the hidden upper pastures of the Grapevine Springs mesa.

10 Livingston, 60% draft HRS, 2004, 21-22.

11 Livingston, 60% draft HRS, 2004, 24-26. Remains of a rock house built into a natural rock formation can be found near Scotty's blacksmith shop today. Goldfield Daily Tribune, July 18, 19, 20, 21, 22 and 27, 1907 (CNM) and the Inyo Independent, July 26, August 30, October 18, December 20, 27, 1907, and February 21, 1908 (Inyo County Library).

12 The Hunter family had extensive ranching property in the Owens Valley, some fifty miles to the west of Death Valley, but all of these individuals had been in the region for some time. As ranchers, they depended on activity in the area mining districts, which could, and usually did,

sprout up virtually overnight. These instant communities provided the necessary market for the meat, fruits, vegetables and grains they produced on their small ranches and family farms (Livingston, draft HRS 2004, 19-20).

13 (Livingston, 60% draft HRS Death Valley Historic District, 18) Deeds Book 6 Pages 524-525, Book 11 Page 90, ICRO; Exhibit K, Case 1005, ICCO. Steininger signed the last deed with an X. [other refs incorrect date Dec 2]

14 Livingston, 60% draft HRS, 2004, 20-21.

15 Livingston, DRAFT HRS, 2004: 5-19

16 Livingston, DRAFT HRS, 2004: 34-41.

17 Livingston, DRAFT HRS, 2004: 41-57.

18 Death Valley Scotty's Castle, by "Mabel," (Bessilyn Morris Penniman) 1937: p. 9.

19 Livingston, draft HRS 2004, 70-75.

20 Livingston, draft HRS 2004, 72.

21 After a trip to find the supposed landowner—Bev Hunter—Johnson closed a deal to legally purchase the upper ranch, dividing \$1,000 between Bev Hunter and Dolphus West (Livingston, draft HRS 2004, 78-79). The legal wrangling continued, however, because the ownership of the land was still in dispute. By 1927, Johnson purchased both the upper and lower ranches from Fred Sayre and Bev Hunter, though this transaction failed to give Johnson legal title because there was no official record of ownership in the General Land Office, preventing Johnson from attaining the water rights. By 1933, President Herbert Hoover signed Presidential Proclamation Number 2028, creating Death Valley National Monument, the boundaries of which included the Johnson properties. Undeterred, Johnson finally gained title to the Grapevine Canyon properties two years later, when President Roosevelt signed a bill on August 22, 1935 authorizing title to the land. Roosevelt signed H.R. 2476 on November 17 allowing Johnson to buy back his 1500-acre property for \$1.25 an acre, twelve years after he initially sought to purchase the property (Buchel, 1985, 32-34).

22 Buchel, 1985, 24.

23 Buchel, 1985, 24.

24 Shally and Bolton, 2000, 9.

25 Some years later, Bessie would comment on the ideal location of the castle saying, "The Castle is three thousand feet high and is nestled away in a small protected canyon. Storms may be raging all around, but there's 'Peace in the Nest' and we are warm and safe and cozy, as

the country round about is gripped in the arms of a raging blizzard and the mountains blanketed in snow.”

26 Between 1922 and 1924, supervisor Kropf oversaw construction of three new buildings based on Johnson’s designs. Largely by dint of pickaxe and shovel, as well as a few mule-powered Fresno-scrappers, initial site preparation and building construction was accomplished by local Panamint Shoshone laborers who camped across the property, on the south side of Bonnie Clare Road. In one of the many examples of the ingenuity exhibited during construction of the ranch, Kropf used water from the springs to prepare the building site for the main residence, using a hose to scour and level the ground. Eventually, tradesmen, including masons, carpenters, and plasterers joined the labor force, having been recruited in Los Angeles Cookhouse (HSR, 1985: 5; M. Kropf interview, pp. 19-20).

27 Shally and Bolton, 2000, 11.

28 Note: Eight of these drawings are in the archives at Scotty’s Castle. The rest of these drawings are in the possession of the Taliesin Fellowship in Scottsdale, Arizona. Source: Neil Levin, “Wright’s First Diagonal Group Plan: The A.M. Johnson Desert Compound and Shrine at Death Valley,” post 1982, typescript, 11 pages, DEVA SC; Greene: 22. Web address: <http://www.loc.gov/exhibits/flw/flw05.html>

29 note: Johnson’s friend L.L. Nunn, again, contributed to Johnson’s Death Valley construction project. Nunn hired Wright to design a residence at Deep Springs College, which provided Johnson an opportunity to consult Wright on developing an overall landscape and architectural plan for his desert property. Johnson paid Wright to prepare drawings and Wright produced at least twenty different renderings for what Wright termed “Johnson’s Desert Dwelling.” Eight of these drawings are in the Reference Library’s architectural drawing collection at Scotty’s Castle. The rest of these drawings are in the possession of the Taliesin Fellowship in Scottsdale, Arizona.

30 Livingston, 60% draft HRS, 2004, 149. Apparently, these images are lost.

3 Thompson to Johnson, February 20, 1929.

32 Thompson to Johnson, February 20, 1929.

33 Johnson to Thompson, March 15, 1930 This planting of greenery was to also serve Johnson’s other plan to retain all spring water on his property. Where water did escape, Johnson built a “drain tile” to convey water from the road to his property.

34 Letter from Thompson to Johnson March 6, 1926.

35 Livingston, 60% draft HRS, 2004, 92.

36 Shally and Bolton, 2000, 11.

37 Historic Structure Report, Main House and Annex, Scotty's Castle, Scotty's Castle, 1991, page 45. Some people claimed it was modeled after a Spanish village or hacienda, referring to it as Spanish Revival, Spanish Mediterranean, or Spanish-Moorish. Others such as Bessie Johnson called it Spanish Provincial. MacNeilledge and Johnson called it The Spanish Style.

38 Historic Structure Report, Main House and Annex, Scotty's Castle, Scotty's Castle, 1991, page 47.

39 Historic Structure Report, Main House and Annex, Scotty's Castle, Scotty's Castle, 1991, page 48.

40 Johnson was mostly concerned about the location of the new footings of the stables. He said, "I wish the new building to be placed as far to the north as possible so as to give as much of a passage way between the two buildings as possible."(Thompson to Johnson, October 15 and 19, 1927, Manuscript 7 box 5 Folder 3; [A.M. Johnson] to C.A. MacNeilledge, October 22, 1927, Manuscript 7 box 5 Folder 3).

41 Johnson planned for a set of chimes to be located in first the stable, and then a separate and new building constructed just for the purpose. After much discussion of the best location, wherein Johnson desired "a soft tone modulated by the echo across the valley" (See correspondence in MSS 7, including: Box 5, Folders 3 and 5; and Box 18, Folders 3 and 4).

42 Throughout the term of the relationship between Johnson and Thompson, but especially during their first year working together, Johnson gave a great deal of technical advice and clearly stated what he wanted, including the smallest details. The supervising engineer was charged with a diverse set of responsibilities, including such complex tasks as developing the water distribution system and laying out roads that would be used to access buildings sites, attractive, and safe for travel. He also found himself managing the many trades required to accomplish the custom finishes throughout the buildings and structures, which required special abilities, as well as remarkable commitment and patience.

Thompson made regular, sometimes twice-daily reports on the activities, and after 1927, these became standard components, along with reports on the weather (Livingston, 60% draft HRS, 2004, 90-91). Johnson was only disconnected by distance, but his focus was clearly on advancing the construction projects. The solar heater, the hydroelectric generation, an evaporative cooling system, and employing a newly developed insulating material – "Insulex" – are evidence of his contribution to the building program. He had a tendency to focus on seemingly minor details, but often deferred to Thompson to work out the complex engineering problems. Economic considerations did not seem to factor heavily in some of the design decisions, given the labor expense involved, compounded by the cost of transporting materials to Death Valley, but there were times when Johnson was suspicious of the billing practices of MacNeilledge (Livingston, 60% draft HRS, 2004, 93-94). At times, Johnson raised questions about the commissions, billing practices and expenses that the designer had incurred, and some suspicions began to rise that year regarding MacNeilledge among Thompson, Johnson, and some of the suppliers.

43 It is interesting to note that de Dubovay's drawing seemed to deemphasize water in the picture, despite Johnson's efforts at the time to create a lake and watercourse, both very bold design concepts within the context of Death Valley. Perhaps the drawing did not consider these landscape features because they were secondary to the buildings, roads, and greenery.

The linear arrangement of the buildings, established in the late 1920s, was the primary ordering principal of the site. With exception of the entrance gate and gravel separator, nearly every building in the complex was aligned along this implied line, running through the middle of the chimneys tower, castle, wishing well, and stables. In addition, the road between the castle and stables also ran on this axis. Though other buildings such as the long shed bunk house, guest house, gas tank house, and cook house were not directly placed on the line, they were placed horizontally to face this line, further enhancing this strong linear quality. Hence, the road between the castle and the stables served as the common strand.

Kruckeberg's planting plan—which was drawn several years after this perspective—mirrored this vision of the grounds in almost every way (See the de Dubovay drawing number 18 and the Kruckeberg plan number 19).

44 Historic Structures Report, 1991, 57.

45 Why did Kruckeberg's plantings fail? Having worked at the nursery, Kruckeberg would have been aware of the pitfalls associated with establishing a new garden—especially with mature specimens in a site like Death Valley—a location with two inches of annual rainfall and poor soils. He would have also understood the limiting factors of such a site, that mature saguaro cacti would have problems establishing at 3000-foot elevation. Did he choose these mature plants to appease his clients—perhaps demanding and insistent on immediate results? Furthermore, did Kruckeberg consider where he was acquiring his plants? Certainly from nurseries in the Los Angeles area and from unknown locations in Arizona—places with completely different climate and soil conditions from the Grapevine Canyon. Without the benefit of more historical documentation, we may never know how Kruckeberg made his decisions. The olive trees, established on the east side of the castle and in front of the cook house, were an exception. Fortunately, they survived for many years—near to the end of the historic period.

46 Taken from "Preliminary Plan: Landscape Development: Scotty's Castle: Johnson and Scott by Dewey R. Kruckeberg, Landscape Architect, Los Angeles, ca. 1929.

47 Along the edge of Bonnie Clare Road, the lake was to appear like a park with cottonwood, willow, palms and mesquite planted randomly along streams and the lake. North of this area, near the tunnel entrance, walking paths would have been adorned with a trellis and benches, set against the backdrop of ground covers of lippia and olive trees for shade. From the vantage of Bonnie Clare Road, this same planting would serve as the setting of Scotty's Castle, framing views of the entrance gate and the buildings beyond. Unlike the area around the entrance, the planting scheme for the tunnel entrance was never realized.

48 (see DEVA photos top DEVA 41459 and middle DEVA 21959 and contemporary repeat photo). This motif of cacti and Joshua trees was to be repeated behind the entire building complex on the hills above and around several other buildings, though they were never implemented. The garden, reaching its zenith in the 1950s, represented the full realization of his plan: a low growing textured mix of cacti and Joshua trees set among randomly placed desert rocks.

49 Today, the watercourse is comprised of large stones, palms, water, and shade producing shrubs. These elements fit the very stereotype of an oasis, especially with the combination of palms and water. Although much of Kruckeberg's original design of the 400-foot long watercourse with stepping-stones, a small brook, and large boulders to create falls remains, the shade producing shrubs seen today were probably not historically planted or intended to be so dense. Today, the plantings at the watercourse create intimate places to stroll and sit, and conceptually, this was the intended purpose of the watercourse. The character of this original planting, which was largely open, does not survive today.

50 The pedestrian circulation system at Scotty's Castle was limited to building entrances and garden spaces (See photo 20 DEVA 60074). Almost all of the individual walkways were surfaced with different materials, using stone, tile, and concrete—giving each walkway its own character, but also appearing eclectic. This eclectic use of materials was an interesting choice given that MacNeilledge took great pains to unify the buildings with a single architectural motif, and a limited, but common vocabulary of building materials. Why was this exacting standard for buildings ignored in the landscape?

51 When construction of the building complex resumed in 1925, it became apparent that substantial logistical obstacles were inherent to the site, especially given the level of development that Johnson envisioned for the property. Construction materials, except sand and gravel, of which there was a limitless supply onsite, arrived via the Bullfrog Goldfield Railroad. From the station at Bonnie Clare, located twenty-five miles to the east, lumber, windows, and other construction materials were trucked to the site along Bonnie Clare Road, a rough alignment through Grapevine Canyon (Livingston, 60% draft, HRS, 2004, 84-86). Other services, including hardware and other supplies, banking and telegraph services, and groceries, required a trip on similarly rough roads to Goldfield, Nevada, located some fifty additional miles away from Bonnie Clare (Livingston, 60% draft, HRS, 2004, 99). Goldfield's elevation at 5,650 feet added to the difficulty of the trip (Livingston, 60% draft HRS, 2004, 87).

52 Although they did not finish the job due to work backing up on the plasterers. Sometimes the exacting ways of both client and designer slowed down construction. This was a common problem during construction.

53 Livingston, 60% draft HRS, 2004, 149.

54 Livingston, 60% draft HRS, 2004, 89-90.

55 HSR, 1991, 96.

56 Livingston, 60% draft HRS, 2004, 93.

57 Livingston, 60% draft HRS, 2004, 97-98.

58 Livingston, 60% draft HRS, 2004, 97.

59 MRT to AMJ, March 6, 1926, M7/B3/F2

60 Historic Structure Report, Main House and Annex, Scotty's Castle, Scotty's Castle, 1991, page 41.

61 Historic Structure Report, Main House and Annex, Scotty's Castle, Scotty's Castle, 1991, page 140.

62 MRT to MacNeilledge, 11/8/28, MS 7, Box 7, File 2

63 Howard Clock: Manufactured in Chicago

64 Shally and Bolton, 2000, 35.

65 Historic Structures Report, 1991, 144.

66 Livingston, 60% draft HRS, 2004, 98.

67 MRT to Dewey Kruckeberg, September 20, 1929

68 MRT to AMJ: January 13, 1929.

69 MRT to AMJ, June 27, 1930, M7/B11/F3.

70 A lack of photographic evidence prevents an accurate date for all the plantings in this area. At least through much of the 1950s, the watercourse seemed to be open, though several medium sized shrubs—possibly willow or mesquite—had been established.

71 Buchel, 1985, 44.

72 Livingston, 60% draft HRS, 2004, 125 “MacNeilledge kept up with the construction, if only barely.”

73 See the National Register Nomination.

74 HSR, 1991, 68.

75 HSR, 1991, 69.

76 HSR, 1991, 70.

77 HSR, 1991, 72.

78 HSR, 1991, 73.

79 Conversation Mary Liddecoat with DEVA museum specialist Marcia Stout at an unknown date.

80 HSR, 1991, 51 and 74.

81 OHLid83

82 Dewey Livingston reference: OHLid83

83 OHLid83

84 OHLid83

85 OHLid83

86 10-238 and attachments, June 13, 1972, RG2/2/D-50

87 HSR, 1991, 74.

88 HSR, 1991, 75.

89 HSR, 1991, 76.

90 HSR, 1991, 77-78.

91 HSR, 1991, 140. See also the flood plain analysis: Bowers, James C. Potential Hazards from Floodflows in Grapevine Canyon, Death Valley National Monument, California and Nevada. U.S. Geological Survey. Water-Resources Investigations Report 89-4063. Prepared in cooperation with the National Park Service, Sacramento, California, 1990.

92 Buchel, 1985, 4.

93 Buchel, 1985, 1-3.

94 AMJ to MRT, 9/11/27, 9/20/27, and 10/27/28.

95 Livingston, draft HRS 2004, 83. Taken from Edwin S. Giles to Register U.S. Land Office, August 12, 1926, M7/B7/F17.

96 Correspondence MRT to AMJ: 12/7/25; MS 7, Box 1, File 1.

97 AMJ to MRT, 9/11/27; MS 7, Box 7, File 1; MRT to AMJ, October 7, 1928, M7/B7/F1.

98 MRT to AMJ, September 14, 1928.

99 AMJ to MRT, October 26, 1928.

100 MRT to AMJ, October 27, 1928 and MRT to AMJ, November 1, 1928 and MRT to AMJ, January 1, 1929.

The List of Classified Structures described the bridge as eighteen feet above the wash and spanning thirty-six feet. The wood posts were 8" x 8" with 2" x 10" diagonals. The deck consisted of 2" x 8" boards and was ten feet wide. The running tracks were 2" x 4," tongue and groove, and spaced to accommodate both autos and wagons.

101 Data derived from the NPS List of Classified Structures, "Lower Grapevine Ranch Scotty's Bridge," 2005.

102 MRT to AMJ, December 18, 1928.

103 MRT to AMJ, March 30, 1930, M7/B10/F3.

104 Information regarding this description was derived from the NPS List of Classified Structures.

105 Buchel, 1985, 40.

106 Buchel, 1985, 43.

107 Buchel, 1985, 40.

108 Buchel, 1985, 42.

109 Buchel, 1985, 43.

110 Buchel, 1985, 39.

111 Buchel, 1985, 39. Direct quotation taken from MRT to AMJ, March 30, 1929.

112 Buchel, 1985, 40.

Analysis & Evaluation of Integrity

Analysis and Evaluation of Integrity Narrative Summary:

Scotty's Castle was evaluated as one of two cultural landscapes within Death Valley Scotty Historic District. As a result of this evaluation, Scotty's Castle was found to retain the following landscape characteristics that contribute to the historic integrity of the site. These landscape characteristics are Natural Systems and Features, Topography, Spatial Organization, Buildings and Structures, Circulation, Constructed Water Features and Vegetation.

Natural Systems and Features: Between the years 1922 and 1931, Albert Johnson harnessed natural systems such as topography, springs and drainages, sunlight, and earth to create a self-sufficient desert retreat. Today, his remarkable vision of self-sufficiency is still evident. Scotty's Castle is located in a protected area above the flood plane. The perimeter fence remains, defining his property and protecting springs and drainages. Spring water is conveyed through pipes to generate electricity at the power house and Scotty's Castle and outdoor water features such as the watercourse. Solar panels remain, which are designed to heat water for domestic use. The gravel separator is the site where earth was converted into concrete, for the construction of tunnels, the swimming pool, and building foundations.

Topography: Construction of the building complex and associated grounds at Scotty's Castle was possible in part through extensive modifications of to natural grades between the years 1925 and 1931. During this period, Albert Johnson created a landscape with lakes and streams and verdant gardens set around a castle on the brow of the hill. He also created level terraces for buildings, and cuts and fills for roads. In order to accomplish this, it was necessary for a small crew with a single grader/shovel to move inconceivable amounts of earth. Today, the earthwork conducted by Johnson is visible throughout the complex. These earthworks are a reflection of Albert Johnson's vision to create a magical oasis in a very remote, dry area of the world.

Spatial Organization: Four areas of development define the spatial organization of Scotty's Castle and remain today. The areas include the massive building complex of eleven primary structures on the north edge of the canyon; the open grounds forming the primary garden space between the building complex and Bonnie Clair road; Tie Canyon, the primary utility space for staging materials and manufacturing concrete; and the entrance road, which defines the extent of these areas. Moreover, the relationship among these areas creates a gradation of public and private spaces within the property.

Buildings and Structures: Today, the building complex at Scotty's Castle appears much like a small Spanish village, with a number of single-story buildings tightly clustered together and distinguished by red roof tiles and adobe walls. Although the National Register Nomination (1978) lists ten contributing buildings at Scotty's Castle, the List of Classified Structures (LCS) names twenty-two including primary buildings such as Scotty's Castle, annex, guest house, gas tank house, power house, chimes tower, long shed bunkhouse, stable, and entrance gate. In addition, several other structures such as the watercourse and the stone retaining walls at Scotty's Castle may be considered contributing resources because they were built during the historic period and were part of the overall design scheme for the property.

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Scotty's Castle constructed water feature is a structure that conveys spring water from the east end of the property to the entrance gate. This feature, designed purely for aesthetics, is one of four water conveyance systems that continue to operate at the site. The other systems include the domestic water supply system, the fire suppression system, and the power generation system. These latter three systems are associated with the infrastructure of the buildings and are not discussed within this context.

Circulation: Today, there are almost nine miles of roads associated with Scotty's Castle, which remain from the historic period. As historically intended, they provide a link to and from Scotty's Castle as well as access to remote construction sites and buildings. In addition, a system of walkways are located at the cook house, guest house, swimming pool, and between the castle and annex building. Today, these historic roads and walkways remain intact and contribute to the overall character of the cultural landscape.

Vegetation: Four distinct planting areas remain from the historic period and contribute to the historic character of the site. They include the picnic area, cottonwood corner, watercourse, and plantings around buildings. Cottonwood, willow, and a limited number of palms are found throughout the site in addition to cacti at the guest house.

Today, Scotty's Castle retains integrity and is in an overall state of good condition. The cultural landscape displays the seven aspects that determine integrity as defined by the National Register of Historic Places: location, design, materials, workmanship, setting, feeling, and association through the retention of the relevant landscape characteristics. Together, these landscape characteristics and associated features convey the significance of the historic site with the majority of historic fabric remaining from the historic period of significance, 1907-1954.

- Aspects of Integrity:**
- Location
 - Design
 - Setting
 - Materials
 - Workmanship
 - Feeling
 - Association

Landscape Characteristic:

Natural Systems and Features

Scotty's Castle

Between the years 1922 and 1931, Albert Johnson harnessed natural systems such as topography, springs and drainages, sunlight, and earth to create a self-sufficient desert retreat. Today, his remarkable vision of self-sufficiency is still evident. Scotty's Castle is located in a protected area above the flood plane. The perimeter fence remains, defining his property and protecting springs and drainages. Spring water is conveyed through pipes to generate electricity at the power house and Scotty's Castle and outdoor water features such as the watercourse. Solar panels remain, which are designed to heat water for domestic use. The gravel separator is the site where earth was converted into concrete, a building material used in the construction of tunnels, the swimming pool, and building foundations. Today, almost all of the landscape features at Scotty's Castle built in response to natural systems and features remain intact and contribute the overall historic integrity of the district.

Conceptually, Albert Johnson responded to natural systems in much the same way Jacob Steininger did during the 19th century, by siting his residence and outbuildings on the north side of Grapevine Canyon, the opposite side of the canyon from Bonnie Clare road. Today, all buildings, with exception of the entrance gate and gravel separator, are limited to this narrow area of land, approximately seven acres. Tucked into the toe of the hill, with the majority of buildings lined east to west, the orientation of the building complex layout provides commanding views of the greenery in the picnic area and the region beyond.

In 1929, Johnson took advantage of the natural low-point of the land in the picnic area by expanding the depression into a lake about four acres in size and by conveying water from springs up canyon to support trees and shrubs. The trees, including cottonwoods and willows, could not survive in any other location within Death Valley. This planting serves as a buffer between the public road and the estate, creating a park like setting for the castle—one of Albert Johnson's historic design intentions.

This structure, resembling a small brook, is comprised of large stones set in mortar, laid in a precise way to create a series of small waterfalls and pools. The design also takes advantage of the plentiful water emanating from the springs. On the west end of the watercourse, near the wishing well, an underground pipe conveys water into the lake. This system is in operation today.

The alignment of Bonnie Clare road is designed to follow the path of least resistance up the naturally gentle grade of Grapevine Canyon. The road traces along the southern toe of the canyon wall, rising and falling over drainages just above the flood plane, which makes it less susceptible to washouts. Within the building complex, the majority of other roads are aligned above the flood plane for similar reasons. For example, the entry road is elevated ten feet above grade. Other alignments, such as the access road between the chimes tower and Tie Canyon, are graded around a hillside—the base of Windy hill. In this case, the curvy road is a design response to the natural contours of the landform.

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Apart from automobile roads, an existing trail originally used by Shoshone people accesses the hot springs on the plateau above Scotty's ranch house. This trail is steep and somewhat treacherous in places. It is the most direct route to access the hot springs.

The fence around the perimeter of the property encompasses the springs and drainages to protect these valuable natural features, as historically intended by Johnson. The fence, constructed of reinforced concrete and branded "SJ" (Scotty/Johnson), unequivocally separates public from private land. Beginning at cottonwood corner, it runs parallel to Bonnie Clare road north to the entrance, then east, one-half mile up canyon. The fence encompasses the springs on the east end of the property and loops around the steep hillside above the building complex, toward Tie Canyon, leading past cathedral rock and back to cottonwood corner.

Although Scotty's Castle is today connected to the local electricity grid, water from the springs can still be used to make electricity in the Power House with an 18-inch Pelton water-wheel, which can be converted and stored in batteries stored in the tunnel (Shally and Bolton, 2000, 35).

Although no longer in operation, the solar heater is designed to harness the intense desert sunlight of Death Valley. Water, piped from the spring is conveyed to a rack containing 960 feet of copper pipe. The solar panels are painted black, which is intended to create tremendous heat. An insulated tank, also painted black, stores the hot water. Today, the solar heater is mothballed (Shally and Bolton, 2000, 33-35).

In addition to stucco supplied from outside sources, Johnson used earth (sand and gravel) as a building material, which was borrowed from on-site during the excavation for building foundations and during road development. Although no longer in operation, the gravel separator is capable of converting the earth into concrete. Historically, the concrete was used to make the fence posts, tunnels, building foundations, exterior stucco finishes on buildings, and interior plaster finishes.

Landscape Characteristic Graphics:

Scotty's Castle
 Death Valley National Park



Map illustrating location of building complex, reservoir, agricultural field and their proximity to springs (PWR 2004). See appendix for a larger version.

Topography

Construction of the building complex and associated grounds at Scotty's Castle was possible in part through extensive modifications of the contours to natural grades between the years 1925 and 1931. During this period, Albert Johnson created a landscape with lakes and streams and verdant gardens set around a castle on the brow of a hill. He also created level terraces for buildings and cuts and fills for roads. In order to accomplish this, it was necessary for a small crew with a single grader/shovel to move incredible amounts of earth. Today, evidence of the earthwork conducted by Johnson is visible throughout the complex. These earthworks remain a reflection of Albert Johnson's vision to create an oasis in one of the driest areas of the world.

Building Site Cuts and Fills

With exception of the entry gate located on the south side of Grapevine canyon, all the primary buildings are clustered tightly together on the toe of Windy hill, where the buildings rest on man-made terraces. The cuts used to create the terraces today remain stark in the landscape, chiefly because vegetation has not reestablished over the scars. This occurrence is perhaps viewed most dramatically behind the cook house and annex buildings, where the historic cuts were so severe that it was necessary, in some cases, to reinforce them with concrete retaining walls. It is unknown how many cubic yards of earth was moved to create the terraces.

Rockerries at the cook house and guest house create level terraces for plantings and stabilize the steep slopes of the canyon. Designed and constructed by Dewey Kruckeberg in 1929, the rockeries are distinguished by a series of concentric, two feet high, dry-laid stone walls. The terraces create large, level areas for irrigation of plantings. At the guest house, four-foot high concrete retaining walls form the edges of the planting beds.

In addition to cuts and fills and retaining walls, historic photographs reveal that manipulated topography was also used on a much smaller scale, especially around various ornamental plantings of palms, olive and fruit trees. During the historic period, most all of the new plantings were bermed, a process that involved encircling the plants with a ring of earth that rose about a foot above grade. These berms allowed water to pool above the root system, increasing the volume of water that could reach each plant while reducing the amount of time needed in watering. Today, only traces of these berms remain with the majority having vanished since the 1930s.

Surface Water Systems

The watercourse, picnic area, swimming pool, and cottonwood corner remain as water features designed during the historic period. Although each water feature was originally designed to draw water from the springs, the system was never fully completed. As a result, the watercourse runs as historically intended; the picnic area does not retain water as a lake, but rather has two distinct streams running through the area; the swimming pool remains as an incomplete feature having never been filled with water; the dam at cottonwood corner has eroded away since the historic period.

Today, the watercourse design takes advantage of the five percent grade in front of the guest house, and includes a series of pools and spaces set in a linear garden. Large stones create pools that are approximately twelve inches in depth. These small pools slow the current, and create intimate areas for visitors. Today, the watercourse continues to function as a small stream in a garden setting. Although never implemented as a garden, many of the topographical manipulations made behind the guest house in the 1920s are visible today. Early into the construction phase, the area behind the guest house was excavated

The picnic area remains as an open area originally graded to create a lake. The western edge of this structure is formed by the fill used to create the curvilinear entrance road, which serves as a dike to retain water and to direct flow under the entrance gate. This dike (entrance road prism) rises at least ten feet above the grade of the picnic area. It is approximately twenty feet across at its base and twelve feet across the top of the road. The picnic area, excavated mainly around the entrance gate, has a low-point of about four feet in depth (relative to the eastern edge of the picnic area). The surface includes irrigated grass on the east end and earth closer to the entrance road. The southern stream runs parallel to Bonnie Clare road and carries the most volume of water from the spring located up the canyon. The other stream, linked to the watercourse, is secondary, and appears more like a seasonal stream, with relatively little water coursing through the banks.

During excavation of the swimming pool, approximately 40,000 cubic yards of earth was removed and filled on the down-hill side of the structure, towards the lake. The fill formed the entrance road, which ran parallel to the pool. Today, the swimming pool remains unfinished, but nonetheless retains dramatic curves. The structure is 240 feet long, 50 feet wide, and fifteen-feet at its deepest point.

Landscape Characteristic Graphics:

Four areas of development define the spatial organization of Scotty's Castle. The areas include the massive building complex of eleven primary structures on the north edge of the canyon; the open grounds forming the primary garden space between the building complex and Bonnie Clair road; Tie Canyon, the primary utility space for staging materials and manufacturing concrete; and the entrance road, which defines the extent of these areas. Moreover, the relationship among these areas creates a gradation of public and private spaces within the property.

This gradation of public and private space is choreographed beginning along Bonnie Clare Road, the public highway, purposefully aligned by Johnson to run outside of the property. From the southwest end of the property, the road runs parallel to the fence, marking the eastern edge of the private estate, leading to the entrance of the property, which historically required people to drive through a portal onto the site, and pass from public space to semiprivate space, between the road and the residence. The road itself is elevated, moving people through the space and presenting a stunning view shed of Scotty's Castle and the building complex. The central area between Bonnie Clare road and the building complex is landscaped and recessed, making it a buffer or transition space to the more private zone, defined by the residence itself and the remaining structures.

From Scotty's Castle, the greenery in the valley physically and visually separates the public road, further enhancing the feeling of privacy in the building complex, the domestic, private area. In much the same way, the base of Windy Hill also serves as a wall that physically separates the building complex from the construction and storage areas in Tie Canyon. With this arrangement, there is an illusion that the Scotty's Castle building complex is completely private and separate from less attractive utility areas.

The four areas—the building complex, the entrance road, the open area between the residence and Bonnie Clair road, and Tie Canyon help structure the use and dominate spatial organization at the Castle site. Today, Scotty's Castle, Tie Canyon, and the circulation system retain the historic spatial arrangement. Although the entrance gate, entry road, and turnaround are closed to the public, these features could convey the arrival sequence as it traces through public to private space. In addition, although the area between Bonnie Clair road and the building complex is now used as a parking area and picnic grounds, it retains the same spatial configuration and still visually and physically buffers the building complex from the road, preserving the overall character of this buffer zone.

Landscape Characteristic Graphics:



Historic drawing by architect Martin de Dubovay showing the proposed layout of the grounds (circa 1927). The landscape today almost mirrors this conception (DEVA collection, Scotty's Castle).

Buildings and Structures

Scotty's Castle

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From Bonnie Clare Road, the building complex at Scotty's Castle appears much like a small Spanish village, with a number of single-story buildings tightly clustered together and distinguished by red roof tiles and adobe walls. Adorned with cupolas, towers, and merlons, Scotty's Castle and the chimes tower stand out among the majority of other buildings. Support buildings, like the stables or guest house, are simple by comparison—but adorned with exposed redwood beams and stained dark brown. Redwood is used throughout the building complex at Scotty's castle and various other support buildings such as the gates at the stables, which features massive redwood timbers held together with ornamental wrought-iron hardware.

Although the National Register Nomination (1978) lists ten contributing buildings at Scotty's Castle and three contributing buildings on the Lower Vine property, the List of Classified Structures (LCS) has named twenty-two at Scotty's Castle and eleven on the Lower Vine ranch. In addition, several other structures such as the watercourse and the stone retaining walls at Scotty's Castle may be considered contributing resources because they were built during the historic period and were part of the overall design scheme for the property. The following analysis includes a description of all contributing buildings and structures within Death Valley Scotty Historic District. Each building or structure includes a DEVA number, LCS number and official name.

Primary Buildings

Scotty's Castle
Structure Number: SC-002

Scotty's Castle, built in two phases between the years 1922 and 1931, was designed by Albert Johnson in the first phase of construction and Alexander MacNeilledge in the second phase. Scotty's Castle is the Johnson's primary residence. The building is a rectangular two-story structure, containing ten rooms, four bathrooms, and a great hall. Scotty's bedroom is located on the main floor of this building. The Johnson's bedrooms are located on the second floor. The main floor contains the primary living areas, a hall with high ceilings where the Johnson's entertained guests. It contains approximately 5800 square feet on two floors. A bridge, located on the second story of the castle, links the adjacent annex building. There are three covered porches and a large courtyard surfaced with red-clay tile. The building also includes turrets, balconies, and a sunroom. The main entrance faces south, overlooking the swimming pool. It is closed today with tours entering the building from the courtyard through a massive side entrance gate of wood fastened together with hand-wrought iron hinges. The brushed stucco finish of the exterior walls, colored in off-white is textured to create the outward appearance of a weathered building. There are massive redwood beams that were hand-finished with an alcohol torch make the building appear as if it were ancient.

Today, the building is interpreted for the public with a "living history" tour of Scotty's Castle and the annex and with a technology tour, which highlights the engineering components of the

Scotty's Castle

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building. Scotty's Castle is a focal point for the self-guided walking tour and the "living history" tour. It remains well-preserved resembling historic conditions in almost every respect.

Scotty's Castle Annex Structure Number SC-002A

The annex, designed by C.A. MacNeilledge, was constructed between the years 1927 and 1931. Primarily designed as an Inn for the Johnson's guests, it also housed the pipe organ in the music room.

The annex is similar to the castle in its massing, style, and building materials. In plan view, the building footprint mirrors the castle and is placed parallel to it, which creates symmetry and balance between the buildings. The main mass of the annex rises two stories and includes a gable roof of red mission tile. A three-story turret, with merlons and observation deck, rises over the courtyard and turnaround. The walls are brushed stucco and off white in color, just as Scotty's Castle. The annex links to Scotty's Castle with a courtyard on the ground floor and a bridge on the second-story.

Today, the annex is used as an interpretation facility. The music room, featuring the elaborate pipe organ, is the highlight and conclusion of the Scotty's Castle living history tour, a practice actually established by Albert Johnson himself, who began guided tours of the castle in 1936 for one dollar. Today, the American flag even continues to wave in the wind on top of the turret, as in the historic period. The most obvious change to the overall character of the annex and Scotty's Castle is at the courtyard, where the grape arbor of redwood was removed after the historic period.

Scotty's Castle Chimestower Structure Number SC-003

Built between the years 1928 and 1930, the chimes tower, designed by Charles Alexander MacNeilledge, housed a set of 25 chimes programmed to play automatically on the quarter hour.

The building is five stories tall and is sited at a higher elevation than any other building in the complex. As a result, the distinctive roof of red mission tile capping this tower is visible almost a mile away from Bonnie Clare Road, a prominent landmark rivaled only by Scotty's Castle. The building includes a small apartment and observation deck. It also relates to the castle in its coloring and stucco finish. Character defining features include an octagonal steeple roof, connected to four corner cupolas by flying buttresses, a Howard clock, metal casement windows, and wood doors with reinforced hand-wrought fittings.

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Today, the chimes tower remains as a prominent sentinel in the landscape. The NPS renovated the mechanism that runs the chimes in the 1970s. Access into the building is limited and is interpreted as an exterior exhibit to the public.

Scotty's Castle Hacienda-Guest House Structure Number: SC-001

Historically used as an additional Inn for people visiting the Johnson's, the guest house was designed by MacNeilledge and built between the years 1927 and 1931. Originally, the upper story had two separate but identical apartments with a shared kitchen centrally located on the north side. During the gospel foundation period of ownership, the interior of the first floor was altered to increase the number of rooms. The building is set on a concrete foundation that forms a full basement. The basement includes a restroom, storage areas, NPS employee break room, and a small library. The guest house is one story high, 1756 square feet, with a gable roof of mission tiles. Apart from the brushed stucco siding and the red roof, the guest house is distinguished by shed porches and redwood lintels at all windows and doors. The building faces south with the porches overlooking the watercourse and Grapevine Valley.

Today, the main floor of the guest house is divided into several apartments and is adaptively reused as NPS housing. Although the basement remains unfinished, it is enjoyed as a central gathering point for all the employees at the site.

Scotty's Castle Powerhouse and Pavilion Structure Number SC-004

In a departure from the Spanish architectural style, prevalent among the majority of other buildings in the complex, the power house constructed between the years 1929 and 1931 referenced the European gothic on the exterior. Johnson used architect Martin de Dubovay to design the building. Albert Johnson is responsible for the machinery on the interior, which supplied the castle complex with electricity. During the 1930s, the building housed three generators including an eighteen-inch Pelton water wheel-powered 7.5 KW DC generator that charged two banks of batteries and two diesel generators. In the 1950s, the Gospel Foundation upgraded the power supply system by installing a new GMC diesel generator. This generator remains operational today.

The flying buttresses and concrete façade—made to appear as large cut-stones set in a running bond pattern—are the most distinctive architectural elements of this building. The building resembles an ancient European building in character. Other features include an exterior staircase, a hexagonal pavilion, an arched doorway with a wood gate, a crenellated parapet roofline, an overhanging tower, and a flat roof with two skylights. A corner tower remains unfinished. Today, this unusual building set into the hillside and is interpreted as an exterior

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exhibit. When power failures occur, the generator is used to produce electricity for the complex (Shally and Bolton, 2000, 35).

Scotty's Castle Gas House Structure Number SC-005

Construction began in November 1927 with excavation for the sub-grade gas tanks and the structure to house them, completed by December 1928. The building, also designed in the Spanish style, was used as a storage site for four 350 LP gas tanks which held the fuel supply for the filling station and kitchens for the ranch. In 1955, however, the Gospel Foundation added a wood addition to the west elevation, which was another architectural departure. Unlike the original Spanish styled building, the shed addition had a composite, asphalt shingle roof and redwood siding instead of the characteristic adobe walls and red-clay roof.

The single-story building is 1924 square feet and includes multiple rooms that are today used for interpretation and as a gift shop. The historic portion of the building sits on a concrete slab, has adobe walls, and a gable roof of red-clay tiles. The addition remains intact.

Scotty's Castle Cookhouse Structure Number SC-006

The cookhouse, the third original structure from the 1922 building complex, is a concrete, wood frame, and stucco structure that—prior to the fire in 1991—consisted of four rooms and a bath. Designed by MacNeilledge, it was historically used to prepare meals for the Johnson's, guests, and employees. Additionally, it was used as a space for employees to take their meals and included two screened porches and a sleeping room for the cook. The dining room featured a brick fireplace. Further altered in 1929, the building was multi-roofed with shed and gable and finished in red mission tile. Non-structural vigas, (also known as exposed wood cross-beams) extended from the exterior walls.

Damage to the cook house after the fire was extensive. The fire began in the maintenance office area, which is now completely demolished. All that remains is the brick of the fire place and chimney and the concrete floor slab. From the maintenance office area, the fire spread through roof spaces across the building. The areas of the pantry, cooler, and kitchen are gutted, the fire having completely destroyed the roof and ceilings. The perimeter walls of those rooms are still standing with the assistance of braced wood shoring; however, these walls have no structural capability. The fire burned through all the wall studs and any blocking from the roof down within the cavities of the wall, leaving only the interior and exterior stucco finishes. The fire was in the process of spreading into the dining room when it was extinguished. Damage in this area consists of significant charring of exposed wood beams and roof sheathing along the wall which adjoins the kitchen (Architectural Resources Group. Scotty's Castle Cook House

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Building: Fire Damage Assessment and Reconstruction Analysis. Death Valley National Park, August 15, 1991).

Today, the perimeter of the building is fenced off to prevent visitors from gaining access to the building. The fire damage is primarily visible on the north side of the building.

Scotty's Castle Motel Unit/Garage Structure Number SC-007

Another of the three original buildings from 1922, the Motel-Garage Unit, is comprised of approximately fifteen rooms in an L-shaped layout. During the historic period, the structure housed drafting rooms for Matt Roy Thompson, and also served as a bunkhouse, chicken coop, and garage. In 1922, Albert Johnson designed and constructed the garage, which was located on the western most part of the L-shaped structure. It was the first building constructed at the ranch. The eastern end of the building, originally designed to be a poultry house, was built soon after construction of the garage. Instead of a poultry house, however, the building was used as a bunkhouse for the workmen.

The long shed spans the area between the garage and the bunkhouse. An examination of the building fabric itself indicates that the first four bays of the shed were left open to the air and in-filled with wood and later closed and devoted to storage. Between the years 1922 and 1930, this one-story unit was substantially remodeled to its present state. In addition to enlarging the structure during this time, the facade was re-appointed to match the Spanish style of the complex.

In 1974, the NPS designed and built a ticket booth just west of the garage. The new structure was built over the concrete island and is now incorporated into the present structure. The NPS design was modeled after a photograph of the gas station in the parking lot (Historic Structures Report, 1991, 108 and 109).

Today, the concrete foundation of the structure supports wood frame and stucco walls. The hip roof over the garage section is finished with mission tile. The flat roof over the motel section cantilevers over the garage section is finished with mission tile. The flat roof over the motel section cantilevers over the porch area, which extends the length of the building. The fifteen rooms are used for employee housing, while the attached storerooms are used for maintenance. The exterior of the structure remains nearly as it appeared in 1931.

Scotty's Castle Scotty's Cabin Structure Number SC-009

Built between the years 1890 and 1907, the cabin served as the residence of Jacob Steininger, the first known non-Indian to occupy the Grapevine Canyon. The building was moved from the

Scotty's Castle Death Valley National Park

old roadway sometime in the late 1920s to its present location.

Today, the building resembles its historic appearance and is used as an exterior exhibit. It is a one story redwood frame cabin with a gable roof, horizontal planks on the south wall, vertical board and batten siding on the other walls, and has no roof finish.

Scotty's Castle Stable Structure Number SC 011

Designed by Martin Dubovay and constructed between the years 1927-1931, the stable was used to house numerous horses and mules in the 1920s. In addition, it was used to house feed, tack, cement, and lumber.

Today, the building has two rectangular sections with gable roofs (98'x36", 135'x 36'), which are bridged by a flat-roofed central section (45'x35'). The total area of the building is 8,388 square feet. The south wing of the building is frame and stucco, while the north wing is of concrete. The building includes red mission tile roofing. The eighteen feet wide gates, designed by MacNeilledge, are the most distinctive character defining feature of this building. They are constructed of redwood and hand-wrought iron fittings. The huge iron hinges taper in thickness and include the silhouettes of various indescribable "desert" creatures.

Scotty's Castle Entrance Gates Structure Number SC-012

Designed by Charles MacNeilledge and constructed between the years 1928-1931, the exterior and the interior apartment of the entrance gate was left incomplete. Today, the building is characterized by two crenellated towers, which rise two stories high. The towers are connected by an arch and a pair of massive redwood gates with hand-wrought iron fittings resembling the gates at the stable in scale and mass. At the entrance, a pair of three foot high curving walls edge the roadway.

Structures

Scotty's Castle Swimming Pool Structure number: SC-018

Despite the lack of water in the swimming pool, the curvy shape is a focal point within the building complex. It is shaped something like a violin and is approximately 240 feet long. It features a concrete bridge with steps and planters that divides the pool into two components with planters and a fountain in its center. Left unfinished in 1931, the base of the swimming

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pool has a dirt surface and poured, reinforced concrete walls. The pool is fifteen feet at its deepest and circled by a chain and metal post fence. The windows, created for underwater viewing, remain intact. The swimming pool remains vacant and in an unfinished condition .

Scotty's Castle Solar Heater Structure Number SC-010

The solar water heater represented another way Albert Johnson harnessed nature for use at Scotty's Castle. Purchased in 1929 from the Day and Night Company, the solar water heater only worked a short time before it was abandoned. In 1930, the freezing weather left the unit inoperable (Historic Structures Report, 1991, 144). The heater worked in this way: water from the springs was piped up to racks containing copper tubing, then it was conveyed through copper tubing. The water, heated over the solar panels, was stored within the insulated tanks.

Today, the solar water heater remains as a diminutive, yet very distinctive feature in the landscape. It has eight black-painted panel solar collectors with two distinctive black-painted storage tanks placed vertically on a concrete slab. Several miscellaneous plumbing elements remain visible such as the angled copper tubing. The heater remains unused.

Scotty's Castle Gravel Separator Structure Number SC-016

The gravel separator, built between the years 1926 and 1931, was used to convert sand and gravel extracted on-site into concrete for the production of footings, tunnels, foundations, retaining walls, and fence posts. The device sorted various sized gravel which was trucked to the top of it and poured over a set of screens of diminishing sizes. The gravel was then washed with water.

Today, the gravel separator is unmaintained. It is constructed of eight inch by eight inch railroad ties and timbers of various sizes. It is held together with steel reinforcing bars in an interlocking crib system, forming a U-shape. A retaining wall, up to eighteen feet high, is very prominent. One side of the structure is graded to accommodate vehicles. Although much of the gravel separating machinery remains, it is inoperable.

Scotty's Castle Wishing Well Structure Number SC-019

Built between the years 1928 and 1947, the wishing well was completed just before the death of Albert Johnson. It featured small raised pools of concrete and tile, three circles forming a figure eight shape, and a tall decorative metal structure in the center. Originally, the wishing well was the centerpiece of the vehicle turnaround. Today, the wishing well is not in use.

Scotty's Castle Death Valley National Park

Several boards, cut to the shape of the figure eight, covers the empty pools, asphalt paving surrounds the structure.

Scotty's Castle/Lower Grapevine Ranch Fence Lines Structure Number: SC-028

The fence lines, built between 1928 and 1931, were used to surround the property of Scotty's Castle and Lower Vine Ranch. The fence was distinctive and permanent because they consisted of reinforced concrete posts about seven feet high and strung with barbed wire. Each post was inscribed with an "S" and a "J" for Scotty and Johnson. More than 3100 reinforced concrete posts were produced. Fence posts range in distance between them, but on average are seven foot on center. Today, they remain largely in good condition and continue to mark the property boundary.

Scotty's Castle Scotty's Grave Structure Number: SC-029

Death Valley Scotty (Walter Scott) was buried here in 1954. A Christian cross marks the grave high above the castle on Windy hill. Scotty is buried next to his beloved pet dog, Windy, which also has a small grave marker. The cross, built with redwood, is visible from the stables down to the gravel separator. An interpretive trail winds up the hill to provide access to the grave. The trail and graves are part of the self-guided walking tour.

Scotty's Castle Powder Storage Structure Number SC 017

Built between the years 1922-1931, this storage area is associated with the gravel separator. Constructed with railroad ties salvaged from the Bullfrog and Goldfield RR, it is butt-jointed and approximately forty square feet. The roof of railroad ties is covered with corrugated metal and gravel. Today, the structure is partially buried in soil as a result of flash floods from the 1980s. According to the LCS, the structure is unmaintained at the current time.

Scotty's Castle Tie Canyon Wash House Structure Number SC-033

Designed by architect Martin Dubovay, this building historically had sinks, showers, and other amenities to support employees working in tie canyon. Built between the years 1922 and 1931, the building had a gable roof, horizontal siding, window, and door. It did not have a foundation. Today, some plumbing remains. It is painted white, the door is missing, and there is a contemporary screened window opening. The building is unmaintained

Scotty's Castle Tie Canyon Storage Area
Structure Number SC-035

Developed between the years 1928-1931, Tie Canyon was used as a construction staging area and to store railroad ties for fireplaces at the castle. Today, the canyon contains 43,000 railroad ties from the Bullfrog & Goldfield Railroad; stacked approximately twelve per row (originally stacked to twenty high). Tie Canyon is interpreted for park visitors on the self-guided walking tour. The scene today resembles a junk yard that could be found on any working ranch—with various rusting vehicles and construction equipment placed among the thousands of railroad ties.

Scotty's Castle Upper Tie Storage Area
Structure Number SC-030

Developed between the years 1928 and 1931, the upper tie storage area is a small area of land located up canyon from the building complex. Historically used as a site to store debris and railroad ties for fireplaces at the castle. Today, the area is no longer used to store materials, although debris and railroad ties remain in this location.

Other Structures

Gas pump (kiosk) was moved from its original location on the west side of the garage at some point in the 1950s. The structure is historic.

Water features

The watercourse and the stone bench are located on the western edge of the watercourse. The watercourse, built under the Supervision of Dewey Kruckeberg in 1930, is approximately 300 hundred feet long and forty-feet wide. Huge boulders of basalt are placed in concrete, to create a small brook. The brook features small waterfalls and pools, approximately eight-inches deep. The watercourse follows the grade of the sloping land with the east end the highest point of the structure and the west end the lowest point. Water fed from the springs flows over the stones east to west. Today, the structure remains intact and is a contributing structure.

The lake (picnic area) This structure is formed by Bonnie Clare road, the entrance road, the entrance gate, earthen dam, and the excavated surface. The streams flowing through the picnic area were designed and graded during the historic period to supply water to this area.

Retaining Walls

Dry-laid stone retaining walls, also constructed by Dewey Kruckeberg, remain intact. They are curvilinear and average three feet in height. At the cook house, three concentric rings of walls remain the most prominent examples of Kruckeberg's work. Concrete retaining walls.

Character-defining Features:

Scotty's Castle
Death Valley National Park

Feature: Scotty's Castle Annex

Feature Identification Number: 111090

Type of Feature Contribution: Contributing

IDLCS Number: 57834

LCS Structure Name: Scotty's Castle Annex

LCS Structure Number: SC-002A

Feature: Scotty's Castle Hacienda Guest House

Feature Identification Number: 111092

Type of Feature Contribution: Contributing

IDLCS Number: 7612

LCS Structure Name: Scotty's Castle Hacienda/Guest House

LCS Structure Number: SC-001

Feature: Scotty's Castle Power House and Pavilion

Feature Identification Number: 111094

Type of Feature Contribution: Contributing

IDLCS Number: 7614

LCS Structure Name: Scotty's Castle Powerhouse and Pavilion

LCS Structure Number: SC-004

Feature: Scotty's Castle Chimes Tower

Feature Identification Number: 111096

Type of Feature Contribution: Contributing

IDLCS Number: 7613

LCS Structure Name: Scotty's Castle Chimestower

LCS Structure Number: SC-003

Feature: Scotty's Castle Cabin

Feature Identification Number: 111280

Type of Feature Contribution: Contributing

Feature: Scotty's Castle Gas House

Feature Identification Number: 111282

Scotty's Castle
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Type of Feature Contribution: Contributing
IDLCS Number: 7615
LCS Structure Name: Scotty's Castle Gas House
LCS Structure Number: SC-005

Feature: Scotty's Castle Stable

Feature Identification Number: 111284
Type of Feature Contribution: Contributing
IDLCS Number: 7620
LCS Structure Name: Scotty's Castle Stable
LCS Structure Number: SC-011

Feature: Scotty's Castle Motel Unit/Garage

Feature Identification Number: 111286
Type of Feature Contribution: Contributing

Feature: Scotty's Castle Entrance Gate

Feature Identification Number: 111288
Type of Feature Contribution: Contributing
IDLCS Number: 7621
LCS Structure Name: Scotty's Castle Entrance Gates/Dungeon Apt.
LCS Structure Number: SC-012

Feature: Scotty's Castle Wash House

Feature Identification Number: 111292
Type of Feature Contribution: Contributing

Feature: Scotty's Castle/Lower Grapevine Ranch Fe

Feature Identification Number: 111290
Type of Feature Contribution: Contributing

Feature: Scotty's Castle Upper Tie Storage Area

Feature Identification Number: 111294
Type of Feature Contribution: Contributing
IDLCS Number: 56102

Scotty's Castle
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LCS Structure Name: Scotty's Castle Upper Tie Canyon Storage Area

LCS Structure Number: SC-030

Feature: Scotty's Castle Tunnels

Feature Identification Number: 111296

Type of Feature Contribution: Contributing

IDLCS Number: 56100

LCS Structure Name: Scotty's Castle Tunnels

LCS Structure Number: SC-025

Feature: Scotty's Castle Swimming Pool

Feature Identification Number: 111298

Type of Feature Contribution: Contributing

IDLCS Number: 7624

LCS Structure Name: Scotty's Castle Swimming Pool

LCS Structure Number: SC-018

Feature: Scotty's Castle Solar Heater

Feature Identification Number: 111300

Type of Feature Contribution: Contributing

IDLCS Number: 7619

LCS Structure Name: Scotty's Castle Solar Heater

LCS Structure Number: SC-010

Feature: Scotty's Castle Scotty's Grave

Feature Identification Number: 111302

Type of Feature Contribution: Contributing

IDLCS Number: 56103

LCS Structure Name: Scotty's Castle Scotty's Grave

LCS Structure Number: SC-029

Feature: Scotty's Castle Cook House

Feature Identification Number: 111304

Type of Feature Contribution: Contributing

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IDLCS Number: 7616
LCS Structure Name: Scotty's Castle Cookhouse
LCS Structure Number: SC-006

Feature: Scotty's Castle Gravel Separator
Feature Identification Number: 111306
Type of Feature Contribution: Contributing
IDLCS Number: 7622
LCS Structure Name: Scotty's Castle Gravel Separator
LCS Structure Number: SC-016

Feature: Scotty's Castle Powder Storage
Feature Identification Number: 111308
Type of Feature Contribution: Contributing
IDLCS Number: 7623
LCS Structure Name: Scotty's Castle Powder Storage
LCS Structure Number: SC-017

Feature: Retaining walls
Feature Identification Number: 111310
Type of Feature Contribution: Contributing
IDLCS Number: 461557
LCS Structure Name: Scotty's Castle Retaining Walls
LCS Structure Number: SC461557

Landscape Characteristic Graphics:

Scotty's Castle
Death Valley National Park



Contemporary image of the wishing well and the Scotty's Castle annex, view northwest (PWR 2004).

Scotty's Castle
Death Valley National Park

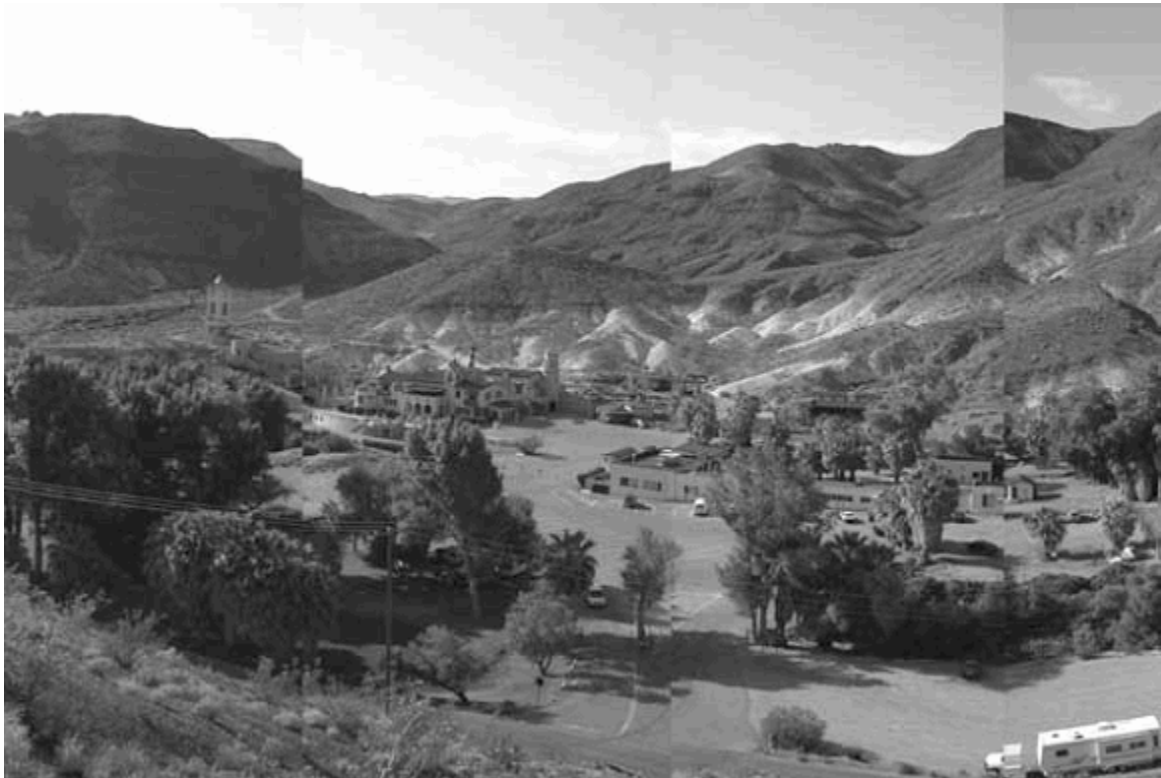


Image of the swimming pool and Scotty's Castle. The swimming pool was left unfinished in 1931 (PWR 2004).



The entrance gate is the only primary building located away from the building complex on the opposite side of the narrow canyon (PWR 2004).

Scotty's Castle
Death Valley National Park

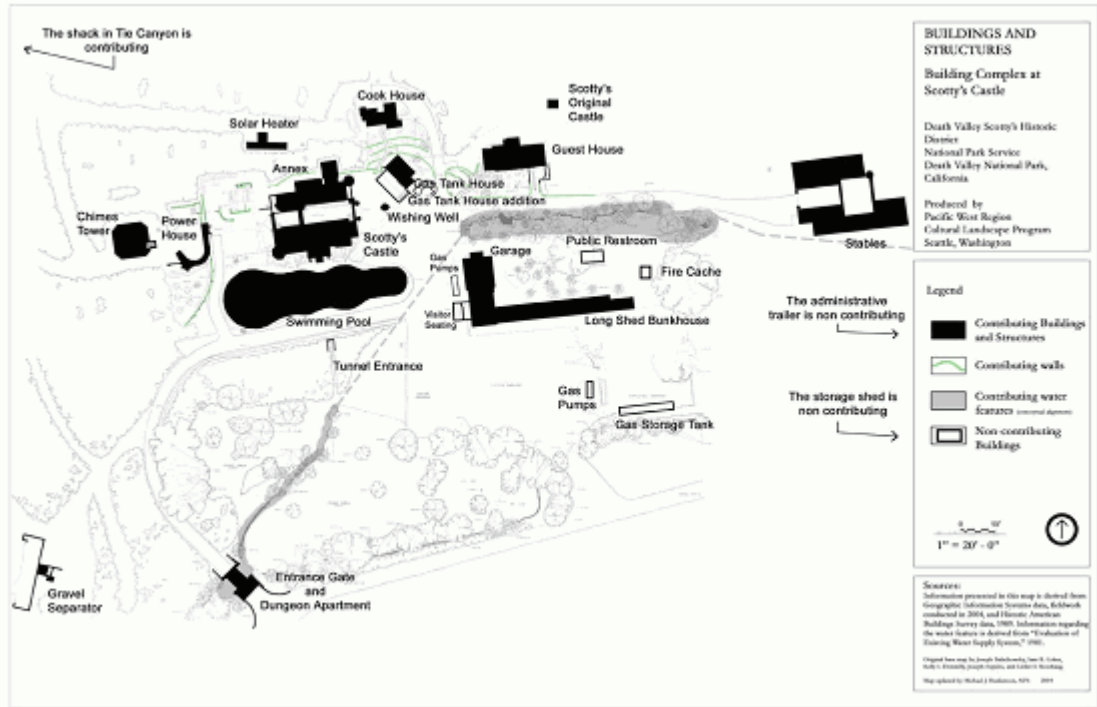


The Scotty's Castle building complex appears like a small Spanish village from a distance (PWR 2004).



In addition to buildings, several stone and concrete retaining walls were built to create planting beds. This dry-stack rock wall was built by Dewey Kruckeberg (PWR 2004).

Scotty's Castle
Death Valley National Park



Contributing buildings and structures. Contributing buildings: black. Contributing retaining walls: green. Contributing water features: grey. Non-contributing: black outline (PWR 2005). A larger version of this map is located in the appendix.

Constructed Water Features

Scotty’s Castle constructed water feature is a structure that conveys spring water from the east end of the property to the entrance gate. This feature, designed purely for aesthetics, is one of four water conveyance systems that continue to operate at the site. The other systems include the domestic water supply system, the fire suppression system, and the power generation system. These systems are associated with the infrastructure of the buildings and are not discussed within this context.

The water feature is comprised of several independent structures that work together as a system. The components of the water feature include the six-inch pipe that links the springs with the watercourse, the watercourse itself (which convey water over a rock and concrete surface), and finally a six inch pipe that conveys water through the picnic area in a ditch that meanders to the entrance gate. This area was historically designed as the “lower lake.” Water was to be contained in this area by several independent structures that serve as the edges—the entry road (western edge of the lower lake) and Bonnie Clare Road (southeast edge). Under the entrance gate, water is conveyed through a drain that leads out and away from the structure.

This water feature was designed and constructed during the historic period and remains in operation today.

Character-defining Features:

Feature:	Watercourse
Feature Identification Number:	110982
Type of Feature Contribution:	Contributing
IDLCS Number:	461552
LCS Structure Name:	Scotty's Castle Watercourse
LCS Structure Number:	SC-461552

Circulation

Scotty's Castle Death Valley National Park

Engineer M. Roy Thompson, under the supervision of Albert Johnson, built a sophisticated system of roads designed for access and as an experience. By the end of construction in 1931, Thompson had constructed approximately nine miles of roads. Today, the roads remain and access remote construction sites, buildings, or link Scotty's Castle and Lower Vine ranch to the outside world. Other alignments, such as Bonnie Clare road were designed to create an impressive approach to Scotty's Castle (Johnson to Thompson, February 26, 1929). In addition to a road system, a system of walkways are located at the cook house, guest house, swimming pool, and between the castle and annex building. Today, these roads and walkways remain intact and contribute to the overall character of the cultural landscape.

Bonnie Clare Road

Albert Johnson built Bonnie Clare road for several reasons: to move the original alignment off his property, to create an impressive approach to Scotty's Castle, and to link the property to points within Death Valley. Today, this segment of Bonnie Clare road remains in the historic alignment and continues to link Grapevine Junction with Scotty's Castle. As in the historic period, the road follows the lay of the land, rising and falling with the drainages, curving around the edge of the canyon. The road is engineered with cuts and fills in several locations, the most prominent example is located south of the entrance gate. The road fill is bolstered by a cribbing of railroad ties used as a retaining wall. The wall is approximately twenty feet in width and ten feet in height. In character, the cribbing along the road resembles the cribbing at the gravel separator.

The road is today expressive of the designer's aesthetics to present Scotty's Castle in an "impressive" way (Johnson to Thompson, February 26, 1929). Beginning at Grapevine Junction, the road is aligned to the north, where it reaches cottonwood corner, the segment of road that dramatically curves at the planting of willows, palms, and cottonwoods. From this point, the road leads over landforms and down drainages revealing views of the chimes tower in the distance. Like other desert roads, it is narrow and surfaced with asphalt. There are no culverts, curbs, catch basins or side ditches used to convey storm water runoff. Instead, the road is either crossed-sloped to convey water down-slope or aligned to dip into drainages where storm water flows directly over the road surface down-slope.

The asphalt surface and painted centerline seen today represent the most obvious change in the character of the road (historically surfaced with earth or gravel). Despite the addition of asphalt, Bonnie Clare road retains the historic character in alignment, width, and in how it follows the natural lay of the land. Most importantly, the road continues as the primary access to Scotty's Castle.

The Entrance Road

Although currently mothballed, the entrance road is an integral component of the arrival sequence, leading visitors from Bonnie Clare road at the entrance gate to Scotty's Castle along

Scotty's Castle

Death Valley National Park

a graceful arc, rising at four percent grade, ten feet above the lake (Letter from Thompson to Johnson March 6, 1926). Designed and constructed by Thompson in 1929, the entrance road required the greatest amount of fill to create, borrowing earth removed from the powerhouse (Thompson to Johnson, April 10, 1929). Closer to Scotty's Castle, the narrow road, ten feet in width, intersects a short, curvy road spur road near the power plant. The curvy lines of this road respond to the outer edge of the swimming pool, which integrates the design of the road into the overall layout of the building complex. The entrance road continues past the swimming pool and main entrance to the castle and terminates at the east side of the castle, which is best described as a vast, undifferentiated open space, between the castle and long shed bunkhouse.

Today, the road is closed. As a result, visitors to Scotty's Castle do not experience the "impressive approach" to the estate, as historically intended. At the turnaround, the historic concrete curbs defining the outer edges were removed sometime after the historic period. Additionally, the footprint of the gas tank house addition covers a large area of historic turnaround, closing it to vehicles. Finally, the asphalt surface which extends to the parking lot, dominates the character of this space and is today used as a gathering point for the guided tours of Scotty's Castle. Despite these alterations, the entry road remains as an important landscape feature, retaining the historic alignment, width, and character.

The Road behind the Cook House

Other secondary roads, developed during the historic period, were designed for pragmatic purposes—to link the gravel separator with various construction sites. The road behind the cook house is a typical example. In 1929, when the road was under construction, Thompson commented on the purpose of the road saying that it would be used to deliver sand, gravel and cement to the staging area near the chimes tower and solar water heater. The road links the turnaround with the backside of the guest house, cook house, and solar water heater. It continues around the west side of the chimes tower, before winding down into Tie Canyon. Engineered with several areas of cuts and fills, especially dramatic along the base of windy hill, the road is about ten feet wide, curvilinear, and surfaced with dirt.

Today, the road remains intact and follows the natural contours of Windy hill, also retaining the narrow width and dirt surface. Visitors use the road as part of the self-guided walking tour. NPS maintenance uses the road to access the area behind the cook house and chimes tower. The road is slightly cross-sloped to convey storm water over the surface, down-slope.

The Road to the Stables

Little information is available regarding the road to the stables, although it is clear from historic photographs that this route was originally a segment of Steininger's ranch road. Today, this access road is straight, narrow, and rises at a gentle grade from the plaza to the stables, running parallel to the watercourse. It follows the natural lay of the land between Scotty's Castle and stables and is approximately 200 yards long. Road cuts and fills are located near the stables

where Thompson built a small retaining wall for support.

Guest House, Garage, and Long Shed Bunkhouse Parking

There are two parking spaces at the guest house. One, surfaced with dirt and edged with stones, is located near the front entrance of the building. The second, surfaced with gravel and concrete, serves as the driveway to the garage door. Both spaces accommodated one vehicle.

There is also a larger parking area on the north and east sides of the garage. The concrete surface, impressed with marks meant to make the concrete appear as though it had been in place for several years, covers an area of almost 3000 square feet. No other circulation route is surfaced with concrete at Scotty's Castle, with exception of the guest house driveway.

Tie Canyon Roads

Today, the dirt roads in Tie Canyon remain from the historic period. They are narrow, single lane ranch roads. These roads are typically two-track and curvilinear. The most elaborate road in this area is the segment that links the gravel separator with the entry road and Tie Canyon. This alignment is engineered with fill to meet grade with the entry road for easy access to the lower half of the building complex. The road to the chimes tower accesses the upper half of the building complex. All of these roads are wide enough to accommodate trucks, but are today used for maintenance vehicles or by visitors taking the walking tour.

Walkways

Pedestrian circulation at Scotty's Castle is limited to building entrances and garden spaces. All of the individual walkways are surfaced with a mix of materials including stone, tile, and concrete. They are located at the castle courtyard, the bridge over the swimming pool, the cook house, guest house, long shed bunkhouse, and the watercourse.

The castle courtyard is surfaced with red-colored tiles. The tiles, six inch by twelve inch in size and arranged in a herringbone pattern, are set in mortar. The courtyard spans the entire distance between the castle building and the annex and is approximately 100 feet long.

The elevated walkway over the swimming pool is designed as the main entrance to the castle. It is constructed with concrete and includes several risers. The edges of this walkway are curvilinear and almost waist high. A prominent circular planter, placed at the mid-point of the bridge, remains in the center of the walkway. The walkway varies in width, but averages ten feet.

The walkways at the guest house and cook house are curvilinear, about two and half feet wide, and made of flagstone set in mortar. A curvy stone walkway with six-inch risers links the road to the stables with the front entrance of the guest house. The curvilinear walkway at the cook

house provided access to the front and rear entrances of the building.

Kruckeberg constructed the stone walkways in the watercourse in 1930. The oversized basalt stones are artfully integrated together, forming a series of small pools. The walkways are aligned between the pools in a style that may best be described as rustic or naturalistic—adding an informal, yet elegant touch to the watercourse as a garden for strolling. The stones vary in width, but are about three feet in width. Risers of stone indicate where a passerby can enter the garden.

Character-defining Features:

Feature: Primary Road—Entrance Road

Feature Identification Number: 111048

Type of Feature Contribution: Contributing

IDLCS Number: 461559

LCS Structure Name: Scotty's Castle Entrance Road

LCS Structure Number: SC-461559

Feature: Secondary Road—Scotty's Castle building

Feature Identification Number: 111054

Type of Feature Contribution: Contributing

IDLCS Number: 461562

LCS Structure Name: Scotty's Castle Building Complex Access Roads

LCS Structure Number: SC-461562

Feature: Secondary Road—Tie Canyon access roads

Feature Identification Number: 111078

Type of Feature Contribution: Contributing

IDLCS Number: 461564

LCS Structure Name: Scotty's Castle Tie Canyon Access Road

LCS Structure Number: SC-461564

Feature: Secondary Road—Spring/Water catchment ac

Feature Identification Number: 111080

Type of Feature Contribution: Contributing

IDLCS Number: 461566

LCS Structure Name: Scotty's Castle Spring Access Road

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LCS Structure Number: SC-461566

Feature: Tile courtyard at Scotty's Castle

Feature Identification Number: 111082

Type of Feature Contribution: Contributing

IDLCS Number: 461567

LCS Structure Name: Scotty's Castle Tile Courtyard

LCS Structure Number: SC-461567

Feature: Stone walkways at Cook House and Guest H

Feature Identification Number: 111084

Type of Feature Contribution: Contributing

Feature: Concrete driveway at Scotty's Castle Mot

Feature Identification Number: 111086

Type of Feature Contribution: Contributing

Landscape Characteristic Graphics:



Contemporary photograph showing Bonnie Clare road through the Grapevine Canyon, view east (PWR 2004).



Image of a single-lane road aligned between Bonnie Clare road and the springs, view east. The rural character of the road is typical of other secondary roads found on the grounds of Scotty's Castle (PWR 2004).

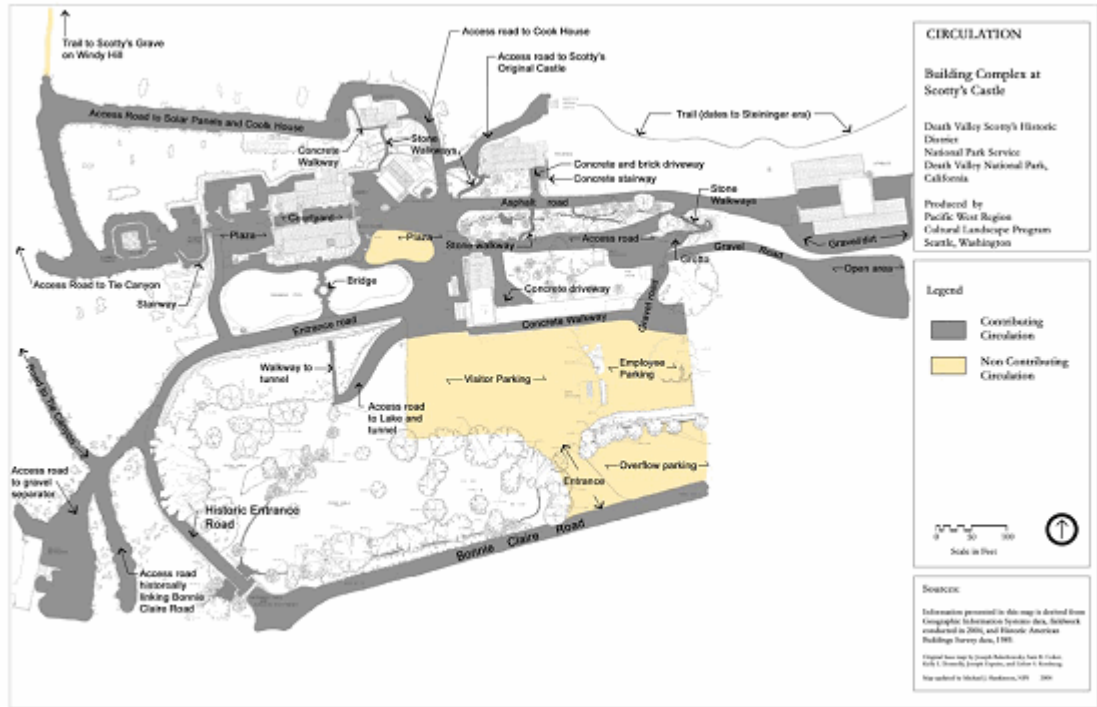


Image of the courtyard located between Scotty's Castle and the annex. The historic tiles are red and laid in a herringbone pattern (PWR 2004).



Photograph of a typical stone stairway in the watercourse. Stone walkways were also constructed at the cook and guest houses (PWR 2004).

Scotty's Castle
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Map showing the contributing circulation system within the building complex at Scotty's Castle (PWR 2005). A larger version of this map is located in the appendix.

Vegetation

During the 1920s, M. Roy Thompson and Dewey Kruckeberg created four distinct planting areas: the picnic area, cottonwood corner, watercourse, and plantings around buildings. During this era, Thompson planted cottonwood, willow and a limited number of palms in the picnic area and cottonwood corner, while Kruckeberg planted olive, palms, and cacti on higher ground, within the building complex.

Picnic Area

Today, the picnic area plantings remain as a lush oasis, and in character resemble a small park. Although some of these trees and shrubs may not date to the historic period, plant succession has occurred over time, creating the look of an informal scene, as intended by Johnson. The west side of the entrance gate includes all of the same tree species as the east side, but is overgrown and impenetrable. Trees on both sides of the entrance gate include cottonwood, desert willow, honey mesquite, screwbean mesquite (*Prosopis pubescens*), and fruitless mulberry (*Morus alba*), in addition to several California fan palms. Grass and grapevines are the dominant groundcovers and vines on the east side of the entrance gate. The vines are found growing on the trees and along the fence near Bonnie Clare road. The picnic and entrance gate areas, planted by Thompson, served as a wall of vegetation that separate the Castle complex from the outside world. The trees and lake also served as the setting of the building complex as seen from Bonnie Clare road.

Cottonwood Corner

Historically, Johnson wanted to create “a real jungle” near the “s” curve at Cathedral Rock (MRT to AMJ, February 19, 1930, M7/B10/F2). As a result, cottonwood, willows, mesquite, and palms were planted in the stream between the castle and Cathedral Rock in order to present the visitor with a “pleasant approach” and to absorb all of the water of that spring to prevent overflow from the upper ranch. Today, Cottonwood Corner remains as a verdant, lush planting. It continues to serve as a pleasant approach to this desert oasis. The plantings include cottonwoods, grapevines, honey mesquite, California fan palm, and desert willow. These plantings have naturalized over time, but continue to convey the original design intent. As a result, there is a dense mix of young and old tree specimens in this area. This planting is compatible with the historic character of the cultural landscape and remains as an integral component of the arrival sequence to the Castle.

Building Complex

Watercourse

Today, the watercourse is planted densely with a lush grouping of trees and shrubs including California fan palms, California juniper (*Juniperus californica*), Honey mesquite (*Prosopis glandulosa*), and creosote bush (*Larrea tridentata*). The plants are contained in a long, narrow, garden 50' x 450'. Generally, the plantings seen today at the watercourse convey a different character than during the historic period. Based on photographic evidence, it appears that the palms located on the western end of the watercourse date to the historic period, but other plantings such as the mesquite and juniper appear to have been planted at some point after. Originally, this bed was called the “cactus garden.” It was planted sparsely with saguaro cacti

Scotty's Castle Death Valley National Park

and other low growing shrubs such as ocotillo. As the garden has evolved over time, it is clear that this space has lost its open character.

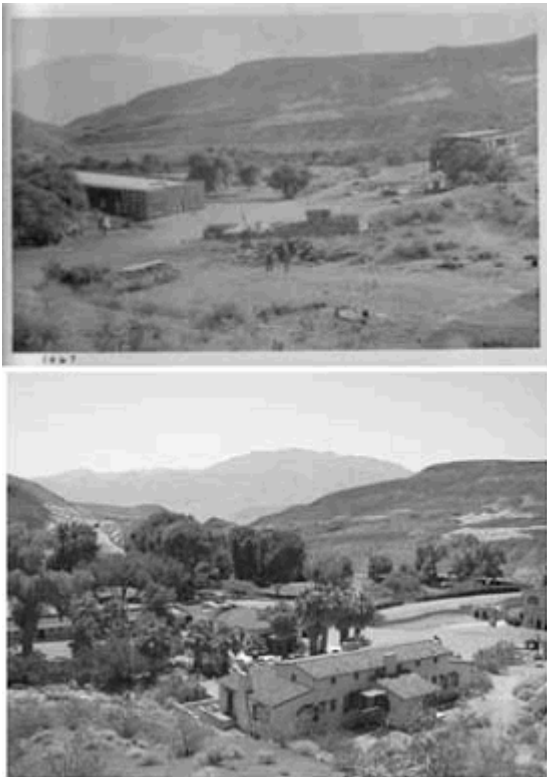
Guest House

Today, the Guest House planting bed has lost the original cacti. With exception of the two Washington fan palms (*Washington filifera*), the remaining plants (primarily shrubs such as Joshua tree and creosote bush) are compatible with the original planting scheme. Historically, this bed was densely vegetated with cacti such as prickly pear (*Opuntia* sp.), beavertail cactus (*Opuntia basilaris*) and shrubs such as Joshua tree (*Yucca brevifolia*) and creosote bush (*Larrea tridentata*).

Long shed bunkhouse

Plantings in the small concrete edged beds today resemble historic conditions with a small cholla cacti (*Opuntia* sp.) growing on the north side of the building.

Landscape Characteristic Graphics:



Images of the building complex, view south, showing vegetation growing in the building complex in 1922 (above) and 2004 (below) (Alb 15941 DEVA 42678).

Scotty's Castle
 Death Valley National Park



Map illustrating contributing vegetation within the building complex (PWR 2005). A larger version of this map is located within the appendix.

Condition

Condition Assessment and Impacts

Condition Assessment: Fair

Assessment Date: 09/09/2005

Condition Assessment Explanatory Narrative:

The structural integrity of the watercourse is being compromised by root encroachment.

Stabilization Measures:

Assess root damage to the watercourse structure. Remove vegetation causing damage.

Impacts

Type of Impact: Vegetation/Invasive Plants

External or Internal: Internal

Impact Description: A combination of densely planted palms and junipers have damaged the concrete base of the watercourse.

Stabilization Costs

Landscape Stabilization Cost: 5,000.00

Cost Date: 08/15/2005

Level of Estimate: C - Similar Facilities

Cost Estimator: Regional Office

Landscape Stabilization Cost Explanatory Description:

The structural integrity of the watercourse must be assessed by park staff. The evaluation should determine where the vegetation is damaging the structure. Tasks should be determined, the number of crew to complete the job, and budget. Buildings have not yet been assessed for stabilization measures or costs (An historic structures report is currently in draft).

Treatment

Treatment

Approved Treatment: Preservation

Approved Treatment Document: General Management Plan

Document Date: 04/01/2002

Approved Treatment Document Explanatory Narrative:

The general management plan calls for the identification of cultural resources and for their preservation.

Approved Treatment Completed: No

Approved Treatment Costs

Landscape Treatment Cost: 0.00

Cost Date: 04/01/2002

Bibliography and Supplemental Information

Bibliography

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- Citation Title:** Scotty's Home Was Not His Castle: A Historical Survey of Death Valley Scotty's Lower Vine Ranch, Death Valley National Monument
- Year of Publication:** 1985
- Citation Publisher:** University of California: Riverside
- Source Name:** CRBIB
- Citation Number:** 013005
- Citation Type:** Both Graphic and Narrative
- Citation Location:** DEVA archives: Cow Creek and Scotty's Castle
PWR--Seattle Cultural Resources
-
- Citation Author:** Deal, Krista and Lynne D'Ascenzo
- Citation Title:** Archeological Survey of Lower Vine Ranch, Death Valley National Monument
- Year of Publication:** 1987
- Citation Publisher:** WACC Tucson, AZ
- Source Name:** CRBIB
- Citation Number:** 550309
- Citation Type:** Both Graphic and Narrative
- Citation Location:** Publications in Anthropology No. 46.

- Citation Author:** Livingston, Dewey
Citation Title: 60% Draft Historic Resource Study: Death Valley Scotty Historic District
Year of Publication: 2004
Citation Publisher: Carey & Company for the NPS
Source Name: Other
Citation Type: Graphic
Citation Location: DEVA Archives Scotty's Castle
PWR Seattle Cultural Resources
- Citation Author:** Miller, G.A.
Citation Title: Reconnaissance Appraisal of the Water Resources of Death Valley, California-Nevada
Year of Publication: 1975
Citation Publisher: U.S. Geological Survey in cooperation with the National Park Service
Source Name: Other
Citation Type: Both Graphic and Narrative
Citation Location: DEVA archives Cow Creek
- Citation Author:** Pearson, Nancy E
Citation Title: Archeological Inventory and Testing at Indian Camp and Tie Canyon Death Valley National Park Inyo County, California
Year of Publication: 2003
Citation Publisher: WACC Tucson, AZ
Source Name: Other

- Citation Author:** Frazier, Craig C.
Citation Title: Historic Structure Report, Main House and Annex, Scotty's Castle, Death Valley Ranch, Death Valley National Monument
Year of Publication: 1991
Citation Publisher: National Park Service
Source Name: CRBIB
Citation Number: 015757
Citation Type: Both Graphic and Narrative
Citation Location: DEVA archives Cow Creek and Scotty's Castle
- Citation Author:** Shally, Dorothy and William Bolton
Citation Title: Scotty's Castle: Death Valley's Fabulous Showplace
Year of Publication: 2000
Citation Publisher: Flying Spur Press, Yosemite, CA 95389
Source Name: Other
Citation Type: Both Graphic and Narrative
Citation Location: DEVA Archives: Scotty's Castle
- Citation Author:** Hankinson, Michael and Cathy Gilbert
Citation Title: Cultural Landscape Report: Death Valley Scotty Historic District (draft)
Year of Publication: 2005
Citation Publisher: NA
Citation Type: Both Graphic and Narrative
Citation Location: Pacific West Region-Seattle

Supplemental Information

Title: HABS base map of existing conditions at Scotty's Castle, 1989

Description: The map is a black and white, hand drawn, plan drawn by the HABS team including: Joseph Balachowski, Sam R. Coker, Kelly L. Donnelly, Joseph Espsito, and Lisbet S. Rosshaug

Title: Historic Letters

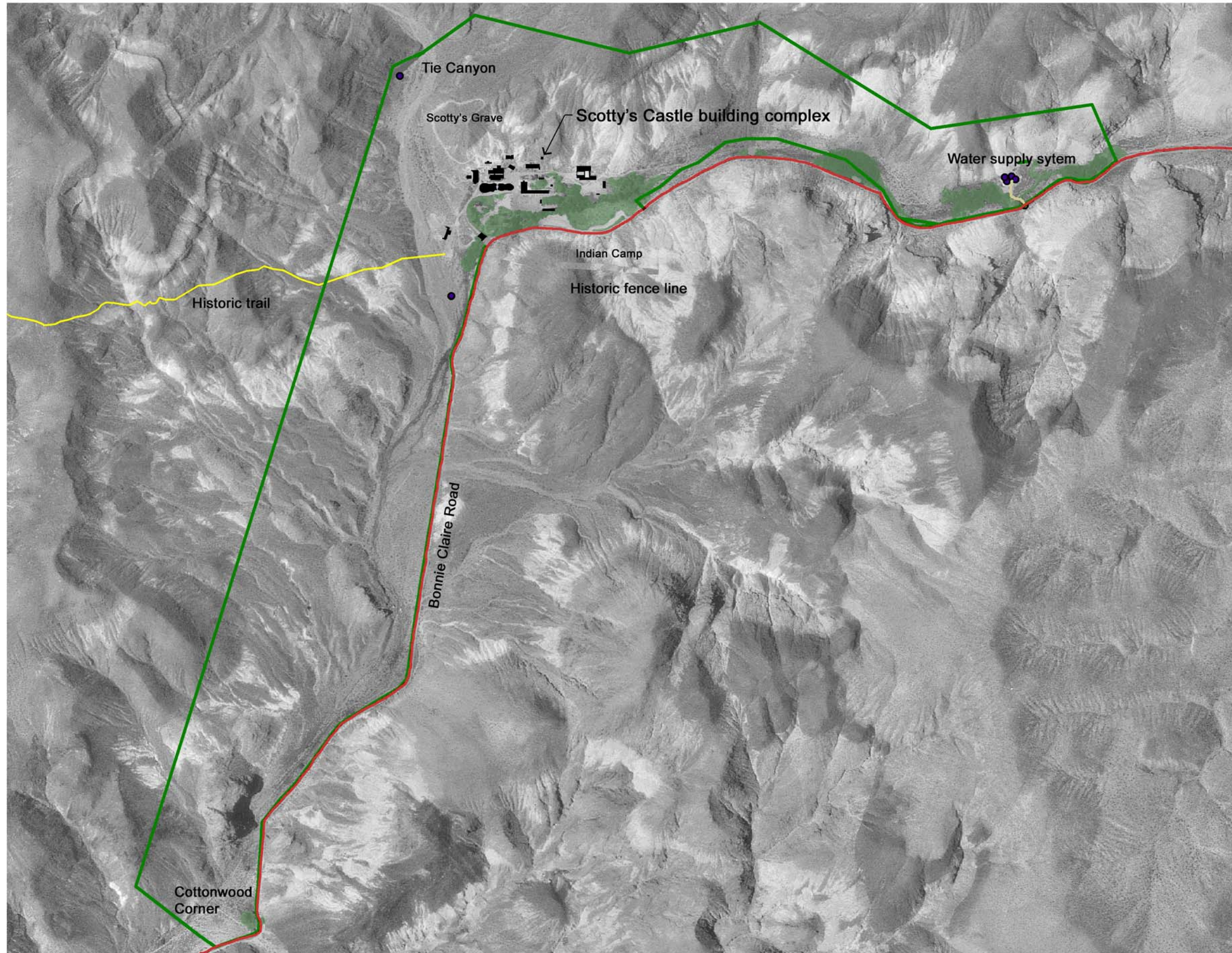
Description: Correspondence between Matt Roy Thompson and Albert Johnson, 1926-1930. These records are kept at DEVA archives Scotty's Castle.

Title: Historic photo collection

Description: All historic images are on file in the Scotty's Castle archive collection.

Title: Preliminary Landscape Plan

Description: Planting plan by Dewey R. Kruckeberg 1929








EXISTING CONDITIONS

Scotty's Castle

Cultural Landscape Report
 Death Valley Scotty's Historic District
 National Park Service
 Death Valley National Monument,
 California

Produced by
 Pacific West Region
 Cultural Landscape Program
 Seattle, Washington

Legend

-  Existing Roads
-  Approximate alignment of Historic Fence Lines
-  Approximate alignment of Historic Trail Between Upper and Lower Vine
-  Buildings and Structures
-  Tree and shrub massings



Sources:

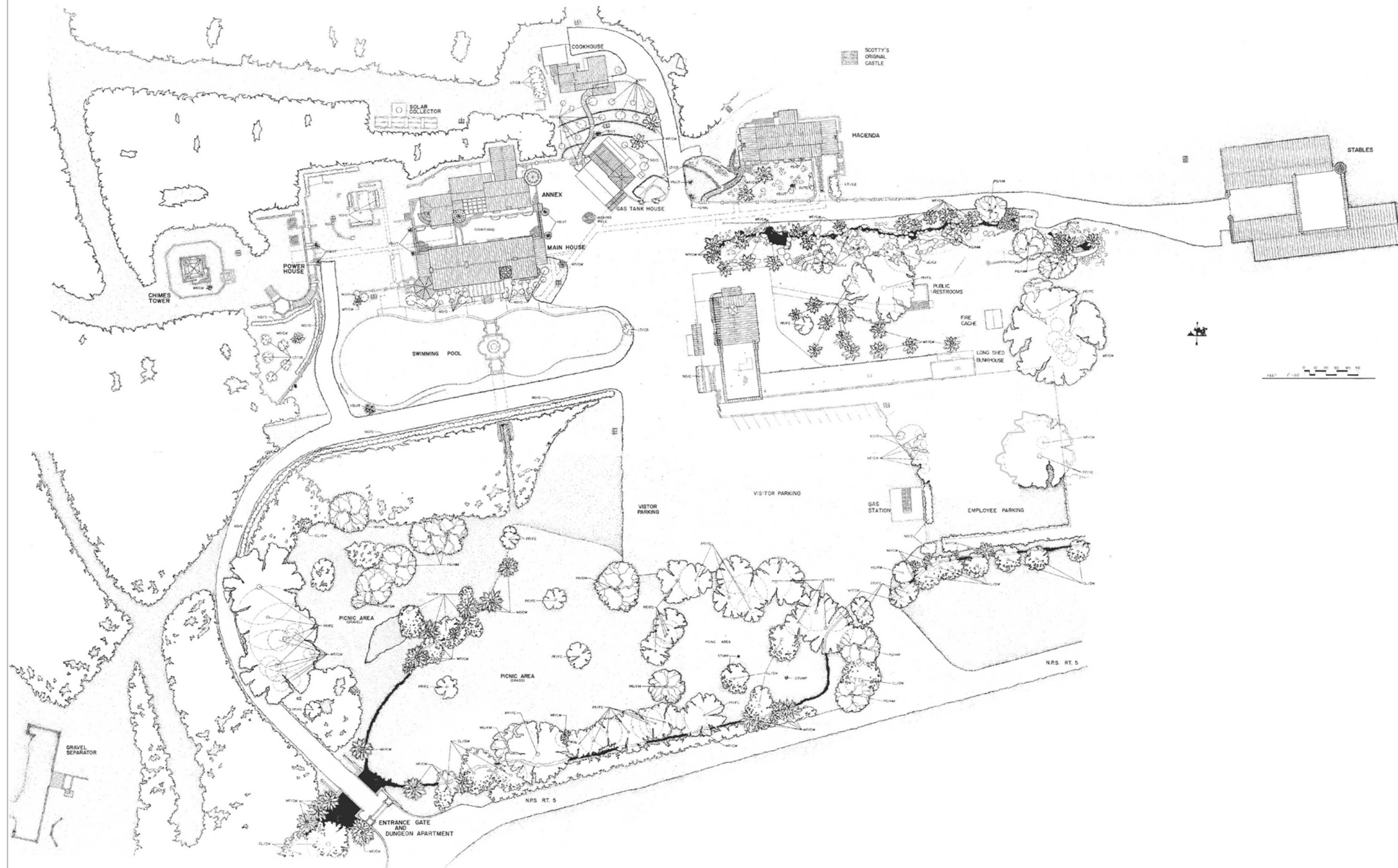
Information presented in this map is derived from Geographic Information Systems data, fieldwork conducted in 2004, and Historic American Buildings Survey data, 1989.

EXISTING CONDITIONS

Building Complex at Scotty's Castle

Death Valley Scotty's Historic
District
National Park Service
Death Valley National Monument,
California

Produced by
Pacific West Region
Cultural Landscape Program
Seattle, Washington



Sources:

Information presented in this map is derived from Geographic Information Systems data, fieldwork conducted in 2004, and Historic American Buildings Survey data, 1989.

Original base map by Joseph Balachowsky, Sam R. Coker, Kelly I. Donnelly, Joseph Espito, and Lisbet S. Rosshaug

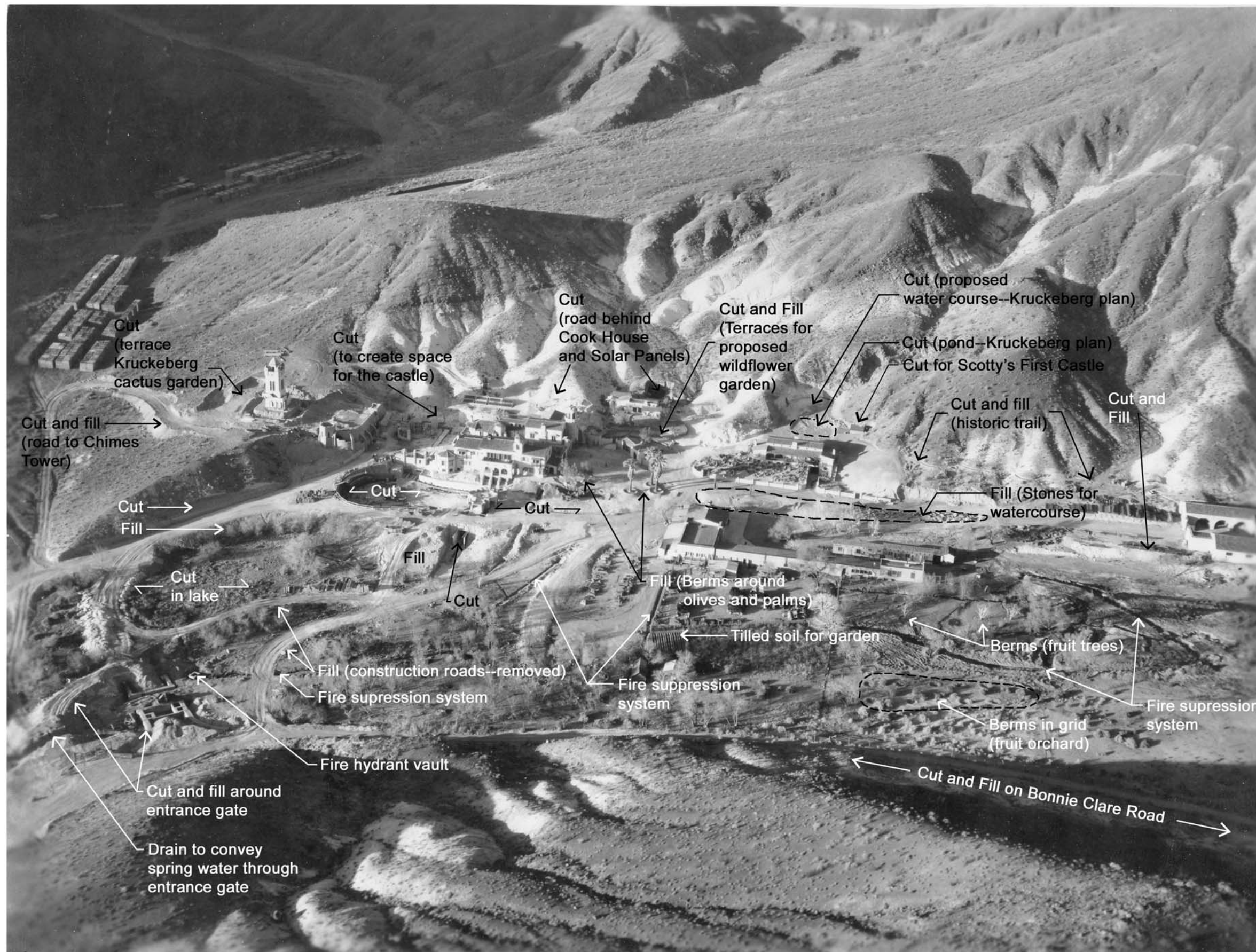
Map updated by Michael J. Hankinson, NPS 2004

**HISTORIC
TOPOGRAPHY 1930**

**Building Complex at
Scotty's Castle**

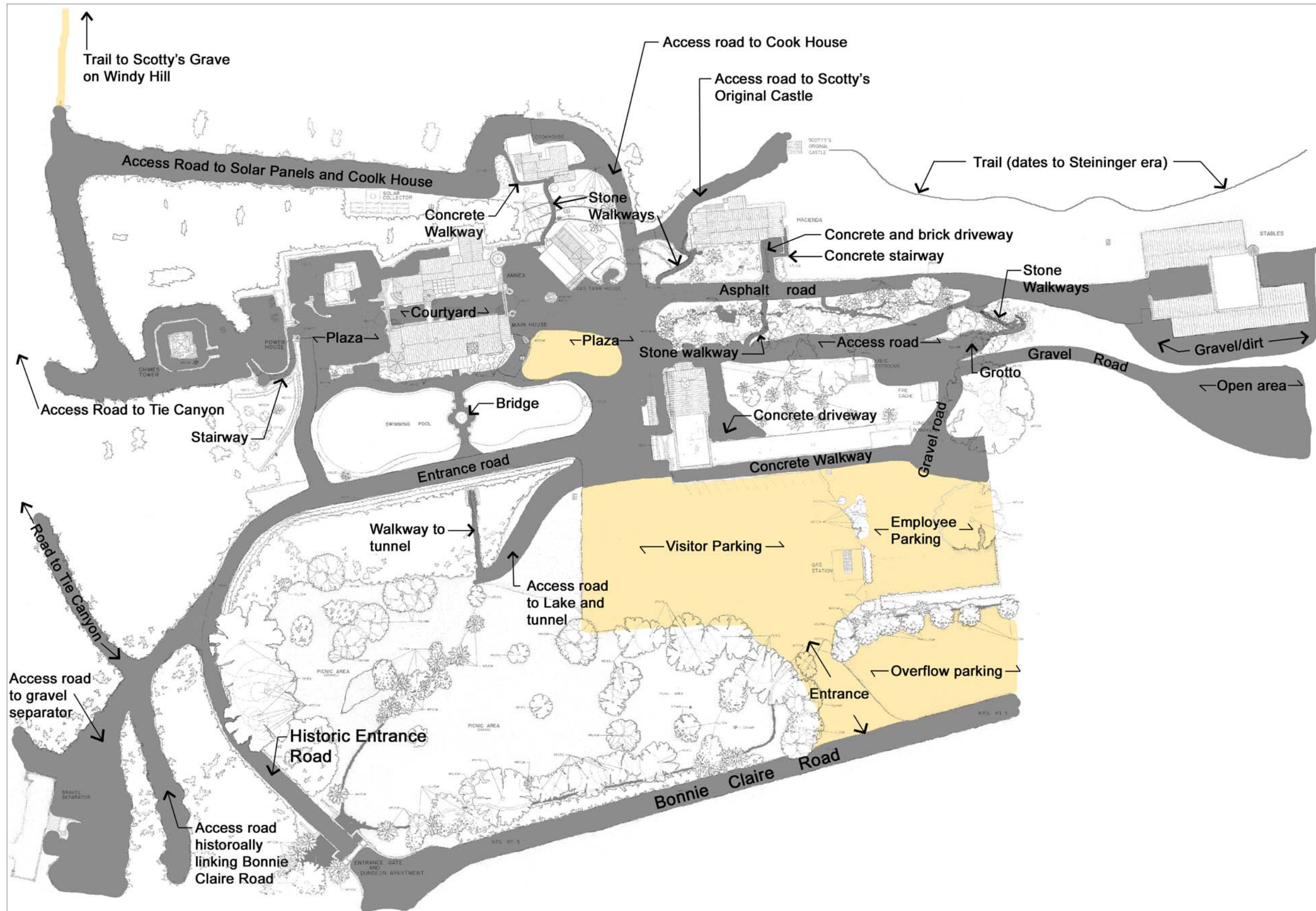
Death Valley Scotty's Historic
District
National Park Service
Death Valley National Monument,
California

Produced by
Pacific West Region
Cultural Landscape Program
Seattle, Washington



Notes:

The photograph was taken in 1931 and is located in the Scotty's Castle archive collection, Death Valley, California.



CIRCULATION

Building Complex at Scotty's Castle

Death Valley Scotty's Historic District
National Park Service
Death Valley National Park, California

Produced by
Pacific West Region
Cultural Landscape Program
Seattle, Washington

Legend

- Contributing Circulation
- Non Contributing Circulation

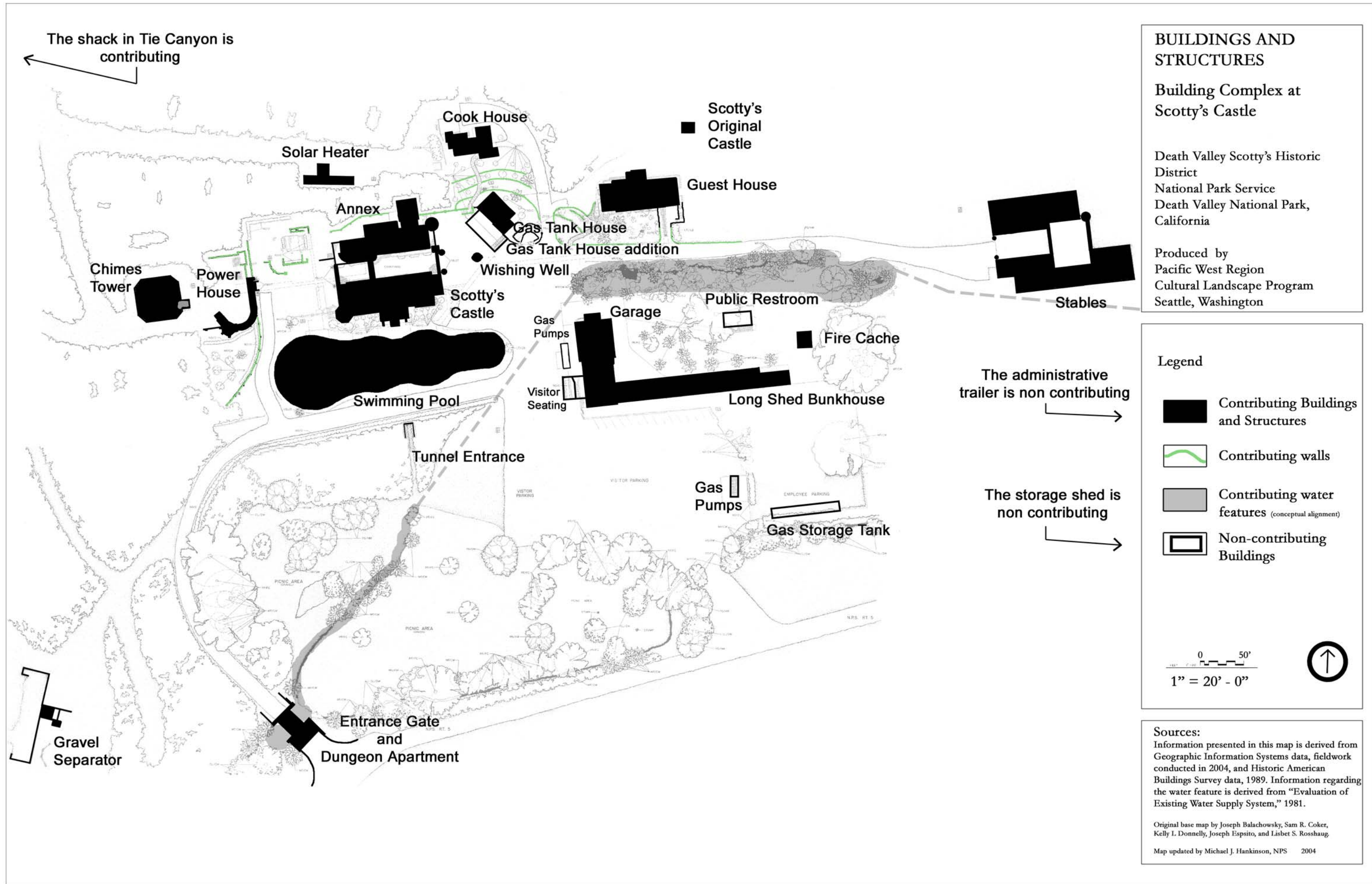
0 50 100
Scale in Feet

Sources:

Information presented in this map is derived from Geographic Information Systems data, fieldwork conducted in 2004, and Historic American Buildings Survey data, 1989.

Original base map by Joseph Balachowsky, Sam R. Coker, Kelly L. Donnelly, Joseph Espito, and Lisbet S. Rosshaug

Map updated by Michael J. Hankinson, NPS 2004



The shack in Tie Canyon is contributing

Scotty's Original Castle

Cook House

Solar Heater

Guest House

Annex

Gas Tank House

Gas Tank House addition

Wishing Well

Chimes Tower

Power House

Scotty's Castle

Public Restroom

Stables

Gas Pumps

Garage

Fire Cache

Swimming Pool

Visitor Seating

Long Shed Bunkhouse

The administrative trailer is non contributing

Tunnel Entrance

Gas Pumps

The storage shed is non contributing

Gas Storage Tank

Gravel Separator

Entrance Gate and Dungeon Apartment

VEGETATION

Existing Conditions

Building Complex at Scotty's Castle

Death Valley Scotty's Historic District
National Park Service
Death Valley National Monument,
California

Produced by
Pacific West Region
Cultural Landscape Program
Seattle, Washington



Legend

- Ornamental vegetation that is compatible with the historic character of the cultural landscape. This vegetation was introduced during the historic period and has naturalized.
- Ornamental vegetation that is compatible with the historic character of the cultural landscape, but was introduced to the building complex after the historic period.
- Naturally occurring vegetation that is compatible with the historic character of the cultural landscape. This vegetation community has flourished since the historic period.
- Non-contributing vegetation in the watercourse. This garden was historically open with a minimal planting.

Plant List

FC	Fremont cottonwood	<i>(Populus fremontii)</i>
HM	Honey mesquite	<i>(Prosopis glandulosa)</i>
SM	Screwbean mesquite	<i>(Prosopis pubescens)</i>
JT	Joshua tree	<i>(Yucca brevifolia)</i>
CF	California fan palm	<i>(Washingtonia filifera)</i>
DW	Desert willow	<i>(Chilopsis linearis)</i>
MY	Mojave yucca	<i>(Yucca schidigera)</i>
CB	Creosote bush	<i>(Larrea tridentata)</i>
OL	Oleander	<i>(Nerium oleander)</i>
CJ	California juniper	<i>(Juniperus californica)</i>
FM	Fruitless mulberry	<i>(Morus sp.)</i>
TC	Tree cholla	<i>(Opuntia imbricata)</i>
O	Ocotillo	<i>(Fouquieria splendens)</i>

Sources:

Information presented in this map is derived from Geographic Information Systems data, fieldwork conducted in 2004, and Historic American Buildings Survey data, 1989.

Original base map by Joseph Balachowsky, Sam R. Coker, Kelly I. Donnelly, Joseph Espito, and Lisbet S. Rosshaug.

Map updated by Michael J. Hankinson, NPS 2004