

**United States Department of the Interior
National Park Service**

**NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET**

Section _____ Page _____

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SUPPLEMENTARY LISTING RECORD

NRIS Reference Number: 07001220

Date Listed: 11/21/2007

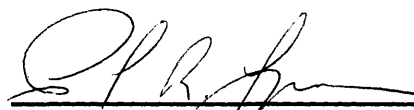
Cowell Lime Works Historic District
Property Name

Santa Cruz
County

CA
State

N/A
Multiple Name

This property is listed in the National Register of Historic Places in accordance with the attached nomination documentation subject to the following exceptions, exclusions, or amendments, notwithstanding the National Park Service certification included in the nomination documentation.

for 

Signature of the Keeper

11/21/07

Date of Action

=====

Amended Items in Nomination:

Location:

The Location/Address is amended to read: *University of California, Santa Cruz campus; High Street and Glenn Coolidge Drive*
[The street location should be related to the nominated site, not the mailing address for the school.]

Historic Function:

The Historic Functions are amended to add: *Industry-Processing Site*

Significance:

The name *Henry Cowell* is deleted from the Significant Person blank since the nomination was not submitted under NR Criterion B.

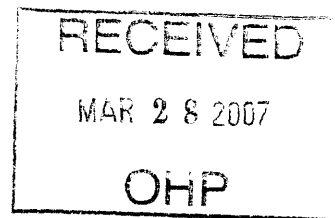
Bibliographical References:

The box for *Previously Determined Eligible by the National Register* should not be checked.
[The 1997 determination was not made by the Keeper, but was a consensus determination made by the SHPO and FHWA.]

These clarifications were confirmed with the CA SHPO office.

DISTRIBUTION:

National Register property file
Nominating Authority (without nomination attachment)



1220

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES
REGISTRATION FORM

1. Name of Property - Cowell Lime Works Historic District

historic names: Davis and Jordan Lime Company
Davis and Cowell Lime Company
Henry Cowell Company
Henry Cowell Lime and Cement Company

other names/site number: CA-SCR-198H

2. Location

University of California, Santa Cruz
street & number: 1156 High Street
city or town: Santa Cruz
state: California code: CA county: Santa Cruz code: 087
zip code: 95064

not for publication: n/a
vicinity n/a

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this XX nomination ___ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property X meets ___ does not meet the National Register Criteria. I recommend that this property be considered significant ___ nationally ___ statewide X locally. (___ See continuation sheet for additional comments.)

Steph D. Nuber 10/10/07
Signature of certifying official Date

State Historic Preservation Officer

State or Federal Agency or Tribal government

In my opinion, the property ___ meets ___ does not meet the National Register criteria.
(___ See continuation sheet for additional comments.)

Signature of commenting official/Title Date

State or Federal agency and bureau

4. National Park Service Certification

I, hereby certify that this property is:

- entered in the National Register
___ See continuation sheet.
- ___ determined eligible for the National Register
___ See continuation sheet.
- ___ determined not eligible for the National Register
___ See continuation sheet.
- ___ removed from the National Register
___ See continuation sheet.
- ___ other (explain): _____

Signature of Keeper [Signature] Date of Action 11/21/2007

5. Classification

Ownership of Property (Check as many boxes as apply)

- private
- public-local
- public-State
- public-Federal

Category of Property (Check only one box)

- building(s)
- district
- site
- structure
- object

Number of Resources within Property

Contributing	Noncontributing
<u>11</u>	<u>3</u> buildings
<u>0</u>	<u>0</u> sites
<u>3</u>	<u>0</u> structures
<u>1</u>	<u>0</u> objects
<u>15</u>	<u>3</u> Total

Number of contributing resources previously listed in the National Register 0

Name of related multiple property listing (Enter "N/A" if property is not part of a multiple property listing.)

N/A

6. Function or Use

Historic Functions (Enter categories from instructions)

Cat: <u>DOMESTIC</u>	Sub: <u>single dwelling</u>
<u>DOMESTIC</u>	<u>secondary structure</u>
<u>PROCESSING</u>	<u>processing site</u>
<u>INDUSTRY</u>	<u>manufacturing facility</u>
<u>INDUSTRY</u>	<u>industrial storage</u>

Current Functions (Enter categories from instructions)

Cat: <u>EDUCATION</u>	Sub: <u>college/university</u>
<u>VACANT</u>	<u>not in use</u>
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

=====
7. Description
=====

Architectural Classification (Enter categories from instructions)

LATE VICTORIAN: Italianate

OTHER: Timber Frame Construction

OTHER: Vernacular

OTHER: Limekilns: pot and continuous

Materials (Enter categories from instructions)

foundation Limestone

roof Metal, Composite, Wood shingle

walls Redwood plank, Stone Rubble, Plaster, Masonry

other _____

Narrative Description (Describe the historic and current condition of the property on one or more continuation sheets.)

See Continuation Sheet

=====
8. Statement of Significance
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Applicable National Register Criteria (Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing)

- A Property is associated with events that have made a significant contribution to the broad patterns of our history.
- B Property is associated with the lives of persons significant in our past.
- C Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- D Property has yielded, or is likely to yield information important in prehistory or history.

Criteria Considerations (Mark "X" in all the boxes that apply.)

- A owned by a religious institution or used for religious purposes.
- B removed from its original location.
- C a birthplace or a grave.
- D a cemetery.
- E a reconstructed building, object, or structure.
- F a commemorative property.
- G less than 50 years of age or achieved significance within the past 50 years.

Areas of Significance (Enter categories from instructions)

INDUSTRY

Period of Significance 1853 - 1920

Significant Dates 1853, 1865, 1920

Significant Person (Complete if Criterion B is marked above)

Henry Cowell

Cultural Affiliation Undefined

Architect/Builder Unknown

Narrative Statement of Significance (Explain the significance of the property on one or more continuation sheets.)

See Continuation Sheet.

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9. Major Bibliographical References

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(Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

See Continuation Sheet.

Previous documentation on file (NPS)

preliminary determination of individual listing (36 CFR 67) has been requested.

previously listed in the National Register

previously determined eligible by the National Register (FHWA 1997)

designated a National Historic Landmark

recorded by Historic American Buildings Survey # _____

recorded by Historic American Engineering Record # _____

Primary Location of Additional Data

State Historic Preservation Office

Other State agency

Federal agency

Local government

University

Other

Name of repository: UCSC Mc Henry Library, Special Collections

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10. Geographical Data

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Acreage of Property 32 acres

UTM References (Place additional UTM references on a continuation sheet)

Zone Easting Northing Zone Easting Northing

1 _____ 3 _____

2 _____ 4 _____

See Continuation Sheet.

Verbal Boundary Description (Describe the boundaries of the property on a continuation sheet.)

See Continuation Sheet.

Boundary Justification (Explain why the boundaries were selected on a continuation sheet.)

See Continuation Sheet.

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11. Form Prepared By

name/title M. Bridget Maley/Senior Associate, Architectural Historian; Shayne Watson/Architectural Historian
with contributions by Frank Perry, Historian, Santa Cruz, and Sally Morgan, Campus Planner, UCSC

organization Architectural Resources Group date March 2007

street & number Pier 9, The Embarcadero telephone 415-421-1680

city or town San Francisco, CA state CA zip code 94111

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Additional Documentation

Submit the following items with the completed form:

Continuation Sheets

Maps

- A USGS map (7.5 or 15 minute series) indicating the property's location.
- A sketch map for historic districts and properties having large acreage or numerous resources.

Photographs

- Representative black and white photographs of the property.

Additional items (Check with the SHPO or FPO for any additional items)

=====
Property Owner

(Complete this item at the request of the SHPO or FPO.)

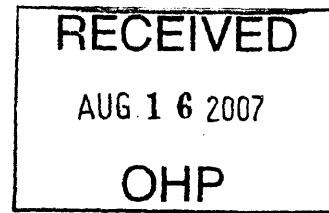
name University of California, Office of the President (Jack Zimmerman, Representative);
(Campus representative, Sally Morgan, UC Santa Cruz Physical Planning and Construction)

street & number UCOP, 1111 Franklin St. telephone (510) 987-9593

city or town Oakland state Ca zip code 94607-5200

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Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C. 470 et seq.). A federal agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number.

Estimated Burden Statement: Public reporting burden for this form is estimated to average 18.1 hours per response including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to Keeper, National Register of Historic Places, 1849 "C" Street NW, Washington, DC 20240.



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Cowell Lime Works Historic District
Name of property

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County and State

SUMMARY DESCRIPTION

The Cowell Lime Works Historic District consists of a significant concentration of features and buildings relating to industrial limestone quarrying and lime production including lime kilns, a cooperage, supporting barns, residential structures, and historic circulation routes, dating to the latter half of the 19th century and early decades of the 20th century. These built elements create a geographically definable industrial Historic District that conveys both the process and the physical components associated with the Cowell Lime Works. The Historic District is a cluster of industrial and ranch-related buildings and structures constructed of wood and limestone masonry, that are scattered over an area of about 30 acres just inside the University of California, Santa Cruz main campus entrance at High Street and Glenn Coolidge Drive, in Santa Cruz, California. The campus is located near the northern end of Monterey Bay, northwest of the historic center of the City of Santa Cruz, on over 2,000 acres of steeply sloping marine terraces. The Historic District lies primarily in grasslands; however, the lime operations relied on limestone and redwood obtained primarily from the upper slopes of the present-day campus lands, outside the Historic District.

While many of the buildings and structures have been altered or have deteriorated, the complex as a whole clearly conveys the historic setting and functionality of the site, and possesses good integrity of feeling and association to the period of significance, 1853 to 1920.

Figure 1 shows the location of the district and related historic features outside the district boundaries. Figure 2 is a close-up of the district, which identifies contributors and the district boundary. Figures 3 and 4 present aerial views of the District as it appeared in 1956, while a ranch was still operating at the site, before the University of California acquired the property.

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HISTORICAL APPEARANCE OF HISTORIC DISTRICT

Historically, the industrial complex of the Cowell Lime Works centered on Jordan Gulch, a steep-sided natural declivity that ran north-south, downhill through the site. A dirt roadway along the floor of the gulch extended north and northwest uphill, toward the limestone quarries and redwood forests up to a mile distant that supplied raw materials for the kilns. A rail line ran along or parallel to this route, and was used for limestone and firewood transport during some periods of the site's operation. Southward the wagon road ran down to intersect High Street, the principal route into the City of Santa Cruz, at what is now the southern boundary of the Historic District. A short distance east along High Street from this intersection was the entryway (Figure 2, #14) and drive that led to the Cowell Ranch House (Figure 2, #15). The drive wound uphill through a circle of cypress trees, past the house and associated carriage house, to intersect the Jordan Gulch Road near the blacksmith shop (Figure 2, #12). Uphill along the Jordan Gulch road (outside the District), another dirt road diverged eastward and led to other quarries and kilns at Rincon, on the San Lorenzo River.

The industrial areas of the Cowell Lime Works Historic District consist of the complex of associated buildings and structures along Jordan Gulch in the stretch between the High Street intersection and the point about 1/4 mile uphill, where the road and rail line wound up the gulch toward the distant quarries. This stretch, historically, was the heart of the lime works complex, the site of a very extensive complex of historic buildings and structures. These were located both on the sides of the gulch, flanking the roadway, and along the more level terraces that extended east and west from the rims of the gulch.

During the kilns' operations, open areas within and adjacent to the gulch within the District were used to stockpile massive piles of redwood cordwood, which was used to fire the kilns. Waste from the kilns--incompletely burned limestone rock--also was piled in and along the gulch, probably filling all natural low points. The terraces extending east and west from the upper rims of the gulch were fenced and cultivated and provided grazing and fodder for the working stock and food for Cowell's workers. Historic photos indicate that most of the area around the lime works--which historically was grassland with scattered oaks, buckeyes and chaparral species--was denuded of natural vegetation during the time that the kilns were operating.

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Where the Jordan Gulch rail line first emerged from the gulch, at the northern border of the Historic District, there was a scattering of support buildings, some related to the quarry operations and others to the farm and ranch activities that supported the working stock and work men employed in Cowell's operations. In this area were located a powder house (#13)(for storage of explosives used in the quarries), a least one large wood-frame barn (#11), a wood-frame blacksmith's shop (#12), a smoke house, at least one worker's cabin, and probably additional barns. At greater distance (outside the historic District) were several other barns and a slaughterhouse.

Downward along the wider section of the gulch, the rail line continued across the slope on an elevated rock berm, then over a trestle (#10) to the lime kilns (#7 and #8). The kilns were built against the steep west side of the gulch, where the slope provided support for the back walls and also access to top of the kilns, which were loaded from above. During some periods of kiln operations, the rail line carried ore cars along the top of the kilns. Extending from the base of the kilns was a paving of bituminous asphalt extending southward and under the adjacent cooperage (#9). A roof over the kilns extended outward toward the cooperage, to provide a dry work area, where lime produced in the kilns was shoveled into the barrels manufactured in the cooperage. The cooperage, a long narrow building elevated to second story height on limestone pillars, stood parallel to the face of the kilns. The cooperage upper story, where barrels were manufactured, was accessed via a doorway in the west end, which stood against the slope of the west side of Jordan Gulch. It could be reached by way of a roadway that ran along the slope. Under the cooperage, the open area between the pillars provided storage for lime barrels. The kilns and cooperage were the industrial focus of the lime works.

Down the gulch, any open areas not used for stockpiling fire wood or disposal of waste rock were devoted to support facilities. A short distance down hill from the cooperage on the west side of the bottom of the gulch was a tightly massed complex of barns, sheds and stock pens, and the cookhouse (#4), where meals for Cowell's workers were prepared and served. Like the kilns, the cookhouse was built against the west wall of the gulch. On the rim of the gulch behind the cookhouse was a row of several wood frame workers' cabins (#16) and, probably, a kitchen garden.

East of the gulch, opposite the cookhouse and cooperage, was another row of worker's cabins (Figure 2, buildings #5 and #6 and site #18) along the rim of the gulch. Behind these was an extensive complex of

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large stock barns, which extended over the flat part of the terrace to the north, south and east. The grasslands to the north and south of this complex were cultivated and fenced. At the eastern edge of this barn complex, and somewhat removed from the industrial and ranch activity, was the carriage house, where the owner's vehicles were kept. (Note that these areas lack historic integrity and are not included in the Historic District). A little further east, along a narrow drive, is the owner's/ foreman's ranch house (#15), which also could be accessed by a separate landscaped drive with a formal entry gate, (#14) on High Street, as described below.

Back at Jordan Gulch, down slope of the kilns and Cookhouse there were several small quarry areas, or "pocket quarries", along the east side of the gulch. The gulch broadened out as it neared High Street. Additional support buildings were situated in this wider flat, including the massive beam and plank horse barn (#3) (with one end built against the adjacent slope) and probably some corra's. To the east, the lime works road led out of the industrial area of the site through a narrow opening between the stone masonry and wood frame granary (#1) and the stone masonry paymaster's house (#2), to join High Street. In the area near these buildings, there was at least one more worker's cabin, a barrelhead mill, and probably some additional outbuildings.

A short distance east along High Street was the entry gate (#14) to the drive to the Cowell ranch house (#15). This area is distinct from the industrial part of the site as a formal, residential setting. The house was built in 1864, used briefly by Albion Jordan, and then probably taken over by the Cowell family, in 1865.

These various features of the Historic District were built up over time, beginning with the erection of the first kilns, in 1853. However, the entire area was well built up by 1861, and both the lime works and the supporting ranch activities were in full swing. A visitor reported, in 1861, "I visited some limestone quarries and lime kilns near town. Lime is burned for the San Francisco market. All the arrangements are very fine and complete, and about five thousand barrels per month are burned. The proprietor, Mr. Jordan, was very kind and showed me around. These people own a large ranch, raise their own cattle, keep their own teams, cut their own wood, etc" (William H. Brewer, 1861).

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Related Historic Features Outside the Historic District Boundary

Historically, the Cowell Lime Works relied on a complex of facilities that extended well beyond the border of the current Historic District, as noted above. Much of the limestone processed in the lime kilns within the District boundaries was extracted from quarries in the upper hills of the campus (notably the Upper and Lower Quarries). The redwood used to fuel the kilns also was logged in the hills of the upper part of the campus. Limestone and redwood cordwood were transported to the District kilns via a circulation route along Jordan Gulch, sometimes via a tramway (ox-drawn ore cars or wagons on rails) and at other times using oxen or horses and wagons. Several isolated kilns are scattered around the quarries in the upper campus. In addition, there is another cluster of barns, including one that served as a slaughterhouse, northwest of the District boundaries, within the area developed by the Campus as the Center for Agroecology and Sustainable Food Systems.

CURRENT APPEARANCE OF HISTORIC DISTRICT

Previous studies have identified a boundary for the Historic District that was somewhat arbitrary. The UCSC 1988 Long Range Development Plan identifies the "Historic Area" as an overlay district that encompasses two land use designations, Protected Landscape and Campus and Community Support. Further, a formal determination of eligibility pursuant to Section 106 was undertaken in 1998. On January 16, 2002 the State Historic Preservation Office visited the site and proposed a smaller boundary than previously identified. This smaller boundary is reflected in this Historic District documentation.

The Historic District is in a suburban/rural setting, northwest of the historic center of the City of Santa Cruz on the outskirts of the suburban part of town. The concentration of historic buildings and structures that form the Historic District are situated just inside the southern boundary of the University of California, Santa Cruz campus, which was founded in 1964. Most of the campus development is concentrated well north of the Historic District and is not visible from the Historic District. Coolidge Drive, a paved two- to four-lane street that is the main entrance into campus, constructed in 1964, cuts through the center of the Historic District generally following the historic circulation route up Jordan

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Gulch through the concentration of the District contributors. Set on a grassy rolling hillside that slopes southward on either side of Jordan Gulch, the District features provide a historic ambience to the campus entry, and stand as symbols of the historic industrial uses at the site. The southern and eastern edges of the Historic District abut non-historic developed areas including off-campus suburban housing on the southern side, and on-campus faculty housing to the east. To the west of Coolidge Drive, the University has just begun construction of Ranch View Terrace, another faculty and staff housing project.

The Historic District as it appears today consists of two distinct clusters of historic resources, as described below. The first includes the resources relating to and that supported the lime works. The second relates to a small, but formal, residential component of the site, the location of first the home built by the original owner of the lime works, Albion Jordan, and subsequently occupied and remodeled as the Henry Cowell family home.

Lime Works and Industrial Cluster

The Paymaster's House (Figure 2, #2) and Granary (#1), now used as storage and a daycare center, respectively, are located immediately north of High Street to the east of Coolidge Drive, at the east side of the campus main entry. These relatively small buildings housed the business office and provided storage for grain, respectively. In the broad flat area between Coolidge Drive and these structures, which are set back from Coolidge about 100 yards, is a grassy area with a large oak tree, under which is a large wooden entry sign for the University of California, Santa Cruz. Just east of this area, between Coolidge and the historic buildings is a small paved parking lot. The other structures that historically were scattered around this area have disappeared. However, a small pocket quarry at the east side of the entry provides a rocky exposure that speaks of the industrial use of the site. A horse barn associated with the Cowell operation (#3), which is now adaptively reused as the Barn Theater, defines the west side of the south campus entry, at the corner of Coolidge Drive and High Street.

Across Coolidge Drive from the Barn Theater, a short distance farther up Coolidge Drive, set into one of the Coolidge pocket quarries is a small, non-historic information kiosk (#17) with a circular access road and a few parking spots. This is the only modern structure within the District. Farther up Coolidge, nestled against the western slope of the gulch, is the Cookhouse (#4), currently used as the University Admissions Office. Two parking lots stretch along the west side of Coolidge between the Barn Theater

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and the Cookhouse. These buildings are connected by a pedestrian path set into the west slope of Jordan Gulch that forms a gentle hillside in this location. The lot immediately north of the barn is compressed dirt, while the lot immediately south of the Cookhouse is paved. The front of the Cookhouse is landscaped with juniper and several large cottonwood trees, which were planted by the University in the 1960s. A third parking lot, surfaced with concrete, fills the space along the west side of Coolidge between the Cookhouse and the Cooperage (# 9), to the north. The dense complex of barns and corrals that one occupied this area historically has disappeared. Behind the cookhouse, on the west rim of Jordan Gulch, the roof of one collapsed worker's cabin is visible. The remainder of the row has vanished. On the opposite side of Coolidge Drive, two small remaining Workers' Cabins (#5, #6) are set high on the edge of the gulch. The collapsed remains of three additional cabins in the same row (#18), surrounded by a low rustic fence, are evident here. Behind the cabins, three large beam and plank barns, heavily modified, represent the complex of barns and outbuildings present historically, in this area. These are located on an expansive paved level area sprinkled with modular facilities that serves as the campus corporation yard. The three barn, and the nearby carriage house, which also still stands, all were substantially remodeled in the 1960s for adaptive reuse and are used for administrative functions. The corporation yard area, although it includes historic structures that once were associated with the Cowell operations, has been excluded from the Historic District in consultation with the Office of Historic Preservation, because none of the buildings in this area retains historic integrity, and there is substantial intrusion among the buildings of infill structures.

At the Cooperage, Coolidge Drive bends gently to the east, following the natural curve of the rolling landscape, with a backdrop of essentially undeveloped, rolling, meadows ascending to redwood forests on the higher hills. The Lime Works are located north of the Cookhouse at the northwest side of Coolidge Drive. The works are comprised of the Cooperage (#9), Lime Kilns (#7 and #8) and Tramway Trestle (#10). The Cooperage, Lime Kilns and Trestle are highly visible landmarks to any visitor entering campus from the south. Set at a bend in the road, at the top of the gulch, the tall, weathered Cooperage and behind it the unusual shapes of the stone kilns, make visitors aware of the site's industrial past. One end of the long Cooperage was removed to accommodate construction of Coolidge Drive, but the remainder of the building clearly exhibits its characteristic features. The adjacent kilns provide an impressive stonework backdrop that is clearly historic and industrial in appearance.

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North of the kilns, a narrow dirt road leaves Coolidge Drive, and runs southwest between the Blacksmith Shop (12) and Hay Barn (11), partly along the former route of the tramway, on the slope behind (north of) the kilns. This area is presently undeveloped. The Blacksmith Shop is used as artist's studios, and the Hay Barn, which is highly deteriorated, for storage. The dirt road will shortly be widened and paved as access for an upcoming housing development on the hill beyond the District. The Blacksmith's Shop and Hay Barn, however, will be preserved. North of the Blacksmith's Shop, the tram route continues up along the west side of Jordan Gulch as a dirt road and bike path. Adjacent to the path is the Powder House (#13), a small stone masonry structure that is used for storage. From this point, the dirt road leads north, out of the Historic District, along Jordan Gulch to the site of Lower Quarry (located some 1,000 feet from the northern boundary of the Historic District), one of the supply sources for the lime works. This quarry is now the site of modular student housing. Another quarry, known as the Upper Quarry, lies about 0.7 miles distant, even farther up the gulch, in the heart of the modern campus. This feature, now known as the Quarry Amphitheater, is used for student gatherings. There are no historic structures in either of these remnant quarries, although there are three isolated lime kilns in the vicinity of the Upper Quarry. These features, recorded as historic archaeological sites, were not included within the boundaries of the Historic District because of their distance and spatial discontinuity from the main activity area.

Residential Cluster

As noted above, the Cowell Lime Works Historic District includes a distinct formal, residential setting, with a small Italianate Ranch House (#15) fronted by a sweeping lawn, a circle of cypress trees, and a curving drive that runs down to a formal wooden entry gate (#14) at High Street. This structure, now used as the campus Women's Center, although it is close to the campus corporation yard is isolated in feeling. A porch that runs the width of the house presents a sweeping southward view across a lawn of the Monterey Bay. The house has been altered by the addition of a wheelchair access ramp at one side, but its appearance is otherwise very similar to photos of the house taken in the late 1800s. The paved corporation yard lies to the northwest of the house, and separates it from the industrial part of the Historic District. Open fields southwest of the house run steeply down to High Street, in the vicinity of the Granary and the Paymaster's House.

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		1870-1880s		
	Non-Contributing Resources			
16	Collapsed Worker's Shack West of the Cookhouse	unknown	Non-Contributing	Building (collapsed)
17	Modern Information Kiosk	1967, remod. 2002	Non-Contributing	Building (modern)
18	Collapsed Worker's cabins East of Jordan Gulch	c. 1860s	Non-Contributing	Building (collapsed)

Individual Descriptions of Contributing Historic District Elements

Historical research did not reveal many written accounts, maps, or historic photographs that provide exact construction dates for many of the contributing elements. A journal in 1861 (Brewer 1861) indicates, however, that the site was fairly well developed by the 1860s; thus a date of c.1860 is assumed, where specific construction dates are lacking. Figure 2 shows the location of each contributing and non-contributing resource.

1. Granary – Building – c. 1860s

The Granary is located to the east of the intersection of Coolidge Drive and High Streets at the campus main entry, immediately adjacent to the Paymaster's House. The two buildings stand at the foot of a moderately steep, grassy slope, with no other buildings close-by, and appear relatively isolated. The Granary building today consists of two perpendicular wings. The original wing of the Granary building is a 24' 8" by 60' 5" rectangular, wood-frame structure on a rubble masonry foundation, oriented with its long axis along the original entry road to the lime works site. The stone foundation walls stand about three feet above the ground level, with the remainder of the walls composed of painted horizontal board siding. It has a wood-shingled gable roof. Originally, there were two openings for sliding barn-type wooden doors on the south facade and one on the west end. The original building also apparently had symmetrically-placed glazed six-over-six, double-hung windows with wood frames and moldings along both long sides and high in each end wall, which are atypical of barn architecture.

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The University extensively remodeled the building in 1985, with the addition of a second wing to house a Child Development Center. A small shed at the northeast corner of the building, and a porch (or possibly former loading dock) at the north side of the building were removed at that time. The second wing is of similar size and scale to the original wing, which extends perpendicular to the east end of the original wing. The addition was designed with a stone rubble foundation and horizontal wood siding to match the original wing, but includes a number of features that are historically inconsistent. Most notably, the gabled roof the addition includes a row of "bubble" type skylights with protruding metal flashing, along a porch overhang along the west side of the addition wing. However, this face of the addition is hidden from most views of the building by the orientation of the main wing and adjacent topography. An original window from the north face of the original wing, displaced by the addition, has been inserted in the east end wall of the original wing. The barn door opening at the west end of the original wing was replaced with a modern single man-door, flanked by modern multiple-light windows. A number of utility pipes enter the building above the top edge of the stone foundation wall on the west end of the building, and are somewhat intrusive, visually.

The masonry foundation walls recently were re-pointed and present a well-maintained appearance, consistent with other examples of historic stonework in the Historic District. This restoration work removed previous examples of poor quality and irregular masonry repairs. In addition, the roofs of both wings recently were replaced with wood shingle roofs. Although the added wing is not wholly consistent with the historic character of the building, the addition does preserve many of the characteristics of the original wing, in particular the line of the stone masonry foundation wall and the horizontal wood siding. The spatial relationship to the original entry road and to the adjacent paymaster's House also has been preserved, and the building thus continues to convey its historic character.

2. Paymaster's House - Building - c. 1860s

The Paymaster's House is located to the east of the intersection of Coolidge Drive and High Streets at the main campus entry, just south of the Granary, at the opposite side of the original entry road to the site and, like the Granary, with its long axis parallel to the road. Because of the building's location and orientation, the east, west and south faces of the building are readily visible from High Street (the southern boundary of the District). The Paymaster's House is a 50'4" by 22' single-story rubble masonry

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building with a wood-shingled gable roof. The masonry walls are 1'8" thick. There are a solid double doors, no longer used, in the center of the south and north facades. These openings, and the windows, originally had stone headers. There is a small window at the eastern end of the south facade, and on the east facade. The north facade has several windows and a man-door, as well as the disused double door. All of the windows, which are multi-paned and inset in the walls, are covered with vertical iron bars.

The University carried out some remodeling and rehabilitation of the building in 1964 for adaptive reuse. All of the stone headers on windows and doors were replaced with concrete headers at that time, and the iron window bars also were replaced. Additional alterations dating to 1964 include installation of a new ceiling, and a concrete slab poured on the northern side of the building. A dumpster and small shed are currently located here. The University subsequently undertook minor exterior remodeling and complete reconfiguration of its interior of the building for adaptive reuse as printing offices for a local press. Exterior alterations included inappropriate patching and pointing of crumbling mortar with modern Portland cement, and replacement of the original doors (which probably were vertical wood plank doors) with historically inappropriate solid wood doors. The building's modern utility lines and boxes (including electrical and telecom conduits and a fire sprinkler) are visually obtrusive and pierce the building walls and gables at both ends.

The building has been determined to be seismically unsound, and has been abandoned to passive storage use. However, a historic grant for seismic retrofit of the building and historic restoration to Secretary of Interior Standards is presently under consideration. Although inappropriate cosmetic repairs have altered the building superficially, its overall historic integrity is good. The thick masonry walls with deeply inset and barred windows present an appearance of solidity that evokes the historic function of the building for storage of payroll and possibly as a store.

3. Horse Barn Theater - Building - c. 1860s

The Horse Barn is located at the northwest corner of Coolidge Drive and High Street with its long side facing Coolidge Drive, where it is the first and most visible historic building at the immediate campus main entry. The building is of post and beam construction with distinctive vertical board and batten exterior siding above partial rubble masonry foundation walls, similar in appearance to the Cookhouse, farther up the hill. The shingled, gabled roof is asymmetrically stepped with a shed-gable extension on

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the western side of the structure. The barn measures approximately 57' 8" by 75' 4." Like many of the buildings at the Lime Works, the Horse Barn was originally whitewashed, but this has worn off over the years. Remnants of white wash are present under the eaves. A non-original set of concrete entry stairs is located at the building's north side, and a modern concrete walkway has been added that extends from this building north to the Cookhouse. This may follow an original pathway through this area, which provided access between workers' cabins on the west rim of Jordan Gulch, the Cookhouse, and this barn.

The building was converted into the Barn Theater for University use in the late 1960s and was extensively modified on the interior at that time, although the exterior was virtually unaltered. Subsequent rehabilitation work in 1991 included replacement of deteriorated exterior wood siding with matching wood siding. When the siding was removed, it was discovered that some of the original mortise and tenon framing in the south end of the building was rotten, and some interior members were replaced with modern framing. The replacement of the original framing resulted in some loss of integrity of interior construction; however, the building retains integrity in exterior appearance and materials. The theater conversion required minimal changes to the exterior of the building and it clearly reads as an historic barn. The structure has been well maintained.

4. Cookhouse - Building - c. 1860s

The Cookhouse stands on the west side of Coolidge Drive, just uphill from the Barn Theater, with its long side parallel with Coolidge Drive. The back of the Cookhouse is set against the eastern slope of a steep hillside, such that the building is two stories at the front and one story at the back. The Cookhouse, now used as the University Admissions Office, measures approximately 25' by 100'. The foundation and basement walls are of thick cobble masonry. The rear wall, against the hill, is three to four feet thick, and the other three walls are nearly two feet thick, tapering upwards for stability. A masonry buttress for the stone wall is visible in the basement, but there historically was no reinforcing within the walls. This type of construction is consistent with a mid-1800s.

When the building was used as a cookhouse, the kitchen was at the southern end of the building on the upper floor. A commercial-size cast iron stove remains in the former kitchen. A man-door at the south end of the building opens to a hillside pathway that leads toward the Horse Barn, and also may have

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provided access to the worker's cabins, on the west rim of Jordan Gulch immediately behind the Cookhouse. A historic photo indicates that an exterior wood staircase to a masonry landing or porch, under a shed roof provided access to the kitchen door at the south end of the building. Historic accounts and photos indicate that there were ancillary structures along the adjacent hillside, and barns, sheds and animal pens along the east side of the Cookhouse, A circular pig feeder constructed of concrete is still present southeast of the entry to the Cookhouse where the pens for farm animals once were located.

The walls at the south end of the cookhouse are cobble masonry like those below, while the walls at the northern end of the building, where the dining hall was located, are drop wood siding. The Cookhouse has a wood-shingled gable roof. There are two wooden vent cupolas toward the northern end of the building and a brick chimney near the southern end, where the cook stove is located. A row of symmetrically-spaced six-over-six, double-hung sash windows run along the upper story of the east façade.

The University renovated the building in 1965 for administrative use. A shed-roofed extension of the main building was constructed at that time in the center of the east (front) façade, to enclose a new interior staircase. Partition walls and a bathroom were also installed at that time, and the wooden exterior stairs were replaced with concrete. The front of the building was landscaped with juniper bushes and a row of poplar trees, and a small parking lot was constructed along the area south of the building that formerly was occupied by animal pens. In 2006, ADA upgrades to improve access to the second floor, a restroom remodel, and re-roofing, and seismic reinforcement of the masonry were carried out. The seismic reinforcement consisted of insertion of rebar into holes drilled in the interior of the walls. The work was conducted consistent with the Secretary of the Interior's standards, and is not now discernable.

The principal modern alteration to the historic appearance of this building is addition of the shed stair-enclosure extension on the east façade of the building which, although it alters the form of the building, matches the material, construction style and roof pitch of the original. The building overall retains its historic configuration, and integrity is generally good. Despite interior alterations, the massive stone walls and exposed beams in the interior still evoke the historic feeling. The presence of the historic cook stove underscores the historic association of the building.

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5 & 6. Workers' Cabins – 2 buildings – c. 1860s

The two standing Workers' Cabins are located on the ridge of the hill across from the Cooperage above Coolidge Drive, along the east rim of Jordan Gulch. There were originally five small cabins in this row, surrounded by a picket fence. All were of box construction with redwood board and batten siding and gabled, wood-shingled roofs. Three of the five cabins have collapsed and are non-contributors to the historic District (#18-site). The two cabins at the north end of the original row, and a portion of the surrounding fence, remain. The roof ridge of the northern cabin (#5) runs north south. This cabin is larger than the adjacent cabin, at 14'-2" by 18'-2", and has a single door in the east façade, a door and a window in the west façade, and a window in each of the end facades. The southern cabin is oriented east west, measures approximately 12' by 14', and has a single door and a window in the west facade. The cabins were built on a slight slope, and their frames are supported on limestone blocks. It appears that there were one or two wooden steps up to each door.

The Workers' Cabins have been vacant for more than fifty years and are in extremely poor repair, although the remaining cabins appear virtually unaltered since their abandonment. Characteristics of the standing structures, which likely were shared by the collapsed structures, include rectangular box construction on wood beam or limestone rock foundations; variable orientation; small size (generally one room); an entry door in one or both long walls or in one end, sometimes flanked by a window and sometimes fronted by a low porch or steps; a pitched, gabled roof; and redwood board and batten single wall construction. The cabin roofs have large holes where shingles have deteriorated or fallen off. A porch originally across the front of the northernmost cabin has been removed or has collapsed. Lichens are visible on the roof shingles and walls. The cabins are in extremely poor condition and in need of stabilization. They nonetheless are contributors to the District as physical representation of the domestic lives of the people who lived and worked on the site.

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7. Joined Pot Kilns - Structure – 1853, possible additions c. 1860s, possibly remodeled c. 1890

Three joined pot kilns are built into the west side of Jordan Gulch immediately north of the Cooperage, just west of Coolidge Drive. The first kiln at the site was built in 1853. It is possible that all three pot kilns at this location were built at this time, although there is some indication in the historic record that they may have been remodeled in the 1890s. The pot kilns consist of three principal chambers with a common front wall. The kilns are lined with firebrick and clad with limestone rubble masonry. The firebricks are stamped with maker marks (such as "Snowball"), which indicate manufacture in England. However, these bricks are not good chronological indicators of the date of manufacture, as over time they became corroded by lime, requiring periodic replacement. Three stone buttresses, each approximately five feet thick, support the front (south) kiln wall. Diagonal redwood log braces also are propped against the front wall. These likely were added later for additional support. Each of the pot kilns has four arched doorways along the base of the front wall, each framed in red brick and fronted by an iron doorframe. Each doorway originally was closed with an iron or steel door. All but one of these doors has disappeared, but one example is present among the materials stored under the adjacent Cooperage. The east pot kiln is partly loaded with limestone, which provides a graphic demonstration of how the fireboxes were created, and their dimensions and relationship to the kiln walls. During the period of operation, there was a shed-type wooden roof over the kiln tops.

The masonry of the kilns is in good condition. Compared to other nearby kilns at Wilder Ranch State Park and at the Fall Creek unit of Henry Cowell Redwoods State Park the kilns at the Cowell Lime Works Historic District retain a great deal of historic material and are in relatively intact condition, although the inside of the upper part of the front wall of the middle pot kiln has collapsed, probably during the 1989 Loma Prieta Earthquake. This is not very noticeable from the exterior. The shed roof has disappeared. In addition, there are a few shrubs with roots extending into the tops of the kiln walls. Overall, however, the kilns have excellent integrity of materials, workmanship and design. The group and kilns and the adjacent Cooperage and rail trestle together provide a clear picture of how the kilns functioned in their setting.

8. Continuous Kiln – Structure - 1861

Immediately adjacent to the east of the pot kilns is a single continuous kiln. This kiln was built in 1861 and there are several accounts of its operation during the 1860s. This continuous vertical-shaft kiln is the

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most interesting and complex of all the kilns that have survived in Santa Cruz County. Unlike the pot kilns, which were loaded, fired and emptied, this kiln was designed to operate continuously. As lime was drawn from the cooling chamber at the base of the kiln, more limestone was added at the top of the shaft. The kiln is square, approximately 20' by 20' at the base, and tapers towards the top. It is finished with stone masonry like the earlier kilns, and the main arched opening, wider than the wood-fired version, is lined with red firebrick, as is the kiln interior. Like the pot kilns, this kiln originally had an iron or steel door, which has disappeared. By the 1870s steel casings began replacing masonry walls for continuous kilns. This kiln is one of the few continuous kilns remaining in California that is built entirely of masonry.

The continuous kiln was originally somewhat taller than it is now. It was supposedly converted to oil around 1900, and some of the alterations may have been made at that time. Two large steel oil tanks were located near the kilns to store the fuel. The University subsequently removed these oil tanks. Like the pot kilns, the continuous kiln retains excellent integrity of material, workmanship, setting and association to the period of significance.

9. Cooperage - Building - c. 1869

The Cooperage is located just west of Coolidge Drive, immediately south of the row of kilns. It was a long, narrow one-story structure raised up a full story on square masonry piers or pillars, which provide a one-story high open area beneath the building. The Cooperage currently measures approximately 28 by 82 feet. The building is of simple heavy timber construction. Its design is similar to that of a covered bridge, with compression arches spanning between the stone piers. The building is clad with redwood board and batten sheathing. The gable roof was originally clad with wood shingles, but these were covered with galvanized metal prior to the University's arrival in the 1960s. There were also small, irregularly-spaced, square windows along both sides of the building that are now boarded over. Designed specifically for the production of barrels used to store lime, the Cooperage has several unique features. It is raised off the ground on piers to make space for storage of barrels filled with lime underneath the building and it originally had wide sliding doors to allow for movement of wood and barrels, probably for loading into wagons pulled under the structure. Similar cooperages are known to have been present at other lime works sites in Santa Cruz County, at San Vicente Creek, Adams Creek, and Fall Creek (all Santa Cruz County) were built this same manner, but none of these remains standing.

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Associated features include a poured-concrete water tank, located south of the Cooperage. This may have been associated with the barrel-making operation. The tank is 19' 6" long and 4' 2" wide. The walls are 7' 10" in thickness. The Water Tank is in good condition. Another feature of interest associated with the Cooperage is the remains of bituminous sandstone pavement that extend under the Cooperage and across the open area between the Cooperage and the adjacent kilns. The produce was quarried on the Santa Cruz north coast. Cowell owned one of the quarries, and shipped vast quantities to San Francisco, for use as street pavement. The Cooperage area is one of the few places in central California where this historic paving types remains. Finally, inside the Cooperage, barrels and tools are still present from the historic era.

The Cooperage was reduced to half its original length in 1964, to accommodate the construction of Coolidge Drive. Two stone piers remain standing close to the road. The end of the truncated building was closed off with redwood siding similar to that on the rest of the structure at that time. These alterations, and deterioration through neglect, have impaired the physical integrity of the Cooperage. It is in very poor condition, and in need of seismic stabilization and general maintenance and preservation. However, this structure and the adjacent kilns are the heart of the Cowell Lime Works, and are the most evocative of the historic period and industry of any of the features on the site. They also are visually prominent to all who travel the entry road into the campus.

10. Tramway Trestle – Structure - 1860

The Tramway Trestle is located immediately northeast of the Continuous Kiln. It runs uphill along the west side of Jordan Gulch, and its north end abuts an elevated limestone berm that originally continued as a narrow-gauge tramway bed that ran north up Jordan Gulch to the Lower Quarry and Upper Quarry, north of the District boundary. The trestle bridge, with limestone supported at each end, supported the tramway over a natural 40'-wide valley. The tramway and trestle were built as a means of transporting limestone from the quarries to the kilns. The face of the east trestle support is 13' x 7' and the face of the west support is 12' x 5'. Space between the limestone supports ranges from 38' 11" on the north side to 41' 8" on the south side. Originally, the tramway turned east at the south end of the trestle to run along the top of the back walls of the kilns, to give ore cars access to the top. A few ties and rail segments can

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still be seen in this area. Spike holes observable in the few remaining ties indicate that the rails were 36" apart.

The trestle's limestone supports are in good condition while the wood members of the trestle are somewhat deteriorated and some have collapsed. Although the physical integrity of the trestle is only fair, the trestle and associated berm contribute to the historic feeling and association of the lime works complex, as they illustrate another element of the operations.

11. Hay Barn - Building - c. 1860s

The Hay Barn is located on the terrace above Jordan Gulch, west of the Cooperage. . It measures 40'-6" by 117'-4" and has a post and beam structure of mortise and tenon construction, with weathered redwood board and batten siding. The barn has a gabled roof, clad with wood shingles along the eastern side, and sheets of corrugated metal on the western side. There are large sliding barn doors at the north and south ends. Inside, the barn is open to the roof. It appears the earlier window openings along the east and west sides of the barn have been infilled with redwood planks to match the siding. Like many of the buildings at the Cowell Ranch, the Hay Barn was originally whitewashed, but this has worn off over the years. Some whitewash is still visible under the eaves.

The barn is in very poor condition due to weather and insect infestation and is not being maintained. One door on the building's southern end has been replaced with a chain link and barbed wire fence. The corrugated metal portion of the roof appears to have been patched extensively, but there are currently several large holes leaving the rafters fully exposed in places. The structure retains integrity of workmanship, but the materials are highly deteriorated and have been repeatedly patched. The integrity of setting is good, and the barn and adjacent blacksmith's shop, do evoke the historic setting of ranch support for the lime works. Overall, integrity is fair.

12. Blacksmith Shop - Building - c. 1860s

The Blacksmith Shop is a wood frame building with a foundation of limestone blocks, that measures 24'-4" by 49'-10. The building is clad with redwood board and batten siding and has a wood-shingled gable roof. There is a raised, gable-roofed vent on the main roof ridgeline. Sliding barn doors are located on the east and west facades, both fixed in a closed position. There are two windows each on the west facade and on the north facade, and one on the east facade -- all are six-over-six, double-hung

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sash. An entry man-door was added on the south façade, probably as part of the adaptive reuse of the building by the University. A small structure with a gable roof on four posts originally abutted the east side of the blacksmith shop, but was removed in the 1960s. An open-air, gable-roofed shelter is now present at the same location, and a six-foot high wooden fence has been extended at this side of the building, to enclose a small outdoor work area. Other alterations include the addition of a paved ADA-accessible walkway that leads to an entry gate in the fence near the northeast corner of the building. The building retains its original rustic character and the alterations have not significantly altered its form, materials or construction. With the Hay Barn, it contributes to the historic feeling and association of the setting of the historic District.

13. Powder House - Building – c. 1860s

The Powder House is located north of the kilns, at the western edge of Jordan Gulch. It is adjacent to the route of the historic tramway line (now vanished) that led to the Lower Quarry. The Powder House is a small, single story building (13'-6" by 15'-8") with thick rubble stone masonry walls. The only opening is a door (not original) on the south facade. The building has a corrugated sheet metal shed roof, angling down towards the north. Whether this matches the original roof is unknown. The building is currently in fair condition, but retains much of its original integrity. Several repairs have been made to the stone walls using Portland cement, an inappropriate material given the original lime mortar, but the building clearly retains its historic industrial appearance.

14. Entry Gate – Structure – c. 1870s, reconstructed 1964

The entry to the Cowell Ranch residential area is separate from the road entry to the industrial operations at the site, as described above. A formal gateway and road lead from High Street up a gentle slope to the front of the family residence. The gate consists of two tall pillars, one on each side of the road, with a white picket fence extending outwards toward a pair of two shorter pillars. The painted wood pillars are square, and each steps out at the top and is surmounted by a small round bollard. They are further ornamented with an elongated quatrefoil relief pattern on the front (south) side. The entry gate was completely reconstructed by the University in 1964 based on historic photos; however, this work was completed sensitively and with in-kind materials, and the restoration is consistent with the Secretary of the Interior's Standards. The current entry way closely resembles the historic appearance. Additional restoration work, also consistent with the Secretary of the Interior's Standards, was carried out in 2002.

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From the gate, the road extends uphill and through a planted circle of trees. The road has been altered over the years. However, much of the mature landscaping in the vicinity dates to Cowell's tenure at the site. There is currently a paved pedestrian road running from High Street that bends around the eastern side of the circle of trees and back toward the Cardiff House. Two narrow parallel dirt tracks break off from this paved path and run straight through the trees to the house. These tracks are likely remnants of the original entry road, and were left by the horse-drawn carriages once used at the site.

A masonry planter located east of the front porch of the Ranch House likely was used as a fountain or pool. It is a ring constructed of rubble masonry with walls 14" thick and is 14' 6" across. It can be seen in a 1956 aerial photograph.

The Ranch House entry and associated landscape contribute to the residential character of this area of the Historic District. They mark the formal entry to the Ranch House and as the rehabilitation work has been completed with in-kind materials, these features retain integrity of design, feeling and association and they contribute to Historic District.

15. Ranch House - Building – 1864, addition c. 1870s-1880s

The Ranch House as it appears at present represents at least two major building episodes. The northern half of the house, a narrow east-west oriented wing, was built in 1864 for Albion Jordan. The original wing was a simple, wood-frame structure of two or three rooms, with a large fireplace in the center of the north wall. The southern half of the house, a second wing along the long south all of the original wing, was probably added sometime during the Cowell family's tenure, between 1865 and 1880. A 1912 photo shows the house in essentially its present configuration. The addition entailed removal of several internal walls, reconfiguration of the original roof, and probably repartitioning of the interior. Later remodeling, before the campus tenure, certainly included installation of modern kitchen and bathroom facilities, and may have also included alterations to the entryway and porch. A Cowell Ranch foreman occupied the house until at least 1960.

The Ranch House is a one-story, Italianate style house is roughly rectangular in plan and the roof has two parallel side-gables. Across the length of the front (south) facade is a porch, covered by a flat roof that extends from the base of the main roof. The porch roof is supported by a row of square columns with

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arched brackets. The rear portion of the house is somewhat longer on the western end than the front. An entrance, slightly altered from the original, is near the center of the rear facade. The house is clad with horizontal drop joint wood siding. On the south (front) side, there are two entry doors, one at the western corner, and the other toward the eastern end, reached by steps near one end of the porch. Windows are six-over-six, double-hung, wood sash, with coursed, projecting headers. Despite the formal style, the house is curiously asymmetrical, with the two wings joined along their long faces but set off from one another, and the entryway steps and front door set at one side for the otherwise quite formal front porch. The house is surprisingly small in size as the residence of a major industrialist and his large family and servants.

The building has been adaptively remodeled by the University, first in the late 1960s for use as a Provost Residence and later the UCSC Women's Center. Remodeling has included additional partitioning, removal of one interior partition and fireplace (which had been damaged by an earthquake), modernization of the kitchen and bathroom, and addition of a wheelchair ramp at the west facade of the house, a large attached storage box at the northeast corner, and a brick patio at the rear.

Overall, the house has been maintained and is in good physical condition, although the multiple remodeling campaigns have affected the integrity of the interior of the building. However, aside from the added wheelchair ramp, and the removal of one or more original chimneys and decorative balustrade around the porch roof, the exterior of the house shows minimal change from historic photographs. With the associated landscaping and entry road, the Ranch House in its setting is remarkably evocative of rural residence at the turn of the 20th century, and provides an interesting contrast with the industrial features of the rest of the site. In this, the property retains excellent integrity of feeling and association, as well as good to excellent integrity of design, materials, construction, setting and location.

Individual Descriptions of Non-Contributing Elements

The following structures and features do not retain enough integrity to be contributors to the Historic District. Additionally, the modern features within the District boundary are non-contributing.

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16. Worker's Cabins West (collapsed) - Site

This resource consists of the collapsed remains of a single workers' cabin, located on the west rim of Jordan Gulch, above and behind the Cookhouse. It is the sole remnant of a row of cabins seen in historic photos at this location. The building, now collapsed, was originally 10' 3" square, of box construction on limestone block foundation, with redwood board and batten siding. It had a wood-shingled gable roof. The interior was finished with wood lath and whitewashed cloth. Previous surveys (prior to the building's collapse in the 1990s) indicate that it was divided down the center for use as a duplex, each side having a separate door, window, and stovepipe. Cut nails found in the building indicate a pre-1900 construction date. A small outhouse, also collapsed, is located 50 yards south of the cabin.

17. Modern Entry Kiosk

The University's main entry visitor's kiosk is located at the east side of Coolidge drive opposite the Cookhouse, in a small "bay" formed by an old pocket quarry. The bay has been paved to provide vehicle access and short term parking for a few cars. A small wood frame information kiosk was built at this location in 1967, and extensively remodeled in 2002. The building is square in plan, with a wood-shingled gabled roof, and windows on all four sides. It is not a contributor to the historic District. It is the only modern building within the District. Because of its small size, however, it is not a significantly intrusive presence in the District.

18. Workers' Cabins East - Site

As noted above (under items 5 and 6), historic photos indicate that there was once a row of workers' cabins along the east rim of Jordan Gulch, opposite the Cooperage. Two of these collapsed due to natural deterioration, while a runaway truck demolished the other in 2006. Because there are no standing remains, the site does not contribute to the Historic District. The two remaining standing cabins (#4 and #6, above), however, are considered to be contributors.

HISTORIC DISTRICT INTEGRITY

In general, the Cowell Lime Works Historic District retains a moderate level of historic integrity. Overall, the industrial features directly relating to lime production at the southwestern portion of the

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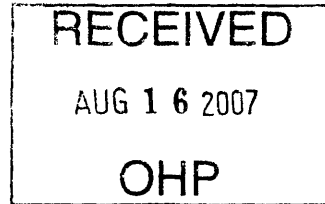
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Historic District retain the highest level of integrity. While construction of Coolidge Drive by the University in the early 1960s somewhat altered the circulation patterns through the site, directly damaged the cooperage, and altered the setting by the intrusion of a wide paved road through the Historic District, the buildings and structures continue to convey their original use and historic associations. Further, Coolidge Drive essentially follows the historic lime road route. The eastern portion of the Cooperage building was removed to accommodate the construction of Coolidge Drive. Although the Cooperage has been altered and is in poor condition, its close proximity to the other lime production structures including the lime kilns elevates its level of overall integrity as its has strong associative qualities. In addition, physical proximity of the Cooperage, lime kilns tramway trestle provides a clear picture of the actual industrial processing that took place during the period of significance.

Similarly, while the Cookhouse and Barn Theater have both been remodeled and adaptively reused by the University, they retain their overall integrity. The Lime Kilns, Powder House and Blacksmith Shop retain good levels of integrity to the period of significance with only moderate deterioration or alterations. With the exception of the paved Coolidge Drive and the formal landscaping introduced in front of the Cookhouse, no major intrusions have occurred within this important area of the Historic District. The Cooperage and adjacent lime production related resources retain a strong sense of time and place.

The Ranch House, Entry Gate, and Landscaping retain a high degree of integrity when viewed as a group. This grouping of residential-related resources retains the integrity of location, design, workmanship, materials, feeling, and association necessary to be considered historic District contributors. While the Entry Gate and Fence are not original to the historic period, their reconstruction by the University in 1964 is highly consistent with the original appearance and materials of these features. The Ranch House and adjacent landscape features retain a strong sense of time and place.

The Cowell Lime Works Historic District is recognizably identifiable when compared to its known historic appearance. Although many changes have occurred, the Lime Works would be recognizable to those who lived and worked here during the period of significance.



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SUMMARY OF SIGNIFICANCE

The Cowell Lime Works Historic District is significant under National Register Criterion A, properties that have made a significant contribution to a broad pattern of history, at the local level, within the context of industry, specifically the quarrying of limestone and manufacturing of lime as it developed in Santa Cruz County, California. The period of significance extends from 1853, when the first kiln was built at the site, to 1920, when the kilns at the site ceased operation. The lime mortar developed at these facilities contributed to the building industry not only in Santa Cruz County, but throughout California. In 1881, more than half of all the lime made in California originated in Santa Cruz County. The Lime Works was an important component of the county's industrial economy, employing a large number of workers. With six kilns operating, Henry Cowell, and his business partner at the time, Isaac Davis, was the largest manufacturer of lime in the county. The Historic District includes structures, buildings and features that represent the full range of activities conducted at the site during the period of significance, and in this respect is the most complete lime works complex of any in Santa Cruz County.

CRITERION A: AREA OF SIGNIFICANCE, INDUSTRY

Lime in California: Background

The Spanish were the first to manufacture lime in California, and it was used at all of the California Missions, including Santa Cruz. Lime was used in masonry construction, to process corn for food, and to make animal hides into leather. The Mission kilns, however, were small and not intended for commercial use.

California's population exploded during the Gold Rush. Towns grew quickly, creating a huge demand for lime mortar and plaster for construction of both commercial and residential buildings. At first, lime was imported to California around Cape Horn from the East Coast. It was expensive, and frequently spoiled during the long trip through exposure to moisture. In the face of increased demand, and with the necessary raw materials locally available, a number of young entrepreneurs established commercial lime-making operations in California, mostly in the Sierra foothills and San Francisco Bay region.

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Lime was the primary ingredient in mortar and consequently was essential for erecting brick and stone buildings, fireplaces, chimneys, and foundations. California's cities and towns depended on lime and their construction would not have been possible without this essential building material. Lime was also utilized to make plaster to coat the interior walls of both masonry and wood-frame buildings. Lime stucco was used to finish exterior walls. Although most lime was for construction, lime was also used in the tanning industry (to remove hair from the hides), in paper making (to dissolve non-cellulose constituents of the ingredients), for refining sugar (to remove impurities), and as a flux for steel manufacturing. Lime from Santa Cruz was used in all these ways (Perry, et al, 2007, p. 4). For some purposes, the limestone was used in natural form without being converted to lime. An 1889 newspaper noted, "Lime rock in large quantities is being shipped from Davis & Cowell's quarries to Whittier, Fullers & Co.'s smelting works at Melrose, near Oakland" (*Santa Cruz Surf*, January 5, 1889).

The Davis & Jordan Period (1853 to 1865)

Isaac E. Davis and Albion P. Jordan began producing lime near Palo Alto in Santa Clara County in 1851. In 1853 they moved their operation to Santa Cruz County to the present-day site of the Cowell Lime Works Historic District (Perry et al., 2007, p. 64). This site was ideal in that it had high quality limestone, wood to fuel the kilns (which converted the limestone into lime), and was near a sheltered landing where the lime could be loaded onto ships bound for San Francisco and other ports along the California coast. Although there were other smaller lime companies in Santa Cruz County in the 1850s, Davis and Jordan were the first to manufacture lime on a large scale, and they rapidly established themselves as the largest lime producer in the county and in the state. During the year 1854 the firm produced 35,000 of the 50,000 barrels of lime manufactured in Santa Cruz County (*Monterey Sentinel*, June 23, 1855).

From the beginning, Davis and Jordan designed a largely self-sufficient operation. The lime works site was located in Santa Cruz to take advantage of limestone at relatively accessible quarries, and the adjacent redwood forest where redwood lumber could easily be obtained for fuel. Davis and Jordan built kilns and an adjacent barrel factory (cooperage) at the mouth of Jordan Gulch (which presumably was named for Albion Jordan). Specially designed wagons—some capable of hauling twenty tons in a single

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load—hailed the barrels of lime to the company wharf at the Santa Cruz harbor on Monterey Bay, where they were loaded onto the company ship (*Pacific Sentinel*, July 24, 1858). Davis and Jordan had their own vessel, the *Santa Cruz*, custom built in the East. It was one of the first propeller-driven steamers in California (*Indexes to Certificates of Registration and Enrollment . . . 1850-1877*). They raised their own cattle near the kiln site, and had their own ox teams for pulling wagons of rock, cordwood, and lime (Brewer, 1966, p. 153). Presumably some of the many barns on the site were developed to house the draft animals and their feed. Around the industrial complex, Davis and Jordan, and in the next decade Henry Cowell, began to build a large, self-sufficient enterprise that included all the facilities needed to obtain, process and package the kiln and transport it to be shipped; support facilities to shelter and feed draft animals; housing and a cookhouse for the workers; administrative buildings; and the owner's house and grounds. Examples of all these features survive in the District.

In 1860, the firm built a tramway with horse-drawn ore cars to haul limestone and cordwood down Jordan Gulch to the kilns (*Pacific Sentinel*, June 2, 1860). Later, other nearby companies built similar tramways, but Davis and Jordan's tramway was the first of its kind. The route can still be seen at the site, and the berm and trestle are still present, adjacent to the kilns.

The road through the lime works (roughly the route of the modern Coolidge Drive) was established very early on and was distinct from the drive to the family residence on the hill to the east. From the kilns, the road headed south to Bay Street (called Lime Kiln Road in the 1850s and 1860s). The road also extended east from the kilns, connecting Davis & Jordan's lime works with their sawmill at Rincon (*Pacific Sentinel*, February 21, 1861).

The Davis & Cowell Period (1865 to 1888)

In July 1865, Jordan sold his half interest in the company to Henry Cowell of San Francisco (Santa Cruz County Deeds, v. 7, pp. 535 and 537). A native of Wrentham, Massachusetts, Cowell had traveled to California in 1849 with hopes of finding gold. Instead, Cowell began a successful warehouse and drayage (hauling) business that expanded quickly to include routes to the gold country. After investing in the Davis and Jordan Lime Company, Cowell relocated his family to Santa Cruz, residing in the house

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constructed on the site by Jordan in 1864. The entire Cowell family lived at the site until 1879, when they moved back to San Francisco, returning to Santa Cruz only periodically thereafter.

Cowell's involvement in Davis and Jordan's lime business dated back to the 1850s when he owned an interest in one of the ships used to haul the lime to San Francisco. Cowell also loaned Davis and Jordan considerable capital.

Throughout its years of operation, the firm of Davis and Cowell was the largest lime manufacturer in Santa Cruz County. The importance of Santa Cruz lime during this period was summarized in a contemporary article in the *Santa Cruz County Times* (reprint of article from *S. F. Times*, November 14, 1868). The author noted:

Every barrel of lime that comes into this port [San Francisco] is burned at the kilns of Santa Cruz. . . . From 120,000 to 130,000 barrels are landed here annually. San Francisco is the distributing point of the article . . . and it is also exported, mainly to the Sandwich Islands [Hawaii] Santa Cruz lime is unquestionably equal to the best in the world. None that has ever been imported here can compare with it.

During the Davis & Cowell years, and later when the lime works was in the sole possession of Cowell, many of the lime workers lived in small cabins near the kilns. Examination of census records from 1860 to 1930 shows that the majority were recent immigrants from Ireland, Switzerland, Portugal (primarily the Azores), and Italy. By the early 1900s, Portuguese and Italians predominated (Perry et al., pp. 129-131). These workers had a variety of duties. There were blasters who set the explosives at the quarries, quarrymen who broke up the rock, archers who loaded the kilns, firemen who stoked the fires, coopers who made barrels, cooks who provided meals for the workers, teamsters who drove the wagons of lime to the wharf, a wharfinger to operate the wharf, and captains and crews to sail the company ships. Remains of two of the worker's cabins still stand today in the Historic District, and archaeological remnants of several others are still present.

Davis and Cowell expanded their business in 1868 with the purchase of the Samuel Adams Lime Works on Adams Creek, which is now part of nearby Wilder Ranch State Park (Santa Cruz County Deeds, v.

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11, p. 323). This site was later known as Cowell's upper kilns, while the ones at UCSC became known as Cowell's lower kilns. As the supply of nearby cordwood to supply the kilns dwindled, Davis and Cowell purchased timberland for fuel as far north as what is now Big Basin Redwoods State Park.

In 1881, more than half of all the lime made in California was from Santa Cruz County (Hittell, 1882, p. 524). With six kilns operating (the upper and lower works), Davis and Cowell remained the largest manufacturer. In the 1880s the firm shipped lime not only to San Francisco, but also to Southern California. "The freight steamer *Santa Cruz*, Leedham commanding, was in port on Sunday morning on her way to Los Angeles. She took on board the following freight: 600 barrels lime from Davis & Cowell. . ." (*Santa Cruz Surf*, February 1, 1887).

In 1883 Davis and Cowell shipped supplies to the builders of Lick Observatory on Mt. Hamilton (*Santa Cruz Sentinel*, May 19, 1883). When completed, this observatory housed what was then the world's largest telescope.

The Cowell Period (1889 to 1920)

After the death of his business partner, Isaac Davis, in 1888, Henry Cowell acquired full ownership of the company, renaming it Henry Cowell & Company. In 1898 the name was changed again to the Henry Cowell Lime and Cement Company (Articles of Incorporation, Santa Cruz County, Corporation No. 297). Cowell eventually bought the I.X.L. Lime Works near Felton in Santa Cruz County and also lime manufacturing plants in San Benito, Monterey, and El Dorado Counties.

Henry Cowell dominated the masonry supply business in Northern California during the late 1800s. When he died in 1903 he owned property in twenty-three California counties. Besides lime manufacturing plants, he also owned dairies, raised goats and beef cattle, and was involved in banking, real estate, shipping, and warehousing. He also had financial interests in a railroad and hotel. Cowell quarried bituminous rock near Santa Cruz for use as street pavement in San Francisco and also was a dealer in tan oak bark and firebricks (Francis, 1896).

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In 1896, Cowell employed 175 men in his Santa Cruz quarrying and lime-making operations and shipped an average of fifty tons of freight per day from the company wharf, which was also used for general merchandise. The industry had a major impact on the local community, pumping an estimated \$100,000 per year (the equivalent of \$2.3 million today) into the economy. Cowell maintained 75 horses and mules and 100 oxen for hauling rock, cordwood, and lime (Francis, 1896). Many of the ranch activities were related to lime making. An account from 1897, for example, mentions a large flock of angora goats (*Santa Cruz Surf*, January 27, 1897). Cowell sold goat hair, presumably from these goats, which was used as a binder to reinforce plaster.

After Henry Cowell died, his children, Ernest, Harry, Isabella, and Helen, inherited his business and continued to operate the kilns at the UC Santa Cruz site. Ernest, and later Harry, was in charge of company operations. In 1907, the Henry Cowell Lime & Cement Company began construction of a lime works just north of Santa Cruz at Rincon (*Mountain Echo*, March 9, 1907). The Rincon plant had kilns of a more modern design, and it was adjacent to the Southern Pacific Railroad Line, making it easy to ship lime by railroad and to receive rail shipments of fuel oil. Because of the increasing scarcity of cordwood, the new kilns at Rincon were designed to run on oil. Limestone was transported from what is now the UCSC Upper Quarry for processing at Rincon until that operation was closed in 1946 (*Santa Cruz Sentinel-News*, Sept. 1, 1946).

The kilns within what is now the Cowell Lime Works Historic District continued to be used, however, until about 1920 (California State Mining Bureau, 1921, p. 238), although shipment by sea ceased around 1908 (Perry et al., 2007, p. 185). During their last years of operation, lime from the UC Santa Cruz kilns was shipped exclusively from the railroad station at Rincon (Wolff, 1972, p. 15).

During the early 1900s, Portland cement began replacing lime in construction. Portland cement came to be preferred as a building material because it made a stronger mortar or could also be mixed with aggregate to form concrete. By the 1920s, lime manufacturing began to decline. During World War II drywall began to replace lime plaster for interior walls.

The Cowell Lime Works Historic District represents a once critical industry that has largely disappeared from California. Today, most quicklime is manufactured in other parts of the United States where it is

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ACREAGE OF PROPERTY

The Cowell Lime Works Historic District is approximately 30 acres.

UTM REFERENCES

	Zone	Easting	Northing
1	10	584228E	4093112N
2	10	584365E	4093163N
3	10	584441E	4092957N
4	10	584327E	4092759N
5	10	584530E	4092858N
6	10	584614E	4092594N
7	10	584228E	4092579N
8	10	584170E	4092882N

BOUNDARY DEFINITION

The boundary of the Cowell Lime Works Historic District is shown as a dashed line on the accompanying map (Map 2), entitled Cowell Lime Works Historic District Contributors and Non-Contributors.

BOUNDARY JUSTIFICATION

Previous studies have identified a boundary for the Historic District that was somewhat arbitrary. The UCSC 1988 Long Range Development Plan identifies the "Historic Area" as an overlay district that encompasses two land use designations, Protected Landscape and Campus and Community Support. Further, a formal determination of eligibility pursuant to Section 106 was undertaken in 1998. On January 16, 2002 the State Historic Preservation Office visited the site and proposed a smaller boundary than previously identified. This smaller boundary is reflected in this Historic District documentation.

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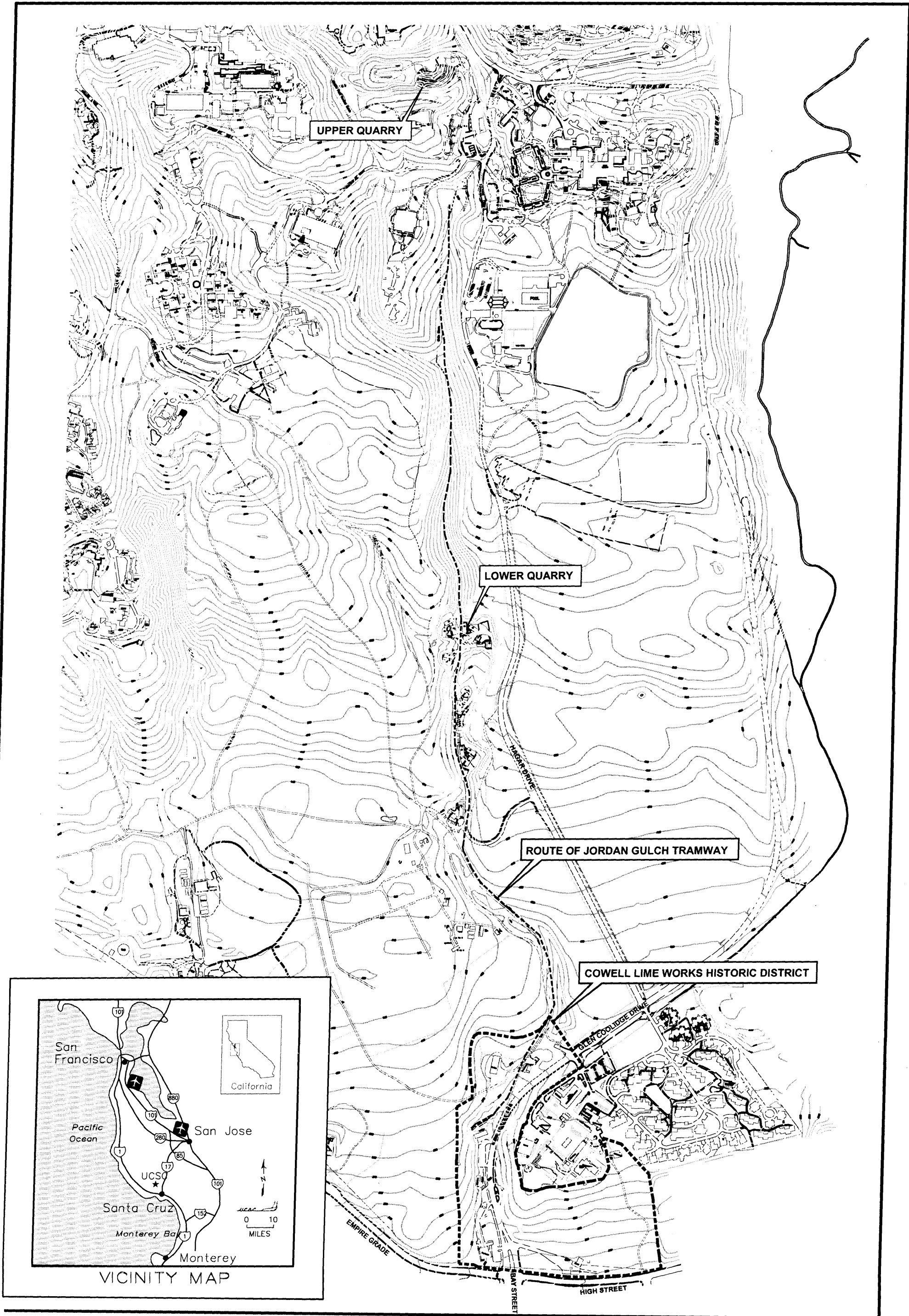
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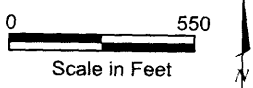
The Historic District boundary has been defined to include the Ranch House and associated landscape, the two remaining Workers' Cabins, as well as the Lime Works related buildings, structures, and open landscapes on either side of the campus's main entrance including the Granary and Paymaster's House, the Cooperage and Lime Kilns, the Horse Barn, and the Cookhouse and Blacksmith's Shop. The southern district boundary follows the limits of the current University campus, which coincide with the historic southern edge of the lime production facilities. The proposed boundaries enclose a concentration of buildings and landscape features relating to the Lime Works still extant on the campus and delineate an identifiable and continuous grouping of historic resources.

While change has occurred within the district, the proposed boundary reflects the clusters of historic resources, the historical uses of the site, the spatial organization, response to the natural environment, and the circulation networks established during the period of significance. The area within the proposed district boundaries represents the "significant concentration" of related natural and man-made historic resources that define the Cowell Lime Works Historic District.



Map 1: Location of Cowell Lime Works Historic District and Related Historic Features, UC Santa Cruz Campus

Santa Cruz County, CA

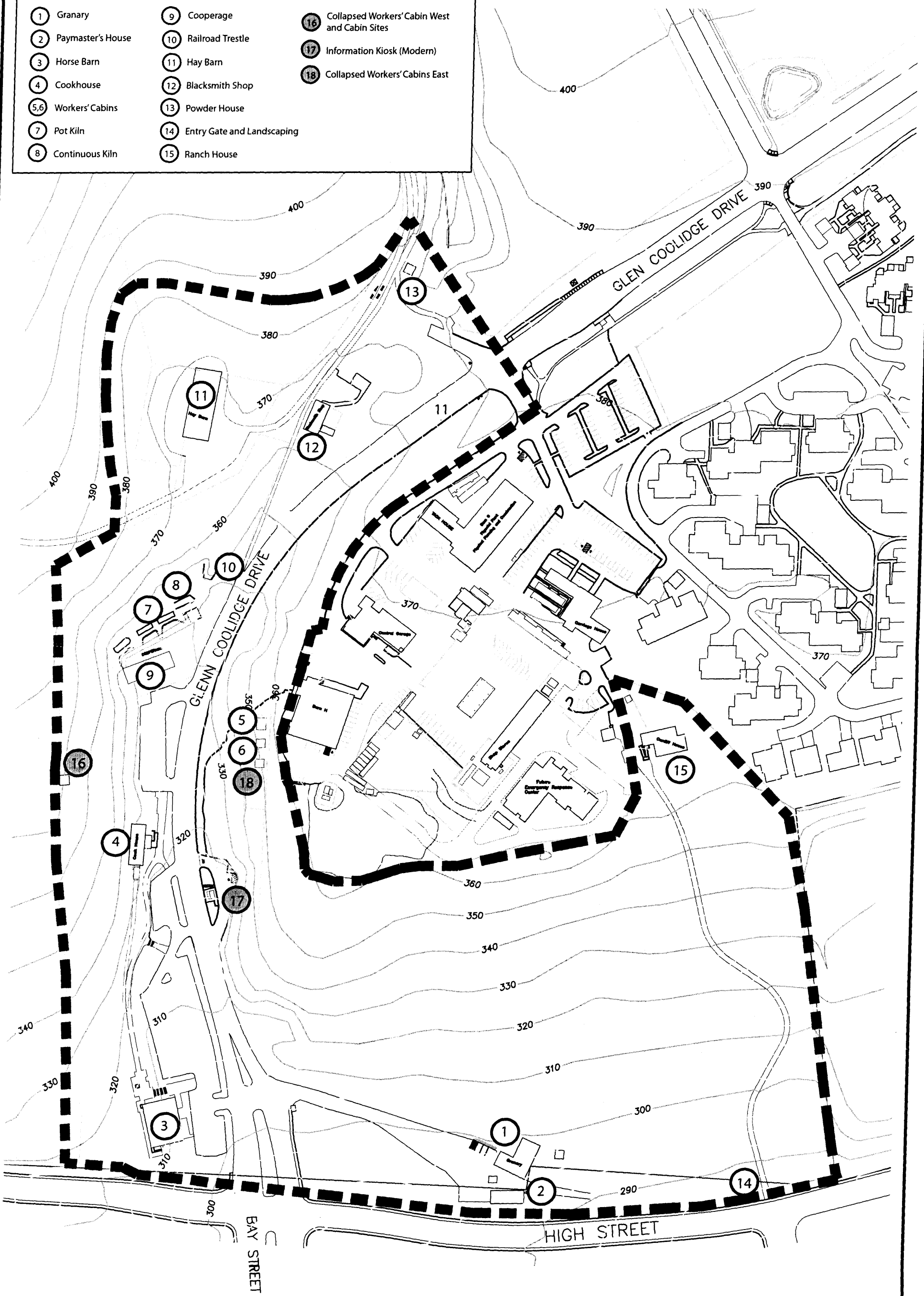


Contributing Resources

- ① Granary
- ② Paymaster's House
- ③ Horse Barn
- ④ Cookhouse
- ⑤,⑥ Workers' Cabins
- ⑦ Pot Kiln
- ⑧ Continuous Kiln
- ⑨ Cooperage
- ⑩ Railroad Trestle
- ⑪ Hay Barn
- ⑫ Blacksmith Shop
- ⑬ Powder House
- ⑭ Entry Gate and Landscaping
- ⑮ Ranch House

Non-Contributing Resources

- ⑰ Collapsed Workers' Cabin West and Cabin Sites
- ⑱ Information Kiosk (Modern)
- ⑲ Collapsed Workers' Cabins East



Map 2: Cowell Lime Works Historic District with Contributing and Non-Contributing Features

Santa Cruz County, CA



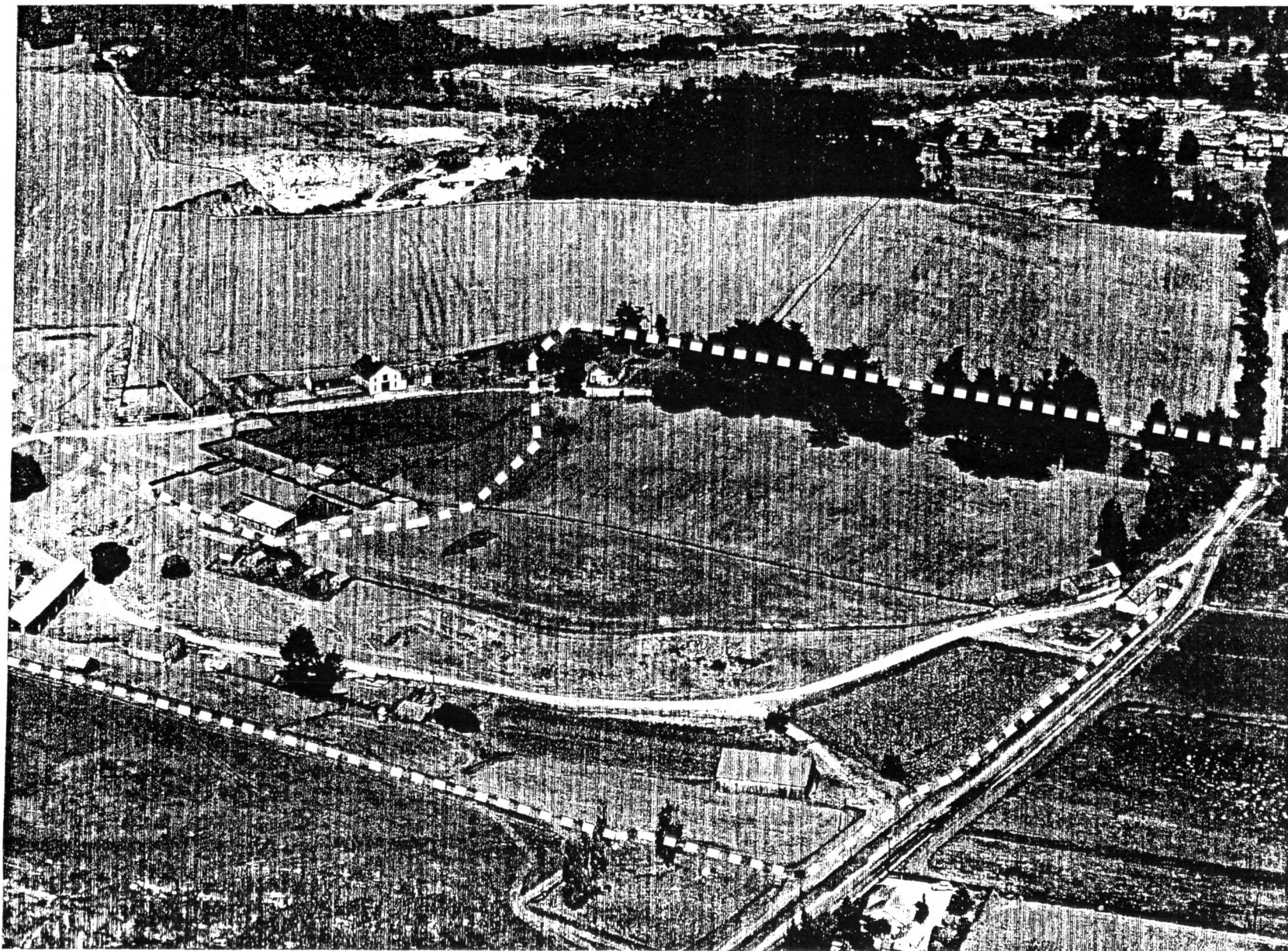


Figure 3: Overview of a Portion of Cowell Lime Works Historic District, 1956

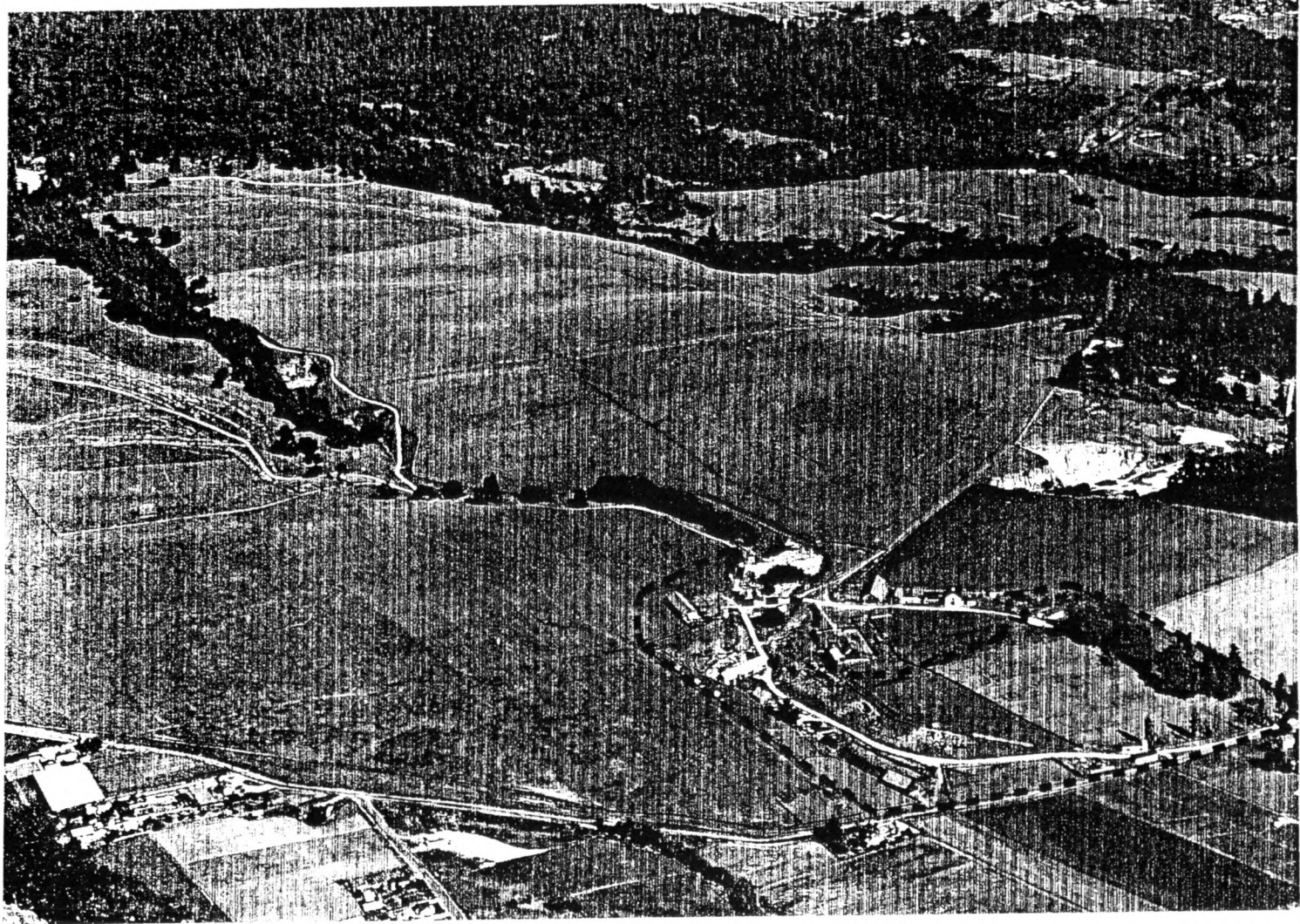


Figure 4: Overview of Cowell Lime Works Historic District, 1956