

# Oregon Caves

## Historic Structures Report



## Oregon Caves Chateau

**Oregon Caves Chateau**  
Oregon Caves National Monument  
**Historic Structure Report**



by  
**Alex McMurry**

A Terminal Project  
Historic Preservation Program  
School of Architecture and Allied Arts  
University of Oregon

June 1999

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## PREFACE

This Historic Structure Report was completed as partial fulfillment of the requirements for the Master of Science in Historic Preservation at the University of Oregon. It represents an individual effort by the author as a student project. It is hoped that this report will serve the National Park Service and concessionaire at the Oregon Caves National Monument as a reference guide for the treatment of the historic Chateau, a National Historic Landmark, and other similar buildings on the Monument.

Certain issues were not covered in the report, as they were beyond the scope of responsibility. Seismic, life safety, and ADA accessibility concerns are not addressed in the report, as they require the assistance of a professional in those fields. Structural system observations are made, but a professional must be consulted in this area. Cost estimates for the work are also not provided, as they are dependent on performance of the work and where materials and supplies are obtained. Two other issues, lead paint and weatherization, are also not specifically covered but deserve attention. Lead paint may be encountered when the exterior paint work is done on the valleys and painted wood elements such as the windows. The paint should be tested before work begins, and appropriate containment measures taken to reduce the threat to both workers and the surrounding environment. The Chateau has not seen the installation of storm windows and insulation in its exterior walls. These elements, especially the storm windows, constitute a threat to the historic character and materials of the Chateau. These items should not be installed in order to preserve the character and fabric of the building. This will result in additional heating costs, but will better pre serve the Chateau.

The concessionaire is referred to in this report as the Oregon Caves Company (OCC). The original company was named the Oregon Caves Resort, and the name was changed to the OCC in 1953. The holdings of the Oregon Caves Company were transferred to the Canteen Company of Oregon in 1977, which was renamed the Estey Corporation in 1988. For ease of reference, Oregon Caves Company refers to all of the above mentioned corporations, as the concessions have had some continuity of management since the original organization of the Oregon Caves Resort in 1923.

The floor numbering system is taken from the 1989 Historic American Buildings Survey drawings of the Chateau. These drawings are included in [Appendix A](#). The individual room numbers used in the report are the numbers posted on the entrances to the rooms, and are marked on these drawings as well. References to the cardinal directions are problematic in this building, as it is a modified "U" shape. Throughout this report, the directions used refer to the wall or direction that is closest in orientation to the cardinal direction described. For example, the wall of the structure that lies next to lies next to the road on the northern side of the building is called the north wall, even though it does not face directly north.

It should also be mentioned that all work recommended in this report should adhere to the Secretary of the Interior's Standards for Preservation. These standards are included as [Appendix B](#). The Secretary's Standards for Restoration are also included in this appendix.

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## ACKNOWLEDGEMENTS

The work presented here has been supported by a variety of individuals over the past months. I would especially like to thank Steve Mark, Historian for the National Park Service at Crater Lake National Park, for his assistance in locating records and source documents for the Chateau. Without his help, the task of acquiring historic documents would have been extremely cumbersome. At the Oregon Caves National Monument, Bruce Schilliger of the Estey Corporation was a great help, providing unlimited access to the building and alerting me to both past and current problems with the building. My gratitude also goes out to the NPS staff at the Monument for encouraging me in this endeavor.

I would also like to take this opportunity to thank my colleagues at the University of Oregon for providing moral support. My committee members, Don Peting, Fred Walters, Steve Mark, and Vicki Jacobson, also deserve recognition for pushing me to produce a quality work, for their input, and guidance.

Last, but definitely not least, I extend my gratitude to my fiancée, Theresa Frink. Without her support and inspiration, not to mention her patience, my work here at the University of Oregon would not have been possible. Many thanks, buddy.

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## EXECUTIVE SUMMARY

### Completed Research

The purpose of this Historic Structure Report is to provide an effective tool for the management of the Chateau at the Oregon Caves National Monument. Three primary sources served the archival research, including the National Park Service's history files at Crater Lake National Park, the correspondence and history files of the concessionaire at the Oregon Caves National Monument, and the University of Oregon's library system. The primary sources used in this document are located at Crater Lake National Park and in the concessionaire's files. Limited original drawings of the building exist in the NPS files at the Monument, and served as secondary sources along with the University of Oregon's library materials.

### Assessment Procedure

The second aspect of the report, the assessment and recommendations for treatment, were a field-based component of the research. An on-site evaluation of the Chateau was completed over a two-week time period, in which the building was assessed on a system by system basis.

The assessment was completed in three phases. The first phase was a room by room evaluation of the Chateau at the interior, followed by a system by system evaluation of the exterior. At this point it was realized that the problems noted in the assessment are typical throughout each system or component within the building, and the assessment is presented systematically to reflect this condition. The systematic recordation of the assessment was the second phase, and led to the third phase of the procedure, the recommendations within this report. A return trip to the site was required for verification of certain issues, after the assessment was drafted. This third phase also coincided with the photography contained in the report, as the critical problematic elements were recorded photographically.

### Major Assessment Findings

The Chateau, at the time of this writing, is 65 years old. Many of the problems noted in the assessment are the result of both the aging of the building and the local climatic conditions. However, the building has some specific problems resulting from deferred maintenance and unexpected natural events (i.e. the 1964 flood). It must be realized that routine maintenance and the timely repair of building elements is the best approach to the preservation of the Chateau.

The exterior treatment issues should be addressed first to guard against water infiltration and damage to building elements. These issues are, in priority order:

- The roof is in need of replacement, and this work should be completed before the system begins to leak. This work must be done within the next five years, but should be completed as soon as possible.
- The vegetation and drainage issues must also be addressed immediately to prevent the decay of the historic cedar bark siding, a character defining feature of the National Historic Landmark Chateau.
- Exterior window work, including glazing and painting, should also be done immediately to preserve the historic wood windows that serve as the link between the interior spaces and the outside natural world.

While this exterior work is accomplished, the monitoring of the building should begin. This includes monitoring the horizontal deformation in the building's north wing, and the cracking in the north wall of the boiler room. An appropriate course of action can only be decided once these issues are monitored and it is discovered how exactly the building is behaving.

After the major exterior issues are addressed, the interior work can begin. These issues, in priority order, are:

- A decision on the treatment of the interior fiberboard finishes must be reached by the concessionaire, the National Park Service, and the State Historic Preservation office. The course of action will determine how the majority of the interior finishes are treated, and will serve to protect the historic wall and ceiling finishes.
- The work on the interior of the windows is also a high interior priority, including the refinishing and repair of the windows.
- The balance of the interior work can be completed as time and money permit, but routine maintenance on all systems should be performed to prevent major work at a later date.

A final note is required on the Chateau's furnishings. While the individual pieces were not assessed for damage or required work in this report, the furniture should not be ignored or improperly replaced. Keeping the furniture in good condition and retaining it within the building is critical to the atmosphere of the Chateau, as much of the extant furniture in the lobby and guest rooms is original. An Historic Furnishings Report should be developed by the NPS, including recommendations for treatment of the furniture. This is outside the scope of this report, but it is important to conserve the historic furnishings, including the hand-colored Kiser photographs in the lobby and dining room.

The recommendations made within this report are intended to protect the Chateau from further decay, preserving it for future generations. Preservation of the building is the focus of the report, and all work must adhere to the Secretary of the Interior's Standards for Preservation. Consultants or contractors hired to work on the structure should be knowledgeable of, and adhere to, these standards.

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## PART I

### Site and Building History

#### Developmental History — Pre-Oregon Caves Company

The Oregon Caves have served as a popular attraction in southern Oregon since the 1870s. The first recorded cave entry was in 1874, when Elijah Davidson discovered the caves on a hunting trip. There are differing accounts of the discovery, but mostly in the finer details of the discovery. In the fall of 1874, Davidson had just killed a deer when his dog Bruno picked up a scent. Davidson instructed Bruno to follow the scent, and the dog raced up the hill and disappeared into a dark hole in the side of the mountain. Davidson heard the sounds of a fight within the cave, and in order to save his dog he entered the cave. He used matches to light his way initially, but soon ran out of light. He followed the stream out of the cave, and shortly thereafter his dog emerged from the cave.

Davidson returned to the cave with the deer carcass and hung it outside the cave entrance. This lured a bear from the cave, and when Davidson returned a short while later the bear had eaten the deer and was sleeping nearby, where Davidson shot it. The killing of the bear, especially the timing, is the main discrepancy between different accounts of the story. The location of the bear when shot is also disputed.

After killing the bear, Davidson and members of his hunting party returned to explore the cave, using pine torches and matches. Davidson returned to the cave over the next few years many times, bringing small groups of family and friends with him. In early trips, stalactites were broken off to mark the route out of the cave. By 1877, exploration parties were using rope or lengths of string to mark the trail out of the cave. [1] 1877 also marked the discovery of the 110' exit. [2]

By 1880, news of the cave had spread throughout the Illinois valley. In that year two brothers, Homer and Ernest Harkness, took a squatter's claim at the main entrance to the caves. Exploration of the cave continued, and development around the mouth of the cave began. The caves were publicized in the *Grants Pass Courier* by Homer Harkness and Walter Burch in 1885, advertising that there was camping, good pasture, and "medicinal" waters at the cave. Harkness and Burch, from Leland, filed a mineral claim on the 160 acres surrounding the cave on May 19, 1885. Their intent was to construct a "trail or waggon [sic] road to said caves in the near future." [3] They were unable to acquire the land, however, because the land was unsurveyed. Burch later sued the Oregon Caves Company over the claim, insisting that his claim was valid under the Timber and Stone Act of 1878 (20 Stat. 89). However, a state judge dismissed the suit in 1925 in Josephine County Circuit Court because the Act of 1878 required that the land be surveyed.



Main entrance to the Oregon Caves.

Local entrepreneurs continued to develop the cave by removing formations that blocked passages. Work continued on developing trails to the cave, drawing more visitors. Advertising by W.G. Steel in his book *The Mountains of Oregon* and an expedition organized by the San Francisco *Examiner*, in 1889 and 1891, respectively, broadened interest in the cave. The *Examiner* expedition aroused interest in developing the cave as a resort, and the first proposal for a hotel at the site was made by A.J. Smith of San Diego in 1891. Acting as superintendent for the Oregon Caves Improvement

Company, he proposed a 500 room hotel at the site, electric lighting for the cave, and a streetcar line from Grants Pass to the cave site. [4] These early proposals, however, amounted to little permanent development at the cave due to financial difficulties. Vandalism continued within the cave itself, as visitors broke off formations for souvenirs.

Mineral claims were halted not only by the lack of a survey in the area, but also by presidential intervention. President Roosevelt withdrew 10 million acres of forest land from settlement and claims in 1903, a result of land fraud trials in Oregon involving government timber. The Civil Sundry Act of 1891 allowed the President to set aside timber land from the unallocated public domain as forest reserves. The Southern Oregon Forest Reserve was established in 1903, withdrawing the cave area from settlement. This Forest Reserve was transferred to the Department of Agriculture from the General Land Office on February 1 1905, due to the difficulties the Department of the Interior had during the period of the land fraud investigations. The U.S. Forest Service was established under the Department of Agriculture on July 1 of that same year, with Gifford Pinchot as Chief Forester.

The USDA Forest Service then held control of the Oregon Caves area as a part of the Southern Oregon Forest Reserve. Mineral and settlement claims were forbidden by Roosevelt's withdrawal of the land. In 1906, the Siskiyou National Forest was established within the boundaries of the earlier Southern Oregon Forest Reserve. This allowed mineral entry and settlement under the Forest Service guidelines, but only under certain conditions. By this point, the cave area had experienced limited development and construction, including a small cabin built by the *Examiner* group, a camping area near the cave entrance, and blasting and obstruction removal within the cave itself, mostly by Burch and Harkness.

1906 saw the passage of a bill in the U.S. Congress that was critical in shaping the history of the caves. On June 8, 1906, Congress passed An Act for Preservation of American Antiquities, more commonly known as the Antiquities Act. This act allowed for the President to set aside as National Monuments "historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest that are situated upon lands owned or controlled by the Government of the United States." This act became the cornerstone of preservation within the federal government, preserving all types of resources. It allowed preservation advocates an easy way to meet their needs, resulting in a broad range of sites united in name but not in content.

The bill was important in that it allowed for the protection of areas to be preserved without a distinct purpose (as seen in the establishment of National Parks - the preservation of areas with exceptional natural beauty), growing to include areas that local and federal officials sought as national parks. However, the bill did not stipulate that the areas be funded, and all national parks required support and approval in Congress because they involved federal allocations. Instead of pushing for a bill to establish a national park, which would all be held up to the example of Yellowstone for natural significance, officials could lobby for the proclamation of a National Monument. This was much easier to achieve because it only required the signature of the President. However, these areas were not seen as resources of the importance of National Parks, a status that hindered the development of the National Monuments, especially following the establishment of the National Park Service in 1916.

The ambiguous language in the Antiquities Act allowed for a wide range of possibilities. It allowed special interest groups to gain protection for areas that federal agencies deemed unworthy of protection by other means. Many areas that could be protected under the Antiquities Act did not meet the amorphous standards for National Parks. President Roosevelt used the language of the act, especially the "scientific interest" clause, to establish monuments with a wide range of significance. The ambiguity in the act gave him vast latitude to create his own version of the boundaries of the monument category. There were limitations, however. National Monuments could only be established on federal land, including unallocated public domain, National Forests, and military reservations.

Most of the early National Monument proclamations established protection in areas that had previously been placed in temporary withdrawals. There was little argument about the suitability of reserving places already withdrawn from public exploitation, places which were predominantly protect the cave. [5] Associate Forester Overton W. Price responded, stating that the monument proclamation had been submitted to President Taft. On July 12, 1909, Taft signed Proclamation No. 876 (36 Stat. 2497), officially establishing the Oregon Caves National Monument. This 480 acre tract was protected from "any use of the land which interferes with its preservation". The monument fell under the jurisdiction of the Forest Service, as they controlled the surrounding Siskiyou National Forest. National Monument

status was deemed appropriate not only for the potential scientific possibilities, but also because of the amount of vandalizing by visitors. The Forest Service also saw the establishment of the Monument as a way to engender local support for the Siskiyou National Forest, in addition to the possibility of federal appropriations to promote tourism within the region. The size restriction of 480 acres did not preclude timber harvesting in the surrounding forest, and was in accordance with the Antiquities Act requirement that the size of such reservations be limited to the smallest area compatible with the proper care and management of the objects to be protected.

About the time of the Monument's establishment, the Forest Service was receiving requests for permits and leases to develop the cave site. As early as 1908, the Forest Supervisor in Grants Pass received a request from G.O. Oium to develop electric lighting within the cave, make improvements in the circulation system within the cave, develop a guide service, and place tents for rent on the site. [6] Other early attempts to secure a Special Use Permit by local entrepreneurs to establish a guide service and provide lighting within the caves were made, but the Forest Service did not initially act on the requests.

The Forest Service was hesitant to act on these requests because it was still attempting to define its own role at the Monument. The discussion involved the Forest Service's ability to let contracts on government lands, their position with respect to the cave guide service, control over the cave entrance, and other policing activities. The guard issue was settled in the spring of 1911. A guard was provided primarily as a protection against vandalism with a secondary purpose of providing a guide service through the cave. [7]

The issue of permits for construction on National Monument land was debated within the Forest Service. In 1912, a USDA solicitor stated that the Forest Service did not have the authority to issue a permit for the development of the Monument as a resort facility. As a National Park, however, the Oregon Caves would be allowed development under a concessionaire contract. This spurred an early attempt to garner National Park status for the Oregon Caves, led by the Game and Fish Protective Association, a local group pushing for the creation of a 200,000 acre park to facilitate hotel and road building. This attempt failed, even though two separate bills were introduced in Congress to try to establish a National Park at the site.

The passage of the Term Occupancy Act on March 4, 1915 allowed the possibility of concessionaires at the Monument. This bill permitted the Forest Service to lease land for the construction of hotels, summer homes, concessions, and other recreational uses. Local entrepreneurs were again encouraged by this act, but the Forest Service was reluctant to grant a lease to most of the development schemes because the applicants did not possess sufficient capital to make worthwhile improvements. The Secretary of Agriculture stated the official view in the statement "it is our policy to encourage the development of recreation areas, like the Oregon Caves, in every way possible." [8] The lack of a road into the Monument was also a concern for the Forest Service, as the ability to draw large numbers of visitors would be necessary before a long-term permit was issued.

Even though the Forest Service was now allowed to make long-term concession contracts, the agency remained cautious about development at the cave site. Planning concerns were of high importance to the District Forester from Region 6, headquartered in Portland. Assistant District Forester C.J. Buck summarized the agency's agenda and process in a letter to Siskiyou National Forest Supervisor MacDaniels in February of 1920. Buck wrote:

I think there is no doubt but that the Forest Service is obligated to undertake a plan of development at the caves. It is also absolutely certain that our responsibility cannot be redeemed unless the kind of improvements, location and landscaping of the grounds are worked out with great care. A recreation plan for the development of this place is absolutely necessary... Personally, I do not feel that proper development can be had unless considerable work on the ground and thought is given the matter... The matters I am particularly concerned about are outside the Caves, such as planning the location of the road, camp grounds, hotel site, parking grounds, guide's cabin and other improvements. The area of suitable land is so limited that considerable foresight must be exercised in placing the improvements where the effect will not be displeasing... As a fundamental part of that plan, I would put the location of the road. [9]

The Forest Service did have an obvious desire to develop the site, but without a road their efforts would be fruitless, as only 1800 visitors a year were making the arduous trip to the cave.

The issue of the construction of a road to the Monument was paramount in the Forest Service's consideration of issuing long-term permits for development. An auto road had reached nearby Holland in 1912, fifteen miles from the cave. California's announcement of an appropriation to construct a highway from Crescent City to the Oregon border furthered the interest in the development of the project, as even more visitors could reach the site via the planned Redwood Highway. The contract for the road construction to the caves was let in 1921, with a time limit of 180 working days for its completion. Work started in August of that year, with a major effort in clearing brush and trees from the right-of-way. It was estimated that over a million board feet of timber and a "correspondingly large" amount of brush would have to be removed. [10] The work proceeded quickly, and by October the road was 1/3 complete. [11] The 11.7 mile road was officially opened on June 27, 1922, at a final cost of \$295,000. In terms of visitor numbers, the new road was quickly a success. Visitation to the Monument jumped from about 1900 people in 1921 to over 10,000 in 1922.



The Oregon Caves Highway, soon after completion.

At this time, a tent camp was being run at the caves by McIlveen under the first contract granted by the Forest Service on the site. Food was also provided for visitors at the cave. The increase in visitation prompted the Forest Service to draft the first development plan for the area. This included the development of a number of small cottages at the confluence of Grayback and Sucker creeks for visitor accommodation on land recently transferred from the General Land Office to the Forest Service. The development at the Monument included a proposed 25 x 35 foot log house to be built about 700 feet down Cave Creek from the main entrance to the cave and a number of small cottages near this hotel. The proposed Union Creek development near Crater Lake was taken as the model for the development at the Monument. Buck envisioned a ranger cabin and picnic tables in the area near the cave entrance. The Forest Service was clear on the style of the development from the start. A Special Use Permit drafted in 1922 includes a condition that "All buildings and structures shall be of the same general style and of an accepted type of rustic architecture." [12]

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## PART II

### Recommendations for Programmatic Use and Development

Over the past two years, the National Park Service has developed a new General Management Plan and Environmental Impact Statement for the Oregon Caves National Monument. The final version contains four alternatives, A through D. Each alternative forces the NPS to play a slightly different role at the Monument, and impacts to many areas under each alternative are examined. Areas such as viewshed protection, building use, trail maintenance, protection of cultural resources (including the five historic structures in the National Register District established at the Monument), visitor services, and cave interpretation are covered in the document, among others. The author was supplied with the December 1997 draft of the GMP, and informed that the information would be essentially the same in the final version.

The four alternatives have different impacts on the historic structures at the Monument, especially the Chateau. However, every alternative lists the protection of historic structures within the Oregon Caves Historic District as a primary goal. The NPS states that "the visual ambiance and character of the historic district would also be retained and protected in compliance with the National Historic Preservation Act and NPS policies." (page 13) The next page of the list of common actions for all alternatives, however, is contrary to this statement. In action #11, it is stated that the NPS will seek a "suitable alternative for Port Orford cedar siding — Since Port Orford cedar is becoming more difficult to locate due to the Port Orford cedar root rot, a suitable alternative would be found to replace Port Orford cedar for use as siding for the historic buildings in the National Register historic district." (page 14) The replacement of the historic siding material would have an adverse effect on the historic resources, and the "visual ambiance and character" of the buildings would be substantially altered. The National Park Service is characteristically an excellent steward of historic structures, but the consideration of this proposed action and the irreversible nature of the alteration must be considered. This action would result in a significant loss of historic integrity in both appearance and materials, and should not be considered as a treatment option. As stated in the exterior assessment and recommendations section, the siding should be preserved at any cost.

The first of the four alternatives is Alternative A: No Action Alternative. Under this, conditions would remain the same at the Monument, which would continue to operate under the guidelines of the 1994 Resource Management Plan. The Oregon Caves Company would continue to manage and operate the Chateau, with responsibility for the maintenance of the structure. The company's maintenance responsibility extends five feet from the building, so the concessionaire would be responsible for the majority of the work proposed in this report. The Chateau would continue in its historic function, and would be open to the public.

Alternative B is known as the Minimum Requirements Alternative. Under this alternative, the NPS would acquire all the existing possessory interest in the structures on the Monument held by the concessionaire. Under the current arrangement, the concessionaire retains all rights and responsibilities of ownership of the buildings, except for legal title. The title remains vested with the United States. It includes the right to just compensation for the depreciated value of the company's investment in the structures, estimated to be \$825,000. To acquire this interest, the NPS could either buy the company out or "extinguish" the interest over a 30 year period. At the end of the 30 years, the company's interest in the structures would be depreciated to zero. The cost of this action is offset by a reduction in franchise fee payments, required under the Special Use Permit granted to the concessionaire. This method of acquiring interest in the structure is potentially dangerous, for if the concessionaire knows that their interest is being extinguished they could elect to neglect the structure and save money. At the end of the 30 year term, the building could potentially be in very bad condition without any investment by the company in building maintenance.

The use and function of the Chateau is most seriously affected by this alternative. The building would cease to serve its historic function, instead being adaptively reused and converted into NPS administrative offices and collection storage. The plan states that "some alterations may need to be made to the upper floors of the Chateau in order to accommodate the administrative offices and related communications equipment and office configurations." (22) The lobby area and coffee shop level of the Chateau would be retained and open to the public under this plan, but lodging would no longer be provided in the building for the public. The loss of function and the impact on the visitor experience in the building represent a loss for the Chateau. The alterations are objectionable as they would destroy, possibly irreversibly, the historic fabric, which has retained a very high level of integrity. The plan represents a significant public impact, and a potential loss of a historic resource for the public. The Chateau's National Historic Landmark status warrants its preservation with the fewest alterations possible, and the function of the building should also be preserved in order to allow the public to appreciate the historic character of the Chateau.

Alternative C is the preferred National Park Service alternative. It is titled the "Enhanced Protection of Monument Resources and Visitor Experiences." Under this plan, the NPS would acquire possessory interest in all structures at the Monument, including the Chateau. The building would continue to operate in its historic function, under the direction of a concessionaire who leases the structure from the NPS. National Park Service ownership of the structure may provide a better maintenance alternative than the current system, and accordance with the Secretary of the Interior's Standards would be followed. Currently, the concessionaire occasionally proceeds with alterations to the structure without a Section 106 review. One example is the walls within the dining area on the third floor. They were erected without the proper review process, an issue which is potentially avoided by NPS ownership. This plan provides the best alternative of the four for the building, as it retains its historic function and remains fully open to the public.

The final alternative provides for "Increased Visitor Services and Recreation Opportunities Combined With Increased Watershed Protection." (49) Under this alternative, the operation of the Chateau would continue under a concessionaire similar to the current condition and Alternative A. It is not as objectionable as Alternative B, but perhaps not as favorable as Alternative C, the preferred alternative. However, the building has lasted 65 years under the direction of the concessionaire, and there is no reason to think that the level of care given the building would change.

Alternative C, the preferred NPS alternative, would provide the best option for the preservation of the historic Chateau. The historic function would be retained, and the building would not be substantially altered (with the possible exception of the siding issue discussed earlier, which should not be considered). This alternative is superior from a preservation standpoint as well, as the NPS is an excellent steward of historic structures.

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## PART III

### Structural Observations

#### Structural System, Observations

The Chateau's structural system is grounded with a reinforced concrete base spanning the gorge at the bottom two floors. With the exception of a crack in the west end of the north wall of the Boiler Room, this foundation appears to be in good order structurally. The main potential structural problem of the Chateau first appears intermittently on the third floor, where there is some lateral displacement of the exterior wall on the west side. The problem becomes much worse just one level up, especially in the north wing of the structure.

The walls are significantly out of plumb in this area. Each individual door jamb and window opening were measured to determine how far out they were. A four foot level was used against trim at these openings, the rationale being that the door and window trim is nailed directly to the dimensional lumber frame of the structure. The wall surfaces and floors were not used, as local variations could have distorted the actual readings. The plans on the following pages (pages 35-38, omitted from on-line edition) represent the direction and distance of the lateral displacement. All dimensions are the variation from plumb in a four foot span, with the direction indicating which way the top of the piece has moved in relation to the bottom. If the piece was within 1/8" of plumb, the measurement was not recorded.

The fourth floor of the north wing is the worst in the building in terms of displacement. In this area, deviations of up to 1-11/16" were found in a four foot vertical span. The north wall of the wing is the worst, leaning generally out to the north and to the west. The interior finishes have been affected very little by this shift in the building, and with the exception of a few doors that have been shaved or do not operate properly, they are in good shape. The puzzling aspect of this discovery is that there are no readily apparent separation points either inside or outside the structure, indicating that the north wing mass is tending to move as a coherent unit.

However, the amount of lean decreases at the next level up. While there are still deviations of up to 7/8" at the fifth floor level, the walls generally become more plumb at this level. At the sixth floor, the building leans predominantly to the west, but only in two locations toward the west end. The fifth floor leans predominantly to the north, primarily in the eastern end. This seems to indicate that the framing at each floor level is shifting independently, and the wing is not moving as a whole.

The capacity of this end of the structure to withstand various loading conditions should be analyzed by a professional engineer. While the deviation from plumb is not affecting the primary finishes, doors are being altered to retain their operability. Keep in mind that this wing of the building was most seriously affected by the 1964 flood, and the damage could have potentially been caused at that time. Careful recording of the building and its movement in this wing may reveal that the building has settled into this position and is moving no farther. This, again, should be done by a professional structural engineer who can determine the severity of the deviation and propose a remedy, if required. The engineer or consultant should have experience working with historic structures, and a working knowledge of the Secretary of the Interior's Standards for Preservation.

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# Oregon Caves

## Historic Structures Report



## PART IV

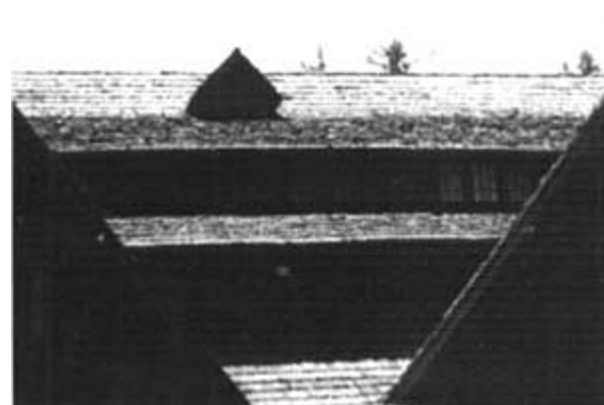
### Exterior Assessment and Recommendations

#### Roofing and Flashing

The roof of the Chateau is formed by a series of intersecting shapes. The main gable, running north-south across the center portion of the building, intersects two main cross gables over the north and south wings. Two large gabled dormers project from the northern and southern sides of these wings, facing out to the surrounding hillsides. Two small gable dormers were cut into the main gable at the time of the sprinkler system installation in 1950. The third floor guest rooms are covered by the two gables of the north and south wings, and shed dormers that protrude from the east and west sides of the main north-south gable.

This complex series of roof shapes and intersecting forms is unified by the treatment of the roof. It is covered with wood shakes, 1/2" thick and 24" long. The exposure varies from 9 to 10 inches, but is consistently within this range. There are two layers of shakes on the roof, both split and re-sawn. It is evident that a second roof was applied over the original shake roof, keeping the same exposure and character of the original. This second roof was applied sometime after 1950, when the two small dormers were added in the attic on the east and west sides of the building.

The roof is supported by full dimension 2" x 6" rafters, 24" on center. The roof peak is created by the intersection of the rafters, and there is no ridge member. Eight inch lap sheathing is used as the substrate for the roof, and is not fit tightly together. There are small gaps between each piece, typically less than 1/8". The 3/4" thick sheathing is laid horizontally, and is covered by building paper beneath the bottom layer of shakes.



Roof, general field on the east side.

The top layer of shakes is beginning to deteriorate. While the attic has remained dry, the shake roof has steadily deteriorated. There are many missing and broken shakes, and most are curling. The exposure is larger than the recommended length of 7-1/2" as described in Architectural Graphic Standards, but the shakes have weathered fairly well. The formula for exposure is given as  $(\text{Length}-2") / 3$ , which results in the equation of  $(24-2) / 3$  or  $22 / 3 = 7.33$ . This is rounded up to the 7-1/2" dimension given on page 76. A ten inch exposure is typically reserved for vertical surfaces, according to Graphic Standards. The ridge shakes, also experiencing areas of missing and broken pieces, are cut to fit tightly around the projecting rooftop sprinkler system.

The Chateau does not have a gutter system; instead the water is allowed to run off the roof at the edges. The rafter tails are exposed, as is the sheathing beneath the eaves. The only area that the rafter tails are covered is above the main entrance to the hotel lobby on the south side of the building. A 2" x 6" board has been nailed to the rafter tails to serve as a backer for a gutter that is not in place during the winter. This board is allowed to project slightly out from the edge of the eave, and as a result all of the



Fascia board for gutter.

runoff above the board flows over it. The board is saturated in periods of heavy rain and snow melt, and the moisture is wicking into the ends of the rafter tails above the door. The sheathing in this area is also wet as the water travels through the rafters and fascia board.

The wide overhangs of the Chateau have created problems in one area. On the west side of the structure, in the southern valley that runs between the intersection of the south wing cross gable and the main gable, the sheathing is broken. This is most likely due to snow loading, since the area is protected from sunlight during the winter months as it faces north.

Another problem of the overhangs is that the rain is not allowed to reach all areas of the roof and wash them free of debris. Moss and lichens have begun to grow on the roof in areas that are protected from the weather, especially under the shed roof sections on the north and west sides. The growth is uphill of the drip line of the eave above. The shed roofs that project over the lower entrances to the building are suffering the same growth problems. The entrance to the coffee shop and dining room from the pond area are experiencing heavy growth, as are the roof structures over the stairs to the boiler room and outside entrance to the kitchen.



Sheathing damage.

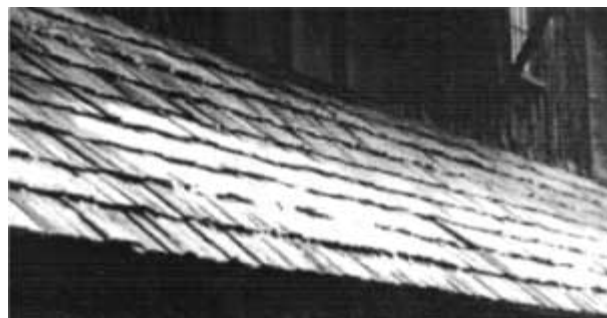


Growth uphill of drip line.

The roof valleys are flashed with galvanized sheet metal that was historically painted with a red lead paint to protect the metal. The valleys are all open, and the flashing has been crimped to prevent runoff from one roof plane from running under the shakes on the opposing roof plane and infiltrating the wood structure. These valleys are losing their paint as years of runoff have eroded the paint surface. In some locations the zinc galvanized coating is also eroding, and the valley flashing is beginning to rust.

An access panel, located in the attic just east of the chimney, provides a close look at

the chimney area and roof. From this vantage point the problems with the shakes are readily visible.



Rooftop sprinkler, main ridge.

Just south of the hatch and chimney is a large area of sheet metal roofing that is woven under the step flashing of the chimney. The sheet metal was originally galvanized, but over the years the zinc galvanizing has worn off, leaving exposed steel sheet metal. The hatch itself has galvanized step flashing woven in with the shakes, which is coated with red lead paint. The



Small dormer, west side. Note the damage.

hatch cover is removed by lifting it off of a projecting frame, allowing inspection of the hatch. The hatch is clad with sheet metal, lapped and painted with a red lead paint. The original design provided for the hatch to be held in place by its own weight, which proved to be insufficient. The hatch has blown off of the projecting frame from time to time, and as a remedy it has been connected to the building temporarily with a piece of 12-gauge wire wrapped around the rooftop sprinkler system pipe.

### Recommendations for Treatment: Roof

The treatment of the Chateau roof can be broken down into seven different components. These are both short and long term solutions, and are also basic maintenance. The recommendations for roof treatment are:

- Keep the roof valleys clear of excessive snow loads. One valley has already received sheathing damage due to overloading, and the historic fabric has been compromised. The damaged area should be repaired before the next winter to avoid further damage.
- The fascia board for gutter support should either be removed or the gutter permanently installed. The concessionaire has undergone a Section 106 review for the addition of a gutter above the main lobby entrance, and is allowed to place a gutter at this location.
- The roof hatch near the chimney should receive a more permanent locking mechanism. Providing a set of stout latches and hinges would protect the door from being blown off of the building, and would reduce the risk of the hatch being dropped inside the attic after removal and falling through the historic fabric of the ceiling.
- The growth on the roof should be kept to a minimum. A moss killer should be applied to the roof to reduce the growth, protecting the shakes from accelerated decay. Care should be taken when applying the chemical so that excess does not fall to the ground and damage vegetation around the eave line of the building.
- The sheet metal roofing between the chimney and the ridge should receive a new layer of paint to protect the metal. The material, galvanized steel, is still sound, but neglect could result in further decay of this system, allowing water to infiltrate the attic space. The joints between the sheets should be inspected to make sure they are weathertight before the area is painted. If repair is necessary, the work should be done prior to painting.
- The galvanized metal in the valleys should be repainted before the galvanizing is compromised. This needs to be done with care to avoid excessive amounts of paint on the shakes. The valleys should be cleared of debris and inspected for damage prior to painting.

- Within five years, the roof will need to be replaced. The number of broken and missing shakes increases every year, and while the attic is dry at this point the chance of water infiltration into the building envelope increases every year. The historic exposure, texture, and thickness should be maintained, and the ridge detail should be kept the same. A copper or galvanized ridge flashing may be installed to curtail moss and lichen growth on the roof, but will not help in areas that are under the eaves. The fungicide should be used to control the growth on the roof. Replacing the roof would be an ideal time for other work outlined above, including valley flashing inspection, repair, and painting, flashing the fascia board above the lobby entrance, and repair of the sheet metal above the chimney. This work should be completed before the roof begins to leak, compromising the building envelope. The roof should be replaced in-kind, with resawn shakes.

Keeping the snow load from becoming excessive and the use of a fungicide are maintenance operations that should be performed on a regular basis. The roof replacement, while costly, will help protect the building and preserve the integrity of the structure and interior finishes.

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orca/hsr/hsr4.htm  
Last Updated: 22-Sep-2001

# Oregon Caves

## Historic Structures Report



### PART V

#### Interior Assessment and Recommendations

##### Fiberboard Wall and Ceiling Finishes

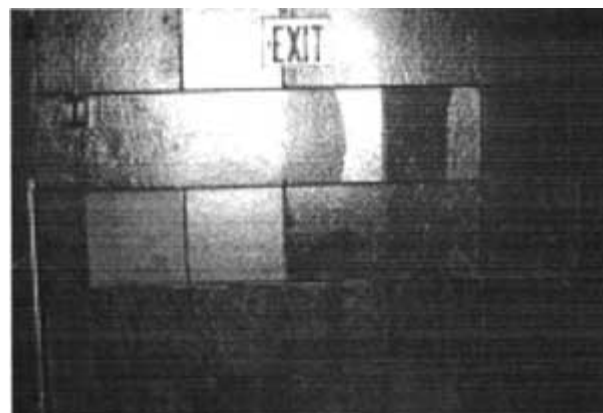
The Chateau's wall and ceiling finishes are fairly uniform above the second level. The dining room and lounge area, main lobby and office, main staircase, and all of the guest rooms are clad with a fiberboard product. The board was sold under the trade name of "Nu-Wood" by a manufacturer in Kloquet, Minnesota. The product was relatively new to the west coast when the Chateau was completed, according to then Manager George Sabin. The product is sometimes referred to as Celotex, which was actually a name brand fiberboard of the era and not the product used in the building.

The fiberboard panels used in the Chateau vary in size, but there are two main sheet sizes within the building. The walls and some ceilings are finished with 4-foot by 10-foot panels, cut down to fit as required. This allows all of the wall panels to span from floor to ceiling in the guest rooms, as well as from the wood wainscot to the ceiling in the lobby and dining rooms. The second size of panels is 16" wide by four feet long, used strictly on ceilings in the lobby, dining room, and some of the guest rooms. These sizes allowed the 1/2" thick panels to be conveniently nailed to wall studs and floor joists, both spaced at 16" on center.

The Nu-Wood panels feature varied incised designs. The large wall sheets in the guest rooms are slightly beveled around all four edges, with a 3/16" wide by 1/8" deep bevel. The smaller ceiling panels are divided into three sections by v-shaped grooves running across the width of the panel, 3/8" wide by 1/8" deep. The sheets are laid parallel to the direction of the joists, and nailed only at the outer edges. The large wall sheets in the dining room and lobby have reveals running longitudinally, but they are 1/4" wide and 3/16" deep. These are randomly spaced across the width of the panel to simulate the appearance of random width vertical board siding.

The panels are strictly an interior finish product. They are extremely susceptible to water damage and staining, which mars the appearance of the panels and causes them to disintegrate, as with many fiberboard products. The panels have also been subjected to impact damage in various locations throughout the building. The Nu-Wood was originally installed without a protective coating of any kind. In 1989 a fire retardant glaze was applied to the panels to increase their fire rating. The product, manufactured by the American Vamag Company is known as "Albert DS". On unfinished surfaces it is to be used with an undercoat, manufactured by the same company.

The fire retardant glaze significantly altered the



Typical interior hallway. Note the mismatched replacements.



Water damage at the lobby ceiling.



Glaze slopped onto door trim.

appearance of the panels, darkening their color and producing a shiny surface. The glaze is showing defects unassociated with the other damage to the panels. When applied, the glaze provides a thick coating, resulting in an increase in the fire rating of one hour. It should be applied in a number of coats, building up to the appropriate thickness. How the current glaze was applied exactly is uncertain, but it was applied with either a brush or roller. Careless application has resulted in the glaze slopping over onto interior trim, especially at the heads of doors and windows.

The thickness of the glaze and method of application has resulted in an uneven and bumpy appearance in many parts of the building. This is especially apparent in the guest rooms, which have only one central light fixture. The thick glaze has also developed a network of cracks in certain areas, similar to the crazing found in terra cotta glazes. Behind the radiators and above the electric baseboard heaters, the glaze has clouded over, most likely due to excessive heat.

In addition to the problems with the fire retardant glaze, the fiberboard panels have suffered impact and abrasion damage. In the guest rooms, the impact damage can often be attributed to door knobs, as many of the stops are missing. In hallways and utility or linen closets, the damage is typically caused by housekeeping carts, rollaway beds, and other typical hotel equipment. Some of these areas have been patched with a replacement piece of Nu-Wood, either surrounded by small pieces of wood trim or left with the joints exposed. Many others, especially impact damage from door knobs, have been patched with wood putty. To make repairs in the public areas of the building, the concessionaire has removed panels from areas only open to employees, such as the office behind the front desk. The walk in freezer in the kitchen was placed in an opening historically used as an access to the coffee shop, and panels from the ceiling above the freezer have all been taken and placed in locations throughout the building to repair damage.



Abrasion damage at the stair.



Glaze damage behind radiator.

The panels also show signs of water damage, especially in areas under bathrooms on the floors above. When a leak develops, often the only way the concessionaire becomes aware is from water damage to the Nu-Wood panels. This damage is permanent and irreversible, unless the panel is painted over once it has dried. The areas under the window sills, particularly on the 6th floor on the west side of the building also show signs of water damage. A recent article in the APT Bulletin (Vol. 28 #2-3) notes that "the best conservation technique is careful maintenance...finishes must be maintained, and problems must be addressed immediately. Once the boards are warped or deeply stained, the likelihood of successful repair seems remote." (Page 67)

The 16" x 48" ceiling panels are placed either parallel or perpendicular to the damage joists and rafters above. Those that are placed perpendicular are experiencing sagging, as they are typically nailed only at the ends, with possibly one nail at each intersecting rafter or joist. This problem is apparent at the sixth floor, and at other locations in the lower guest rooms. The panels are attached with 4-penny finish nails without heads, and these have pulled through the panel itself in some of these locations, leaving the Nu-Wood to span 48" without intermediate support.

A few areas of the fiberboard have been painted to cover earlier damage with a color closely resembling the color of the glaze coating. Many of the sink surrounds, especially on the sixth floor, that still employ Nu-Wood have been painted white to

avoid water damage. Room 214 is also painted entirely white due to a concession manager's cats that wreaked havoc on the historic wall surfaces.

### Recommendations for Treatment: Fiberboard Finishes

The appearance of the fiberboard is currently not historic, even though the majority of the historic fabric is in place. The alteration was a life safety issue, but has become an aesthetic issue and a debate over the treatment of the historic fabric. A balance must be found between the preservation of the historic fabric and the realistic aesthetic concerns of the concessionaire. The interior appearance has a potentially direct effect on the occupancy rate of the hotel. The following recommendations are made:

- Re-attach all sagging and loose historic Nu-Wood using small (4d) finish nails to replicate the original installation.
- If replacement becomes necessary, remove pieces from the non-public areas of the building that have already been stripped of some of their historic fabric to supply the public portions of the building.
- When replacement supplies are exhausted, replace the historic Nu-Wood with a compatible modern fiberboard product. Replacement in kind is not an option for the Chateau, as Nu-Wood has not been commercially available for some time. It has been out of production for at least 35 years, as replacement pieces for flood damaged areas could not be fabricated from the original product. The replacement material should match the historic in texture, color, composition, and detailing. The beveled edges and v-grooves must be cut into new replacement pieces to match the historic appearance of the panels.
- One possibility should be considered if new material is to be introduced into the building. Historic fabric from one room may be sufficient to repair many areas of the building, if used and appropriated carefully. Removing all of the historic fabric from one room and replacing it with new material should be considered, as the new room would have a consistency in finish that may not be possible with piecemeal replacement. The historic fabric in other areas of the building could be retained under this option, and one room's historic fabric would be affected, instead of many areas of the building.
- The use of paint to hide water damage has been employed in some areas of the building. Unattractive portions of the building may be painted to hide this staining. Natural divisions should be maintained between painted and unpainted wall surfaces. For example, where the walls have already been painted, one entire wall plane is painted up to a corner or projecting element. This strategy has been employed in the dining room and many of the guest rooms. This strategy would conserve the historic fabric, but not the historic appearance (which has been significantly altered by the application of the glaze). A matte finish paint should be used if the fiberboard surfaces are painted, in keeping with the historic character of the fiberboard.
- It must be remembered that the Chateau is a National Historic Landmark sited on National Park Service property. Any alteration to the historic fiberboard wall finishes must undergo a Section 106 review to determine the impact on the historic resource. Cooperation will be required between the concessionaire, NPS, and State Historic Preservation Office to mediate some course of action. Work affecting the historic fabric must not be performed without the guidance and approval of the NPS and SHPO.



Painted sink surround, 6th floor.

# Oregon Caves

## Historic Structures Report



## PART VI

### Recommended Treatment Summary

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The treatment recommendations for the Oregon Caves Chateau are summarized in this section, separated into the same divisions as in the rest of the document. All preservation treatment must adhere to the Secretary of the Interior's Standards for Preservation and Restoration, listed in [Appendix B](#). These recommendations apply to whoever has the responsibility for building maintenance.

### Exterior Treatment Recommendations

#### Roofing and Flashing

The treatment of the Chateau roof can be broken down into seven different components. These are both short and long term solutions, and are also basic maintenance. The recommendations for roof treatment are:

1. Keep the roof valleys clear of excessive snow loads. One valley has already received sheathing damage due to overloading, and the historic fabric has been compromised. The damaged area should be repaired before the next winter to avoid further damage. This work should be performed on a regular basis throughout the winter.
2. The fascia board for gutter support should either be removed or have a gutter permanently installed. The concessionaire has undergone a Section 106 review for the addition of a gutter above the main lobby entrance, and is allowed to place a gutter at this location.
3. The roof hatch near the chimney should receive a more permanent locking mechanism. Providing a set of stout latches and hinges would protect the door from being blown off of the building, and would reduce the risk of the hatch being dropped inside the attic after removal and falling through the historic fabric of the ceiling.
4. The growth on the roof should be kept to a minimum. A moss killer should be applied to the roof to reduce the growth, protecting the shakes from accelerated decay. Care should be taken when applying the chemical so that excess does not fall to the ground and damage vegetation around the eave line of the building.
5. The sheet metal roofing between the chimney and the ridge should receive a new layer of paint to protect the metal. The material is still sound, but neglect could result in further decay of this system, allowing water to infiltrate the attic space. The joints between the sheets should be inspected to make sure they are weathertight before the area is painted. If repair is necessary, the work should be done prior to painting.
6. The galvanized metal in the valleys should be repainted before the galvanizing is compromised. This needs to be done with care to avoid excessive amounts of paint on the shakes. The valleys should be cleared of debris and inspected for damage prior to painting.
7. Within five years, the roof will need to be replaced. The number of broken and missing shakes increases every year, and while the attic is dry at this point the chance of water infiltration into the building envelope increases every year. The historic exposure, texture, and thickness should be maintained, and the ridge detail should be kept the same. A

copper or galvanized ridge flashing may be installed to curtail moss and lichen growth on the roof, but will not help in areas that are under the eaves. The fungicide should be used to control the growth on the roof. Replacing the roof would be an ideal time for other work outlined above, including valley flashing inspection, repair, and painting, flashing the fascia board above the lobby entrance, and repair of the sheet metal above the chimney. This work should be completed before the roof begins to leak, compromising the building envelope.

## **Brackets, Verge Boards, and Purlins**

The brackets, purlins, and verge boards display various levels of decay. The purlins are protected from the elements, and as a result are in good condition. The brackets, on the other hand, have been subjected to the weather and require attention. The treatment of these three elements varies, but is consistent throughout the building.

1. The horizontal members of the log brackets are all in need of replacement. Excessive decay has rendered them useless as structural elements, and has diminished their decorative importance. The brackets should be removed from the building with care in order to perform this work, so the historic siding will be protected. The diagonal members should also be inspected at this time, and the decayed members should be replaced. The number of diagonal members needing replacement will not be known until the horizontal member is removed and the end grain can be inspected.
2. All verge boards suffer from a compromised paint coating. They should all be scraped and painted in situ, while the brackets are removed for repair. Any areas of decay at the intersection of the verge boards with the brackets should be repaired using a "dutchman" repair in which only a small portion of the board is replaced. This will protect the historic fabric from unnecessary removal from the building.
3. The under eave purlins are all in good condition. These peeled logs must retain the integrity of their paint coating to remain useful to the structure. The paint should be inspected on a yearly basis and repainted as necessary.

## **Chimney, Exterior**

The exterior portion of the chimney is in good condition overall, with only minor treatment necessary.

1. It may be worthwhile to cap the chimney flues to prevent water intrusion into the building. This should be done in a manner that respects the historic character of the Chateau, and should not detract from the appearance of the building.
2. A moss killer should be used to prevent the growth from damaging the mortar.

## **Port Orford Cedar Bark Siding**

As the siding is a character defining feature of the building, it should be preserved at all costs. The Port Orford cedar is becoming increasingly difficult to find due to a root rot that attacks the trees, and there is no suitable alternative for replacing the bark with another material. The rot is a disease of the Port Orford cedar only, and is caused by a pathogen named *Phytophthora lateralis*. This fungus infects the fine root system and moves up the tree, eventually killing it. It has only a limited distribution around the Oregon and California border in the tree's native range. It is spread by water, especially in the wet seasons within drainage basins, animals, and vehicles. The rot has infected the Siskiyou National Forest, but has not been detected within the Monument. The siding should be treated as follows:

1. Protect the siding from excessive moisture. This includes improving drainage around the building and implementing means to avoid splashback on the structure. Snow should not be piled next to the building when the road is plowed on the north side, and the southeast corner should be kept free of snow accumulation. Vegetation on the south side is harming the siding, and should be removed. See the Vegetation and Drainage Treatment Recommendations for improvements in this area.
2. Fasteners should be inspected regularly to ensure that they are not forming pockets of deterioration as they oxidize.

If this becomes the case, the fasteners should be replaced through the historic holes with stainless steel, aluminum, or galvanized fasteners.

## **Catwalks and Fire Escapes**

As these are critical life safety implements, these areas should be well maintained. They should be treated as follows:

1. Retain the paint coating on both the catwalks and fire escapes so they blend with the building, contrasting colors should not be allowed.
2. The wood deck of the catwalk is in need of paint, and the boards have bowed enough to create an uneven walking surface. The boards should be evened out and repainted to preserve them.

## **Vegetation and Drainage**

1. Remove vegetation on the south facade of the building.
2. Install a french drain system of gravel beds and perforated pipe on the west side, allowing the water to drain out into the canyon below the building and join Caves Creek.
3. Install a similar drain system over the full length of the east facade, bringing water away from the building to a central drain pipe. This pipe should join the culvert already in place that diverts Caves Creek, and be designed in such a way that it does not easily clog or back up. This area is critical, as proper drainage will preserve the siding and prevent water from infiltrating the building through the foundation.

## **Windows and Doors, Exterior**

1. Replace the missing sill on the second floor, west end of north wing. This missing element allows air and moisture to infiltrate the structure, and is a potential cause for damage to the building.
2. Scrape and paint all exterior sills and frames. The sill to the north of the coffee shop door will require patching to make the surface flat, as the wood from the 1954 window addition is seriously weathered.
3. Scrape and paint the exterior doors in the non-public areas of the building, including the doors on the west facade leading to the kitchen, second floor storage area, employee dining room, and boiler room. This will preserve the historic fabric and reduce the likelihood that these doors will need replacement.
4. Remove the bow from the lobby entrance doors. The door will most likely have to be disassembled to accomplish this, and wood or metal bracing may be necessary to straighten the door. Repaint the door using the current color.
5. The concessionaire has expressed an interest in restoring the historic hinge mechanism on the lobby entrance doors. A variety of pin hinges that mount in the head and threshold are available, but a brass mechanism should be used to reduce the risk of corrosion and to match the historic hardware.
6. Exterior window screens should all be firmly attached to the window frames using the eye bolt and hook hardware. Each frame should be removed from the building and inspected for loose joints and holes in the screening, then repaired and painted as necessary before re-installation.



# Oregon Caves

## Historic Structures Report



## PART VII

### Furniture History and Inventory

#### Monterey Furniture

The furniture in the Chateau's guest rooms and lobby also contributes to the overall significance of the structure. The line of furniture was created by the Mason Manufacturing Company of Los Angeles, and marketed by Barker Brothers. The style was rustic, which fit the character of the Chateau well. The company was well known for their outdoor furniture, wrought iron lamps, and novelty wood and iron pieces. The Monterey line was initiated by an interior decorator, Fred Mason, who saw a piece in a Warner Brothers movie set and believed that there was a need for a furniture line that accompanied the Spanish or Mission Style homes being erected in the area. His desire for the pieces in 1929 was the start of the Monterey line.

Frank and George Mason made the initial design sketches. Twenty four designs were part of the initial run, and this expanded to about 120 different pieces within four years. There were at least three different bedroom sets, six dining room sets, sixteen different upholstery pieces, sixteen end tables, occasional and coffee tables, and four different desks and secretaries. The lumber was chiefly alder from Oregon that was run through multiple drum sanders to ease the edges and provide an antique or rustic look. The pieces were glued and laminated with a hot glue, and then fished or upholstered. The finishes were all oil stained or base-stained with asphaltum and antiqued by paraffin and rotten stone. Many pieces were hand painted after the antiquing and staining process with different colors or floral patterns. Wrought iron straps and pulls provided accent to the pieces, in addition to basic notching that provided some variation. Many of the earlier pieces were marked by a horseshoe brand, visible at the underside of the piece or on the back.

The line was produced until 1943, when Frank Mason (George's father) died. His partner in the business was not active in the manufacturing process, and handled the shipping and purchasing concerns. The plant was sold in 1945, ending Mason Manufacturing Company.

The order for the Chateau furniture was placed through Meier and Frank in Portland. From photos of the extant furniture in the lodge, George Mason concluded that the furniture collection is comprised of stock items, no special orders. In addition to the various chairs, stools, vanity dressers, bedframes, and tables, the company also provided the iron sconces attached to interior posts in the lobby and dining rooms. The chandeliers may also have come from the Mason Manufacturing line.

The majority of the furniture at the Chateau retains its historic finish on the wooden portions and leather elements. George Mason commented that it appeared to him that much of the furniture had been re-upholstered, but there may be some original fabric on a few pieces. There is a few chairs in leather elements. There is a few chairs in the boiler room that are in need of repair, but besides these the furniture is all still in use.

The following pages contain representative examples of the furniture in the Chateau, along with the total number of that type of piece and in what rooms the pieces are currently used. If there is more than one piece of a single type in one room, the number is given in parenthesis. There are eleven furniture pieces not shown in the following pages, their locations and total number are given below.

Stool with 3 plank top w/gaps - 312, 310, 212, 211, 207, 206, 203, 202, 201. 9 Total.

Bench with 3 plank top w/gaps - 309, 304, 303, 302, 212, hallway outside 212, 214 (3), 210, 204, 201,104,103,102. 15 Total

Plain stool with low arch at base of sides - Dining Room (3). 3 Total.

Bedframes in rooms 312, 301, 207, and 204, all of various design. 4 Total.

Chairs in rooms 310, 307, 212, 205 and 203 (identical), 203, 202,104 and 105 (identical), Lobby, and the hall outside room 212. 11 Total, of various design.

Dresser - 312. 1 Total.

Bedside table with round top - 304. 1 Total.

Dressing table with one drawer - 304. 1 Total.

Vanity stool with upholstered seat - 304. 1 Total.

Desk with five drawers and a small cabinet - 212. 1 Total.

Square top table - Lobby. 1 Total.

Other pieces potentially exist in the storage areas off of rooms 311 and 305. There are two chairs in the boiler room set aside by the concessionaire for repair.

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## APPENDIX A:

### HABS Drawings

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Most of the Historic American Buildings Survey (HABS) drawings have been omitted from the on-line edition of this document and are on file at park headquarters.

- [Cover Sheet](#) (~200K)
- Site Plan
- Site Section
- First Floor Plan
- Second Floor Plan
- Third Floor Plan
- Fourth Floor Plan
- Fifth Floor Plan
- Sixth Floor Plan
- [East Elevation](#) (~135K)
- [West Elevation](#) (~175K)

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## APPENDIX B: Secretary of the Interior's Standards

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The Secretary of the Interior's Standards for Preservation are:

1. A property will be used as it was historically, or be given a new use that maximizes the retention of distinctive materials, features, spaces, and spatial relationships. Where a treatment and use have not been identified, a property will be protected and, if necessary, stabilized until additional work may be undertaken.
2. The historic character of a property will be retained and preserved. The replacement of intact or repairable historic materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.
3. Each property will be recognized as a physical record of its time, place, and use. Work needed to stabilize, consolidate, and conserve historic materials and features will be physically and visually compatible, identifiable upon close inspection, and properly documented for future research.
4. Changes to a historic structure that have acquired historic significance in their own right will be retained and preserved.
5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.
6. The existing condition of historic features will be evaluated to determine the appropriate level of intervention needed. Where the severity of deterioration requires repair or limited replacement of a distinctive feature, the new material will match the old in composition, design, color, and texture.
7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.

The Secretary of the Interior's Standards for Restoration are:

1. A property will be used as it was historically or be given a new use which reflects the property's restoration period.
2. Materials and features from the restoration period will be retained and preserved. The removal of materials or alteration of features, spaces, and spatial relationships that characterize the period will not be undertaken.
3. Each property will be recognized as a physical record of its time, place, and use. Work needed to stabilize, consolidate and conserve materials and features from the restoration period will be physically and visually compatible, identifiable upon close inspection, and properly documented for future research. Materials, features, spaces and finishes that characterize other historical periods will be documented prior to their alteration or removal.

4. Materials, features, spaces, and finishes that characterize other historical periods will be documented prior to their alteration or removal.
5. Distinctive materials, features, finishes, and construction techniques or examples of craftsman ship that characterize the restoration period will be preserved.
6. Deteriorated features from the restoration period will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials.
7. Replacement of missing features from the restoration period will be substantiated by documentary and physical evidence. A false sense of history will not be created by adding conjectural features, features from other properties, or by combining features that never existed together historically.
8. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.
9. Archeological resources affected by a project will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.
10. Designs that were never executed historically will not be constructed.

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