

Overall Approach: **A Dynamic Landscape**

For millennia, humans and animals have traveled up and down the Sierra Nevada from the San Joaquin Valley's broad plains to the highest mountain peaks. Every day, month, and year, air and water makes the same cyclical journey. Sequoia National Park's steep elevational gradient allows visitors to experience wildly different ecosystems on their own journeys up and down the mountain. At every elevation, scientists study the effects of human behavior, climate change, drought, fire, and other natural forces. In this design approach, visitors explore the park's dynamic and diverse landscape.

In the exhibit hall, an immersive experience takes visitors on a journey where they "ascend" the mountain and learn about the different elevations of the park. In each scene, visitors are immersed in the sights and sounds of the foothills, montane, subalpine, and alpine vegetation zones. Visitors explore a variety of topics including natural history, scientific research, Native American culture and land usage, and the importance of stewardship and conservation. Scenic vignettes of park ecosystems, large-scale photography, and natural soundscapes help create immersive environments that surround visitors as they pass through the space.

On the other side of the building, visitors can shop for retail items, plan their trips beyond the visitor center, learn about wilderness, secure wilderness permits, and buy tickets for guided tours at Crystal Cave and other park sites.

Scene 1: Exhibit Introduction and Orientation

The introductory experience in the building lobby welcomes visitors to the visitor center and provides orientation information. As visitors enter the main doors, graphic panels introduce the parks and feature inspiring imagery of sites at different elevations and areas of the park. A tactile topographic model of Sequoia and Kings Canyon National Parks orients visitors to the park's unique and varied geography, and a topographic model of the Lodgepole area assists visitors in planning day hikes and excursions. Associated graphics provide visitors with information on sites and attractions throughout the park and in the Lodgepole area. This orientation information encourages visitors to begin planning their own trips independently before seeking additional assistance.

Further inside the lobby space, visitors can ask questions and talk to park staff at the visitor information desk. A prominent entryway calls visitors' attention to the exhibit hall, and welcome graphics introduce the immersive experience beyond. Wayfinding

graphics on the opposite wall direct visitors towards the wilderness desk, Sequoia Journeys desk, and retail area in the adjacent room. This introductory scene also includes space for changing exhibits and a dedicated space for a donation box and accompanying graphics.

Tribal Greeting Message

GL-01.01-100

A greeting message written by members of the local Native American community greets visitors as they enter the Lodgepole Visitor Center. Text invites visitors to visit the park in a good way and leave in a good way. The panel includes a title in multiple Native American languages and the greeting message will need to be confirmed with each tribe.

Titles:

Mun-na-hu (Monache/Mono)

Hiyuk / He-yuk (Yowlumne)

TBD (Wukchumne)

TBD (Tubatulabal)

Text: Sequoia and Kings Canyon National Parks is a shared land where people gather to meet and trade. People from these tribes still live in this area and actively practice their traditions here. Please respect this land and visit here in a good way. **(43 words)**

Accessibility Panel

GL-01.01-105

Title: An Accessible Park

Text: Sequoia and Kings Canyon National Parks strives to be a place that all visitors can enjoy. Ask at the information desk about accessible park trails and facilities. **(27 words)**

GL-01.01-115 Graphic Above Exhibit Entry

IM-01.01-116



Credit: NPS Image / Alison Taggart-Barone

Welcome Graphic

GL-01.01-170

Title: Welcome to Lodgepole

Text: High above the golden foothills, towering forests mark the gateway to the High Sierra. At Lodgepole Visitor Center, discover diverse ecosystems, learn about opportunities to explore, and find your next trail. **(31 words)**



IM-01.01-171

Filename: CF4C3885-1B3C-4ABF-A2F7-43B19478298E

Credit: Kirke Wrench /NPS Photo

Topographic Park Model

GL-01.01-190A, GL-01.01-190B, GL-01.01-190C, CE-01.00-480

A tactile model of Sequoia and Kings Canyon National Parks highlights the parks different elevations and landforms. This model identifies the following key sites: ‘

West side

- *Cedar Grove Visitor Center and Village*
- *Kings Canyon Visitor Center and Grant Grove Village*
- *Lodgepole Visitor Center and Village*
- *Giant Forest Museum*
- *Foothills Visitor Center*

- *Mineral King Ranger Station*

East side:

- *Kern Canyon*
- *Kaweah Range*
- *Mount Whitney*
- *Great Western Divide*
- *Palisades*
- *Bishop*

Topographic Lodgepole-Area Model

CE-01.00-490

Attached to the topographical park model, a second tactile topographic model features the area around the Lodgepole Visitor Center, roughly from Giant Forest Museum to Alta Peak (west to east), and Mt. Silliman to Moro Rock (north to south). Two pull out orientation boards provide visitors with additional information about accessing the Sherman Tree throughout the year and the Tokopah Falls Trail.

The model highlights the following local sites:

- *Wuksachi Lodge*
- *Lodgepole Campground*
- *Wolverton Picnic Area and Trailhead*
- *General Sherman Tree*
- *Moro Rock*
- *Colonel Young Tree*
- *Crescent Meadow*

On the opposite side, the model highlights the following features:

- *Twin Lakes*
- *Tokopah Falls*
- *Pear Lake*
- *Alta Peak*
- *High Sierra Trail*

Pull-out Drawer

GL-01.01-195A

A pull-out drawer features a map of trails and shuttle routes to the General Sherman Tree and content about visiting the tree in summer and winter.

Title: Visiting the Sherman Tree

Subtitle: In Summer

Text: Two trails lead to the Sherman Tree. For the main trail, park off Wolverton Road and follow signs down the half-mile trail. A second wheelchair-accessible trail starts at a small lot on Generals Highway. The free Sequoia Shuttle also stops at both parking areas. **(44 words)**

Subtitle: In Winter

Text: In snowy weather, the accessible parking lot on the Generals Highway is open for all. While the trail to the Sherman Tree is not steep, it can be icy. Please be careful and avoid stepping in slippery ski tracks. **(39 words)**

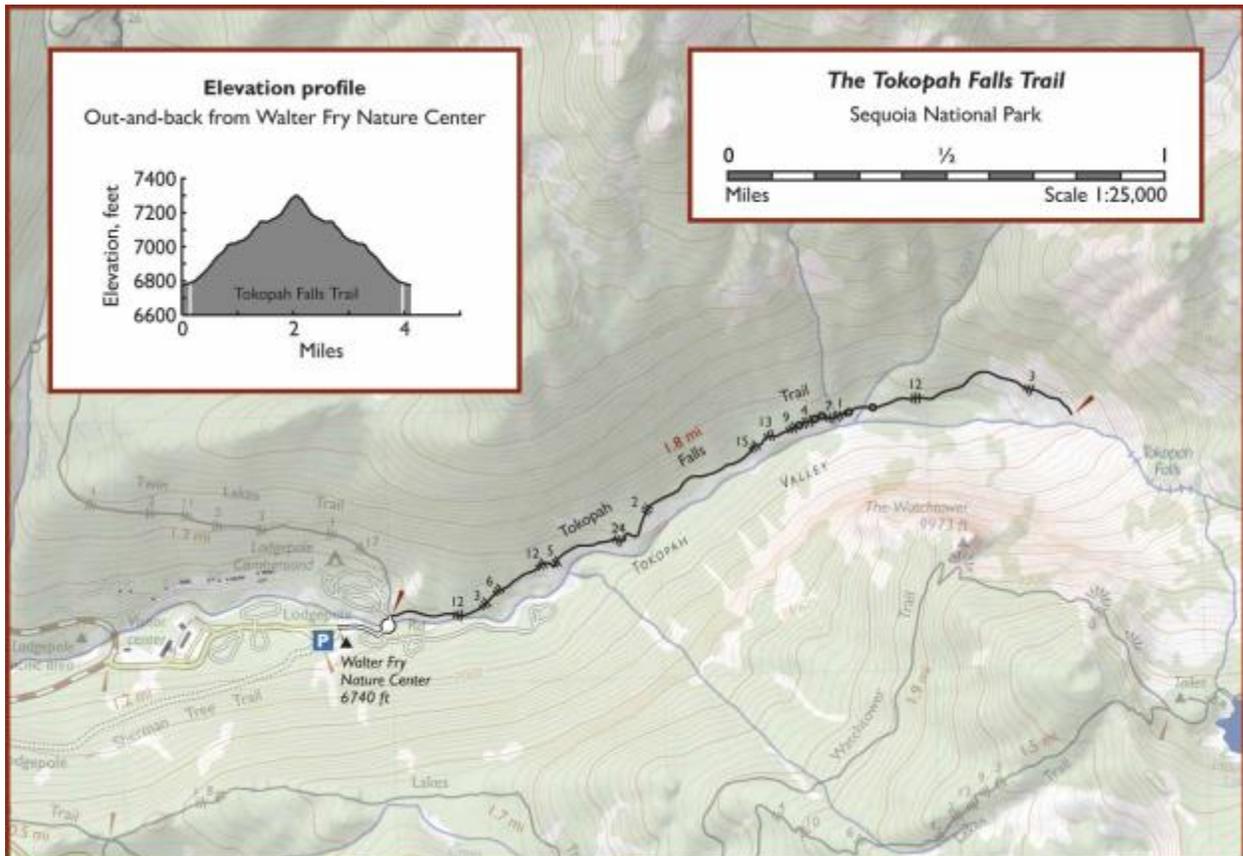
Pull-out Drawer

GL-01.01-195B

A second pull-out drawer features a detailed view of the Tokopah Falls Trail and scenic views from along the trail

Title: Tokopah Falls Trail

Trail Map Reference Image:



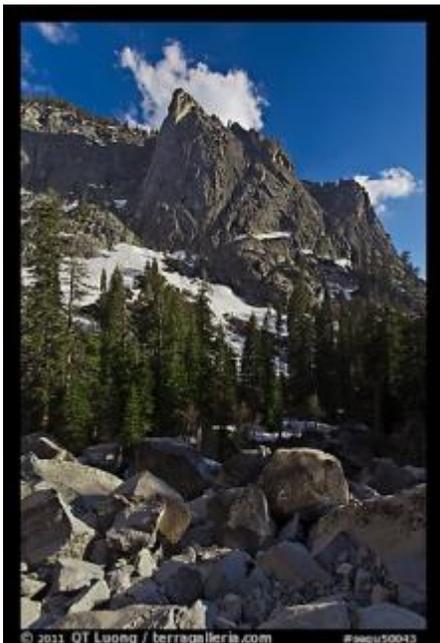


IM-01.01-196

Filename: 3A5D622E-9034-4A71-BB97-1B08666B86D7

Caption: Tokopah Falls

Credit: NPS Photo



IM-01.01-197

Filename: QTL-sequ50043

Caption: The Watchtower

Credit: QT Luong

Orientation Graphics

GL-01.01-120, GL-01.01-130, GL-01.01-140, GL-01.01-150

Title: In and Around Lodgepole

Text: Nestled at the foot of the Tokopah Valley, Lodgepole is a great place to begin your park adventure. From here, scenic trails climb into the high country, where soaring peaks frame a glacier-carved landscape. Try one of the many trails that start just outside the front door. Marvel at the towering sequoias in Grant Grove and the powerful Marble Fork of the Kaweah River. **(64 words)**

Subtitle: Only have a couple hours to explore? Check out these short trails. **(12 words)**

Text:

- General Sherman Tree Trail – For a quick trip, see the world’s largest tree by volume. An accessible lot leads to a half-mile paved trail. **(24 words)**
- Moro Rock – This half-mile moderate trail climbs a steep staircase. The views from the top of this granite dome will take your breath away. **(22 words)**
- Crescent and Log Meadows Trail – This easy 1.7-mile loop meanders through beautiful wildflowers, densely wooded forests, and natural meadows. **(19 words)**

Subtitle: Up for a longer outing? Try these day hikes. **(10 words)**

Text:

- Tokopah Falls – This 3.4-mile roundtrip hike includes the tallest waterfall in the park. **(11 words)**
- Twin Lakes – This 7-mile trek takes you through vibrant meadows and serene alpine lakes on the way to the stunning views of the Sierra Nevada. **(25 words)**
- Alta Peak Trail – You’ll find gorgeous panoramic views once you reach the top of this 14-mile roundtrip hike. **(18 words)**

Subtitle: Planning a wilderness excursion? Try these multi-day trails. **(8 words)**

Text:

- Rae Lakes Loop – This 42-mile loop offers beautiful views of the natural geography, including deep canyons and high alpine lakes. **(20 words)**
- High Sierra Trail – For those looking for a challenge, consider this 72-mile trail. It climbs the Kaweah Gap and crosses the Great Western Divide before merging with the John Muir Trail at Mt. Whitney. **(34 words)**



IM-01.01-151

Filename: Jack Newton, Flickr-Tokopah Falls Valley

Caption: You can see waterfalls, large trees, and stunning views on the Tokopah Falls Trail. This moderate hike is a good option for families with children. **(25 words)**

Credit: Jack Newton



IM-01.01-121

Filename: C269DC25-A49D-489B-91B8-CF90ECE61D24

Caption: While you're here, take time to visit some of the world's finest sequoia groves. The Giant Forest and Grant Grove offer short and easy trails, or try a longer hike to a more secluded grove.¹ **(35 words)**

Credit: Kirke Wrench/NPS Photo



IM-01.01-131

Filename: 21D085E1-F32F-48BC-A2A4-5019F0EA4F88

Caption: Good luck getting the entire General Sherman Tree in a single photograph! **(12 words)**

Credit: Kirke Wrench/NPS Photo

1

https://books.google.com/books?id=D2M_RRYDDecC&pg=PA128&dq=centennial+stump+sequoia&hl=en&sa=X&ved=0ahUKEwin86Kv2N3cAhXtRt8KHYwFAksQ6AEIKTAA#v=onepage&q=centennial%20stump%20sequoia&f=false



IM-01.01-141

Filename: A04BF026-5F62-4F02-89DC-AF9C1A69D51F

Caption: Whether you love to camp, hike, stargaze, or picnic, these parks have something for everyone. **(15 words)**

Credit: NPS Photo



IM-01.01-122

Filename: SEKI_140726_ATB_782_960

Caption: Need a lift? In summer and fall, the Sequoia Shuttle offers free rides in the Giant Forest, Lodgepole, Wuksachi, and Dorst Creek Campground areas. **(24 words)**

Credit: Alison Taggart-Barone / NPS Photo

Visitor Comment Station

GL-01.04-100, GL-01.04-110A-D

To the right of the lobby entrance, a comment station allows visitors to reflect on and share their own hiking experiences. A monitor displays a feed from the iNaturalist app and corresponding graphics encourage visitors to download the app and log their own discoveries on the trail. A holder also contains blank wildlife information cards that visitors can fill out and give to the ranger at the information desk.

A dry-erase board with changing questions encourages visitors to reflect on what they have seen and experienced in the park. The board includes a slot to slide in panels with preprinted or handwritten questions.

- EP-01.03-505 iNaturalist Monitor

Title: Connect with Nature

Rotating Questions:

- How do you want to feel when you're driving home?
- What is your earliest memory about being in nature?
- What is your ideal wilderness experience?
- Have you ever felt unsafe in a wilderness area?

Wilderness Info Cards Text

Text: You can help us understand park animals. Take a wildlife information card and write down your wildlife sightings. Give your completed card to park staff at the information desk.



Filename: 0A934A2F-545D-4960-8DA0-221FC648593B

Credit: NPS Image

Passport Station Text

Text: Do you have a National Parks Passport? Get your stamp here!

Information Desk

Towards the back of the lobby, a ranger-staffed desk provides orientation to the exhibit experience and the park as a whole. The desk features a tactile plan of the building to orient visitors to what's in the space and glass insets with park maps and orientation information.

- EP-01.01-500 *General Information Monitor*

Changing Exhibits

On the right side of the lobby, the area between the doors is set aside for changing exhibits. Exhibits here can explore a variety of topics and current events. The first display explores science and research in the park and can be replaced by a park-produced exhibit at a later date. Whenever there is not a current temporary exhibit, this initial display can be reinstalled or minimally updated.

Main Text

GL-01.03-100

Title: Science in the Parks

Text: For over a century, scientists have flocked to Sequoia and Kings Canyon National Parks. Their research is increasingly vital as climate change brings worsening wildfires, longer droughts, and other changes to the Sierra Nevada.

Researchers study the impact of fire on giant sequoias, other plants, and water cycles. In wet meadows, they measure water levels and study drought patterns. Up and down the mountains, scientists monitor the air quality and measure the rise and fall of air pollutants.

Care to lend a hand? Park scientists collaborate with local communities and volunteers. Ask what you can do to help preserve our parks! ² **(101 words)**



IM-01.03-101

Filename: P1010813r

Caption: Throughout the parks, scientists study streams and monitor the health of the wetland plants and animals. **(16 words)**

Credit: NPS Photo

² <https://www.nps.gov/seki/learn/management/rss.htm>; <https://www.nps.gov/seki/learn/nature/airqualityinfo.htm>; <https://www.nps.gov/seki/getinvolved/community-science.htm>



IM-01.03-103

Filename: Crystal Cave_algal study_Brie_Erik Meyer

Caption: Caves are fragile environments. Cave scientists study the effects of climate change, air pollution, and human interactions on cave systems. **(20 words)**

Credit: NPS Photo



IM-01.03-102

Filename: 71321E28-2D92-4429-B94C-1327392CFFC0

Caption: Fire is crucial to sequoias, but some wildfires can pose risks to humans and property. Park staff use prescribed fire to create healthy conditions in ecosystems that are adapted to natural fires. **(32 words)**

Credit: NPS Photo

Donation Area

Here, visitors have an opportunity to donate to the park. Graphics give visitors information on how their donations will be used to support conservation initiatives, park staff, and other projects. The donation box will attract people as they leave the visitor center, but will not be visible from outside the front doors.

Donor Graphic

GL-01.05-100

Title: Your Donations At Work

Text: Even a small contribution can make a difference. Donating to Sequoia and Kings Canyon National Parks or the Sequoia Parks Conservancy helps fund:

- interpretive and educational programs
- scientific and historical projects
- trail maintenance
- habitat restoration
- search-and-rescue³ **(41 words)**



IM-01.05-101

Filename: 3386DF1A-E9E1-4BE4-9AD2-EF7EC781D679

Caption: Donations can help keep popular programs running, maintain trails, and protect park landscapes for future generations. **(16 words)**

Credit: NPS Photo

Exhibit Attract

GL-01.01-150

Title: Your Journey Begins Here

Text: As you travel through Sequoia and Kings Canyon National Parks, you will experience different ecosystems. Explore this diverse landscape, from the rolling foothills to the highest mountain peaks. **(28 words)**

Scene 2: Foothills

In the first immersive scene, visitors experience the wonders of the foothills, the lowest ecological zone in the park. Although this biome constitutes just 6% of the park, it features some of the highest biodiversity in the Sierra Nevada Mountains. Here, visitors explore immersive vignettes of the foothill zone's dense thickets and oak woodlands, and view exhibits about this region's cultural significance to the California Native American community.

³ <https://www.nps.gov/seki/getinvolved/donate.htm>; <https://www.nps.gov/seki/getinvolved/donate.htm>

Content Group 2.0 – Exhibit Introduction

At the entrance of the exhibit hall, inspiring and interesting images grab the attention of visitors in the lobby and further encourage them to enter the exhibit area. Graphics just inside the doors provide an overview of the different park elevations that visitors will experience as they progress through the following scenes.

Exhibit Intro Text

GL-02.01-100

Title: A Dynamic Landscape

Text: Welcome to Sequoia and Kings Canyon National Parks. Over the years, local Native Americans, adventurers, and conservationists have shaped and cared for this land.

Come explore the parks' four elevational zones – from rolling foothills to rocky peaks. Each elevation offers vibrant and diverse landscapes with rich histories. Wilderness varies from day to night, from season to season, and through internal and external influences. This land challenges us to experience new physical, intellectual, and emotional frontiers. **(75 words)**



IM-02.01-101

Filename: 4F439AB3-1C2B-4A2B-A5FC-A241CE0DAAD9

Credit: NPS Photo

Scene Intro GL-02.03-110 & -115

Title: The Foothills

Text: Sloping gently upward from the Central Valley, the foothills welcome you to the Sierra Nevada with a warm, dry breeze. **(20 words)**

Content Group 2.1 - Life in the Foothills

Although the foothills make up just 6% of the Sequoia and Kings Canyon National, it features some of the highest biodiversity in the Sierra Nevada Mountains⁴ This unique and often underappreciated and under-protected ecosystem is an important part of this park. Here, visitors learn about life in the park's chaparral and oak woodland ecosystems through a large chaparral vignette

Main Text

GL-02.02-100

Title: In the Mountains' Shadow

Text: You have entered the foothills, the lowest elevation in these parks. Starting at 1,000 feet (300 meters), oak woodlands and shrubby chaparral blanket the slopes.⁵ The foothills host a greater variety of plants and animals than anywhere else in the parks. At these low elevations, summers are hot and dry, but winters are mild. Slow down and appreciate this often-overlooked zone. Unlike the meadows and forests further into the mountains, this land is easily accessible year-round.⁶ **(76 words)**



IM-02.02-103

Filename: 17BA888A-4D9D-4917-9008-4EAC13EB02EB

Caption: Mule deer are plentiful in Sequoia and Kings Canyon National Parks. Keep your eyes open! Bounding and energetic, mule deer winter in the foothills.⁷ **(24 words)**

Credit: Donald Quintana/NPS Photo

⁴ <https://www.nps.gov/seki/learn/nature/animals.htm>

⁵ Natural Resource Condition Assessment for SEKI, Appendix 10 Foothills Vegetation, 1.

⁶ <https://www.nps.gov/seki/learn/nature/foothills.htm>

⁷ *Sierra Nevada Natural History*, 361-362;
https://www.nps.gov/parkhistory/online_books/pwro/wildlife_portfolio/mammal28.htm



IM-02.02-101

Filename: A89EE0E9-DF7F-426F-9C6C-8E7941BE25A0

Caption: Over the course of a year, the foothills change dramatically. Winter rains produce leafy spring landscapes that eventually dry to golden brown in the hot summer sun. **(27 words)**

Credit: Kirke Wrench/NPS Photo



IM-02.02-102

Filename: Amphitheater Pt, Gen. Hwy

Caption: The Generals Highway starts in the foothills at the park entrance and winds its way upward into the mountains. **(19 words)**

Credit: NPS Photo

Chaparral Vignette and Soundscape

In this vignette, visitors experience a chaparral and oak woodland ecosystem during late summer or fall. Reproductions of rocks and an oak tree are interspersed with models of native animals and plants. The ground should feature a texture of golden brown dried

grasses. An ambient soundscape features the sound of woodpeckers and the call of a California quail.

Soundscape: EP-02.01-510

Models:

- CE-02.01-400 Blue oak tactile model
- CE-02.01-410 Elderberry bush model
- CE-02.01-420 Manzanita model
- CE-02.01-430 Chaparral yucca model
- CE-02.01-440 California quail model
- CE-02.01-450 Ground squirrel tactile model
- CE-02.01-460 Acorn woodpecker model
- CE-02.01-470 Partial blue oak trunk
- CE-02.01-480 Chaparral scenic ground cover
- CE-02.01-490 Chaparral CPT Vinyl Flooring

Background Image



IM-02.02-111

Filename: IMG_0247_stitch

Credit: NPS Photo

Graphic Rail

GL-02.02-120

Title: The California Chaparral

Text: On the dry slopes of the foothills, impenetrable thickets and shrubs stand tall above the rocky soil. This is the California chaparral – a diverse plant community native to the golden state.⁸ For thousands of years, this unique ecosystem has supported Native American life. **(43 words)**

Callouts:

⁸ <https://www.nps.gov/seki/learn/nature/foothills.htm>

Text: In the oak woodlands, hardy **blue oaks** (*Quercus douglasii*) provide shade. Woodpeckers and scrub jays nest along their branches, while mice burrow in their roots.⁹ **(25 words)**

Associated image:



IM-02.02-122

Filename: IMG_4404

Credit: NPS Photo

Text: Several species of **manzanita** (Genus *Arctostaphylos*) grow throughout the Sierra Nevada. These sprawling shrubs bloom in winter and produce edible berries in the spring.¹⁰ Local Western Monache/Mono crush these berries to make a cider called *pihabi*.¹¹ **(36 words)**

Associated image:



IM-02.02-123

Filename: IMG_3135_credit Erika Williams if needed - no credit necessary

Credit: NPS Photo

⁹ *Sierra Nevada Natural History*, 160.

¹⁰ *Sierra Nevada Natural History*, 113-114.

¹¹ Christopher Loether and Rosalie Bethel, "Dictionary of Western Mono," <http://northforkrancheria-nsn.gov/our-people/language/mono-dictionary> ;

Text: Elderberry (*Sambucus nigra* ssp. *cerulea*) bushes grow on streamside slopes. Humans and animals crave these sweet blue berries, known as *hubuhiya* to the Monache/Mono.¹² **(24 words)**

Associated image:



IM-02.02-124

Filename: BRP_3748

Credit: Brent R. Paull

Text: Can you spot the tall stalk of the **chaparral yucca** (*Hesperoyucca whipplei*)? Local Native Americans use varieties of yucca to make ropes, twine, and baskets.¹³ **(25 words)**

Associated image:

¹² *Sierra Nevada Natural History*, 111-112; Christopher Loether and Rosalie Bethel, "Dictionary of Western Mono," <http://northforkrancheria-nsn.gov/our-people/language/mono-dictionary> ;

¹³ Kat Anderson, *Tending the Wild*, 43-44, 53.



IM-02.02-121

Filename: 100_2337

Credit: NPS Photo

Graphic Rail

GL-02.02-130

Title: Among the Shrubs

Text: In chaparral and oak woodlands, dense shrubs and rocky outcroppings protect squirrels, quail, rodents, and other small mammals from potential predators and the heat of the midday sun. How many animals can you count in the scene before you? **(39 words)**

Callouts:

Text: The **California quail** (*Callipepla californica*) is the state bird of California. These social birds nest under the chaparral's shrubby cover. Listen for their distinct *Chi-ca-go* assembly call.¹⁴ **(27 words)**

Associated image:

¹⁴ *Sierra Nevada Natural History*, 282.



IM-02.02-132

Filename: credit Gary Lindquist

Credit: Gary Lindquist /NPS Photo

Text: Ground squirrels (*Otospermophilus beecheyi*) burrow into hillsides to escape predators, raise young, and store acorns. Their cozy homes can be more than six feet deep.¹⁵ **(25 words)**

Associated image:



IM-02.02-133

Filename: SEKI_140402_KW-2485

Credit: NPS Photo

Text: Can you hear that? Acorn woodpeckers (*Melanerpes formicivorus*) drill into trees to store acorns, search for food, establish their territories, or attract mates.¹⁶ **(23 words)**

Associated image:

¹⁵ Sierra Nevada Natural History, 364.

¹⁶ U.S. Fish & Wildlife Service, https://www.fws.gov/nevada/nv_species/urban_wildlife/woodpecker.htm



IM-02.02-131

Filename: acorn-wdpkr-grainery

Credit: NPS Photo

Content Group 2.2 - A Cultural Hub

Drawn to the area by its mild winters, California Native Americans have lived in the foothills for thousands of years. Places like Hospital Rock (Pah-din) continue to be important cultural sites in the Native American community today. In this space, visitors can touch reproductions of tools and learn about the cultural significance of the foothills.

Main Text

GL-02.03-100

Title: A Cultural Hub

Text: For California Native Americans, the Sierra Nevada foothills hold special meaning. Drawn by the mild winters, groups like the Monache/Mono, Foothills Yokuts, and Tubatulabal people called this land home. Here, communities hunted animals, gathered food, and practiced cultural burning. Their land management practices maintained the landscape and increased its abundance.¹⁷

Today, their traditions continue thanks to generations of storytelling and a thriving local Native American community. **(66 words)**

¹⁷ Jared Dahl Aldern and Ron W. Goode, “The stories hold water: Learning and burning in North Fork Mono homelands,” *Decolonization: Indigeneity, Education & Society*, (2014) 27-30; Kat Anderson, *Tending the Wild*, 59, 63, 76



IM-02.03-101

Filename: 0EC08095-4588-4B78-98F1-50948F10C66C

Caption: Hospital Rock was once a large village called *Pah-din* by the Monache/Mono. Today, it is a gathering place for park visitors and remains an important cultural site. **(27 words)**

Credit: Kirke Wrench/NPS Photo



IM-02.03-102

Filename: 4104E93A-EC4D-4837-BA55-216C07CEEDD5

Caption: Colorful pictographs cover Hospital Rock. Local Native Americans painted these images centuries ago to tell stories and record events. They are sensitive and sacred, so please do not touch or deface them.¹⁸ **(32 words)**

Credit: Kirke Wrench/NPS Photo

Subtext

GL-02.03-120

Title: Connected to the Land

Text: Imagine relying on nature for all your needs. For many California Native Americans, the natural world is a grocery, pharmacy, and hardware store all in one.¹⁹

¹⁸ <https://www.sierranevadageotourism.org/content/hospital-rock-sequoia-national-park/sie9f7cad682be018262>

¹⁹ Kat Anderson, "Tending the Wild," 41.

Following traditional practices, many tribes use redbud, bracken fern, sedges, and soap root for food, tools, and medicines.²⁰ Every plant, animal, and mineral serves a purpose. **(52 words)**



IM-02.03-121

Filename: Img6576

Caption: Redbud trees (*Cercis orbiculata*) produce bright pink and red flowers. Local Native Americans gather the shoots to weave into colorful baskets.²¹ **(20 words)**

Credit: NPS Photo



IM-02.03-122

Filename: Shebs_Rhus_trilobata_2

Caption: Some local Native Americans eat the sour sumac berries of the skunkbush (*Rhus trilobata*). The berries can also be soaked in cold water to make “sumac-ade.”²² **(26 words)**

Credit: Stan Shebs

Artifact Case

GL-02.03-310

²⁰ Kat Anderson, “Tending the Wild,” 167, 41

²¹ Kat Anderson, “Tending the Wild,” 320

²² Ray Vizgirdas and Edna Re-Vizgirdas, *Wild Plants of the Sierra Nevada*, (2006) 181.



Object: SEKI 3 (reproduction)

Title: Bottle-Necked Basket

Text: Native Americans weavers transform foothill fibers into baskets. Each design and shape serves a specific purpose. The black arrow points and red wool tufts on this basket mimic the feathers of a woodpecker.²³ **(33 words)**



IM-02.03-204

Filename: Kaweah Commonwealth-Basketry2

Caption: Today, many California Native Americans continue to share their skills with the next generation of basket-weavers.²⁴ **(17 words)**

Credit: Kaweah Commonwealth



Objects: SEKI 3786, SEKI 3787, SEKI 3788

Title: Obsidian Points

²³

<https://museum.nps.gov/ParkObjdet.aspx?rID=SEKI%20%20%20%20%20%20%20%203%26db%3Dobjects%26dir%3DCR%20SEKI%26page%3D1>

²⁴ <http://www.kaweahcommonwealth.com/news/native-culture-taught-local-students>, Note: there is no name listed for the figures in the photograph

Text: California Native Americans traded with communities in the eastern Sierra Nevada for obsidian. Men created points and spears out of this volcanic glass. If you spot these artifacts, leave them where they are. **(33 words)**



Objects: SEKI 27

Title: Walnut Shell Game Pieces

Text: Local Native American women fill walnut shells with pitch and small bits of abalone shells to create these game pieces for a popular dice game called *Uchus*.²⁵ **(27 words)**



Object: SEKI 16

Title: Soaproot Brush

Touchable Mortar and Pestle Reproduction/Custom Element

GL-02.03-130

CE-02.02-400

Visitors touch reproductions of a bedrock mortar and pestle and learn about traditional uses of these important tools.

Title: Bedrock Mortars and Pestles

²⁵ Artifact notes for SEKI 27

Text: Touch the pestle, and imagine using it to prepare your food. Local Native American women created deep holes in the bedrock through many seasons of work. They filled the holes with acorns and used pestles to pound acorns into flour. **(40 words)**

Associated image:



IM-02.03-133

Filename: 61033B85-1F53-4803-A31D-088BDA392315

Credit: Kirke Wrench/NPS Photo

Touchable Soaproot Brush / Custom Element

GL-02.03-130

CE-02.02-410

Visitors touch a soaproot brush and learn the importance of this plant and tool.

Title: Soaproot Brush

Text: For thousands of years, local Native Americans have used fibers from the native soap root bulb to make brushes. This tool has many uses, including brushing freshly ground acorn flour out of a mortar. **(34 words)**

Case Panel

GL-02.03-135



IM-02.03-131

Filename: TN-Drying_Soaproot_Brushes

Caption: Julie Girado Turner, a member of the Mono/Monache tribe, helps teach others how to make soaproot brushes. Here, she oversees the drying of new brushes.²⁶ **(25 words)**

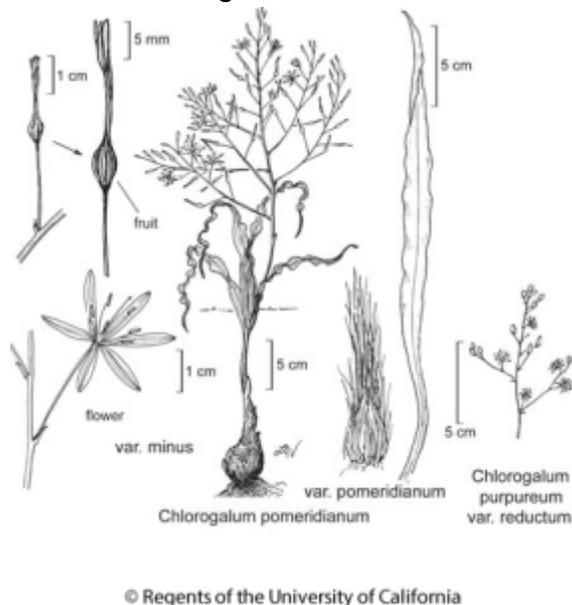
Credit: Jon Hammond / Tehachapi News

Soaproot illustration

IM-02.03-132

Drawing shows a cross-section of the plant and includes labels for different parts (bulb, leaves, and flowers).

Reference images:



²⁶ Jon Hammond, "Pen in Hand: Soaproot Brushes: Local residents Learn How to Make a Traditional Nüwa Tool," http://www.tehachapinews.com/lifestyle/pen-in-hand-soaproot-brushes-local-residents-learn-how-to/article_0397616a-beb0-11e7-8a8c-af72eb0d05fb.html

Caption: From May to August, soaproot flowers bloom above the bulbs hidden below the surface. California Native Americans turn these bulbs into tools and roast them for food.²⁷ **(27 words)**

Content Group 2.3 - A Healthy Landscape

Sequoia and Kings Canyon National Parks protect some of the most extensive foothill environments in the state. These spaces are threatened by a number of factors including non-native plant species, livestock grazing, and increasing rural development.²⁸ With hot summers, dense shrublands, and the growing threat of climate change, the foothills are also susceptible to increasing wildfires and drought.²⁹ Here, visitors learn about the threats facing the foothill environment and the importance of maintaining a healthy landscape.

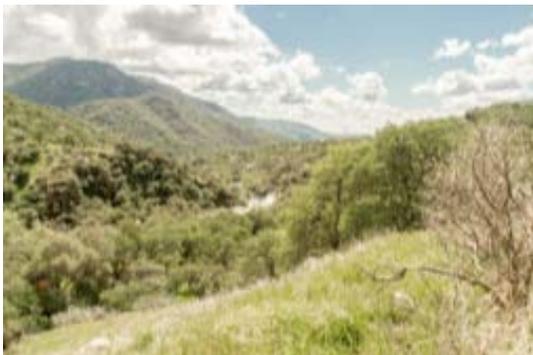
Healthy Landscape Vignette

The vignette features models of non-native plants found in the foothills during the later summer or fall and is connected to the adjoining chaparral vignette.³⁰

Models:

- CE-02.03-400 Spanish broom model
- CE-02.03-410 Giant reed model
- CE-02.03-420 Yellow starthistle model
- CE-02.03-440 Italian thistle model

Background Image



Filename: F9088682-FEB7-4863-B8C9-ABFB6E3537BC

Credit: Kirke Wrench/NPS Photo

²⁷ *Sierra Nevada Natural History*, 89.

²⁸ *A Climate-Smart Resource Stewardship Strategy for Sequoia and Kings Canyon National Parks*, p. 17

²⁹ http://www.jstor.org/stable/41424312?seq=1#page_scan_tab_contents

³⁰ https://www.nps.gov/seki/learn/nature/nnp_plants.htm

Main Text

GL-02.04-100

Title: A Healthy Landscape

Text: Fire is one of the best tools for managing vegetation. California Native Americans recognized its power long ago. They burned land to promote regrowth, aid hunting, and increase the edible food supply.³¹

After decades of fire suppression, these parks were one of the first to practice prescribed burns. Today, climate change has worsened droughts and fires, but crews are working with Native American partners to restore natural burn cycles. **(69 words)**



IM-02.04-101

Filename: *DSC_0042_placeholder prescribed burn photo*

Caption: A firefighter uses a drip torch to ignite vegetation during a prescribed fire. **(13 words)**

Credit: NPS Photo



IM-02.04-102

³¹ Kat Anderson, "Tending the Wild," 136.

Filename: 1515C166-B8A8-487E-8954-E1EB707B1A61

Caption: Fire is a natural part of the Sierra Nevada ecosystem. Burns thin competing species, recycle soil nutrients, and provide the right conditions for plant species to regenerate. **(27 words)**

Credit: Alison Taggart-Barone/NPS Photo

Conservation Connection Graphic

GL-02.04-120

Title: Conservation Connection

Text: Nearly one in eight plants in Sequoia and Kings Canyon National Parks is non-native.³² Invasive species like Spanish broom and yellow star thistle threaten to crowd out native species.³³ You can help prevent further damage. Clean your boots between hikes, check your clothes for traveling seeds, and keep an eye out for plants that do not belong.³⁴ **(57 words)**



IM-02.04-121

Filename: NPS-Spanish Broom

Caption: Spanish broom produces hardy seeds that can survive for years after they fall to the ground.³⁵ **(16 words)**

Credit: Ariel Palmon/NPS Photo

³² <https://www.nps.gov/seki/learn/nature/nnpmain.htm>

³³ https://www.nps.gov/seki/learn/nature/nnp_plants.htm

³⁴ https://www.nps.gov/seki/learn/nature/nnp_plants.htm

³⁵ https://www.nps.gov/seki/learn/nature/nnp_plants.htm



IM-02.04-123

Filename: NPS-Yellow Star Thistle

Caption: Yellow star thistle can thrive in higher elevations. Careful monitoring and removal can prevent it from taking root in these parks.³⁶ **(21 words)**

Credit: Franco Folini/NPS Photo



IM-02.04-122

Filename: NPS-Bull Thistle

Caption: Bull thistle can be identified by its purple flower head. It displaces native plants in disturbed areas.³⁷ **(17 words)**

Credit: NPS Photo

Get Out There! Graphic

GL-02.04-130

Title: Get Out There!

Text: Too snowy in other parts of the parks? The foothills are a great place to hike in the winter.³⁸ **(19 words)**

Subtitle: Ladybug Trail

³⁶ https://www.nps.gov/seki/learn/nature/nnp_plants.htm

³⁷ https://www.nps.gov/seki/learn/nature/nnp_plants.htm

³⁸ <https://www.nps.gov/seki/planyourvisit/foothillhikessum.htm>

Text: This 5.1-mile one-way trail meanders along the Kaweah River, passing through forests and canyons along the way.³⁹ **(17 words)**

Associated image



IM-02.04-131

Filename: SouthForkPanorama_LadybugTrail

Credit: NPS Photo

Subtitle: Camping in the Foothills

Text: Temperatures are mild and snow is rare at this elevation, offering opportunities for comfortable winter camping. **(16 words)**

Associated Image:



IM-02.04-132

Filename: 24E4BD73-5221-4ACE-BAA0-48E0D2916C84

Credit: Kirke Wrench / NPS Photo

Subtitle: Marble Falls Trail

Text: This trail takes you through 3.9 miles of chaparral to a stunning view of a cascading waterfall along the Marble Fork of the Kaweah River.⁴⁰ **(25 words)**

Associated image:

³⁹ <https://www.nps.gov/seki/planyourvisit/ladybug-trail.htm>

⁴⁰ <https://www.nps.gov/seki/planyourvisit/foothillhikessum.htm>



IM-02.04-133

Filename: 20170118 Marble Falls._credit Hal Gamble

Credit: Hal Gamble

Follow the River Graphic

GL-02.04-125

Title: Follow the River

Text: Fed by snow in the High Sierra, the Kaweah River empties just outside the park entrance at Lake Kaweah. In this dry climate, the river brings life to the foothills and California's Central Valley.⁴¹ **(34 words)**



IM-02.04-126

Filename: 4F67831A-FEF5-49BA-92CE-5D7AC58257CD

Caption: The Kaweah River flows through Potwisha, an area named for a band of Monache/Mono Native Americans. **(17 words)**

Credit: S. Bumgardner/NPS Photo

⁴¹ Kat Anderson, *Tending the Wild*, 27; https://www.nps.gov/parkhistory/online_books/smithsonian/terminus-reservoir/sec4.htm

Scene 3: Montane Forests

In montane forests, pines, cedars, firs, giant sequoias, and other conifers cover the mountainsides. Starting above 3,000 feet, this biome includes the park's famed sequoia groves, mixed-conifer forests, and lush meadows. In this scene, visitors explore exhibits, interactive elements, and immersive vignettes about the lower and upper montane forests' rich history, diverse wildlife, and the threats that endanger the landscape. At the end of the scene, visitors walk through a small cave and learn about the opportunity to visit Crystal Cave.

Scene Intro

Title: Montane Forests

Text: From towering trees to underground caves, the montane forest zone creates a rich and complex landscape. **(16 words)**

Content Group 3.1 - A Treasured Wetland

In the montane zone, meadows and wetlands are both biodiversity hotspots and severely threatened ecosystems. These environments are home to a wide variety of plants and animals. Treasured by many visitors for their natural beauty, meadows and wetlands are also a key facet of the montane forest.⁴²

Main Text

GL-03.01-100

Title: A Mountain Meadow

Text: Meadows and wetlands cover the landscape with a sea of greenery and splashes of colorful wildflowers. Covering a small fraction of the parks, meadows form where springs meet grassy slopes and saturate the soil.⁴³

Meadows regulate ecosystems and sustain abundant wildlife. Water persists in meadows through the year, providing water and food for plants and animals that live nearby or travel through the area.⁴⁴ **(64 words)**

⁴² <https://www.nps.gov/seki/learn/nature/animals.htm>;

https://www.sierraforestlegacy.org/FC_FireForestEcology/TH_MontaneMeadows.php

⁴³ Sierra Nevada Network Wetlands Monitoring, <https://science.nature.nps.gov/im/units/sien/monitor/wetlands.cfm>

⁴⁴ <https://www.nps.gov/seki/learn/nature/animals.htm>;

https://www.sierraforestlegacy.org/FC_FireForestEcology/TH_MontaneMeadows.php



IM-03.01-102

Filename: BRP_3991

Caption: One of the largest meadows in the parks, Crescent Meadow is popular for its stunning scenery.⁴⁵ **(16 words)**

Credit: NPS Photo



IM-03.01-101

Filename: 655EA5D2-CAA7-4A7C-BCEB-C0CBA25C5097

Caption: In Kings Canyon, the flat Zumwalt Meadow provides a dramatic view of the rocky hills around it.⁴⁶ **(17 words)**

Credit: Donald R. Quintana/NPS Photo

Conservation Connection Graphic

GL-03.01-120

Title: Conservation Connection

Text: In 2005, Halstead Meadow contained large gullies that drained the natural water supply and changed vegetation. Livestock grazing in the 1800s and the construction of Generals Highway had damaged the 20-acre wetland.⁴⁷ Park scientists filled deep

⁴⁵ <https://www.nps.gov/seki/learn/historyculture/gfmoro.htm>; <https://www.nps.gov/seki/learn/nature/wetlands.htm>

⁴⁶ <https://www.visitsequoia.com/explore/kings-canyon-national-park/zumwalt-meadow>

⁴⁷

ravines, restored natural water flow, and planted native species. Their efforts restored Halstead to a naturally functioning wetland. **(54 words)**



IM-03.01-121, IM-03.01-122

Filename: P6170056 / P6300178

Caption: Once in critical danger, Halstead Meadow is a thriving wetland today. **(11 words)**

Credit: NPS Photos

Montane Meadow Vignette and Soundscape

In this vignette, a recreated wetland environment features several model plants and animals in front of a graphic backdrop depicting the edge of a montane forest. The ground should feature a texture of wet dirt and grasses. An ambient soundscape features the soft sound of water flowing through a wetland.

Soundscape: EP-03.01-515

Models:

- CE-02.03-400 Spanish broom model
- CE-02.03-410 Giant reed model
- CE-02.03-420 Yellow starthistle model
- CE-02.03-440 Italian thistle model

Background Image:



IM-03.01-141

Filename: CrescentMeadows-Panoramic

Credit: NPS Photo

Graphic Rail

GL-03.01-130

Title: Amid the Grasses

Text: Hidden among tall sedges and grasses, insects, amphibians, and mammals rely on the meadow's ample groundwater. In the skies above, circling birds forage for their next meal. Here in the meadow, water is life. ⁴⁸ **(34 words)**

Callouts:

Text: Grasses and sedges (genus *Carex*) grow on the water's edge. California Native Americans use some sedges for their medicinal properties and in basket weaving. ⁴⁹ **(24 words)**

Associated image:



M-03.01-132

Filename: Calphotos-Carex3574

Credit: Dana York

⁴⁸ <https://www.nps.gov/seki/learn/nature/wetlands.htm>

⁴⁹ Ray Vizgirdas and Edna Re-Vizgirdas, *Wild Plants of the Sierra Nevada*, (2006) 242-243.

Text: The **western bluebird** (*Sialia mexicana*) prefers wide-open spaces. Look for birds swooping close to the water to find and eat insects in the marshy grass.⁵⁰ **(25 words)**

Associated image:



IM-03.01-131

Filename: Marcel Tuit, Flickr-Western Bluebird

Credit: Marcel Tuit

Tactile Element – Dragonfly

Visitors touch a tactile color reproduction of a flame skimmer dragonfly.

Text: The vibrant **flame skimmer dragonfly** (*Libellula saturate*) lays its eggs in standing water. These insects can prey on small fish!⁵¹ **(20 words)**

Reference/Associated image:



Filename: Douglass Moody, Flickr-Flame Skimmer Dragonfly

Credit: Douglass Moody

Follow the River Graphic

⁵⁰ <https://www.audubon.org/field-guide/bird/western-bluebird>

⁵¹ <https://nhm.org/nature/visit/wildlife-guide/flame-skimmer-dragonfly>;
<https://www.nps.gov/seki/learn/nature/wetlands.htm>

GL-03.01-125

Title: Follow the River

Text: Like a giant sponge, wet meadows absorb and release excess snowmelt and rainfall. Vegetation filters sediment, sending a steady supply of clean water to rivers down the mountain.⁵² **(28words)**

Associated image:



IM-03.01-126

Filename: LostCanyonStorm

Credit: NPS Photo

Content Group 3.2 - The Kings of the Forest

Black bears and giant sequoias are some of the most famous residents of these parks. Yet the montane forest is also home to numerous other trees, plants, and animals. In this area, visitors experience an immersive vignette and learn about bears, sequoias, and other forest life through graphics and a variety of touchable elements and interactives.

Main Text

GL-03.02-100

Title: A Walk in the Woods

Text: As you climb the mountain, the landscape begins to change. The trees grow taller. The winters are colder and snowier. This is the montane forest.

Unlike other evergreen forests, the montane forests of the Sierra Nevada show remarkable diversity. Scattered groves of sequoias intermix with broad stands of fir,

⁵² Sierra Nevada Network Wetlands Monitoring, <https://science.nature.nps.gov/im/units/sien/monitor/wetlands.cfm> ; Natural Resource Condition Assessment for SEKI, Appendix 13 Meadows, 1.

incense-cedar, and pine. At higher elevations, these trees fade into forests of red firs and lodgepole pines.⁵³ Around every corner, a new discovery awaits. **(73 words)**



IM-03.02-101

Filename: 1A1AA201-2D6C-41CC-8FE4-4F1E75BF01FD

Caption: Shooting up into the sky, the sequoias dwarf their surroundings. How do these giants make you feel? Awe-struck? Inspired? Small? **(20 words)**

Credit: NPS Photo

Montane Forest Vignette

In this vignette, visitors explore a montane forest environment during the spring. Models of a black bear and a portion of a giant sequoia are interspersed with models of other plants and animals native to this ecosystem. The ground should feature a texture of pine needles and leaves.

Models:

- CE-03.02-400 Giant sequoia trunk model
- CE-03.02-410 Snow plant tactile model
- CE-03.02-420 Dogwood model
- CE-03.02-430 White fir model
- CE-03.02-440 Black bear model
- CE-03.02-450 Stellar's jay model
- CE-03.02-460 Raven tactile model
- CE-03.02-470 Montane forest CPT Vinyl Flooring
- CE-03.02-470 Montane forest scenic ground cover

Background Image

⁵³ <https://www.nps.gov/seki/learn/nature/montane-forests.htm>



IM-03.02-111

Filename: B7AB82B7-C046-4940-8514-9354383AC628

Credit: NPS Photo

Graphic Rail

GL-03.02-120

Title: The King of the Forest

Text: Giant sequoias are the largest trees on Earth. Once covering a broader territory, sequoias are now found only on the western slopes of the Sierra Nevada at elevations from 5,000 to 7,000 feet (1,500 to 2,130 meters). **(37 words)**

Callouts:

Text: Local Native Americans have had a spiritual connection to **sequoias** (*Sequoiadendron giganteum*) for thousands of years. Members of the Tule River Tribe call them *toos-pung-ish*, or Ancient Ones. From an early age, Native Americans learn to respect the sequoias. ⁵⁴ **(39 words)**

Text: Just how big are sequoias? The largest trees in the parks are ...

- As tall as a 26-story building,
- Wider than a city street
- Still growing. Even as they get older, giant sequoias don't slow their growth rate!⁵⁵ **(41 words)**

Associated image:

⁵⁴ Floyd J. Franco, Jr, "Native American Views and Values of Giant Sequoia," Symposium on Giant Sequoias: Their Place in the Ecosystem and Society (1992).

https://www.fs.fed.us/psw/publications/documents/psw_gtr151/psw_gtr151_09_franco.pdf

⁵⁵ <https://www.nps.gov/seki/learn/nature/bigtrees.htm>



IM-03.02-121

Filename: 47F0F207-BA1B-42A5-B0E9-E9304227BF02

Credit: NPS Photo

Graphic Rail

GL-03.02-130

Title: In Sequoia's Shade

Text: In the shadow of giant sequoias, curious jays nest on tree branches and firs stretch to reach sunlight. In the scene before you, what else catches your eye? **(29 words)**

Callouts:

Text: Can you spot the **steller's jay** (*Cyanocitta stelleri*) hiding in the **Pacific dogwood** (*Cornus nuttalli*)? These birds glide among the branches, looking for food on the forest floor. Their noisy calls sometimes mimic other birds.⁵⁶ **(35 words)**

Associated image:



IM-03.02-132

Filename: NPS-Stellers Jay

Credit: NPS Photo

Text: **White fir trees** (*Abies concolor*) compete with the Sequoias for space, water, and nutrients. Some California Native Americans use its bark to make brown dye.⁵⁷ **(25 words)**

⁵⁶ *Sierra Nevada Natural History*, 305-306.

⁵⁷ *Sierra Nevada Natural History*, 138; https://www.fs.fed.us/wildflowers/plant-of-the-week/cornus_nuttalii.shtml

Associated image:



IM-03.02-133

Filename: Miguel Vierira, Flickr-White Fir and Sequoia

Credit: Miguel Vierira

Text: Can you find the **snow plant** (*Sarcodes sanguinea*)? These bright red, knobby plants grow near melting snowbanks. As mycotrophs, they use fungus in the soil to get nutrients from green plants. ⁵⁸ **(31 words)**

Associated image:



IM-03.02-131

Filename: Scott Toste-Snowplant

Credit: Scott Toste

Tactile Element

⁵⁸ *Sierra Nevada Natural History*, 80; https://botany.org/Parasitic_Plants/Sarcodes_sanguinea.php

Visitors feel a tactile reproduction of a raven perched near the graphic rail

Text: Feel the **raven's** (*Corvus corax*) beak. These smart birds can imitate human speech and use their beaks to gesture to other ravens. Some Yokuts tribes revere them as creators of the earth.⁵⁹ **(32 words)**

Touchable Element/Custom Element

GL-03.02-140, CE-03.02-480

Visitors feel a sample of black bear fur and learn how fur keeps bears warm in the winter, cool in the summer, and practically waterproof.

Title: A Coat for All Occasions

Text: The American black bear's thick coat keeps it warm in the cold winter months and dry in the rain. As temperatures rise, the bear sheds the top layer. The light, long hair that remains shields it from the summer sun and allows air to cool its skin.⁶⁰ **(47 words)**



IM-03.02-141

Filename: 43091005-FD43-4729-958F-40B59BD8B954

Caption: You won't find any grizzly bears in the parks – only black bears live in Sequoia and Kings Canyon. **(18 words)**

Credit: Donald Quintana/NPS Photo

Audio Interactive - EP-03.02-520

Visitors listen to bears' growls and other vocalizations and learn what each sound indicates. Sounds include⁶¹:

- *A bear clacking his teeth after being startled*
- *Mother bear vocalizing to her cub*
- *A bear cub cooing at his mother*

⁵⁹ *Sierra Nevada Natural History*, 308; <http://digitalassets.lib.berkeley.edu/anthpubs/ucb/text/ucp004-005.pdf> ; <http://mentalfloss.com/article/53295/10-fascinating-facts-about-ravens>; <https://books.google.com/books?id=TUojCOAAQBAJ&pg=PT42&dq=ravens+imitate+human+speech&hl=en&sa=X&ved=0ahUKEwid7JGR8c7cAhVIq1kKHLaAA64Q6AEINjAC#v=onepage&q=ravens%20imitate%20human%20speech&f=false>; <https://www.sciencedaily.com/releases/2011/11/111129112319.htm>

⁶⁰ <https://maymont.org/blog/keep-cool-and-bear-it/>

⁶¹ <https://www.bear.org/website/bear-pages/black-bear/communication/29-vocalizations-a-body-language.html>

- *Bears threatening each other while competing for food*

Title: Bear Talk

Text: Just as humans talk to each other, black bears communicate through growls, huffs, and other vocalizations.

- A startled bear clacking his teeth
- A mother bear vocalizing to her cub
- A cooing bear cub
- An angry bear threatening a competitor

(39 words)



IM-03.02-142

Filename: 8232E4B6-A1FD-4B37-A76D-74A0709B61FF

Caption: This is bear country! Do not approach bears and never get between a mother and her cub. **(17 words)**

Credit: NPS Photo

Flip Panel Interactive

GL-03.02-150

Visitor flip panels with drawings of plants, animals, and human food items and learn which items they should store in bear canisters and boxes.

[Drawing of bear box] - **IM-03.02-152**

Title: Should I Store That?

Text: Bears can get aggressive in their search for food. It is important to store food and scented items in bear-resistant storage boxes or canisters wherever available. Which of these objects should you store in a safe place? **(37 words)**

[Drawing of food] - **IM-03.02-153**

Caption: All food must be stored safely. Use a canister, storage box, or a car trunk to hide it from bears. **(20 words)**

[Drawing of sunscreen] - **IM-03.02-154**

Caption: Bears target anything with a scent, not just food. Items like sunblock, toothpaste, shampoo, insect repellent, even baby wipes are all potential dangers.⁶² **(23 words)**

[Drawing of a cooler] - **IM-03.02-155**

Caption: Bears learn to adapt to their environment and take advantage of easy sources of food. They can now recognize coolers, grocery bags, cans, and bottles.⁶³ **(25 words)**

[Drawing of hiking gear] - **IM-03.02-156**

Text: You don't need to store your hiking equipment. As long as it doesn't smell tasty, the bears won't come looking. **(20 words)**



IM-03.02-151

Filename: 3E4C55B6-FC30-4393-9BCA-D86A2F0B226F

Credit: NPS Photo

Content Group 3.3 – Preserving Our Park

The montane forests have been subject to the park's evolving ideas about conservation. In this space, visitors explore interactives and exhibits about conservation and the importance of fire.

Main Text

GL-03.03-100

Title: Preserving Our Park, Conserving Our World

⁶² <https://www.nps.gov/seki/planyourvisit/bears.htm>

⁶³ <https://www.nps.gov/seki/planyourvisit/bears.htm>

Text: Sequoia National Park exists thanks to the work of conservationists. The earliest protectors of this land were the Native Americans who lived here. After the park's founding in 1890, people like Walter Fry, Susan Thew, and Colonel Charles Young fought to protect this landscape. They experimented with new ideas and philosophies about stewardship and conservation.⁶⁴ Their innovation preserved the land for future generations, like you.⁶⁵

Today, the parks continue to push the boundaries of human knowledge. Rangers and scientists research air quality, the health of plant communities, weather and climate, and more. **(92 words)**



IM-03.03-103

Filename: Img1037

Caption: Walter Fry served as the park's first Superintendent. He wanted visitors to enjoy the land, but to do so in sustainable ways. **(22 words)**

Credit: NPS Photo



IM-03.03-102

Filename: SEKI-840a4103-2afb-4012-95da-3ff5c89da747

⁶⁴ https://www.nps.gov/parkhistory/online_books/dilsaver-tweed/chap6.htm;
<https://www.nps.gov/seki/learn/historyculture/susan-thew.htm>;
https://www.nps.gov/chyo/learn/historyculture/colonel-charles-young.htm#CP_JUMP_3401416

⁶⁵ https://www.nps.gov/parkhistory/online_books/dilsaver-tweed/chap6.htm;
<https://www.nps.gov/seki/learn/historyculture/susan-thew.htm>;
https://www.nps.gov/chyo/learn/historyculture/colonel-charles-young.htm#CP_JUMP_3401416

Caption: Colonel Charles Young was the first African-American superintendent of a national park. In the summer of 1903, Young and his troops of Buffalo soldiers completed the first road that allowed automobiles to reach the Giant Forest.⁶⁶ **(36 words)**

Credit: NPS Photo



IM-03.03-101

Filename: NPSMuir-Pass_4.jpg

Caption: Armed with her camera, Susan Thew set out to photograph the rugged Sierra backcountry in the 1920s. Her photographs and advocacy convinced the U.S. Congress to triple the park's size.⁶⁷ **(30 words)**

Credit: NPS Photo

Subtext

GL-03.03-110

Title: The Power of Fire

Text: Fire is crucial for the continued survival of sequoias. The heat from the flames wafts up the branches, warming the cones and releasing seeds. After a fire, seeds take root in the nutrient-rich soil.

During decades of fire suppression, many sequoias failed to reproduce. Today, efforts to reinstitute natural fire patterns through controlled burns have spawned a new generation of seedlings.⁶⁸ **(61 words)**

⁶⁶ <https://home.nps.gov/seki/learn/historyculture/young.htm>

⁶⁷ <https://www.nps.gov/seki/learn/historyculture/susan-thew.htm>

⁶⁸ https://www.nps.gov/seki/learn/nature/fic_segi.htm; <http://www.pbs.org/wnet/nature/giant-sequoia-needs-fire-grow/15094/>



IM-03.03-111

Filename: A4EA91C8-795A-4C0C-AA5C-8188CCDB90E8

Caption: Periodic fires clear excess forest debris and can help reduce competition between sequoias and other trees for nutrients and water. **(20 words)**

Credit: NPS Photo



IM-03.03-112

Filename: 06E56C14-4E61-4764-B60D-CCAD0A06517B

Caption: Full-grown sequoias can survive even the hottest fires. Their fire-resistant bark can grow up to two feet thick. **(18 words)**

Credit: NPS Photo

Get Out There! Graphic

GL-03.03-120

Title: Get Out There!

Text: Explore scenic meadows and towering sequoias in the montane forests. **(10 words)**

Subtitle: General Sherman

Text: In the Giant Forest, don't miss General Sherman, the world's largest tree by volume. Over 36 feet wide at its base, this sequoia is more than 2,000 years old!⁶⁹ **(29 words)**

Associated image:



IM-03.03-121

Filename: C891B982-2EFB-48BF-9813-080E8453FA04

Credit: NPS Photo

Subtitle: Hazelwood Trail

Text: An easy one-mile trek, this wheelchair accessible trail takes you through a peaceful portion of the Giant Forest.⁷⁰ **(18 words)**

Associated image:

⁶⁹ <https://traveltips.usatoday.com/general-sherman-tree-61028.html>;
<https://www.visitcalifornia.com/attraction/general-sherman-tree>;
<https://www.nps.gov/seki/learn/nature/sherman.htm>

⁷⁰ <https://www.frommers.com/destinations/sequoia-and-kings-canyon-national-parks/exploring-the-area/day-hikes>



IM-03.03-122

Filename: Sugar Crash Photography-Hazelwood Trail

Credit: Sugar Crash Photography

Tree Section Stools & Tree Cookie interactive

GL-03.03-140, GL-03.03-140A, GL-03.03-140B, GL-03.03-140C

Here, visitors can sit on a variety of tree-trunk shaped stools and pull out tree “cookies” to learn more about trees throughout the montane zone.

Title: All Bark, No Bite

Text: In montane forests, trees come in different colors, shapes, and textures. Pull out a slice of a tree to learn more. **(21 words)**

Slice Title: Lodgepole Pine

Slice Text: This straight and skinny pine gives this area its name. Its rough bark looks like puzzle pieces.⁷¹ **(17 words)**

Associated image:



IM-03.03-141

Filename: Img6233

Credit: K. Webster / NPS Photo

Slice Title: Incense Cedar

⁷¹ *Sierra Nevada Natural History*, 142.

Slice Text: Incense cedar bark gets thicker and redder as the tree ages. The oldest trees are sometimes mistaken for sequoias.⁷² **(19 words)**

Associated image:



IM-03.03-142

Filename: Quintana_Incense Cedars_IMG_3187

Credit: Donald Quintana / NPS Photo

Slice Title: White Fir

Slice Text: The elegant firs around Lodgepole are white firs. If you climb just a bit higher in elevation, red firs become more common.⁷³ **(22 words)**

Associated image:



IM-03.03-143

Filename: 582DAD64-DD03-460C-9003-6A28FAFC4EB8

⁷² *Sierra Nevada Natural History*, 136.

⁷³ *Sierra Nevada Natural History*, 140.

Credit: NPS Photo

Slice Title: Jeffrey Pine

Slice Text: Jeffrey pines look like their cousins, Ponderosa pines, but you can tell them apart by their smell. The bark of Jeffrey pines smells like butterscotch.⁷⁴ **(25 words)**

Associated image:



IM-03.03-143

Filename: KICA_150427_ATB_81

Credit: NPS Photo

Artifact Case

Object: TBD

Title: Historic Park Ranger Hat and Belt

Text: Though this hat and belt are a century old, park rangers still wear similar uniform pieces. Rangers nationwide wear sequoia cone emblems on their belts and hatbands. **(27 words)**

Artifact

CE-03.02-490

Title: Giant Sequoia Segment

Text: This sequoia lived hundreds of years. Within its rings, it holds information about climate and fire throughout its lifespan. Scientists use these rings to study the forest's past. **(28 words)**

⁷⁴ *Sierra Nevada Natural History*, 148.

Content Group 3.4 – Into the Dark

Sequoia National Park contains over 275 caves in nearly all elevations of the park.⁷⁵ Here, visitors pass through an immersive cave environment and learn about these unique environments.

Cave Vignette with Soundscape

In this vignette, visitors experience a recreated portion of a subalpine park cave featuring marble-banded stone walls. An ambient soundscape plays the sound of dripping water in Crystal Cave.

- Cave CPT Vinyl Flooring : CE-03.04-430
- Soundscape: EP-03.04-525

Reference Image



Filename: 4E1BDF47-7D9B-4414-A6A2-5FD57068ADED

Credit: Alison Taggart-Barone/NPS Photo

Main Text

GL-03.04-100

Title: Into the Dark

Text: Hidden beneath the surface lies a dark, underground world. The parks have hundreds of cave systems, featuring miles of winding passages, steep drops, and subterranean wonders.⁷⁶

Delicate and dangerous, these unique environments are home to Pleistocene era fossils, rare minerals, and creatures that have never seen the light of day. Since 1965, scientists have discovered over 40 new invertebrate species in park caves.⁷⁷ **(63 words)**

⁷⁵ https://www.nps.gov/seki/learn/nature/cave_descriptions.htm#CP_JUMP_114868

⁷⁶ <https://www.nps.gov/seki/learn/nature/cave.htm>; <https://www.nps.gov/seki/learn/management/upload/FINAL2-SEKI-FACT-SHEET-2013.pdf>; *Sequoia and Kings Canyon: Official National Park Handbook*, 88

⁷⁷ <https://www.nps.gov/seki/learn/nature/cave.htm>; <https://www.nps.gov/seki/learn/nature/cave.htm>



IM-03.04-101

Filename: 67525B9B-D3B1-4915-9F2D-DF661942835F

Caption: Streams run through many of the parks' caves. Most maintain a steady temperature, creating a stable habitat for cave life.⁷⁸ **(20 words)**

Credit: Alison Taggart-Barone/NPS Photo

Touchable Element - GL-03.04-110

Models:

- CE-03.04-400 Cave Popcorn
- CE-03.04-410 Cave Scallops
- CE-03.04-420 Helictites

Title: Cave Creations

Text: Do you hear the dripping water? Touch the cave textures and learn how water shaped these formations. **(17 words)**

- Cave popcorn – When water drips from the ceiling or seeps out of the walls, it can form clustered nodules, known as cave popcorn.⁷⁹ **(24 words)**
- Cave scallops – These dish-shaped indentations are not deposited by water, but carved out of the bedrock by rushing streams. They indicate past water flow and velocity.⁸⁰ **(26 words)**
- Helictites –When water seeps through tiny openings in cave walls, helictites begin to form. Helictites sprout and twist in all directions, seemingly defying gravity. They suck up water like a straw and twist into odd shapes.⁸¹ **(37 words)**

⁷⁸ https://www.nps.gov/seki/learn/nature/cave_descriptions.htm

⁷⁹ <https://www.nps.gov/wica/learn/nature/speleothems-cave-popcorn.htm>

⁸⁰ https://www.britannica.com/science/cave/Solution-cave-features#ref499881;https://books.google.com/books?id=aLDky3N0CmkC&pg=PA679&dq=cave+scallops&hl=en&sa=X&ved=0ahUKEwiBx_SV37_bAhXMt1kKHQqkC2kQ6AEINTAC#v=onepage&q=cave%20scallops&f=false

⁸¹ <http://nhvss.org.au/wp-content/publications/Helictites%20-%20What%20are%20they.pdf;https://www.nps.gov/grba/learn/nature/helictites.htm>



IM-03.04-111

Filename: D5885D8C-8B6E-4C74-8DEA-BD6AAAAA02F3E

Credit: Alison Taggart-Barone/NPS Photo

Get Out There! Graphic

GL-03.04-120

Title: Get Out There!

Text: Dark, damp, and filled with geological marvels, caves intrigue the explorer in us all. Yet, they are fragile environments. Crystal Cave is the only cave environment open to visitors. Buy tickets online or at the Sequoia Journeys desk across the hall. **(41 words)**



IM-03.04-121

Filename: 803D5047-C68C-437E-BF66-8F96A3D0FD85

Caption: Marble bedrock runs from ceiling to floor in a complex passage in Crystal Cave.⁸² **(14 words)**

Credit: Alison Taggart-Barone/NPS Photo

⁸² https://www.nps.gov/seki/learn/nature/geology_overview.htm; <http://epod.usra.edu/blog/2012/02/crystal-cave-in-sequoia-national-park.html>