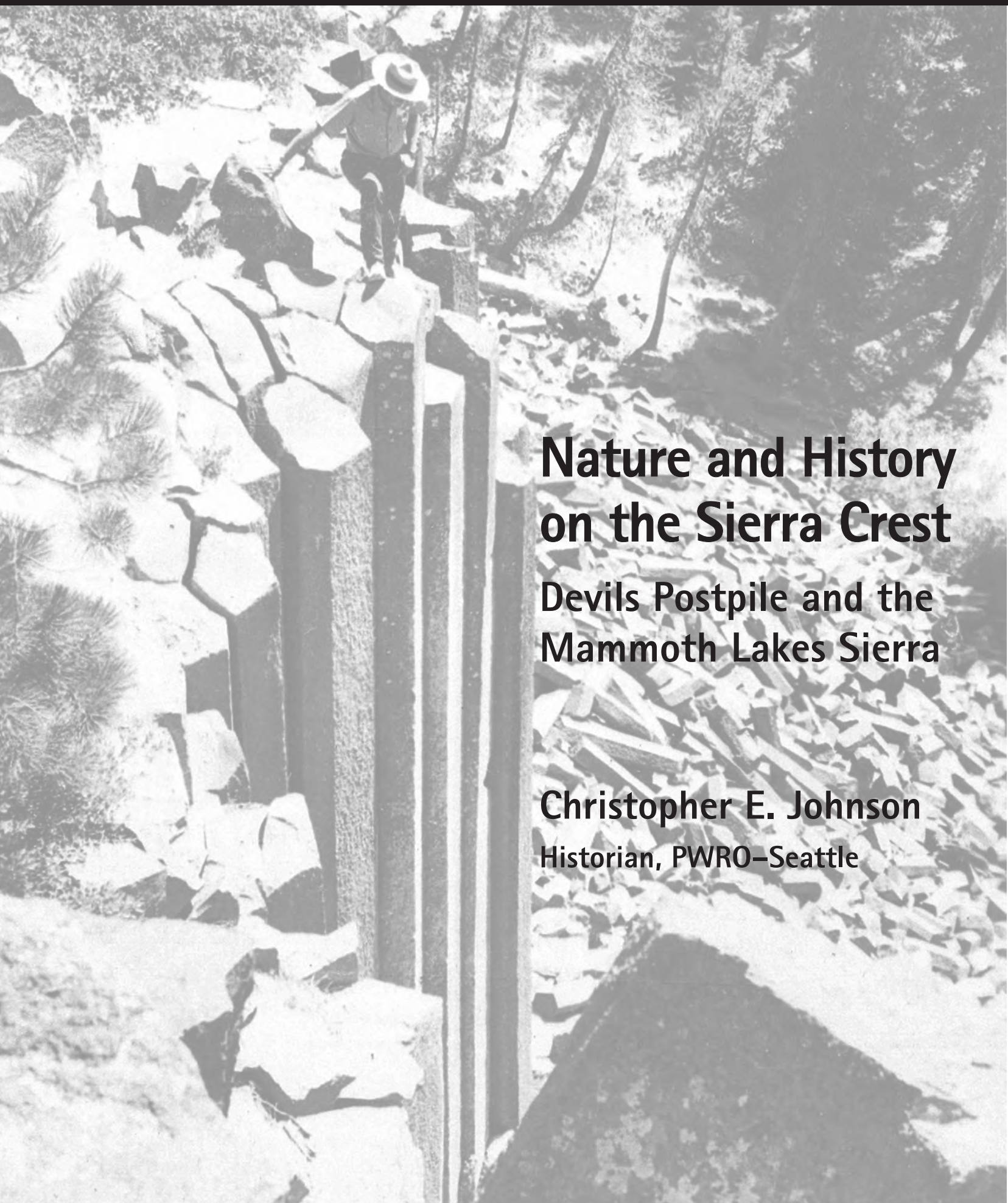
National Park Service
U.S. Department of the Interior

Devils Postpile National Monument
California



Nature and History on the Sierra Crest

Devils Postpile and the Mammoth Lakes Sierra

Christopher E. Johnson
Historian, PWRO–Seattle

Nature and History on the Sierra Crest: Devils Postpile and the Mammoth Lakes Sierra

Devils Postpile formation and talus. (Devils Postpile National Monument Image Collection)

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As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural and cultural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historical places; and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The Department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

Contents

List of Figures

Acknowledgments

This report is a credit to the vision and commitment of dozens of people. First, I would like to thank my colleagues in the National Park Service Pacific West Regional Office for their support and encouragement. I am especially grateful to David Louter for giving me the opportunity to take on the project and for his invaluable advice and encouragement. I am also indebted to Elaine Jackson-Retondo for seeing the project through to completion. Special acknowledgment goes to Charles Palmer who conducted the initial research for this project and drafted some of the early chapters.

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The Mammoth Lakes Sierra may be known for its stunning scenery and diverse recreational opportunities, but it is the people who make the place special. A number of local residents and others with connections to the monument and the surrounding area helped with this project. Their insights and experiences enlivened the narrative while deepening my appreciation for the region's rich history. Special thanks go to Lou and Marye Roeser, Bob Tanner, Genny Smith, Bob Schotz, the Honorable Ron W. Goode, Michael Morse, Jack Fisher, Norman Livermore III, Robert Pavlick, Wymond Eckhart, Walt Hoffman, and Nancy Wirth.

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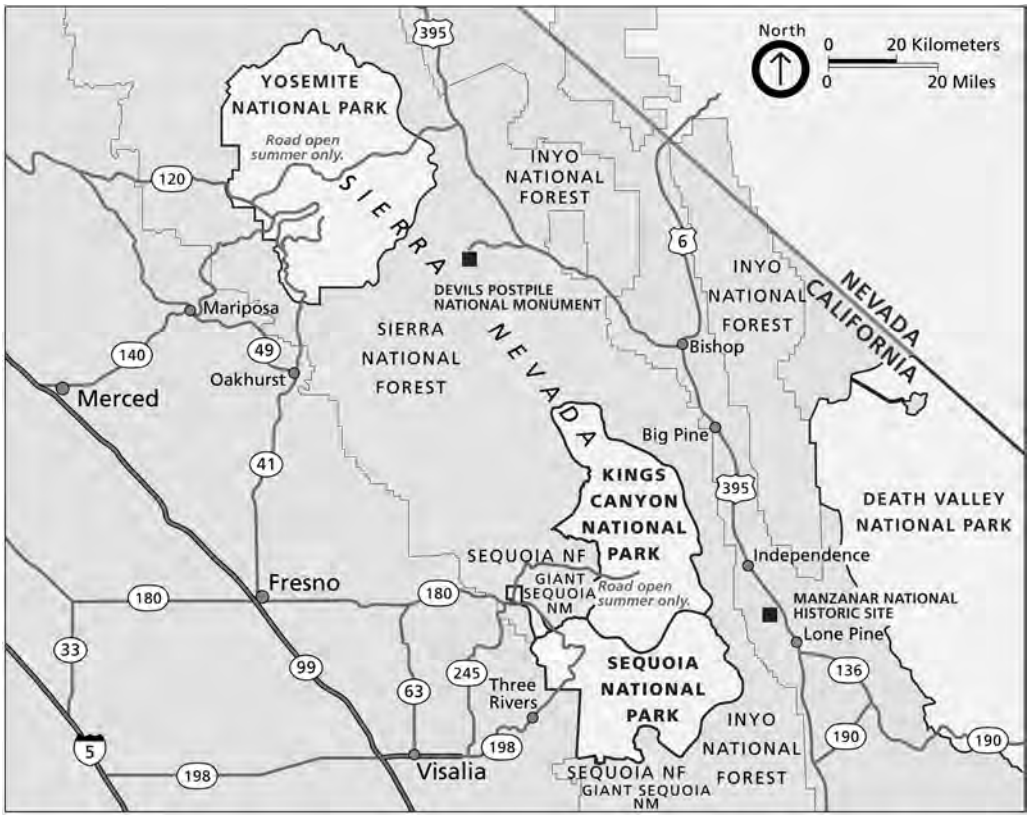
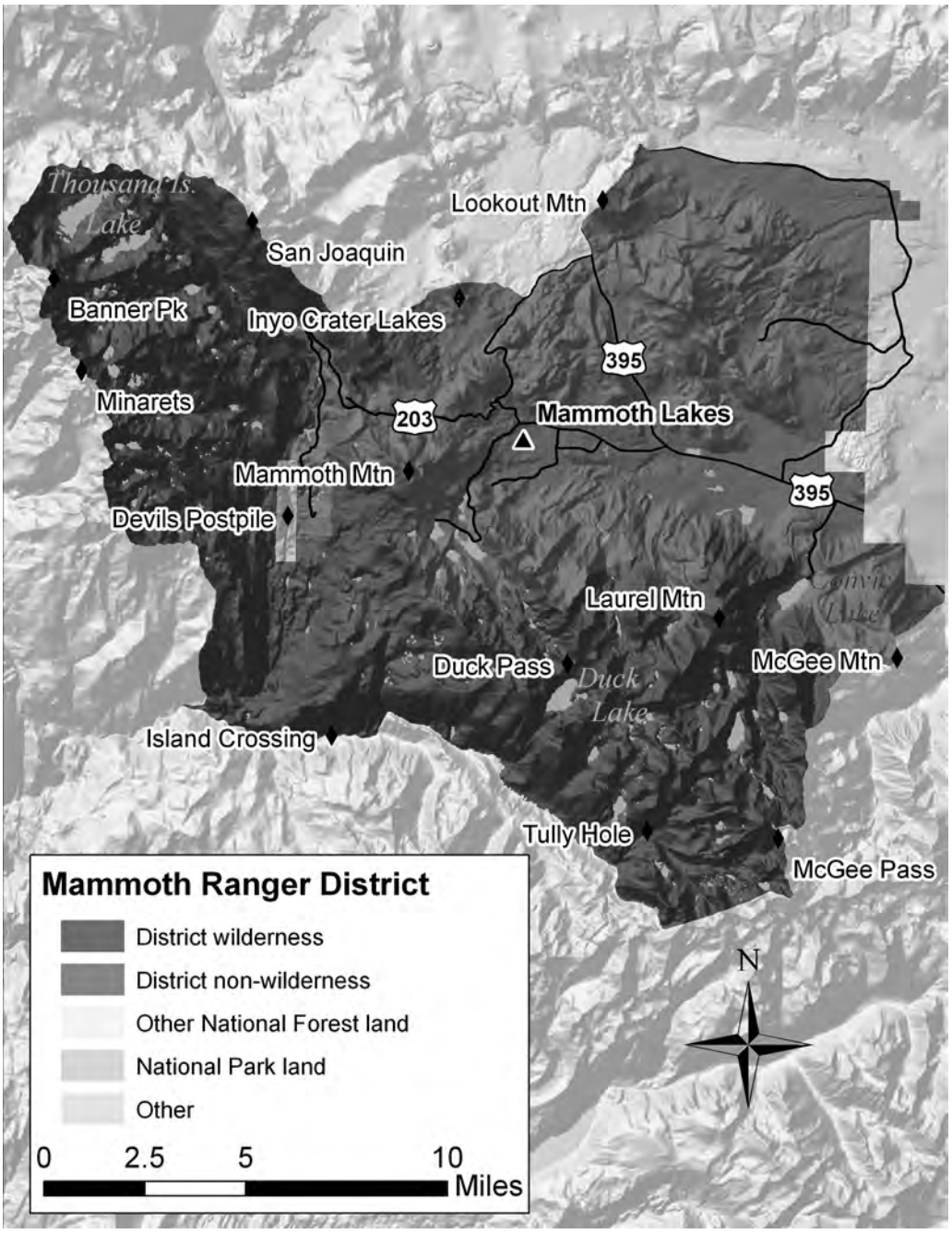
Finally, I want to express my gratitude to my wife Tomoko for her patience and support during the nearly four years I spent researching and writing this report. I am also grateful to my two sons, Sai and Hiro, both of whom were born during the course of the project. My family is the main inspiration in my personal and professional life. This project is dedicated to them.

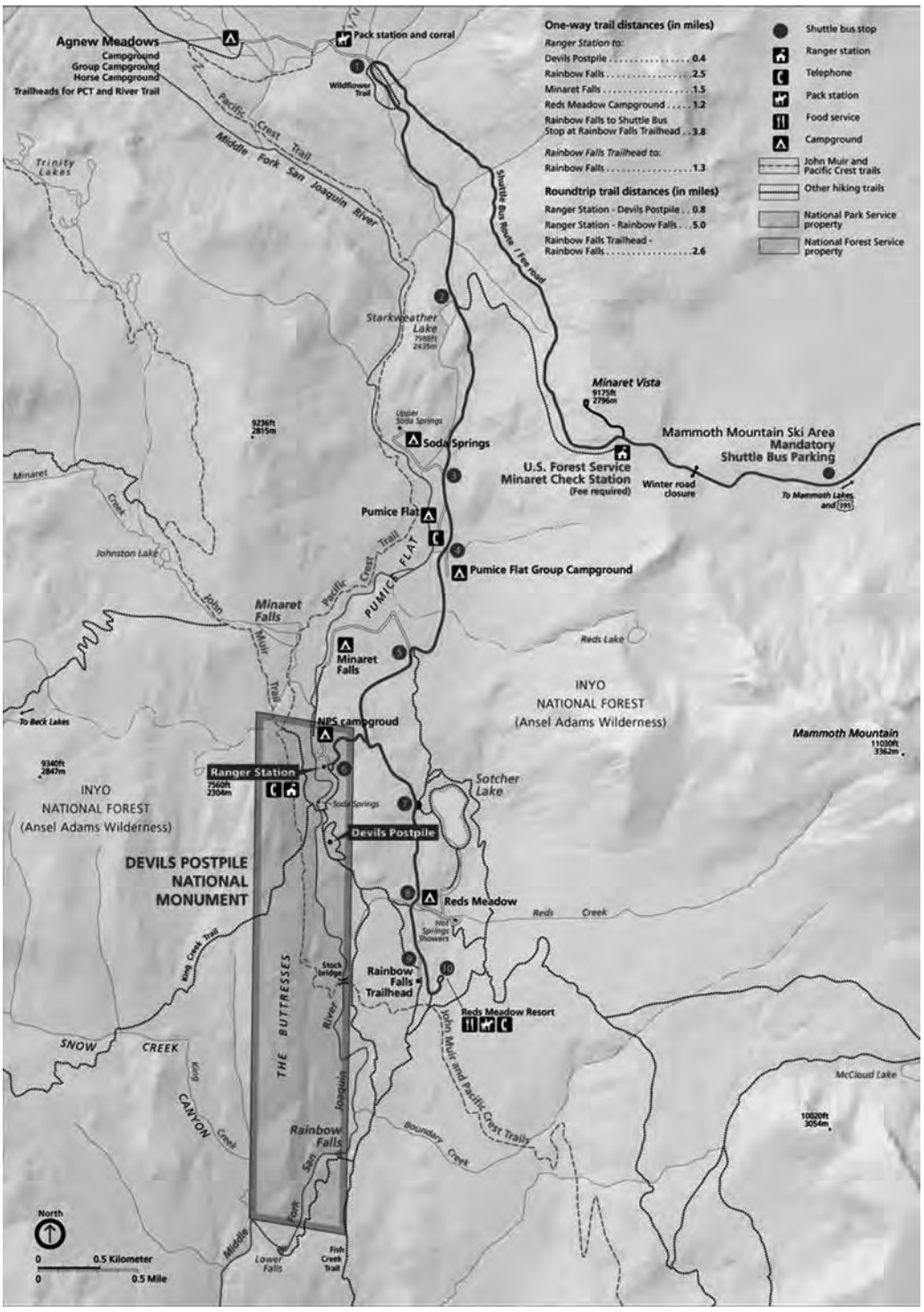
Christopher E. Johnson
NPS Pacific West Regional Office, Seattle, Washington
July 29, 2013



Regional Map. (Sequoia and Kings Canyon National Parks)



Devils Postpile National Monument and vicinity. (Inyo National Forest, Mammoth Lakes Ranger District)



Devils Postpile park map. (Devils Postpile National Monument)

Introduction

The Devils Postpile formation is one of the most recognizable geologic features in California's Sierra Nevada range. Visitors today appreciate it as a striking demonstration of the successive waves of volcanic and glacial activity that shaped the surrounding High Sierra scenery. But responses to the Postpile's otherworldly columns of dark basalt have also varied over time and among observers. North Fork Mono traders who crossed the Sierra crest near Devils Postpile for generations regarded the pillars as lumber that had become rock.[1] In the late nineteenth century, itinerant sheepherders associated the strange outcrop with more sinister forces, naming it "the Devil's Woodpile."[2] Other nineteenth-century observers described the oddly symmetric posts as "regular in shape as if they had been made by the hand of man."[3]

President William H. Taft proclaimed Devils Postpile a national monument in 1911 in recognition of its unique geology. The proclamation also protected nearby Rainbow Falls where the Middle Fork San Joaquin River plunges 101 feet over a sheer cliff of volcanic rock. For Sierra Club leader Joseph N. LeConte, the creation of the monument also brought what he felt to be much-deserved attention to the dramatic scenery of the little-known upper reaches of the Middle Fork San Joaquin River Valley.[4] Enclosed by the volcanic bulk of Mammoth Mountain to the east and the jagged Ritter Range to the west, the remote Middle Fork Valley constituted "the most magnificent piece of mountain scenery we have in the Sierra Nevada," he wrote. "Not only does this basin embrace such curiosities as the recently established monument, but also one of the finest groups of mountain peaks, the finest group of residual glaciers, and the finest evidences of recent volcanic activity to be found in the Sierra Nevada."[5]

During the twentieth century, Devils Postpile's strange appearance, scientific interest, and dramatic setting drew increasing numbers of tourists, most from the growing city of Los Angeles 340 miles to the south. In the early years, visitors approached the monument by trail, with most crossing the Sierra crest from the east by way of Mammoth Pass on the south shoulder of Mammoth Mountain. In the late 1920s, automobile tourists began braving the narrow mining road over Minaret Summit north of Mammoth Mountain to view the monument's features, fish the Middle Fork San Joaquin, camp in a rustic setting, and explore the alpine basins and peaks of the Minarets and Ritter Range. As scientists in recent years have gained a better understanding of the complexity and sensitivity of the Sierra Nevada ecosystem, the National Park Service has reinvented the monument as a test park for ecological management, taking advantage of Devils Postpile's location near the Sierra crest for monitoring the environmental health of the entire range.

Throughout the human history of the Sierra Nevada, harsh winters, frequent volcanic activity, and difficult access have kept the Devils Postpile area relatively insulated from the dramatic transformations apparent in more populated areas to the east and west. Even today, the valley's meadows, forests, rushing streams, and glacier-sculpted volcanic rocks appear little changed by the frenetic advance of modern technological society. But by viewing the Devils Postpile area as a place defined by the relative absence of human history, we risk obscuring its rich human past. People have been present here for thousands of years, making it as much a cultural

landscape as a natural one. The human history of Devils Postpile can deepen our appreciation for the area by revealing how different groups of people including Native Americans, miners, sheepherders, conservationists, scientists, public land agency employees, local residents, and tourists have valued and engaged with the High Sierra environment over time. Though not always self-evident, these stories are reflected in archaeological sites, roads, trails, structures, and environmental features in Devils Postpile National Monument and the surrounding national forests. These resources highlight the contested and changing meaning of nature in American history and provide glimpses into the stories of conflict, cooperation, and individual effort that have shaped the monument and the Mammoth region. Finally, these stories are reminders that while the Postpile may have non-human origins, its significance cannot be considered independently from the human history of the Sierra Nevada and the history of American conservation.

Historical Overview

Beginning at least 7,500 years ago, Native Americans inhabiting the east and west slopes of the Sierra Nevada used the Middle Fork Valley as part of a seasonal transmountain trade route and location for hunting and resource collection. The intervening Ritter Range and the steep canyon downstream from Devils Postpile prevented European and American exploration of the area from the west. Few non-Indians had knowledge of the Middle Fork Valley until the 1860s when gold strikes near Mono Lake brought a wave of fortune seekers to the Sierra's remote east side and eventually to the vicinity of Mammoth Pass. Also in the 1860s, itinerant sheepherders ventured into the area from the Central Valley to the west and over Mammoth Pass from the east to graze their flocks on the alpine meadows in and around the Middle Fork Valley.

The Devils Postpile area came under federal protection in 1890 with its inclusion within the original boundaries of Yosemite National Park. However, few national park advocates recognized the significance of this difficult-to-access corner of the High Sierra, and in 1905, mining, timber, and grazing interests succeeded in having the area removed from the park. Following the boundary adjustment, the Middle Fork Valley became part of the newly created Sierra National Forest. While this transfer ensured continued federal oversight, it also meant that the area's mineral, timber, and other natural resources would be open to commercial development if the US Forest Service found a use that met its utilitarian criteria.

The first test of the Forest Service's commitment to regulating commercial development in the area came in 1910 when District Engineer Walter L. Huber received an application to blast portions of the Postpile formation for materials for a rock-fill dam. Arguing that the scenic and scientific value of the Postpile outweighed the limited benefits of a dam in the area, Huber convinced Forest Service officials and President Taft (a typically reluctant preservationist) to join Sierra Club members John Muir, Joseph LeConte, and William Colby in supporting the establishment of a national monument under the American Antiquities Act of 1906.

Taft's proclamation creating Devils Postpile National Monument came just as the heated battle over the proposed damming of Hetch Hetchy Valley in Yosemite National Park reached its peak. While the Hetch Hetchy controversy came to symbolize the philosophical gulf between those who would manage natural resources for use and those who would preserve them for all time, the campaign for Devils Postpile signified the possibility of common ground.[6] Though philosophical differences remained, cooperation between preservationists and utilitarian conservationists became a recurring theme in the monument's administrative evolution, as would be reflected in frequent collaboration between the Forest Service and the Park Service.

A second theme in the administrative history of Devils Postpile is the strong influence of regional interests and politics on management priorities and actions.[7] Although established for its scientific interest to the nation, Devils Postpile evolved primarily as a park with regional connections and significance, becoming an integral part of the tourism- and recreation-based economy of the area travel books came to refer to as the Mammoth Lakes Sierra.[8] As the Mammoth region developed into a backyard playground for Southern Californians, the Middle Fork Valley became valued regionally for its rustic camping, excellent trout fishing, and opportunities for hiking, climbing, and packing into the High Sierra.

Limited federal resources and guidance for the management of national monuments also shaped Devils Postpile's administrative evolution. Although the Antiquities Act allowed for the protection of dozens of natural and historic sites as national monuments by nothing more than executive decree, it offered no appropriations for individual monuments and few guidelines for their management. Monuments commonly suffered from severe funding and staffing shortages as a result.[9] Devils Postpile's small size, short operating season, and difficult access exacerbated these problems. Responsibility for the monument also changed hands several times. At first a unit of the Forest Service, the monument was placed under Yosemite National Park in 1934 following President Franklin D. Roosevelt's order transferring the national monuments to the Park Service. The Forest Service and Park Service shared jurisdiction as a wartime expediency from 1943 until 1952 when Yosemite resumed oversight. However, Yosemite continued to struggle to provide adequate funds and staffing for the small, distant monument, and in 1972, Sequoia and Kings Canyon National Parks took over administrative responsibilities. In 2007, the monument was assigned to the Park Service Pacific West Regional Office as an independent park.

Meanwhile, on-site staff made the most of the situation, developing creative responses to minimal staffing, severely limited budgets, and difficult access. In the early years, rangers worked with the Forest Service and its permit holder at nearby Reds Meadow Resort and Pack Station to improve facilities and accommodate increasing visitation. On-site managers also developed interpretive programs to communicate the scientific significance of monument resources. Still, the Park Service maintained a weak presence in the region through most of the twentieth century, even as Devils Postpile became an integral component of visitors' experience of the area.

The Park Service's limited commitment to Devils Postpile became apparent in the 1950s and 1960s as a plan took shape to build a multilane, all-weather, trans-Sierra highway to pass just outside the monument boundary. Despite the proposed highway's impact on the monument, Park Service officials for the most part stood aside while regional interests battled over the future of the Middle Fork Valley and the Mammoth Lakes area. A coalition of packers, tourism business owners, and local conservationists led the fight to block the road. In 1972, the group overcame powerful pro-development interests in the Central Valley and convinced then-governor Ronald Reagan to oppose construction. During a much-publicized pack trip from Reds Meadow to Summit Meadow in June 1972, Reagan announced President Richard Nixon's Executive Order to officially halt the highway project.

The fight to block the trans-Sierra highway marked a turning point in the history of the monument, keeping Devils Postpile isolated from the more populated areas to the west, thus preserving its rustic character while also strengthening its bonds with Mammoth Lakes and the Eastern Sierra. The highway debate also signaled that effective protection of the monument would require the Park Service to more actively participate in regional planning. In 1979, monument officials responded by collaborating with the Inyo National Forest and private

interests in Mammoth Lakes to operate a mandatory shuttle bus from the Mammoth Mountain Ski Area to Devils Postpile and Reds Meadow. The shuttle, the first of its kind in the nation, helped mitigate environmental damage and overcrowding resulting from increased numbers of automobiles entering the Middle Fork Valley by way of the newly paved road from Minaret Summit.

Through the late twentieth century, budget shortfalls, increasing visitation systemwide, and an agency culture that historically favored tourism development over ecological management continued to hamper the Park Service's ability to respond to threats originating outside monument boundaries.[10] In the early 1980s, local conservationists again led the way, working to close the "wilderness gap" west of the monument that the trans-Sierra highway had been slated to pass through and to prevent ski resort development on the west side of Mammoth Mountain. These efforts resulted in the enlargement of the two existing wilderness areas west of the Middle Fork Valley in 1982. In 1984, Congress passed the California Wilderness Act, expanding the newly designated Ansel Adams Wilderness to cover approximately 75 percent of the monument.

In recent years, managers at Devils Postpile have worked to increase the presence of the Park Service in the Mammoth region. Their efforts reflect the Park Service's increasing commitment to scientific management, whole-ecosystem monitoring, and partnerships. The change in 2007 to independent park status has also allowed on-site managers more discretion to establish formal partnerships with Yosemite, Sequoia and Kings Canyon, the regional office, and other internal and external organizations in the design and implementation of a number of ecosystem monitoring and climate change response programs. These projects take advantage of the monument's location near the Sierra crest, providing environmental data relevant to both the Mammoth Lakes Sierra and the entire San Joaquin River watershed to the west.

The recent history of Devils Postpile exhibits the opportunities and challenges of balancing ecological management with other local and regional priorities. In placing greater stress on scientific research, Devils Postpile staff have gained a better understanding of the connections between the health of park resources and the health of the monument's ecosystem, providing the Park Service greater leverage in regional politics and planning. Although the potential for conflict exists, this broader ecosystem approach provides a valuable information base to guide responsible regional planning. In recent years, Devils Postpile staff members have also worked to establish government-to-government relationships with Indian tribes in the area. They have also built on existing partnerships with commercial recreation interests and other public land agencies to ensure the protection of the region's natural and cultural resources.

Purpose and Organization

This study is prepared as a combined historic resource study and administrative history. Typically, these documents are undertaken separately since they serve different purposes. Historic resource studies narrate the history of a park, both before and after its creation, in order to provide historical contexts for evaluating and interpreting cultural resources. Conversely, administrative histories detail a park's management history in order to familiarize Park Service officials with the area and to provide guidance for future management. Combining the two studies makes sense for a small monument like Devils Postpile with few conventional cultural resources. A combined study also provides a more integrated narrative of the history of the surrounding region and the history of the park itself than is possible in two separate documents.

The report is divided into three parts. Part 1 covers the environmental history of the Devils Postpile area prior to its inclusion in Yosemite National Park in 1890, addressing the themes of Native American land use and trans-Sierra trade, Euro-American exploration and conquest, mining, sheepherding, and early conservation and tourism. Part 2 traces the administrative evolution of Devils Postpile National Monument with a focus on the period of National Park Service management beginning in 1934. Part 3 provides additional regional and national context for the period of federal administration, describing the development of the Devils Postpile area and the Mammoth Lakes Sierra more broadly as a recreational hinterland of Los Angeles. This part also considers the Park Service's shift in emphasis from geologic interpretation to ecological management in the context of the broader history of science in the Sierra Nevada and in national park management generally. Finally, the report includes two appendices. The first summarizes historical themes covered in the study and identifies associated resources in and around Devils Postpile. The second provides recommendations for nominations to the National Register of Historic Places for resources in the monument and the surrounding area.

Overall, this study enriches our appreciation of Devils Postpile National Monument by recording the stories of the diverse groups of people who have passed through, used, altered, protected, interpreted, and enjoyed this remote, scenic, and ecologically significant component of the Sierra Nevada. The study also complements current administrators' emphasis on ecological management and climate change research by highlighting connections between the history of the Devils Postpile area and the broader historical and environmental transformations affecting the headwaters of the Middle Fork San Joaquin, the Mammoth Lakes Sierra, and the Sierra Nevada range as a whole.

Notes

1. Gaylen Lee, *Walking Where We Lived: Memoirs of a Mono Indian Family* (Norman: University of Oklahoma Press, 1998), 140.
2. Theodore S. Solomons, "Among the Sources of the San Joaquin," *Sierra Club Bulletin* 1, no. 3 (January 1894): 74.
3. Quoted in Kathleen L. Hull and Mark R. Hale, *Post-Fire Archeological Survey of Devils Postpile National Monument, Madera County, California* (Chico, CA: Dames and Moore, 1993), 23.
4. Hereafter, I refer to the valley of the Middle Fork San Joaquin River alternately as the Middle Fork San Joaquin River Valley, Middle Fork San Joaquin Valley, or Middle Fork Valley. In the literature, it is sometimes referred to as Reds Meadow Valley in reference to Reds Meadow, located just outside the monument boundary.
5. Joseph N. LeConte, "The Devil's Postpile," *Sierra Club Bulletin* 8, no. 3 (1912): 170.
6. The classic treatment of the preservation/use divide is Roderick Nash, *Wilderness and the American Mind* (New Haven, CT: Yale University Press, 1967), chap. 10. Also see Stephen R. Fox, *John Muir and His Legacy: The American Conservation Movement* (Boston: Little Brown, 1981). Char Miller has argued that this divide was not as clear as historians and environmentalists have often made it out to be *Gifford Pinchot and the Making of Modern Environmentalism* (Washington, DC: Island Press, 2001).
7. Historians and other scholars have begun to examine the relationship between parks and their "gateway communities" in more depth. A good introduction is Hal K. Rothman, "A History of US National Parks and Economic Development," in *National Parks and Rural Development: Practice and Policy in the United States*, ed. Gary E. Machlis and Donald R. Field (Washington, DC.: Island Press, 2000), 51–66. For an excellent account of how regional imperatives affected the establishment and development of Mount Rainier National Park, see Theodore Catton, *National Park, City Playground: Mount Rainier in the Twentieth Century* (Seattle: University of Washington Press, 2006).
8. Genny Smith, Dean Rinehart, Elden Vestal, and Bettie E. Willard, eds., *Mammoth Lakes Sierra: A Handbook for Roadside and Trail*, 7th ed. (Mammoth Lakes: Genny Smith Books, 2006), 9–11.

9. Hal K. Rothman, "Second-Class Sites: National Monuments and the Growth of the National Park System," *Environmental Review* 10 (Spring 1986): 44–56. Rothman notes that while many monuments, such as Grand Canyon and Zion, were created with the intent that they would eventually become national parks, many others contained resources of historic or scientific but did not measure up in terms of scenic grandeur, and so were to remain monuments. He refers to the monuments in this latter category as "second-class sites."
10. John C. Freemuth, *Islands under Siege: National Parks and the Politics of External Threats* (Lawrence: University Press of Kansas, 1991); For a more complete history of natural resource policies in the national parks, see Richard West Sellars, *Preserving Nature in the National Parks: A History* (New Haven, CT: Yale University Press, 1997).

Converging Pasts: Nature and Culture in the Postpile Region

The human and natural histories of the area now-protected within Devils Postpile National Monument are deeply intertwined. The Middle Fork Valley's remote, rugged landscape has facilitated, impeded, and inspired human activities during the approximately 7,500 years of human presence there. Humans have also engaged with and shaped the landscape in ways that reflected their respective cultural values and aspirations. Native people to the east and west used the area as a place to meet or pass through for trade, as a sanctuary in times of conflict, and as a location for hunting and resource collection. In the late 1800s, miners were drawn to the area, but often found the valley's remoteness and harsh winters as impediments to resource extraction and development. Also during this period, itinerant sheepherders spent summers grazing their flocks in the alpine meadows in and adjacent to the Middle Fork Valley.

By the early twentieth century, geologists, conservationists, and tourist parties had surveyed the region and proclaimed the significance of its most scenic or scientifically interesting features. Though visited by a few intrepid explorers during this period, Devils Postpile remained far from the centers of Sierra Nevada tourism development. The reservation of the Yosemite Valley as a state park in 1864 and the growing popularity of nature tourism in the Sierra Nevada nevertheless prefaced subsequent conservation efforts in the Middle Fork Valley.

Devils Postpile National Monument contains a number of cultural resources associated with these early human interactions with the environment. These resources include archeological sites and landscape features exhibiting Native American uses of the area; the route of a late nineteenth-century trans-Sierra toll route; artifacts reflecting the area's hard-rock mining past; the ruins of an early settler's cabin near the base of the Postpile; and tree carvings indicating the presence of sheepherders in the area in the late nineteenth century. Last, the few tourist accounts from this period provide a glimpse into the cultural and political tensions that accompanied the later transformation of the High Sierra from a mining and sheepherding frontier into a tourism destination managed by federal agencies.

Chapter One

A Landscape in Time: Nature and History along the Middle Fork San Joaquin

The Devils Postpile landscape is the product of the geologic, climatologic, biologic, and human forces that shaped the Sierra Nevada generally. The environment of the Middle Fork Valley also exhibits some unique characteristics due to frequent volcanic activity and its location near Mammoth Pass, which at 9,300 feet is the lowest point for more than 250 miles along the Sierra crest.

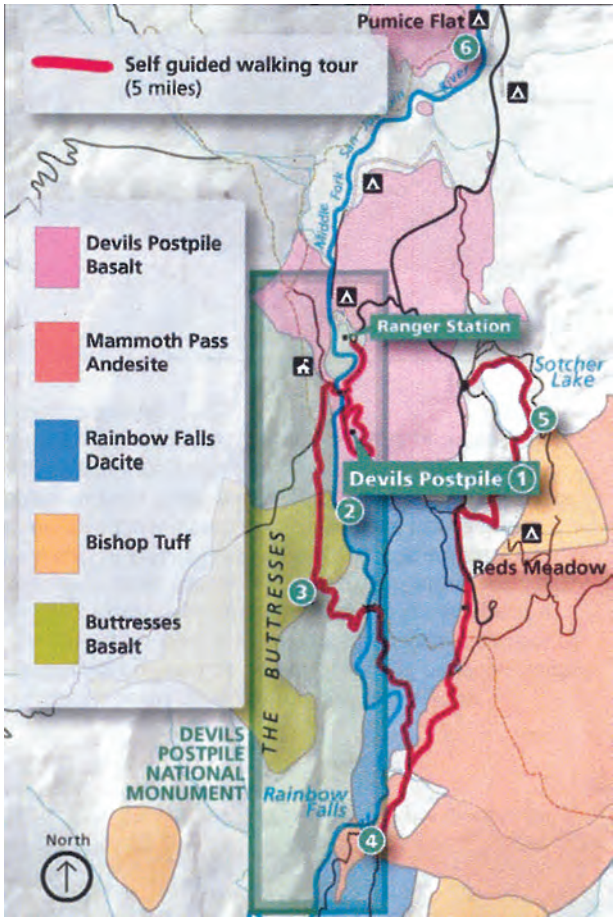
"Born of Fire, Sculpted by Ice": The Geologic Past

Through its namesake outcrop of columnar basalt, its mineral springs, and the waterfall on the Middle Fork of the San Joaquin, Devils Postpile National Monument preserves, in a small area, evidence of some of the central Sierra Nevada's most geologically recent volcanic and glacial activity.[1] While large, uniform displays of columnar basalt are rare in the Sierra Nevada, the Postpile is similar to a number of basalt formations throughout the world, including those at Devils Tower National Monument in Wyoming, the Giant's Causeway on the coast of Northern Ireland, the Isle of Staffa in Scotland, and Garni Gorge in Armenia.

Approximately 25 million years ago, the granitic batholith that would form the core of the Sierra Nevada Mountains began to be forced upward along its eastern edge by fault activity, ultimately producing the characteristic gradual western slope of the range and the steep eastern escarpment near the crest. As the uplift increased, streams flowing to the southwest carved increasingly deep canyons as their gradients increased. Before the formation of the eastern escarpment, the main channel of the San Joaquin River had its origins well to the east, crossing the present Sierra crest north of Minaret Summit. The resilient metamorphic rock forming the Ritter Range forced the river to flow southward through the Postpile region before resuming its course toward the Central Valley to the southwest.

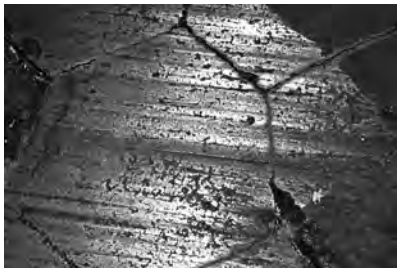
Lava flows blocked the river channel north of Minaret Summit approximately three million years ago, further isolating the river from its former drainage basin in the east. Continued uplift prevented restoration of the original course, and the San Joaquin became a river fed entirely by sources in the Sierra proper. During the Pleistocene epoch, glaciers deepened and widened the earlier stream-cut canyons, forming U-shaped valleys similar to those found throughout the Sierra Nevada range. The Middle Fork San Joaquin Valley experienced glaciations several times over this period. The cirques formed at the heads of the glaciers are responsible for the sharp peaks of the Ritter Range and Minarets. The geologic processes responsible for the uplift of the Sierra Nevada also created a region of active volcanism. The Long Valley Caldera, south of Mono Lake, is one of the largest calderas in North America, and in erupting 760,000 years ago, produced ash deposits as far east as present-day Nebraska and Kansas. The distinctive 11,500-foot-tall bulk of Mammoth Mountain is composed of twelve volcanic domes that formed on the southwest rim of the Caldera between 200,000 and 500,000 years ago.

According to the most recent radiometric dating, the Devils Postpile outcrop began forming approximately 82,000 years ago when trachybasaltic lava erupted in the canyon of the Middle



Geologic map showing types of rocks and a self-guided nature trail. (From a 2011 NPS geology brochure, Devils Postpile National Monument image collection)

Fork San Joaquin. Surveys conducted in the 1980s suggested that the lava flow reached the surface near the present Upper Soda Springs Campground at the north end of Pumice Flat. Current research suggests that the Pumice Flat vents might overlay the actual source. The Park Service is presently working with US Geologic Survey scientists to better understand this eruption.



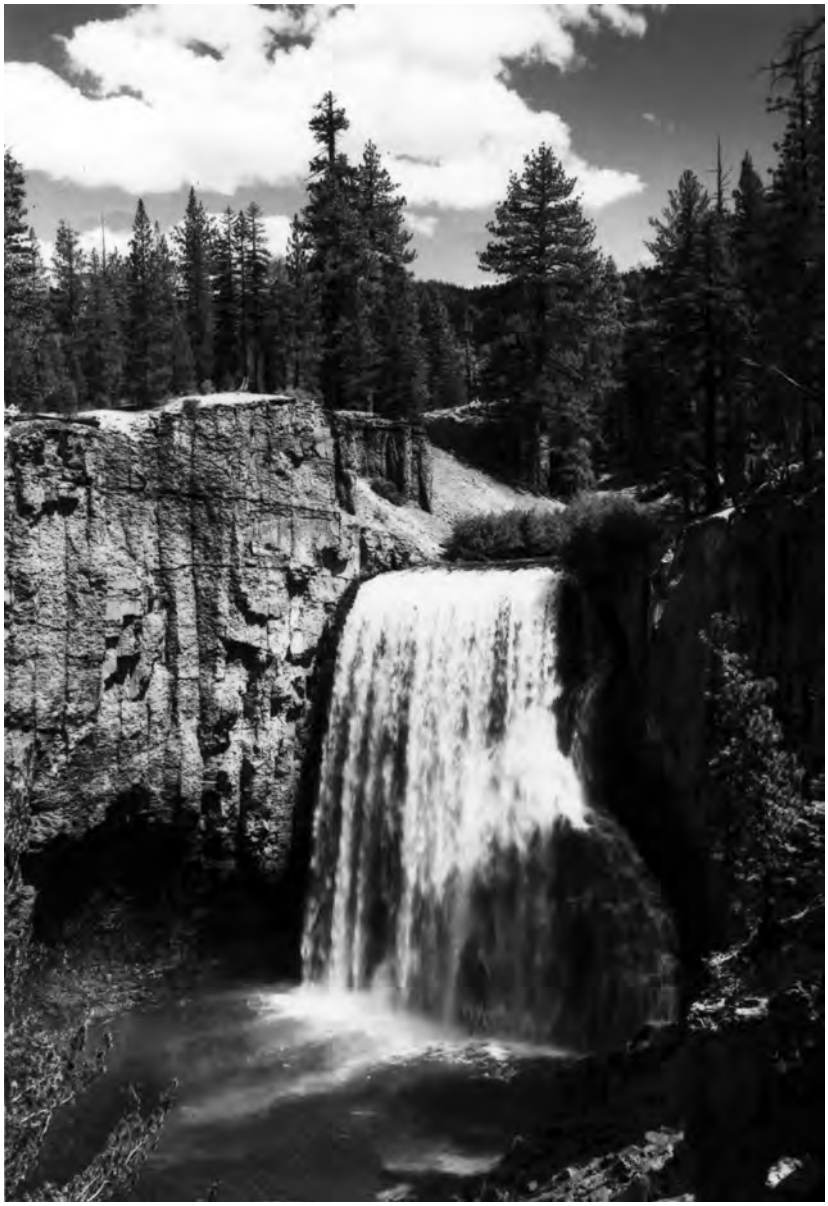
Glacial polish and striations at the top of the Postpile. (Devils Postpile National Monument image collection)

The lava from this outflow filled the canyon from side to side, pooling on the granite bedrock to a depth of at least 400 feet. As the lava cooled, tensional stresses caused the formation of cracks within the solidifying rock perpendicular to the cooling surfaces. Where it overlay bare granite, the lava cooled inward at roughly the same rate from both above and below. This even cooling, coupled with the homogeneity of the original lava flow, created conditions favorable to the formation of vertical or nearly vertical columnar joints in the middle of the rock mass. The curved columns visible at the north end of the Postpile show where cooling occurred at a less regular rate than in the areas with more linear joints. The uniformity of the cooling also resulted in the irregular polygonal shape of the "posts" of the Postpile. The formation is visible today due to the slow work of glaciers, which eroded most of the original lava deposit and

Devils Postpile columns and talus. (Courtesy of Yosemite National Park Archives, Museum, and Library)

exposed the internal columns. Striations on the polished top of the Postpile show the direction the ice traveled.

The other primary feature of the monument, Rainbow Falls, is framed by a cliff of andesite and/or rhyodacite lava that flowed into the canyon at an earlier time from a vent south of the present Postpile location. Unlike the vertical column jointing of the Postpile basalt, the rock at Rainbow Falls is distinguished by thinly spaced horizontal joints. Because the rock at the top of the falls is harder than the underlying layer at the base, the action of the water undercuts the cliff and causes it to retreat gradually up the river channel. Early literature described the height of the falls as 140 feet. Measurements in 1978 established the actual height at 101 feet.



Rainbow Falls. (Courtesy of Yosemite National Park Archives, Museum, and Library)

Other periods of volcanism are also evident in the monument and the surrounding area. The Buttress, a large basalt cliff opposite the river and downstream from the Postpile, is a remnant of the oldest visible lava flow in the valley. More recent activity is displayed in cliffs of welded tuff (fused volcanic ash) near Reds Meadows and in two basalt cinder cones southeast of the monument boundary.

The volcanic activity that formed the landscape of Devils Postpile is continuing in the Long Valley area to the east. "Swarms" of earthquakes occurred during the 1980s and 1990s, some of which dislodged columns within the Postpile formation. In March 1990, a Forest Service supervisor taking shelter in an abandoned cabin near Mammoth Lakes nearly died after breathing odorless carbon dioxide gas that had seeped from nearby volcanic vents. Within the past decade, carbon dioxide gas has also killed trees at Mammoth Mountain. Soda Springs,

the carbonated cold spring bubbling to the surface in areas along the river near the northern boundary of the monument, is another reminder of the volcanic forces still active beneath the surface. Numerous hot springs also exist in the area, and the pumice that covers much of the area is geologically young, blasting from the vicinity of the Mono and Inyo craters to the northeast in approximately 1350 AD.[2]

Future volcanic activity can potentially change the landscape dramatically in and around Devils Postpile. The frequency of eruptions along the western rim of the Long Valley Caldera in the past 5,000 years suggests that the probability of an eruption occurring in any given year is slightly less than 1 percent per year. This is comparable to the annual chance of a magnitude 8.0 earthquake (such as the San Francisco Earthquake of 1906) along the San Andreas Fault in coastal California or of an eruption from one of the more active volcanoes in the Cascade Range, such as Washington State's Mount Rainier or California's Mount Shasta.[3]

Increased volcanic unrest in the Long Valley area since 1980 may increase the likelihood of an eruption occurring in the near future, but scientists lack adequate data to calculate by how much. Volcanic unrest in some other large volcanic systems has persisted for decades or even centuries without an eruption. But since volcanic unrest can escalate to an eruption in as little as a few days, the activity is monitored closely.[4]

For residents of the Mammoth Lakes and Long Valley area, continuing volcanic activity has presented opportunities as well as dangers. In 1984, Mammoth Pacific LP began developing the area around the Casa Diablo geothermal site near the intersection of Highway 395 and State Route 203 for the production of geothermal energy. The plant employs a "binary" system of energy production that works by pumping hot groundwater into a closed loop that indirectly heats liquid isobutene. The high-temperature, high-energy gas released from this process turns turbines to produce power for approximately 40,000 residences.[5]

Landscape Characteristics and Vegetation

Since the retreat of the Pleistocene glaciers approximately ten thousand years ago, the Middle Fork San Joaquin River has sustained the forests, meadows, wetlands, and wildlife of the Devils Postpile area.[6] From its headwaters at Thousand Island Lake, the Middle Fork tumbles down a steep boulder-choked canyon until leveling out at Agnew Meadows into a series of broad low-gradient meanders, which give way to scattered pools, fast-flowing rapids, cascades, and falls. South of Devils Postpile, the river rushes through a narrow, nearly inaccessible granite gorge toward Mammoth Pool, the first of many manmade obstructions on the San Joaquin River. Three small creeks enter the Middle Fork within or near the monument: King Creek from the west, and Boundary and Reds Creeks from the east.

Although the Middle Fork drains into the westward flowing mainstem San Joaquin River, the Ritter Range west of Devils Postpile is higher in elevation than the actual Sierra crest to the east. As a result, biological communities in the Middle Fork Valley have east-slope as well as west-slope affinities. Within the monument, Great Basin plant types such as juniper and sagebrush grow in proximity to mountain hemlock, gooseberry, and other Western Sierra species. The principal vegetation is montane forest, mostly dominated by red fir or lodgepole pine. Along the river, montane riparian vegetation dominates, represented by quaking aspen, black cottonwood, alder, and willows.[7]

A recent vascular plant inventory of Devils Postpile documented 380 different plants, a more than 125 percent increase from the 169 documented previously. Eight species of invasive

nonnative plants remain prevalent in the monument, with bull thistle and Kentucky bluegrass being of the highest concern.[8]

A number of meadows of various subtypes can be located within Devils Postpile. Dry meadows, where seeps or intermittent drainages occur, form shallow meadows occupied by sedges and grasses. In years with low precipitation, these may remain dry even after the snow melt. A few larger meadows and wetlands occur in the southern portion of the monument and are formed by sedges, mannagrass, wildryes, and other grasses. Some are bordered with quaking aspen.

The largest meadow within Devils Postpile is Soda Springs Meadow, which likely formed from sediments deposited by the Middle Fork San Joaquin. The soda spring for which this meadow is named is located at the southern edge of the meadow. The spring is submerged by the river during the June snowmelt, gradually becoming more accessible by July. The reddish brown color of the oxidized iron in the water clearly marks the spring's location. The spring provides a continuous flow of cold, carbonated water throughout the year.

The soils in this part of the Sierra have high concentrations of ash and other volcanic material, and pumice covers most of the northern section of the monument. The predominance of pumice limits the area's vegetation development. Sparse groves of conifers grow on pumice-covered slopes underlain by basalt and andesite where the water table is low and the rate of drainage is high. In these areas, pines and firs contribute little organic matter for soil formation. This, coupled with insufficient moisture, leaves much of the area barren with sparse undergrowth. On steeper slopes, it is common to see bare granite or basalt with few plants.

Climate and Atmospheric Conditions

The Devils Postpile area experiences the dry summers and wet winters characteristic of the west coast of North America. At approximately 7,600 feet of elevation, most of the area's precipitation falls in winter as snow. Also, because the Sierra crest near Mammoth Mountain is comparatively low, winter storms retain much of their moisture as they pass over. As a result, the area just to the east of the divide receives heavy snowfall (hence its attraction for ski resort developers). Devils Postpile receives from 200 to 400 inches of snow each winter, making it nearly inaccessible for much of the year.

Summer days in the valley are typically mild with high temperatures averaging in the mid-seventies. However, temperatures can vary significantly, often reaching into the nineties or plummeting below freezing. In fact, snow can fall during any month of the year; and while summers are typically dry, afternoon thunderstorms occur frequently during July and August.

Atmospheric conditions in the Devils Postpile area are influenced by both the San Joaquin Valley and Great Basin Valleys air basins. Ozone and particulate matter are the primary air-quality concerns in the San Joaquin basin, while in the Great Basin particulate matter is most prominent. Area-wide sources are the main contributor of particulates for both districts. Mobile sources are the most influential in contributing precursors of ozone in the San Joaquin Valley. Recent research suggests that increased ozone levels in high mountain environments could increase the susceptibility of some coniferous forests to fatal insect attacks. Additional research is currently underway regarding the potential effects on wildlife and other biological communities.[9]

Anthropogenic climate change has the potential to significantly affect the riparian ecosystem in and around Devils Postpile and the environment of the Sierra Nevada generally. Recent research has shown that in the last century, the average annual temperature of the Sierra

A part of the soda spring in Soda Springs Meadow. (Photo: Christopher E. Johnson)

Nevada has increased approximately 1 to 2.5 degrees Fahrenheit. Milder winters and a lower snowpack already appear to have affected the pace of spring runoff in the region. Researchers estimate as much as a sixty to eighty percent reduction in Sierra snowpack in the coming years. The period of peak runoff for the Middle Fork San Joaquin could also come as many as thirty days earlier with potentially damaging consequences for the agricultural economy of the San Joaquin Valley. A drier, warmer climate may also cause grasses and shrubs to overtake many coniferous zones. Climate variations could also alter the summer and winter ranges of native birds including woodpeckers and chickadees.[10]

Wildlife

The riparian corridor of the Middle Fork San Joaquin supports a variety of fauna common to the High Sierra. A total of 143 vertebrates have been documented for Devils Postpile. Birds, small diurnal mammals, and invertebrates are most frequently observed. Common birds include the Steller's jay, the western tanager, dark-eyed juncos, and the hairy woodpecker. Some nonnative species including the brown-headed cowbird are also present. Mammals in Devils Postpile include the golden-mantled ground squirrel, the lodgepole chipmunk, chickaree, and Belding ground squirrels. Porcupines, coyotes, long-tailed weasels, martens, and marmots are occasionally sighted. Mule deer visit Soda Springs Meadow in the evening and early-morning hours. Black bears also frequently pass within Devils Postpile's boundaries. A survey conducted in summer 2001 documented ten species of bats, six of which are species of special concern.[11] There are few known species of reptiles or amphibians within Devils Postpile. Fish, however, are plentiful. The Middle Fork San Joaquin contains four introduced species of trout: golden trout, rainbow trout, brown trout, and brook trout (actually a species of char).[12]

Fire

As in other locations in the Sierra Nevada, the vegetation and wildlife in Devils Postpile are adapted to periodic fire; and evidence of past fires can be found in the form of charcoal scars on some trees. While fire operates differently depending on local conditions, biologists have found that, in general, periodic burning prepares seedbeds by cycling nutrients through the soil; affects patterns of succession; encourages changes in the landscape favorable to wildlife; influences the ages and types of understory vegetation; alters the numbers of trees susceptible to pests and disease; and shapes the patterns of large, destructive fires.[13]

1992 Rainbow Fire burning near Reds Meadow. (Devils Postpile National Monument image collection)

Fire history studies in similar forests in other areas of the Sierra Nevada have shown that fires in lodgepole pine forests occur at an average of every 150 years, and more frequently in lower elevation mixed conifer forests. A recent fire history survey of Devils Postpile indicates that before the late 1800s, fires affected the region more often, approximately every 5 to 30 years. The causes of these fires are difficult to pinpoint. On rare occasions, volcanic activity could have started fires. The warmer climate pattern that began in the mid-nineteenth century also may have subtly affected fire regimes. There are also indications that Native Americans burned the forest in and around Devils Postpile to facilitate hunting, clear trails, and encourage the growth of certain plant species. Thunderstorms occur frequently in the area, and many past fires were probably lightning caused.[14]

In 1992, the lightning-caused Rainbow Fire burned through approximately two-thirds of the monument, with the most severe burning in the southeast portion. In some areas, tree mortality was high and seedlings have not yet reestablished due to the long distances between living trees. In other areas, the fire crept along the forest floor, occasionally burning into trees. In these areas, reestablishment of seedlings has been more rapid. Future studies may be able to determine more conclusively the degrees in which the ferocity of the Rainbow Fire can be attributed to the cessation of Native American burning, vegetation loss due to grazing in the late nineteenth century, climate change, and early federal policies of fire suppression.

Notes

1. Unless otherwise noted, information in this section is from N. King Huber and Wymond W. Eckhardt, *Devils Postpile Story* (Three Rivers, CA: Sequoia Natural History Association, 1985).
2. Linda Mutch, Meryl Rose, Andi Heard, Rosamonde R. Cook, "Vital Signs Monitoring Plan, Phase III," ed. Gary Entsminger, Draft Report, Sierra Nevada Network, National Park Service, 2006. Appendix A: Description of Sierra Nevada Network Parks, 4; Story of the Forest Supervisor from David Beesley, *Crow's Range: An Environmental History of the Sierra Nevada* (Reno: University of Nevada Press, 2004), 2.
3. Mutch et al., "Vital Signs Monitoring Plan," 4–5.
4. Ibid., 5.
5. From the Mammoth Pacific website, accessed April 1, 2010, www.mammothpacific.com/awardfacilities.html.
6. Except where otherwise noted, information in this section comes from National Park Service, "Natural Resources Management Statement for Devils Postpile National Monument," March 1982, Devils Postpile National Monument, Superintendent's Office.
7. See Melanie Arnett and S. Haultain, *Vascular Plants of Devils Postpile National Monument, Final Report to Sierra Nevada Inventory and Monitoring Network* (Three Rivers, CA: National Park Service, 2005).
8. Ibid; and Mutch et al, "Vital Signs Monitoring Plan," Appendix E: Non-native Plants and Animals for Sierra Nevada Network Parks, 1.
9. Mutch et al., "Vital Signs Monitoring Plan," Appendix C: Air Quality Synthesis, 14; and Sierra Nevada Network, "Stressor: Air Pollution," accessed April 27, 2010, http://science.nature.nps.gov/im/units/sien/AirPollution.cfm.
10. L. M. Edwards and K. T. Redmond, "Climate Assessment for the Sierra Nevada Network Parks," Natural Resource Report NPS/2011/NRR – 2011/482 (Fort Collins, National Park Service, 2011), 36-40; and Sierra Nevada Network, "Climate Change in the Sierra Nevada Network: A Summary of Recent Findings and Efforts to Monitor Change" (Three Rivers: Sequoia and Kings Canyon National Parks, 2013).
11. See Mutch et al., "Vital Signs Monitoring Plan," Appendix F: Special Status Plants and Animals for the Sierra Nevada Network Parks.
12. William A. Dill and Almo J. Cordone, *History and Status of Introduced Fishes in California, 1871–1996* (Sacramento: State of California, The Resources Agency, Department of Fish and Game, 1997), 107.
13. Bruce Kilgore, "The Ecological Role of Fire in Sierran Conifer Forests and its Application to National Park Management," *Journal Quaternary Research* 3, no. 3 (October 1973), www.nps.gov/archive/seki/fire/f_conif.htm.
14. Anthony C. Caprio and Karen Webster, *National Park Service Fire Ecology Report 2006: Sequoia & Kings Canyon National Park and Devils Postpile National Monument* (Three Rivers, CA: Natural Resources Division Sequoia & Kings Canyon National Park, 2006), 21; Anthony C. Caprio and Karen Webster, *Fire Effects Monitoring of the 1992 Rainbow Fire, Devils Postpile National Monument: Vegetation Response Ten Years Postfire* (Three Rivers, CA: Natural Resources Division Sequoia & Kings Canyon National Park, 2006), 1–3; and Christopher E. Johnson, e-mail correspondence with Tony Caprio, April 1, 2010.

Chapter Two

Sierra Crossings: Native Americans, Trade, and Environmental Change

Just as it occupies a physiographic boundary between the east and west slopes of the Sierra Nevada, Devils Postpile also sits at a cultural crossroads where the traditional territories of Native tribes to the east and west intersect. Like other high-elevation areas in the Sierra Nevada, the Middle Fork Valley probably saw limited seasonal use through most of the precontact era. Even so, the area was and still is profoundly significant to Indian communities on both sides of the range as part of a trans-Sierra trade route, a sanctuary in times of conflict, a source of culturally important natural resources, and a locus of intercultural exchange.

While the upper Middle Fork Valley has received only minimal attention in the archaeological and ethnographic literature, the human history of the surrounding region has been extensively studied. This chapter provides a summary of the relevant literature, while also taking into consideration contemporary Indian perspectives on the traditional meaning and continuing cultural significance of the Devils Postpile area. That said, this chapter is only an overview. A complete ethnohistorical survey is necessary to more fully explore the tribes' traditional associations with Devils Postpile, the Mammoth Pass area, and the Middle Fork San Joaquin River Valley.

Native Stories

The Middle Fork Valley features prominently in the creation stories of the North Fork Mono tribe, whose ancestral territory includes the Sierra crest east of Devils Postpile as its eastern terminus. According to stories collected by anthropologist Edward Gifford in the early twentieth century, the world was made when Falcon (*yayu*), Crow (*sebitim*), and Coyote (*esha*) dammed the waters in the east, allowing the land to appear. Before it was held back, the water washed out the valleys. Falcon, Crow, and Coyote then made the creeks. The three of them remain in the east, keeping watch over the dam they made to ensure it does not break and allow the waters to once again destroy the world.[1]

A number of North Fork Mono stories take place during this time of creation and reference specific upper Middle Fork Valley locations. One notable story describes the journey of brothers Haininu and Baumegwesu from the headwaters of the Middle Fork San Joaquin to where the main stem San Joaquin reaches the Central Valley. The journey began at a high mountain lake named *Wiitcunap* (believed to be Lake Ediza) where the brothers encountered a "water baby" (a manifestation of the power of water). The water baby attempted to overwhelm Haininu with a rush of water that he managed to elude by jumping from rock to rock. The water then pursued him up through a hole he created in the sky. When the water receded, Haininu returned to the lake where he killed the water baby.

During their subsequent journey down the river valley, the brothers encountered a number of other powerful entities including Bear, Wind, Rattlesnake, Coyote, Deer, and Elk. They were able to kill each of these entities, thus limiting the power of their descendants. In the process, Haininu and Baumegwesu created the present world. North Fork Mono shaman Singing Jack,

who related this story to Gifford, ended by observing that "it would be hard for mortals today, if Haininu had not killed the mother Wind. Only her offspring blow in the world today and the caves in the mountain passes are their homes. The killing of mother Rattlesnake by Haininu made life better for people today, for her descendants are not so powerful as she. The same is true of the she-Bear that he killed. Her posterity have never equaled her in strength."[2]

Native stories serve a number of purposes besides explaining how the world was made safe for present-day people. They preserve traditional knowledge of place by emphasizing the potency of the forces of water, wind, and fire and by describing the characteristics and powers of specific locations, plants, and animals. This story, in particular, also describes the traditional territory of the North Fork Mono people. While many of the places mentioned are identifiable today, the locations are not "mapped" in the same manner as modern boundaries; instead, they are established through a process of creation via movement through and interaction with the landscape and its various features and occupants. In this sense, the stories contribute to what environmental historian Jared Dahl Aldern calls "native sustainment," referring to the "persistent, reciprocal support and nourishment among Nium [North Fork Mono] people, land, and water over time."[3] They illustrate a connection between the North Fork Mono and their traditional territory based not on "ownership" or "management" but on kinship, implying a relationship between people and land that is more interactive and mutually sustaining than controlling.[4] In a contemporary political context, these stories function as claims to sovereignty and, as such, provide an important basis for collaboration between Indian peoples and the National Park Service in cultural and natural resource management at Devils Postpile.

Archaeological Record

Archaeological surveys of Devils Postpile and the surrounding area suggest that humans began crossing the Sierra crest west of present-day Mammoth Lakes as far back as 5,500 BC. Although periods of climatic warming may have made the area habitable at times, a combination of difficult access, high elevation, heavy snowpack, frequent volcanic activity, and territorial conflict meant that the Postpile region typically saw less human activity than areas to its east and west. In 1968, a San Francisco State College survey located a number of obsidian sites dating from between 3,000 BC and 500 AD along the banks of the Middle Fork San Joaquin within the monument. A 1993 study confirmed the source of the obsidian as the Casa Diablo geothermal area in Long Valley—one of the most significant sources of obsidian in the region and an important meeting point for groups engaged in trans-Sierra trade. The presence of obsidian in the Middle Fork Valley, combined with the paucity of evidence of long-term habitation in the area, suggests that the valley was probably used seasonally by groups on the west and east sides of the Sierra as part of a trade route to and from Casa Diablo, and likely as an occasional site for hunting and resource collection.[5] The numerous bedrock mortars found along the western edge of the Long Valley suggest that eastside populations also likely acquired acorns via trans-Sierra trade.[6] A more recent archaeological survey also noted basalt chips interspersed with the obsidian scatter in the monument. These chips appear to be from local sources and may have also constituted an important trade item.[7]

Surveys throughout California have shown that the trans-Sierra obsidian trade dropped off markedly beginning around 500 AD. While it remains a topic of debate, a number of explanations have been given for this. Early researchers proposed that the production of obsidian tools at Casa Diablo may have slowed due to decreasing demand from "consumers" on the west side of the mountains who had recently acquired the bow and arrow, which required different materials and modes of construction. Archaeologists now dispute this, pointing to

Obsidian point. From a 2006 Park Service archaeology site condition assessment report. (Devils Postpile National Monument image collection)

a number of transregional environmental, economic, and sociocultural developments that were more likely to have affected obsidian trade. These include a change to a hotter and drier climate pattern in the west Sierra; an increase in volcanic activity in the Long Valley that may have blocked access to the Casa Diablo site; increasing societal complexity and territoriality among Long Valley inhabitants; and a population intrusion or replacement on the west side of the mountains that may have disrupted previous exchange networks between the two regions.[8]

Ethnohistorical Overview

The Sierra crest east of Devils Postpile is typically described as the boundary between the North Fork Mono to the west and the Northern Paiute to the east. Both groups are considered part of the Uto-Aztecan language group that extends across the Great Basin into parts of the Colorado Plateau, though their precise origins remain a subject of debate. Archaeologists in the mid-twentieth century suggested that a period of prolonged drought, possibly less than 1,000 years ago, forced some Numic-speaking peoples to migrate to the base of the Sierra and, in some cases, over the crest of the range. Eastern and Western Sierra tribes contest this interpretation, arguing that the linguistic link between east-slope Paiutes and some west-slope tribes is not sufficient evidence that these groups are recent arrivals to the region. Instead, tribal histories suggest that contemporary tribes are descendants of the original inhabitants of the area. Archaeologists continue to debate the character and influence of Numic migrations in the western Great Basin. While some argue that Numic-speaking peoples have been widespread in the Great Basin for at least 10,000 years, others suggest that these populations expanded and contracted during various periods in response to social and environmental changes.[9]

Monument at Casa Diablo. Note the geothermal plant in the background. (Photo: Christopher E. Johnson)

While genetic connections are difficult to determine, archaeologists have documented cultural continuities between Pleistocene hunting societies and Northern Paiute populations. In a 1963 survey of the Mono Lake and Long Valley areas, Emma Lou Davis found that successive waves of indigenous groups used the same sites in their seasonal transhumances, suggesting a common "Desert Culture complex" extending over a much broader spatial and temporal scale than earlier archaeologists had presumed.[10] While the concept of a universal Desert Culture may not sufficiently account for the diversity of Great Basin lifeways, the idea of "cultural transmission"—referring to the passage of knowledge, technical skills, and practices from individual to individual and group to group—has gained currency in recent years. This concept suggests that historical migrations between regions did not preclude the transmission of cultural forms and environmental knowledge. In this interpretation, contemporary Great Basin peoples can be regarded as "culturally affiliated" with the region's previous inhabitants without a clear genetic connection if continuity of cultural practices can be established.[11]

The identity of the principal users of the Middle Fork Valley also remains open to debate. In their 1993 survey of the monument, Kathleen L. Hull and Mark R. Hale indicate that the Postpile region was most likely "utilized seasonally" by North Fork Mono groups from the west and Northern Paiutes from the Mono Lake Basin to the north, with Owens Valley Paiutes at times likely also using the Middle Fork Valley. Forest Service anthropologist Wallace B. Woolfenden has suggested that Long Valley, adjacent to Mammoth Pass, may have been "a separate district of the Owens Valley Paiute occupied by highly mobile groups of families" who sometimes crossed over Mammoth Pass to hunt, fish, and collect resources.[12]

North Fork Mono

Early twentieth-century ethnographies identified the North Fork Mono as part of a larger ethnographic group known as the Monache who inhabited the western slope of the Sierra

North Fork Mono brush shelter with bedrock mortars. (Source: Gifford, "The Northfork Mono," plate 3b)

Nevada. At the time, North Fork Mono groups inhabited a number of small, seasonal settlements surrounding the North Fork of the San Joaquin, and on the north bank of the main stem San Joaquin from Fine Gold Creek to Hooker's Cove. In 1932, anthropologist Edward Gifford noted sixty-seven separate "hamlets" in this area, none of which he considered large enough to constitute a principal village.[13] The North Fork Mono were a highly mobile people who took advantage of foodstuffs and other resources available in different locations throughout the year. Through their seasonal transhumances, North Fork Mono families were typically able to collect enough resources to trade with the Miwok, Yokuts, other Monache tribes, and the Mono Basin and Owens Valley Paiute.[14]

Early anthropologists cited the linguistic link between the North Fork Mono and Northern Paiutes as evidence that they arrived in the region in the relatively recent past. This "recent arrival" thesis structured early interpretations of North Fork Mono lifeways, presenting a picture of these tribes as impermanent and transient, and providing justification for later state and federal Indian-removal campaigns. For Gifford, the tribe's peripatetic nature seemed more like "camping" than permanent habitation. This view was consistent with prominent anthropologist Alfred Kroeber's claim that, unlike settled agricultural societies, hunting and gathering societies invariably depleted their resource base, requiring them to frequently move to new areas. By assuming that the North Fork Mono hunted, gathered, and burned the landscape indiscriminately, Gifford could explain the population dispersal he observed as the result of a relatively brief period of adaptation to a new environment. In his efforts to fit his observations into the recent arrival thesis, Gifford overlooked North Fork Mono methods of land tenure and failed to appreciate the diversity between family groups and their relationships to other tribes. The inter- and intratribal relationships existing at the time were probably far more complex and fluid than Gifford and others recognized.[15]

The North Fork Mono did maintain connections with Eastern Sierra Paiutes, frequently using Mammoth Pass by way of the Middle Fork Valley as a trade route over the mountains. In 1932, Gifford recorded the names of nine camps used during these trade excursions. Although it is difficult to pinpoint precise locations since traders left few traces of their presence, Gifford's descriptions are generally familiar. The fourth camp on the journey was called *Tünanihoma* and was located on the upper North Fork San Joaquin where the river "flows between two

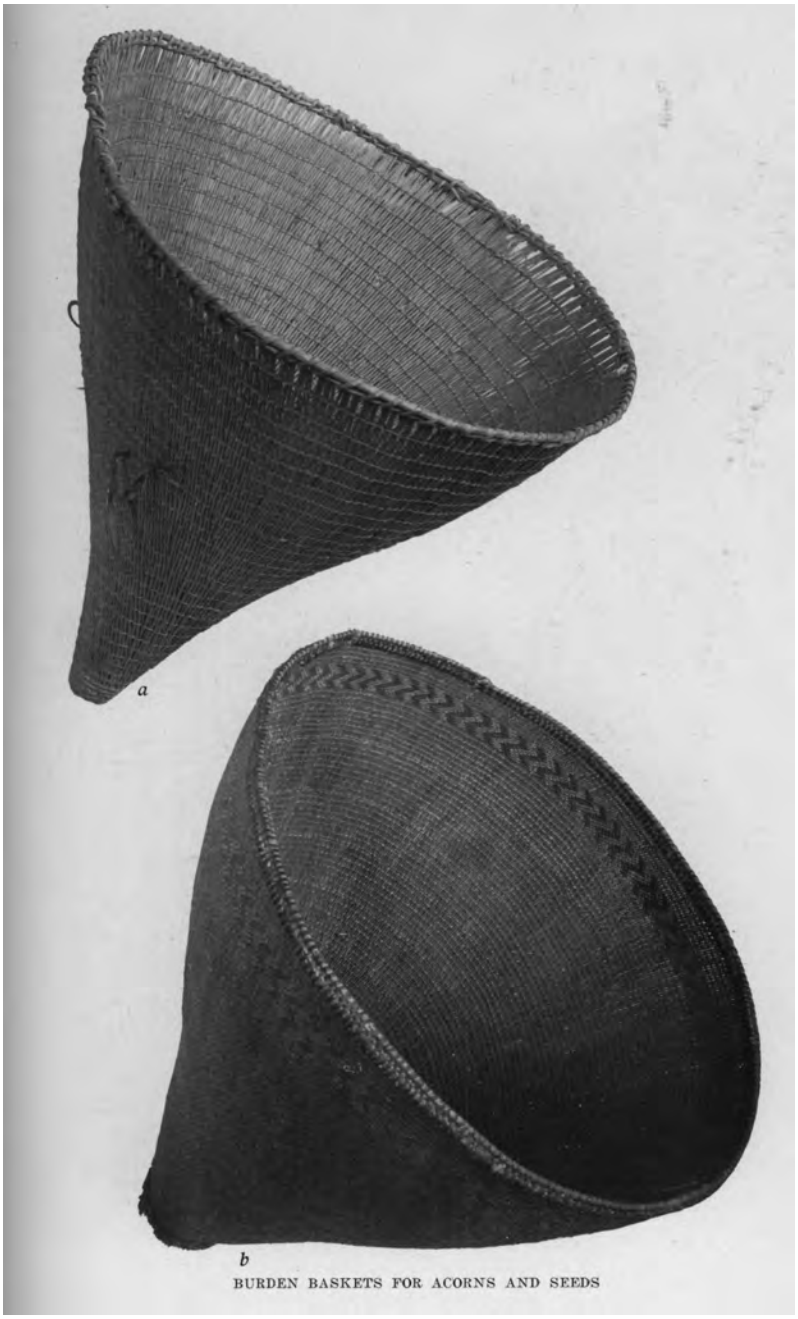
high mountains." On the fifth night, traders camped on the plateau between the north and middle forks at a place called *Haikôowê*, described as "a meadow with water." Gifford identified the next camp as *Dakwaunukwe*, "a level place west of Mammoth Mountain, with a creek" that may correspond to Reds Meadow or Soda Springs Meadow. Other camps may have been located on a granite bench above King Creek and near the mouth of Fish Creek where a small number of bedrock mortars have been located. On the last ascent over the Sierra crest, traders camped at *Anakwumakwê*, a spring that Gifford described as "on the slope of Mammoth Mountain." Once over the pass, trading parties remained until fall when "the pinenuts ripened on the neighboring mountains." They typically returned west before the onset of winter, although Gifford indicated that small groups or individuals would sometimes remain with their eastside trade partners for a year or more.[16]

Northern Paiutes

The inhabitants of the region from Mono Lake south to the Owens Valley are typically categorized as Northern Paiutes, whose name refers to individual groups linked by common language and cultural practices that inhabited the Great Basin from present-day eastern California through northern Nevada to western Utah. The Northern Paiute were a seminomadic people, whose movements corresponded to the seasonal availability of the plants and animals necessary for their survival. The basic group was the nuclear family, sometimes supplemented by a few additional relatives, though larger groups also formed and disbanded at times to address particular cultural or resource needs.[17]

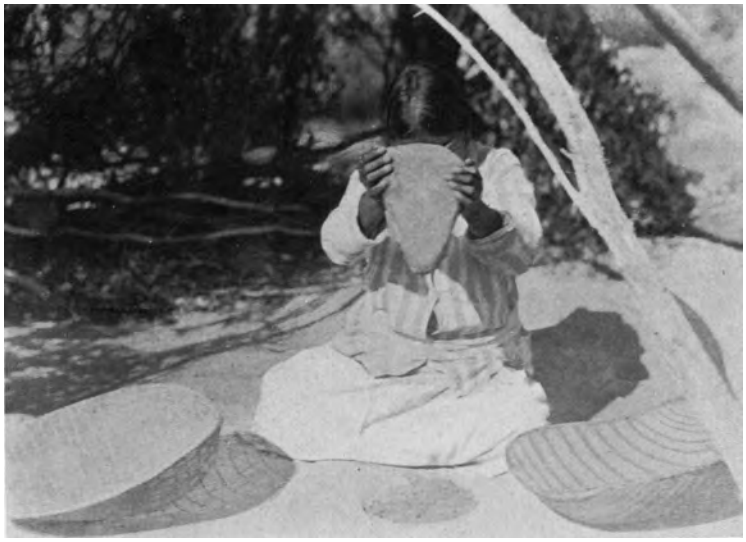
Paiutes inhabiting the Owens Valley are usually considered a subgroup of the Northern Paiute distinguished by their larger, more permanent settlements along the Owens River and extensive use of irrigation. They nevertheless shared much in common with their northern neighbors: family groups were generally autonomous, and while early anthropologists observed that the valley may have been divided up into small landowning districts, there is little evidence of a strong organizational structure beyond communally agreed-upon hunting and resource collection rights.[18] More recent studies have suggested that Paiute strategies for adapting to environmental and social changes occurred at the level of the individual or family rather than the organizational or group level. In the Owens Valley, this method of "self-directed culture change," as anthropologist William H. Michael describes it, continued to characterize Paiute responses to change into the twentieth century.[19]

Eastern Sierra Paiutes identified one another by the principal resource of their respective territories. For example, Mono Basin Paiutes were referred to as *Kutzadika'a*, or "larvae eaters" in reference to the brine flies they collected on the shores of the lake. Paiutes in the Walker Lake area were called *Agai Ticutta*, or "fish [or trout] eaters." Owens Valley Paiutes reportedly referred to themselves as "water ditch coyote children" in reference to their construction of irrigation systems. Since most Paiute groups were highly mobile (with the exception of some Owens Valley cultivators), they were often identified by the direction of travel in their seasonal transhumances. For example, a Mono Basin Paiute traveling to the Owens Valley would be regarded as a "northerner." The same label would be given to a northern Owens Valley resident traveling southward. Groups traveling to the Owens Valley or Mono Lake Basin from the east would be considered "easterners," and so on. While dialects and customs differed between regions, Owens Valley and Mono Basin Paiutes, as well as their North Fork Mono trade partners, shared common language characteristics and could generally converse with each other.[20]



Acorn and seed baskets. (Source: Gifford, "The Northfork Mono," plates 9a and b)

Most studies of Paiute populations in the Eastern Sierra focus on the Owens Valley and the Mono Lake basin. Yet there are indications that the Long Valley adjacent to Mammoth Pass was also inhabited year-round, at least at times. In the 1930s, anthropologist Julian Steward noted a community residing near Hot Creek southeast of the present Mammoth Junction area. Other surveys found that inhabitants of the Long Valley made frequent trips over Mammoth Pass to fish along the San Joaquin. Some researchers have considered the Long Valley to be an extension of the Owens Valley Paiute territory, while others have noted that Mono Lake groups migrated to the area. The Long Valley was clearly important, as it contained valuable trade resources such as piñon nuts, Pandora moth larvae, and, especially, obsidian. Archaeologists



North Fork Mono woman pulverizing manzanita berries. (Source: Gifford, "The Northfork Mono," plate 4b)

Owens Valley Paiute Tule House. (Source: Steward, "Ethnography of the Owens Valley Paiute," plate 3c)

have uncovered a significant concentration of bedrock mortar sites in the Long Valley and Casa Diablo areas.[21] However, over time, the area's cold winters and frequent volcanic activity probably resulted in significant demographic shifts.[22]

Sierra Crossings

Like other Indian peoples in California and the Great Basin, Eastern Sierra Paiutes depended heavily on trade, and their connections with tribes on the west slope of the Sierra Nevada were vital for obtaining foodstuffs and other resources. In addition to obsidian and salt, Paiutes also sent piñon nuts, rabbit-skin blankets, tobacco balls, baskets, buckskins, and the dried larvae

of Pandora moths and Mono Lake brine flies westward over the crest of the Sierra. In return, they received clamshell beads, baskets, acorns, and the berries of manzanita, elder, and basket bush.[23]

Trade was fundamental to the social life of these communities. North Fork Mono author Gaylen Lee describes these annual trans-Sierra trading excursions as a family affair:

> Grandma remembered traveling to *sibiti Nim* [Mono Lake Paiutes] to trade; she said it was a good time, visiting, feasting, and playing games. Whole families made the trek, walking or riding horseback for several days on any of the trails that cross the Sierras and camping along the way. Grandma said each woman carried a *wono* on her back, the large conical-shaped basket used for hauling loads, filled with acorns or salt grass to trade for the piñon they would carry home.[24]

North Fork Mono trade excursions took place in late summer or fall, "when daytime temperatures began to dip and nights were brisk, about when the family was gathering acorns." After a messenger came over the mountains, parties would set out from the east announcing that it was time to meet with ancestors and friends among the Paiute. The groups would then meet somewhere near Mammoth Pass to socialize and trade. Some western traders would remain on the east side of the mountains to collect their own supplies of piñon nuts, which, Lee's grandfather recalled, "lay on sand waiting to be picked up."[25]

Exchange networks not only functioned to move food, tools, and other material resources but also served as conduits for ideas and social practices. Ethnographers have found that eastern and western tribe members occasionally intermarried. Western traders were often invited to fall dances and festivals in Bishop, Big Pine, and other population centers in the Owens Valley. Eastern shamans were also invited west to attend certain dances and ceremonies. Through these cross-mountain ties, the North Fork Mono introduced the Ghost Dance originated by Hawthorne Wodziwob of the Northern Paiute to the western slope of the Sierra in 1871. The ritual apparently caught on briefly in some communities but failed to last. Gaylen Lee's grandmother recalled that "somebody came over from Bishop a long time ago. . . . He was teaching a new religion, but they [the North Fork Mono] didn't take it."[26]

However, trans-Sierra connections may not have always been cordial. In his history of Inyo County, local journalist and booster William A. Chalfant related a conversation with an Owens Valley Paiute who told of an early nineteenth-century confrontation with a band of North Fork Mono. According to the account, a group came over the mountains from the west and attacked a Paiute hunting camp, "either killing or carrying off all the helpless occupants." In response, Paiute messengers were sent throughout the region to recruit warriors to pursue the "marauders" over Mammoth Pass. The war party followed the pass trail to a "big river," likely the Middle Fork San Joaquin, where lookouts located a secure camp. The next morning, the Paiutes ambushed the camp, wiping out "the murderous band." Paiute warriors remained lying in wait in the area until the next day and when members of the "offending tribe" returned to collect their dead, they were "ambushed and likewise massacred" by the waiting warriors.[27]

Chalfant's account suggests that as a boundary zone, the Middle Fork Valley may have been a contested territory at times, which may have precluded more intensive use of the Postpile region that in turn may have affected wildlife populations and forest conditions. Chalfant's story may also be an exaggeration, or if accurate, a consequence of the dislocation experienced by many east- and west-slope tribes in the postcontact era. Ethnographies of other Sierra tribes have shown that many high mountain areas were regarded as common hunting grounds. Historical accounts also contain few instances of extreme or long-lasting violence between western and eastern tribes in the Devils Postpile vicinity, although minor territorial disputes

may have been common. This relatively peaceful relationship is not surprising considering the centrality of trans-Sierra trade to the social dynamics and resource base of the region as a whole.[28]

Whether the valley served as more than a place to pass through is unclear. It was a harsh locale, particularly in winter, and far from the centers of habitation for both North Fork Mono and Paiutes. In the late 1920s, Julian Steward recorded the autobiography of an Owens Valley Paiute who, during a trade excursion over Mammoth Pass, encountered an "old woman who lived alone in the mountains, eating pinenuts and seeds."[29] While few would have resided there for long periods, people from the west and east frequented the area east of the Sierra crest near Mammoth Mountain during certain times of year, particularly in the fall when piñon nuts were ripening. Some groups likely also entered the Middle Fork Valley to collect materials for basketry; to hunt deer, bighorn sheep, and other game; or to fish for trout.

The ethnohistorical literature contains few specific descriptions of the Middle Fork Valley and even fewer indications of how the people might have regarded the Devils Postpile formation. North Fork Mono traders passing through the valley clearly had knowledge of the Postpile. Gaylen Lee's grandfather explained that the vertical columns "used to be lumber, now rock."[30] In 1922, a *Los Angeles Times* reporter recorded two stories he attributed to local Paiutes. The first suggested that during the time of creation a "big boss devil" imprisoned an evil spirit by driving it into the ground with the columns of the Postpile. The numerous hot springs in the area are the result of the spirit's continuing struggle to escape. The second story indicated simply that "all mountains . . . rest on posts. Here one slipped off."[31] Although it is difficult to determine the authenticity of either story, the Honorable Ron W. Goode, current tribal chairman of the North Fork Mono tribe, considers the former story to be consistent with other traditional creation stories, and has incorporated it into his explanation of the cultural significance of the Devils Postpile area to tribes in the region.[32]

Indian Use of Fire and Environmental Change

North Fork Mono and Paiute groups probably manipulated the environment of the Middle Fork Valley to some degree. Whereas traditional ethnographic literature characterized California Indians as "diggers" who passively "collected" resources from the landscape, newer studies of Sierra ecosystems have shown that Indians often actively maintained environments that seemed wild and untouched to Euro-American eyes. Environmental anthropologists Thomas C. Blackburn and M. Kat Anderson have argued that so-called hunting and gathering societies in the Sierra Nevada and elsewhere in California actually "domesticated" many environments, creating new ecosystems, such as black oak woodlands and dry montane meadows that were dependent on continuous, deliberate human intervention. This intervention came in many forms including sowing seeds, transplanting shrubs and small trees, diverting water for irrigation, pruning, weeding, erosion control, and collecting firewood.[33]

The most common tool Indians employed in the Sierra Nevada was fire. Selective burning served a number of purposes. It encouraged the growth of certain desirable plant species, such as acorns and piñon nuts, by reducing pests and encouraging the growth of larger trees. Fire also stimulated the growth of plants important to basket-making, allowing younger, straighter shoots to replace older, woodier, and less flexible plants. Most commonly, however, people set fires to control brush and reduce the threat of large, catastrophic fires that could endanger human life and devastate staple foodstuffs. Frequent burning by Native Americans may have also contributed to the open, park-like areas noted by early Euro-American travelers through

the Sierra Nevada. These open areas encouraged the growth of new grasses, which provided browse for wildlife and may have increased the water retention capacity of meadows.[34]

Owens Valley Paiute Jack Stewart demonstrating a fire drill. (Source: Steward, "Ethnography of the Owens Valley Paiute," plate 3a)

Hunting parties also set fires to drive out game. Steward described this practice among the Owens Valley Paiute, writing that "men, stationed 100 yards apart, hunted a large region, advancing with sage bark torches, 3 inches in diameter, 3 feet long, firing brush and closing in to drive deer into a great circle, then shooting them down."[35] Paiute groups employed similar strategies in hunting bighorn sheep in the Sierra and White Mountains, as well as rabbits and grasshoppers in the desert areas east of the Sierra escarpment. Western Sierra tribes have also been credited with using fire as a tool in hunting. These hunts were conducted in the fall when the forest undergrowth and duff were most combustible and the high mountain meadows where deer grazed were most accessible.[36]

Most studies of Indian burning in the Sierra Nevada have focused on the more populated, lower-elevation areas on the range's western slope, though it remains difficult to identify precisely where and to what extent other types of landscapes were burned. However, there is evidence that intentional fires were set in many areas in the higher mountains as well as the inhabited lowlands, and the Devils Postpile region can potentially serve as an instructive site for investigating and interpreting the role of Native Americans in shaping these less intensively used landscapes.

Presently, fire history studies of red fir and lodgepole pine forests, such as those in the Postpile vicinity, are few. These forests have been described as being among "the least altered from [their] 'natural state'" in comparison to other forests in the Sierra Nevada due to their relative inaccessibility for early Euro-American settlers.[37] Yet Native people clearly frequented these areas, using them seasonally for a variety of purposes. Considering a precontact population of approximately 90,000 to 100,000 in the Sierra Nevada, and the extent in which these people burned or otherwise altered other areas, it is difficult to conclude that they left high mountain forests alone though, granted, it is also difficult to show conclusively what changes they might have made and why.[38]

Fire history studies conducted in Devils Postpile after the 1992 Rainbow Fire provide a starting point for exploring the possibilities. Studies of similar locations in the Sierra Nevada have determined that prior to the 1800s, lodgepole pine forests burned relatively infrequently, roughly every 130 to 160 years. Red fir and Jeffrey pine forests burned more often, approximately every 30 to 60 years. Dendrochronological samples from both types of forests in Devils Postpile show a significantly more frequent pattern of burning for the period from the early 1700s to the late 1800s. During this time, fires affected red fir and Jeffrey pine forests every 5 to 25 years, and lodgepole pine forests every 15 to 30 years. This frequency—particularly in lodgepole pine forests—might be greater than can be accounted for by lightning alone, or by volcanic activity and climate change, especially considering the extent of the pumice covering the area, which tends to inhibit the growth of understory fuels. Tree-ring studies recently conducted further show that the frequency of fires diminished after the 1860s, and that no significant fires affected the area between roughly 1887 and 1992. This marked stoppage at the end of the nineteenth century was concurrent with the US government's forced removal of Indian peoples, increased grazing, and the implementation of fire-suppression

policies by federal land agencies. This century-long fire drought allowed substantial fuel to accumulate on the forest floor, which likely contributed the large size and intensity of the 1992 Rainbow Fire. [39]

Occasional, intentional burning by Native Americans remains a probable explanation for the frequency of fires in this area before the late nineteenth century. Evidence of this practice can be found in the recollections of Native elders and other longtime residents of the area who carried the lessons of selective burning down from previous generations. Their oral histories indicate that fires may have been set in the Middle Fork Valley to clear paths for travel and to encourage the growth of certain plants and forage for wildlife. In a 1990 interview, North Fork rancher Betty Jamison recalled that Sierra trading parties would light fires nearly everywhere in the region from Soquel, Jackass, and Clover meadows near the North Fork San Joaquin all the way east to Reds Meadow. For Jamison, the benefits of burning were clear:

> Back then you had a forest you could ride through. [North Fork Mono trading parties] burned to clear the masses of little trees and duff which increased the grasses for forage for deer and other animals. It also cleaned up the area. . . . They lit the fires every year. No[w] there are fewer and fewer gooseberries and wild strawberries. We used to collect them up in the high country.[40]

Francys Sherman, a North Fork Mono, also identified burning as a common practice for west slope trading parties during their return treks:

> The Indians used to burn for clearing the land in September or October. They would come from Lone Pine or Bishop, or Mono Lake coming back with pinyon nuts, wild rice, and shrimp out of Mono Lake. They would set the fires as they would leave their campgrounds. . . . They would burn from the bottom of the slope. They haven't done this for so long, it's a mess. You can hardly walk through the brush if you go hunting. Now you're lucky if you see one deer all day long.[41]

Sherman also described the potential hazards of resuming annual burning after more than a century of federally enforced fire suppression: "[North Fork Mono trading parties] set fires every year so it didn't harm the trees. That way it would burn the grass. A lot of bushes would burn. Different areas were burned each year, where the grass is thick and high. If they did it now you wouldn't have any trees. It's like an eight inch carpet of leafmolds, pine needles and whatever."[42]

These recollections hint at the extent of the ecological changes set in motion by Indian burning. Even in the Middle Fork Valley, which was used for only brief periods each year, anthropogenic fire would have significantly reduced undergrowth and duff, particularly in the southern portion of the present-day monument where pumice does not predominate. It would have opened up the forest, encouraging the growth of new forage that in turn would have attracted deer and other wildlife. It is also possible that people deliberately extended some of the meadows in the area by setting fire to young lodgepole pines encroaching on meadows, or by harvesting willows along riverbanks. These wider, more open meadows would have provided spaces for camping, collecting plants, and hunting.[43]

Indian peoples' use of fire reflected a land ethic that placed humans within rather than outside the natural world. This ethic involved two interrelated components: a material component consisting of the plants, animals, and other resources necessary for survival; and a spiritual component based on the belief that all objects and living things in the material world were vested with spirits and contained certain powers demanding respect. Human souls were not fundamentally different from souls inhabiting other objects or entities, and indeed, both North

Fork Mono and Paiute stories commonly describe humans transforming into animals and back again. Traditional stories also served (and continue to serve) as environmental lessons, highlighting the power of water, fire, wind, rocks, plants, and animals to either benefit or harm humans. With these stories as a guide, the people usually acted on the environment with discretion, engaging in rituals of request when hunting or collecting resources.[44]

This worldview shaped the way Sierra tribes understood the potentialities and limitations of the environments they depended on. While they also acquired knowledge about the environment through direct experience over many generations, it is misleading to suggest that they merely "adapted" to the Sierra landscape. This view, as M. Kat Anderson explains, reinforces an artificial division between Native societies and the physical worlds they inhabited, and supposes a more static environment than that which actually existed. Anthropologists have often missed the biological contexts in which Native peoples' histories unfolded by regarding the materials they collected from the environment as purely cultural artifacts.[45] At the same time, biologists have often underestimated the extent in which Native people shaped environmental conditions. Sierra tribes deliberately altered the landscape to suit their needs, even as they also adjusted their lifeways to a dynamic, partially human-altered, environment. Native people did not simply "adapt" to the environment; rather, in many cases, they were instrumental in creating and maintaining the ecological conditions that Euro-American explorers and settlers encountered in the Sierra Nevada in the nineteenth century.[46]

Notes

1. This story is adapted from Honorable Ron W. Goode, "Making of the World," attachment to Honorable Ron W. Goode to Ms. Magalie R. Salas, Secretary Federal Energy Regulatory Commission, April 22, 2008, courtesy Honorable Ron W. Goode.
2. This version of the story is adapted from Jared Dahl Aldern, "Native Sustainment: The North Fork Mono Tribe's Stories, History, and Teaching of Its Land and Water Tenure in 1918 and 2009" (PhD diss., Prescott College, 2010), 91–96.
3. Ibid., iv.
4. Ibid., 99.
5. Hull and Hale, *Post-Fire Archeological Survey*, 7–8, 46–47; and Robert L. Bettinger, *Archaeology East of the Range of Light: Aboriginal Ecology of the Inyo-Mono Region, California* (Davis: Foundation for the Publication of Monographs in California and Great Basin Anthropology, 1982), 54.
6. Linda A. Reynolds, *Long Valley Prehistory* (Lee Vining, CA: Inyo National Forest, 1993), chap. 4.
7. Eric Shaffer, *The Devils Postpile National Monument Archaeological Site Assessment Report* (Yosemite National Park, 2007), 6.
8. Paul D. Bouey and Mark E. Basgall, "Trans-Sierran Exchange in Prehistoric California: The Concept of Economic Articulation," in *Obsidian Studies in the Great Basin*, ed. Richard E. Hughes (Berkeley: Archaeological Research Facility, 1984), 145, 149; and Bettinger, *Archaeology East of the Range of Light*, 82–83.
9. A concise review of the debate over the theory of Numic migration can be found in Reynolds, *Long Valley Prehistory*, chap. 4.
10. Emma Lou Davis, "The Desert Culture of the Western Great Basin: A Lifeway of Seasonal Transhumance," *American Antiquity* 2, no. 2 (October 1963): 202–12.
11. For a good overview, see Peter Jones, *Respect for the Ancestors: American Indian Cultural Affiliation in the American West* (Boulder: Bauu Institute, 2005). See also Robert L. Bettinger and Jelmer W. Eerkens, "Point Typologies, Cultural Transmission, and the Spread of Bow–and–Arrow Technology in the Prehistoric Great Basin," *American Antiquity* 64 (199): 231–42; and Jelmer W. Eerkens and Carl P. Lipo, "Cultural Transmission Theory and the Archaeological Record: Providing Context to Understanding Variation and Temporal Changes in Material Culture and the Archaeological Record," *Journal of Anthropological Archaeology* 24 (2005): 316–34.

12. Hull and Hale, *Post-Fire Archeological Survey*, 15; and Wallace B. Woolfenden, "Long Valley Pauite," in Reynolds, *Long Valley Prehistory*, chap. 5.
13. E. W. Gifford, "The Northfork Mono," *University of California Publications in American Archaeology and Ethnology* 31, no. 2 (1932): 17, 21–23.
14. Hull and Hale, *Post-Fire Archeological Survey*, 16; and James T. Davis, "Trade Routes and Economic Exchange among the Indians of California" in *Aboriginal California: Three Studies in Culture History*, ed. Robert F. Heizer (Berkeley: University of California Archeological Research Facility, 1963), 13.
15. This paragraph relies on Aldern, "Native Sustainment," chap. 3.
16. Gifford noted that during these trade excursions, the women would pound acorns "at the stopping places," strongly suggesting that the bedrock mortar locations at King Creek and Fish Creek may have been camping sites. Gifford, "Northfork Mono," 19. The final stop on the journey, which Gifford recorded as *Saibatkiwe* located "in Eastern Mono County," may correspond to a village on Hot Creek named in a 1935 ethnography as "*si-pa-qui-wa.*" Reynolds, *Long Valley Prehistory*, chap. 5.
17. Hull and Hale, *Post-Fire Archeological Survey*, 18–20.
18. Julian H. Steward, "Ethnography of the Owens Valley Paiute," in *University of California Publications in American Archaeology and Ethnography* 33, no. 3 (1933): 236.
19. William H. Michael, "At the Plow and in the Harvest Field: Indian Conflict and Accommodation in the Owens Valley, 1860–1880" (master's thesis, University of Oklahoma, 1993), 12.
20. Steward, "Ethnography of the Owens Valley Paiute," 235–37; and W. A. Chalfant, *The Story of Inyo*, rev. ed. (Bishop: Piñon Book Store, 1933), 42.
21. Jefferson W. Haney, "Acorn Exploitation in the Eastern Sierra Nevada," *Journal of California and Great Basin Anthropology* 14, no. 1 (1992): 94–109.
22. Hull and Hale, *Post-Fire Archeological Survey*, 15; and Woolfenden, "Long Valley Pauite."
23. Hull and Hale, *Post-Fire Archeological Survey*, 18–20; and Steward, "Ethnography of the Owens Valley Paiute," 257–58.
24. Lee, *Walking Where We Lived*, 140.
25. Ibid., 139, 140.
26. Hull and Hale, *Post-Fire Archeological Survey*, 16–17; Steward, "Ethnography of the Owens Valley Paiute," 320–23; and Lee, *Walking Where We Lived*, 118. Wodziwob's Ghost Dance ritual was a precursor to the later movement promulgated by Nevada Paiute Jack Wilson, or Wovoka, who preached that clean living and peace with whites would allow native people to reunite with loved ones and return to traditional ways of living in the next world. In the late 1880s, the Lakota of the northern Great Plains adopted a variation of Wovoka's Ghost Dance after being confined to Great Sioux Reservation of South Dakota. However, US Army posts in the region misinterpreted the ritual as a war dance. The resulting tensions culminated in the tragic massacre at Wounded Knee in 1890. For the origins of the Ghost Dance among the Northern Paiute, Wodziwob's role, and the initial spread of the ghost dance in the 1870s, see Michael Hittman, "The 1870 Ghost Dance at the Walker River Reservation: A Reconstruction," *Ethnohistory* 20, no. 3 (Summer 1973): 247–78.
27. Chalfant, *Story of Inyo*, 46–47.
28. Kat Anderson, *Indian Fire-Based Management in the Sequoia-mixed Conifer Forests of the Central and Southern Sierra Nevada: Final Report Submitted to Yosemite Research Center, Yosemite National Park* (Yosemite: Yosemite Research Center, 1993), 167; and Steward, "Ethnography of the Owens Valley Paiute," 241, 306. Steward reported warfare as being uncommon among Owens Valley Paiute generally, "amounting only to rock throwing . . . during squabbles over food territory." Territorial disputes did sometimes spill over to the west side of the Sierra crest. Chalfant reported that "one of the wars between Indians east of the Sierras and those on the western slope" broke out when a group of Paiutes traveled west in an attempt to gain direct access to the "worm orchards" where west slope tribes collected the larvae of the Pandora moth (*Story of Inyo*, 83).
29. Julian Steward, "Two Paiute Autobiographies," *University of California Publications in American Archaeology and Ethnology* 33, no. 5 (1934): 431.
30. Lee, *Walking Where We Lived*, 140.
31. John L. Von Blom, "Paradox of the Mysterious Devil," *Los Angeles Times*, February 26, 1922.

32. Goode interview.
33. Thomas C. Blackburn and Kat Anderson, "Introduction: Managing the Domesticated Environment," in *Before the Wilderness: Environmental Management by Native Californians*, ed. Thomas C. Blackburn and Kat Anderson (Menlo Park, CA: Ballena Press, 1993), 17–19.
34. Kat Anderson, "Tending the Wilderness," *Restoration and Management Notes* 14, no. 2 (Winter 1996): 160–61.
35. Steward, "Ethnography of Owens Valley Paiute," 253.
36. For the use of fire for hunting among the Yosemite Miwok see James M. Hutchings, *In the Heart of the Sierras* (Oakland: Pacific Press Publishing House, 1888), 429–30. For other west slope tribes see Anderson, *Indian Fire-Based Management*, 98–99.
37. Robert J. Laacke and John C. Tappeiner, "Red Fir Ecology and Management," in *Sierra Nevada Ecosystem Project: Final Report to Congress,* vol. 3 (Davis: University of California, Centers for Water and Wildland Resources, 1996), 2.
38. Kat Anderson and Michael J. Moratto, "Native American Land-Use Practices and Ecological Imprints," in *Sierra Nevada Ecosystem Project: Final Report to Congress,* vol. 2 (Davis: University of California, Centers for Water and Wildland Resources, 1996), 187–89, 191.
39. E-mail correspondence with Tony Caprio, Thursday, April 1, 2010; Caprio and Webster, *National Park Service Fire Ecology Report 2006*, 21; and Caprio and Webster, *Fire Effects*, 1–3.
40. Anderson, *Indian Fire-Based Management*, 299.
41. Ibid., 295.
42. Ibid. For a similar account, see Lee's description of burning practices among the North Fork Mono in *Walking Where We Lived*, 144–46. The 1992 Rainbow Fire, which burned deep into the soil, killing many trees and preventing the restoration of vegetation over a large area over the southern portion of the monument, confirmed the wisdom of Sherman's observations.
43. Anderson, *Indian Fire-Based Management*, 97, 100.
44. Beesley, *Crow's Range*, 22–24; Robert F. Heizer, "Natural Forces and the Native World View," in *Handbook of North American Indians*, Vol. 8, *California*, ed. Robert F. Heizer (Washington, DC: Smithsonian Institution, 1978), 649–53; and Goode,interview.
45. Anderson, *Indian Fire-Based Management*, xx.
46. Beesley, *Crow's Range*, 31.

Chapter Three

Euro-American Exploration and Resource Extraction in the High Sierra, 1700s–1800s

Initial Euro-American forays into the Sierra Nevada occurred in the context of three imperial transitions. From the late 1700s through the mid-1800s, Spanish colonizers and Mexican settlers altered the land-use patterns of Sierra tribes through trade, introduction of foreign diseases, and displacement of other Native populations. During the period of imperial rivalry beginning in the 1820s, American explorers crossed the Sierra Nevada to secure control of the far West and its resources for the expanding nation. In the period of American territorial expansion between the 1840s and 1890s, miners, loggers, and sheep and cattle herders pushed deeper into the Sierra Nevada in search of extractable resources. These encroachments were made possible by the displacement of Native inhabitants—first by local and state militias, then by the US Army. The drive to exploit the material wealth of the Sierra region linked these transitions, and shaped the early history of the Devils Postpile area.

The Spanish and Mexican Periods, 1700s–1848

In 1806, Spanish Lt. Gabriel Moraga and his company of fifteen men made the first documented entry by non-Indians into the Sierra Nevada. The expedition was initially undertaken to capture and punish Indian horse thieves. In the process, Moraga and his men became the first known Europeans to explore the mountain region between the San Joaquin and Merced Rivers. The party did not penetrate the mountains beyond the site of present-day Millerton Lake, yet came far enough to recognize how formidable a barrier the Sierra posed for future expeditions eastward.[1]

During the expedition, Moraga's party encountered a band of North Fork Mono who told them that several years before, another group of Spaniards had come from the east side of the mountains and killed some members of the tribe. Beginning in the late 1700s, several Spanish expeditions had set out from New Mexico to establish trade routes across the Great Basin to California. However, there is no evidence that any of these expeditions made it as far as the east side of the Sierra before Moraga's time. Also, though no record exists, an earlier group of Spanish explorers may have come upon the camp from the south, only *appearing* to come from over the Sierra crest. In any case, the incident suggests that despite having very little direct contact with the Spanish, Sierra tribes were aware of their presence and had already begun consider how to respond to the new social dynamics.[2]

Sierra tribes were able to escape the worst deprivations experienced by the mission Indians to the west, yet they were not protected from the disease outbreaks that spread outward from the points of contact. By the early nineteenth century, smallpox, measles, influenza, scarlet fever, and other foreign diseases to which Native people had no immunities reduced the indigenous population of California by nearly half. Mountain tribes were not as hard hit by the epidemics themselves, but the fear of contagion combined with periodic outbreaks of violence between Sierra tribes and displaced valley tribes disrupted patterns of migration and resource use throughout the range. In the Yosemite region, a band of Ahwahnechee is believed to have fled the Valley in advance of an epidemic to take refuge with their Paiute allies to the east. Chief

Tenaya—probably a mixed Ahwahnechee and Paiute born in the Mono Lake area—later led a group of Indians back to the Yosemite Valley where they were joined by displaced members of Miwok, Monache, and Central Valley tribes. In the 1840s, Tenaya's patchwork alliance undertook frequent raids from Yosemite against enemy tribes and encroaching settlers in the foothills.[3]

Disease was only one of many European imports affecting Native populations and land-use patterns in the Sierra. Spanish, Mexican, and early American colonists also introduced new foods, new trade goods, and new technologies, including guns and metal tools. But the most significant of these imports was undoubtedly the horse, which provided not only transportation but also trade leverage and, at times, a source of food. With horses and guns, Indians were able to push back against valley and foothill settlers, often by sweeping down out of the mountains to steal horses and cattle, raid settlements for supplies, or assist refugees from the missions.

These new practices also influenced Native use of the high mountain areas to the east including the Devils Postpile region. Through trading and raiding, the North Fork Mono and other west slope tribes may have become less dependent on their seasonal transhumances for hunting and resource collection, which may have caused them to alter their traditional patterns of travel along the Mammoth Pass trail. Population decline due to disease and warfare also likely affected Native uses of the Postpile region, though this does not necessarily mean they used the area less frequently. Horses allowed west slope groups to travel farther and faster while carrying more goods, and trade excursions may have actually increased in number as a result. With the greater mobility afforded by horses, North Fork Mono groups may have also made frequent informal treks over the mountains at different times during the year, with remote high mountain areas like the Middle Fork Valley also serving as sanctuaries from retaliation by settlers or enemy tribes.[4]

American Exploration, 1826–1848

As early as the 1820s, American explorers and fur trappers were looking for ways to penetrate the Sierra front into Mexican California. In 1826, famed mountain man Jedediah Smith made the first Euro-American crossing of the range near Ebbetts Pass by way of the Stanislaus River. In 1833, Joseph Walker and his seventy-man party, searching for a route to the Pacific from the Great Salt Lake, crossed the Sierra from east to west through the Yosemite. Members of Walker's party are usually credited with being the first non-Indians to view the Yosemite Valley and the Giant Sequoia trees. In the mid-1840s, John C. Frémont's party extended surveys of the western and eastern flanks of the Sierra and through his wanderings, Frémont mapped many of the easiest passages through the mountains, preparing the way for future American settlement of the region.[5]

The Sierra Nevada presented a formidable barrier for these early explorers and most, whether guided or not, ended up following preexisting trade routes. This commonly resulted in encounters with Indian traders. While hunting along the Mono Trail north of Yosemite Valley, members of Walker's party came across an Indian trader traveling east toward the crest. Faced with armed white hunters, the man dropped his basket of acorns and fled. The acorns, as the diarist of the expedition Zenas Leonard recorded, "caused no little rejoicing in our camp, not only on account of their value as food, but because they gave us the gratifying evidence that a country mild and salubrious enough to produce acorns was not far distant."[6] Prior to this, Walker and his men had struggled through the maze of granite gorges north of the Tuolumne River where they encountered impassable cliffs, deep snowdrifts, and a lack of food that forced them to butcher a number of horses. Coming upon the Mono Trail proved to be the key to

John C. Frémont party crossing the Sierra Nevada in 1843. (Source: Frémont, *Narrative of the Exploring Expedition to the Rocky Mountains in the Year 1842, and to Oregon and North California in the Years 1843–44*, 235)

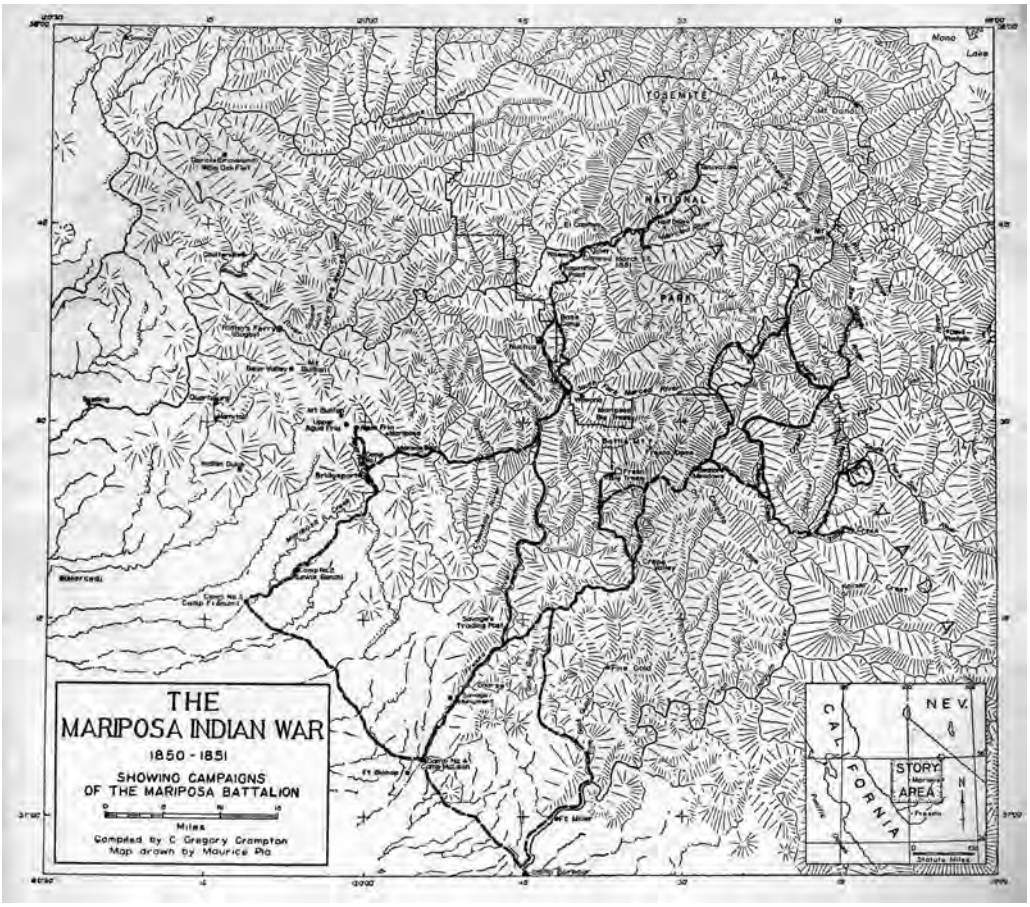
completing the passage over the mountains. Walker learned his lesson from this first crossing, and after inquiring among Native people on the western slope, chose to return via a far easier trade route to the south. The return trip took only four days over what would later be named Walker Pass. John C. Frémont, during his expeditions, also followed the most commonly used Native pathways.[7]

Although Walker, Frémont, and others succeeded in breaching the Sierra escarpment, the highest elevations of the Central Sierra and the less commonly used Native trade routes, including the Mammoth Pass trail, remained unexplored through the early period of American expansion. Eventually, however, the penetration of Americans into the Sierra Nevada had reverberations far beyond the ground the first explorers traveled. By the 1850s, Native people were being forced out of their traditional homelands and a new land-use pattern based on the commercial exploitation of resources was taking hold in the Sierra, with significant implications for the entire region, including the little-used Postpile area.

Early American Settlement and Indian Removal, 1848–1864

The first American immigrants to California viewed the Sierra front as an obstacle to cross en route to the fertile farmlands of the Central Valley beyond. The 1848 discovery of gold at Sutter's Mill changed that, prompting a surge of interest in the Sierra Nevada itself as a source of potential riches. During the Mexican era, fear of Indian raids hindered expansion into the Sierra Nevada proper. The acquisition of California by the United States after the 1848 Mexican American War and the increased presence of the US military in that period aided the rapid settlement of the region during the Gold Rush.

Although a few intrepid prospectors may have wandered upriver into the Middle Fork Valley during the early Gold Rush, development of the Devils Postpile area for mining and other commercial purposes remained slow through the mid-nineteenth century due to its remoteness and the fact that Native people continued to occupy most high elevation areas. The forced



Map of the expeditions of the Mariposa Battalion during 1851. (Source: Eccleston, *The Mariposa Indian War, 1850–1851*)

removal of the remaining Indians to make way for settlement and resource development unfolded as a multistage process with far-reaching social and ecological consequences. What began as a series of engagements between militia groups and raiding bands eventually expanded into a coordinated effort on the part of an expansionist federal government to forcibly remove Sierra tribes.

Before the Gold Rush, the few American settlers in the region maintained a tenuous trade-based peace with local Indians. This fragile relationship deteriorated after 1848 as prospectors pushed farther into the mountains, threatening Native security and resources. Mining activity intensified along the western slope of the Sierra Nevada until 1850 when Indians suspected to be from the Yosemite region attacked a trading post at Fresno Crossing owned by James Savage, killing his employees. While this attack temporarily halted deeper probes into the Sierra, by this time, settlers had the population numbers and military capabilities to respond to Indian aggression. In January 1851, Mariposa County sheriff James Burney organized a force of seventy-four volunteers for a retaliatory campaign that ended with an inconclusive skirmish in Crane Valley (now Bass Lake). Because of additional Indian raids in the area and along the Kaweah River, California governor John McDougal authorized the formation of a larger armed unit, known as the Mariposa Battalion and in March that year, the battalion tracked Indian raiders up the Merced River canyon, becoming the first non-Indians to enter the Yosemite Valley.[8]

During spring 1851, the battalion made three forays into the high mountains beyond the valley in an attempt to capture the local Native population and remove them to a reservation. The battalion passed through the country to west and southwest of Devils Postpile on two of these occasions, and both times, the Indians used their knowledge of the area to elude their pursuers, confusing them with signal fires and false trails. The battalion was also ill equipped to follow the Indians over the rugged, disorienting terrain. During the first campaign, a patrol followed a small band up the North Fork San Joaquin. In his account, Lafayette H. Bunnell described spotting an Indian trail ascending the opposite bank, but while attempting to cross the swollen river, his mule lost its footing, causing them both to be swept downstream toward a waterfall. Bunnell was able to rescue himself and the mule, which according to his account he managed to secure "with her hind legs projecting over the falls." Meanwhile, the Indians vanished without a trace, likely by following the Mammoth Pass trail into the Middle Fork Valley and perhaps over the Sierra crest to take refuge with their Paiute allies.[9]

During the second campaign, the battalion again tracked a band of Indians up the North Fork San Joaquin. But rather than crossing the river and turning southwest along the trail toward Mammoth Pass where the main group of Indians had probably fled, the patrol continued to the north, ending up high on the crest of the precipitous divide at the headwaters of the North Fork San Joaquin. The militiamen were bewildered by the landscape they encountered en route. Patrolman Robert Eccleston described the scenery along the upper San Joaquin as "magnificently wild. Whole mountains of solid rock are not unfrequent [*sic*] and many beautiful pictures of tremendous waterfall's [*sic*] on stone by the Oldest Master, enliven the stream." Although at times the men could look up to admire the "loftiest peaks of the Sierra Nevada," for the most part, their attention remained fixed on the rough terrain, the scarcity of forage at higher elevations, and the Indians who from time to time appeared on the ridgelines to taunt them from just out of rifle range. As in the previous campaign, the battalion quickly realized the futility of their chase and retreated downriver without capturing a single Indian.[10]

Robert Eccleston, 1830-1911. (Source: Eccleston, *The Mariposa Indian War, 1850–1851*, frontispiece)

In 1852, the US Army established Camp Barbour and Fort Miller on the San Joaquin River to better protect the area's miners and settlers. The more active role taken by federal troops in the subjugation and dispossession of Sierra tribes in this period reflected a broader policy shift toward removal that began in the 1830s with President Andrew Jackson's forced march of members of the Cherokee and the other so-called Five Civilized Tribes from Georgia. In this era of federally initiated territorial expansion, US officials no longer sought to protect Native land claims from the intrusions of settlers. Instead, federal policies usually encouraged the displacement of Native people from lands with resource potential. Yet while the federal government acted as the catalyst for the settlement of the West in this period, its powers remained limited. The policy of removing Sierra tribes to prevent conflict with settlers was indicative of the government's inability to fully control the actions of settlers in the far West.[11]

California Indians suffered disproportionately from this change. In the early Gold Rush, resource depletion coupled with settler violence resulted in the deaths of as many as 100,000 Indians—nearly two-thirds of the population of the entire state. Over the next two decades, the California government sanctioned what amounted to genocide of the remaining indigenous population. In 1850, the state passed the Act for the Government and Protection of Indians, which permitted the enslavement of Indian children. Although the act required parental consent, at the time,

Indians could not testify in court and so had no opportunity to resist. In 1852, the state provided over a million dollars to local militia groups to root out and kill Native inhabitants, and in 1856, the state government began paying a bounty for Indian scalps. Californians were also reluctant to grant any land to Indians and frequently complained that the federal government's Indian reservation system would remove too much productive land. In response, Bureau of Indian Affairs superintendent Edward Fitzgerald Beale suggested a system of military posts for temporarily holding Indians. These reserves were too small to accommodate all the displaced people and during the brief time they existed, functioned as de facto concentration camps where Indians were forced to bear "discipline and instruction" administered by federal troops.[12]

The increased presence of the US Army in the Sierra Nevada, coupled with violent competition with settlers and militia groups over land and natural resources, sparked some resistance. By the early 1860s, Anglo-American settlement in the Owens Valley had depleted much of the local Paiute's resource base. The harsh winter of 1861 and 1862 exacerbated the problem, forcing some Paiutes to supplement their diminished food supply with horses and cattle from non-Indian area ranches. To punish the tribe for their actions, a volunteer militia formed in 1862, and soon after, federal troops were dispatched to the region to protect settlers and their land claims. Over the next two years, Indians engaged local militia and Army troops in a number of battles, resulting in significant casualties for both sides. Paiute bands frequently retreated into the high mountains—including to the Devils Postpile area—to regroup and stage assaults on army and militia posts. Although these tactics proved effective, by 1864, US troops had captured or killed the leaders of rebel bands and removed most of the local Paiutes to the military post at Fort Tejon.[13]

By this time, most Indians who survived confrontations with state and local militias and American troops had been similarly forced onto temporary reserves where they continued to be harassed by land-hungry settlers. Others, as in the case of the few Paiutes remaining in the Owens Valley, engaged in wage labor in mining, timber, or agricultural operations. Despite the abhorrent loss of land, life, and lifeways Indian people in California suffered during this period, those who survived continued to find ways to resist or adapt to their new existence alongside and within white American society. As historian Albert Hurtado has shown, many did so within traditional frameworks of responding to change, and so managed to retain their identities and much of their traditional knowledge base.[14]

Hard-Rock Mining in the Eastern Sierra, 1852–1930s

Frequent Army patrols and diminishing Native resistance in the mid-nineteenth century allowed for further explorations of the range. In 1852, Lieutenant Tredwell Moore set out from Fort Miller on another expedition against Chief Tenaya and his band of Yosemite Indians. Moore's detachment lost track of their quarry after chasing them over the Sierra crest toward Mono Lake; but in taking the opportunity to explore the area, they discovered deposits of gold-bearing quartz. This find provided the spark for the settlement of the east side of the Sierra and the eventual development of mining operations in the Devils Postpile area.[15]

In 1852, after hearing of Moore's discovery, Leroy Vining and a small group of prospectors immediately set out for the Mono Basin, where Vining established a homestead along the creek that now bears his name. Gold strikes north of Mono Lake in 1857 and 1859 led some miners to found the settlements of Dogtown, Monoville, and Bodie, while other hopefuls explored canyons and streams throughout the Eastern Sierra.

During the first years of the Gold Rush, California's mild climate, abundant wood and water, and rich placer deposits allowed most early arrivals the chance to strike it rich. The initial period of easy money, though, was short lived. The most accessible placer deposits were stripped clean by the mid-1850s, and the search for gold increasingly required more capital- and technology-intensive methods. In the western foothills, hydraulic mining, which involved washing down entire hillsides using high-pressure hoses, came to predominate by the late 1850s. While profitable, this method required enormous capital investment and led to severe environmental impacts.[16] In the high mountains and along the Eastern Sierra front where hydraulic mining was impractical, miners blasted into the hard rock in search of gold-infused quartz veins.

Even by the late 1850s, the industry's prospects looked grim, especially for independent miners. Journalist Horace Greely, in an account of his 1859 tour of California, contrasted hard-rock mining to the comparatively easy placer mining of years prior:

> When the miner is brought face to face with the rough granite, which he must drill, and blast, and tunnel for all the gold he gets, the case is bravely altered. He may make money here; he sometimes does; but I am sure that, up to this hour, not one quartz-mining enterprize in every four has paid its bare expenses; and, though there will be brilliant exceptions, I am confident that quartz-mining, as a whole, will not pay for many years to come. . . . And, until it shall be, I must consider quartz-mining, with labor at the present rates, the poorest business now prosecuted in California.[17]

For Greeley, mining in California had been "reduced to a business, and one, at best, no better, in the average, than other business." "Gold-digging," he added, was better left "to those who understand it."[18]

Dreams of striking it rich persisted in the Eastern Sierra. Miners' hopes were fueled by stories of untapped veins hidden in this still little-explored region that one settler described in 1860 as "a strange country where one is impressed with the idea that he has come too soon . . . [where] all nature wears a primitive aspect . . . [and where] all, except a few valleys and mountain meadows, is a wilderness, silent and vacant, over which the mirage dances, and the sandstorm sweeps."[19] It is perhaps no surprise that such a mysterious landscape would inspire the legend of the Lost Cement Mine, supposedly a vein of pure gold nuggets within a volcanic matrix found somewhere along the Sierra crest near the headwaters of the Owens River. Its fame was such that Mark Twain made it the subject of an entire chapter in his Western classic, *Roughing It*.[20]

Prospectors rushed to the Eastern Sierra and the Mammoth region in search of the Lost Cement Mine during this period, prompting San Francisco journalist James A. Wright to record the saga of these "cement hunters" after visiting the area in 1879. According to Wright, in 1861 a Dr. Randall of San Francisco set up camp at Pumice Flat where he claimed to have found the gold-producing shelf of "reddish cement." Prospectors swarmed over the area during summer 1862, but after finding nothing worth the exercise of developing the isolated valley declared Randall the perpetrator of a hoax. Wright also indicated that during this period as many as seven miners were killed by rebel Paiutes who were rumored to be using the valley as a stronghold, although many of the deaths may have been the result of disputes between miners. Despite this, hopeful cement hunters continued to comb the area each summer.[21]

Wright's source for what happened next was a secondhand account of a deathbed confession by a San Francisco man who claimed knowledge of a gold-producing shelf of red cement north of Mammoth Pass. The man claimed to have been led to the site by a Mr. Kent who had prior knowledge of the area. To disguise their intent, the men asked the Indian guide leading them

over the trail from North Fork to leave them at the Middle Fork San Joaquin from which they would find their own way over Mammoth Pass. After their guide left, the men headed north up the valley where they set up base camp at a secluded lake on the slope beneath Mammoth Mountain. Over the next several years, the pair extracted some $350,000 to $400,000 in gold from a volcanic shelf located above the camp. At one point, in Wright's telling, Kent even brought his entire family to the valley where they spent an idyllic summer floating pumice stones down the river and fishing below Rainbow Falls. In 1877, in anticipation of being overrun by prospectors drawn to recent finds in the Mammoth Lakes basin, the pair abandoned their diggings, destroying all evidence of their presence including the lakeside cabin.[22]

While much of Wright's reportage can be discounted as mining lore, stories like these sparked the imagination of prospectors throughout the country, leading to a series of new mining operations up and down the Middle Fork Valley. The area was not without potential. In 1877, a group of prospectors, including Inyo county journalist James Parker, discovered gold- and silver-bearing quartz formations farther east in the Mammoth Lakes basin. The miners who rushed to the area settled the towns of Mammoth City, Pine City, and Monumental, while forming the Mammoth Lakes Mining District and the Mammoth Mining Company in 1879. Additional mines were developed high up the headwaters of the Middle Fork San Joaquin in the Lake Ediza and Minarets areas. These mines, included in the North Fork Mining District in 1878, were supported by a blockhouse at Agnew Meadow that survived until at least 1912. Agnew Meadow itself drew its name from Theodore Agnew, a miner who settled there in 1877 and attempted, without success, to gain a patent for the land.[23]

The Mammoth gold rush inspired several groups of investors to propose building toll roads to cross the Sierra crest from the Fresno or Madera areas, with one ambitious group even proposing a railroad over Mammoth Pass to serve the Minaret Mine located six miles west of Devils Postpile. While several groups made proposals, including the Crane Valley and Mammoth Wagon Road Company and the Yosemite Stage and Turnpike Company, only the operation headed by John S. French succeeded, in part because wherever possible he pieced together segments of existing roads and trails. The route he eventually built roughly followed the Mammoth Pass trail that Indian traders had used for millennia.

The route, referred to as the French Trail, ran from Fresno Flats—now Oakhurst—through Soquel Meadow, Cold Spring Summit, Beasore Meadow, Jackass Meadow, Sheeps Crossing, King Creek, Reds Meadow, and Mammoth Pass before reaching Mammoth City. Out of a total distance of 54 miles, the 30-mile stretch over the foot of the Ritter Range and up to Mammoth Pass was a rugged trail suitable for pack trains and livestock drivers rather than wheeled transport. The rough, winding route required endurance on the part of paying travelers who apparently often arrived saddle sore. On July 30, 1880, the *Mammoth City Herald* reported on the condition of one Charlie Radcliffe who had arrived from San Francisco the day before: "Today Mr. Radcliffe is knocking about, but it is manifest that he has a tender regard for the seat of his trowsers."[24]

Construction of the French Trail took place during 1879 and 1880, with completion coming just one year before most of the Mammoth mines ceased operation. Despite its brief existence, the toll route served as an important early link between the Eastern Sierra and the Central Valley, remaining in use by Forest Service crews, sheepherders, and the North Fork Mono until the 1930s.[25]

It was during the construction of the trail that the first known description of the Postpile formation appeared in print. The October 1, 1879, edition of the *Fresno Weekly Expositor*

Devils Postpile cabin in 1934. (From Yosemite engineer Theodore Cronyn's boundary survey, Devils Postpile National Monument image collection)

noted that "a strange formation was found by the party looking out the line for the road to Mammoth City. It is a mountain of stone columns. They are dark-colored, close-grained stone, and are in shape three, four, five and six cornered, and some of them are as much as two feet in diameter and eighty feet in length. They are regular in shape as if they had been made by the hand of man."[26] Perhaps because it held no mineral potential, the formation failed to hold the attention of miners in the area, and no other descriptions of the Postpile are known to have made it into print during the initial mining boom.

A few enterprising individuals settled near Devils Postpile in hopes of profiting from the infusion of miners in the area. In 1879, an imposing, red-bearded man known as "Red" Sotcher began grazing sheep in Potts Meadow southeast of the Postpile. He quickly discovered that it was more profitable to use the meadow—soon known as Reds Meadow—as a market garden supplying vegetables to the Mammoth Lakes mining district. A 1954 account of Devils Postpile's history written by Ranger Naturalist Richard J. Hartesveldt noted that Sotcher was regarded with some trepidation by people in the area, and was rumored to be supplementing his farming income with a trans-Sierra horse- and cattle-rustling operation. In addition to the meadow, Sotcher gave his name to Sotcher Lake—misspelled "Satcher" in some records and maps—as well as Reds Lake and Reds Creek.[27]

Some accounts credit Sotcher with building a cabin on the eastern bank of the Middle Fork, adjacent to the Postpile talus, while others suggest it could have dated from the first decade of the twentieth century. Forest Service ranger Douglas Robinson reported the cabin as appearing "quite new" in 1909 when it was occupied by a man named Moore. Moore was conspicuous for his high-quality English tweeds, and was apparently supervising men working at his mining claim somewhere west of the Postpile. Moore may have also been an employer of Joe Ivanhoe, otherwise known as "Postpile Joe"—a one-armed packer and trapper renowned for his casual relationship with the truth.[28]

Overhead shot of the Postpile cabin. (From a 1936 NPS inspection report, Devils Postpile National Monument image collection)

1939 photo of the Postpile cabin showing its proximity to the Postpile formation. (Photo: Lester Craig. Courtesy of Nancy Wirth)

Ivanhoe was clearly present in March 1929 when stream gauger Orland Bartholomew sought shelter in the cabin during his epic solo ski trek along the backbone of the High Sierra. As Bartholomew approached the cabin through an "eerie fog," he was at first surprised to find Ivanhoe and another man living there with several dogs, then dismayed when he discovered that they had helped themselves to his food cache. The men, who had come to the cabin to

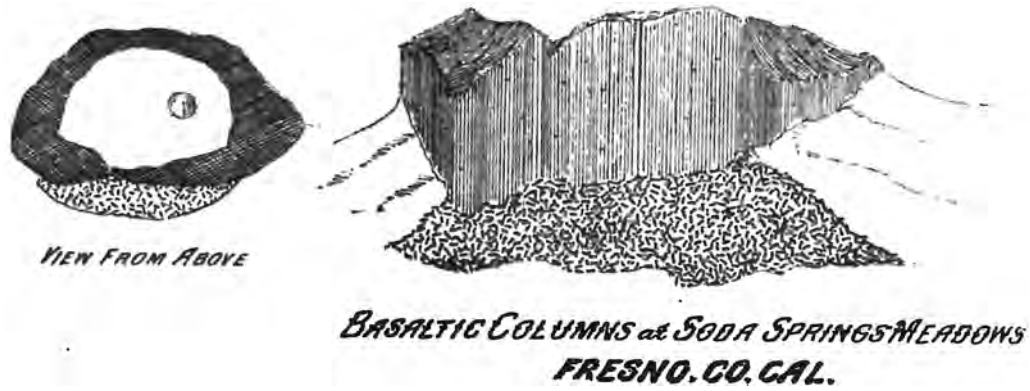
Mammoth City resident Tex Cushions's team of sled dogs across the river from the Postpile in winter. (Devils Postpile National Monument image collection)

set up a marten farm, had not heeded Bartholomew's note on the cache indicating that his life may depend on its contents. They were embarrassed as a result and offered to return to Mammoth for replacement provisions. That evening, two dog-sled teams led by Mammoth City resident Tex Cushions arrived at the cabin en route to the Minaret Mine. From Cushions and Ivanhoe (who returned the next day with a few meager provisions), Bartholomew was able to assemble enough supplies to ski the final stretch to Yosemite.[29]

In a 1962 letter to William Jones of the Yosemite Natural History Museum, Cushions provided additional background into the history of the cabin. He believed that Ivanhoe had not arrived until 1928. At that time, with the assistance of Tommy Bilkheimer (probably the other man Bartholomew encountered), Ivanhoe had "renovated and repaired the cabin into a most comfortable house including a stove built over in front of the fire place to bake their bread and roast their meat." They also installed a sundial on a nearby stump. Cushions noted that Ivanhoe "had but one arm and only three fingers on the other hand but was most capable and efficient in any type of endeavor." He also confirmed rumors about Ivanhoe's untrustworthiness. "To quote him as a boisterous liar is a great understatement," he said. Cushions was also disappointed by the dilapidated state of the cabin in 1962. "It does seem that an historical building that has harboured so many interesting characters and played so important a part in the settlement of the San Joaquin river valley, should at least be restored and maintained as a tourist attraction or a patrolman's station," he wrote.[30]

The Middle Fork Valley saw sporadic mining development between the 1890s and the 1930s. In 1892, mineralogist E. B. Preston toured the North Fork Mining District and prepared a report on its general character and mineral prospects. At the time, the area was closed to mining activity as part of Yosemite National Park. Preston's principal informant appears to have been Theodore Agnew, the self-proclaimed recorder for the district and the sole resident

Miners on the summit of Iron Mountain west of Devils Postpile. (Source: Watts, "Fresno County," 214)

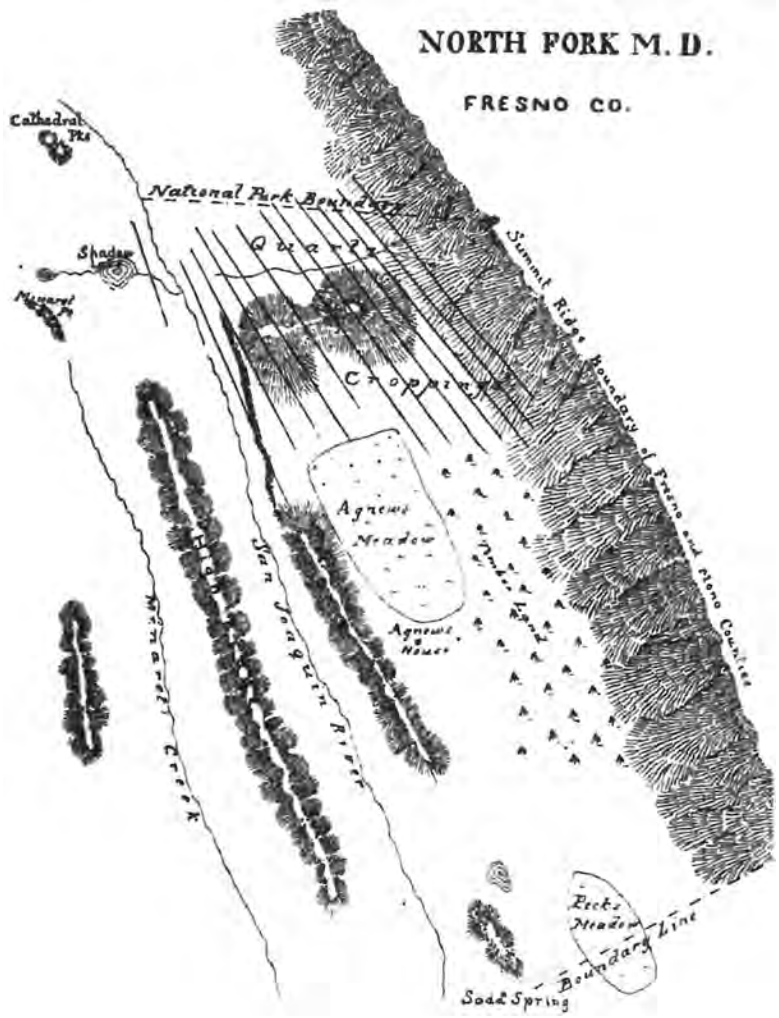


Sketch of the Postpile formation from an 1892 State Mineralogist report on the North Fork Mining District. (Source: Preston, 220)

of the area at the time. The tour itself was likely motivated by pressure from Agnew and other mining interests to have the area removed from the park, and during his inspection, Preston identified "forty-seven bona fide locations" where mining activity had taken place prior to 1890. The richest prospects were in the vicinities of Iron Mountain, Minaret Creek, and Lake Ediza (identified as "Little Shadow Lake"). The primary impediment to mining development was the area's difficult access. "The whole region is well timbered and watered," he wrote, "but sadly deficient in roads."[31]

Preston was also fascinated by the Postpile formation, describing it as "one of the most remarkable basaltic columnar formations in the world." He included a sketch of the formation's general shape and appearance and provided the most detailed description known to have appeared in print to date. His account of this "grand work of nature" contrasted with the general tone of the report, the purpose of which was to identify the chemical and mineral makeup of the region's various geologic features. Perhaps because the Postpile did not contain any mineral resources of note, Preston felt free to add a bit of flourish to his description, noting that the central posts were "arranged as regularly as the pipes in a cathedral organ." He also likened the glacial polished tops of the columns to a "parquetted polished floor."[32]

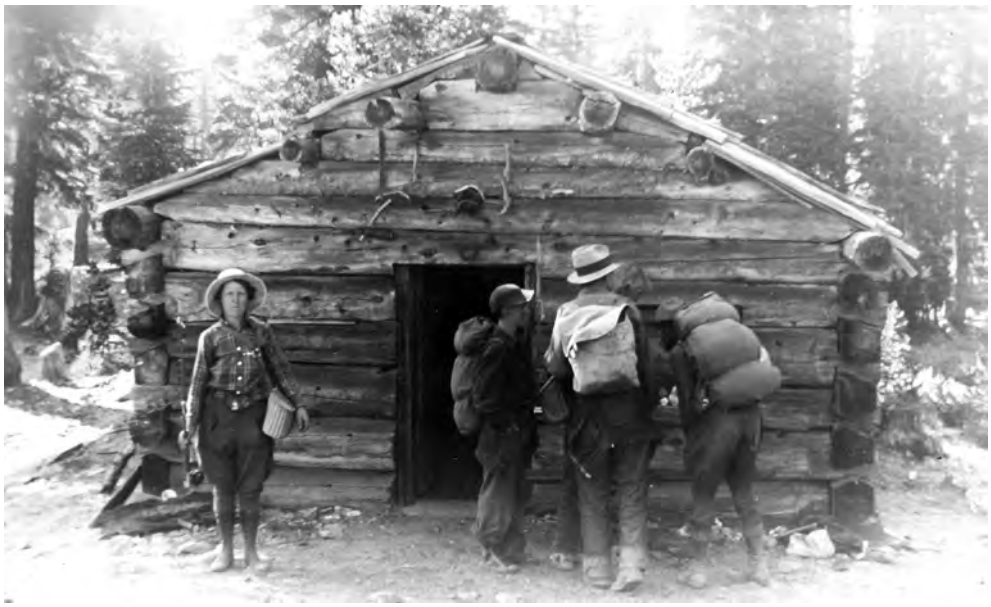
A handful of enterprising miners explored the area following its removal from Yosemite in 1905. By 1914, "considerable work" had been done "in prospecting for iron and copper,"



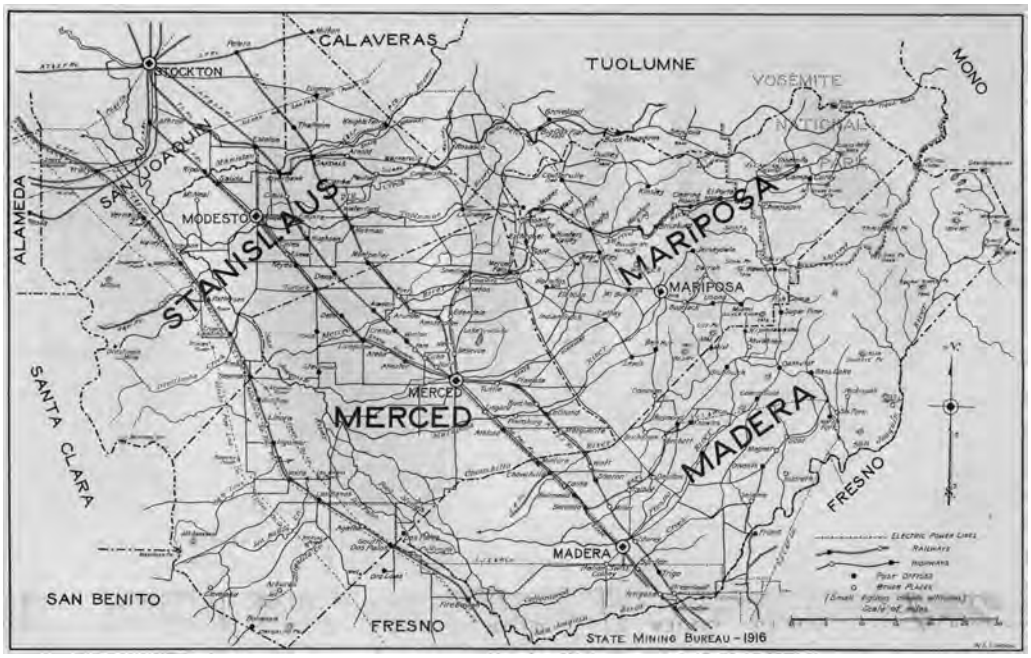
1892 sketch map of the North Fork Mining District showing the soda spring, Reds Meadow (labeled "Peck's Meadow"), and the Yosemite National Park boundary north of Agnew Meadow. (Source: Preston, 221)

according to the state mineralogist's report, with a number of specimens of other minerals including sphalerite, pyrrhotite, magnetite, chalcopyrite, pyrite, bornite, and siderite having also been collected. In 1916, John Beck, superintendent of the Minaret and Iron Mountain mines, successfully packed two tons of commercial silver and iron ore out of the area, declaring it to be worth $400 a ton. Beck's plan to begin regular shipments by pack train apparently spurred "talk of a railroad to the district," according to a *Los Angeles Times* report.[33]

The peak period of development for the Minaret Mine came in the late 1920s after C. C. Randall of Anaheim purchased the claim. In 1928, Randall, in partnership with members of the Johnston family who had been prospecting in the area for some time, began operating the mine through the winter, relying on regular supply runs from Mammoth City by Cushions and his sled dogs. Also that year, Randall financed the construction of the first road into the Middle Fork Valley. The narrow dirt track zigzagged steeply from Minaret Summit to Starkweather Lake before crossing the Middle Fork San Joaquin and heading up to the mine. By 1929, the miners had sunk a shaft more than 300 feet into the bedrock.[34]



1939 photo of John Beck's cabin near Beck's Lake west of Devils Postpile. (Photo: Lester Craig. Courtesy of Nancy Wirth)



1916 Madera County map showing Devils Postpile at its extreme eastern terminus. (Source: Walter W. Bradley, California State Mining Bureau, *California Mineral Production for 1919*, Bulletin No. 88 (San Francisco: California State Printing Office, 1920), 190)

The development of the mine led to some conflicts. In December 1931, the *Los Angeles Times* reported on a murder investigation involving J. W. Starkweather, a "typical old sourdough" and one of the initial shareholders in the Minaret Mine Company. By this time, Starkweather had spent nearly two decades prospecting in the Mammoth region, earning the nickname "the human gopher." He also spent "a great portion of his winters in the courts," being a "veteran of

1981 photo of a cabin at the Minaret Mine site. (Devils Postpile National Monument image collection)

1981 photo of a partially collapsed structure at the Minaret Mine site. (Devils Postpile National Monument image collection)

fifty-four court tilts," most with his rival F. J. Eddy, another miner in the area. Regarding the 1931 "fracas" at the Minaret Mine, which resulted in the death of L. E. Smith, Starkweather testified: "I heard that some property was being removed from the Minarets Mining Company, my outfit, so I went up there and found Smith and Charles Heriford. I told Heriford, who is also a stockholder in the Minarets, that Smith had no right to take the stuff, whereupon he called me liar and started toward me. I pulled my gun and when Smith grabbed for it, it went off."[35]

Remnant of the Minaret Mine road bed adjacent to the present Minaret Lake Trail. (Photo: Christopher E. Johnson)

Ultimately, most mining operations in the Postpile region proved fleeting and not very productive, despite conflicts over claims and grandiose projections about the value of the ore. As in other hard-rock mining districts in the Eastern Sierra, most of the independent prospectors who made the initial finds quickly moved on, leaving the development of more intensive operations to better-financed interests. Still, even the most capitalized mining operations in the region never reached the scale of those in the west slope foothills. Most quickly folded due to lack of minerals, financial mismanagement, or the challenges of a harsh climate and difficult access. The few individuals who settled in the area for long periods of time were typically recluses, most of whom forewent mining for other entrepreneurial activities, such as trapping, grazing, and market gardening, or more dubious pursuits, such as horse and cattle theft.

The mining booms of the late nineteenth and early twentieth century nevertheless had lasting environmental effects on the Postpile region, primarily from blasting, woodcutting, water diversions, hunting, and small-scale farming. Scattered evidence of their presence remain even in the highest basins at the headwaters of the Middle Fork San Joaquin in the form of abandoned diggings, dynamite scars, overgrown roadbeds, ruined cabins, buried tools, blockhouse foundations, and broken-down weirs on some streams.

Ruins of one of J. W. Starkweather's mining operations in the area, date and location unknown. (Devils Postpile National Monument image collection)

Most important, these early miners initiated the long-term settlement of the region. Even after the mines were spent, the attractive setting of Mammoth City continued to draw a steady stream of prospectors, timber entrepreneurs, ranchers, and by the early twentieth century, innkeepers, commercial packers, artists, sightseers, and recreational fishermen. Over time, these newcomers widened trails, improved roads, promoted the region's scenery and recreational attributes, and, in the process, exposed the remote Middle Fork Valley to the economic transition to tourism occurring in many places throughout the West in this period.

Sheepherding, 1860s–1890s

The isolation that turned away many miners made the Middle Fork Valley a haven for itinerant sheepherders seeking open grazing land in the last decades of the nineteenth century. Between 1850 and 1860, the California sheep industry boomed alongside mining, timber, and agriculture, with the total number of sheep in the state increasing from 18,000 to over 1,000,000 head in that period. Due to the state's mild climate, the ability of sheep to withstand drought, and the fact that most California land remained public and therefore open to grazing, the sheep industry quickly overtook the cattle industry in terms of profits and numbers of animals.

The task of tending the flocks often fell to landless sheepherders originating from the Basque country of northwest Spain and southwest France. Many of these Basque herders had migrated to California not directly from the Old World but by way of Argentina where they had gained experience in large-scale sheep tending. Most Basques contracted with larger ranches to graze the flocks during the summer and fall, though a few owned their own ranches. As the Civil War created an urgent demand for wool, the industry spread north into the San Joaquin Valley. Soon after, drought and competition for grazing land compelled many itinerant herders to venture into the High Sierra. Between the 1860s and 1890s, sheepherders—including not only Basques but also Portuguese, Irish, and Chinese—pushed their flocks into nearly every canyon, valley, and meadow in the Sierra Nevada. It was with one of these sheep outfits that John Muir spent his "first summer in the Sierra" in 1869.[36]

Historians William A. Douglass and Jon Bilbao have described Basque herders as "a ghostlike element within the society of the American West."[37] Their voices are largely absent from the historical record, yet their effects on the High Sierra landscape made them targets of conservationists in California through the early twentieth century. Muir and other preservationists regarded sheepherding as an intrusion into the High Sierra wilderness. Overgrazing, they argued, caused dramatic reductions in native grasses in many meadows. The sheep's sharp hooves also trampled vegetation, accelerating erosion by wearing trenches into

"Hoofed Locusts." (Source: Muir, *The Mountains of California*, frontispiece)

the loose soil. Muir responded by famously labeling sheep "hoofed locusts" in his calls for the protection of the Yosemite region as a national park. More utilitarian-minded conservationists decried the fires that itinerant sheepherders set to clear trails and encourage the regrowth of forage, believing that these fires would ruin potentially valuable stands of timber.[38]

Although sheepherders had very real impacts in certain places and times, their critics may have been motivated as much by racism and a latent mistrust of the sheep industry as by the actual physical impacts of grazing. In his 1892 annual report, Yosemite acting superintendent Captain A. E. Wood attributed the damage caused by sheep grazing to the nationality of the herders. Horse and cattle drivers were mostly "of American birth," he said: "they take a pride in these magnificent forests . . . they take great interest and will voluntarily undergo enormous fatigues to save the forests from fires." In contrast, "the sheep-herders, few of whom are American either by birth, citizenship, or sympathy, care for nothing but the prosperity of their flocks, and where their herds go a desert follows in their wake."[39]

Yosemite historian James Snyder has argued that the impacts of sheep grazing may have been less severe than conservationists made them out to be and that the conflict revolved around competing definitions of nature. Merced sheep rancher Harvey Ostrander, Snyder notes, argued that national park advocates failed to recognize different ideas about "the beauties of nature." Ostrander claimed that sheepherders had no reason to destroy the landscape upon which their livelihoods depended. He also suggested that grazing reduced the threat of large fires, and that sheepmen often took part in fighting the most destructive blazes. He further argued that if the Yosemite Valley, where men supposedly "fitted to guard the beauties of such a spot" had fenced, cleared, plowed, and planted the meadows with hay to "sell . . . to campers for $40 a ton," was any indication of the priorities of federal conservation, permitting sheep grazing might be a comparably better means of preserving the landscape.[40]

Basques and other itinerant sheepmen had few defenders in their time, the most notable being Inyo County author Mary Austin. Best known for *The Land of Little Rain*, her 1903 meditation on the inhabitants and harsh environment of the Owens Valley, Austin made

her mark on the literary world telling the stories of Indians, prospectors, women, and other underrepresented voices in the American southwest. In *The Flock*, published in 1906, Austin offered a rare sympathetic treatment of the "little dark men" who "fed where feed was, kept to their own kind, turned money quickly, and went back to France to spend it."[41] She argued that contrary to common portrayals of sheepherders as ignorant exploiters of the land, many had acquired a deep knowledge of the Sierra landscape and its cycles through their long, solitary summers in the range. Those who returned to the mountains year after year learned to use fire to clear brush and encourage new growth, while others diverted streams to water dry meadows in order to produce more grass for the following year.[42]

Austin, like Ostrander, clearly saw the ways in which distinctions between legitimate and illegitimate uses of the environment were deeply rooted in particular cultural, political, and economic contexts. Her sympathetic portrayal of sheepherders provided a "bottom-up" perspective on the early conservation era that is missing from many histories of the Sierra Nevada. Basque sheepherders perceived and used the Sierra environment in ways that were at odds with the wilderness impulse motivating Muir and other preservationists who viewed resource extraction as out of place in scenic high mountain landscapes; and while Austin could envision some common ground between sheepherders and proponents of scientific range management, most conservationists proved incapable of comprehending the practices and motivations of itinerant sheepmen. Austin attributed this to class divisions and cultural differences, remarking that even if sheepherders had taken part in discussions over the creation of the first Sierra parks and forest reserves "who of the Powers would have heard him, which of the New-Englanders who are now orange growers would have understood his speech?"[43]

Austin acknowledged that overgrazing had caused damage to many High Sierra landscapes, but suggested that this was not attributable to either sheep as a species or the ingrained habits of Basque sheepmen. Instead, she argued that federal grazing policies favoring cattle had forced many sheepherders to venture higher into the mountains by necessity. Furthermore, it was the large size of the industry, the greed of the owners, and the sheer numbers of sheep in the mountains, she suggested, rather than the specific characteristics of the animals or their tenders, that led to the very real impacts that Muir and others were witnessing at the time. Austin also suggested that the irresponsible practices of a few sheepherders had obscured the potential benefits of sheep grazing in promoting forest growth.[44]

Meanwhile throughout this period, sheepherders were clearly present in the Devils Postpile area. Yosemite tourism promoter James Hutchings, for example, noted the presence of large numbers of sheep in the vicinity of Mammoth Pass in 1875. Nor were all herders in the area itinerant Basques. Agnew, Sotcher, and a few others also grazed sheep and cattle in the area surrounding their respective settlements or mining claims. In 1879, a Mammoth Lakes miner reported meeting a Chinese herder with an estimated 2,000 head of sheep camped near the mouth of Fish Creek, a few miles south of the present monument boundary.[45]

It is difficult to gauge the precise impacts of sheep grazing on the Devils Postpile area. Although miners, early tourist parties, and US Army cavalry patrols from Yosemite frequently encountered sheep, few noted the environmental effects. When James Wright toured the valley in 1879 in pursuit of cement hunters he described a desolate place where "the stillness of death reigns . . . for miles around." After descending from Mammoth Pass, he reported seeing not a single "living animal form but ourselves and our horse." Among the "whitish, sterile" pumice he found no flowers or other vegetation save for "a few thinly scattered patches of bunch grass which the pony greedily enjoyed."[46] The denuded, lifeless landscape Wright encountered might be attributable to the flocks of sheep that moved through the valley by the thousands

Sheepherder carving in Devils Postpile showing the initials "E. S." (Devils Postpile National Monument image collection)

each summer, though the pumice covering much of this part of the Middle Fork Valley made the area a barren place to begin with. Wright also may have been exaggerating the harshness and desolation of the area for effect, to play up the mystery and challenge of the search for the Lost Cement Mine.

Although sheepherders produced few records of their experiences in the Devils Postpile area, these solitary men nonetheless left a lasting legacy. In an 1894 article for the *Sierra Club Bulletin*, Theodore S. Solomons, who passed through the area in 1892 as part of his exploration of the Sierra crest, noted that his passage down the Middle Fork San Joaquin had been eased by "an old sheep trail" that left him "free to observe and enjoy the scenery." He also reported that local sheepherders referred to the unusual basalt formation located in the Middle Fork Valley as "the Devil's Woodpile." This was the first known published indication that the outcrop had a name. For Solomons, the name reflected the superstitious nature of the sheepmen. "In every scenic freak," he wrote, "the sheepherder recognizes the handiwork of his Satanic majesty."[47]

Though they left few written records, sheepmen made carvings on some of the trees rimming the meadows in which they camped—these "arborglyphs" provide a rare glimpse into the day-to-day practices and preoccupations of these lonesome wanderers. In other locations in the Sierra Nevada and throughout the Great Basin, anthropologists have recorded elaborate tree carvings, particularly on Aspen trees, depicting everything from names and dates to self-portraits to images of prostitutes known to cater to Basque shepherds.[48] These carvings were not done simply to fill idle time; in many cases, they served to mark out territory or communicate to other sheepmen when a particular area had last been grazed.[49]

A 1993 archaeological survey of Devils Postpile located thirty-seven marked trees on a terrace above the Middle Fork San Joaquin. On twelve of these trees were found distinguishable letters, numbers, and geometric shapes. The capital letters "A" and "C" occur on two trees each, while

Notch carved in a tree, presumably for supporting a table or sleeping platform. (Devils Postpile National Monument image collection)

the initials or names "JIM H" and "ES" appear on other trees. The partially obscured numbers "84," "868," and "908" found on other trees may correspond to the years 1884, 1868, and 1908, respectively. Notches cut into the base of some trees, which may have been used to support sleeping platforms or tables, are similar to features found in known sheepherder camps in Yosemite. A comparison with nearby "graffiti" from 1931, coupled with the extent of the bark overgrowth, indicates that the carvings predate the creation of the monument.[50] These carvings provide a visual medium by which to reflect on how this little-understood and often denigrated group of people viewed and used the Middle Fork Valley in the last decades of the nineteenth century as resource extraction was gradually giving way to tourism and conservation as the dominant land uses in the region.

Notes

1. Francis P. Farquhar, *History of the Sierra Nevada* (Berkeley: University of California Press, 1965), 17.
2. Ibid., 17–18.
3. Beesley, *Crow's Range*, 32–34.
4. Ibid.; Lee, *Walking Where We Lived*, 17–18, 22, 140; and Edward D. Castillo, "The Impact of Euro–American Exploration and Settlement," in *Handbook of North American Indians*, Vol. 8, *California*, ed. Robert F. Heizer (Washington DC: Smithsonian Institution, 1978), 99–127.
5. Farquhar, *History of the Sierra Nevada*, 20–21, 25–26, 36–37, 53–61; and Andrew Kirk and Charles Palmer, "Yosemite National Park Draft Multiple Property Nomination, National Register of Historic Places," (2005), 10.
6. Quoted in Farquhar, *History of the Sierra Nevada*, 37.
7. Ibid., 53–61. Today, the only road over the Sierra Nevada south of Tioga Pass crosses Walker Pass, which was designated a National Historic Landmark in 1961.

8. Margaret Sanborn, *Yosemite: Its Discovery, Its Wonders, and Its People* (New York: Random House, 1981), chap. 4.
9. Lafayette H. Bunnell, *Discovery of the Yosemite and the Indian War of 1851, Which Led to That Event*, 3rd ed. (New York: F. H. Revell Company, 1892), chap. 7; and C. Gregory Crampton, "Notes," in Robert Eccleston, *The Mariposa Indian War, 1850–1851*, ed. C. Gregory Crampton (Salt Lake City: University of Utah Press, 1957), 92–93.
10. Eccleston, *Mariposa Indian War*, 84–86.
11. Richard White, "*It's Your Misfortune and None of My Own": A New History of the American West* (Norman: University of Oklahoma Press, 1991), 57–59, 85–93.
12. Ibid., 91, 93.
13. John Walton, *Western Times and Water Wars: State, Culture, and Rebellion in California* (Berkeley: University of California Press, 1992), 11–13, 18–22.
14. Albert L. Hurtado, *Indian Survival on the California Frontier* (New Haven, CT: Yale University Press, 1988).
15. Hull and Hale, *Post-Fire Archeological Survey*, 21.
16. David J. Larson, "Historical Water Use Priorities and Public Use Policies," in *Sierra Nevada Ecosystem Project: Final Report to Congress,* Vol. 2 (Davis: University of California, Centers for Water and Wildland Resources, 1996), 164–66.
17. Horace Greeley, *An Overland Journey from New York to San Francisco in the Summer of 1859* (New York: C. M. Saxton, Barker & Co, 1860), 352.
18. Ibid.
19. Maxine Chappell, "Early History of Mono County," *California Historical Society Quarterly* 26, no. 3 (September 1947): 233, 237–38.
20. Mark Twain, *Roughing It* (Hartford: American Publishing Company, 1873), 260–64.
21. James A Wright, *The Lost Cement Mine*, ed. Genny Smith (Mammoth Lakes, CA: Genny Smith Books, 1984), 23–26. See also Walter Chalfant, *Tales of the Pioneers* (Stanford, CA: Stanford University Press, 1942).
22. Wright, *Lost Cement Mine*, 48–57.
23. Ibid., 22; "Chronology of Historical Events of the Mono Basin and Vicinity," typewritten manuscript produced by the Mono Lake District, Inyo National Forest (1965), in the Sequoia and Kings Canyon National Parks Manuscript Collection; Richard J. Hartesveldt, "Historical Events at the Devils Postpile," *Yosemite Nature Notes* 33, no. 1 (January 1954): 3–8; and Peter Browning, *Yosemite Place Names: The Historic Background of Geographic Names in Yosemite National Park* (Lafayette, CA: Great West Books, 1988), 1–2.
24. Quoted in Gary Caldwell, *Mammoth Gold: The Ghost Towns of Lake District* (Mammoth Lakes, CA: Genny Smith Books, 1990), 66.
25. Hull and Hale, *Post-Fire Archeological Survey*, 22; Hartesveldt, "Historical Events at the Devils Postpile"; and Nicholas Faust, "A National Register of Historic Places Site Evaluation of Cabin 1 of the Reds Meadow Resort and Pack Station, Mammoth Lakes Ranger District, Inyo National Forest, California," draft (Lee Vining, CA: Inyo National Forest, 1996), 3.
26. Quoted in Hull and Hale, *Post-Fire Archeological Survey*, 23.
27. Hartesveldt, "Historical Events at the Devils Postpile"; and Browning, *Yosemite Place Names,* 116–17, 135.
28. Hartesveldt, "Historical Events at the Devils Postpile."
29. Gene Rose, *High Odyssey: The First Solo Winter Assault of Mount Whitney and the Muir Trail Area, from the Diary of Orland Bartholomew and Photographs Taken by Him* (Berkeley: Howell-North Books, 1974), 138–45.
30. Tex Cushions to William R. Jones, Yosemite Natural History Association, October 22, 1962, unaccessioned DEPO files, "DEPO Interpretation: Signs and Trails," Yosemite National Park Archives (hereafter YNPA).
31. E. B. Preston, "North Fork Mining District of Fresno County," in California State Mining Bureau, *Eleventh Report of the State Mineralogist* (Sacramento: State Office, 1893), 218–23.
32. Ibid., 219–20.
33. "Mining Boom in the High Sierras," *Los Angeles Times*, August 20, 1916, 11.

34. "Mine Group in Step to Expansion," *Los Angeles Times*, April 29, 1929, 15; and "Progress at Madera Mine, Consulting Engineer of Minaret Company Gives Report on Headway," *Los Angeles Times*, May 20, 1929, 15.
35. "Mining-Claim Shooting Aired in Civil Suit," *Los Angeles Times*, December 19, 1931, A3.
36. William A. Douglass and John Bilbao, *Amerikanuak: Basques in the New World* (Reno: University of Nevada Press, 1975), 219–41; and Carol W. Hovey, "Pedro and Bernardo Altube: Basque Brothers of California and Nevada," in *Portraits of Basques in the New World*, ed. Richard W. Etulain and Jeronima Echeverria (Reno: University of Nevada Press, 1999), 64.
37. Douglass and Bilbao, *Amerikanauk*, 2.
38. David Beesley, "Past Sierra Landscapes," in *Sierra Nevada Ecosystems Project*, vol. 2, 7–8.
39. A. E. Wood, "Report of the Acting Superintendent of the Yosemite National Park," in *The Executive Document of the House of Representatives for the Second Session of the Fifty–Second Congress, 1892–93* (Washington, DC: GPO, 1893), 663.
40. James B. Snyder, "Putting 'Hoofed Locusts' out to Pasture," *Nevada Historical Society* 46, no. 3 (Fall 2003): 140–72. Other researchers have suggested that early conservationists may have misunderstood sheepherders' use of fire in the Sierra. David Beesley notes that while sheepherders clearly set fires at certain times and in certain locations, in many cases, it was easier to blame frequent forest fires on the little-understood "tramp herders" than on the careless loggers, miners, and cattlemen who often caused the more destructive blazes. Many sheepherders appear to have actually continued the burning patterns of Native Americans, and thus may have reduced the threat of catastrophic fires. Beesley, "Past Sierra Landscapes," 8.
41. Mary Austin, *The Flock* (1906; reprint, Reno: University of Nevada Press, 2001), 9.
42. Ibid., 101.
43. Ibid., 102. For a broader treatment of how class divisions structured early conservation laws in America see Karl Jacoby, *Crimes against Nature: Squatters, Poachers, Thieves, and the Hidden History of American Conservation* (Berkeley: University of California Press, 2001). Also see Louis S. Warren, *The Hunter's Game: Poachers and Conservationists in Twentieth Century America* (New Haven, CT: Yale University Press, 1997).
44. Austin, *The Flock*, 197, 208, 210. James Snyder builds on many of these arguments, highlighting the variety of ways in which sheepherders regulated their use of grazing sites. See Snyder, "Putting 'Hoofed Locusts' out to Pasture," 147–55.
45. Caldwell, *Mammoth Gold*, 88.
46. Wright, *Lost Cement Mine*, 63–64.
47. Solomons, "Among the Sources of the San Joaquin," 71, 73, 74. By the time Solomons passed through the region in 1892, the numbers of itinerant herders in the valley had declined significantly, as Reds Meadows had become a primary hub for cavalry patrols in the newly created Yosemite National Park.
48. For an excellent account of this practice with photographs, see J. Mallea–Olaetxe, *Speaking through the Aspens: Basque Tree Carvings in California and Nevada* (Reno: University of Nevada Press, 2000). For a depiction of the prostitute "Jani" see the photograph adjacent to page 117 in Beesley, *Crow's Range*.
49. Snyder, "Putting 'Hoofed Locusts' out to Pasture," 148–52.
50. Hull and Hale, *Post-Fire Archeological Survey*, 37–38.

Chapter Four

The Yosemite Grant, Tourism, and the Origins of Conservation in the Sierra Nevada, 1864–1890

In the late 1800s, the role of the federal government in the Sierra Nevada shifted from a facilitator of resource development to the principal guardian of the region's scenic landscapes and natural resources. This change occurred as the Sierra Nevada and other mountain regions in the American West were becoming more accessible as tourist destinations, and as Americans sought to reign in unregulated resource extraction activities on western lands. The inclusion of Devils Postpile in the federal trust—first as part of Yosemite National Park in 1890, then as a part of the Sierra National Forest in 1905, and finally as a national monument in 1911—grew out of these regional and national shifts in nature appreciation and land policy.

The American conservation movement took shape at time of sweeping change for the nation. Rapid industrialization in the last decades of the nineteenth century generated ambivalence among many middle- and upper-class Americans (ironically, those benefiting most from industrialization) who worried about diminishing natural resources and the effects of urban life on their physical and intellectual well-being. The so-called "closing of the frontier" announced by historian Frederick Jackson Turner in 1893 exacerbated these anxieties, compelling many Americans to seek out, usually as tourists, the last vestiges of the wilderness frontier that many believed had been the wellspring of the American character. John Muir, the archetypical "preservationist," took these views further, finding a way in his High Sierra encounters to connect spiritually and physically with the landscapes he viewed as the purest expressions of God's handiwork. Others, best represented by Gifford Pinchot, the father of "utilitarian conservation," promoted scientific management of natural resources as necessary to achieve "the greatest good for the greatest number."[1]

Although differing in how they valued the natural world, the various interests fitting under the conservation rubric in this period shared a common concern that the unregulated exploitation of American nature for private gain threatened the nation's most valuable economic, symbolic, and aesthetic resources. The solution for Muir, Pinchot, and others was to remove these resources from private hands and place them under public trust—a strategy that both anticipated and reflected the nascent Progressive movement. A response to the increasing complexity and social turmoil attendant to urban-industrial society, Progressivism was characterized by concern over the excesses of private industry, confidence in scientific expertise, and willingness to use federal, state, and municipal governments as mechanisms for ordering social and economic life. The setting aside of extensive tracts of land in the American West as public parks and forest reserves in the late nineteenth and early twentieth centuries embodied all these aspects of Progressive politics.[2]

The Yosemite Grant, Tourism, and the Regional Roots of American Conservation

While conservation had roots in national political and intellectual culture, many of its principles took shape first in the Sierra Nevada. As early as the 1850s, proto-conservationists in the region—a group including writers, academics, scientists, legal professionals, and irrigation

interests—turned to the state of California for recourse against mining and timber operations that they claimed were damaging scenic areas, polluting water supplies, and reducing the water storage capacity of the range. Although the state government remained too weak to enforce regulations, proposals to transfer surveyed lands to the state and to fine individuals responsible for setting destructive fires were floated past the state legislature.[3]

The most important early victory for conservation in the Sierra Nevada came in 1864 when Congress granted the Yosemite Valley to the state of California to "be held for public use, resort, and recreation . . . for all time." Historians often interpret the Yosemite Grant as an early manifestation of an emerging environmental consciousness among East Coast elites or as part of an effort to connect the preservation of nature to a shared national heritage in the context of the Civil War.[4] Closer examination suggests, however, that federal protection of the scenic wonders of the Yosemite Valley was only tangentially related to East Coast intellectualism and national politics. Historian Lincoln Bramwell argues that the decision to set aside this distant place can be attributed more directly to the budding commercial tourism industry, which through promotional literature and travel writing "created an atmosphere of public interest in tourism, the West, and the Yosemite Valley in particular."[5] Economic stakeholders in Western tourism, including guides, stage operators, hoteliers, and railroad companies, published descriptions of Yosemite in popular magazines and newspapers, with many also issuing pamphlets or guidebooks extolling the scenic beauty of the valley and its environs. As stage lines and later railroads reached across the continent and more Americans acquired the means to travel, the fast-growing tourism industry emerged as an important mediator, shaping how Easterners encountered and interpreted Yosemite and other places in the West.[6]

Portrait of James M. Hutchings. (Source: Hutchings, *In the Heart of the Sierras*)

The most influential of these early promoters was James M. Hutchings, a failed miner turned publisher who led the first group of tourists to the valley in 1855, and soon after, began publishing *California Illustrated Magazine*, in which he tirelessly promoted the scenic qualities of Yosemite. Such promotional literature, travel writing, and artists' renderings of Yosemite attracted a number of public figures through the 1850s and 1860s, including journalist Horace Greeley who, after a brief overnight stay in Hutchings's lodge, bolstered the valley's reputation by exclaiming: "I know no single wonder of nature on earth which can claim superiority over the Yosemite."[7]

During this time, the Yosemite Valley became a must-see destination for traveling elites from both sides of the Atlantic. Emulating the popular British romanticists of the day, tourists penned one gushy superlative after another to describe Yosemite's waterfalls and granite monoliths, usually after visiting the vantage points detailed in Hutchings's magazine or in one of the many guidebooks in circulation.[8]

Travel writing complemented promotional literature, becoming a form of free advertising for Yosemite's commercial tourism industry. It also prompted some prominent individuals to view Yosemite as a valuable scenic resource for the nation as a whole. Famed landscape architect Frederick Law Olmstead, California State geologist Josiah Dwight Whitney, San Francisco minister Thomas Starr King, and others worried that without government protection, commercial interests in the mining and timber industries—as well as unscrupulous tourist service providers—could do irreversible harm to the valley and the nearby Mariposa grove of Giant Sequoias.

Early sketch of Yosemite Valley. (Source: Hutchings, *In the Heart of the Sierras*)

In February 1864, transit company executive Israel Ward Raymond wrote to California senator John Conness suggesting that the area's scenic qualities warranted protection. He also argued that the limited value of Yosemite's granite summits and sparse pine forests for resource extraction would ease the passage of such a bill. In a speech in support of the Yosemite Grant, Conness echoed Raymond's sentiments, stating that "this bill proposes to make a grant of certain premises located in the Sierra Nevada mountains, in the State of California, that are for all public purposes worthless, but which constitute, perhaps, some of the greatest wonders of the world."[9] Historians have made much of the federal government's willingness to set aside only those lands deemed ostensibly "worthless." Yet, the area could only be considered worthless in terms of certain resource-extraction activities. Most conservationists, politicians, and tourism businesses were well aware of the profits to be had by reserving the area for tourism.[10]

While the precise arguments motivating Congress to approve the Yosemite Grant in May 1864 remain a mystery, the state of California clearly recognized the significance of tourism as an economic activity, as it became a primary consideration for the new park's administration. To administer the grant and oversee its commercial development, the state legislature created the Yosemite Commission, appointing to it a group of private citizens including Frederick Law Olmsted, Josiah Whitney, Israel Raymond, and several prominent California businessmen. Thereafter, the commission faced the daunting task of protecting the scenic resources of Yosemite from commercial exploitation while also encouraging visitation—a dual responsibility that persisted as the principal management challenge for the National Park Service in later years.

Hutchings and other commercial interests believed they stood to lose from Yosemite's reservation as a public park. Their fears were justified in part. While he appreciated the aesthetic qualities of Yosemite, Hutchings viewed scenery as an essentially economic resource, which set him apart from those commission members who regarded tourism development purely for the sake of private enrichment as anathema to the long-term protection of Yosemite's resources. Olmsted, Whitney, and others in this "preservationist" camp were not opposed to

economic development via tourism per se. Olmsted, for one, firmly believed tourism would be preferable to resource extraction as the economic base for the region. The difference between Olmsted and Hutchings lay in the scope of their visions. Whereas Hutchings regarded scenery as valuable for the profits he could extract from it, Olmsted valued Yosemite's attractions as essential to the mental and physical well-being of the nation as a whole. In an 1865 report, Olmsted argued that in contrast to private parks in Europe, which were accessible only to the wealthy, a public park under government management could be "laid open to the use of the body of the people."[11] For him, such a park would embody the best principles of American democracy. Although such sentiments clearly anticipated the later national parks movement, Olmsted failed to impress the commission, and his report was suppressed and largely forgotten until it was rediscovered in the Olmsted firm's private archive in 1952.[12]

For the most part, commercial tourism interests were able to bend the Yosemite Commission to their will. In 1871, the California Supreme Court attempted to counteract this influence by eliminating all private claims in the valley. This meant that all hotels, photography studios, laundries, bakeries, saloons, and other commercial operations became tenants subject to the regulations of the commission. However, this greater control did not ease the challenge of monitoring private commerce. The commission's dependence on concessionaires for visitor services bred stiff competition and charges of favoritism, leading to the dissolution of the original board in 1880 and its replacement by a new commission headed by none other than James Hutchings.[13]

Tourism and the Rediscovery of Devils Postpile

Hutchings did not limit his enterprising gaze to the Yosemite Valley. In 1875, he visited the Devils Postpile region as part of an expedition to photograph and promote other scenic locations in the Sierra Nevada. Although he never published the book he intended for these photographs, he brought some public attention to the Postpile region and other more remote areas in the High Sierra through a series of lecture slide presentations. In his diary entry for September 19, 1875, Hutchings included a detailed description of the formation:

> The first thing that we did this morning was to visit the basaltic cliff for the purpose of taking a view. The more this formation is examined the more interesting it becomes. In the centre the columns are vertical and as regular almost as though carefully cut and placed in shape by a stone mason. One had fallen out of place and was leaning forward from the stack probably about 15 or 18 feet at top. . . . An immense mass of broken columns formed the debris. Climbing to the top we found the ends of the columns smoothed and polished and presented the appearance of a mosaic or tessellated floor. This smoothing was done of course by glacial action.[14]

Though presented as objective scientific study, Hutchings's careful measurements and photographic documentation of the leaning column and the glacial polish can also be interpreted as a deliberate reenactment of the scientific explorations of Whitney's California Geologic Survey from the previous decade. Whitney's team had been charged with mapping potential sites for mineral extraction in the Sierra Nevada. However, members of the team—William Brewer and Clarence King, in particular—came to view the mountains as a location for adventure and scientific research for its own sake rather than a site to be exploited for its mining potential. This appreciation for aesthetics is apparent in many of Whitney's reports from the 1860s. Historians have cited these reports as being among the most influential calls for protecting the Yosemite Valley and encouraging its development as a scenic tourist destination.[15]

Hutchings's photograph of Devils Postpile in 1875. Note the leaning column and the man standing below and to the right of it. (Devils Postpile National Monument image collection)

By the time Hutchings visited Devils Postpile, the explorer-scientists of the Whitney Survey had come to represent "a new generation of mountain men," whose adventures of scientific discovery could be safely emulated through organized tourism. In his *History of the Sierra Nevada*, Francis Farquhar identified a series of Yosemite guidebooks containing photographs and writings produced during the survey as one of Whitney's most influential publications.[16] Hutchings's photographs and description of the Postpile reflected his keen awareness, as an entrepreneur, of the appeal of this type of imagery for potential tourists to the Sierra Nevada.

While Hutchings determined not to develop tourist facilities in the remote Middle Fork Valley, a few intrepid tourists began to make their way to the area. In 1878, a party led by George B. Bayley (who had earned some notoriety two years earlier for a harrowing first ascent of Half Dome in Yosemite) traveled south from Yosemite then east from the North Fork San Joaquin into the Middle Fork Valley where they became the first group of tourists known to view Rainbow Falls. Bayley made no mention of Devils Postpile but did describe the falls with a flourish typical of travel writing during this period. The scene, he wrote, "impresses one with a sense of beauty, grandeur, and power quite as deeply as the Vernal Falls of Yosemite." Bayley also overestimated the height of the falls by a factor of three, declaring them to be "three hundred feet high, an estimate which is under rather than over the mark."[17]

The Brewer Party of 1864. From left to right: James T. Gardiner, Richard Cotter, William H. Brewer, and Clarence King. (Source: Brewer, *Up and Down California in 1860–1864*, frontispiece)

Also like many nature tourists of that era, Bayley saw the landscape through wilderness-tinted glasses. Although he maintained that "there are very few who know anything about the region lying eastward of the [Yosemite] Valley," his account is full of encounters with people. First, he hired a guide, Manuel Flores, probably a North Fork Mono or Paiute, who was familiar with the area. On the first day, after passing through "virgin forest, untouched by the axe of man," the party came across a log cabin occupied by "a mighty Nimrod" named Jim Duncan who boasted of killing "forty or fifty bears within the past six years of his occupancy of the cabin." Arriving at Jackass Meadows the next day, the group encountered "hundreds of horses" and a band of sheep. After traveling through "these droves of animals for several miles," the party crossed Granite Creek to make camp in a meadow above the North Fork San Joaquin. The

George Bayley's sketch of Rainbow Falls, 1878. (Source: Bayley, "Eight Days in the High Sierra," 14)

next morning they stumbled into a hunters' camp where they met "three of the most villainous looking fellows that ever assumed human shape," the most frightening of whom "was minus an eye, and flourished a huge knife in his hand." After crossing two log bridges built by sheepherders and arriving at the Middle Fork San Joaquin, Bayley thanked Flores for bringing them through a "trackless wilderness without the shadow of a trail." From there, the party made their way to a ledge with a view of Rainbow Falls. Even though they followed a series of blazes to the falls, Bayley declared the party to be "the first to view and appreciate them." Apparently, he believed that the Indians, sheepmen, miners, and hunters who frequented the area lacked the capacity for appreciating (or perhaps even noticing) natural aesthetics, preoccupied as they were with the day-to-day rigors of earning their livelihoods.[18]

Ultimately, the Devils Postpile area remained too remote from centers of population and established travel routes to attract many tourists. The operators of the French Trail, which was completed one year after Bayley's visit, ceased collecting tolls in 1881 after only two seasons. Even when it was being operated as a toll road, the trail involved a long, rugged ride and was hardly suitable for the urban tourists who could barely endure the rough and dusty but much easier stage routes into the Yosemite Valley. Bayley's account of his wilderness adventure is nevertheless indicative of a gradual shift in how the Middle Fork Valley would be viewed and used as the impulse to preserve rather than simply exploit for profit the mountain regions of the American West took hold.

The Legacy of the Yosemite Grant

Tourism continued to shape perceptions and uses of the Sierra Nevada. Yet the transfer of the Yosemite Valley and the surrounding area to public administration also signaled that private economic gain through tourism would not be the only determinant of land policy in the region. Although it did little to limit private commerce, the Yosemite Grant represented an important bridge between earlier federal policies, such as the 1862 Homestead Act, which accelerated the transfer of public land to private ownership, and later policies that placed land under direct federal control. Specifically, the grant established a precedent for the use of government action to protect areas of outstanding scenic beauty from short-term exploitation by private interests. Historians have described the grant as a stepping stone for the creation of Yellowstone National Park in 1872, and it clearly presaged the establishment of Yosemite National Park in 1890.[19]

The question of how to manage and interpret the scenic and material resources of areas in the Sierra Nevada placed under federal management in the 1890s confronted a series of federal land administrators over the ensuing years. During this time, the Central Sierra Nevada—the area bounded by Yosemite National Park to the north and Sequoia National Park (also created in 1890) to the south—became a key region in the evolution of federal land policies, particularly those involving the question of whether to develop water, timber, and other resources for use, to manage them for commercial tourism, or to preserve them for their scientific and ecological significance. The campaign to protect Devils Postpile and Rainbow Falls as a national monument both grew out of and shaped these early conservation debates in the region.

Notes

1. For the two dominant strains of conservation represented by John Muir and Gifford Pinchot, respectively, compare Fox, *John Muir and His Legacy*; with Samuel P. Hayes, *Conservation and the Gospel of Efficiency: The Progressive Conservation Movement, 1890–1920* (Cambridge, MA: Harvard University Press, 1959).
2. For the relationship between conservation and Progressivism, see Hal K. Rothman, *Saving the Planet: The American Response to the Environment in the Twentieth Century* (Chicago: Ivan R. Dee, 2000), chap. 1.
3. Beesley, *Crow's Range*, 78–79.
4. For this interpretation, see, especially, Nash, *Wilderness and the American Mind*, chap. 6. Alfred Runte follows Nash's argument in *National Parks: The American Experience* (Lincoln: University of Nebraska Press, 1979) and *Yosemite: The Embattled Wilderness* (Lincoln: University of Nevada Press, 1990).
5. Andrew Kirk and Lincoln Bramwell et al., *The Yosemite Way: An Administrative History of Yosemite National Park*, draft under review by the National Park Service (2007), 27.
6. For the growth of the tourism industry in the West in the nineteenth century see Earl Pomeroy, *In Search of the Golden West: The Tourist in Western America* (New York: Alfred A. Knopf, 1957); and Hal K. Rothman, *Devil's*

Bargains: Tourism in the Twentieth-Century American West (Lawrence: University Press of Kansas, 1998), chaps. 2, 3, and 4. For travel writing, see David Wrobel, "Exceptionalism and Globalism: Travel Writers and the Nineteenth-Century American West," *The Historian* 68, no. 3 (Fall 2006): 431–60.

7. Quoted in Stanford Demars, *The Tourist in Yosemite, 1855–1985* (Salt Lake City: University of Utah Press, 1991), 10.
8. For the relationship between Yosemite travel writing and the Romantic Movement, as well as some excellent examples, see ibid., chaps. 2 and 3.
9. See, especially, Alfred Runte, *National Parks: The American Experience* (Lincoln: University of Nebraska Press, 1979), chap. 3.
10. See Richard Grusin's critique of Runte's "worthless land" thesis in *Culture, Technology, and the Creation of America's National Parks* (New York: Cambridge University Press, 2004), 17–19. Grusin argues that by labeling lands within the proposed Yosemite Grant worthless for resource extraction while recognizing their potential commercial value as tourist sites, Congress could justify the area's protection while maintaining ideological consistency with other federal policies of that era.
11. Frederick Law Olmsted, "Yosemite and the Mariposa Grove: A Preliminary Report, 1865," www.yosemite.ca.us/library/olmsted/report.html.
12. Kirk and Bramwell et al., *The Yosemite Way*, 32–33, 55.
13. Ibid., 38–40.
14. Quoted in N. King Huber and James B. Snyder, "James Mason Hutchings and the Devils Postpile," *Yosemite* 62, no. 1 (Winter 2000), 3. Theodore Solomons referenced Hutchings's slide presentation in his 1894 description of the Postpile ("Among the Sources of the San Joaquin," 74).
15. William H. Goetzmann, *Exploration and Empire: The Explorer and the Scientist in the Winning of the West*, rev. ed. (New York: History Book Club, 1993), 356, 357, 370.
16. Ibid., 370; and Farquhar, *History of the Sierra Nevada*, 138, 140.
17. George B. Bayley, "Eight Days in the High Sierra," *The Argonaut* 3, no. 24 (December 21, 1878): 14.
18. Ibid. Bayley attributed the blazes to a hunter who had become lost in the area.
19. Runte, *National Parks*, chap. 2.

National Monument, Regional Politics: The Administrative Evolution of Devils Postpile, 1890–2011

This part of the study details the evolution of federal administration in the Devils Postpile area. The purpose is to familiarize Park Service officials with the history of the monument and the surrounding region and provide a basis for historical interpretation. Three primary themes animate the management history of Devils Postpile: (1) conflict and cooperation between the Park Service and the Forest Service; (2) the influence of local and regional interests on resource management and development policies; and (3) the administrative challenge of balancing recreational demands with interpretation and scientific management.

These themes reflect management challenges common to national monuments generally. However, because of its small size, short operating season, difficult access, and minimal staffing and funding, Devils Postpile developed as a park with particularly deep connections to the surrounding region. Successive park managers made frequent efforts to define a unique role for the Park Service in the region by emphasizing the monument's scientific significance, and visitors welcomed interpretive services provided by the agency at Devils Postpile. Yet due to regional recreation demands, the strong influence of the Forest Service in the area, and the imperatives of the local recreation-based economy, the monument evolved primarily as a component part of the regional recreation complex surrounding the resort town of Mammoth Lakes. By the mid-twentieth century, the monument became an important draw for tourists to the area; but only in recent years, as regional and on-site staff have pushed for greater focus on scientific research and whole-ecosystem monitoring, has the Park Service been able to leverage its presence at Devils Postpile to more directly affect regional politics and planning.

Chapter Five

Shifting Boundaries, Shifting Values: From National Park to National Forest to National Monument, 1890–1911

The Devils Postpile area first received federal protection in 1890 when it was included in Yosemite National Park, though few park advocates at the time recognized the significance of what had been protected. The Postpile formation, Rainbow Falls, and other notable features in the Middle Fork San Joaquin Valley were well-known to people living and working in the area. Miners and sheepherders, though, had no interest in backing the creation of a park that would prohibit the activities sustaining their livelihoods. In addition, while a few park advocates had undoubtedly learned about the area through James Hutchings's earlier slide presentations and George Bayley's account, there is little evidence to suggest that the Postpile formation or Rainbow Falls were considered in the decision to enclose the area within the park. The initial boundary seems to have been drawn based on unsurveyed townships for the purposes of bureaucratic convenience, and perhaps as a result of the influence of the Southern Pacific Railroad, which had plans to extend tourist services to as-yet-undeveloped areas in the Sierra Nevada.

The effort to expand the original Yosemite Grant to a national park can be traced back to the work of California State engineer William Hammond Hall. After visiting Yosemite Valley in 1881, Hall prepared a report for the state of California's Board of Commissioners to Manage the Yosemite Valley and Mariposa Big Tree Grove, advising that effective protection of the valley would require control of the surrounding mountain watershed in order to prevent the loss of timber and other vegetation. The Commissioners included Hall's findings in their report for 1885–1886, and requested that Congress act to bring the valley watershed within an enlarged grant.[1]

By 1888, news of this proposal resulted in a lengthy petition to Congress opposing the expansion on the grounds that the commissioners had mismanaged the grant and engaged in questionable business and political practices—accusations amplified by John Muir and *Century Magazine* editor Robert Underwood Johnson. Muir and Johnson argued, as had William Hall, that the Yosemite Grant should be expanded to incorporate the complete Merced River watershed and that it should be saved from the seeming pettiness of state management by being elevated to the status of a national park.[2]

However, a compromise was achieved two years later through passage of the California Forest Reservation Act of 1890, which created a new national park surrounding the original Yosemite Grant, while leaving the terms of the earlier reservation intact. Where Muir's proposed eastern boundary for the park ran along the crest of the Ritter Range west of the Postpile, the new legislation defined the park entirely on the basis of Public Land Survey System townships. As a result, the eastern boundary was set at the terminus of the Mammoth area's mining districts east of the Sierra crest, enclosing all of the unsurveyed Middle Fork San Joaquin River valley.

The reasons for this larger boundary remain obscure. No congressmen at the time admitted responsibility for drafting the final bill and, to this day, no records of the back-room meetings that led to its passage have surfaced. In the 1960s, historian Holway Jones speculated that the "mysterious origins" of the final Yosemite bill might be attributable to the Southern Pacific

Railroad, which exerted considerable influence in Western politics and had much at stake in the setting aside of lands within the Sierra Nevada. Opponents of the bill often painted it as a profiteering scheme by the railroad, and advertisements from the time clearly demonstrate the railroad's commitment to developing tourist facilities beyond the Yosemite Valley. Whether due to the influence of the Southern Pacific, or simply as a bureaucratic concession, the national park boundary included a much larger area than advocates of the park had originally proposed.[3]

The United States Army

The larger Yosemite region, including the Postpile, was protected on paper, but in 1890, there was no legal or administrative system in place to enforce this protection. The Department of the Interior, which had jurisdiction over Yosemite, could not rely on the goodwill of the new park's neighbors, many of whom depended on access to resources now protected by the park. While many Californians agreed with Muir and Johnson, many others condemned the park; in the words of a *Mariposa Gazette* editorial, it was the product of "men who have no practical knowledge of this country or its resources."[4] They resented the loss of grazing land, timber and mining opportunities to an as-yet unproven esthetic ideal.

Considering this situation, Muir and Johnson finally put forward the idea of a military administration similar to that at Yellowstone National Park. The call was echoed by both the state of California and the Department of the Interior's general land inspector Thomas Newsham, who had investigated conditions in Yosemite after passage of the Forest Reservation Act. Accordingly, Secretary of the Interior John Noble consulted with Secretary of War Redfield Proctor, and on December 1, 1890, formally requested that President Benjamin Harrison authorize US Army cavalry troops "to prevent timber cutting, sheep herding, trespassing or spoliation" of Yosemite and Sequoia National Parks.[5]

The first troops arrived in Yosemite in May 1891, and set about establishing a workable administrative system. One of the most important aspects of Army administration was its establishment of a network of patrol routes running, as nearly as possible, around the perimeter of the park to intercept herders or other trespassers. A detailed map of the park prepared in 1896 shows Reds Meadow as a regular patrol post with a nexus of established trails and pack routes radiating out like spokes on a wheel. The map also clearly indicates Devils Postpile and Soda Springs, though Rainbow Falls, unnamed, erroneously appears on a tributary creek to the Middle Fork.[6] The cavalry also carved T-shaped blazes in many trees in the area to mark backcountry patrol routes. Some soldiers apparently joked that the T was chosen "so that the Irishmen in the army would know that it was a tree!" although the practical purpose of the blazes became clear when snow obscured the pathways on the ground.[7]

Cavalry "T" blaze in Devils Postpile National Monument. (Photo: Christopher E. Johnson)

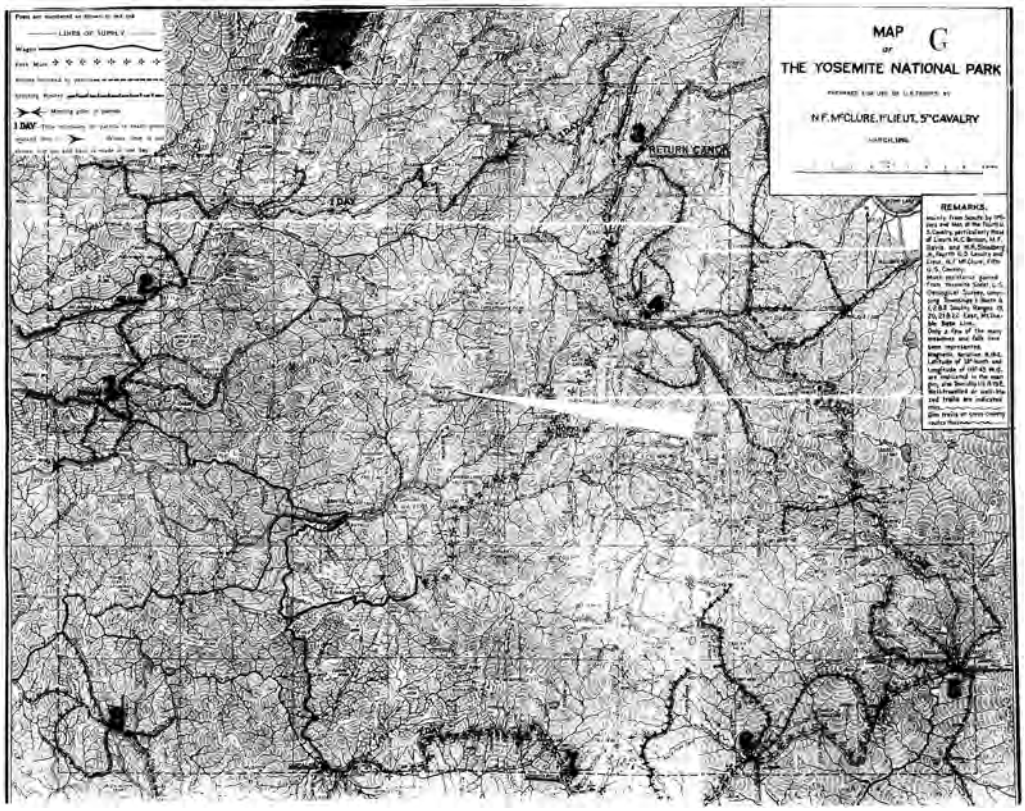
Evicting itinerant sheepherders from the new park became the principal task and most vexing challenge for cavalry patrols. The park legislation offered little guidance on how to proceed, specifying only that the Secretary of the Interior "shall cause all persons trespassing upon the [park] . . . to be removed therefrom."[8] The legislation included no clear explanation of what trespass entailed and no mention of enforcement or legal recourse. The park's first superintendent, Captain Abraham Epperson "Jug" Wood, worked around these ambiguities by offering a "square deal" to herders: they could enter the new park as long as they limited grazing to areas already surveyed and marked off as private claims. This deal proved

Sheepherder and sheep in a meadow. (Devils Postpile National Monument image collection)

all but impossible to abide by for itinerant sheepmen who had no private claims. The vast area of the new park, its rugged topography, and sheepherders' ability to evade patrols further complicated matters. The cavalry found itself engaged in "an endless game of hide-and-seek over an enormous tract of almost inaccessible mountain territory with a formidable number of unterrified and thoroughly resentful sheepherders who became extremely cautious and even more cunning in their transgressions."[9]

Beginning in 1891, cavalry troops adopted the strategy of vacating the herders from one corner of the park and their flocks from the opposite corner, making it difficult for captured herders to round up their sheep in time to take advantage of the High Sierra's short grazing season.[10] While this discouraged many sheepmen, others devised creative methods of eluding cavalry patrols. In 1906, Mary Austin noted the determination of some herders to continue grazing in their favorite locations. A herder she identified as "Jacques" claimed to have bribed the cavalry with five gallons of whiskey in order to feed his sheep "in the meadow under the dome, in pleasant meadows where my camp is, where I have fed them fifteen years."[11] To avoid detection by cavalry patrols or tourists who would often report them, herders removed the bells from their sheep and maintained smaller fires. Others boasted that they could take advantage of the susceptibility of some patrolmen to bribes.[12]

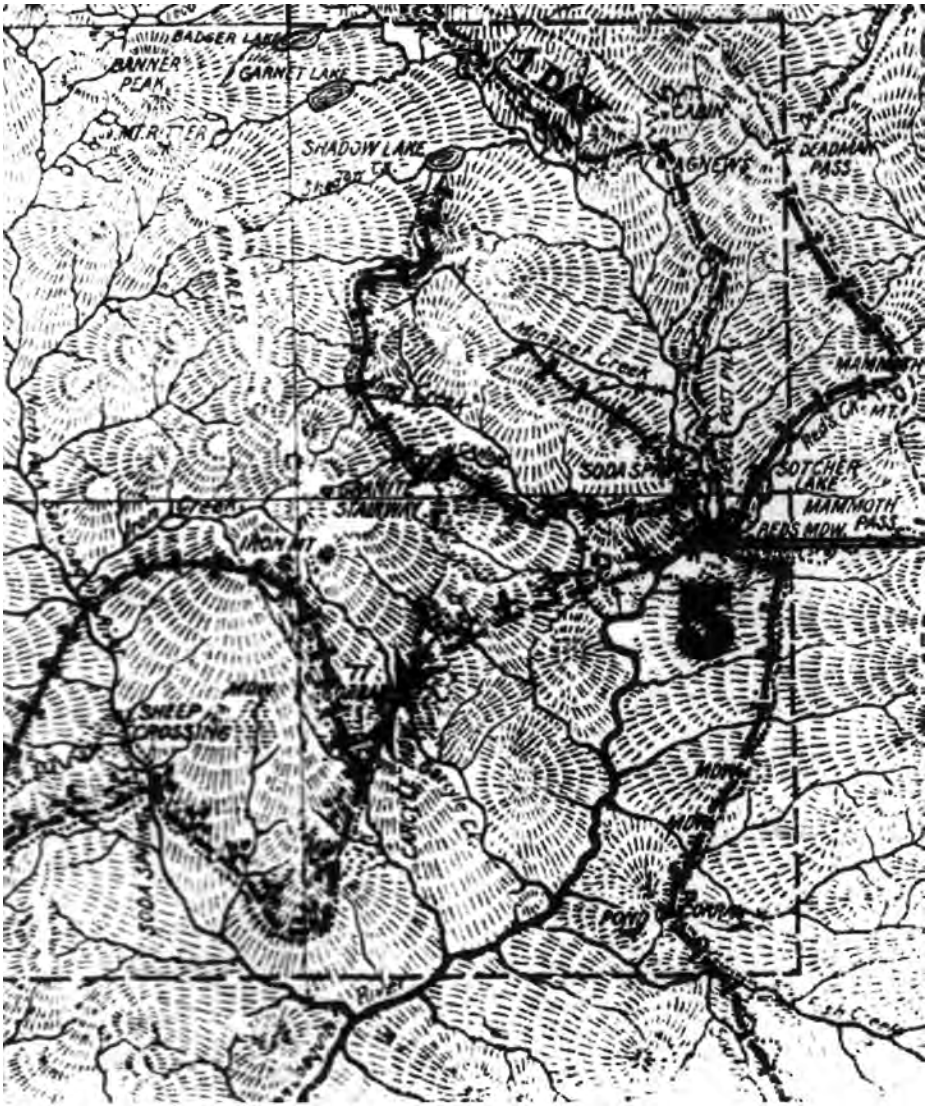
Although located in a remote corner of the park, Reds Meadow served as an important post from which to prevent sheepherders from entering via Mammoth Pass, one of the only accessible passes along the Central Sierra escarpment. In 1892, Merced sheep rancher Harvey Ostrander petitioned the Army to allow herders to use the Mammoth trail to access grazing sites located outside the park boundary. Acting Superintendent Wood "uniformally refused such permission," believing that the herders would abuse the privilege and graze their flocks all the way from the Middle Fork Valley west to Jackass Meadow. Despite the prohibition, sheepmen managed to run two herds past the Reds Meadow post during spring 1892, "but their haste was so great that the animals were not permitted to graze," according to Wood.[13]



Cavalry officer Nathaniel F. McClure's 1896 map of patrol routes in Yosemite National Park. (Source: Greene, *Yosemite*, 330)

In 1895, Acting Superintendent Capt. Alexander Rogers reported to the Secretary of the Interior that "Mr. [Theodore] Agnew has been of a good deal of service to the Government by acting as guide to troops patrolling the park, by giving information as to the whereabouts of trespassers on the park, and by preventing sheep-herders from driving sheep through the land occupied by him, which they believe belongs to him."[14] In 1896, Acting Superintendent Lt. Col. S. B. M. Young reported that a patrol arrested two sheepherders and evicted approximately 7,000 head of sheep from the southeastern corner of the park. Several other herders were discovered just outside the park boundary.[15] To better patrol this area, Young recommended that the government appropriate $7,000 to improve the old French Trail through Reds Meadow, and in 1901, Acting Superintendent L. A. Craig called for the repair of the 38-mile trail from Chilnualna Falls near Wawona to Devils Postpile.

In 1904, Horace M. Albright—a Bishop native who later served as the second director of the National Park Service—camped at Reds Meadow while en route to Yosemite with General Land Office ranger Robert Bigelow. The group shared the meadow with a cavalry patrol that had "just put 75 miles between some shepherds and their sheep." The men had apparently gotten more out of the effort than simply the satisfaction of removing trespassers. Upon inquiring about "some objects high in the trees," Albright was informed "that they were sheep that had been 'dressed out' in sacks and hoisted high in the trees to keep the meat cool and fresh."[16]



Close up of the same map showing Reds Meadows as a patrol hub. (Source: Greene, *Yosemite*, 330)

The 1905 Exclusion and the Transfer to the Sierra National Forest

As early as 1892, Captain Wood had serious reservations about whether the Middle Fork Valley should remain part of the park. Earlier that year, a survey of the southern boundary of the park, including the North Fork Mining District, revealed that there were at least 115 mining claims in the area, which had produced over $2 million in minerals prior to 1890. Wood saw little reason to keep this area out of private hands, writing that "there are no natural curiosities of a destructible character in any of them. There is nothing in these mining sections that would attract the tourist or the wonder seeker. Each of them is at an extreme corner of the park, and inaccessible from any point within it except by the most fatiguing climbing."[17]

Perhaps swayed by Agnew and a recent state mineralogist report recommending the removal of the area from Yosemite, Wood demonstrated a surprising compassion for the independent miner. Hope is the miner's main stay of life. A sight of his hardened hands, strong but soiled

clothing, his dry humor, his clear reasoning from his own standpoint, and his decided and positive manner when speaking of his claim deprives the subject of its pathos and half convinces the listener. I can think of no plan by which the Government can purchase this man's claim, satisfy him, and still keep the expenditure within the bounds of reason."[18] Wood reserved no such sympathy for sheepherders, who he regarded as contemptuous foreigners who "care for nothing but the prosperity of their flocks."[19]

Not all army officials shared Wood's willingness to adjust park boundaries. In 1895, Captain Rogers recommended no boundary changes, declaring that "I am unable to concur in the recommendations of my predecessors as to cutting down the size of the park."[20] Others disagreed with Wood's negative assessment of the region's scenic attractions. In 1899, Captain Joseph Caine described the Reds Meadow area as a "country that abounds in natural wonders," advising that it and the headwaters of the San Joaquin River should be assured of protection.[21]

Caine's call to protect the Postpile country may have been prompted by renewed pressure to readjust the park's boundaries to accommodate private land claims. Colonel Young had already suggested in 1896 that a commission of experts should develop a park-wide boundary plan rather than making individual adjustments in response to each claim. A large part of the problem was that Congress defined Yosemite on the basis of townships, some of which contained preexisting land patents issued to settlers, miners, and timber interests. The Middle Fork Valley, which had not yet been included within General Land Office surveys, contained a number of unofficial mining claims, and because the extent of such private holdings remained unclear in 1890, Congress chose not to address them in the founding legislation. This, then, put the burden of resolving the situation on the park's army administrators who dealt with the situation as best they could, relying on their own judgment or deferring decisions in the hope that the federal government would develop a formal policy.[22]

In 1903, however, the Department of the Interior's hand was finally forced by the Yosemite Lumber Company, which began logging on private forest tracts inside the western boundary of the park. The following year, the department formed a commission to study the issue in the field and make recommendations to Congress for its resolution. Major Hiram Chittenden of the US Army Corps of Engineers, US Geological Survey topographer Robert Marshall, and Frank Bond, chief of the drafting division of the General Land Office, concluded that a smaller park with fewer inholdings would be easier to manage, particularly given the reluctance of Congress to authorize the purchase of private land for parks or recreation. As the most immediate problem stemmed from logging, the boundary revision concentrated on eliminating the most accessible timber stands from Yosemite, but also considered those lands with the potential for significant mineral exploitation. As a result, "An Act to exclude from the Yosemite National Park, California, certain lands therein described and to attach and include the said lands in the Sierra Forest Reserve" of February 7, 1905, established the new eastern boundary of the park along the Foerster Peak-Isberg Peak-Triple Divide Peak crest. This made for a more natural boundary based on the Merced River watershed while removing the upper reaches of the San Joaquin River watershed, including the Devils Postpile country.[23]

The 1905 boundary revision of Yosemite National Park did not take the Postpile region out of federal control, but instead transferred it to the nascent US Forest Service as part of the newly designated Sierra National Forest. In contrast to the strict preservation ethic conceived for national parks, the first forest reserves—soon renamed national forests—were predicated on the American Progressive movement's concept of scientifically managed use. As the Forest Service's first "Use Book" of regulations spelled out, "all land is to be devoted to its most productive use for the permanent good of the whole people, and not for the temporary benefit

of individuals or companies. All the resources of the forest reserves are for *use*, and this use must be brought about in a thoroughly prompt and businesslike manner, under such restrictions only as will insure the permanence of these resources."[24] Accordingly, the Postpile and its surroundings were open for development if a use could be found that would satisfy the Forest Service's utilitarian criteria.

The American Antiquities Act

The Progressive concept of "permanent good for the whole people" also gave rise to an effort to preserve the nation's cultural heritage for the benefit of all rather than the profit of a few. This spurred action particularly by the nation's archeologists, who actively responded to damage and loss of artifacts from sites such as Chaco Canyon, Mesa Verde, and Casa Grande. Their pressure contributed to President Benjamin Harrison's decision to create the Casa Grande Ruins Reservation in 1892, but while many in the scientific community believed that such individual measures were the appropriate route for preserving archeological sites, others insisted that a comprehensive federal approach was needed.

Archeologist Edgar Lee Hewett became the decisive figure in this debate, crafting the text of a proposed act that finally reconciled the competing interests. An Act for the Preservation of American Antiquities easily passed through Congress, and was signed into law by President Theodore Roosevelt on June 8, 1906.[25] The act authorized the president to designate as national monuments "historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest that are situated upon the lands owned or controlled by the Government of the United States." The inclusion of objects of scientific interest under the provisions of the act would be the key to Devils Postpile's status as a monument in the years to come.[26]

The Antiquities Act embodied Progressive principles in that it granted direct power to the president of the United States to allocate public lands for preservation. With the stroke of a pen, the president could block commercial exploitation of historically or scientifically significant resources on public lands with few qualifications beyond the stipulation that the boundaries be drawn to enclose the smallest area necessary for the protection of the resource. While this made it easy to create national monuments, the Antiquities Act offered little guidance for their administration, specifying only that new monuments were to be managed by the agency with prior jurisdiction of the area. Also, because congressional approval was not required for their creation, national monuments initially had no appropriations of their own, requiring that management expenses be drawn from the coffers of the agency charged with each monument's administration, or paid for by local volunteers.[27] These ambiguities became the source of many of the administrative challenges at Devils Postpile in the decades following its establishment.

The Push for Preservation: Creating the Monument

The creation of Devils Postpile came during the heated battle over the proposal to dam the Hetch Hetchy Valley in Yosemite National Park to provide water for the city of San Francisco. Historians have long regarded the Hetch Hetchy controversy as a product of an irreconcilable split between preservationists, such as John Muir, and utilitarian conservationists, such as Gifford Pinchot.[28] The history of the establishment of Devils Postpile complicates this divide, demonstrating how certain individuals at certain times could embody both aspects of conservation.[29]

Although few tourists visited the Devils Postpile area during the time it was included in Yosemite, it did receive some attention in popular periodicals. In 1900, *Sunset Magazine* ran an article on the "Giant's Causeway of Yosemite." The author described the Postpile area as an "enchanting mountain garden, more wonderfully strange and beautiful than anything we had ever encountered."[30] In a 1903 article for *Country Life*, Helen Lukens Jones encouraged Yosemite visitors to venture beyond the usual sights: "The Yosemite National Park holds within its confines marvelous rock pictures," she wrote, "but none are more striking or more geologically interesting than several groups of columnar basalt which loom with sturdy massiveness in the obscure southeast corner of the park."[31] Also during this period, the Postpile itself gained some notoriety as a particularly good example of columnar basalt jointing with pictures of the formation beginning to appear in geology textbooks as early as 1905.[32]

The area continued to see some visits even after its removal from Yosemite. In 1909, Sierra Club leader and University of California professor Joseph N. LeConte camped in Reds Meadow where he met a number of miners and campers and took time to enjoy the hot spring. He also noted the region's potential as a scenic tourism destination: "The surrounding region is full of interest; Mount Ritter and the Minarets to the northwest, the wonderful basaltic mass of the Devil's Post Pile nearby, the Rainbow Fall, the finest in the Sierra outside of Yosemite and Hetch-Hetchy, within a mile, and curious and interesting volcanic phenomena all about. Add to this the abundant fish in the streams, and what more enjoyable spot can be imagined?"[33]

At the time of LeConte's visit, the area was also being reexplored for its mineral potential. In 1910, Walter L. Huber, the district engineer for the Forest Service's California and Southwestern Nevada district, received an application for a permit to build a dam on the Middle Fork San Joaquin River at Devils Postpile. The intent was to blast the Postpile formation for the raw material to create a rock-fill dam that would be employed in a power generation scheme for local mining operations. Huber regarded the proposal as "wanton destruction of scenery" and brought the matter up with district forester F. E. Olmsted. At Olmsted's instruction, Huber contacted the secretary of the Sierra Club, William Colby, who then enlisted the support of Joseph LeConte. Shortly afterward, the four men met to discuss the situation. Olmsted advised Colby and LeConte that US Chief Forester Henry Graves would soon be visiting the district office in San Francisco and invited them to present the objections to a dam at the Postpile.[34]

Following this, LeConte, Muir, William Colby, and Edward T. Parsons signed a letter expressing the Sierra Club's support for the proposed monument. In March, LeConte wrote a letter of his own addressed to President William H. Taft regarding the "threatened destruction of a certain unique feature of the Sierra Nevada Mountains . . . commonly known as the 'Devil's Post Pile."' He described the formation as "a remarkable example of basaltic columns, the finest, I believe, in America, and ranking with the famous Giants Causeway in England."[35]

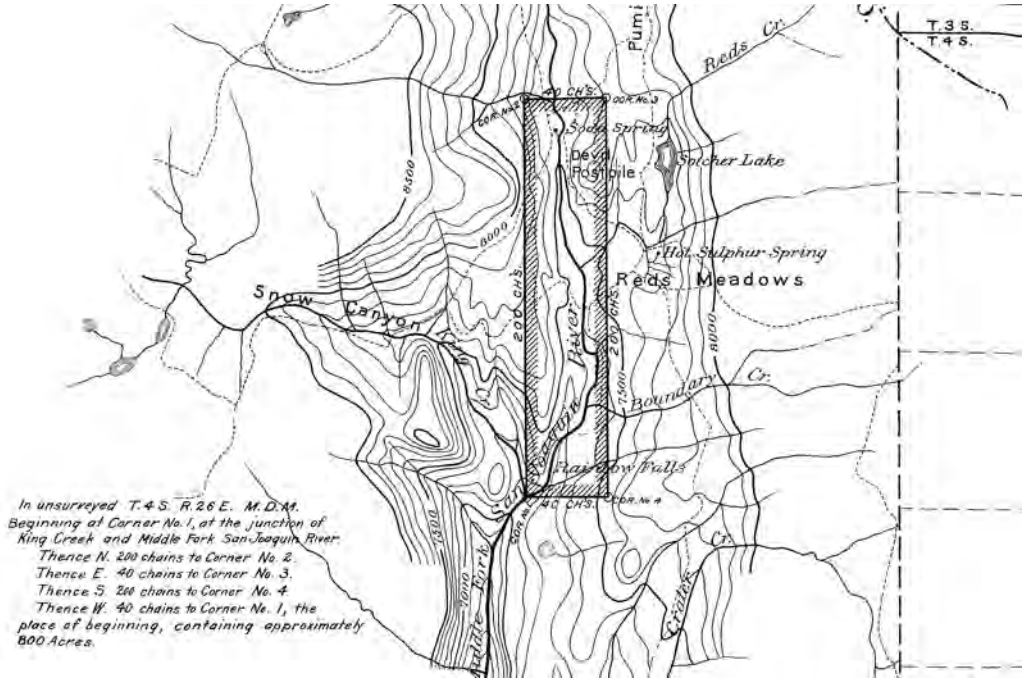
Olmsted echoed LeConte in a letter to Graves calling for the protection of the "remarkable geologic formation known as Devil's Post Pile," as well as Rainbow Falls, which he compared to Vernal Falls in Yosemite. The waterfall, he wrote, represented "one of the few of its kind on the continent." Olmsted also noted that he had received recommendations for the creation of a national monument in as early as 1908, but no definite action had been taken "outside of the withdraw of the general area as a special administrative site." The scientific interest of these features coupled with their increasing popularity with tourists, he argued, warranted their reservation as a monument.[36]

Soon after, William Colby and LeConte met with Graves who in turn asked Olmsted: "Do we want a National Monument on that area?" The original intention had simply been to gain support for denying the dam permit, but Olmsted replied with an emphatic "Yes, we

Walter L. Huber. (Devils Postpile National Monument image collection)

do."[37] Graves then asked Huber to draft a proclamation for a monument, and to prepare an accompanying map. Huber was to have the proclamation completed and in Washington, DC, by the time Graves returned there, so that he could immediately present it to Secretary of Agriculture James Wilson. Graves hoped that Wilson would in turn present the proclamation to President Taft with a favorable recommendation. Huber also drafted a memorandum in May 1911 evaluating the potential value of a reservoir at the Postpile. He concluded that the topography would only support a small reservoir, making the power-generating potential slight and the construction costs in such a rugged region prohibitive, and certainly not worth the destruction of "an object of such scientific and scenic interest as the Devil's Post Pile."[38] These efforts resulted in the formal proclamation of "Devil Postpile National Monument" on July 6, 1911.[39]

Huber later noted that it was difficult to create a map, as the Postpile was not yet included in the public land surveys. "That is why the junction of King Creek and the Middle Fork of San Joaquin River was chosen as an initial point on the boundary," he explained. "There were no section corners within miles." Huber also noted that his "very literal interpretation" of the Antiquities Act—which required that national monuments occupy "the smallest area compatible with the proper care and management of the objects to be protected"—prompted



Original Map drawn by Walter Huber and filed with the 1911 proclamation establishing Devils Postpile National Monument. (Devils Postpile National Monument image collection)

him to enclose only a limited area within the boundary.[40] Because of Graves's deadline, Huber drew the original map of the monument before having an opportunity to visit the site, but he subsequently surveyed the boundaries in late July 1911 to ensure that the Postpile and Rainbow Falls were actually included.[41]

Huber arrived at the monument on July 24 in the company of Sierra National Forest rangers, and began his survey the following day. He took as his starting point a lodgepole pine at the junction of King Creek and the Middle Fork San Joaquin River. From there he set the two northern corners using stadiametric measurements after determining that the ruggedness of the terrain would make chaining impractical. He did not survey the southeast corner, presumably because he felt it could be easily identified as the point where the perpendicular lines from the southwest and northeast corners met. Although he clearly marked the three surveyed corners, he did not place markers along any of the boundary lines, nor did he prepare a map based on his actual survey points.[42]

In his report, Huber reiterated the impracticalities of a dam at Devils Postpile, noting the small capacity, remote location, and the limited market for power. He was not, however, opposed to development of other locations in the Middle Fork Valley. Although also a member of the Sierra Club, Huber, like many of his colleagues in the Forest Service, prioritized use over absolute preservation unless a practicable use could not be found. While he clearly recognized the aesthetic and scientific qualities of the Postpile, his objections to a dam at that particular site were framed primarily in terms of its limited utility. He instead recommended that Shadow Lake, located a few miles northwest of the Postpile might offer "greater possibilities" since "its capacity would not be less and the dam site is an ideal one with excellent abutments." He also noted that while his brief visit did not permit him a thorough examination, "such an examination might show other and even better reservoir sites."[43]

Walter L. Huber surveying the Devils Postpile boundary in 1912. (Devils Postpile National Monument image collection)

Huber filed his survey and accompanying report with the General Land Office, the federal bureau charged with segregating public lands at that time. In a response letter, Commissioner Fred Dennett approved the survey, but with some reservations. Specifically, Dennett expressed concern that Huber may have failed to include the full area of geologic significance. "It is apparent in his report that District Engineer Huber believes that only that portion of the basaltic pile which was exposed together with the broken columns at its base was worthy of reservation within the monument, or that he was unaware that his line divided this formation in approximately two equal parts, the exposed part being with the reservation." Dennett noted that while his office "greatly regretted" this omission, the effort that had gone into the survey and his belief that it had satisfied the "intent" of the Antiquities Act warranted approval. He nevertheless kept the issue open, concluding that "if it should be found desirable at some

future time to increase the size of the monument this could easily be done by supplemental proclamation."[44] Although Dennett's particular concerns have not been raised since, the appropriate size and dimensions of the monument did become a recurring issue in later years due to discrepancies between the boundaries depicted in the map included with the 1911 proclamation and maps based on the actual corners that Huber set in his subsequent survey.

Notes

1. Both reports summarized in Linda Greene, *Yosemite: The Park and Its Resources—A History of the Discovery, Management, and Physical Development of Yosemite National Park, California* (Washington, DC: US Department of the Interior/National Park Service, 1987), 259–60.
2. Ibid., 288–99.
3. "An Act to Set Apart Certain Tracts of Land in the State of California as Forest Reservations," October 1, 1890 (26 Stat., 650); John Muir, "Features of the Proposed Yosemite National Park," *Century Magazine* (September 1890). The act also set aside land for General Grant National Park, and a portion of Sequoia National Park; and Holway Jones, *John Muir and the Sierra Club: The Battle for Yosemite* (San Francisco: Sierra Club, 1963), 45–47.
4. Harvey Meyerson, *Nature's Army: When Soldiers Fought for Yosemite* (Lawrence: University Press of Kansas, 2001), 62.
5. Ibid., 68, 82.
6. "Map of the Yosemite National Park Prepared for Use of US Troops by N. F. McClure, 1st Lieut., 5th Cavalry, March, 1896," in Greene, *Yosemite*, 330.
7. Greene, *Yosemite*, chap. 3.
8. Meyerson, *Nature's Army*, 93.
9. Ibid., 93–94; and quotation from Kirk et al., *The Yosemite Way*, 71.
10. Carl Parcher Russell, *One Hundred Years in Yosemite* (Berkeley: University of California Press, 1948), 158.
11. Austin, *The Flock*, 191–92.
12. Ibid., 194–95.
13. A. E. Wood, "Report of the Acting Superintendent of the Yosemite National Park," in The Executive Document of the House of Representatives for the Second Session of the Fifty-Second Congress, 1892–93 (Washington, DC: GPO, 1893), 663.
14. Francis Farquhar, *Place Names of the High Sierra* (San Francisco: Sierra Club, 1926).
15. S. B. M. Young, "Report of the Acting Superintendent of the Yosemite National Park," Yosemite National Park, Office of Superintendent, Wawona, August 15, 1896, in *Report of the Secretary of the Interior*, Vol. 3 (Washington, DC: GPO, 1896), 735.
16. Horace M. Albright and Marian Albright Schenck, *Creating the National Park Service: The Missing Years* (Norman: University of Oklahoma Press, 1999), 6.
17. Wood, "Report of the Acting Superintendent of Yosemite National Park," 666.
18. Ibid., 666–67; and California State Mining Bureau, *Eleventh Report of the State Mineralogist, Two Years Ending September 15, 1892* (Sacramento: State Office, 1892), 22. Based on E. B. Preston's evaluation, the state mineralogist recommended that "it would be a commendable act to segregate this part of the park, as it would not injuriously affect the headwaters of the San Joaquin. Such segregation would result in the building of roads through a rugged but valuable country, thereby connecting Mono County with the San Joaquin Valley."
19. Ibid., 663.
20. Quoted in Young, "Report of the Acting Superintendent of Yosemite National Park," 742.
21. Hartesveldt, "Historical Events at the Devils Postpile."
22. Meyerson, *Nature's Army*, 172.
23. Greene, *Yosemite*, 395–96.

24. Gifford Pinchot et al., *The Use of the National Forest Reserves* (Washington, DC: US Department of Agriculture, 1905), 10.
25. Raymond Harris Thompson, "Edgar Lee Hewett and the Political Process," *Journal of the Southwest* 42, no. 2 (2000): 271–318.
26. "An Act For the Preservation of American Antiquities," June 8, 1906 (16 USC 431–33).
27. Hal K. Rothman, *Preserving Different Pasts: The American National Monuments* (Chicago: University of Illinois Press, 1989), 49.
28. The classic treatment of the Muir/Pinchot divide is Nash, *Wilderness and the American Mind*, chap. 10. Also see Fox, *John Muir and His Legacy*.
29. My argument here builds on Miller, *Gifford Pinchot*.
30. T. P. Lukens, "Giant's Causeway of Yosemite," *Sunset* 6, no. 1 (November 1900): 145.
31. Helen Lukens Jones, "The Rock Wonders of Yosemite Park," *Country Life* (June 1903): 138.
32. Thomas Chrowder Chamberlin and Rollin D. Salisbury, *Geology,* Vol. 1, *Geologic Processes and Their Results* (New York: Henry Holt and Company, 1905), 497.
33. Joseph N. LeConte, "The High Mountain Route between Yosemite and the King's River Canon," *Sierra Club Bulletin* 7, no. 1 (January 1909): 6.
34. Walter L. Huber to John C. Preston, Superintendent, Yosemite National Park, December 22, 1952, Cultural Resources Folder, Devils Postpile National Monument. Huber was himself a member of the Sierra Club, and later served as its president.
35. J. N. LeConte to President Wm. H. Taft, March 29, 1911, Walter L. Huber Papers, file 151, Water Resources Center Archives, University of California, Berkeley (hereafter cited as WRCA).
36. F. E. Olmsted to Forester, Washington, DC, April 11, 1911, Walter L. Huber Papers, file 151, WRCA.
37. Huber to Preston, December 22, 1952.
38. W. L. Huber, District Engineer, "Memorandum," File 0 Sierra, Boundaries. (Devil's Post Pile Rainbow Falls), May 31, 1911, Manuscript Collection, Sequoia and Kings Canyon National Parks Archives (SKCNPA).
39. Hartesveldt, "Historical Events at the Devils Postpile." The name Devil Postpile, instead of *Devil's* Postpile, seems to have been the result of a clerical error when the final proclamation was prepared. Devil's Postpile appeared on Lt. McClure's map of 1896, and Huber indicated in his letter to Superintendent Preston that it was a name of long standing.
40. Huber to Preston, December 22, 1952. See Rothman, *Preserving Different Pasts*, xii, 68.
41. Huber to Preston, December 22, 1952.
42. W. L. Huber, "Report of District Engineer on Survey of Devil's Postpile National Monument," September 12, 1911, Devils Postpile Central Files 1915–1953, ACC. 5121, YNPA. Interestingly, Huber also advised against relying on compass readings for survey work in the area, noting that "immense quantities of magnetic iron in the region and particularly about Iron Mountain cause the compass to act in a very uncertain manner."
43. W. L. Huber, "Report of District Engineer on Survey of Devil's Post Pile National Monument," September 12, 1911, 5–6, Devils Postpile, Central Files 1915–1953, Acc. 5121, YNPA.
44. Fred Dennett to Forester, Department of Agriculture, October 28, 1911, Walter L. Huber Papers, file 151, WRCA.

Chapter Six

Defining the Monument: Jurisdiction, Agency Values, and the Return to Yosemite, 1912–1934

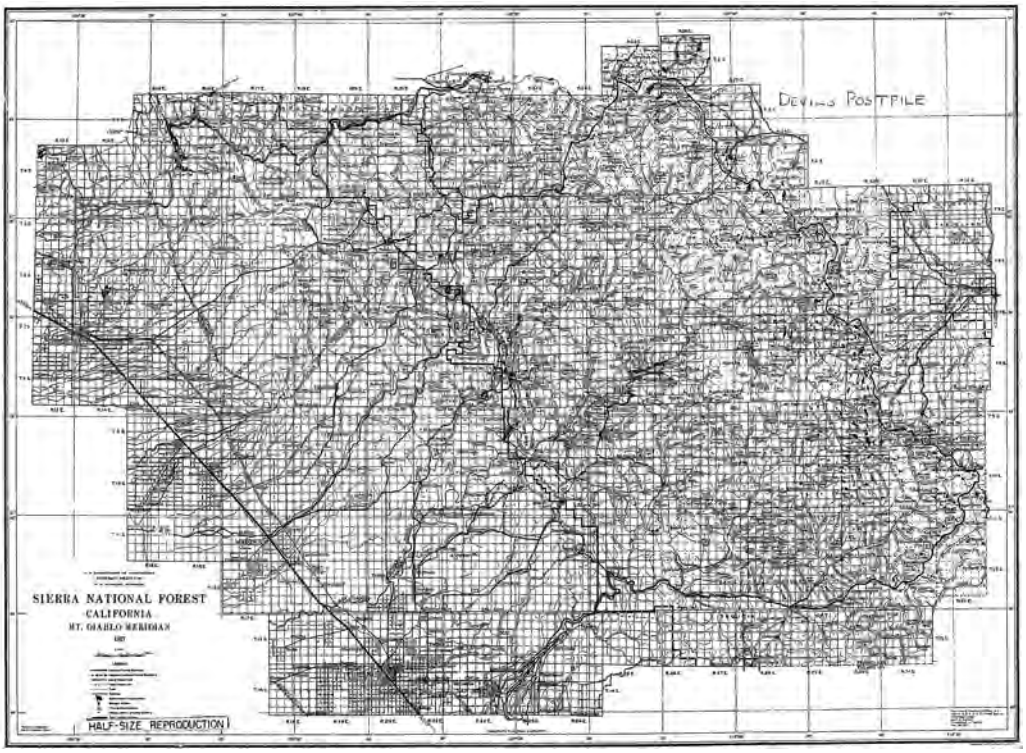
As noted in the founding proclamation, the monument and the surrounding country were located within the Sierra National Forest, which meant that under the terms of the Antiquities Act, administrative responsibility for the new monument fell to the Forest Service. However, with no road access, Devils Postpile saw few visitors during the period of Forest Service management.

The Forest Service recognized, however, that despite its remoteness the area had recreational potential in addition to the interest people continued to show in its mining potential.[1] As a consequence, beginning in 1910, the North Fork Ranger Station assigned Ranger Bob Beard to establish a summer guard station at Reds Meadow.[2] Beard was transferred to the Sequoia National Forest at the end of the 1912 season and was replaced the following year by veteran ranger Malcolm McLeod who came to know the area well. In 1919, McLeod guided members of the Johnston family to a mine site near Clover Meadows, which he believed could be profitably developed. He and his wife Emma took up residence in a tent camp in Reds Meadow until 1927, when they moved into a log cabin that he and his crew built near the hot spring and that still stands today.[3]

With company scarce in the remote valley, McLeod developed a familiarity with some of its enigmatic residents. On at least one occasion, Joe Ivanhoe sought McLeod's help in making repairs to his cabin near the Postpile, while another source noted that McLeod and Ivanhoe built a stone wall around the Reds Meadow hot spring in 1923 after "a party of people caught them taking a bath in the rock basin out of reach of their clothes."[4] Although a few local fishermen and hunters made the difficult trek into the valley in this period, the McLeods encountered few visitors. Until the early 1930s, the valley remained a haven for hermits such as Ivanhoe and a mysterious, perhaps mythical "Chinese recluse" who some locals speculated may have "fallen into one of the boiling springs and was half drowned half cooked to death."[5]

The early twentieth century also saw renewed mining activity.[6] Beginning in 1914, San Francisco businessman John Beck made efforts to develop mines in the Minarets, at one point, packing out two tons of iron ore he declared to be worth $400 a ton. In 1927, a group of investors bought the old Mammoth mine claims and organized the Mammoth Consolidated Mining Company. Before ceasing operations in 1934, the group extracted roughly $100,000 worth of minerals, a respectable amount but probably not enough to cover all their expenses.[7]

Around the same time, C. C. Randall, owner of the Minaret Mine, hired members of the Johnston family to oversee operations at the mine. In 1928, the family convinced Randall to invest "a large sum of money" in a road from Minaret summit to Pumice Flat and up the six miles to the mine site located on a tributary to Minaret Creek. To resupply the dozen or so men working the mine during the winter months, Tex Cushions of Mammoth City made frequent trips into the valley and up to the mine site by dog sled. Ultimately, however, the Minaret Mine's remote location made sustaining a profit nearly impossible. Despite the richness of the ore, the effort involved in "tramming [the ore] down from 12,000 feet and again tramming it out to 10,000 feet" had begun to take a toll, and in 1934, Randall closed the mine.[8]



1927 map of Sierra National Forest showing Devils Postpile at the top right. (Devils Postpile National Monument image collection)

The Johnstons remained the area, recognizing that the mining road, even with its steep hairpin turns and rutted, dusty surface, could provide automobile access to the Middle Fork Valley for the increasing numbers of Southern California tourists gravitating to the Mammoth area each summer. Soon after the mine closed, the family extended the road south from Pumice Flat to Reds Meadow. They then partnered with Lloyd Summers—whose father Charlie, a cattle rancher, had opened one of the first hotels in Mammoth in 1918—to construct the original buildings and store for the Reds Meadow Resort and Pack Station. Taylor Johnston also later recalled that the family built the original ranger station at the Postpile from lumber salvaged from structures at the mine.[9] In 1937, Arch Mahan Jr., son of A.G. Mahan, Sr., the principal investor in the Mammoth Consolidated Mine, purchased Reds Meadow Pack Station from Summers. Although the facility saw few visitors in the early years, its opening marked the beginning of the transformation of the Middle Fork Valley into a recreation haven for visitors to the Eastern Sierra.

The National Park Service and Rivalry with the Forest Service

The transformation of the Mammoth Lakes economy from one based on resource extraction to one based on recreation coincided with the increasing popularity and accessibility of nature tourism in the nation as a whole. Through the first decades of the twentieth century, higher wages, better-made and more affordable automobiles, the construction of highways, and the advent of promotional campaigns with slogans such as "See America First" encouraged Americans to venture out farther and more often for the purposes of recreation.[10]

The popularity of recreation and its potential economic benefits also influenced the continuing evolution of the federal agencies charged with managing natural and historic areas set aside

Reds Meadow guard station built in 1927 by Ranger Malcolm McLeod and occupied by he and his wife Emma McLeod. (Devils Postpile National Monument image collection)

for public enjoyment. On August 25, 1916, President Woodrow Wilson signed An Act to Establish a National Park Service, commonly known as the Organic Act. From the beginning, millionaire industrialist Stephen T. Mather was in place as the service's director. Together with his assistant Horace Albright, Mather was determined to link in the public mind the relationship between national parks and the American economy. Historian Barry Mackintosh notes that "Mather and Albright blurred the distinction between utilitarian conservation and preservation by emphasizing the economic potential of parks as tourist meccas."[11] They believed it was imperative to fully and efficiently develop parks for the pleasure of the public, which would in turn result in increased tourist dollars and the strengthening of their own agency. While some preservationists still hoped to find ways to use scenic areas without destroying their basic aesthetic values, they generally realized that some concession had to be made to provide for the comforts and convenience of tourists in order to get them into the parks for longer periods of time, so that they would come to appreciate national parks and stand up in their defense.[12]

In his endeavors to popularize the national park idea, Mather's practical business experience proved invaluable. He was selling a product to the American public, though scenic beauty was a more unconventional commodity than the borax that built his personal fortune. Based on the argument that national parks would ultimately stimulate local economies if properly managed, Mather's first steps involved streamlining his organization, handling finances in a businesslike manner, installing trained nonpolitical personnel, enhancing the visitor experience by improving access and accommodations, and establishing educational facilities and opportunities. In addition, Mather sponsored the creation of the National Parks Association in 1919 to promote greater public awareness of the parks and to serve as a conduit for civic activism on their behalf.[13]

Mather's commitment to the idea of parks as havens for recreation and leisure ensured that major parks were developed with thousands of structures, hundreds of miles of roads, and extensive recreational facilities that at times threatened to overpower the dramatic landscapes they were built to serve. This was a direct outgrowth of Mather's pragmatic belief that the future of the national parks depended on making them appealing to more than the committed nature lover. "Scenery is a splendid thing when it is viewed by a man who is in a contented

frame of mind," he commented in 1915. "Give him a poor breakfast after he has had a bad night's sleep, and he will not care how fine your scenery is. He is not going to enjoy it."[14]

In January 1929, Mather stepped down as director of the Park Service due to ill health. Even after his death in January 1930, however, Mather's ideals and basic policies continued under Horace Albright, who, because of his long tenure, can be considered a cofounder of the present National Park Service. Having worked with Mather in addition to serving as superintendent of Yellowstone for ten years, Albright built on the achievements of the agency's early years. In addition to being knowledgeable about governmental affairs and well-known and respected in Washington's political arena, of perhaps even greater benefit to his work was the fact that the park idea had become solidly entrenched in the American consciousness. Albright also enjoyed the support of Interior Department officials and the aid of a first-class staff in the Washington office and in the field. During his four-year tenure as director, Albright enlarged nine parks and acquired three new ones in addition to the national monuments created under the Antiquities Act.[15]

Albright also brought a new emphasis on history and education to his term as director of the Park Service. Previously, Mather's vision had imposed a "one-dimensional role upon his agency" by making the "scenic magnificence of the western parks" such as Yosemite serve as the model for parks nationwide. While parks of scenic wonder served as showcases for humanity's interaction with the environment and provided recreation opportunities for many, they failed to speak to other aspects of America's national heritage. Albright leapt at the chance to add historic preservation to the Park Service's mandate, recognizing that the Park Service could play a central role in recounting and explaining the development of the United States as urban, industrial growth moved the nation further away from its agrarian creation myth. Albright realized that while both the Forest Service and the War Department maintained an assortment of national monuments, no federal agency had taken on the role of interpreting key sites of American history to the public. Doing so would also have the practical effect of promoting the continued growth of the National Park Service—an essential factor for ensuring the ongoing expansion of its budget. President Franklin Roosevelt gave this new direction permanence in June 1933 through Executive Order 6166, which gave Albright's agency control of all national monuments, as well as the War Department's battlefield parks and historic cemeteries.[16]

The order was issued during a time of intense rivalry between the Forest Service and the National Park Service. Even before the creation of the Park Service, Forest Service officials had opposed the creation of another federal agency responsible for managing public lands. Chief Forester Henry Graves feared it would "dismember" the Forest Service by encouraging the creation of new parks carved out of national forest lands.[17] Interagency conflict continued after the creation of the Park Service. To deflect critiques that it was focused exclusively on resource extraction, the Forest Service began emphasizing recreation in some of its holdings. In 1924, the agency designated a portion of the Gila National Forest in New Mexico a roadless "wilderness" area. Other forests initiated recreational plans for automobile tourists in this period. Stephen Mather countered that the Park Service was better equipped to develop lands for recreation, as the parks, he argued, were "more truly national playgrounds than were the forests" due to their exceptional scenic magnificence.[18] By the end of the 1920s, the Park Service had become firmly established as a legitimate public lands bureau, due in large part to Mather's skillful political maneuvering and his recognition of the growing popularity of outdoor recreation.[19]

In the Sierra Nevada, the Forest Service continued to seek ways to block national park expansions. In the late 1920s, Stuart Show, chief forester of District 5, developed criteria for

designating areas in the Sierra without resource potential as roadless "primitive areas." The strategy served to diffuse Sierra Club critiques of the Service's utilitarian agenda while also providing buffer zones against Park Service efforts to expand its holdings. In 1931, the Forest Service set aside nearly 800,000 acres of the rugged high country south of Yosemite and west of Devils Postpile as the High Sierra Primitive Area and the Mount Dana-Minarets Wild Area. Also during this period, Forest Service officials in the southern Sierra may have been responsible for stirring up local resentment toward the Park Service by claiming that the agency would "lock up" lands currently being used for resource extraction.[20]

At the national level, the Forest Service did not seem to take any immediate notice of Roosevelt's order transferring the national monuments to Park Service management, despite ongoing interagency competition. Secretary of Agriculture Henry Wallace finally presented his objections to Secretary of the Interior Harold Ickes in late July 1933, six weeks after Order 6166 had been issued. He suggested to Ickes that the Forest Service's monuments should be excluded from the transfer on the grounds that they constituted facilities essential to the work of the department. Moreover, Wallace argued that administration of the monuments by the Park Service would prove costly and inefficient, counter to President Roosevelt's intention of creating greater economy in land management.[21] Ickes rejected Wallace's assertions, pointing to the opinion of the Interior Department's solicitor Nathan Margold, who cited the recent transfer of Bandelier National Monument as an example of the practicality and legality of such an undertaking.[22] The formal transfer of the Forest Service's monuments finally took place on January 18, 1934, but disagreements over jurisdiction lingered on.

These disagreements were particularly evident at the local level. In spring 1934, Sierra National Forest supervisor Maurice A. Benedict wrote to Col. Charles Thomson, superintendent of Yosemite, referring to Thomson's earlier apprehension about the transfer of Devils Postpile. "I hope you are sincere in your feeling," he said, "that the two administrations in there should be eliminated because I am sure that it will be only confusing to the public to have two outfits covering practically the same area." Benedict added his hope that Thomson would relay this concern to the director of the Park Service so that the Postpile's monument status could be eliminated.[23] Benedict reminded Thomson of his views in August, asserting that "the only reason this Monument was created was to head off a possible power development there." With the danger past, he suggested that Thomson must "realize, I am sure, the absurdity of a dual administration in the Devils Post Pile area, both from the standpoint of the public reaction to its duplication and the possible administrative conflicts that will be confusing and embarrassing to us both."[24]

Thomson replied to Benedict with the benefit of Yosemite's first season of managing the monument behind him. He acknowledged that the "explanation that monument status was originally extended merely to prevent filing for power purposes, is interesting." But, he continued, there were no signs "that those in authority will do a right-about-face in policy" and return the national monuments to the Forest Service. Yosemite had a "mighty good man on the job," whose performance had removed any doubts Thomson once harbored about the future success of Yosemite's administration at Devils Postpile.[25]

Local recreational business owners were initially hesitant about the Park Service's presence. Their suspicion stemmed from rumors that the whole area might once again be included in Yosemite National Park. In 1934, local rancher, packer, and innkeeper Lloyd Summers drafted a letter on behalf of the Mammoth Lakes Association to Congress expressing the local business community's concerns about the transfer of Devils Postpile to the Park Service. The letter maintained that the Forest Service had been adequately protecting monument resources for

twenty-five years, that administration from the distant headquarters of Yosemite would be impractical, and that the Park Service's particular set of rules and regulations would create confusion for the visiting public. The association's primary concern, though, was for their own economic well-being:

> Collectively the members of this association serve a recreational seeking public of more than 50,000 people annually in the Mammoth Lakes area, and we are concerned lest this uneconomic and foolish administrative setup may be the entering wedge or argument for further park extension propaganda, which may easily develop us and lead to our ultimate destruction as individual business men and concessionaires in the National Forests, to the advantage of the large National Park Concessionaire Company, which has had no part in pioneering and developing the important and growing recreational area.[26]

It had become clear relatively quickly, however, that the single ranger stationed at Devils Postpile each summer could barely keep the monument in working order, let alone pose a threat to local businesses. In fact, early rangers depended heavily on local recreation businesses to promote the monument and assist with visitor service. Furthermore, the Park Service did not seriously pursue expanding the boundaries of Yosemite, likely out of concern for the opposition it would face.

Notes

1. For example, "Rainbow Falls, Middle Fork of the San Joaquin," *Los Angeles Times*, January 1, 1921; John L. Von Blon, "Paradox of the Mysterious Devil," *Los Angeles Times*, February 26, 1922; Gilbert E. Bailey, "The Devil's Post Pile," *Los Angeles Times*, November 17, 1922; and "Fishing Trips Conducted by Mammoth Camp," *Los Angeles Times*, June 27, 1928.
2. *California Ranger* 17 (1958): 1–3, Manuscript Collection, Sequoia and Kings Canyon National Parks Archives.
3. Linda A. Reynolds, *Historic Property Treatment Plan for the Rainbow Fire, Inyo National Forest* (Bishop, CA: Inyo National Forest, 1992), 9; and Emilie Martin and Melissa Totheroh, R–5/PSW Building Survey Form: FS#05–04–52–959 Reds Meadow Bath House (1989), Inyo National Forest Heritage Resources Files, Bishop, California.
4. Author unknown, "Devils Postpile National Monument History," 1952, unaccessioned DEPO files, DEPO Geology – History, YNPA.
5. Hartesveldt, "Historical Events at the Devils Postpile," 7.
6. "Mine Boom in the High Sierras," *Los Angeles Times*, August 20, 1916.
7. Smith et al., *Mammoth Lakes Sierra*, 42–43.
8. Taylor F. Johnston cited in Arthur Selin to Granville B. Liles, Acting Superintendent Yosemite National Park April 23, 1963, unaccessioned DEPO files, DEPO Geology – History, YNPA.
9. Ibid.
10. The phrase "See America First" was first used by the Great Northern Railway in 1906 and later adopted by a number of civic organizations and public agencies including the National Park Service. For the role of the Park Service in promoting the link between nature tourism and national identity see Marguerite S. Shaffer, *See America First: Tourism and National Identity, 1880–1940* (Washington, DC: Smithsonian Institution Press, 2007), chap. 4.
11. Barry Mackintosh, *The National Parks: Shaping the System* (Washington DC: National Park Service, Division of Publications, 2000), www.cr.nps.gov/history/online_books/mackintosh1/sts2a.htm.
12. Greene, *Yosemite,* 523–24; Don Hummel, *Stealing the National Parks: The Destruction of Concessions and Park Access* (Bellevue, WA: Free Enterprise Press, 1987), 55; and Sellars*, Preserving Nature in the National Parks*, 59.
13. John C. Miles, *Guardians of the Parks: A History of the National Parks and Conservation Association* (Washington, DC: Taylor and Francis, 1995), 18–21.
14. Quoted in Albright and Schenck, *Creating the National Park Service*, 54.

15. Greene, *Yosemite*, 731–32.
16. Rothman, *Preserving Different Pasts*, 197–202; and Harlan D. Unrau and G. Frank Williss, *Administrative History: Expansion of the National Park Service in the 1930s* (Denver: National Park Service, Denver Service Center, 1983), chap. 2C, www.cr.nps.gov/history/online_books//unrau–williss/adhi2c.htm.
17. Chief Forester Henry Graves quoted in Sellars, *Preserving Nature in the National Parks*, 36.
18. Ibid., 58.
19. Rothman, *Preserving Different Pasts*, 141.
20. Anthony Godfrey, *The Ever-Changing View: A History of the National Forests in California* (Vallejo, CA: Pacific Southwest Region: USDA Forest Service, 2005), 215.
21. Nathan R. Margold to Harold Ickes, Memorandum, October 24, 1933, Devils Postpile, Central Files 1915–1953, Acc. 5121, YNPA.
22. Harold Ickes to Henry Wallace, November 11, 1933, Devils Postpile, Central Files 1915–1953, Acc. 5121, YNPA.
23. M. A. Benedict to Charles G. Thomson, May 17, 1934, Devils Postpile, Central Files 1915–1953, Acc. 5121, YNPA.
24. Benedict to Thomson, August 27, 1934, Devils Postpile, Central Files 1915–1953, Acc. 5121, YNPA.
25. Ibid.
26. Quoted in John J. Cameron, "History of Devil Postpile National Monument," draft history commissioned by the US Department of the Interior, National Park Service, January 1937, 3–5, Superintendent's Office Files, Devils Postpile National Monument.

Chapter Seven

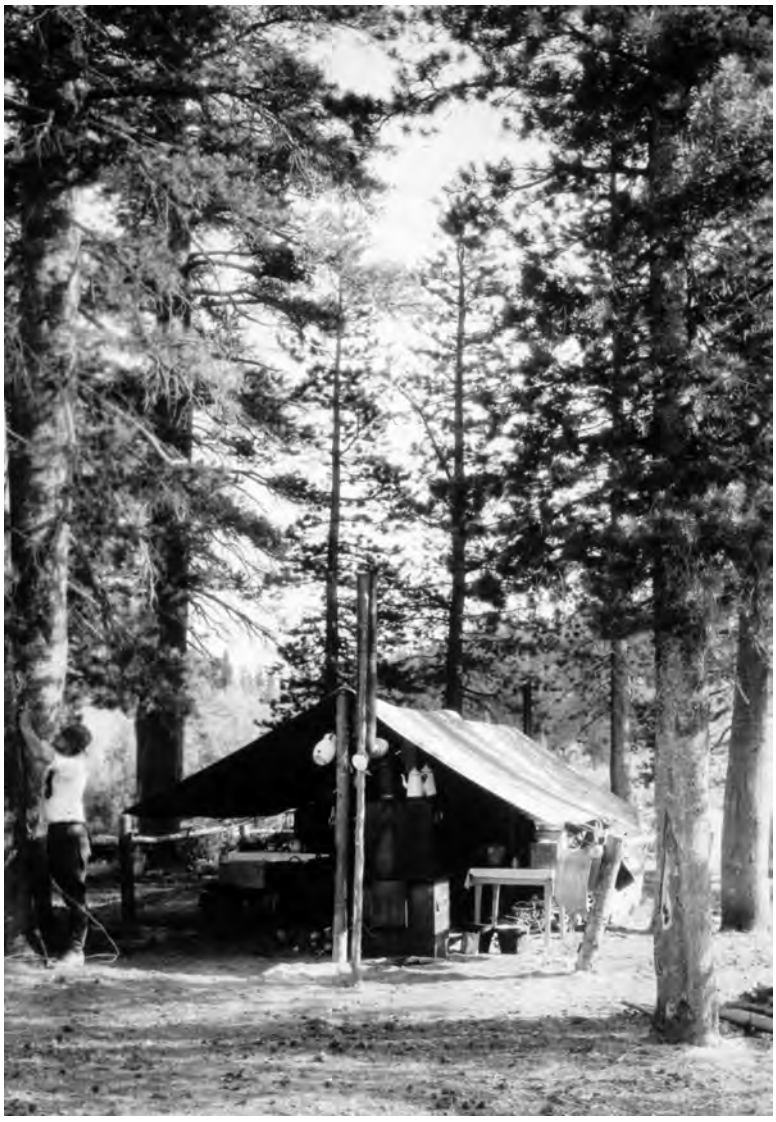
Establishing a Presence: Devils Postpile under Yosemite, 1934–1941

As Forest Supervisor Benedict had suggested, Thomson was not initially optimistic about Yosemite's reacquisition of the monument, with the lack of any management plan to accompany the new responsibility a likely factor. In advising Thomson of the transfer, Park Service director Arno Cammerer added, "You might make some tentative inquiries of the District Forester as to just what the administration of this Monument involves."[1] The monument was formally placed under Yosemite's supervision on March 24, 1934, at which point Thomson found that whatever the administration involved, he was expected to accomplish it with a budget of $470.00. The bulk of the sum—$420.00—would pay a temporary ranger for three months. The remaining $50.00 was to cover "general expenses and travel."[2]

Thomson hoped to keep a ranger at Devils Postpile from early June through the end of September because, he informed Arthur Demaray, who was at that time acting director of the Park Service, that the area had become accessible to automobile traffic and that is was "now intensively used, so much so that the maintenance of even reasonably good fishing there has become a problem for the [state Fish and Game] Commission." He also thought it likely that a Civilian Conservation Corps (CCC) stub camp could be located at the monument.[3]

In order to better grasp what Yosemite had taken on, Thomson dispatched a team led by Ranger Duane Jacobs in mid-June to inspect the monument and its boundaries. Thomson was particularly interested in "establishing fine relations" with the Forest Service's district ranger at Reds Meadow and "the proper relationship with the large numbers of people who practically live in that area throughout the summer."[4] Jacobs arrived at the monument on June 15, and established the Park Service headquarters—a tent and a flagpole—a quarter-mile north of the Postpile, approximately where the present headquarters building is located. His initial assessment of the monument was a terse "good grounds, lovely place; also mosquitoes." He also noted that several campers were already present.[5]

In a subsequent report, Jacobs touched on several topics that would play major roles at the park in the coming years. He considered cooperation with the Forest Service "invaluable," and noted that the monument was a good fit with the its recreation program in the area. Jacobs also approved of plans to build a road from Reds Meadow to within a few hundred yards of Rainbow Falls, but thought that a trail to the base of the Postpile, instead of a second road, would better preserve the monument's beauty and would be more appreciated in the long run. Suggestions for additional development included an enclosure around the soda spring to keep the river from overflowing it, and a permanent headquarters station to replace the tent. Jacobs described the Middle Fork as an ideal fishing stream and, in keeping with Park Service practice of the day, recommended stocking the river with 50,000 rainbow trout fingerlings. He found that fishing was the primary reason visitors—around fifty per day, with five or six overnight camps—were in the area. The Postpile and other features were simply interesting diversions they had heard about along the way. Jacobs observed that "the ranger stationed here has an ideal opportunity to make friends for Yosemite and the entire National Park Service, he has the advantage of being able to almost forget the usual run of rules and regulations."[6]



The original National Park Service ranger station set up at Devils Postpile in 1934 following the transfer from the Forest Service. (Devils Postpile National Monument image collection)

Superintendent Thomson advised Chief Ranger Forest Townsley to follow up on the suggestion for planting trout in the Middle Fork. "Certainly I want to do all that we can," he explained, "in this and every other regard, to improve this monument recreationally, in its protection, and sightlines."[7] Thomson found, however, that he would have to do this initial work without the aid of the CCC. The US Army District Commander at Fresno, who was responsible for administering the program, did not consider it feasible to supply a stub camp from Yosemite because of the Postpile's distance and the surrounding rugged terrain. While there had been a Forest Service camp at Mammoth in 1933, it had closed, and the next closest main camp was in Nevada, similarly too far away.[8] Two years later, a CCC crew from the North Fork Ranger CCC camp on the Sierra National Forest agreed to work with National Forest foreman Al Rader to construct the public bathhouse at the Reds Meadow hot spring. The bathhouse allowed for more formal use of the hot spring and was the only CCC structure built in the area.[9]

Ranger Duane Jacobs inspecting a site at the base of the Postpile talus for the placement of an interpretive sign. (Devils Postpile National Monument image collection)

1937 photo of the Reds Meadow Bath House, built by a CCC crew in 1935. (Photo: Lester Craig. Courtesy of Nancy Wirth)

One-Person Management

After Jacobs, Gage, and Anderson returned to Yosemite, Devils Postpile was left in the hands of Temporary Ranger Vernon Lowery. Thomson had doubts about the arrangement, insisting to Director Cammerer that he could not "operate Devils Postpile through peak season with merely one ranger without transportation." He also noted that the "seventy five to eighty campers present" had led to a "sanitation and garbage disposal problem that must be handled." He regarded the situation as "urgent" as this was the "first crucial period of administration by our service"[10] Lowery remained obligated to running the monument himself, but funds did

The CCC bath house as it appears today. (Devils Postpile National Monument image collection)

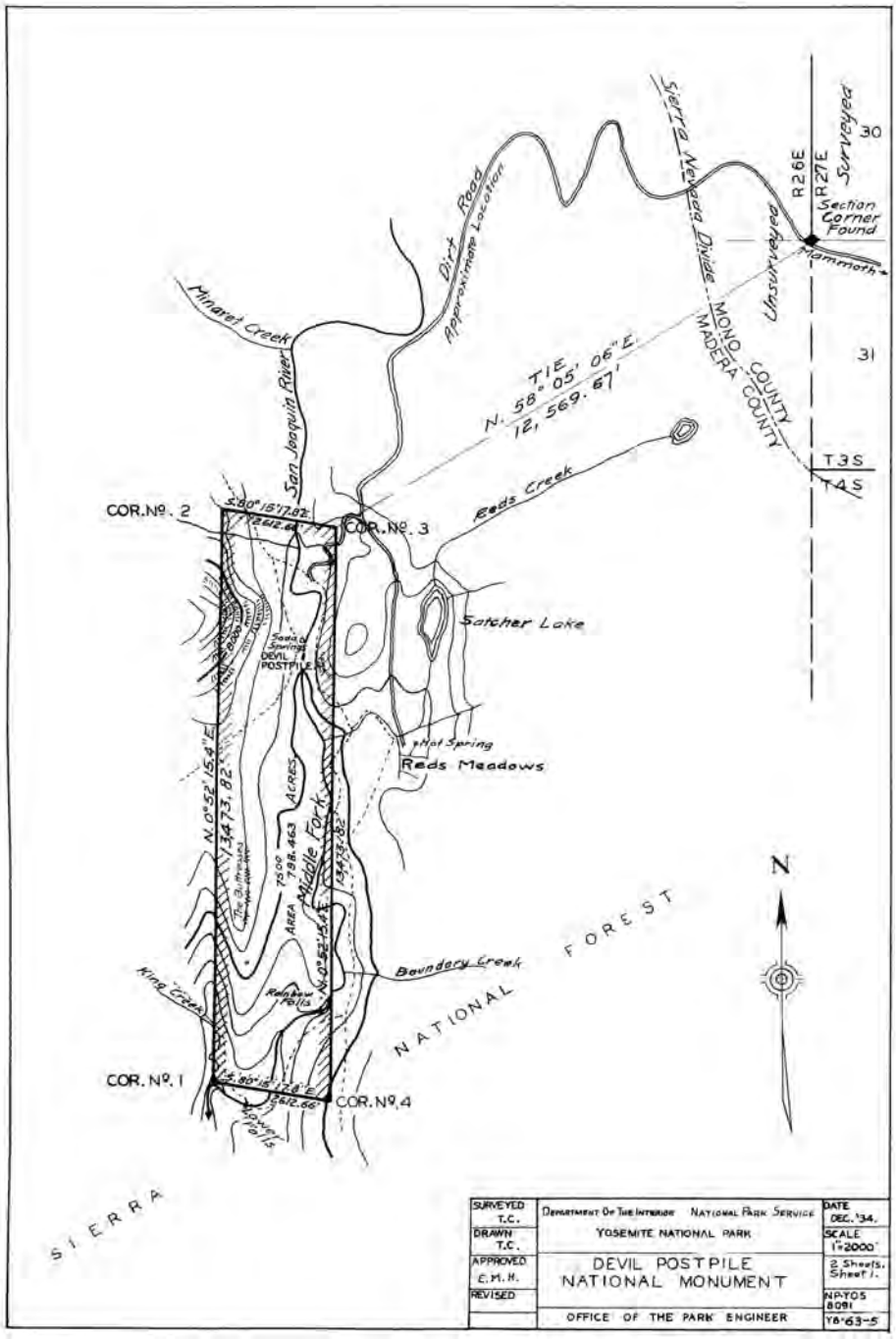
become available for Yosemite to assign him a pickup truck. "Now I shall be able to do my own work, instead of begging from the Forest Service," he informed Thomson.[11]

Lowery's duties included overseeing a new boundary survey to give a more definite idea of the monument's extent. The survey focused particularly on the southeast corner, as until that time, no effort had been made to finalize Huber's 1911 survey or to draw a definitive map based on the corners he had set. In summer 1934, a party led by Theodore Cronyn from the Yosemite Engineer's Office spent a month setting boundary lines. In walking the northern boundary, Cronyn determined that Huber had actually laid out a rhomboid-shaped monument of 798.463 acres, rather than a right-angled rectangle of 800 acres. Cronyn then established the southeast corner of the monument by drawing the southern boundary line as parallel to the northern boundary and of an equal length. This procedure, he explained, conformed to the standard practices of the General Land Office in setting missing corners. Because Huber's was the first survey of the area, Cronyn decided to respect Huber's surveyed corners rather than establish new corners that would better correspond with the map included with Taft's proclamation.[12] Cronyn's survey report also described the basic history, geology, and natural features of the area, and was first comprehensive overview of the monument produced by the National Park Service.[13]

Lowery's duties established the basic pattern of one-person management that would prevail at Devils Postpile for the next several years. He took care of all maintenance and sanitation needs, acted as the force of law, and represented the Park Service's Naturalist and Ranger Guide program. There was time to occasionally conduct trips to Rainbow Falls or speak to visitors near the ranger station as they entered the monument, but much of the contact work came in the form of erecting temporary signs. Due to the minimal operating budget for the first season,

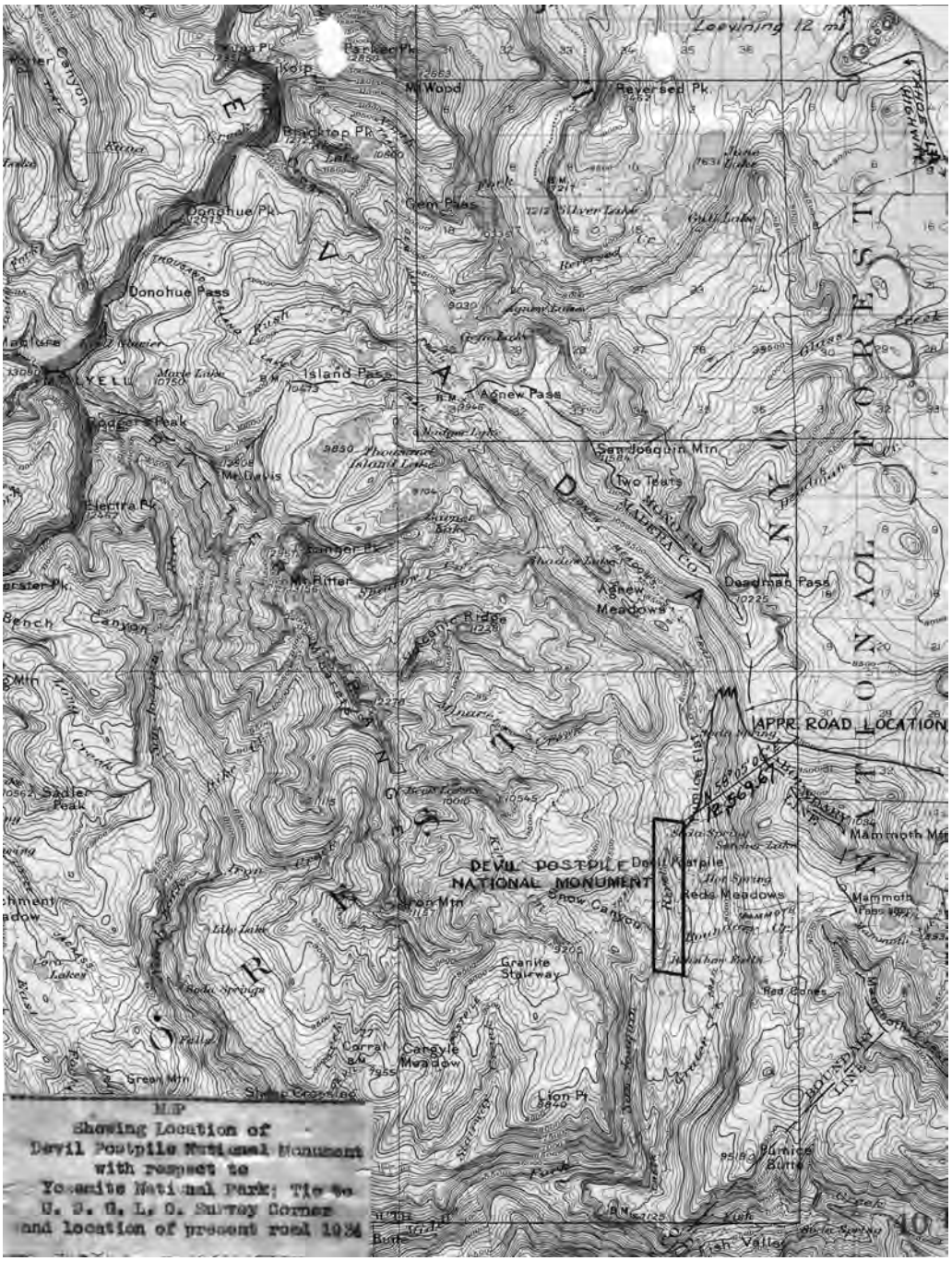
Yosemite engineer Theodore Cronyn establishing the Devils Postpile National Monument boundary during the 1934 boundary survey. (Devils Postpile National Monument image collection)

Lowery made the signs himself by penciling information on sheets of typing paper and nailing them to wooden box ends.[14] He also made a number of suggestions for the park's future, some of which were ultimately carried out, including a footbridge across the river, picnic tables in the campground area, a "good bulletin board" in front of the ranger station, road signs directing visitors to the monument, and a prohibition against disturbing natural resources. Proposals for enclosing the soda spring, expanding the campground to the west bank of the river, and opening a store for campers remained hypothetical. Lowery's observation that "the approach road is badly in need of improvement" would not be the last comment on the poor state of the road.[15]



Cronyn's 1934 map based on the corners established in 1912 by Walter Huber. (Devils Postpile National Monument image collection)

Lowery was not alone in making up management procedures as he went along. Nearing the end of Yosemite's first season in charge of Devils Postpile, Thomson wrote to the director of the National Park Service on two occasions asking if there were any formal set of regulations governing national monuments. He briefly explained that "we have been following closely the general national park set-up, but find some difficulties and absurdities due to the smallness of the area."[16] Associate Director Demaray replied that the Department of Agriculture's general



Regional map included with Cronyn's 1934 report. (Devils Postpile National Monument image collection)

regulations remained in effect until the Park Service had the opportunity to take up the matter at the next superintendent's conference.[17]

The problem the Park Service faced with managing national monuments was not simply one of size. The National Park Service was built on Stephen Mather's singular vision of the agency as the guardian of America's iconic landscapes. The transfer of monuments and other properties outlined under Executive Order 6166 increased the Park Service's national constituency, but at the same time blurred its sense of mission. The grand scenic parks were joined by an assortment

Photo of Soda Springs Meadow from Cronyn's 1934 report. (Devils Postpile National Monument image collection)

of historic sites, battlefields, cemeteries, archeological treasures, and geological oddities that challenged administrators to find a new common theme to guide the agency.[18]

Scientific Interpretation and Natural Resources

Near the end of Yosemite's second season managing Devils Postpile, the park's naturalists conducted an inspection of the monument, focusing on its potential for interpretive activities. Naturalist Charles. A. Harwell confessed, "we were peeved the place was so hard to find. We met tourists on the road who had gone much out of their way looking for the Monument." Furthermore, "roads are terrible and in a Forest Service way lead everywhere." Harwell noted that, despite its small size, Devils Postpile contained "superlative values. The Postpile is outstanding and offers fine place to interpret the geology of the Sierra, especially the volcanic features so prominent, between Mono Lake and Owens Valley." These ideas were likely influenced by Sierra geologist François Matthes's 1930 essay for the *Sierra Club Bulletin* in which he described Devils Postpile as representative of the geologic forces that shaped the surrounding area.[19] Harwell further suggested, "that all the elements of beauty and scientific interest be played up strongly by National Park Service to contrast sharply with the policies and methods generally prevailing in the area."[20]

Hartwell's suggestion points to one of the strategies the Park Service adopted to distinguish it from its partner and rival in the Department of Agriculture. Whereas the Forest Service had been founded on a policy of scientific use of resources, the Park Service supplemented its focus on recreation by embracing scientific education in the 1920s and 1930s, which gave the Park Service a role of obvious utility that remained in harmony with its basic mission of scenic

preservation. As early as 1916, Secretary of the Interior Franklin Lane had expressed that "it is the destiny of the national parks, if wisely controlled, to become the public laboratories of nature study for the nation."[21]

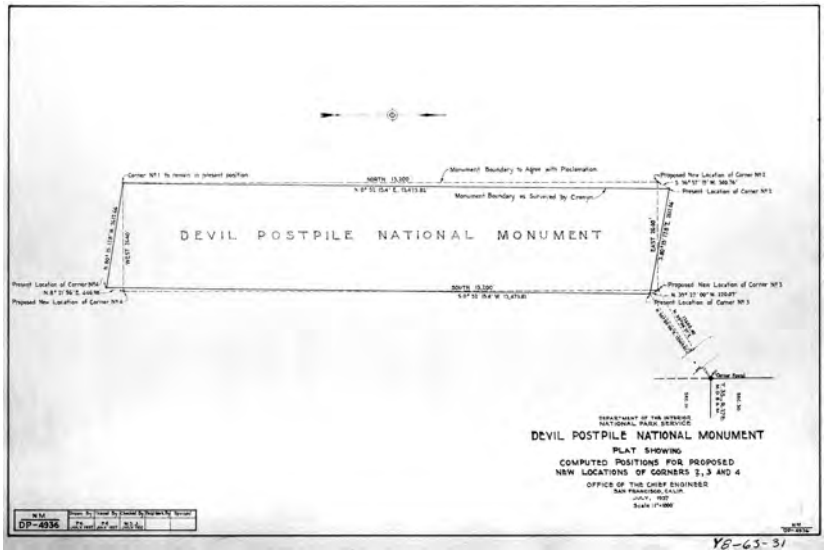
With this in mind, Director Mather had created the Education Division of the National Park Service in 1925, but Congress was reluctant to see the parks in the business of education. As a result, the Park Service's earliest education programs at Yosemite and Yellowstone relied on philanthropy and fund-raising associations to accomplish their goals. At the same time, the acceptance of education at the field level faced similar reservations. Many of the first park naturalists were dedicated academics, who were sometimes found to be lacking the jack-of-all-trades versatility then associated with traditional rangers. Someone in the mold of Vernon Lowery was clearly preferred at small parks such as Devils Postpile, where a single individual might be called on to simultaneously represent the entire Park Service, convey the mission of the monument, serve as naturalist, historian, and interpreter, and perform all manner of operations and maintenance tasks.[22]

Administrative Concerns: Budgets and Boundaries

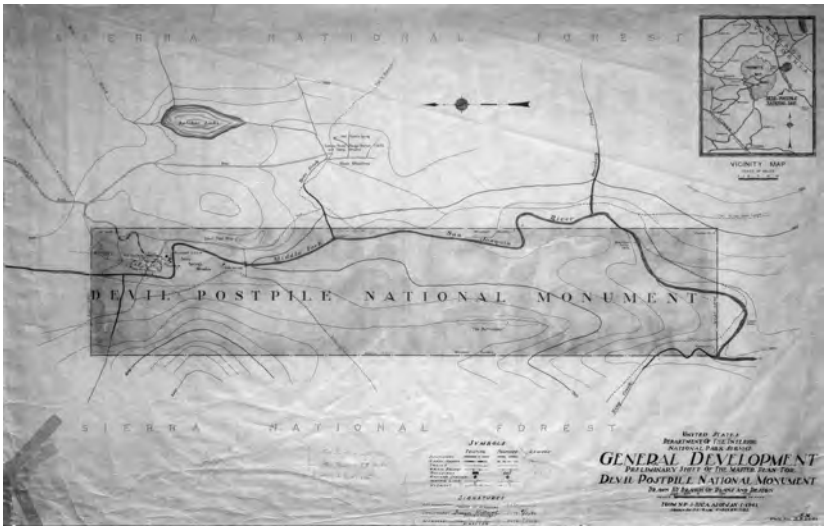
Having successfully passed through the period when the Postpile's administration "was largely on an experimental basis,"[23] Superintendent Charles Thomson felt confident that this single individual could be a seasonal ranger, rather than a regular member of Yosemite's staff. The first two seasons had also revealed a need for greater funding than the $470 originally provided. The Director's Office increased the monument's budget to $850 for 1937, an amount that Thomson advised should also be issued in 1938. In fact, the monument required extra funds during these years to correct the damage caused by flooding on the Middle Fork in 1937.[24]

Yosemite's limited budget for Devils Postpile threatened to become a major issue in 1939, following calls by the federal Bureau of the Budget that the Park Service demonstrate progress toward becoming a self-sustaining operation. Then Acting Director Demaray explained in a confidential memorandum that "it is expected that in the future the consideration for our requests for appropriations for individual areas will be more and more closely connected and held in balance with the amount of revenues returned by the respective areas."[25] Yosemite superintendent Lawrence C. Merriam replied that in the case of Devils Postpile, the idea would not prove feasible. He explained that an automobile entrance fee would simply prompt most visitors to park outside the monument and walk the extra distance down the access road. Similarly, a camping fee would prove unprofitable because of the large, well-developed camps nearby on Forest Service land, including the operation at Reds Meadow. Finally, a general admission fee would introduce more costs than it would recover because of the difficulty of collecting from visitors entering over three different trails. Merriam also worried that charging visitors to visit a park surrounded by free Forest Service land would prove unfavorable from a public relations standpoint.[26]

Another administrative concern during the late 1930s was the nagging question about the exact location of the monument's boundaries. The Cronyn survey of 1934 had established that while Walter Huber had drawn a rectangular monument for the 1911 Proclamation, he had actually laid out a rhomboid (a parallelogram with unequal adjacent sides and oblique angles) during his subsequent visit to the site. However, in July 1937, then Acting Director Demaray informed then Acting Superintendent Merriam that he endorsed a proposal by the Park Service Assistant Chief Engineer to relocate the Postpile's boundary lines so that they would correspond with the Proclamation.[27]



1937 proposed boundary adjustment to match the rectangular shape of the monument as depicted in the map filed with the 1911 proclamation. (Devils Postpile National Monument map collection)



1941 tourist brochure map showing a rectangular boundary. (Devils Postpile National Monument map collection)

Merriam advised Demaray that Yosemite was "not in a position at this time to spare any of our engineering force from their other duties or to hire the necessary chainmen assistants." He also pointed to an early act of Congress and years of surveying precedent that the corners located in the field for a given plot of land were to be taken as legally correct, regardless of what appeared on paper.[28]

Even four years later, the topic was still not settled. In 1941, Yosemite's chief engineering aide E. C. Smith prepared a memorandum for inclusion in the Devils Postpile file explaining that the tacit acceptance of Huber's survey from 1911 to 1934 gave it a degree of official recognition. He considered the exact bearings and distances to the corners somewhat unimportant as the basic intent of defining a monument within government land had been fulfilled. Added to

this was the complication that the monument was the only surveyed land in the area, and any new work would have to use Huber's original survey points as references.[29] Despite this, when Yosemite prepared a new informational circular on Devils Postpile in 1941 its boundaries were depicted as rectangular.[30]

Notes

1. Arno B. Cammerer to Charles G. Thomson, November 16, 1933, Devils Postpile, Central Files 1915–1953, Acc. 5121, YNPA. Before circulating the letter to his staff, Thomson penciled a note in the margin to Chief Ranger Forest Townsley and Park Naturalist C. A. Harwell: "See me together *soon*."
2. Arthur E. Demaray to Charles G. Thomson, March 24, 1934, Devils Postpile, Central Files 1915–1953, Acc. 5121, YNPA.
3. Charles G. Thomson to Director, National Park Service, April 2, 1934, Devils Postpile, Central Files 1915–1953, Acc. 5121, YNPA.
4. Thomson to Director, June 26, 1934, Devils Postpile, Central Files 1915–1953, Acc. 5121, YNPA.
5. Duane Jacobs to Superintendent [Thomson], June 15, 1934, Devils Postpile, Central Files 1915–1953, Acc. 5121, YNPA.
6. Jacobs to Thomson, June 23, 1934, Devils Postpile, Central Files 1915–1953, Acc. 5121, YNPA. Jacobs was concerned that the Monument's isolation could be difficult for the single ranger assigned to it: "If a man enjoys his own company it is alright, because he is going to have to put up with a lot of it, if he doesn't, not so good." He suggested that, in the future, Yosemite consider sending a married ranger who could live on-site with his wife.
7. C. G. Thomson to Chief Ranger Townsley, June 26, 1934, Devils Postpile, Central Files 1915–1953, Acc. 5121, YNPA.
8. Liaison Officer, Headquarters Ninth Corps Area to Superintendent, Yosemite National Park, June 25, 1934, Devils Postpile, Central Files 1915–1953, Acc. 5121, YNPA.
9. Laura Kirn, "Reds Meadow Guard Station, Evaluation of Eligibility for the National Register of Historic Places," draft, Devils Postpile National Monument, Superintendent's Office.
10. Thomson to Director, telegram, July 9, 1934, Devils Postpile, Central Files 1915–1953, Acc. 5121, YNPA.
11. Vernon Lowery to Thomson, July 14, 1934, Devils Postpile, Central Files 1915–1953, Acc. 5121, YNPA.
12. Theodore Cronyn, "Devil Postpile National Monument Boundary Survey, 1934," 1, 6–8, Devils Postpile, Central Files 1915–1953, Acc. 5121, YNPA.
13. Cronyn, "Devil Postpile National Monument Boundary Survey." Cronyn noted, as would others, that the presidential proclamation of 1911 established the use of "Devil," rather than the locally accepted "Devil's" in the monument's name.
14. Lowery to Thomson, "Condition and Activity Report," September 8, 1934, Devils Postpile, Central Files 1915–1953, Acc. 5121, YNPA.
15. Ibid.
16. Thomson to Director, National Park Service, September 17, 1934, Devils Postpile, Central Files 1915–1953, Acc. 5121, YNPA.
17. A. E. Demaray to Superintendent, Yosemite National Park, November 7, 1934, Devils Postpile, Central Files 1915–1953, Acc. 5121, YNPA.
18. Hal K. Rothman, *America's National Monuments: The Politics of Preservation* (Urbana: University of Illinois Press, 1989), chap. 10.
19. François Matthes, "The Devils Postpile and Its Strange Setting," reprinted from *Sierra Club Bulletin* (1930): 1–8, in François Matthes, *François Matthes and the Marks of Time: Yosemite and the High Sierra* (San Francisco: Sierra Club, 1962), www.yosemite.ca.us/library/matthes/devils_postpile.html.
20. C. A. Harwell, "Memorandum for the Superintendent," October 7, 1935, Devils Postpile, Central Files 1915–1953, Acc. 5121, YNPA.

21. Quoted in Barry Mackintosh, *Interpretation in the National Park Service: A Historical Perspective* (Washington, DC.: History Division, National Park Service, Department of the Interior, 1986), chap. 1, www.cr.nps.gov/history/online_books/mackintosh2/origins_before_nps.htm.
22. Mackintosh, *Interpretation*, chap. 1.
23. Thomson to Director, National Park Service, March 15, 1936, Devils Postpile, Central Files 1915–1953, Acc. 5121, YNPA.
24. Thomson by Acting Superintendent to Director, National Park Service, April 7, 1936, Devils Postpile, Central Files 1915–1953, Acc. 5121, YNPA.
25. A. E. Demaray, "Memorandum for All Field Offices," July 6, 1939, Devils Postpile, Central Files 1915–1953, Acc. 5121, YNPA.
26. Lawrence C. Merriam, "Memorandum for the Director," August 26, 1939, Devils Postpile, Central Files 1915–1953, Acc. 5121, YNPA.
27. A. E. Demaray to Lawrence C. Merriam, July 29, 1937, Devils Postpile, Central Files 1915–1953, Acc. 5121, YNPA.
28. Lawrence C. Merriam to Director, August 10, 1937, Devils Postpile, Central Files 1915–1953, Acc. 5121, YNPA.
29. E. C. Smith, "Memorandum for the File: Re: Devil Postpile Boundaries," May 14, 1941, Devils Postpile, Central Files 1915–1953, Acc. 5121, YNPA.
30. Lester M. Moe, "Memorandum for the Assistant to the Superintendent," June 20, 1941, Devils Postpile, Central Files 1915–1953, Acc. 5121, YNPA.

Chapter Eight

The War Years: Park Service and Forest Service Cooperation, 1941–1951

The Second World War imposed severe pressures on the National Park Service, in terms of both personnel and facilities. The CCC was disbanded to free its young men for military duty, where they were joined by large numbers of the Park Service's permanent and seasonal staff. The Service's budget dropped from $21 million in 1940 to $5 million in 1943, limiting what individual parks could accomplish for operations and maintenance. In addition, many park facilities were employed for military activities, while the Service's headquarters temporarily relocated to Chicago to free up office space in Washington, DC.[1]

The Forest Service Resumes Oversight

Even though Devils Postpile still operated with a staff of one, by 1943 this proved to be one too many for Yosemite to spare from its already-shorthanded ranger force. Superintendent Frank Kittredge had previously met with Sierra National Forest supervisor M. A. Benedict to discuss the operation of the monument in light of the wartime conditions. At the time, Benedict had indicated that the Forest Service would be willing to undertake the basic operation of the park if Yosemite could provide funding. Kittredge reminded him of this in July 1943, explaining that "this is a difficult year for us, as we know it is for you, on account of curtailment of funds and difficulty of obtaining men, and we shall be glad to take advantage of your courtesy in this matter." Assuming Benedict was still agreeable, Kittredge gave his authorization for the Forest Service to "go ahead with any road work, trail repair, clean up matters, handling of visitors, sanitation work, or any other work such as you would normally do in the surrounding areas." For its part, Yosemite would provide supplies for sanitation and other needs from its Tuolumne Meadows ranger station every two weeks.[2] Due to the Forest Service's own need for efficiency, the area surrounding the monument had earlier been transferred to the Inyo National Forest, and beginning on July 16, 1943, that organization became the face of Devils Postpile.

The Forest Service's return to overseeing the monument did not obligate it to deal with another round of questions concerning boundaries—that responsibility still remained with Yosemite. In March 1944, Assistant Regional Director Herbert Maier relayed an inquiry from an employee of the Pacific Gas and Electric Company concerning the location of Rainbow Falls, with Maier adding, "it is our understanding that the boundary was originally intended to include the falls and it may be that it is not definitely known at present whether the boundary as determined at that time was actually so located."[3] Superintendent Kittredge assured Maier that "there was no question following the official survey but that the fall is well within the boundary."[4] In the fall of the same year, Conrad Wirth, then the National Park Service Chief of Lands, contacted the regional director about a memorandum from Yosemite stating that the Postpile had an area of 798.46 acres, when the 1911 Proclamation described the area as 800 acres.[5]

Some weariness with this line of inquiry is evident in Assistant Superintendent John Wosky's memorandum for the regional director, in which he related the history of the two figures. He pointedly referred to the 1934 Cronyn survey, a letter from Superintendent Thomson

to the director in 1935 restating the correct acreage, and a second letter to the director in 1937 again explaining the situation in response to a question from Wirth.[6] As something of a postscript, Superintendent Kittredge reported in a 1945 Service-wide boundary survey that the area comprising the monument was satisfactory, but "if the Minarets country should ever be added to Yosemite National Park, it would be desirable to have this addition include the Devil Postpile, thereby consolidating this area with Yosemite."[7]

The informal agreement between Yosemite and Inyo National Forest remained in place until 1947, when the Park Service briefly resumed direct management of Devils Postpile. That year, the appearance of Seasonal Ranger Clifton Beatty, a high school teacher from Merced, California, and his wife signaled a return to the prewar pattern of one-ranger management.[8]

Beatty's assignment was short-lived. The continuing lack of Park Service funds following the war prompted a return to the partnership with the Forest Service in 1948 through a memorandum of agreement endorsed by the secretaries of Agriculture and the Interior. The language of the agreement echoed the arguments the Forest Service had made in 1933 against the transfer of Devils Postpile, declaring that, because the monument was surrounded by National Forest land, "it appears desirable and in the public interest that there be uniformity in the protection and administration of the Devil Postpile National Monument and the Sierra National Forest." While the Park Service would retain "basic jurisdiction," the Forest Service would "assume primary responsibility for the administration and protection" of the Postpile, and when funding was available, would "undertake the development, construction, maintenance, and administration of recreational facilities, roads, and trails of the area" subject to the approval of the Park Service.[9]

Shortly after the agreement went into effect, Acting Assistant Director Conrad Wirth suggested that a water right should be established for the area in and around the monument to provide for future water system developments, regardless of the initiating agency.[10] Acting Regional Director H. L. Crowley advised Yosemite superintendent Carl P. Russell that the region would not be acting on Wirth's proposal, as "routine procedure" called for park superintendents and regional foresters to establish water rights only after development plans were finalized and implemented.[11]

In October 1949, senior staff from Yosemite and the Forest Service Region Four office, led by Superintendent Russell, conducted an inspection of Devils Postpile to survey the results of the first season of management by Forest Service Recreational Assistant Lee J. Verret, based at Reds Meadow. Russell's primary concern was the campground, which he found clean and in good repair thanks to Verret's efforts. However, he expressed concern in a report to the regional director that the only water available for the twenty or so daily campers was drawn from the river downstream of three Forest Service campgrounds. Russell also agreed to explore Verret's suggestion for an interpretive display at the base of the Postpile formation, but indicated that Yosemite would not be able to supply any printed materials, despite a high level of visitor interest.

The Park Service group also found that a crew supervised by the Inyo National Forest chief of roads and trails was in the process of building a new road between Mammoth Lakes and Reds Meadow. To avoid the steep sections of the old road that terrified motorists, the new road took a wider sweep along the east slope of the canyon, approaching Agnew Meadows before turning south toward Devils Postpile and Reds Meadow. Russell observed that it was a tremendous improvement over the old road, and would undoubtedly lead to heavier travel into the area. Russell concluded the report with a note to Regional Director Owen Tomlinson summarizing

his opinions of Devils Postpile. The note revealed that the monument's status had become a subject for debate in a Park Service of reduced means:

> Were it not for the disagreeable blowing of pumice dust which swirls about with every vigorous breeze through the canyon I would say that the Devils Postpile N.M. campground is superlative. As to the natural wonder preserved there I think that there can not be a question raised as to its unique nature. The original proponents were entirely right in bringing about the creation of the Natl. Monument. In this day of NPS poverty, however, it seems unlikely that we can get funds immediately with which to care for the area, but I think that it would be unwise to bring about a change in its status as a reservation.[12]

Shortly after Russell's inspection, a second group composed of photographer Ralph Anderson and park naturalists Robert McIntyre and Harry Parker arrived at the monument to scout locations for interpretive signs. Parker noted that the monument's entrance was clearly marked on the new road, but recommended that "a sign giving the main protective regulations should be posted there, since it is surrounded by Forest Service land and we have none of our own personnel to apprise visitors of the different rules governing National Park Service land."[13] The group located an "admirable site" for an interpretive sign at the base of the Postpile talus slope, and suggested two possible variations for content. Both contained the basic geological history as it was understood at the time, together with a record of the monument's founding and administration, but differed on which sections should be emphasized. They recorded the partially collapsed cabin near the Postpile and "agreed that a reconstruction of this cabin would make an ideal interpretive station since the location is near the chief feature of the monument, is easily accessible to the trail yet would not be conducive to congestion on the main trail. There is plenty of room for other facilities such a station would necessitate, e.g., quarters and restrooms, to be located out of sight."[14] The inspection team identified a site for a second sign near Rainbow Falls, at the first "logical spot" for visitors approaching from Reds Meadow.

Writing on behalf of the group, Parker discussed the potential for the improved access road to bring a different kind of visitor to the monument—one less experienced with the mountains and their hazards. This was a particular concern for areas around Rainbow Falls, and one that Parker speculated could have a significant impact on future development. As early as 1939, on-site managers reported on the precarious positions from which visitors sought to catch a glimpse of the falls. Seasonal Park Ranger John Spears had pointed out that "the best vantage points for seeing the rainbows are positively dangerous, especially for children."[15] Due to lack of funding, even ten years later no warning signs, safety railings, or retaining walls had been placed in the area.

Recreational Tourism in the Eastern Sierra

The challenges of managing Devils Postpile and providing a safe, enjoyable experience for visitors were compounded by the transformation of the Mammoth region and the Eastern Sierra into a recreational hinterland of the growing city of Los Angeles. When it was completed in the 1930s, Highway 395 eased access to the region for residents of the sprawling metropolis. Through the middle decades of the twentieth century, Southern California newspapers and periodicals carried frequent stories and advertisements depicting the fishing, hiking, camping, and skiing paradises accessible from the newly paved highway. In the early 1930s, the city of Los Angeles began operating a summer camp near Mammoth Lakes, and after World War II, ski resort developer Dave McCoy transformed Mammoth Mountain into a prime destination for Southern California skiers. Mammoth's summertime appeal also increased during this time with the area becoming a popular location for summer cabins and a hub in the development

Campers in the monument campground in 1940. (Photo: Lester Craig. Courtesy of Nancy Wirth)

A family on the original bridge over the San Joaquin River south of Soda Springs Meadow, 1939. (Photo: Lester Craig. Courtesy of Nancy Wirth)

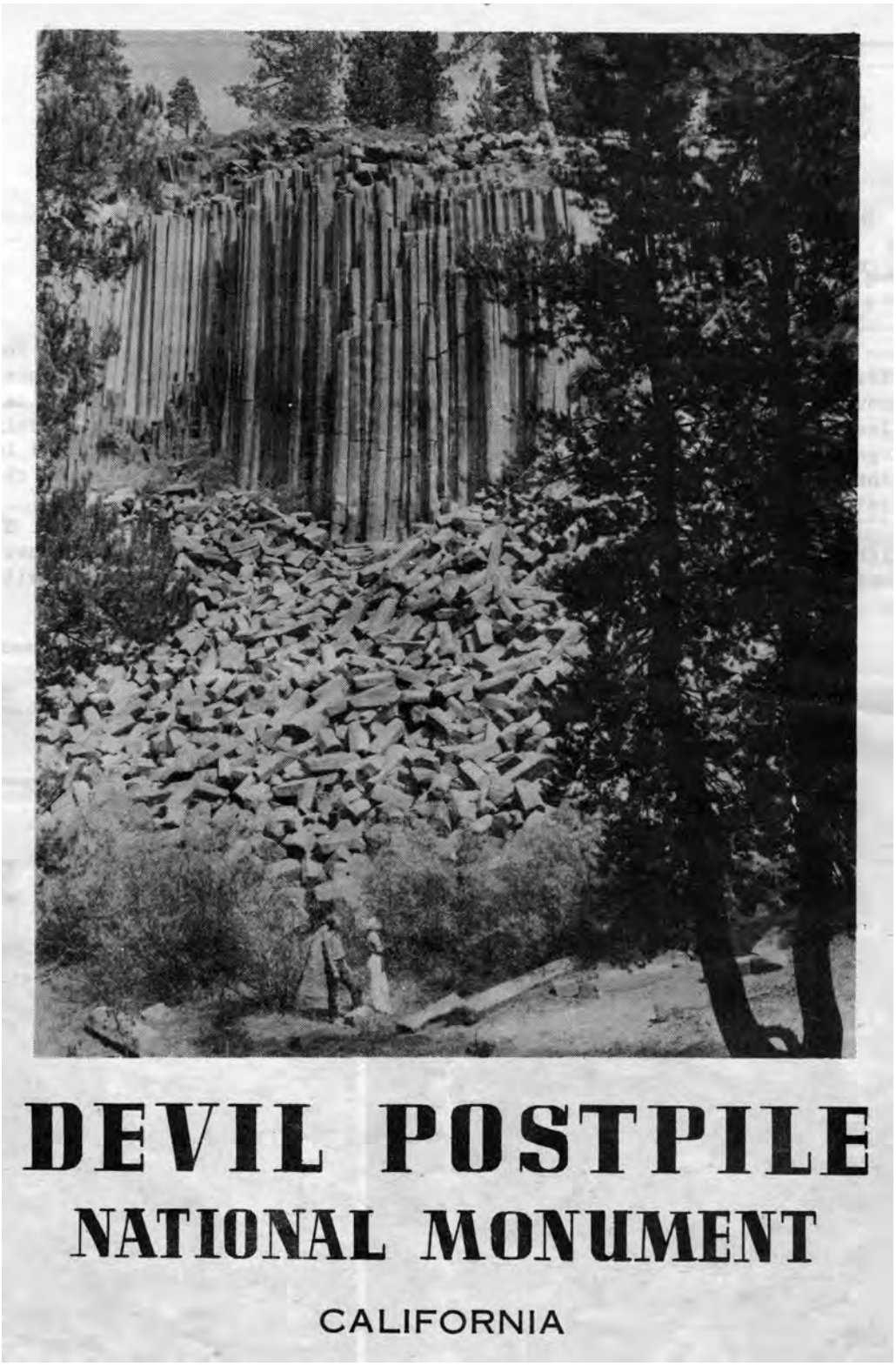
of the Sierra pack-stock industry. The area was also renowned for its trout fishing and served as a convenient access point to the peaks, passes, and alpine basins of the High Sierra via the road into the Middle Fork Valley.

As the numbers of visitors grew from a trickle to a steady stream after World War II, Yosemite naturalist Harry Parker expressed his opinion that Devils Postpile offered "a great opportunity for the National Park Service to tell an interesting story and to do a good public relations

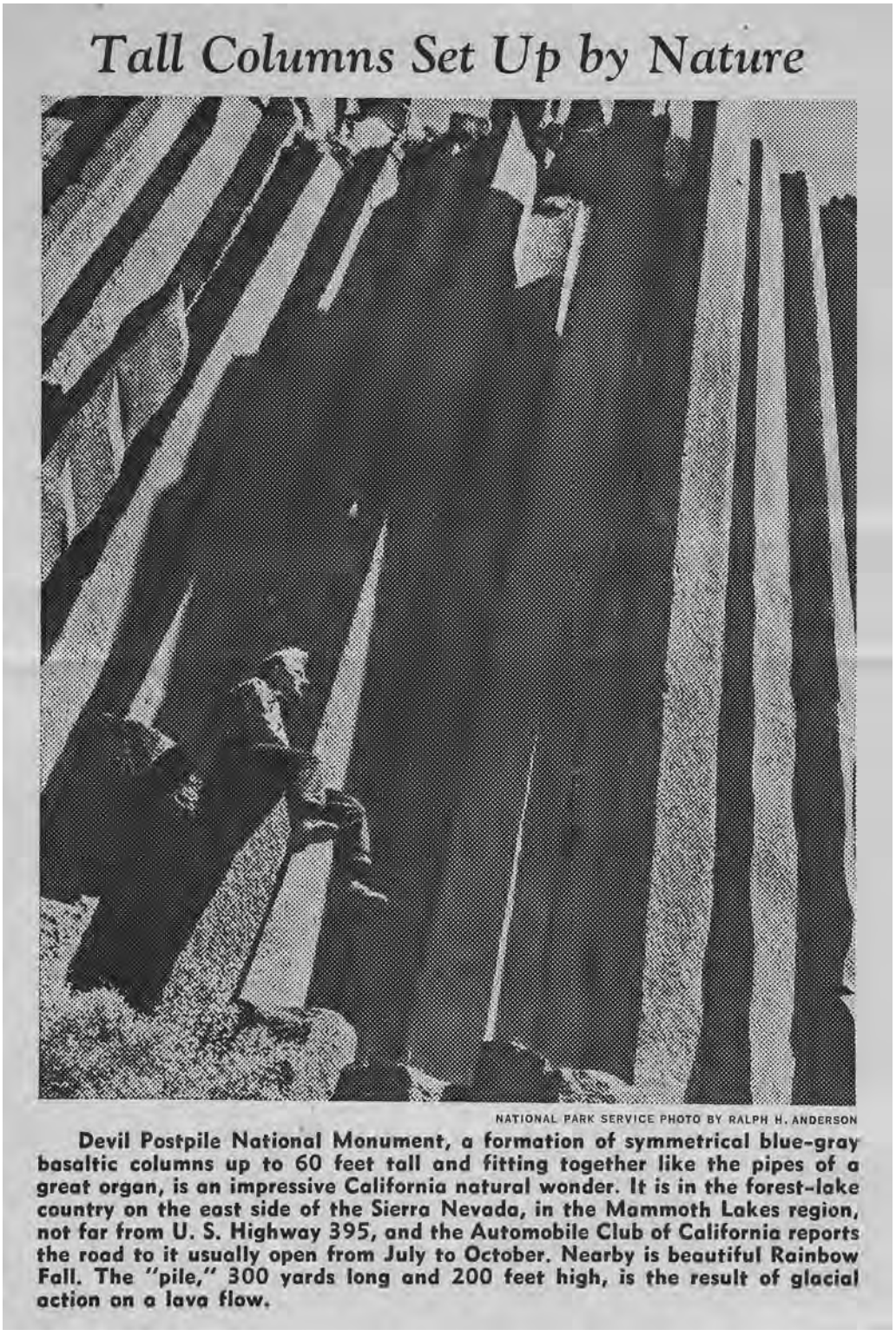
Backpackers in a meadow near Devils Postpile in the 1940s. (Photo: Lester Craig. Courtesy of Nancy Wirth)

job with the Forest Service as well as thousands of people on the 'East Side.'"[16] However, he regarded the prewar operating budget of approximately $850 as not enough to accomplish anything that would justify Yosemite's reclaiming full administrative duties. That would have to wait until the Park Service was in a position to institute a full program of protection and interpretation at the increasingly popular monument.[17]

Superintendent Russell took the opportunity of requesting funds for the interpretive signs at Devils Postpile to suggest that the regional director consider the monument as a possible site for a headquarters overseeing the Park Service's summer activities on the east side of the Sierra.[18] Owen Tomlinson replied that such a headquarters had been under consideration for a number of years, but indicated that while it required additional study, Thomas Vint's proposal for an office at Lone Pine or Bishop would have the advantage of serving Death Valley as well as Yosemite and Sequoia and Kings Canyon National Parks. He explained: "We do not feel it is advisable to assume the responsibility of the administration of this area at this time, since our ceilings and appropriations are so inadequate. It is our understanding that the Forest Service has been doing a very excellent job."[19]



1940 tourist brochure for Devils Postpile. (Courtesy of Yosemite National Park Archives, Museum, and Library)



Back cover of a 1941 tourist brochure. (National Archives and Records Administration, San Bruno)

Questioning National Monument Status

The Forest Service was managing Devils Postpile so well during this period that the Park Service was giving serious consideration to releasing the monument from its jurisdiction. In years prior, agency officials had even entertained proposals to rescind Devils Postpile's monument status altogether in order to return jurisdiction to the Forest Service. In 1947, the Department of the Interior issued a report recommending that the area be reclassified as Devils Postpile Recreation Area and placed under Forest Service management. The report minimized the monument's geologic significance, maintaining that while the Postpile constituted a "good example of exposed basaltic columns," it did not measure up "in size and grandeur to Devils Tower in Wyoming." The report also indicated that many visitors who came just to see the Postpile left disappointed, "because he has come with the impression that he will see something of skyscraper height and mountainous proportions, and because he has had to drive his car over a very rough mountain road to get there." Moreover, most of the visitors to the monument were there to fish, and were "not particularly interested in the monument's features." Surprisingly, the Sierra Club also minimized the scientific significance of the Postpile, even though club members had "a particular affection for the monument" due to its position as a jumping-off point for mountaineering expeditions into the Ritter Range.[20]

The lone voice for keeping Devils Postpile under Park Service jurisdiction and retaining monument status in this period was that of Yosemite superintendent Frank Kittredge. In October 1947, Kittredge urged that "the Monument now comprises some extremely important formations, geologically and scenically." He insisted that although the monument appeared to be "partially neglected" by Yosemite's administration, this was due to a shortage of funds and personnel, not a belief that Devils Postpile was unworthy of protection.[21]

By 1951, the question of what to do with the monument continued to hinge on the scientific value of the area. Veteran Park Service naturalist and regional chief of interpretation Dorr Yeager was asked to inspect Devils Postpile near the end of the 1951 season to provide an assessment of its significance.[22] In his report, he concluded that the Postpile formation was "unique among geologic phenomena of this country" due to the "small-size and clean cut cleavage of the columns" and the glacial polish evident on the top of the formation. He also determined that Rainbow Falls, though not as spectacular as the falls in the Yosemite Valley, was "a beautiful falls and should . . . be retained in the monument."[23]

Changing visitor use patterns in this period also influenced Yeager's recommendation that the Park Service retain jurisdiction. The "great expansion of tourist visitation" following the war had filled Mammoth Lakes resorts to capacity. Many of these visitors were also trickling over Minaret Summit into the Middle Fork Valley via the improved road to take advantage of the area's rustic campgrounds, hiking and pack-stock trip possibilities, and excellent fishing. The presence of a national monument, particularly one with such an intriguing name, also drew tourists. Forest Service ranger Lee Verret told Yeager that during his routine cleanups of the area, he always found from two to twelve visitors at the Postpile. Most visitors were there for recreation but many others had come expressly to see the formation. Verret, Yeager reported, was "most emphatic that we should have a man on duty during the tourist season to answer questions and to interpret the area."[24]

Notes

1. Barry Mackintosh, "Parks and People: Preserving Our Past for the Future," in *National Park Service: The First 75 Years*, ed. William H. Sontag (Philadelphia: Eastern National Park & Monument Association, 1990), Section 5, "Revising the Mission," www.cr.nps.gov/history/online_books/sontag/sontag5.htm.

2. Frank A. Kittredge to M. A. Benedict, July 6, 1943, Devils Postpile, Central Files 1915–1953, Acc. 5121, YNPA.
3. Herbert Maier to Superintendent, Yosemite National Park, March 6, 1944, RG 79 Records of the National Park Service, Western Region, Regional Director, San Francisco CA, Central Decimal Site Files 1932–53, Devils Postpile 204 to 732, 9NS–S Acc. 079–89–001, Box 17, National Archives and Records Administration, San Bruno CA (hereafter, "National Archives, Box 17").
4. Frank A. Kittredge to Regional Director, Region Four, March 14, 1944, National Archives, Box 17.
5. Conrad Wirth to Regional Director, Region Four, September 9, 1944, National Archives, Box 17.
6. John B. Wosky to Regional Director, Region 4, September 19, 1944, National Archives, Box 17.
7. F. A. Kittredge, "Boundary Status Report," March 19, 1945, National Archives, Box 17.
8. Shirley Sargent, *Protecting Paradise: Yosemite Rangers 1898–1960* (Yosemite: Ponderosa Press, 1998), 126. Edith Beatty related that her husband's duties occasionally included driving visitors, in their own cars, back to Minaret Summit when they proved unwilling to face the precarious access road a second time.
9. "Memorandum of Agreement between the National Park Service, Department of the Interior, and the US Forest Service, Department of Agriculture, Relating to the Administration of the Devil Postpile National Monument," September 15, 1948, I-6-14 & I-6-15, *Compilation of Cooperative Agreements*, Manuscript Collection, SKCNPA.
10. Conrad Wirth to Regional Director, Region Four, November 2, 1948, National Archives, Box 17.
11. Regional Director to Superintendent, Yosemite, November 12, 1948, National Archives, Box 17.
12. Carl P. Russell to Regional Director, Region Four [Major Tomlinson], October 12, 1949, National Archives, Box 17.
13. Associate Park Naturalist [Harry C. Parker] to Superintendent [Carl P. Russell], November 10, 1949, National Archives, Box 17.
14. Ibid.
15. John S. Spears, "Special Report on Devil Postpile September 1939," September 11, 1939, Devils Postpile, Central Files 1915–1953, Acc. 5121, YNPA.
16. Parker to Russell, November 10, 1949.
17. Ibid.
18. Russell to Regional Director, Region Four, November 15, 1949, National Archives, Box 17.
19. O. A. Tomlinson to Superintendent, Yosemite. February 7, 1950, National Archives, Box 17.
20. "Memorandum for the Regional Director, Region Four," October 27, 1947, Cultural Resources Folder, Devils Postpile National Monument, Superintendent's Office.
21. Frank A. Kittredge, "Memorandum for the Regional Director, Region Four," October 2, 1947, Cultural Resources Folder, Devils Postpile National Monument, Superintendent's Office.
22. Herbert Maier to Superintendent, Sequoia and Kings Canyon, August 17, 1951, National Archives, Box 17. "Confidential" was written across the top of the memorandum.
23. Dorr Yeager, Regional Naturalist, to Regional Director, re: "Inspection of Devils Postpile National Monument," September 17, 1951, Cultural Resources Folder, Devils Postpile National Monument, Superintendent's Office.
24. Ibid.

Chapter Nine

Reclaiming the Monument: Development, Interpretation, and "Mutual Cooperation" under Yosemite, 1952–1953

On January 3, 1952, Regional Director Merriam and Director of Lands B. F. Manbey met with Forest Service officials Hendee and Barnum to negotiate the terms of Devils Postpile's return to Park Service management. Merriam and Manbey reiterated the Park Service's position that the area's scientific value warranted its national monument status. They also stressed their renewed commitment to the monument, stating that "we now felt we could no longer neglect our responsibility over the area, and particularly the interpretive presentation to its visitors, amounting to a good many thousand visitors in normal years." Merriam and Manbey expressed gratitude to the Forest Service for its "splendid cooperation and willing assistance" during the war years. Yet while they indicated their "duty to relieve the Forest Service of the main responsibility," they also acknowledged that the Park Service would continue to require "partial aid from [Forest Service] personnel." Since it was difficult to anticipate the precise details of a "program of mutual cooperation," officials from both services agreed to make arrangements as necessary through a memorandum of understanding at the regional level.[1]

While administrators were clearly committed to reestablishing a Park Service presence, it soon became evident that Yosemite, as in years prior, could commit only a bare minimum of funds and manpower to the monument. Chief Ranger Oscar A. Sedergren's breakdown of costs for the first period of management (from July 16 to the end of the fiscal year on June 30) included a $250 salary for a ranger and a ranger naturalist; $550 for a tent frame, mattress, and other living essentials for the second man; $200 for twenty garbage cans; $200 for sanitation supplies; and $40 for a rental car. The total expenditure of $1,240 included no funds for trail maintenance, tools, campground supplies, firefighting, visitor safety, sign construction, law enforcement, search and rescue, or unanticipated costs. Those kinds of expenditures would have to be requested separately based on specific needs.

Several needs had been apparent since the 1930s, and Sedergren acknowledged some of these, stressing that additional funding would be required to replace the campground's pit toilets and picnic tables. Additional proposals had already been submitted for repairs to the ranger's cabin, which had been built in 1942 from salvage wood, and the development of a new water supply for the campground. Sedergren also suggested that road repairs could be handled by the Forest Service, which could then bill Yosemite. However, these projects remained hypothetical, and were projected for subsequent fiscal years. While the Park Service was committed to interpretation and visitor contacts, the more labor- and cost-intensive aspects of administering the monument would depend on continued good relations with the Forest Service, which maintained a stronger presence in the Mammoth area and the Eastern Sierra at that time.[2]

Development and the First Season under Yosemite

On April 29, 1952, Secretary of the Interior Dale E. Doty formally announced Devils Postpile's return to Yosemite.[3] On July 1, Ranger Earl Homuth opened the Devils Postpile station. In the first ten days, Homuth dug out the snow remaining on the entrance road, helped Yosemite engineers install a large interpretive sign at the Postpile, placed wood planks across a bog on

the trail to the Postpile, repaired a railing on the bridge across the river, fixed tables in the campground, straightened toilets, helped carpenters set up the tent to be used by the ranger naturalist, and made arrangements with Forest Service ranger Verret to repair a pipe at the Reds Meadow hot spring.[4]

On July 11, Ranger Naturalist Richard J. Hartesveldt arrived to assist Homuth with preparations. Homuth and Hartesveldt—with help from Assistant Chief Ranger Duane Jacobs and District Ranger Walt Gammill—cut firewood, constructed an amphitheater for campfire talks, and laid out the trail to the Postpile. Homuth also borrowed trash cans from the Forest Service and assisted Verret with repairs to the Reds Meadow bath house and the Forest Service entrance road.[5]

Development and maintenance became the overriding concerns for managers assigned to Devils Postpile during the first seasons, with the need for facilities improvement clear from the start. Not all of these improvements were required simply to meet basic visitor needs; many were proposed as a way to encourage and accommodate increasing visitation. In his August 8 summary of recommendations for development, Ranger Homuth echoed the long-standing Park Service tenet that development would lead to an "increase in the number of campers and visitors," which would in turn justify the agency's presence and elevate its capacity for protecting and interpreting the resource.[6]

Homuth's specific recommendations became the basis for much of Yosemite's administrative work at Devils Postpile over the ensuing years. While some of his suggestions were implemented quickly, others were never carried out due to cost. Homuth pointed out the need for several minor needs including proper signs, weather sheeting for the ranger's quarters, additional camp tables and toilets, and the construction of a trail to the top of the Postpile, which would allow visitors to view the glacial polish that constituted an important part of the formation's geologic significance. These relatively low-cost improvements could be accomplished with few man-hours, and were thus prioritized in funding requests during the subsequent fiscal year. By the end of the 1953 season, most of these improvements had been accomplished, although the need for a new water supply delayed installation of new toilets for several years.[7]

Homuth considered the establishment of a permanent water supply for the campground to be among the monument's most pressing needs. Increased use of the four Forest Service campgrounds upstream from the monument had created a "hazard of pollution," since campers tended to discard their dishwater, food waste, and sewage into the San Joaquin River, the only source of water for the Devils Postpile campground. Development of a new water source would also save rangers and campers the time and effort then required to carry river water to the campground in buckets. Homuth suggested that a spring on the west side of the river "be investigated with regard to volume and permanence." Ranger Hartesveldt made a brief inspection of the site during the 1952 season. He determined that "the flow was good at the time of the visit" but drew no conclusions "as to the best method of handling the water situation." Park Engineer E. C. Smith later recommended against the project, pointing out that the spring typically dried up late in the season. As an alternative, he suggested installing a gasoline engine to pump river water to the campground. In 1954, Homuth devised a temporary solution, recruiting a Boy Scout troop from West Covina to build a 962-foot pipeline from a shallow well near the river to the campground and ranger cabin.[8]

In his 1952 memorandum, Homuth also emphasized the importance of maintaining roads. Within the monument, he suggested oiling the parking area and the "plaza" near the entrance station. The forty to more than one hundred cars using these areas daily, he noted, stirred up "clouds of the pumice dust creating a very unpleasant condition."[9] He also recommended

grading the rough road running from Reds Meadow to Rainbow Falls, which would require additional parking facilities near the falls overlook, more pit toilets, the installation of safety railings, and the addition of picnic tables. While supportive of Homuth's other recommendations, Yosemite assistant superintendent Harthon L. Bill believed the road to Rainbow Falls "should remain impassable" until safety railings and other "satisfactory provisions for public safety and comfort" be installed there.[10]

Bill objected to the Rainbow Falls road not because he felt such development projects would be inappropriate but because he recognized that they would cost more than Yosemite's already limited budget could cover. In fact, by the time Homuth finished drafting his summary of development recommendations, he had already been recalled from Devils Postpile due to a shortage of funds, leaving Hartesveldt to handle both ranger and naturalist duties on his own. Bill made assurances that many of the minor improvements Homuth discussed could be undertaken using "rehabilitation funds" and Yosemite's road and trail allotment. However, most of the work, including the urgently needed water-source project, would have to wait for subsequent fiscal years. Bill could not even promise basic management funds for the rest of the first season. On August 12, he predicted that funds would "be exhausted" by the end of the month. And indeed, Bill was forced to terminate Hartesveldt's assignment after Labor Day, even though visitors continued to stream into the valley for several weeks after.[11]

Interpretation and Natural Resource Management

Early managers at Devils Postpile viewed improvements to roads and trails, campground facilities, picnic areas, and safety railings as complementary to the Park Service's broader preservationist agenda. Development, they believed, encouraged accessibility and ensured safety, allowing visitors to focus on the resource rather than the discomforts of being in a remote place with few modern conveniences. For Richard Hartesveldt, "a routine schedule of campfires, trailside contacts, and hikes or other contacts" could only be established "once the development plans are complete and the development work has been accomplished."[12]

In the early years, the Park Service saw no conflict in its mandate to both develop the parks for tourism and preserve them in a natural state. Preservation, for officials of Mather's and Albright's generation, typically meant the protection of scenery, not the maintenance of intact ecosystems. In large parks where grandiose scenery by itself was a sufficient draw, this way of thinking led to superficial and often ecologically harmful resource management policies including nonnative fish stocking, predator extermination, and fire suppression.[13]

Yet in national monuments like Devils Postpile, which were protected for their scientific interest rather than their recreational potential, on-site managers often sought to promote a deeper appreciation for the resource. Devils Postpile's scenery alone was not up to the standards required for national park status, but the monument's namesake formation and other features could still be interpreted in ways that lent them a broader intellectual interest. By interpreting the geologic, biological, and human stories that lay behind the area's scenery, the rangers and naturalists assigned to the monument in the early 1950s overcame funding shortages and affirmed Devils Postpile's national monument status. In the process, they helped inform a more expansive approach to resource management in the Park Service as a whole.

In his 1952 summary of development recommendation for Devils Postpile, Homuth suggested that the Park Service's primary contribution in the first month had been its ability to keep a ranger in attendance at the entrance station to greet visitors and explain the features of the monument. He pointed out that Ranger Verret's extensive district, coupled with

Ranger-led walk. (Devils Postpile National Monument image collection)

his responsibilities for four campgrounds and the hot spring bathhouse at Reds Meadow, had precluded him from giving "proper attention" to the monument. Visitor contacts and interpretive services proved necessary, since, as Homuth discovered, those "who came only to see the Postpile outnumber the campers." He also found that an "adverse reaction results when [visitors] find the area in effect abandoned."[14]

Mather and Albright had stressed visitor education from the beginning, even though Congress and concessionaires were slow to warm to the idea. Crucial to this focus was the presence of knowledgeable "ranger naturalists" who could enrich visitor appreciation of park features by explaining their natural significance. In 1925, Harold Bryant of the California Fish and Game Commission partnered with the Park Service to organize the Yosemite School of Field Natural History, and over the next three decades, the program prepared thousands of naturalists for work in parks and summer camps across the country.[15]

Devils Postpile benefited from Yosemite's emphasis on interpretation, as many of the monument's early rangers were products of the larger park's naturalist program. This included Richard Hartesveldt who stayed on as Devils Postpile's sole ranger after Earl Homuth's recall on August 1, 1952. Although Homuth's departure meant that interpretive programs had to be scaled back, Hartesveldt made the most of every opportunity to engage with visitors. He wrote text for several signs to be placed at various points within the monument. While some signs explained Park Service rules and regulations, others described the geologic significance and history of the area. The signs had a secondary function since many campers, hikers, hunters, and fishermen in the valley still did not know they were in a national monument. Hartesveldt also began holding two campfire talks each week, one at the newly constructed seventy-seat amphitheater in the monument and the other just outside of the Reds Meadow store, "a traditional place for campfires." These programs complemented his trailside contacts, generating a "very favorable" reaction among visitors, especially those who had been coming to the area for many years. "Having a ranger in the area," he wrote in his end-of-season report, "created a better feeling of civic pride among all visitors."[16]

While stationed at Devils Postpile, Hartesveldt drafted a comprehensive account of the area's geologic story. The essay appeared in the October 1952 edition of *Yosemite Nature Notes* (the publication of the Yosemite Natural History Association) and would become an important promotional tool for park managers in later years. After a brief synopsis of the monument's history, Hartesveldt gave a detailed assessment of Devils Postpile's geologic significance, emphasizing its qualities as "one of the best examples of columnar basalt exposed on the surface of the earth." He also described the features of the monument as clear examples of the successive waves of volcanic and glacial activity that shaped and continued to shape the Sierra Nevada [17]

Hartesveldt's clear explanation of the area's broader geologic significance inspired a more expansive view of the monument's other resources. Management priorities at Devils Postpile gradually began to reflect recognition that the area could be interpreted as a biological as well as a geologic boundary zone between the east and west slopes of the Sierra. To gather more information on how these connections might be played up in interpretive programs, Hartesveldt called on N. Howell of the California Academy of Science "to identify for us any plant specimens properly labeled as to locality and date of collecting." Howell in turn lent a copy of the Sierra Club's base camp flowering plant checklist that covered the general area surrounding Devils Postpile.[18]

As a side effect of this increased attention to natural resources, rangers began to express increased animosity toward the area's recreational users. In a 1953 report, Earl Homuth noted several threats to the Devils Postpile landscape stemming from heavy recreational use. Flower picking, grazing pack stock, and the impromptu trails that fishermen carved through the meadows along the river damaged vegetation and eroded the soft pumice that constituted one of the monument's distinctive features.[19]

However, increased scrutiny of the environmental impacts of recreation did not necessarily indicate an embrace of natural resource protection for the sake of sustaining the overall health of the ecosystem. As was the case in the Park Service generally in this period, managers at Devils Postpile considered ecological integrity to be valuable only insofar as it enhanced visitors' overall experience of the landscape. While rangers hoped visitors would come to appreciate the area's scientific significance, they also continued to cater to recreational demands. This was most evident in their continuing program of stocking nonnative rainbow trout in the Middle Fork San Joaquin River, which had become one of the most popular fishing destinations for visitors to the Eastern Sierra.

Park Service employees also continued to view fire as a great destroyer of scenery, as well as a threat to park structures and visitors. In the late 1940s, fire squads in Yosemite had devised a number of new strategies for detection, which actually increased the cost and manpower burden of fighting fires. According to historian Hal Rothman, with its new emphasis on technology to better detect both human- and lightning-caused fires, "the National Park Service found more fires that would have gone out on their own if no one had seen them."[20] Firefighting does not appear to have been a major preoccupation with park staff. However, during the 1953 season, Hartesveldt recorded nine-and-a-half hours of fire suppression work with the Forest Service. He helped extinguish a lightning-sparked blaze south of the monument near Fish Creek and a smaller fire along the Minaret Creek trail ignited from a discarded cigarette.[21]

Also during the 1952 season, at the urging of the Forest Service, Yosemite hired Forester Emil F. Ernst to assess and control a dendroctomus beetle infestation in the area's lodgepole forests. Like forest fires, the Park Service viewed insect infestations as blights on scenery and hazards to visitors. Trees killed by insect infestations were not only unsightly but also burned easily

and could topple over in a wind gust.[22] Although Ernst found "no apparent insect infestations of any great consequence," he strongly recommended removing thirteen potentially dangerous infested lodgepole pines near the campground. His reasoning was economic rather than ecological. "More than one of these trees are potentially the basis for a Federal Torts Claims Act claim," he warned, "which could entail losses far greater than the estimated cost of $200 involved in the felling of these hazards."[23]

Despite its limited commitment to ecology, the Park Service's emphasis on interpretation gave rise to a more critical assessment of the types of recreational activities and development projects appropriate in a national park setting. This was particularly true in the national monuments. As opposed to the great scenic parks where as archaeologist Dave King put it, "appreciation is conditioned by vision, and not necessarily knowledge," cultural and scientific monuments required a deeper level of understanding to fully appreciate.[24] Rangers assigned to Devils Postpile often felt they had to play up its scientific interest to justify its national monument status. On-site rangers through the 1950s continued to support fishing, pack-stock trips, and camping in and around the monument, primarily since curtailing these activities would create animosity with locals, longtime visitors, and the growing Eastern Sierra tourism industry. Seeds for later disputes were nevertheless planted in this period. From the perspective of Park Service rangers, the growing numbers of recreational users demonstrating little interest in the area's geologic story seemed out of place in a monument protected for more than simply its scenery and eager trout.

Cultural Resources and History

To add further depth to the park's interpretation program, Hartesveldt began to collect materials on the area's human history, which to that point had been "in a general state of confusion." Very little documentary evidence existed, and even some of the material held in the Yosemite museum was apparently incorrect. During his brief summer at the monument, Hartesveldt gathered historical information from local people, especially longtime Forest Ranger Doug Robinson, and compiled this information into a historical essay on the Devils Postpile area and its colorful early inhabitants. The article appeared in the January 1954 edition of *Nature Notes*, and remains to this day the most thorough account of the area's early history.[25]

During this period, historical interpretation was generally reserved for archeological sites, battlefields, and other specifically cultural monuments, and was not typically stressed at natural parks. Hartesveldt looked beyond these distinctions, recognizing that Devils Postpile, though a natural park, had a rich history "preserved in the memories of men who worked in or visited the valley of the Middle Fork of the San Joaquin River many years ago, and who recall some of the history that has been passed down by word of mouth."[26] His effort to preserve and interpret these recollections allowed visitors to appreciate the layers of human stories beneath the geologic story that had been the original reason for the creation of the monument.

Mutual Cooperation with the Forest Service

The commitment to scientific and historical interpretation enabled on-site managers to carve out a place for the Park Service within an area primarily under Forest Service administration. At the same time, the Park Service continued to lean on Inyo National Forest personnel for aid in administrative duties involving maintenance and basic visitor services. On September 3, 1952, Yosemite's then acting superintendent Harthon L. Bill, outlined what he saw as the appropriate roles of the Park Service and Forest Service in the administration of Devils

The partially collapsed Postpile cabin, 1949. (From an NPS inspection report, Devils Postpile National Monument image collection)

The cabin after its collapse in 1954. (Devils Postpile National Monument image collection)

Postpile. Bill's letter was based on the ongoing exchange of correspondence between the two agencies, becoming the de facto memorandum of understanding discussed prior to the transfer of management duties.[27]

First, Bill specified that prior firefighting and search-and-rescue arrangements would continue. While each agency would be responsible for the areas within their respective boundaries, they would cooperate when needed "irrespective of boundary lines."[28] An incident the week before

had confirmed the need for cooperation. On August 27, Harold Bothwell of Palos Verdes, California, reported his son missing. That night, Hartesveldt and Verret led search parties down the San Joaquin River and up King Creek to no avail. The next day, with aid from the US Air Force, a Forest Service search party located the boy's drowned body one tenth of a mile south of the monument boundary. Despite its tragic conclusion, the search set a precedent for future search-and-rescue operations, which officials in both agencies recognized would only become more frequent as visitation to the area increased.[29]

Bill's letter also covered more mundane duties, indicating that the Park Service would be responsible for garbage clean up and sanitation within the monument. The monument staff would, however, require access to the existing Forest Service garbage pit, the maintenance of which would "be shared proportionally for the time being." This obligation proved difficult to meet through the first several seasons, as the single on-site ranger's responsibilities for visitor contacts left little time for anything other than routine maintenance.

Time, manpower, and cost concerns led some officials to suggest that the campground be closed and the monument be managed for day use only. In October 1952, Acting Regional Director Herbert Maier cited the smallness of the area as the reason for curtailing camping, though easing the administrative burden of campground maintenance appeared to be his primary rationale. Maier reasoned that the Forest Service, which was "taking care of camping in good shape," could accommodate the campers presently staying in the monument.[30] Yosemite chief ranger Sedergren remained skeptical, noting that closing the campground might anger some local people who were already suspicious of Park Service intentions in the area.[31] Assistant Regional Director Sanford Hall concurred, determining that "no action be taken at this time." Hall nevertheless suggested keeping the recommendation in mind, "as it would seem desirable that we view the development within our area and that of the adjoining Forest Service areas as an overall picture." The Park Service could consider closing the campground if at some future time "the Forest Service facilities are sufficient to take care of the public needs."[32]

The Park Service also relied on the Forest Service to man the Devils Postpile station when the assigned ranger could not be there. Bill described this arrangement as mutual and necessary "for emergencies."[33] Yet by the second season of Park Service management, it became clear that the Forest Service would bear the greater responsibility. In particular, the Park Service would require assistance during the assigned ranger's mandated two days off per week. Homuth suggested that a support ranger could be spared from Tuolumne Meadows, but the expense and time required for this trip to be made twice a week made the idea impractical.[34] The issue remained unresolved, and the monument was left unmanned for most of Homuth's days off during the 1953 season.

Another issue arose regarding the seasonality of the monument. Yosemite could commit to stationing a ranger at the monument from mid-June through the first week of September. The problem with this schedule became apparent in April 1953 when District Ranger Sweatt wrote to Yosemite superintendent John Preston indicating his plans to open the road to Reds Meadow on May 1 to "carry on some insect control work."[35] Preston responded apologetically, stating that the opening date was "considerably earlier than we had expected." Tioga Pass, the only reasonable travel route from Yosemite to the Eastern Sierra, was not expected to be snow-free until mid-May and Yosemite had no funds for a ranger at Devils Postpile until at least June 15. Ultimately, the problem never materialized, as the amount of snow on the valley floor proved deeper than expected, and the road was not opened until June 9. Still, the Park Service had no contingency plan for early openings in subsequent years.

The Forest Service also typically kept the road open beyond the first week of September to accommodate hunters who used the valley in the fall. In 1952, following Hartesveldt's termination after Labor Day due to a shortage of funds, Chief Ranger Oscar Sedergren made a verbal agreement with the Inyo National Forest that Verret would "go into the monument occasionally and pick up the garbage."[36] The following year, Superintendent Preston determined that Yosemite would have to share the cost of caring for the monument during the hunting season. Preston promised one period of pay for the ranger stationed at Reds Meadow to "spend a part of his time at the monument performing such sanitation and protection work as the needs require."[37]

For the most part, Forest Service officials welcomed cooperation with the Park Service, expressing willingness to provide aid when needed. The only point of contention involved the maintenance of the access road from Minaret Summit. In his September 1952 memorandum of understanding, Bill requested Forest Service aid in the repair and maintenance of the Minaret Summit access road. Work on the short monument entrance road, he assumed, would "be accomplished by the Forest Service . . . on a reimbursable basis" at the same time maintenance was being conducted on the rest of the road.[38] However, the condition of the entire road, not just the portion within the monument, was clearly an issue for the Park Service. According to Homuth, the poor state of the road had caused visitation during the 1952 season to remain at 50 percent of what would be expected.[39] Some tourists who had come down the road before it was temporarily repaired in mid-August told rangers that "they never would have come if they had known what they were in for."[40] Since the continued presence of a Park Service ranger at Devils Postpile hinged on a substantial flow of tourists, the agency had much at stake in the maintenance of the entire road.

Responsibility for the Minaret Summit road ultimately fell to Madera County, though the only access to the area came from Mammoth Lakes in Mono County to the east. Forest Service officials frequently pushed the issue, offering to mediate arrangements between the two counties for much needed repairs. However, both counties were reluctant to spare funds and equipment for roadwork in this out-of-the-way place. The Park Service's assumption that the Forest Service would maintain the stretch of road within the monument added yet another complication. On February 2, 1953, Forest Supervisor Eldon Ball wrote to Preston explaining the situation: "We have very little road equipment on the forest and seldom maintain the Red's Meadow road with our own equipment. We sometimes have Mono County run their grader over the road and sometimes hire other equipment with supervision by our own men." Ball also noted the difficulties of maintaining the road "to proper standards" due to the soft pumice that tended to erode or blow away as dust soon after grading. He expressed a willingness to cooperate but suggested that Park Service officials take it upon themselves to "authorize and supervise the job when the equipment arrives."[41]

Continued visitor complaints about the condition of the road led Park Service officials to consider negotiating with Madera and Mono Counties and the Forest Service for a long-term maintenance agreement. In August 1953, Homuth suggested that Madera County apply for funding from the state of California under the 1947 Collier-Burns Act, which had raised gasoline and car registration taxes in order to expand the state's road system. An arrangement could then be drawn up authorizing Mono County to maintain the road using the state funds allocated to Madera County.[42]

Despite Forest Service support, Homuth's proposal remained on hold as communities on both sides of the Sierra debated a proposed trans-Sierra highway to connect Mammoth Lakes to Fresno by way of the Middle Fork Valley. If built, the road would have solved the problem,

but it would also have brought significant long-term economic and environmental changes to the Mammoth area and the Middle Fork Valley, including Devils Postpile. In the meantime, the narrow, dusty, and rutted access road remained a nagging problem that threatened to undermine the otherwise cordial arrangement between the Park Service and the Forest Service in the day-to-day administration of the monument.

Community Relations and Promotional Efforts

Relations with the local community were as important to Devils Postpile's management as cooperation with the Forest Service. Public relations and promotion had been concerns of the Park Service from its inception. In 1918, Secretary of Interior Franklin K. Lane urged the fledgling Service to "diligently extend and use the splendid cooperation developed . . . among chambers of commerce, tourist bureaus, and automobile highway associations, for the purpose of spreading information about our national parks and facilitating their use and enjoyment."[43] Park Service director Stephen Mather took this to heart, enthusiastically pushing the parks as sources of national pride as well as engines of economic growth through tourism. Mather's promotional skills and ability to link the preservation of the nation's natural wonders to American identity captured the mood of the nation during the early twentieth century and, as a result, elevated the status of the Park Service among urban elites and other influential segments of the population relatively quickly.

Gaining the support of local communities, which often relied on access to the resources protected within newly created parks for their livelihoods, proved more difficult. Local resistance was not just economically motivated. By the 1920s, many rural communities had already accepted tourism as an economic strategy to supplement or replace declining resource extraction activities. For many residents of rural areas adjacent to new parks, the arrival of the Park Service was symptomatic of a disruptive change in their community stemming from this dependence on tourism.[44]

For rangers at Devils Postpile, community outreach meant visiting tour operators, lodge owners, and summer camps in the region in order to bring attention to the monument and dispel fears about the agency's intentions. Some local businesses in Mammoth Lakes were initially hesitant about the Park Service's return to the area. In his end-of-season report for 1952, Hartesveldt stressed the importance of community relations as a means "to relieve a general fear of the National Park Service among residents." Apparently, the rumor that the Park Service was "preparing to 'take over' Mammoth Lakes" had been revived. In addition to raising general suspicion, the rumor also convinced several resort operators to hold off on repairs to their establishments because "they didn't want to spend the money if the Park Service was going to take over."[45]

In late June 1953, Homuth began visiting tourist businesses in the Mammoth Lakes area to emphasize the Park Service's role in providing interpretive services and recreational opportunities. On June 29, Homuth spent the entire day in Mammoth Lakes visiting eight lodges, one club, one tavern, one studio, and Camp High Sierra run by the Los Angeles Recreation and Parks Department. He received a "very enthusiastic welcome" from all but one of the contacts, the Crystal Crags Lodge, which he believed to be "the source of the rumor that the Park Service is expanding into Mammoth Lakes." The owners of the other establishments assured Homuth that they would advise their guests to include Devils Postpile on their itineraries. The visit to Camp High Sierra was particularly successful. After being treated to lunch, Homuth arranged with the camp manager to "meet a caravan from this Camp at the Station each Wednesday morning and conduct a group to the Postpile and Rainbow

Hikers with ranger at the Devils Postpile flagpole, 1955. (Devils Postpile National Monument image collection)

Falls." The first group—comprising 30 cars and 120 people—arrived at Devils Postpile two days later, and "was accorded this service." Camp High Sierra continued to shuttle groups to Devils Postpile in subsequent years, becoming one of the monument's most valued interpretive contacts.[46]

Homuth also visited the Inyo National Forest headquarters and Chamber of Commerce in Bishop, an hour's drive south of Mammoth Lakes to distribute copies of Hartesveldt's 1952 *Nature Notes* article as promotional material to all these contacts. The secretary at the Bishop Chamber of Commerce then requested fifty more copies to hand out to tourists and business owners in the area. With the success of these initial "trial runs," Homuth determined to make similar visits to lodges and other contacts throughout the region each Monday. Over the next several weeks, Homuth canvassed the region from Rock Creek north to June Lake and Lee Vining, finding "cooperation with the Park Service . . . with no exceptions." The initial concerns over the agency's expansion had apparently been diffused.[47]

Dorothy Verret, wife of Forest Service ranger Lee Verret accompanied Homuth on most of these visits, and her presence smoothed relations further. This was due in part to her knowledge of the area, but she and her husband were also well-known and widely respected in the Mammoth region where they had spent the last twenty summers. By the 1950s, the Verrets were among the few residents to have witnessed the transformation of the mining and ranching outpost of Old Mammoth into the bustling resort town of Mammoth Lakes with its ski lifts and swarms of year-round tourists. Area business owners also had a certain comfort with the Forest Service due to the agency's long presence in the region and its laissez faire approach to commercial development. Verret's show of support for the Park Service indicated to Mammoth business owners that the Park Service would not significantly intervene in the growth of the region's recreation industry; the relative weakness of the Park Service in the region ensured that this would remain the case.

Notes

1. B. F. Manbey to Files re: "Future Administration of Devil Postpile National Monument," January 10, 1952, Cultural Resources Folder, Devils Postpile National Monument, Superintendent's Office.
2. Oscar A. Sedergren to Superintendent re: "Future Administration of Devils Postpile National Monument," March 4, 1952; and Lawrence C. Merriam to Superintendent, Yosemite, February 28, 1952, both in Cultural Resources Folder, Devils Postpile National Monument, Superintendent's Office. Sedergren also specified that firefighting and rescue arrangements previously in affect between the two services would continue. Sedergren to Superintendent, March 28, 1952, Cultural Resources Folder, Devils Postpile National Monument, Superintendent's Office.
3. Dale E. Doty to Charles F. Brannan, Secretary of Agriculture, April 29, 1952, Cultural Resources Folder, Devils Postpile National Monument, Superintendent's Office.
4. Earl U. Homuth to Chief Ranger, Yosemite National Park, "Report of Activities for the Period July 1 to July 10 1952," July 1952, Cultural Resources Folder, Devils Postpile National Monument, Superintendent's Office.
5. E. Homuth to Oscar Sedergren, July 12, 1952; and CPR (Carl P. Russell) to Mr. Sedergren, July 19, 1952, both in Cultural Resources Folder, Devils Postpile National Monument, Superintendent's Office.
6. Homuth to Chief Park Ranger, Yosemite, "Summary of Suggestion and Recommendations for the development of Devils Postpile National Monument," August 8, 1952, Cultural Resources Folder, Devils Postpile National Monument, Superintendent's Office.
7. Ibid.
8. Ranger, Devils Postpile National Mon. (Earl Homuth) to District Ranger Walt Gammill, Tuol. Mead. Dist., July 18, 1954, unaccessioned DEPO files, "DEPO Annual Reports," YNPA.
9. Homuth to Chief Park Ranger, Yosemite, "Summary of Suggestion and Recommendations for the Development of Devils Postpile National Monument," August 8, 1952, Cultural Resources Folder. Devils Postpile National Monument, Superintendent's Office.
10. Assistant Superintendent (Harthon L. Bill) to Superintendent, re: "Ranger Assignments, Devils Postpile National Monument," August 12, 1952, Cultural Resources Folder, Devils Postpile National Monument, Superintendent's Office.
11. Ibid.
12. Richard Hartesveldt to Chief Ranger, Yosemite National Park, "Recommendation and Comments on Devil Postpile National Monument," September 23, 1952, National Archives, Box 17.
13. See especially Sellars, *Preserving Nature in the National Parks*, chap. 3.
14. Homuth to Chief Park Ranger, Yosemite, "Summary of Suggestion and Recommendations for the development of Devils Postpile National Monument," August 8, 1952, Cultural Resources Folder, Devils Postpile National Monument.
15. Mackintosh, *Interpretation*, chaps. 1, 2.
16. Richard Hartesveldt to Chief Ranger, Yosemite National Park, "Recommendation and Comments on Devil Postpile National Monument," September 23, 1952, National Archives, Box 17.
17. Richard J. Hartesveldt, "The Geologic Story of the Devils Postpile," *Yosemite Nature Notes* 31, no. 10 (October 1952): 136.
18. Hartesveldt to Chief Ranger, "Recommendation and Comments on Devil Postpile National Monument"; and "Master Plan for Devils Postpile National Monument, Mission 66 Edition, Volume 1, Master Plan Narrative," July 5, 1962, 5, National Archives, Box 1.
19. Ranger, Devils Postpile National Monument (Earl Homuth) to Chief Ranger, Yosemite, September 10, 1953, National Archives, Box 8.
20. Hal K. Rothman, *Blazing Heritage: A History of Wildland Fire in the National Parks* (New York: Oxford University Press, 2007), 81.
21. Ranger, Devils Postpile National Monument, to Chief Ranger, Yosemite, "Summary Report of Activities at This Station for the Season, 1953," September 15, 1953, National Archives, Box 8.
22. Sellars, *Preserving Nature in the Natural Parks*, 83–84.

23. Forester Ernst to Superintendent, Yosemite, August 21, 1952, Cultural Resources Folder, Devils Postpile National Monument.
24. Quoted in Mackintosh, *Interpretation*, chap. 2.
25. Hartesveldt, "Historical Events at the Devils Postpile," 3–8.
26. Hartesveldt, "Historical Events at Devils Postpile," 3.
27. Harthon L. Bill to Eldon E. Ball, Forest Supervisor, September 3, 1952, Cultural Resources Folder, Devils Postpile National Monument, Superintendent's Office.
28. Ibid.
29. Richard Hartesveldt, Ranger-naturalist, Devils Postpile National Monument to Chief Ranger, Yosemite National Park, "Monthly Report for Month of August, 1952," September 3, 1952, Cultural Resources Folder, Devils Postpile National Monument. On August 13, Hartesveldt also had to drive a thirteen-year-old boy who had driven a large splinter from an arrow shaft into his finger to the hospital in Mammoth Lakes.
30. Acting Regional Director [Herbert Maier] to Superintendent Yosemite National Park, "Recommendations on Devils Postpile National Monument," October 17, 1952, National Archives, Box 17.
31. Acting Superintendent, Yosemite [Harthon L. Bill] to Regional Director Region Four, October 31, 1952, National Archives, Box 17.
32. Assistant Regional Director, Region Four [Stanford Hall] to Superintendent, Yosemite NP, November 7, 1952, National Archives, Box 17.
33. Bill to Ball, September 3, 1952.
34. Ranger, Devils Postpile National Monument [Earl Homuth] to Chief Ranger, Yosemite, September 10, 1953, National Archives, Box 17.
35. District Ranger B. S. Sweatt to John Preston, April 23, 1953, Cultural Resources Folder, Devils Postpile National Monument, Superintendent's Office.
36. Chief Park Ranger [Oscar Sedergren] to Superintendent, August 26, 1952, Cultural Resources Folder, Devils Postpile National Monument, Superintendent's Office.
37. John C. Preston, Superintendent, to Mr. Wilfred S. Davis, Supervisor, Inyo National Forest, August 31, 1953, Cultural Resources Folder, Devils Postpile National Monument, Superintendent's Office.
38. Bill to Ball, September 3, 1952.
39. Homuth to Chief Park Ranger, Yosemite, "Summary of Suggestion and Recommendations for the development of Devils Postpile National Monument," August 8, 1952, Cultural Resources Folder, Devils Postpile National Monument, Superintendent's Office.
40. Donald Edward McHenry, Park Naturalist, Naturalist Report, 1952, National Archives, Box 8.
41. Eldon E. Ball to Superintendent, Yosemite National Park, February 2, 1953, Cultural Resources Folder, Devils Postpile National Monument, Superintendent's Office.
42. Earl Homuth to Chief Ranger, Yosemite, August 3, 1953, National Archives, Box 17.
43. Franklin K. Lane to Stephen T. Mather, May 13, 1918, in *America's National Park System: The Critical Documents*, ed. Larry M. Dilsaver (Lanham, MD: Rowman & Littlefield Publishers, 1994), chap. 1, www.nps.gov/history/history/online_books/anps/anps_1j.htm.
44. Rothman, "A History of US National Parks and Economic Development," 52, 58–61.
45. Richard Hartesveldt to Chief Ranger, Yosemite National Park, "Recommendation and Comments on Devil Postpile National Monument," September 5, 1952, National Archives, Box 17.
46. Ranger, Devils Postpile National Monument [Earl Homuth] to Chief Ranger, Yosemite, July 6, 1953, National Archives, Box 8.
47. Ranger, Devils Postpile National Monument [Earl Homuth] to Chief Ranger, Yosemite, July 15, 1953, National Archives, Box 8.

Chapter Ten

A Neglected Stepchild: Mission 66 and the Trans-Sierra Highway Debate, 1954–1972

From the 1950s through the early 1970s, Devils Postpile remained something of a neglected stepchild of its parent organization, Yosemite National Park. This neglect was largely the result of Service-wide budget shortfalls, Devils Postpile's 126 road miles from Yosemite's center of administration on the west side of the Sierra, and the challenges of justifying expenditures on a small, seasonally operated subsidiary park surrounded by well-staffed Forest Service stations. Although on-site managers continued to make determined efforts to protect and interpret the monument's resources up to the standards of the national park system, lack of funding and minimal support from Yosemite made it increasingly difficult to respond to regional development plans and rapidly changing visitor use patterns.

Accommodating Visitation: Mission 66, Development, and Interpretation

The 1950s were a decade of readjustment for the National Park Service. The postwar economic recovery spurred a tremendous expansion of the American middle class, with higher wages, longer vacations, cheaper automobiles, and better roads allowing more Americans than ever to travel to their national parks and other public lands. The availability of lighter, more affordable camping gear—much of it available as Army surplus—also expanded opportunities for recreation, and made camping a viable vacation option for the growing numbers of young suburban families.

From 1944 to 1945, the year World War II ended, visits to the national park system leapt from approximately 5 million to almost 12 million, jumping again to 25.5 million in 1947. This trend continued into the 1950s, with visitation approaching 50 million by 1954.[1] Roads, lodgings, campgrounds, trails, and concessions not upgraded since the New Deal proved inadequate to accommodate this surge in tourism. With Congress sluggish in designating appropriations to the park system, conditions deteriorated further, prompting author Bernard DeVoto to declare that "the priceless heritage which the Service must safeguard for the United States is beginning to go to hell."[2]

The dramatic increase in visitation following World War II created a severe budget crisis for the entire national park system. The pressures of skyrocketing visitation were especially sharply felt in Yosemite—a factor that also affected the management of Devils Postpile. In 1944, Yosemite recorded less than 120,000 visits; one year later, the number jumped to more than 250,000, then to 641,767 by 1946. Visitation continued to rise over the next decade, exceeding the one million mark by 1954.[3]

Devils Postpile saw a similar increase. In 1938, the monument received approximately 6,000 visitors. In 1953, despite the degraded state of the road through much of the season, Hartesveldt recorded nearly 32,000 visits, a more than 500 percent increase.[4] The monument's growing appeal proved to be a double-edged sword. While increasing visitation elevated the prestige of Devils Postpile in the region and secured the Park Service's administrative authority, it also taxed the monument's aging infrastructure and overwhelmed its chronically shorthanded staff.

Mother and daughter at the Rainbow Falls viewpoint, 1955. (Devils Postpile National Monument image collection)

In 1956, the Park Service responded to the pressures of increasing visitation with Mission 66, a program to revitalize the parks by the agency's fiftieth anniversary in 1966. In advocating the program, Park Service director Wirth echoed the preservation-via-development mindset that had characterized the early years of the service. He described Mission 66 as necessary to bring the parks "up to a consistently high standard of preservation, staffing and physical development."[5] The ten-year program included plans for road and trail construction, modern visitor centers, campground facilities, utilities, employee housing, and other infrastructure projects. With the parks sufficiently developed, agency officials believed, greater attention could be paid to interpretation and resource protection.[6]

In 1956, Yosemite undertook a Mission 66 area management study to assess the nagging problems at Devils Postpile and provide recommendations for addressing them. The resulting report stressed the need for development projects that would aid in the display and interpretation of the monument's "nationally significant resources." These resources included the exposed and glacier-polished basalt columns of the Postpile, Rainbow Falls, the Middle Fork San Joaquin, the area's minor geologic features, and the surrounding forests and

meadows. The report also revived the earlier proposal to eliminate camping in the monument. The authors suggested that "since the major attractions can be seen in a matter of two or three hours," Devils Postpile should be "considered a day-use area only." Future development would revolve around picnicking and interpretation only.[7]

Other recommendations included a series of self-guided nature trails marked with "strategically located" interpretive signs; a clearly defined trail system that would "prevent damage to the area by channeling traffic"; safety railings at the Rainbow Falls overlook; a larger parking lot; a new water system; septic tanks for employee quarters and comfort stations; and portable electric generators to provide "power and light until commercial power become available"; a modern visitor center in the central parking lot; and two "duplex 'efficiency' units with service buildings" to be used for employee housing and storage. Finally, the authors recognized that staffing had been "wholly inadequate," and recommended hiring a supervisory park ranger to be stationed at Devils Postpile for six months of the year and at Yosemite during the off-season. A seasonal park ranger, ranger naturalist, and maintenance worker would also be required. The larger staff would allow for a greater emphasis on visitor contacts and interpretive services.[8]

The report estimated a total cost of $253,950 over a ten-year span for these development needs. Ultimately, however, no such lump sum was ever dedicated to Devils Postpile. Mission 66 provided a much-needed infusion of funds to Yosemite, but very little of this was set aside specifically for Devils Postpile. As in years prior, specific needs required specific requests for funding—a frustrating and time-consuming process for on-site rangers. As a result, most of the suggestions in the Mission 66 report continued to be put off. Yosemite eventually shipped a few new picnic tables and pit toilets, as well as a generator for the ranger cabin. Still, trails remained poorly signed and eroded, the parking lot continued to be dusty and crowded, especially on weekends, and with Madera County's continuing reluctance to maintain the entrance road, the loose pumice surface rapidly deteriorated under the tread of thousands of automobiles, forcing rangers to spend considerable time filling potholes and covering exposed roots. The plan to eliminate the campground was also never carried out. This was due in part to time and cost concerns, but also because the campground was immensely popular. To remove it would anger frequent visitors and stress the existing Forest Service facilities north of the monument.

Through the 1950s, on-site rangers often dedicated unpaid overtime, and sometimes their own money, to installing signs, rebuilding trails, stocking firewood, and maintaining the entrance road. Despite the recommendations of the Mission 66 report, Yosemite's administrators continued to believe that one ranger could handle all maintenance issues, sanitation, law enforcement, search-and-rescue operations, firefighting, and interpretation, even as visitation numbers mounted. In 1957, the on-site ranger recorded nearly 40,000 visits for the year. This included 230 cars, a "truck load of Y.M.C.A. boys," and 980 total people on July 4, "the highest single day numbers of visitors to the Monument so far recorded."[9]

As visitation increased, accidents became more frequent. On August 17, 1958, the monument ranger responded to a report that someone had fallen over a cliff and into the river south of lower Rainbow Falls, about a quarter mile outside the park boundary. A storm that caused the water level to rise during the night made the search nearly impossible. Despite the efforts of the ranger and Arch Mahan from Reds Meadow, the lost boy, an eight-year-old from Whittier California, was never found. Also during the 1958 season, the Devils Postpile ranger responded to a plane crash near Agnew Meadows and organized the rescue of a twenty-year-old man who had suffered a dislocated knee after falling from a cliff south of the Rainbow Falls overlook.[10]

Even with mounting safety concerns and persistent infrastructure problems, on-site rangers continued to prioritize interpretation, often by relying on the aid of Forest Service officials and

Reds Meadow employees. On July 6, 1957, monument staff partnered with Mahan and Verret to honor Devils Postpile's "Establishment Day." The event served to emphasize the monument's national significance and further integrate the Park Service into the regional recreation complex that had built up around Mammoth Lakes. Despite a "sharp thunderstorm" that inundated the area an hour before program time, eighty-seven campers showed up for a discussion of the establishment of the monument, an explanation of the area's geologic significance, and a general history of the national parks and monuments. The monument ranger also echoed the Forest Service's recreational agenda for the area, emphasizing "the need for preserving for recreation and related purposes such areas as remain, to meet the ever increasing need." Verret also spoke to the audience about Forest Service policies and the history of the area. Finally, the event was "interspersed with group singing" led by Dave Swain, a guitarist and packer employed at Reds Meadow.[11]

Such moments of cooperation, though, were not enough to prevent the deterioration of the monument's infrastructure under the weight of mounting visitation and heavy recreational use. In 1960, Yosemite finally acknowledged the staffing shortage noted in the Mission 66 report. On July 25, Yosemite sent Pete Taglio, a maintenance worker, to the Postpile for a month of work. His first project was to dig a new privy hole, which he lined with wood salvaged from "a broken down privy" he removed from the dump.[12] Taglio's primary assignment was to handle the sanitation duties previously taken care of by the ranger. Road maintenance, though, occupied nearly all of his time. Ranger Gene Cahoon described the trade-offs involved in keeping the road in shape:

> It is necessary for him to fill his truck by hand at the borrow pit and haul it about 2 miles. This road was in extremely bad shape when he started and now in spite of the very heavy travel—approximately 3,700 cars have been into the Postpile since he started working on it—it is in better condition than the county road which was bladed during the week of Aug. 7 to 13. However, because of the heavy use this road receives it can only be maintained by this method of constant work. It has not been possible to do any work on the trail to the Postpile yet because of the need for constant work on the road and the need for daily garbage pickups and privy servicing due to heavy camp use.[13]

Even with the additional pair of hands, it became increasingly difficult to maintain a high standard of service. In his report on the 1960 season, Cahoon listed several development needs, many of which had been appearing on inspection reports since the 1930s. Of the ten pit toilets in the monument, seven had warped doors, five had broken lids, and one had no lid at all. The roof of the ranger cabin leaked. Six "very old" picnic tables were in need of replacement. He also noted an urgent need for a picnic area with five to ten more tables. Cahoon also recommended enlarging the parking area. The existing lot could accommodate some 35 to 40 cars. On a typical day, however, 75 to 80 cars were present, and as many as 200 or more arrived on busy weekend days. He also suggested—as had nearly every manager preceding him—that oiling the parking area would help with the dust. Trails and signs were also in poor shape. Cahoon suggested placing signs and boundary markers in "cement too heavy to lift" to prevent them from being stolen or moved around. Apparently, the sign at the junction of the Reds Meadow store trail and the Postpile trail was "constantly being switched from one trail to the other," causing "a number of people to arrive at the wrong destination."[14]

In addition to interpretive duties, Cahoon coordinated bimonthly fish stocking with the California Department of Fish and Game. He also handled emergencies, which were becoming more frequent each summer. On August 20, he rushed to the Postpile cabin with a shovel and bucket to extinguish a fire ignited by a discarded cigarette. Though about three feet of

the lower plank on the west side of the cabin had burned by the time he arrived, no major damage resulted, and the cabin remained in "its normal dilapidated condition." Cahoon also responded to a number of reports of lost or unattended children during the season.[15]

Cahoon also noted a trend that would shape the future of Devils Postpile and the entire Mammoth Lakes region. He observed that while resort owners and merchants in Mammoth Lakes had been complaining about poor business during the 1960 season, Devils Postpile and the Middle Fork Valley had seen greater numbers of campers than ever before. Based on conversations with several visitors, Cahoon attributed this to the high prices charged at the resorts and the growing popularity of "pickup trucks with camper backs or small camping trailers." He also assumed that many of these new campers "might change their mind about camping" in subsequent years if the weather turned bad.[16]

In fact, this new visitation pattern reflected the rising popularity of camping and other more rustic forms of recreation in the nation as a whole. With the expansion of the Interstate Highway System, the availability of lighter, more affordable recreational technologies, and the rising influence of the wilderness and environmental movements, many Americans began to eschew the plush resort vacations preferred by elite travelers in earlier eras, preferring instead the rustic experience of camping out. Though of minor interest to Cahoon, this trend signified a major shift in the way Americans viewed outdoor recreation and Mission 66-style development at national parks and other public lands.

This trend also underlay the public's subsequent turn against the kinds of large-scale development projects the Park Service had pursued under Mission 66. Agency officials had envisioned the program as necessary to increase the interpretive capacity of the agency and guard against the degradation of landscapes and facilities caused by overcrowding. Yet the scale of many Mission 66 projects and their radically different modernist architecture generated intense controversy. The most substantive critiques of Mission 66 grew out of the postwar wilderness movement and reflected a widening divide between the Park Service and a new generation of conservationists over what national parks should be and who should have access to them. The debate over improvements to the Tioga Road through Yosemite's high country typified this growing conflict between development and wilderness in Park Service policy and prefaced later conflicts over the proposed trans-Sierra highway at Minaret Summit.

During the 1930s, the Park Service partnered with the Bureau of Roads to pave, widen, and straighten the existing dirt road over Tioga Pass to accommodate increasing numbers of automobile tourists. New Deal funds allowed for the completion of the two end sections of the road by 1938, but the 21-mile-long middle section was left incomplete due to the difficult terrain. The rationale for rebuilding the road meshed neatly with the overall aims of park planning in the prewar era: an improved road would make other development schemes unnecessary and would channel visitors along a single route, leaving the surrounding wilderness untouched. As late as 1947, the Yosemite Advisory Board—through which conservation groups like the Sierra Club could weigh in on park policies—supported plans to continue the project.[17]

Up to this point, the Sierra Club and the Park Service had shared a common strategy of encouraging visitation to Yosemite in order to build a larger constituency for conservation. By the late 1940s, some younger Sierra Club members had begun to object to the club's conciliatory stance toward development. Conditioned by two decades of hiking and rock climbing in the High Sierra and their encounters with the heavily developed Alps during World War II, David Brower, Richard Leonard, and other self-styled "Young Turks" took a hard-line stance toward so-called park "improvements," especially those involving road

construction. While older club members asked how the Tioga Road could be improved in an appropriate manner, this new contingent argued that the road should not be improved at all.[18]

The resulting fracture in one of the Park Service's oldest constituents turned on the issue of access. For club member Harold C. Bradley, the concerns were twofold: not only would the Tioga Road project damage some of the most scenic areas in the high country (it would require blasting portions of the granite benches along the shore of Tenaya Lake) but it would also grant easy access to one of the most treasured wilderness areas in the Sierra for "those who must have speed to be happy; those who are not sufficiently interested to invest the time and effort; those who require a house on wheels when they rough it; those who are timid, or incompetent and realize it." In Bradley's view, the presence of so many people unwilling "to pay the price in terms of effort and time" would destroy the very qualities that made the Yosemite high country wilderness.[19]

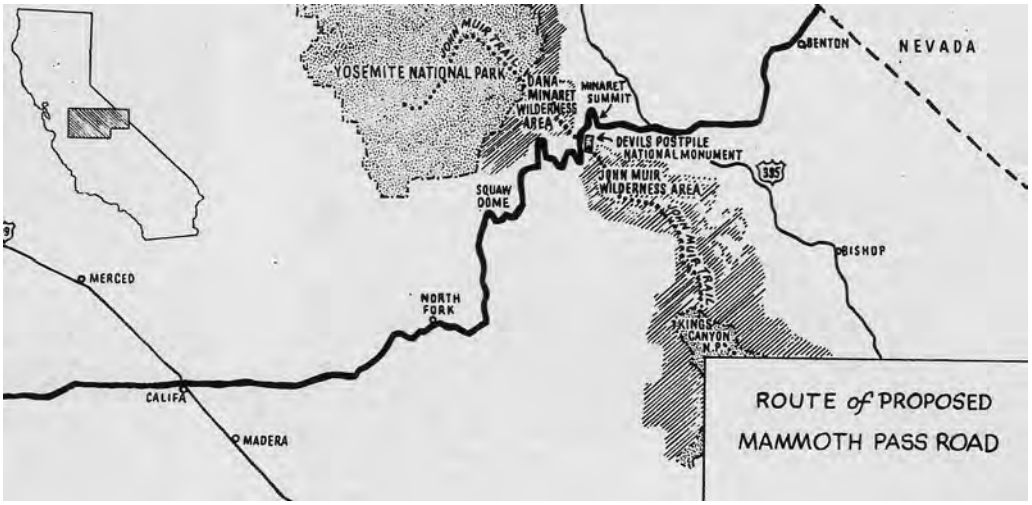
The Tioga Road project ultimately carried too much momentum to be stopped by these objections. Many older Sierra Club members also remained skeptical, expressing a legitimate concern that strict opposition to road building would expose the club to charges of elitism. Still, by 1951, the Young Turks had exerted enough influence to have the phrase "render accessible the mountains regions of the Pacific Coast" removed from the Sierra Club's mission statement and replaced with the stricter but more expansive aim to "preserve the Sierra Nevada and other scenic resources of the United States." By the time the Park Service pledged Mission 66 funds to complete the expansion of the Tioga Road, the Sierra Club had serious reservations about the priorities of its former ally in conservation.[20]

These tensions were not immediately apparent in Devils Postpile, but would in later years become central to its continued protection. As the Park Service at the national level struggled to respond to mounting critiques of Mission 66 and other development programs, smaller units of the park system, like Devils Postpile, became battlegrounds for regional interests over wilderness, appropriate recreation, and economic development. Between the mid-1950s and the early 1970s, however, Devils Postpile's administrators remained too preoccupied with the day-to-day challenges of dealing with staggering increases in visitation to take an active part in the conservation battles raging around them.

National Monument, Regional Politics: The Trans-Sierra Highway Debate

Today, the Sierra Nevada range remains a significant barrier for eastward travel out of California's Central Valley. No roads bisect the range for 270 miles between Walker Pass in the south and Tioga Pass to the north. This is as much a product of historical forces as physical geography. Beginning in the 1920s, several plans for highways to cross the central Sierra Nevada were proposed to the US Congress and the California state legislature. The fact that none were built reflects the rising strength and changing priorities of conservation in this period. From the 1950s through the early 1970s, Devils Postpile sat directly in the path of one of these proposed roads. Only through the efforts of a handful of conservationists and local business owners was the monument spared from becoming an exit off a high-speed all-weather highway.

In the 1930s, the Park Service—aided by the Sierra Club—successfully prevented two proposed roads that would have sliced through the scenic Kings River high country.[21] Following these defeats, road advocates turned their attention to the route of the old French Trail. The low elevation of Mammoth Pass had tempted business interests in the Central Valley for decades. When the High Sierra and Minarets primitive areas were created in 1931 to the west of the Middle Fork Valley, legislators purposefully left a 5-mile "gap" between the two



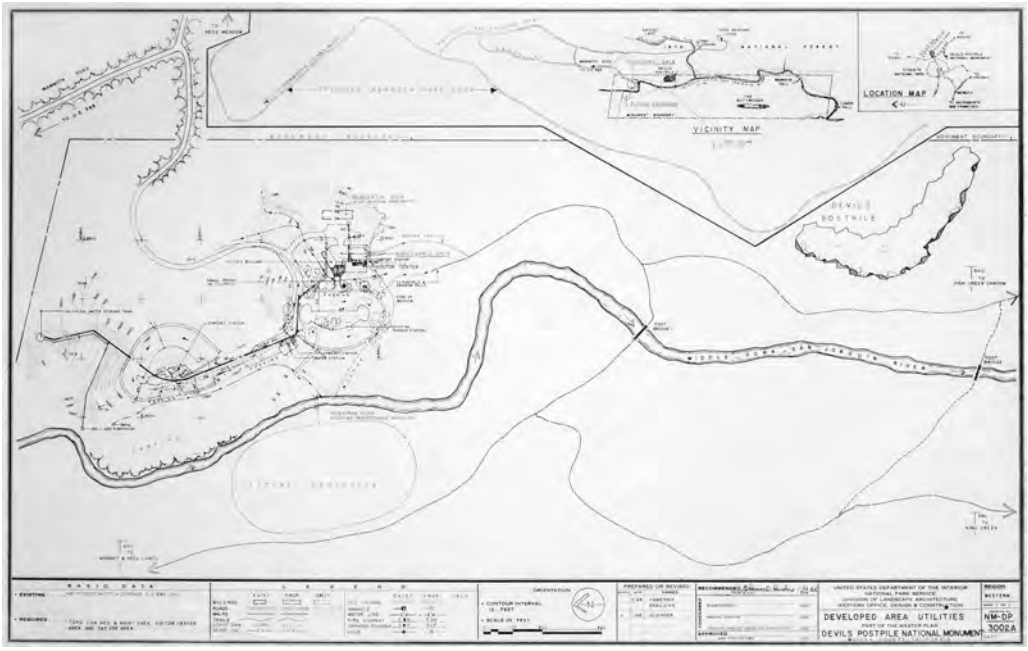
Map of the proposed Minaret Summit Highway, 1966. (Source: Sherwin, "The Mammoth Pass Road," 6)

to allow for a future highway. In 1940, a bill proposed to the US Congress for a trans-Sierra Highway over Mammoth Pass failed in committee. In the mid-1950s, the matter resurfaced when representatives from Fresno, Madera, and Merced Counties began lobbying for the road as necessary for reaching the "rich markets to the east." In 1957, the Bureau of Public Roads partnered with the Forest Service to complete a feasibility study. The resulting report concluded that such a road would be possible, and in 1962, plans for Forest Highway 100 became official.[22]

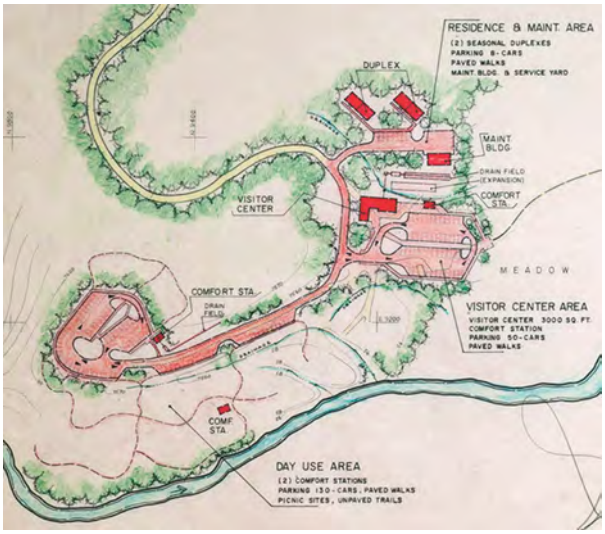
While perhaps possible from an engineering standpoint, construction of the highway would be difficult and expensive. The low elevation of Mammoth Pass masked the rugged country to the west. According to a 1966 feasibility study by California state highway engineer J. C. Womack, several large bridges would be needed to cross steep canyons, and snow-removal costs would likely exceed any other highway in the state. Based on this, Womack recommended that the neither state nor federal funds be allocated for such a difficult and cost-prohibitive project. State legislators, though, had little knowledge of this remote section of the High Sierra and continued to be swayed by the powerful Central Valley interests advocating for the road.[23]

The Park Service took no clear position on the trans-Sierra Highway issue through this period, even though the project would have tremendous impacts on Devils Postpile National Monument. In 1959, Director Wirth made no mention of the monument in his comments to the *Fresno Bee* in support of Forest Highway 100. He told reporters that a highway over Mammoth Pass or Minaret Summit would relieve some of the traffic pressure on the Tioga Road through Yosemite, and would thus fit with the priorities of the Park Service at the time. In later years, administrators at Yosemite and the regional office either ignored or were unaware of Womack's report, which specifically noted that highway construction along the steep western slope of the valley near Minaret Falls "could have a high possibility of lessening the natural scenic value of the area."[24] A later report also warned that "alignment easterly of the Devil's Postpile would, due to terrain, be so near the famous Postpile columns that heavy construction (blasting) could possibly cause damage to these columns."[25]

Yosemite officials were clearly aware of the increases in visitation that would result if the highway were built. This consideration underlay nearly every development proposal for the monument from the mid-1950s through the 1960s. The authors of the 1956 Mission 66 prospectus for Devils Postpile based their staffing recommendations on "anticipated future



Development plan, 1963. Note the location of the proposed Mammoth Pass road and the space reserved for expansion across the river opposite the campground. (Devils Postpile National Monument map collection)



Close-up of an alternate development plan, 1963. Note the 3,000-square-foot visitor center and the expanded parking areas. (Devils Postpile National Monument map collection)

increases which would be further increased by a proposed trans-Sierra highway making the area more readily accessible."[26] A 1962 master plan for Devils Postpile suggested that "should the proposed trans-Sierra access road be constructed, relocation and reconstruction of the present entrance and approach roads will be needed." The report's forecast of 100,000 visitors by 1970 was based in part on an assumption that either the highway would be built or the county road to the monument would be significantly improved.[27]

A revised master plan drafted in 1964 further stressed the anticipated increases in visitation. Based on plans being reviewed at the time, Devils Postpile would be connected to the highway by a "high standard paved" spur road. To accommodate increased traffic from the more heavily populated west side of the Sierra and to meet current needs, the report recommended an expanded parking lot large enough for 205 cars (the present lot had room for approximately 45). The narrow confines of the Middle Fork Valley, the authors noted, made "accessible land with topography suitable for development . . . extremely scarce." The only available space for expansion would be the west bank of the river opposite the existing campground. Both the campground and the area across the river would have to be cleared of vegetation and leveled to provide more parking spaces. The report also proposed a modern 3,000-square-foot visitor center with two attached "comfort stations" served by individual septic tanks and absorption trenches to accommodate the influx of day users. Finally, the master plan recommended construction of a 25-by-40-foot maintenance building and a four-unit apartment for seasonal employee housing.[28]

The Park Service remained a bystander in the actual debate over the road. Because the Minaret Summit Highway—as it came to be known—would not actually pass within Park Service boundaries, agency officials claimed they had no authority to take a position for or against the road. In August 1961, Associate Director Eivind T. Scoyen summed up the agency's position in a letter to Mammoth Lakes resident, author, and Sierra Club member Hal Roth: "We are well aware of the impressive and significant scenic and wilderness values contained in the Mammoth Pass area," Scoyen wrote. "This area, however, is under the jurisdiction of the U.S. Forest Service in the Department of Agriculture and since it is under their jurisdiction instead of ours, we have no authority with respect to its use or management."[29]

Agency employees were not all neutral on the issue. During summer 1958, newly minted Ranger Naturalist Stanley T. Albright, nephew of Park Service founder Horace Albright and a resident of Bishop, helped Genny Schumacher, Dorothy Fitzhugh, and other residents of the Mammoth area circulate a petition opposing the road. The group gathered hundreds of signatures, laying the groundwork for a local movement to oppose the highway project.[30]

Albright appears to have been an exception, likely due to his personal connection to the region. In July 1965, Assistant Director J. E. N. Jensen described the road project as a way to solve the decades-old problem of maintaining the entrance road from Minaret Summit. He recommended to the National Parks Advisory Board that the road be reclassified as a "National Park approach road" in order to include it "as part of the Federal-Aid-Forest Highway System of the State of California." The advisory board voted to reject Jensen's proposal, not out of concern for the resource, but because most members "did not consider this road in high priority in comparison with other National Park Service road needs."[31] Advisory board member Wallace Stegner wrote to Dave Brower after the vote, stating that while the board "did not want in any way to encourage the building of a trans-Sierra road south of Tioga," the "ostensible reason was that the whole proposal seemed vague and speculative, and we needed more information before making up our minds."[32] Afterward, Jensen wrote to Democrat congressman Bernice F. Sisk of Fresno, the primary advocate for the Minaret Summit Highway, for advice on how to "place the construction of this road in higher priority."[33]

Sisk's arguments in favor of the road resonated with traditional Park Service values. While most of the outspoken congressman's advocacy turned on matters of economics and national security (he imagined the highway as an escape route for residents of the Central Valley in the event of nuclear war), he also pushed the road as a way to extend recreational access to the Mammoth Lakes Sierra to those of "modest means" who could not afford a pack trip or the

Bishop local and former Sequoia and Kings Canyon superintendent Stanley Albright with Lou Roeser at Mule Days. (Courtesy of Lou and Marye Roeser)

time and expense then required to reach the area. Like the Park Service in years prior, Sisk saw no conflict between roads and wilderness. In fact, he advocated for the expansion of the two wilderness areas between which the road would pass. He also argued that the highway would disperse recreation, thus relieving pressures on Yosemite and Sequoia and Kings Canyon National Parks and popular recreation areas in the Sierra foothills.[34]

In his corner, Sisk had a powerful constituency of agricultural interests, newspapers, public lands committees, and private citizens. The opposition had nowhere near the same political clout. Sisk's repackaging of the Park Service's preservation-via-development arguments also clashed sharply with the Sierra Club's increasingly rigid stance against road building in the Sierra. Yet, surprisingly, the club remained relatively complacent in the debate, in part due to its focus at the time on fighting the proposed Grand Canyon dam. In calling on the club for aid, Mammoth resident Hal Roth acknowledged its increasingly national focus, but pointed out that "after all the club is the *Sierra* Club and while it's important of course to concern ourselves with national conservation matters, I think we should be alert for our own mountains."[35] Brower had previously stated his objection to the highway in 1956 and again in 1959. He also assigned Superior Court judge Raymond J. Sherwin, an Eastern Sierra local and a descendant of one of the original settlers in the region, to direct the club's opposition. The organization as a whole, though, dedicated few resources to battling Sisk's pro-road contingent, leaving the

fight to Sherwin and other local club members who would be most directly affected by the highway.[36]

A lingering schism in the club regarding Sierra roads may have contributed to this minimal commitment. In 1937, the club had supported a highway at Mammoth Pass as a concession to removing "for all time any valid demand for any other road crossing the Sierra south of Tioga Pass."[37] As late as 1968, renowned photographer and prominent Sierra Club activist Ansel Adams continued to hold this position, viewing the club's recent "all-or-none" approach to road building as unrealistic. Adams's support for the Minaret Summit highway also reflected his frustration over his failed effort to prevent the earlier expansion of the Tioga Road. In his view, if the Mammoth Pass highway had been built at that time, there would have been no need for the Tioga Road project. Furthermore, Adams made the surprising comment that "the Minaret Summit is the least important and least interesting pass of the Sierra south of Sonora Pass." A road in that location, he wrote, "would do the least possible damage and, more important, would give us ammunition to forestall other roads in far more important wild and scenic areas."[38]

Though surprising in retrospect, Adams's position was consistent with the club's focus at that time on development proposals that actually encroached within national park boundaries. This emphasis on the sanctity of national parks stemmed from the loss of Hetch Hetchy in the early twentieth century, and formed the basis for the club's efforts in the 1950s and 1960s to block proposed dams in Dinosaur National Monument and the Grand Canyon. Though by no means an advocate of road building, Adams believed the club had no firm leg to stand on in objecting to a road that would not actually pass through a Park Service boundary line.[39]

The highway project attracted opponents and supporters on both sides of the Sierra. Especially in the early years, many tourism businesses in the Eastern Sierra assumed that any increase in accessibility would be good for business. Both Arch Mahan and Bob Tanner at Reds Meadow as well as Dave McCoy of Mammoth Mountain Ski Area held this position initially—although they would later oppose the project. A few groups on the west slope of the Sierra also objected to the road. The North Fork Mono tribe was initially split with many members viewing the highway as an economic opportunity. After much discussion, the tribe determined that the arguments for maintaining as much of the traditional value of the land as possible outweighed those touting the economic benefits of the highway.[40]

The most vocal opposition came from the Mammoth area. Many residents of Mammoth Lakes and the surrounding communities opposed the road for aesthetic reasons and because they feared it would significantly alter the dynamics of the regional economy. In 1966, a group of recreational business owners and local residents met to form the Mono County Resources Committee, through which they gained the backing of the Eastern and Western High Sierra Packers Associations, the Mammoth Chamber of Commerce, and the Mono County Board of Supervisors. In spring 1967, members of the makeshift group concocted a plan to travel to Sacramento in time for an April 18 hearing on the road proposal.[41]

Armed with the 1966 state engineer's report, Lou Roeser of the Mammoth Lakes Pack Station, sporting goods retailer Doug Kittredge, and Chip van Nattan of the Resources Committee headed north up the 395 in Nattan's 1957 Ford station wagon. By the time they reached Reno, a late-season storm had dumped six inches of new snow on the ground, and their prospects for making it over Donner Pass looked grim. The highway patrol actually closed the road at the pass, but after pleading their case to the officer manning the barricade, the group was let through. During the drive over the mountains, Nattan plowed through snowdrifts and was forced to stop several times so that the others could jump out and wipe snow off the headlights

and hood. They finally reached the home of Roeser's brother-in-law and business partner Lou Fitzhugh in Sacramento late that night. After a brief rest in sleeping bags on Fitzhugh's living room floor, the group made their way to the capitol building to meet with members of the Highway Committee.[42]

The committee members had little knowledge of the actual terrain through which the highway was to pass, and so were receptive to the arguments made by the small contingent from Mono County. The legislators was also impressed that the group had made it over Donner Pass in a blizzard that had completely shut down trucking over the mountains (and in a station wagon without four-wheel drive no less). When the bill came to a vote later that afternoon, the committee defeated it eleven votes to one. The state of California followed suit, determining not to dedicate state funds to the highway.

Sisk was furious with the state's decision, and vowed to seek federal dollars for the road's construction. Flush with their victory, the Mono County opposition continued to sharpen their attacks in response. Raymond Sherwin and Mammoth Lakes writer and publisher Genny Schumacher, whom Mammoth Lakes lodge owner Bob Schotz referred to as "the glue that held the opposition together," were particularly active.[43] They organized local opposition and mounted a letter-writing campaign, targeting conservation organizations, the Park Service, the Forest Service, and state and federal representatives for support in blocking the road.

Their position was strengthened by the support of Norman "Ike" Livermore Jr., former Eastern Sierra packer, Sierra Club board member, and, by then, Governor Ronald Reagan's secretary of resources. Though not well versed in environmental politics, Reagan had an eye for natural beauty and, often at the advice of Livermore, took the side of environmental advocates in debates over development projects in the state. During his governorship, in addition to blocking the Minaret Summit Highway, he also halted a proposal to widen the road to Mineral King to accommodate a ski resort, and prevented construction of the Dos Rios Dam, which would have inundated the fertile Round Valley in Mendocino County.[44]

Reagan's and Livermore's environmentalism reflected the broad-based support for environmental issues at the time as well as the fluid liberalism of the 1960s and early 1970s. Prior to the emergence of the more ideological conservatism of the late 1970s, many environmental fights—including the more than three-decades-long battle for a national wilderness bill—were spearheaded by Republicans. These included Forest Service planner Arthur Carhart, Pennsylvania congressman John P. Saylor, and Russell E. Train, the second head of the Environmental Protection Agency.[45]

As a former pack-station owner in the area, Livermore had a particularly deep attachment to the Middle Fork Valley and Mammoth Lakes Sierra. He regarded the construction of a highway through the area to be "the greatest tragedy since Hetch Hetchy Dam in Yosemite was built." As the only "wilderness-oriented" member of Reagan's cabinet, he took it upon himself to meet with state and federal transportation officials to convince them of not only the threat the highway posed to the region's wilderness character but also the inordinate costs such a road would incur. Even when the Forest Service scaled back the proposal to include only improvements to the road to Reds Meadow, Livermore continued to object, telling anyone who would listen that "this is a long battle, and this is the worm entering the apple to go all the way across."[46]

In December 1970, Department of the Interior official Douglas Hofe Jr. expressed his department's formal opposition to the Forest Highway 100 project, including the scaled-back version. He credited Livermore with exposing the lack of a clear need for an improved road

as well as its questionable feasibility and potential impacts on wilderness.[47] A March 1971 environmental impact statement (EIS) echoed Livermore's arguments, concluding that the road would have "substantial adverse impacts." The retaining walls would "create a visual intrusion on the wilderness area." Resulting increases in visitation and automobile use would "cause a deterioration of the fragile soils and vegetation, as well as the fish, wildlife and timber supply at the recreation areas." The road would also further strain the "carrying capacity" for recreation along the John Muir Trail and in the surrounding wilderness areas. The report's conclusion that "it is questionable whether more recreation should be encouraged at this location," epitomized the access issues that continued to define wilderness politics in this period.[48]

Livermore had suggested in years prior that Reagan, a competent horseman, would be swayed to protect the region if he were to take a pack trip along the proposed highway route. The plan finally came together in summer 1972. On the morning of June 28, local packers Bob Tanner and Lou Roeser shipped a truckload of mules and horses to Reds Meadow to accommodate the group of one hundred people that included Governor Reagan, his staff, local officials, members of the press, and a handful of local packers. Ever the showman, Reagan donned western attire, selected his own horse, and led the contingent 6 miles up the King Creek trail to Summit Meadow where, in "an unusual mountain press conference," he stated his objection to the road and announced President Richard M. Nixon's formal opposition. Reagan also declared that the area should be protected from future road incursions by closing the gap between the two existing wilderness areas to the west. "I am convinced," he announced, "that by such action we can prevent the creation of a high-speed trans-Sierra highway through this area for all time

Governor Ronald Reagan with former Reds Meadow Pack Station owner Arch Mahan (left) and Rock Creek Pack Station owner Herbert M. London (right), 1972. (Devils Postpile National Monument image collection)

Governor Reagan beginning the ride to Summit Meadow, 1972. (Devils Postpile National Monument image collection)

and preserve the vast primitive beauty of this wilderness for generations of Californians yet to come."[49]

In truth, by the time of Reagan's ride, momentum in the trans-Sierra highway debate had already swung to the opposition. In May 1971, Russell Train, chairman of the newly formed Council on Environmental Quality, cited the 1971 EIS in a letter urging the Federal Highway Administration to "terminate action" on all road proposals at Minaret Summit. On June 13, 1972, the state of California issued a formal objection to the proposed expansion based on the Forest Service's inadequate assessment of the potential environmental impacts.[50] Reagan's ride nevertheless had symbolic value, and set the stage for local activists' subsequent push to expand the wilderness areas west of the Middle Fork Valley.

The "Armpit of the National Park Service"

While regional interests fought to protect the Devils Postpile area from a highway that would have significantly increased tourism, the Park Service struggled to provide basic services to the

visitors who were already there. Even without an improved road, visitation to the monument had increased beyond all previous estimates, growing from 35,591 in 1960 to 53,787 two years later. The visitor count exceeded the 100,000 mark in 1965, five years earlier than had been predicted in 1962. The minimal resources Yosemite dedicated to Devils Postpile in this period proved wholly inadequate to handle the rising tide.

Ranger Gene Cahoon pointed out several ongoing problems in his 1962 annual report. He requested 26 new picnic tables to accommodate increasing visitation and to replace the "12 lightweight tables crushed by snow last year." He also noted that most of the boundary and trail signs had either been tampered with or stolen, further confusing visitors hiking to the monument's features. As a solution, he recommended installing "metal signs, welded to metal posts set in concrete too heavy to be lifted by any less than ten boys. If they can get *them* out of the ground—to hell with it!" The more serious problem was overcrowding. Cahoon estimated that approximately 24,000 cars passed through the monument during the season, including more than 150 cars on each of the heaviest travel days. The problem was exacerbated by "the storage of backpackers' cars." While there typically only about 6 to 10 such cars, during weekends the number frequently exceeded 20.[51]

Cahoon also recorded a number of visitor complaints. Most revolved around the condition of the entrance road, which remained dusty and full of potholes despite being bladed twice during the season. Perhaps inadvertently helping the cause of pro-highway interests in the Central Valley, Cahoon determined to "pass the buck to Madera County . . . when people wonder why the government doesn't do something." "If people do what they say they are going to do," he continued, "Madera road people much be getting some ego-jolting letters." On September 3, a Sierra Club member complained about the amount of trash at the Rainbow Falls overlook. Cahoon acknowledged the problem, but felt the complaint was unjustified considering the more than 1,200 visitors to the monument the day before. Visitors also complained about the lack of a water faucet or drinking fountain. Despite nearly three decades of urgent requests by on-site managers for the development of a clean water source, a sufficient system had still not been constructed. In addition, some visitors ended up driving 30 miles out of their way on Highway 395 because there was still no sign indicating the turnoff to Devils Postpile.[52]

Interpretive activities also suffered with the increased time devoted to maintenance, sanitation, and visitor protection issues. Cahoon recommended hiring a second naturalist to meet visitor requests for nature walks and campground talks, and to give him "more time for strictly ranger work, such as keeping people from wading barefoot in the drinking water, washing clothes and person in said drinking water, cleaning fish in the drinking water, etc." He also needed more time to repair the seriously degraded trails, and to "catch the chowder heads who are moving signs."[53]

Increasing recreational use of the monument and the surrounding area also posed problems for Devils Postpile staff. Monument visitors often encountered hunters along the Rainbow Falls Trail, which passed into the adjacent Forest Service land at various points. Hunters, who were "sighting in their rifles all over the place," may have been responsible for removing many of the boundary signs. Cahoon reported that without clearly marked boundaries, he had no "leg to stand on" when trying "to get hunters to shoot outside the monument."[54]

With anywhere from 900 to 1,300 visitors in the monument on any given day, one staff member usually had to stay at the contact station to respond to visitor needs "with no chance to do anything else." In his 1964 report, Cahoon listed a dozen "out-of-regular working hours things" that occurred that season. These included several searches for lost persons; care for a boy who had fallen out of the bed of a truck and dislocated his elbow after his family left

Mules in the monument parking lot, 1974. (Courtesy of the Yosemite National Park Archives, Museum, and Library)

him there to go fishing; and aid to a troop of Boy Scouts who had arrived to report two of their members missing at Tuolumne Meadows, more than 20 miles away. A notable incident involved prolific Sierra mountain climber Norman Clyde. On August 30, a woman dropped a delirious Clyde off at the contact station "where his car was parked for about 5 weeks." The next day, Clyde woke up, but the rangers "could get little sense out of him." Doctors later diagnosed him with pneumonia.[55]

The most persistent issue with recreational interests involved the presence of loose stock from Reds Meadow Pack Station. Bob Tanner, who had purchased the station in 1960, at times proved a less cooperative owner than his predecessor Arch Mahan. Although Tanner would willingly send a man to round up stock at the request of the ranger, he continued to turn the animals loose at the beginning and end of the tourist season to acclimate them and "to save on feed." Cahoon was especially concerned about visitor safety. In August 1962, a loose train of saddled stock "came through on the trail past the monument while the naturalist was talking to groups there." The animals came through "at a fast pace," prompting the naturalist to hurry the group off the trail "before someone was hurt." When Cahoon called the Forest Service office to see what could be done, "the word was nothing." Tanner had also announced that he "positively plans on starting a western coach run" along the ungraded road to Rainbow Falls. Cahoon's discomfort with the idea was evident in his comment, "I infer he does not intend to operate thru the Monument."[56]

Loose stock from Reds Meadow continued to irritate park rangers for the next two decades. In 1964, Cahoon reported that "stock spooked by dogs and sometimes campers run full bore through the camp and parking lot and down the trail to the postpile." To remedy the problem, he volunteered to drive the stock out via the Clover Meadows trail "and scatter them thru every small meadow we could find over in the north fork basin and beyond." "Kick a businessman in the pocketbook," he remarked, "and you bruise his soul." Horses and mules also damaged Soda Springs Meadow, leading to "many complaints from campers and visitors."[57] Cahoon noted another major concern in his 1967 report: "An important side product of loose stock are the piles of manure in the campground, the parking area, the meadow, on the bridge, and around Soda Springs. Even though the resort will send a wrangler to gather up the stock he never carries a broom to gather up the fallout."[58]

Postpile–Soda Springs Meadow Bridge. Note the cracked piling on the left, 1970s. (Devils Postpile National Monument image collection)

On February 4, 1969, Assistant Chief Park Naturalist William R. Jones submitted a scathing indictment of Yosemite's handling of Devils Postpile to his supervisor. He was concerned with the frequency in which questions about the Park Service's competency in managing the monument came up. The resource itself was clearly of national significance in his view, and it undoubtedly warranted national monument status. Moreover, the management priorities within the park, which were focused primarily on interpretation, were significantly different from the policies of the surrounding Forest Service land. The monument, Jones argued, represented "a high-quality park area within a region otherwise being intensely developed for its recreational potential." The reason the question was raised so often, he suggested, was because "Devils Postpile . . . has been tacked on to the management of Yosemite National Park for so many years that it has basically been lost in the shuffle." It was this lack of attention, he concluded, that had led some Service officials to regard the monument as "the most poorly operated national park area in the country."[59]

Jones acknowledged that many improvements had been made. A water system for the campground was finally installed in 1965. Yosemite had provided some Mission 66 funds for much-needed campground maintenance, and for graveling and oiling portions of the entrance road and parking lot. Electricity, hot showers, and tent cabins had been provided for employees, and a contact station had been built. However, the laundry list of problems that Cahoon and most of the rangers before him had continually identified in their reports remained largely unaddressed, with trails and interpretive services a primary concern. In Jones's words: "The trail system in and about the monument still gets people lost, the trails are eroding badly, there are unmarked dangerous points on them at river and waterfall overlooks, trailside features lack any effective interpretation, and there is no trail to the only general overlook of the postpile on the west side of the river."

The monument's meadows, trails, and campground were also in bad shape, a result of the intense recreational use of the area. Further contributing to the problem, loose stock from Reds Meadows had overgrazed many of the meadows in the park and brought "danger and filth to visitors in the campground." The crowds of visitors on the Postpile trail often encountered large pack trains returning to Reds Meadows, convincing Park and Forest Service personnel and some packers that the John Muir Trail would eventually have to be rerouted.

Stock trails in Soda Springs Meadow, 1974. (Courtesy of Yosemite National Park Archives, Museum, and Library)

Jones also offered a critique of fishing in the monument. With existing facilities being "used at or beyond capacity," he regarded it as "the height of absurdity to attract more users through an intensive fish management program." In 1967, approximately 17,000 rainbow trout had been planted in the river by the California Department of Fish and Game with the approval of the Park Service to accommodate a user group that often did not even visit the primary resources for which Devils Postpile National Monument was created. Jones's critique echoed biologists' increased scrutiny of nonnative fish stocking during this period. "Only in Devils Postpile . . . of all the national park areas of the natural area category," he wrote, "can you hear the question 'When will the fish truck get here?' and get an answer in terms of when instead of that it will carry only fingerlings." For Jones, "elimination of fish planting or confining planting to the fingerling size is an essential management step." The Park Service finally ended stocking in 1971.

Dealing with basic visitor service issues had also precluded an effective interpretation program. The "basic problem," Jones reasoned, was that rangers were not reaching enough visitors. Although rangers made contact with most monument visitors at the entrance station or on the trail, these meetings were typically brief and informal and did not convey much information about the resource for which the monument was created. Part of the problem was that Yosemite was continuing to close the monument just after Labor Day even though "September is a strong use month . . . perhaps stronger than June." He suggested that interpretation could be improved even with the limited staff by adequate signage and perhaps a self-guided nature trail. He also recommended that instead of having the ranger monitor the phone at the entrance station for four-and-a-half hours during the busiest time of the day, the person handling sales of Yosemite Natural History Association items—who in the past had typically been the ranger's wife—could take over these duties. The ranger could then make additional trailside contacts or give daytime talks at the Postpile and Rainbow Falls.

For Jones, the problem with Devils Postpile was not an inevitable outgrowth of the "cluster concept of park management," but instead "an example of what happens when no one with authority and responsibility is in charge of an area." No single person or office within the Yosemite chain of command had taken charge of infrastructure and interpretation needs at the monument. Jones harshly described the monument's staff over the past decade as "inadequately

trained to carry out the obvious responsibilities." On-site employees, though, were not to blame. Instead, he pointed to the lack of oversight and the bureaucratic maze through which requests for funding and staffing had to pass. The solution, he proposed, was to have a superintendent or district ranger stationed at Devils Postpile who reported to the Yosemite superintendent directly. Such an arrangement would centralize operations and force attention to Devils Postpile from the highest levels of its parent park's administration. Jones had little confidence such a change would happen overnight. He determined that due to the degraded conditions, the monument should be closed for the 1969 season while Yosemite devised a new approach for its management.

Yosemite determined to open the monument during the 1969 season despite Jones's critique, and on-site rangers managed to scrape by over the next two years. Still, by 1971, overburdened Yosemite officials were seriously considering handing Devils Postpile over to Sequoia and Kings Canyon National Parks. At the start of the 1971 season, Wymond Eckhardt, a former backcountry horse patrolman and firefighter in Yosemite, accepted the job as the supervisory ranger at Devils Postpile. A year earlier, Eckhardt had declined the offer "because the conditions were so bad over there." When he was offered the position one year later, he took it. Later, he explained his decision: "There was only one way this whole operation could go and that was well, because it was kind of the armpit of the National Park Service when we took it over."[60]

Notes

1. Sellars, *Preserving Nature in the National Park,* 173.
2. Bernard DeVoto, "Let's Close the National Parks," *Harper's Magazine* (October 1953): 49–52.
3. Visitation numbers from Demars, *The Tourist in Yosemite*, 123.
4. Ranger, Devils Postpile National Monument to Chief Ranger, Yosemite, "Summary Report of Activities at This Station for the Season, 1953," September 15, 1953, National Archives, Box 8.
5. Ronald A. Foresta, *America's National Parks and their Keepers* (Washington, DC: Resources for the Future, 1984), 52–57.
6. Sarah Allaback, *Mission 66 Visitor Centers: The History of a Building Type* (Washington, DC: US Department of the Interior, National Park Service, Cultural Resource Stewardship and Partnerships, Park Historic Structures and Cultural Landscapes Program, 2000), 1–35.
7. "Mission 66 Prospectus: Devils Postpile National Monument," June 1956, 2, Devils Postpile National Monument, Superintendent's Office.
8. Ibid., 3–10.
9. Ranger, Devils Postpile Nat'l Mon., to the Chief Ranger, Yosemite Nat'l Park, July 10, 1957, "DEPO Annual Reports," unaccessioned DEPO files, YNPA,
10. Ranger, Devils Postpile Nat'l Mon., to The Chief Ranger, Yosemite, September 28, 1958, "DEPO Annual Reports," unaccessioned DEPO files, YNPA,
11. Ranger, Devils Postpile Nat'l Mon. to The Chief Ranger, Yosemite National Park, July 19, 1957, "DEPO Annual Reports," unaccessioned DEPO files, YNPA,
12. Gene Cahoon, handwritten report for the period August 1 to 23, 1960, "DEPO Annual Reports," unaccessioned DEPO files, YNPA.
13. Ibid.
14. Ibid.
15. Ibid.
16. Ibid.
17. Ethan Carr, *Mission 66: Modernism and the National Park Dilemma* (Amherst: University of Massachusetts Press, 2001), 257–60.

18. Ibid., 260–65; and Michael Cohen, *History of the Sierra Club, 1892–1970* (San Francisco: Sierra Club Books, 1988), 134–42.
19. Carr, *Mission 66*, 262.
20. Ibid., 264–67.
21. In 1941, the headwaters of the Kings River, through which these highways would have passed, was included as part of Sequoia and Kings Canyon National Park. Larry M. Dilsaver and William C. Tweed, *Challenge of the Big Trees: A Resource History of Sequoia and Kings Canyon National Parks* (Three Rivers, CA: Sequoia Natural History Association, Inc., 1990), 204–12.
22. Jack Fisher, excerpt from a draft history of the Trans-Sierra Highway debate, courtesy of Jack Fisher.
23. J. C. Womack, "Study of Feasibility of Including in the State Highway System and the Interstate System a trans-Sierra highway connecting with Interstate Route 5 we of Los Banos to the California-Nevada State Line near Benton Station, passing near Califa, North Fork and Minaret Summit," State of California Department of Public Works Division of Highways, March 1966. Also see Raymond J. Sherwin, "The Mammoth Pass Road," *Nevada Appeal Graphic*, December 4, 1966.
24. Womack, "Study of Feasibility," 15–16.
25. Cited in Lou Roeser, re: Eastern Sierra Packers Association's objection to the highway proposal, courtesy of Lou Roeser.
26. "Mission 66 Prospectus," 3.
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Chapter Eleven

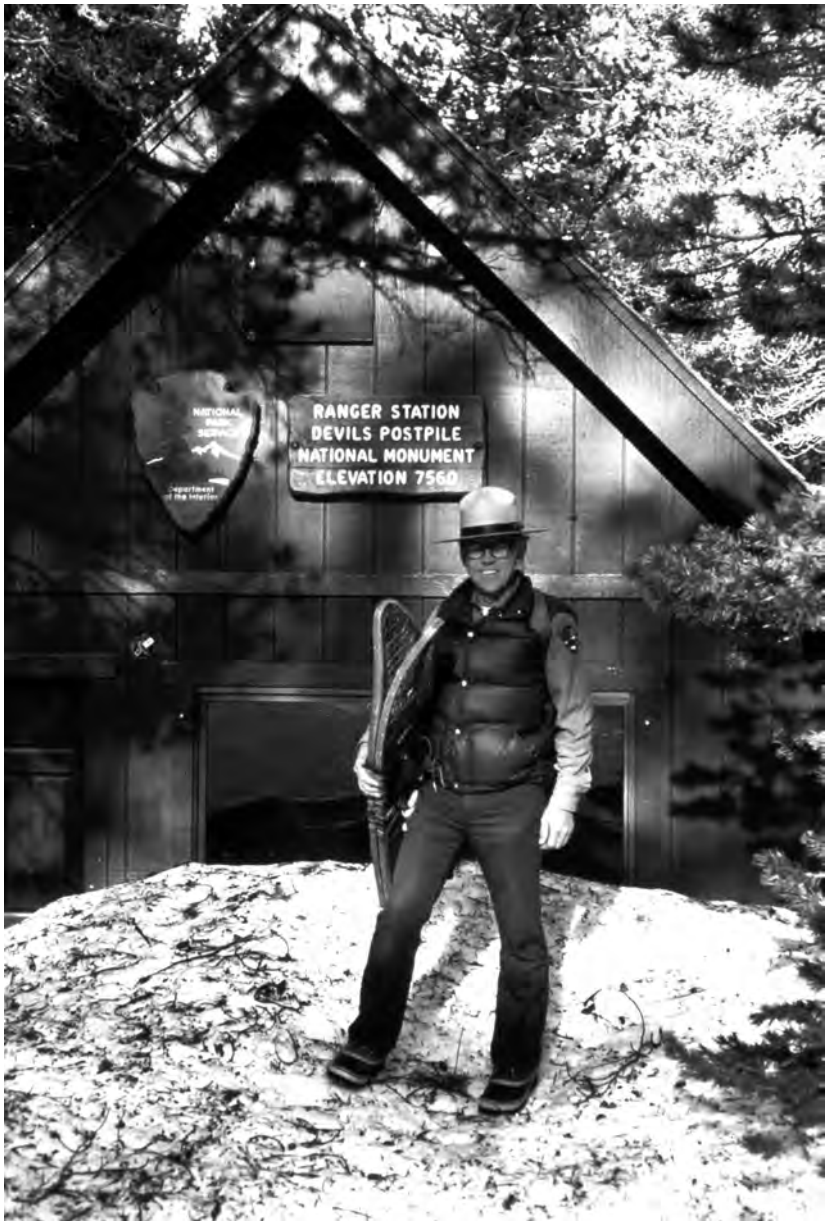
Reviving the Monument: Transfer to Sequoia, Interagency Cooperation, and the Origins of the Shuttle, 1972–2000

Wymond Eckhardt took on the position of supervisory ranger at a crucial time in the monument's history. The death of the trans-Sierra highway proposal not only ensured the protection of the rustic character of the Middle Fork Valley but also further secured Devils Postpile's position as a key component of the regional recreation complex surrounding Mammoth Lakes. The defeat of the road did not, however, stem the tide of visitation to the monument, which continued to rise in conjunction with the growing popularity of the Mammoth area as a hub of both summer and winter outdoor recreation for residents of Los Angeles.

The resulting pressures on Devils Postpile finally convinced Yosemite's administration to shed the burden of managing the distant monument, and in 1972, it was handed over to Sequoia and Kings Canyon National Parks. Eckhardt welcomed this change, viewing it as an opportunity to free the monument from its long dependence on Yosemite's bureaucratic chain of command. Over time, Eckhardt cultivated close relationships with the superintendents at Sequoia and Kings Canyon, who generally allowed him to manage the monument as he saw fit. He also cultivated personal arrangements with the Forest Service, other government agencies, and community members for aid in maintenance and infrastructure projects. Eckhardt became, in effect, the face of the National Park Service in the region. He also adhered strongly to the emphasis in Devils Postpile's establishing legislation on the area's scientific significance. Like Hartesveldt before him, Eckhardt became an authority on the geology, biology, and human history of the monument and the surrounding area. He made sure that visitors and Forest Service personnel recognized that when they crossed the boundary into Devils Postpile National Monument, they were entering a unit of the National Park Service, governed by the particular rules and values of that agency.

Yosemite's transfer of administrative responsibility was ostensibly done to justify Sequoia and Kings Canyon's desire for a full time ranger to be stationed on the east side of the Sierra.[1] In truth, Yosemite officials welcomed relief from the responsibility of managing the distant monument. Officials at Yosemite and the regional office also never took seriously William Jones's suggestion that the supervisory ranger at Devils Postpile be permitted to bypass the usual chain of command and report directly to the park superintendent. Stanley T. Albright, superintendent at Sequoia and Kings Canyon at the time (and a Bishop local), proved more amenable to this arrangement. He allowed Eckhardt "access to any division chief" for advice and for pushing through requests for budget and staff increases or infrastructure needs.[2]

As it was "destructive to the budget" to travel the nearly 300 miles to the administrative offices at Sequoia, Albright gave Eckhardt license to manage the park based on his perception of its needs. Eckhardt chose his own staff, contracted for needed equipment with the Mammoth Lakes Forest Service office or other local contacts, and made arrangements for handling fire issues, search and rescue, and law enforcement—all with minimal oversight from Sequoia or the regional office. Devils Postpile became a largely "self-contained" park under Eckhardt, a factor that further linked the monument to the Mammoth Lakes region.



Wymond Eckhardt, 1983. (Devils Postpile National Monument image collection)

Eckhardt's administration represented a partial return to the one-person style of management that had prevailed in the early years of National Park Service administration. Throughout his nearly thirty-year tenure at Devils Postpile, he maintained a strong commitment to what he viewed as the founding principles of the Park Service, considering himself among the last of the "Mather men." He had spent his career at Yosemite working under men like Sam Clark and John Bingaman, quintessential jack-of-all-trades rangers who "could do just about anything," from law enforcement to rescue to infrastructure maintenance to visitor contacts to interpretation. At Devils Postpile, Eckhardt stressed, no one was permitted to say "that's not my job. . . . Every job here is everybody's job."

These views bucked a general trend toward specialization in the Park Service beginning in the 1960s. Eckhardt was wary of the increasing numbers of university-trained ranger naturalists

who, he later remarked, spent "too much time in front of a computer screen" rather than out in the field among the visitors. He considered communicating the significance of the resource through direct contact with visitors to be the most important focus of ranger work. While the new breed of rangers brought a more academic ecological sensibility to park management, Eckhardt felt they often had little practical knowledge about how to interact with visitors or implement their ideas on the ground. For him, the value of his more traditional approach was in giving most visitors the opportunity to talk to a ranger. "We might not have the highest waterfalls," he exclaimed, "but by golly you get to see a ranger!"

Specialization, Eckhardt believed, had also resulted in a separation between ranger naturalists and law enforcement. He regarded the July 4, 1970, riots in Yosemite Valley in which mounted park police clashed with a crowd of young people camped illegally in Stoneman Meadows as "one of the dark days of the park's history." Specialized law-enforcement rangers, he argued, brought a "cop" mentality to visitor management, which often clashed with the Park Service's broader mission of resource protection and interpretation. This attitude influenced Eckhardt's approach to visitor management at Devils Postpile where, he admitted, "99 percent of our law enforcement can be handled with a fly swatter." He generally avoided confrontations with visitors unless they were endangering themselves, other visitors, or the resource itself. When intervention was required, he treated it more as an educational opportunity than a disciplinary action. More serious offenses were handled by the Madera County Sheriff's Office, which eventually signed a formal agreement with the Park Service in 1988.[3]

Although in some respects Eckhardt's traditionalist approach caused Devils Postpile to lag behind the trend toward ecological management in the Park Service, he brought a personal commitment to interpreting the resource and providing a positive visitor experience that had been lacking. He collected information on the history of the area and contributed to the first inventory of the area's biological resources. He also pushed for a reassessment of the geology of the Postpile formation and the surrounding area, and aided US Geologic Survey geologist N. King Huber in preparing a revised geologic story to be made available for visitors. Eckhardt's knowledge of the area, willingness to collaborate with area Forest Service personnel, and local connections helped bring the monument's trails, roads, and visitor facilities to a higher standard—all without taxing Sequoia and Kings Canyon's limited budget for park maintenance. Eckhardt's efforts to revive the monument were made possible in large part by the looser management structure put in place by Albright at Sequoia and Kings Canyon after the 1972 transfer from Yosemite. This arrangement enabled Eckhardt to make a long-term personal commitment to Devils Postpile. "Every man wants to leave his mark," he said, "and my mark is here."

Regional Cooperation: Planning the Middle Fork Valley

While Eckhardt dedicated considerable time and effort to reviving Devils Postpile, he also operated within broader regional and national contexts. The rising strength of the environmental movement, in combination with the requirements of the Wilderness Act and the increasing popularity and greater accessibility of outdoor recreation in the Mammoth area and the United States as a whole, put pressure on Park Service and Forest Service officials to rethink development and protection measures in the Middle Fork Valley.

With Devils Postpile becoming a focal point of visitation in the Middle Fork Valley, the Forest Service and other interests in Mono and Inyo Counties began looking to the Park Service for aid in fitting the monument into the broader recreation plan for the Mammoth area. During an "informal meeting" in 1972, representatives of the Inyo National Forest, Sequoia

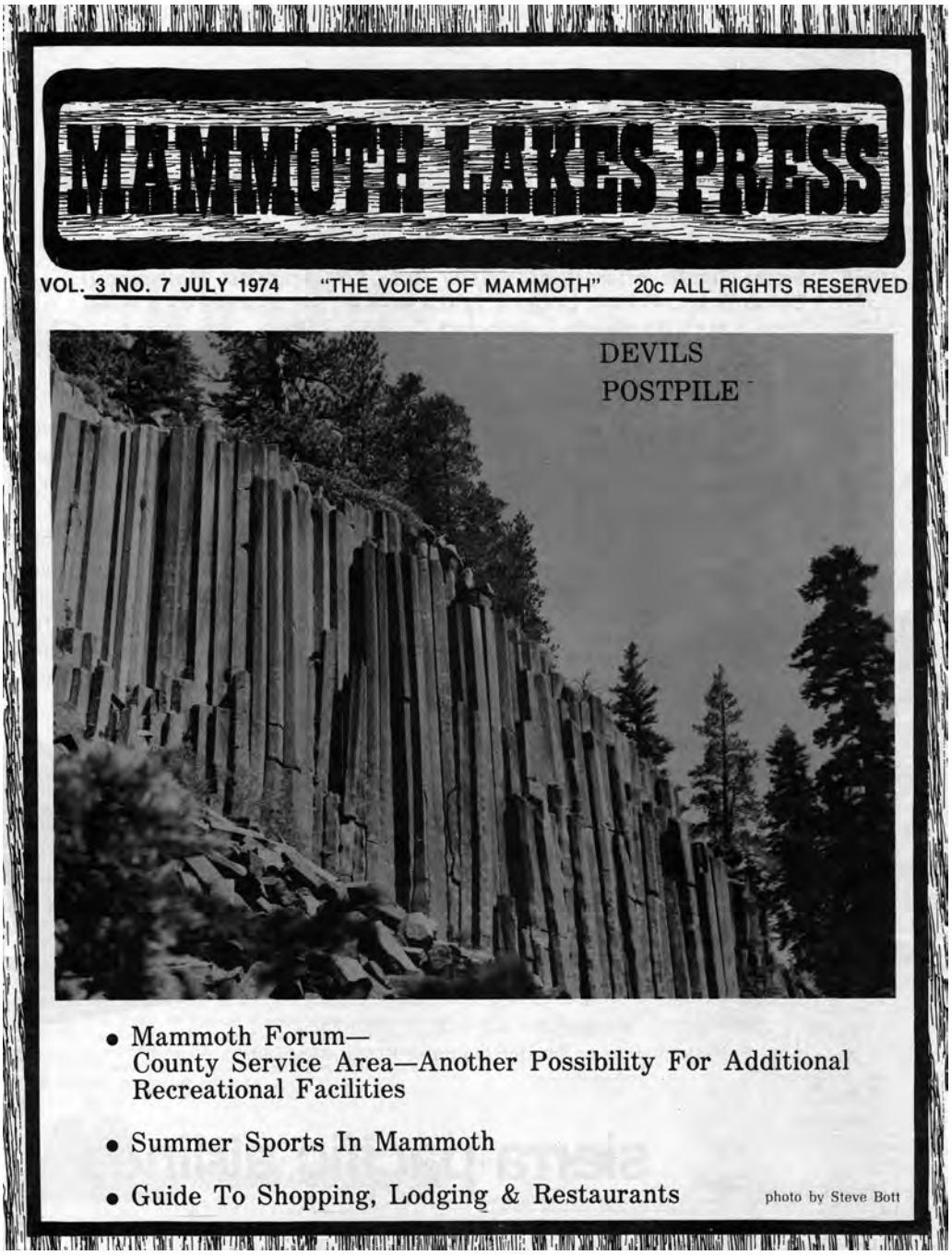
Postpile-Soda Springs Meadow Bridge. (Photo: Christopher E. Johnson)

and Kings Canyon, and Devils Postpile "agreed that the area should be planned as one unit." Later that year, administrators with the Inyo National Forest issued a recreation management plan for the entire Middle Fork Valley. The plan stressed the development of trails, roads, and campgrounds in such a way as to accommodate the diverse recreational interests using the valley while also maintaining its rustic character.[4] The interagency cooperation involved in rerouting the John Muir Trail to the west side of the monument in 1976 and initiating the mandatory Devils Postpile–Reds Meadow shuttle in 1979 reflected the Park Service's increased role in regional planning.

The John Muir Trail

When it was completed in the mid-1930s, the John Muir Trail ran for more than 200 miles along the Sierra crest from the summit of Mount Whitney to the Yosemite Valley. The only place where the Muir Trail met a road was at Reds Meadows from which—with the exception of a brief jog along the Postpile trail—it followed the road before branching off toward Agnew Meadows.[5] After World War II, Muir Trail traffic was rerouted across the river north of the Postpile. Even after the defeat of the trans-Sierra Highway, hikers and packers continued to cross the Middle Fork Valley road just north of Reds Meadow.

Park Service officials had been recommending a second rerouting of the John Muir Trail away from the Postpile since the mid-1960s. The trail's contact with the road, however, was not the initial concern. Rather, officials worried about the presence of pack stock in the monument and the recreational bottleneck along the heavily traveled Postpile Trail. In 1965, Park Service resource specialist George Briggs prepared a proposal for redirecting stock parties away from the Postpile, suggesting that a new stock trail leave the current Rainbow Falls–Devils Postpile Trail just south of the formation to run outside the monument's eastern boundary before



Publicity for Devils Postpile, 1974. (Courtesy of the Yosemite National Park Archives, Museum, and Library)

crossing the river north of Soda Spring Meadow to join the Minarets–Beck Lakes Trail. Briggs's proposal also included a "round wire fence" to enclose the northern half of the monument in order to keep packers and loose stock out. This would prevent "the inter-mixing of foot and stock traffic," which created a potential safety hazard, and conflicted with "the majority's enjoyment of the feature." He was also concerned with the damage to the south end of Soda Springs Meadow resulting from heavy stock use. Stock parties had caused visible erosion where they forded the river and had "worn a wide path through the middle of the very small, beautiful meadow."[6]

Mules and cars in the monument parking lot, 1974. (Devils Postpile National Monument image collection)

The matter came up again in 1972, and in February 1973, the Sierra District ranger recommended the allocation of $30,000 for the redirect of the trail, pending agreement from the supervisor of the Inyo National Forest. Some costs could be deferred if the Park Service could recruit Sierra Club volunteers who had aided with the Rock Creek–Siberian Pass Trail relocation the previous year. The proposal also "generated much interest" with the Pacific Crest Advisory Council, which at that time was advocating for the completion of a foot and stock trail to run the entire length of the Pacific Crest from Mexico to Canada.[7]

At a March 23 meeting of the advisory council in San Diego, Arch Mahan, former owner of Reds Meadow Pack Station, objected to Briggs's proposal. Mahan, who was "familiar with this country," suggested instead that the trail cross the river north of Reds Meadow and run along the west bank of the San Joaquin River, "staying away from the heavy foot traffic area of automobile tourists who come to see the Devil's Post Pile." The trail would then continue north to Thousand Island Lake, avoiding the overcrowded Shadow Lake Trail. The committee determined to make a field trip that summer to "travel by horseback" along Mahan's proposed route. They also requested that Sequoia and Kings Canyon superintendent Henry Schmidt and a park engineer accompany the party.[8]

Mahan's suggestion became the basis for the proposal submitted to the Park Service regional director in 1976. The stated purpose reflected mounting concerns over potential conflicts between recreational user groups. The aim was "to separate John Muir Trail traffic (particularly equestrian traffic) from the Devils Postpile visitor traffic." Doing so would prevent "a potential safety hazard at the base of the Postpile" while also providing "an alternative for the John Muir Trail travelers wishing to avoid the congestion at the Postpile." The positioning of the trail on the west bank of the river, as opposed to outside the eastern boundary, had two added benefits: it would allow Muir Trail users an alternative view of the Postpile while also directing them away from the increasingly busy Minaret Summit entrance road.[9]

To comply with the 1969 National Environmental Policy Act (NEPA), the proposal also required the completion of an environmental impact study. The authors of the study determined that although the project would require vegetation removal, some rock blasting, and construction of a new bridge across the river, the overall impacts would be less than the alternatives, which included taking no action or rerouting the trail to a different location.[10] The project was undertaken with the approval of Sequoia and Kings Canyon and the regional office the next summer.

To save costs, Eckhardt and Maintenance Chief Walt Hoffman worked out an arrangement with the Forest Service to provide personnel and equipment for the trail's construction. Michael Morse, a Forest Service trail worker at the time and a former packer, regarded the project as a key instance of interagency cooperation in the region. "From that point on," he remembered, "we had a working relationship." In subsequent years, Morse and Eckhardt often "worked in partnership" to maintain trails, particularly the trail from the Postpile to Rainbow Falls, which wandered in and out of the monument boundary at various points.[11]

These cooperative arrangements led to a deeper understanding between the two agencies. Over time, Morse gained an appreciation for the interpretive services that Eckhardt and the Park Service provided. During the construction of the Muir Trail, for instance, Eckhardt advised diverting the trail around a "shingle factory" near the new route where he believed late-nineteenth-century cavalry troops had fabricated roofing for the Postpile cabin and other structures along the patrol route in the area. Morse became "intrigued by the fact that there was somebody that had such knowledge of the history of the area." Eckhardt's overall knowledge stood in contrast to the more utilitarian aims of the Forest Service. "I knew the Park Service was here, and I knew the Forest Service was there," Morse recalled, "I knew there was boundaries because I saw the white signs on the trees, but Wymond was always good to remind me that when I was in the park, I had to be a little different than when I was outside the park." Over time, Morse and other Forest Service personnel came to view the Park Service as a complementary presence in the Middle Fork Valley.[12]

The Devils Postpile–Reds Meadow Shuttle

The Muir Trail redirect represented a coordinated effort on the part of the two agencies to design a clearer, more integrated network of trails for the Middle Fork Valley as a whole. This broader regional vision also included a new approach to solving the long-standing entrance road dilemma. "At present," stated Sequoia and Kings Canyon acting superintendent John Rafferty in 1974, "the condition of the access road from Minaret Summit and the pumice dust is the greatest deterrent to monument visitation."[13]

Two years prior, a master plan for Devils Postpile had been delayed "pending the release of results of the combined Mono-Inyo County Development study of the Mammoth region."[14] This study, coined the "Monoplan," had the ambitious objective of coordinating development plans and land management policies to increase the region's "single economic base source—demand generated by a specialized segment of the vacationer-tourist market, the outdoor recreation visitor." In September 1972, the project manager invited Sequoia and Kings Canyon superintendent John McLaughlin to join a "critique group" of twenty key individuals in the region to design objectives, identify the environmental resources of the area, and to forecast the economic and environmental impacts of particular development proposals.[15]

Douglas B. Cornell, chief of the Department of the Interior's environmental planning and design office for the Western Region, attended the session. The critique group was hesitant

to support the Monoplan proposal, citing the lack of specific proposals and the potential social and environmental impacts. Cornell agreed, recommending that until a more complete "prototype" plan could be assembled, the Department of the Interior should not contribute funds. Specifically, Cornell asked for a study that would be "applicable to similar areas where the economic base is the recreational-natural preservation values of the lands."[16]

The early Monoplan reflected an increased focus on multiple use within the Forest Service at that time, particularly the agency's increased willingness to see recreation as a viable economic use. The plan emphasized constraining timber sales in favor of recreational development. This would not only maximize the economic potential of the region but also serve to satisfy mounting political pressure to preserve scenic, undeveloped natural areas. Subsequent proposals for the Mammoth region and the Middle Fork Valley continued to stress balancing recreation-based economic growth with environmental protection.[17]

The studies informing the final Monoplan proposal in 1976 were based on projections of a massive increase in visitation to the Mammoth region stemming from population growth in Southern California, which had historically contributed more than 90 percent of the visitors to the area. Forest Service officials had been expressing concern for some time that this increase would severely stress the existing facilities in the Middle Fork Valley. Following the defeat of the trans-Sierra highway, Inyo officials also recognized that development of recreation facilities in the valley would have to adhere to the stricter "environmental awareness" of the day.

A 1972 recreation plan for the valley suggested a revised and expanded trail system, as well as more dispersed and structured camping to meet this aim. As in many recreation areas in this period, the issue of appropriate development turned on access, making the road the key component of any future valley plan. The authors of the report based their recommendations on the following observations: "The road does not deter, but does aggravate and frustrate the large numbers of visitors who want to take advantage of the recreational opportunities in the planning area or the adjacent Wildernesses. . . . The relatively steep grades, lack of adequate drainage structures, and lack of road surfacing result in more soil loss than is desirable and do not contribute positively toward the quality of the recreational experience."[18] The report concluded that leaving the road as-is, or resurfacing it but keeping it unpaved, would, under the anticipated increases in visitation, lead to higher maintenance costs and more environmental deterioration than if the road were paved.

Paving the road might also have consequences. The authors were concerned that Reds Meadow "could rather quickly become as congested as a typical metropolitan area freeway during the commuter rush." "The idea of bumper-to-bumper vehicles," they added, "is not generally compatible with the low-key feeling of enclosure and relative isolation that the valley now offers." To prevent overcrowding in the narrow valley, Inyo officials suggested that private automobiles be restricted in favor of some form of "public on-the-ground transportation" such as a monorail or a system of "mini-buses."[19] This suggestion was included in the revised Monoplan in 1976, which recommended allocating Inyo National Forest funds for the paving of the Minaret Summit road to Reds Meadow and Devils Postpile, contingent upon the initiation of a shuttle bus or other public transit system.[20]

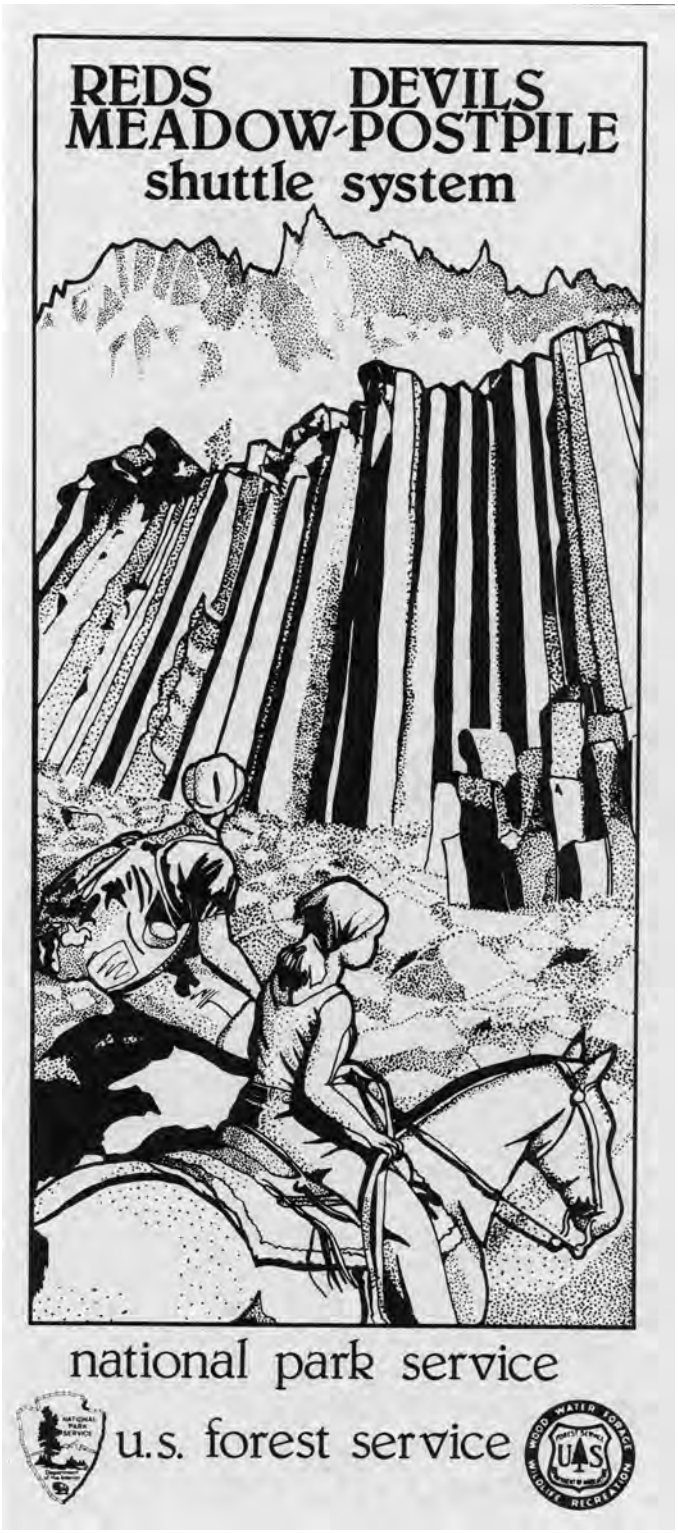
The Forest Service began paving of the entrance road from Minaret Summit to Reds Meadow in 1977, completing the project before the 1978 season. Visitation numbers actually dropped 10 percent from 108,876 in 1977 to 97,961 in 1978. This seemed consistent with the Forest Service's prior assumption that the poor state of the unpaved access road did not deter visitors. However, the drop-off occurred primarily because heavy snow that winter had delayed the opening until June 30, almost a month later than in 1977. Visitation during the months of

July to November actually increased 4.4 percent from the previous year. Park managers also experienced the heaviest visitor use day on record on September 3 when 2,708 people visited the monument in 732 automobiles.[21] These types of days confirmed the need to curtail private automobile use in the valley. As Eckhardt put it, "we really love people in here but we don't know what to do with their cars." When the parking lot filled up, many visitors ended up "going out into the forest and creating scars."[22]

When it began in 1979, the Devils Postpile–Reds Meadow shuttle was the first regionally coordinated, mandatory public transport system serving a unit of the national park system.[23] The Inyo National Forest and the Park Service each contributed $100,000 dollars toward the shuttle during the pilot season. Busses ran every fifteen to thirty minutes from 7 a.m. to 5 p.m. every day from early July through Labor Day weekend. Day users were required to park at the Mammoth Mountain Ski Area and pay $1 per person or $3 per family. Only people with camping, lodging, or pack trip reservations were allowed to drive into the valley. In a July 10, 1979, press release, Sequoia and Kings Canyon officials described the shuttle "as a means of allowing use to continue and to expand in a very popular area that has limited parking and congested roads." Early public comments were generally positive, with many visitors finding the shuttle to be "worthwhile because it leaves them free to enjoy the scenery and saves them wear and tear on vehicles and the cost of gasoline."[24]

When Inyo officials had a chance to reflect on the system at the end of the season, the results appeared more mixed. Overall, visitors were pleased with the shuttle, viewing it as an appropriate solution to the dust, crowding, and environmental damage of previous years. The condition of the buses and the behavior of some of the drivers, though, generated some negative feedback. With limited funding, the two agencies had purchased several decommissioned school buses. The yellow buses with the words "school bus" painted over "looked like junk buses" in one commenter's opinion. The vehicles were clearly not in the best operating condition, particularly for use on such a challenging road. Inyo officials reported a troubling total of 191 breakdowns over the season. One driver reported that her speedometer had failed, and that later the bus "lost its clutch," forcing her "to speed shift all day." Another explained that passenger noise made it difficult to listen to the engine, "which reduced my confidence in their mechanical integrity." Several buses lost their brakes, and one rider found it troubling that a rock had to be placed behind the rear tire to keep their bus in place. Others complained about the noise of the buses, the dirty windows, and the exhaust fumes that streamed in through open windows on the uphill sections. Due to frequent breakdowns and delays unloading backpackers, drivers often increased their speed to make up time between stops. One of the drivers was reported to have "nearly swiped a VW bus." Another concerned rider wished that the "driver wouldn't get so much air on bumps." An Inyo employee sensed a problem when the bus he was riding passed another bus on the uphill grade. While most of the drivers were safe, responsible, and respectful of the passengers, others were less reliable. One driver missed the Pumice Flat stop because he was "spaced out" according to his own explanation. While passengers seemed to enjoy the radio banter between the drivers, one commenter complained about the frequent use of expletives in the presence of children and the open criticism the drivers leveled at each another over the radio. And while some drivers had extensive knowledge of the area (one was "right on with his wildflower identification" according to an Inyo employee), others passed on misinformation or were rude to visitors with questions.[25]

Despite the varied responses, positive comments far exceeded negative ones, and both agencies considered the shuttle an unequivocal success. Sequoia and Kings Canyon administrators noted that annual visitation to Devils Postpile had decreased more than 20 percent, probably



Devils Postpile–Reds Meadow shuttle brochure. (Courtesy of the Yosemite National Park Archives, Museum, and Library)

Line for the shuttle bus at the monument ranger station, 1980. (Devils Postpile National Monument image collection)

as a result of the shuttle, to 81,300. On-site managers welcomed the change, as it freed up time for interpretive services, enabled rangers to meet incoming buses, and allowed work to be completed on retaining walls and log abutments at Rainbow Falls.[26]

The second season went smoother than the first, as Inyo officials took greater care to screen drivers and ensure proper bus maintenance. The financial cost to both agencies, however, emerged as a significant problem. While a total of 44,700 bus riders had paid nearly $39,000 in fares, this hardly made up for the more than $100,000 put up by each agency to keep the shuttle running through the summer. In October 1980, Sequoia and Kings Canyon superintendent Boyd Evison expressed support for a fare increase to $2 per individual or $6 per family. However, he was concerned that such an increase might not be permitted under "current Service and Administrative guidelines."[27]

Building anti-tax sentiment at that time, combined with pressure from President Reagan's fiercely conservative Secretary of the Interior James Watt, had led Congress to object to increased user fees at national parks and other public recreation areas in this period. In 1981, Congress cut the National Park Service budget by 3 percent, forcing officials in the regional offices to reprioritize spending. Costs to cover inflation on the transportation systems at Yosemite and Grand Canyon ultimately took precedence over the interagency shuttle experiment at little-known Devils Postpile National Monument. In response, regional officials decided to back out of the agreement with the Inyo National Forest. The Forest Service determined it could not fund the shuttle without the Park Service subsidy, and so began accepting bids for a nonsubsidized contract shuttle. Only one company, Quicksilver Stage Lines of Mammoth Lakes, bid for the contract. With few other options available, the Forest Service accepted the offer, and the fare was set at the significantly higher rate of $5 per person.[28]

The increased fare sparked a firestorm of criticism from visitors. The cost to families was an especially sore spot. "A family of four will have to spend $20 to see Devils Postpile, a national monument. Ridiculous!" complained one visitor.[29] A tally of visitor comments showed that nearly 50 percent were negative as compared to only 5 percent in 1979. Nearly all negative comments involved the increased fare. Obscene remarks were common. "All too often attendants were called 'goddamn fools,' 'assholes,' and [were] frequently told, 'you ruined my vacation,"' according to entrance station operator Linda Zonni.[30]

One of the blue Quicksilver Stage Line shuttle busses that operated from 1981 to 1986. (Devils Postpile National Monument image collection)

Ridership dropped markedly in 1981 from more than 44,000 to just over 18,000. Overall, the number of people entering the valley actually increased, but many visitors changed their use patterns to avoid paying the higher shuttle fee. Devils Postpile maintenance ranger Walt Hoffman told a *Los Angeles Times* reporter, "we're getting crowds in here as early as 7:30 a.m. and after 5 p.m., but the place is nearly empty midday." As a result, fewer visitors were attending the ranger walks and interpretive activities that typically took place during the day. Bob Tanner at Reds Meadows also expressed concern about the effects of the rate increase on his business. While he had been skeptical of the shuttle plan when it began, the 1979 season demonstrated that the shuttle "was the obvious solution" to the problem of overcrowding, and it did not significantly impact his business. The 1981 season was different. The Reds Meadow lodge remained at normal capacity, however, the number of day-ride pack trips, his most popular offering, declined. "The people just aren't coming in to spend the day," Tanner said. "Now they rush in after 5 p.m. and go right back out, trying to get out before dark." Families were especially hard hit, which also affected Tanner's bottom line. "If a family has to spend $20 to get down here, they don't feel like spending more here!" Many day users were also purchasing the $3 camping reservation in order to get around paying the shuttle fee. Such practices were against the law and carried a $25 fine, but Inyo officials had "little way to detect such a circumvention of the park-and-ride rules."[31]

In September 1981, Regional Director Howard Chapman wrote to the director of the Park Service, indicating that Devils Postpile staff "believes that it can handle automobile access without a shuttle by making some relatively minor modifications for parking." The plan was to move backpacker parking onto the adjacent Forest Service land. Chapman also felt that the Inyo National Forest would not be able to continue the bus service, considering the minimal profits brought in by the contractor that season. "Before next operating season," he wrote, "we will plan to resolve the matter with the Forest Service in such a way that the visitor to Devils Postpile will not be burdened with an exorbitant bus fee just to visit the monument."[32]

Forest Service officials were determined to continue the shuttle even without Park Service cooperation. They were also more confident that visitors would come to accept the shuttle as necessary to improve the quality of the overall experience with the valley. Zonni suggested that the outcry over the increased price in 1981 may have been the result of a lack of information about the shuttle system. In the two years prior, the Mammoth ranger station had issued brochures describing the service to area businesses. In 1981, a backlog of projects prevented this from happening, and as a result, visitors were unprepared for the fee. The 1982 season provided some validation of Zonni's assessment. Ridership increased 56 percent and the visitor center received far fewer complaints, most of which involved wait times rather than high cost of the fare, which remained the same for individuals but was reduced slightly for families

and groups. Also, Forest Service efforts to install road signs, provide information about the shuttle at the visitor center, and print brochures prepared visitors ahead of time, allowing them "sufficient time to consider the alternative methods of visiting Devils Postpile" before they reached the entrance station. Following the initial shock of the 1981 season, visitors became accustomed to the shuttle, and most were resigned to paying the fee.[33]

As ridership increased in the mid-1980s, Inyo National Forest officials began putting pressure on the Park Service to resume a more active role in the operation of the shuttle system. In a report on the 1986 season, Inyo transportation officer Deborah Nelson urged Devils Postpile's rangers to staff the entrance station "on a more equal basis." Her request was based on visitation statistics showing that the vast majority of day users riding the shuttle were visiting the monument. She argued that "using Devil's Postpile employees as much as 50% of the time would not be unreasonable," especially considering the benefits the shuttle had brought to the entire valley. The shuttle not only protected the "fragile, sensitive, and magnificent environment" but also provided visitors with a quality rustic experience. "The system has generally been accepted by the forest visitors as a necessary pain-in-the-neck to maintain a feeling of peace and solitude once in the valley," Nelson wrote.[34]

The issue came to a head in 1992 when Mammoth Mountain Ski Area (which had replaced Quicksilver as the contract holder in 1986) reported it was losing money at the rate of one dollar for every two collected. Resort managers had apparently heard rumors that the federal government would be reinstating a subsidy. While the rumors were unfounded, both agencies considered this an urgent matter. Park Service officials recognized that the discontinuation of the shuttle would require "major changes . . . in the operation of Devils Postpile." Because of continuing increases in visitation to the Mammoth area, the entire operation of the park had become "based largely on public transportation." Without the shuttle, on-site rangers would be forced to turn away large numbers of visitors. "This scenario," concluded Sequoia and Kings Canyon acting superintendent Scott Ruesch, "would be unresponsive to the needs of the public and potentially embarrassing to the Service."[35]

Continued pressure from Nelson also forced the agency to take greater responsibility for the shuttle. At an interagency meeting before the 1992 season, she pointed out that 75 to 90 percent of the day-use riders were headed for the monument. Since Devils Postpile had become "a major factor in local tourism," she argued, the Park Service was obligated to relieve the Forest Service of the sole responsibility for managing the entrance stations. In response, Ruesch suggested that the Park Service increase its current shuttle contribution of $2,000 to $13,400. The Service would also staff the lower entrance station at the Mammoth Mountain Ski Area parking lot, which the resort was planning to close to cut costs. The regional office approved this change, and beginning in 1992, the Park Service assumed a more active role in the day-to-day operation of the shuttle.[36]

Eckhardt regarded the shuttle as the most important change in the administration of the valley during his tenure. It represented a "model for what can be done in other areas" and an example of "two federal agencies and a private agency working together." In addition to all but eliminating the dust and parking problems of earlier years, it also brought a different kind of visitor to the monument—one less accustomed to "roughing it" in a rustic setting. While Eckhardt found it somewhat difficult to relate to this "broader group," which eventually included increasing numbers of foreign visitors, he also felt it expanded the Park Service's opportunities for interpretation. Contact with a Park Service ranger, Eckhardt felt, allowed many visitors who otherwise had little knowledge of the Sierra Nevada or the national parks

and monuments to gain something more substantial than simply a scenic view from their brief visits to the valley.[37]

The shuttle also became a formal link between the monument and the greater Mammoth Lakes area. Whereas in previous years, the rough road over Minaret Summit left Devils Postpile and the Middle Fork Valley to the most adventurous tourists, the shuttle wove the valley into the private-public recreation complex surrounding Mammoth Lakes. The shuttle freed up access, bringing Devils Postpile closer to the center of the regional tourist circuit. It also gave Mammoth Mountain Ski Area a direct economic stake in visitation to the monument and the Middle Fork Valley. This greater integration into the regional recreation economy shaped visitation patterns and management issues at Devils Postpile through the late twentieth century and into the twenty-first.

Notes

1. Palmer, Eckhardt interview.
2. Ferrell, Eckhardt interview. Except where otherwise noted, all quotations and information in the following paragraphs come from this interview.
3. "Memorandum of Understanding between Madera County Sheriff's Department and Devils Postpile National Monument," June 8, 1988, unaccessioned DEPO files, "DEPO/ External Agencies: Court Topics," YNPA.
4. Inyo National Forest, "Recreation Management Plan: Reds Meadow Inyo National Forest," draft, 1972, 16; and Inyo National Forest, "Recreation Management Plan: Reds Meadow Area Inyo National Forest," final draft, approved May 8, 1972, both in Inyo National Forest History Files, Mammoth District Ranger Station.
5. Walter A. Starr, Jr., *Guide to the John Muir Trail and the High Sierra Region* (San Francisco: Sierra Club, 1934), 3, 45–46.
6. Excerpts of the report attached to Resources Management Specialist (George S. Briggs) to Superintendent, May 25, 1972, unaccessioned DEPO files, "Management and Planning," YNPA.
7. Sierra District Ranger to Superintendent, February 5, 1973, unaccessioned DEPO files, "Management and Planning," YNPA.
8. "Minutes of the Pacific Crest Trail Advisory Council Northern California Section," March 23, 1973, unaccessioned DEPO files, "Management and Planning," YNPA.
9. "Proposed: Re-route a Portion of the John Muir Trail, By-passing the Visitor Trail beyond the Devils Postpile," September 1, 1976, unaccessioned DEPO files, "Geology, History, Brochures, SEKI Archives, Brook Fisher Collection," YNPA.
10. Ibid. A separate study of the potential impacts on cultural resources was also conducted. It determined that the reroute would not damage any of the archaeological sites identified by a 1968 study of the area and other sites located by Wymond Eckhardt. Archaeologist, Division of Cultural Resource Management, WR to Chief, Western Archeological Center, October 8, 1976, unaccessioned DEPO files, "Geology, History, Brochures, SEKI Archives, Brook Fisher Collection," YNPA.
11. Morse interview.
12. Ibid.
13. Acting Superintendent, Sequoia and Kings Canyon (John C. Raferty) to Regional Director, Western Region, re: "Management Objectives, Devils Postpile," January 28, 1974, unaccessioned DEPO files, "Management and Planning," YNPA.
14. Stanley Albright, "Superintendent's Annual Report 1972," unaccessioned DEPO files, "DEPO cultural/natural resources," YNPA.
15. John L. Nordmark, Project Manager Monoplan Associates, to John McLaughlin, Superintendent Sequoia Kings National Park, September 18, 1972, unaccessioned DEPO files, "Management and Planning," YNPA.
16. Douglas B. Cornell, Jr., to Director, Western Region, October 19, 1972, unaccessioned DEPO files, "Management and Planning," YNPA.

17. Constance I. Millar, "The Mammoth-June Ecosystem Management Project, Inyo National Forest," *Sierra Nevada Ecosystem Project: Final Report to Congress*, Vol. 2 (Davis: University of California, Water and Wildland Resources, 1996), 1281–82.
18. Inyo National Forest, "Recreation Management Plan: Red's Meadow Area Inyo National Forest," final draft, approved May 8, 1972, 13, Inyo National Forest History Files, Mammoth District Ranger Station.
19. Ibid., 18.
20. Dick Tatman and John Platt, Division of Engineering Region 5 US Forest Service, "A Study Proposal: Red's Meadow Bus Shuttle," August 10, 1976, unaccessioned DEPO files, "DEPO Transportation, Shuttle Bus," YNPA.
21. "Sequoia and Kings Canyon National Parks and Devils Postpile National Monument, Superintendent's Annual Report for 1978," 1978, unaccessioned DEPO files, "Annual Reports," YNPA.
22. Ferrell, Eckhardt interview.
23. Runte, *Embattled Wilderness*, chap. 13; and Michael F. Anderson, *Polishing the Jewel: An Administrative History of Grand Canyon National Park* (Grand Canyon: Grand Canyon Association, 2000), 77.
24. "Superintendent's Annual Report for 1979, Sequoia and Kings Canyon National Parks," 1979. unaccessioned DEPO files, "Annual Reports"; and Sequoia and Kings Canyon National Parks, "Shuttle Bus Operating at Devils Postpile and Reds Meadow," July 10, 1979, unaccessioned DEPO files, "DEPO Transportation, Shuttle Bus," YNPA.
25. Richard C. Warren, Visitor Information Specialist, "Reds Meadow-Devils PP Shuttle," September 7, 1979., unaccessioned DEPO files, "DEPO Transportation, Shuttle Bus"; Linda Zonni, "Visitor Comments: A Comparison of the 1979 and 1981 Shuttle Seasons," September 18, 1981, unaccessioned DEPO files, "DEPO Transportation, Shuttle Bus," YNPA.
26. "Superintendent's Annual Report for 1979, Sequoia and Kings Canyon National Parks," 1979, unaccessioned DEPO files, "Annual Reports," YNPA.
27. Superintendent, Sequoia and Kings Canyon (Boyd Evison), to Regional Director, Western Region, October 1, 1980, "Superintendent's Annual Report for 1979, Sequoia and Kings Canyon National Parks," 1979, unaccessioned DEPO files, "DEPO Transportation, Shuttle Bus," YNPA.
28. Regional Director, Western Region (Howard Chapman), to Director, National Park Service, September 3, 1981, unaccessioned DEPO files, "DEPO Transportation, Shuttle Bus," YNPA; and Ronald B. Taylor, "Park Victim of Bureaucratic Web: US Agencies Blamed for Drop in Devil's Postpile Visits," *Los Angeles Times* August 12, 1981, 25.
29. L. Larsen, "Letters to the Editor," *The Review*, September 3, 1981.
30. Zonni, "Visitor Comments." Other comments included: "I think we'll just forget about the Postpile"; "Can't believe you could screw up something as good as the shuttle"; We'll just go on to Reno and try and win enough money to take the shuttle"; "Ok I guess we just won't go see *OUR* National Monument"; "The Forest Service is crazy"; and simply, "SHIT!"
31. Taylor, "Park Victim of a Bureaucratic Web," 25
32. Regional Director to Director, September 3, 1981.
33. Zonni, "Visitor Comments"; Phil Collins, "A Report on the 1982 Reds Meadow–Devils Postpile Shuttle System," February 7, 1983, unaccessioned DEPO files, "DEPO Transportation, Shuttle Bus," YNPA.
34. Deborah Nelson, "1986 Red's Meadow/Devil's Postpile Shuttle Bus Report," October 15, 1986, 3, 5. unaccessioned DEPO files, "DEPO Transportation, Shuttle Bus," YNPA. At the start of the 1986 season, the bus contract was reevaluated and awarded to the Mammoth Mountain ski resort, which offered a lower rate of $3.50 per person, spurring a ridership increase of nearly 10 percent for each of the next two years.
35. Acting Superintendent, Sequoia and Kings Canyon (Scott M. Ruesch), to Regional Director, Western Region, May 7, 1992, unaccessioned DEPO files, "DEPO External Agencies," YNPA.
36. Ibid.
37. Ferrell, Eckhardt interview.

Chapter Twelve

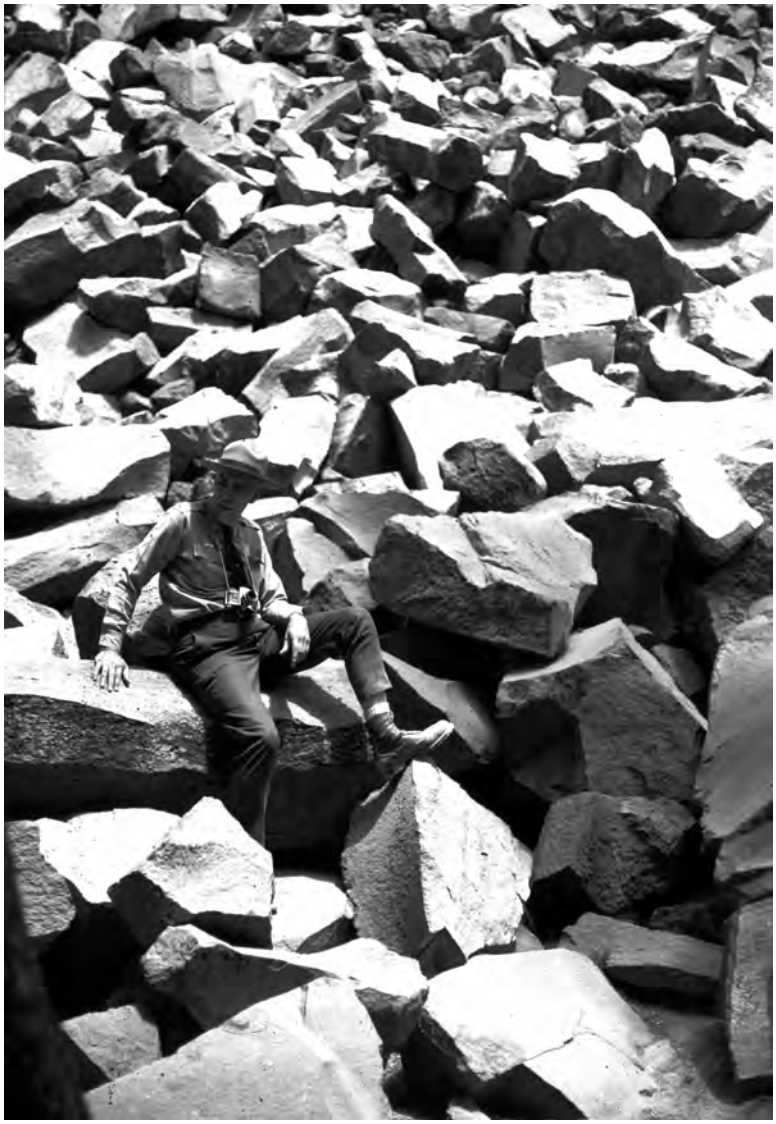
Toward a "Quality Monument Experience": Resource Management and Wilderness Politics, 1972–2000

In 1973, Eckhardt prepared a schedule of priorities for the administration of Devils Postpile. A central concern was keeping the monument distinct from the recreational development on the surrounding Forest Service land. He expressed frustration with "park people" (supervisors from Sequoia and Kings Canyon National Parks and the regional office) who he felt were "trying to impose park ways on a monument." Eckhardt believed that in contrast to large national parks, where recreational considerations shaped management, monuments like Devils Postpile should be managed for their specific scientific or historical interest. He resented his supervisors' lack of knowledge of the area and minimal commitment to devising policies appropriate to this particular unit of the park system. "They're always going off to someplace else," he remarked, "we usually feel that we are tacked on to another visit, to other business." As a result, he found it difficult to provide visitors with what he regarded as "a quality monument experience" centered on interpretation and ranger contact as opposed to simply recreation or sightseeing.[1]

Eckhardt's aim was to manage the monument as a separate unit within the larger Mammoth recreation complex. Although connected to the regional tourist infrastructure, the monument was to serve a distinct purpose as a site for interpretation and education. This would, he felt, ensure the long-term relevance of the Park Service in the region, while also minimizing the need for funds, manpower, and resources from the larger park that ultimately had jurisdiction over the monument.[2]

Later planning documents reflected this call for greater emphasis on scientific interpretation and education. In a 1978 management statement, Park Service officials recommended an "active research program designed to provide management with decision assistance in all aspects of planning, development, and management." Other objectives included restoring meadows damaged by visitor use, encouraging universities and research institutions to "use the resource in geologic education, research, and field studies," and providing "the highest quality opportunities for visitor understanding, compatible use, and enjoyment of the monument's resources." As in previous years, meeting these goals involved maintaining good relations with the Inyo National Forest, as well as with Mono County and Madera County officials. The report also revived calls to eliminate camping and "manage the Monument as an interpretive feature primarily for day use." All of these measures were envisioned as necessary to defend the borders of Devils Postpile against mounting recreational pressures, which threatened to distract visitors from the monument's significant resources and damage the area's biological integrity and natural setting.[3]

This defensive posture brought the monument more in line with a prevailing emphasis on science and ecological management within the Park Service during this time. However, sparse funding, combined with the tight focus on interpretation, tended to draw administrative attention away from continuing regional battles over development and wilderness that did not seem to directly impact interpretive services. While agency officials took part in trail and road projects that extended outside monument boundaries, they backed away from local debates over a proposed expansion of the Mammoth Mountain Ski Area in the 1970s and took no



Ranger Coy sitting in the Postpile talus, 1972. (Devils Postpile National Monument image collection)

position on the long battle during the 1980s to enlarge the existing Minarets and John Muir wilderness areas.

Resort Expansion and Wilderness

Skiing had been a popular recreation activity in the Eastern Sierra since the 1930s when the first cable and rope tows were installed on McGee Mountain and the east slope of Mammoth Mountain. Over the ensuing years, avid skier Dave McCoy became the central figure in the development and popularization of the sport in the region. McCoy had been operating rope tows in the area for more than decade when he began to develop the deep-powdered north slope of Mammoth Mountain in 1949. During the first years of operation, he used army surplus "weasel oversnow vehicles" to shuttle equipment and skiers to the top of the slopes. In 1952, the Inyo forest office approved McCoy's application for the installation of a chairlift and

the development of the north slope of the mountain. In 1955, the Mammoth Mountain Ski Area began operation. Between 1955 and 1962, winter visitation to the Mammoth Lakes area exploded from 14,000 user days to more than a quarter million.[4]

Other than popularizing the area generally, the expansion of skiing at Mammoth Mountain did not directly impact the Middle Fork Valley. This changed in 1971 when McCoy revealed plans to extend skiing to the "backside" of the mountain east of Devils Postpile. The Inyo National Forest included McCoy's planned expansion in its 1972 recreation management plan. The proposal was for "two gondolas, three chair lifts, and one T-bar with a total estimated capacity of 4,500 skiers at one time." Reds Meadow would serve as the base of operations, requiring that the road be improved and plowed during the winter. Bob Tanner viewed this as a boon for business, feeling that the visual impact of the ski lifts would be worth the financial gain of maintaining a winter operation. The expansion would increase the capacity of the Mammoth Mountain to approximately 22,500 skiers at one time. At the time, Mammoth already accommodated an estimated one-fourth of all skiing use in California. The development of the west side, in combination with McCoy's even more ambitious plan to extend the resort all the way along the San Joaquin Ridge to June Mountain, would have made Mammoth Mountain one of the largest recreational ski complexes in the world.[5]

Park Service officials expressed little concern with this growth in the skiing industry in the area. In a 1974 management report, Sequoia and Kings Canyon acting superintendent John C. Raftery made no mention of McCoy's and Tanner's winter development plans, indicating that "skiing in itself has little effect on use and visitation to Devils Postpile." He did, however, note the indirect influence. "Accommodations are . . . being generated by the ski trade at an extremely rapid pace," he wrote. "These accommodations including overnight and restaurant facilities and scenic gondola rides combined with the region's excellent fishing, outstanding natural scenery, pleasant summer temperatures, and the wilderness threshold, all serve as inducements to attract greater numbers of summer visitors."[6] A 1978 management statement further stressed that "outside activities," including recreational development on the adjoining Forest Service lands, "greatly influence conditions within the Monument." However, the report concluded that the "effects of these influences are not precisely known," and recommended the issue for further study.[7]

A grassroots campaign composed of many of the same locals who had fought the trans-Sierra highway stepped up to prevent the expansion of the ski resort. In 1978, author and publisher Genny Smith (previously Schumacher) helped organize the San Joaquin Wilderness Association. The association had the dual purpose of blocking ski resort development and closing the wilderness gap, which the trans-Sierra highway had been slated to pass through. In September 1978, Smith wrote to Robert Rice, supervisor of Inyo National Forest, expressing the association's position. She kept her arguments cautious, not wanting to rupture the alliance between activists and local business interests that had been so vital to blocking the Minaret Summit road. Whereas some viewed ski resort expansion and wilderness as "two issues on a collision course," Smith hoped to dispel "extremist antagonisms" and find a way for skiing and wilderness to "exist together, side by side, harmoniously and happily."[8]

Doing so would require compromise. For Smith, the issue came down to ranking the three possible locations for ski resort expansion. In her assessment, the San Joaquin Ridge from Mammoth Mountain past Minaret Summit to June Mountain would be the least damaging location, followed by the Sherwin Bowl on the south slope of the Mammoth Lakes basin. Smith was willing to concede these locations if the backside of Mammoth Mountain remained undeveloped. She argued that development would impede the "visual quality" of the scenery

looking outward from the existing wilderness area enclosing the Ritter Range. "The view eastward across the canyon of the Middle Fork of the San Joaquin to the huge slopes of dense forest below San Joaquin Mountain and Mammoth Mountain and Mammoth Crest," she stated, "adds immeasurably to the feeling of wildness and solitude."[9]

The association's success stemmed, in part, from its identification of the potential economic value of wilderness-oriented summer recreation. Advocates also demonstrated skill in navigating the new political channels opened by the 1964 Wilderness Act. When it was passed, the Wilderness Act marked a major turning point in American environmental politics. While concern over the intrusion of roads, cars, and tourist accommodations into previously difficult to access areas remained a priority for many conservationists, wilderness also became a symbol of Americans' growing concern with the consequences of their traditional commitments to economic progress and technology.[10] Wilderness was not simply space for recreation, others argued. It was also a scientific resource as well as a vital part of the nation's heritage. Invoking sentiment for a bygone (albeit mythical) frontier, author Wallace Stegner described wilderness as "the challenge against which our character as a people was formed."[11] The Wilderness Act inscribed these ideas into law, becoming the first of a new generation of environmental legislation that significantly increased the government's power to protect the nation's aesthetic, scientific, and historic resources. In the decades that followed, the Wilderness Act also became a powerful tool that even small groups of advocates could use to protect public lands from economic development.[12]

One of the most important aspects of the act was its stipulation that the Forest Service evaluate its roadless areas for inclusion in the national wilderness system. The first Roadless Area Review and Evaluation (RARE I) took place in 1967 and declared some 56 million acres of national forest land suitable for wilderness designations. Afterward, the courts ruled that the evaluation had not met the requirements of NEPA, prompting a second study by the Forest Service between 1977 and 1978. RARE II recommended wilderness designations for 15 million acres and identified another 11 million acres for further study. The courts eventually invalidated many of these findings as well, but the inventory remained an important reference point for grassroots organizations like the San Joaquin Wilderness Association.[13]

RARE I had classified the south end of the Middle Fork Valley up to the south and west boundaries of Devils Postpile as suitable for inclusion into the wilderness system. However, the Forest Service removed the area from consideration in RARE II. A series of letters to Congress from Genny Smith and Acting Chairman Hal Thomas emphasizing the area's value for wilderness-oriented summer recreation spurred a reevaluation. In March 1979, Congress ordered the Forest Service to place these areas back into its wilderness inventory and extend the recommendation to the entire upper Middle Fork Valley with the exception of the road corridor and the developed areas around Agnew Meadows, Devils Postpile, and Reds Meadow. Smith drew up a series of color-coded maps based on the revised inventory, using them as the basis for a proposal for a significantly enlarged wilderness area. At the same time, the association continued to stir up local opposition to ski resort expansion.[14]

This pressure eventually convinced Mammoth Mountain Ski Area to relent in its push to develop the backside of Mammoth Mountain. In March 1980, General Manager Gary R. McCoy (Dave McCoy's son) wrote to the chairman of the congressional subcommittee on public lands John Seiberling offering to support a wilderness designation for the Middle Fork Valley. McCoy's concession came with the stipulation that the east side of the San Joaquin Ridge be left open for future development as Smith had suggested in her original 1978 proposal.[15] In 1982, Congress approved the closing of the wilderness gap west of the valley, expanding

the existing Minarets Wilderness to form the new Ansel Adams Wilderness. Two years later, Congress passed the California Wilderness Act, extending the Ansel Adams Wilderness to the boundary lines agreed to by McCoy in 1980. The larger wilderness covered the southern, western, and northern sections of the upper Middle Fork Valley, excluding the road corridor and the developed areas but including nearly 85 percent of Devils Postpile.

As an administrative unit of the National Park Service, Devils Postpile had not been included in the Forest Service's RARE inventories. Smith had also identified it as a separate unit in her wilderness proposal maps. Congress, though, did not consider jurisdictional boundaries a significant factor in its decision to include portions of the monument in the wilderness. The legislation simply included all of the roadless federal lands in the Middle Fork Valley within the new wilderness area. Park managers did not initially take notice of this designation. The monument's ease of access from a road and popularity with day tourists, they believed, gave it a significantly different character from the surrounding peaks and alpine basins for which the wilderness designation seemed more appropriate.

This view echoed the Park Service's early resistance to the Wilderness Act. At the national level, officials responded to the passage of the act by arguing that the agency already had a wilderness policy. Overlaying land-use directives, they felt, might undermine the Service's long-standing autonomy in policy making. By the late 1970s, however, most officials had embraced the national wilderness preservation system and the agency was flooded with proposals for wilderness areas in park units. After Devils Postpile's inclusion in the Ansel Adams Wilderness in 1984, Eckhardt continued to hold the earlier stance, maintaining that the Park Service already managed the monument as a rustic, minimally developed natural area. For him, the wilderness designation did not change any of the policies already in place. The designation became important, however, in preventing development of areas outside the park.

Natural Resource Inventory and Management

Since the 1960s, the National Park Service had faced pressure to incorporate ecological science into its management priorities. In 1963, A. Starker Leopold's *Wildlife Management in the National Parks*, better known as the Leopold Report, urged the Park Service to manage the parks as intact ecosystems, preserving the natural conditions existing at the time of initial Euro-American contact. Environmental legislation passed in the 1960s and 1970s put additional pressure on the agency to emphasize ecological considerations. In 1980, a study of the "state of the parks" found that environmental threats originating from both inside and outside park boundaries plagued nearly every unit of the system. Solving these problems would require the Park Service to "significantly expand its research and resource management capabilities" by increasing funding for scientific research and resource management training. Two reports published in 1992—the National Academy of Science's study of science in the national parks, and the Vail Agenda, an internal evaluation of the Park Service's responsibilities for the future—echoed these earlier studies, reiterating the agency's inadequate attention to ecology and scientific research.[16]

Although the process unfolded slowly, the Park Service gradually incorporated ecological principles, even in small monuments like Devils Postpile. The monument's small size and location in a narrow valley near the headwaters of the San Joaquin actually made its natural resources and biological conditions comparatively easy to inventory. Resource inventories also complemented the monument's interpretive programs. In the 1960s and 1970s, park staff broadened interpretation the monument to include the history of conservation in the Sierra Nevada, the history of the John Muir Trail, and the biology of the monument. This

expanded program required a corresponding effort to gather information on the park's history and biological resources. In a 1982 natural resource management statement, park officials recommended updating the monument's species list, live-trapping and inventorying small mammals, maintaining a collection of plant and animal specimen samples, establishing liaisons with researchers in the area, and assembling a "photographic slide collection of representative fauna, flora, geomorphology, geological items and images that illustrate local geophysical processes or events." Plant and wildlife inventories conducted during this period provided a knowledge base for the more intensive ecological management and monitoring programs initiated in later years.[17]

The long-standing relationship between the Park Service and the Inyo National Forest also influenced maintenance and resource management proposals, many of which extended beyond monument boundaries. Water quality and sewage disposal in the Middle Fork Valley had required interagency cooperation since the 1930s. In the 1982 report, monument officials recommended a more intensive program of water quality monitoring for the purpose of meeting state and federal regulations. Monitoring would also aid in "identifying sources of pollution either originating in or entering the monument; and characterizing long-term changes in the monument's water quality." Such a program would "be done either in conjunction with monitoring in the Inyo National Forest, by USGS, or by some other local agency with monitoring capabilities."[18]

Fire management also required cooperation with the Forest Service. The two agencies had long worked together to suppress fires in the region. By the 1980s, both agencies were beginning to incorporate ecologically informed alternatives to outright suppression. The 1982 natural resources management plan noted that while the sparse understory in the monument and the surrounding area made fires infrequent, the possibility still existed for large catastrophic blazes if conditions were right. The report recommended that "small scale prescribed burning" might prevent this possibility, but suggested that "the role of fire in this fuel type needs to be better understood before such management is implemented." The authors proposed a study of "the natural role of fire in lodgepole pine" forests, stating that "without information on the role of fire in the monument, fire could be misused as a management tool." Although the 1982 plan described the monument as "much too small to provide adequate information on the topic," monument officials remained confident that permission to expand the study could be secured from the Inyo National Forest.[19]

The report also recommended that Devils Postpile be attached to the fire program at Sequoia and Kings Canyon, which had in previous years produced many of the baseline studies for reintroducing fire regimes to national park landscapes. By 1979, the park had assembled a detailed inventory covering fifty-five years of fire history. This exhaustive catalog allowed the park to develop a bold plan to let some human-caused fires burn in areas where suppression had significantly increased the fuel load. Sequoia and Kings Canyon, however, left Devils Postpile out of its fire management program through the 1980s due to its difficult access and the lack of historical data on fire regimes in the area and in high elevation lodgepole forests generally.[20]

The need for a fire program in Devils Postpile became apparent on August 20, 1992, when the lightning-caused Rainbow Fire roared up the Middle Fork canyon, burning over 80 percent of the monument. Suppression took a cooperative effort involving more than 600 firefighters drawn from as far away as Alaska. The combined force managed to save all of the structures at Reds Meadow and Devils Postpile; the only casualties being several boundary and trail signs, two Forest Service vehicles, and a fifth-wheel trailer that burned when embers dropped on its

canvas cover. However, the environmental effects were more widespread when the wind-driven flames burned into the forest crown and scorched deep into the soil over the southern portion of the monument, killing many trees and eliminating understory vegetation. Fish kills were also noted in Boundary Creek.[21]

The 1992 Rainbow Fire from Reds Meadow Pack Station. (Devils Postpile National Monument image collection)

The Rainbow Fire drew the attention of Sequoia and Kings Canyon's fire specialists. Their post-fire assessment reflected the prevailing ecological view of wildland fire in the Park Service at that time. Although the team noted severe vegetation loss, some fish mortality, and damage to trails, they also emphasized the fire's positive effects. The team anticipated some wildlife displacement in the burned over areas, but noted that the "moderate—low intensity spot fires throughout the remainder of the park" had created "new habitat and edge . . . which may enhance the wildlife resource." The team also viewed the fire event as an interpretive opportunity. "From an ecological standpoint," wrote resource specialist Jeffrey Manley, "the fire remains a neutral and natural process that has altered certain aspects of the resource." While the "discernably 'moonscaped"' areas may have negatively affected the area's scenic qualities, park rangers could now encourage visitors "to consider the human perspective of natural aesthetics."[22]

Burnt sign. (Devils Postpile National Monument image collection)

How to rehabilitate the area post-fire proved a divisive issue. The wilderness designation covering much of the burned area kept tensions at bay since it precluded significant alterations to the landscape both inside and outside monument boundaries. What to do with the nonwilderness area surrounding Reds Meadow, however, became a point of contention. At a scoping meeting in February 1993, Mammoth Ranger District officials proposed a logging salvage operation to reduce fuels on 125 acres of burned forest. Forest officials reasoned that the estimated "290 tons of dead and down woody material per acre" could provide fuel for a future blaze.[23]

Eckhardt objected to the plan on several points. First, he pointed out that forest officials' nods to ecological stewardship and fire protection masked the real intent, which was to make a profit off the recovered timber.[24] The Forest Service made this clear in its scoping statement, identifying the "seasonal timing of a timber sale" as an important consideration in carrying out the plan.[25] Eckhardt also warned that removing downed trees would exacerbate erosion, causing silting in the river and threatening its population of wild trout. His "major concern" involved the potential damage the anticipated thirty-to-forty logging trucks per day would have on the narrow entrance road. The road was already showing wear from shuttle bus and RV traffic and logging trucks would only make these problems worse. Eckhardt anticipated that when it came time to repair the damage, the Forest Service would invariably ask Devils Postpile to contribute funds. His reaction revealed lingering interagency tensions over the issue of road maintenance: "The Forest Service needs to understand that the National Park Service cannot support the rehabilitation of THEIR road, even though it does lead to OUR Monument, because it was damaged by THEIR timber sale."[26]

Larry Bancroft, resource management chief at Sequoia and Kings Canyon, offered a more focused ecological critique. The logging operation, he argued, would impair the natural appearance of the area and cause "the loss of visitor opportunity to experience the full range of

fire effects." It would likely aggravate erosion and "deprive the meager soils of much needed nutrients over the long term." The threat of a future fire, Bancroft pointed out, was negligible and would not require the drastic measures proposed by the Forest Service. Instead, he recommended a program of "jackpot prescribed burns" every twenty to thirty years to reduce fuel loads. He also warned against the "artificial regeneration of vegetation on the site," which the Forest Service had also considered. "Genetic integrity," he wrote, "could be compromised through the use of non-local genotypes." Finally, he suggested that "the natural opening created by the fire may provide valuable wildlife habitat including increased browse." To cut over the area and regenerate the vegetation would limit visitors' opportunities to view wildlife and would interrupt the natural fire regime in the area. Bancroft's arguments persuaded the Forest Service to cancel the plan, if only to avoid confrontation with Sequoia and Kings Canyon officials.[27]

Cultural Resources: Post-Fire Inventory and Interpretation

Since the 1930s, managers at Devils Postpile had often noted visitor interest in the ruined cabin at the base of the Postpile. Hartesveldt's 1954 *Nature Notes* article on the history of the area provided much of the backstory for interpretation. Visitor responses to stories of Red Sotcher's elicit cattle trade, "Postpile Joe" the one-armed trapper and carpenter, as well as the valley's other colorful inhabitants, prompted nearly every subsequent ranger to suggest rehabilitating the cabin and incorporating it into regular interpretive programs.

Despite this interest, cultural resource management and interpretation remained low on the list of management priorities. A 1968 San Francisco State College archeological study of the area provided the only significant additions to the anecdotal histories that rangers had been repeating over the years. The study located and documented several concentrations of obsidian arrow points in the monument, confirming that the area had been used as part of a trade route over the Sierra crest. Still, little attention was paid to the area's cultural resources, and no efforts were made to reach out to Native tribes in the area. In 1970, Yosemite ranger Drew Everett attributed this lack of attention to what he regarded as the area's "spectacularly uninteresting" history.[28]

Eckhardt paid more attention to cultural resources, interpreting and recording obsidian sites, US Cavalry T blazes, sheepherder tree carvings, and the "shingle factory" at the King Creek trail junction. He also emphasized the establishment of the monument in interpretive programs, describing it as a key moment in the history of conservation in the Sierra Nevada. In 1985, he coauthored the booklet "The Devils Postpile Story" with N. King Huber. In the early 1990s, Eckhardt also contacted the estate of Walter Huber for photographs to use in a display on the founding of the monument.

The 1992 Rainbow Fire prompted a more formal cataloging of the park's cultural resources. Officials feared that the fire may have destroyed many important sites, and so contracted with the Dames and Moore firm in Chico, California, to record existing park resources and assess the damage. Archaeologists Kathleen L. Hull and Mark R. Hale completed the survey in April 1993, finding that most cultural sites remained intact (though not mentioned in the study, the shingle site was destroyed). Hull and Hale also provided context for the obsidian points found at the locations identified in the 1968 study, confirming the dating of the arrowheads and recommending a subsurface study of the area. They also evaluated the sheepherder carvings and cavalry blazes, noting the similarities between these sites and other documented sites in Yosemite.[29]

The "shingle factory" near the junction of the King Creek Trail, 1977. (Devils Postpile National Monument image collection)

Notes

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Chapter Thirteen

The Making of a Network Park: Ecological Management and Regional Politics, 2000–2010

National park administration changed significantly during the final decades of the twentieth century. The Park Service's traditional emphasis on accommodating scenic tourism became increasingly more difficult to reconcile with new ideas about the preservation of ecosystems. Pressure from inside and outside the Park Service to incorporate science into resource management and planning decisions increasingly shaped administrative priorities.

The environmental movement of the 1960s and 1970s also generated a raft of legislative safeguards affecting park management. Although enthusiasm for new environmental reforms had waned by the mid-1970s, Americans continued to demand transparency in policy making and planning. Under the terms of NEPA, development plans initiated by public agencies required environmental impact statements and were subject to public comment and scrutiny. As a result, Park Service managers became more subject to both internal and external review. Resource management policies and general management plans required public scoping from the early stages of development through implementation. By the end of the century, the agency had become a more thoroughly political organization, charged with balancing the often conflicting interests of a diverse constituency of recreational users, environmentalists, scientists, historic preservationists, Indian tribes, and local communities.

In order to protect valuable resources and establish the regional, interagency connections necessary to incorporate ecological principles, park managers developed specialized skills to navigate the more complicated political terrain. Superintendents and other officials worked toward more extensive intra-agency and external networking, involvement in local and regional politics, and computer fluency for the purposes of documenting management objectives, regulatory compliance, and especially accounting. The history of Devils Postpile since 2000 typifies the challenges and opportunities of the era of ecological management, accountability, and constituency politics.

Deanna Dulen, Ecological Management, and the Making of a Network Park

Eckhardt's traditionalist approach to park management partially insulated Devils Postpile from the more complex politics of the environmental age. In 2000, Deanna Dulen, former director of the Inyo National Forest Mono Basin Visitor Center, replaced Eckhardt as monument superintendent. Dulen's familiarity with the Eastern Sierra and experience crossing agency boundaries made her a good fit at Devils Postpile, but it was her background in ecology and her capacity for networking that brought the monument into the twenty-first century.

If Eckhardt allowed ecological considerations to trickle into natural resource management at the monument, Dulen opened the floodgates by presiding over a number of environmental inventories and monitoring programs. These programs marked a significant shift in policy direction, broadening Devils Postpile's natural resource agenda beyond interpretation and landscape preservation. For Dulen, the monument's location at the crossroads of geologic,

biological, and climatologic zones made it an ideal site for monitoring the ecological health of the entire Sierra Nevada range. Moreover, the professionalization of scientific research in the park would provide environmental data for the entire San Joaquin watershed, and would increase the presence of the Park Service in the Mammoth region. In the process, Dulen transformed Devils Postpile into a test park for ecological management and interagency cooperation, as well as a key site for monitoring the effects of climate change in the Sierra Nevada.

In contrast to Eckhardt who sought to break Devils Postpile's dependence on Sequoia and Kings Canyon, Dulen actively sought out aid from the monument's parent park for facility issues, visitor services, and science programs. She also took advantage of contacts and resources in other parks, as well as in the Inyo National Forest, the USGS, private research foundations, and the local community. In doing so, she reinvented Devils Postpile as a model network park.

The concept of placing parks into regional networks was a direct result of mounting pressure on the Park Service to incorporate ecological considerations into management and planning. In 1999, in order to meet the recommendations of the 1992 Vail Agenda, the agency created the "Natural Resource Challenge." The congressionally funded action plan called for "substantially increasing the role of science in decision-making, revitalizing and expanding natural resource programs, gathering baseline data on resource conditions, strengthening partnerships with the scientific community, and sharing knowledge with educational institutions and the public."[1] To facilitate the inventory park resources, parks were divided into "networks" linked by geography and common resource characteristics. Devils Postpile was included in the Sierra Network of Parks alongside Yosemite and Sequoia and Kings Canyon National Parks.[2]

Devils Postpile benefited from this arrangement, as many of the programs allotted to the larger parks carried over to the monument. In 2001, botanist Melanie Arnett and plant ecologist Sylvia Haultain, both employees of Sequoia and Kings Canyon, conducted a vascular plant inventory of Devils Postpile. Because of the monument's small size, the team was able to conduct a more thorough resource survey than was possible in the larger parks. They documented a surprising 360 vascular plant types within the monument, an increase of nearly 200 types from previous inventories. The survey also noted three species of invasive plants. This finding opened the door for additional funding to remove nonnative plants from several areas in the park beginning in 2002.[3]

Resource inventories tended to have a domino effect, generating additional opportunities for study. In 2001, a volunteer group from the Eastern Sierra Audubon Society surveyed the monument for nesting and migratory birds. Twelve days of birding in the monument and the surrounding area revealed 71 species. The group estimated that an extended survey might find as many as 141 species. They also reported that "the area was especially good for hard-to-find birds such as black swift, pine grosbeak, and black-backed woodpecker, and we really enjoyed witnessing the great migratory passage of yellow-rumped warblers." Dulen considered the bird study to be the "tip of the iceberg," suggesting "DEPO's vital link in nesting and migratory bird needs and habitats." She projected follow-up studies to "expand knowledge of the vital signs that bird populations and nesting successes can provide." In June 2001, Dulen attended a "Partners in Flight Conference" to network and gather additional information on nesting, migrations, and habitat. These efforts led to a vital signs monitoring workshop conducted the following summer.[4]

Dulen sought other sources of funding, earning more than three times her salary in research awards during her second year as manager. Sequoia and Kings Canyon also upped the monument budget by $77,000 in this period.[5] Additional funds enabled the completion

of several much-needed projects: $20,000 from a recreation fee demo program paid for the restoration of disturbed and eroded meadow lands; a Youth Conservation Corp crew from Joshua Tree was brought in to eliminate social trails and rehabilitate the Rainbow Falls Trail and overlook; and a crew from Sequoia and Kings Canyon planted over 200 lodgepole and red fir seedlings in a previously barren area near the campground.

Dulen also pushed for an agreement between the Park Service, Inyo National Forest, and Mono County Sheriff's office to enforce a ban on snowmobiles within the monument. In the mid-1990s, the Forest Service had opened the Minaret Summit road to winter snowmobile use. While the steep descent into the valley and the danger of avalanches prevented heavy use, some riders were passing through the monument, disregarding the prohibitory signs at the park entrance. Increased enforcement in 2001 resulted in "4 citations and 2 warnings, and good press releases on the program."[6]

With the help of contacts at Sequoia, Dulen continued to earn grants and develop partnerships for research and restoration work in the monument. In 2002 and 2003, a grant from the National Resources Protection Program—a joint program created through an agreement between the Park Service and USGS—funded restorative work on Soda Springs Meadow and on riverbanks on the Middle Fork San Joaquin. In 2002, a team from the regional office, aided by the California Conservation Corp and volunteers from the California Native Plant Society, worked to eradicate invasive plant species identified in the previous year's vascular plant inventory. Bird studies were also continued. In 2002, a team from the Point Reyes Bird Observatory drew approximately 400 visitors for an informational program on bird banding. Dulen also contracted with the Forest Service's Pacific Southwest Research Station to provide technical expertise on riverbank restoration and lodgepole pine coring in order to better understand "the history of lodgepole incursion and meadow ecology." In partnership with the California Geographic Alliance, Dulen won a $25,000 grant from the National Geographic Society to provide "information and educational opportunities tide to State Curriculum standards." This award resulted in a *National Geographic* article in 2003, and publication of *The Post*, the park's newspaper.[7]

Even as the monument grew into a hub for Eastern Sierra tourism and environmental research, budget woes and staffing shortages continued to hamper management. During his tenure, Eckhardt had attempted on several occasions to designate a separate budget for Devils Postpile rather than having it "tacked on" to the parent park. Sequoia and Kings Canyon eventually agreed to create a separate budget for the monument in 2000 just as Eckhardt retired, but his history of frugality had set a precedent that made this a difficult transition.[8]

In addition to giving Devils Postpile a separate budget, Sequoia and Kings Canyon officials also transferred responsibility for personnel issues, environmental audits, compliance statements, and other administrative duties previously handled by the larger park. This transfer was also the result of mounting administrative demands at Sequoia and Kings Canyon. The increased salary requirement for a full-time park manager, combined with the higher cost of employee retirement and health care at that time, further limited Devils Postpile's discretionary funds, which at the time were already among the scarcest in the Pacific West region. These problems were compounded by another leap in monument visitation, from roughly 100,000 annual visits through the 1990s to around 150,000 a year after 2000.[9]

With the increase in visitation, law enforcement and visitor safety became immediate concerns. In a 2002 report on the ten most dangerous parks in America, the Fraternal Order of Police gave Devils Postpile a "dishonorable mention for safety." Although serious crimes were infrequent, the park was operating on several informal, outdated memorandums of understanding with

local law enforcement. There were no clear policies to govern jurisdiction or crowd control in the event of a major incident. On June 28, 2003, a club-sponsored motorcycle event brought 163 Harley Davidson riders into the monument, creating a major concern for park employees. As visitation increased, accidents, lost persons, and medical emergencies were also becoming more common. Due to staffing shortages and a lack of formal safety policies, these incidents were addressed on a case-by-case basis and most went unrecorded. An emerging extreme-sport trend generated additional concerns. Monument visitors no longer limited themselves to fishing, hiking, and camping. Some were kayaking the Middle Fork, scuba diving below Rainbow Falls, and even surfing standing waves in the river.[10] Safety concerns led Dulen to recommend hiring a full time visitor-protection ranger to oversee law enforcement and search-and-rescue The funding was not there, however, and Dulen had to settle for giving the maintenance mechanic permanent status instead of hiring a visitor protection ranger.[11]

Whereas Eckhardt sought aid from Sequoia and Kings Canyon, Yosemite, and the regional office only with reluctance, Dulen regarded agency partnerships as vital to overcoming budget shortages, improving visitor services, and expanding the science program at Devils Postpile. To address safety and law enforcement concerns, Dulen "worked out a mutually beneficial arrangement" with Yosemite to provide professional law-enforcement and emergency response staff two days per week. In return, Dulen helped develop an interagency agreement for Yosemite staff to provide interpretive services at the Inyo National Forest's Mono Basin Visitor Center. Devils Postpile also renewed partnerships with the Youth Conservation Corp for trail work. In 2005, Death Valley National Park agreed to sublet an additional pickup truck for use in the monument. To bring the park up to date in its recording and compliance capacities, Devils Postpile partnered with Manzanar Historic Site to develop the monument's Facility Management Software System (FMSS). Sequoia and Kings Canyon's fire and natural resources team also continued work in Devils Postpile, completing an environmental assessment for a mechanical thinning and fuel reduction project in 2005.[12]

As more administrative duties were transferred to the monument, Sequoia and Kings Canyon approved a base increase of $100,000 in 2005. This funded three additional term employees to improve visitor services and handle compliance requirements, reporting, and environmental audits. The park was able to initiate a Junior Ranger program reaching more than 1,000 schoolchildren. Additional funds allowed for the construction and installation of "several well-designed information and interpretive kiosks, and new wayside exhibits for the first time in 30 years." Also in 2005, Dulen was awarded the Pacific West Region's Superintendent of the Year Award for natural resources stewardship and science. The award recognized Dulen's efforts to build a science program in a small park with minimal base funding and no on-site resource management staffing. Her success was the product of "partnerships with other parks in the Sierra Nevada Network, local U.S. Forest Service staff, academic partners, non-profits, and volunteer groups."[13]

Dulen's efforts made Devils Postpile at once more independent and more integrated into intra-agency and external networks. This more complex administrative structure prompted Sequoia and Kings Canyon to reexamine its relationship to the monument. In 2003, park officials had already revised the management agreement with Devils Postpile to include the monument as a "distinct park unit" alongside Sequoia and Kings Canyon. Under the revised agreement,

Devils Postpile will be treated as if it were a third district of the combined park, not as an independent park. The main difference is that DEPO will need relatively more support than the other two districts because it has so few employees. In the past, [Sequoia and Kings Canyon] SEKI's attitude has often been: should we include DEPO when we do something. From now

on, SEKI managers will routinely include DEPO the same as we include Sequoia and Kings Canyon. We now need a reason *not* to include DEPO.[14]

This arrangement gave the monument a more equal share of resources, but it also increased the larger organization's obligations to the smaller, distant unit.

The agreement also included the somewhat contradictory stipulation that Devils Postpile "continue to compete for regional funding and support as a small park."[15] Even though it received considerable support for inventory and monitoring programs, fire management, facility maintenance, and visitor protection as a component of Sequoia and Kings Canyon, the monument would be obligated to seek out additional aid as if it were an independent park. Dulen's arrangements with Joshua Tree, Death Valley, Manzanar, Yosemite, and other organizations reflected this semi-independent status. Over time, however, the situation created confusion, as it became unclear which park, agency, or department had responsibility for the monument's increasingly diverse operational, interpretive, and research programs. There was little communication between Yosemite, Sequoia and Kings Canyon, and the inventory and monitoring team over resource policies in Devils Postpile. Such lapses had led to "unclear delegation and perceptions of 'turf' issues that clouded relationships" between the various organizations.[16]

As early as 2000, Sequoia and Kings Canyon officials had been considering transferring Devils Postpile to Death Valley or even Manzanar. The monument's distance from Sequoia and Kings Canyon and common operating season had created strains on the larger park. In a 2006 organization and operation review of Devils Postpile, regional officials weighed several options for shifting jurisdiction. The preferred option was to return Devils Postpile to Yosemite. As reasons for the transfer the report cited "the historical connection between DEPO and YOSE, their geographic proximity . . . , the intertwined external issues (Mammoth and Lee Vining as common gateway communities, transportation issues, interaction with the Inyo National Forest), similar visitor and use patterns, and the ability of Yosemite to leverage more partnerships for Devils Postpile." Yosemite, however, "was not comfortable supporting this alternative," and so it was dropped from consideration.[17]

The proposed alternative was to reclassify Devils Postpile as an independent park under the Pacific West Regional Office. This option would involve "increased, sustained involvement by Yosemite NP in the areas of law enforcement, interpretation, partnerships and planning, and resource management (to be coordinated with SEKI) as well as continuation of support relationships with Mojave network parks for maintenance support." Since the base park budget would remain the same, the proposal required "continued support by SEKI in the areas of administration, resource management . . . and wildland fire."[18]

Independent status involved a number of proposed changes. First, the review committee advised increasing the "visibility of the Devils Postpile Superintendent in Mammoth Lakes in the winter season." This would require a permanent arrangement for office space in Mammoth Lakes to be worked out with the Inyo National Forest and the Mammoth Welcome Center. Even though the park remained closed in winter, visitors would have the opportunity to acquire information year-round. More important, a winter presence would create an opportunity "for making the NPS a more prominent leader and facilitator on the east side of the Sierra Nevada." The formalization of the interagency shuttle agreement with the Inyo National Forest—in combination with expanded networking with the Yosemite Area Regional Transportation System, the Merced Council of Governments, Mono County and Town of Mammoth Lakes, and the new Inyo and Mono County Joint Powers Authority—would ensure regional recognition of the park as a "valuable, permanent member of the community."[19]

Most important, independent status would require that all inter-park and external partnerships be formalized and updated annually—a significant move away from the ad hoc arrangements and handshake deals prevalent through most of the monument's history. This change would "allow for continuity and sustainability regardless of staff changes in park management." It would also increase transparency and enable the regional office to evaluate accountability and the overall effectiveness of monument policies.[20]

Dulen welcomed this change. In 2007, the regional office provided guidance and emergency support in response to a hazardous material spill. Regional officials also aided in the process of preparing site recommendations for construction of an employee facility and maintenance shop.[21] Independent status also allowed Dulen to develop formal, long-standing partnerships with the organizations she had already been working with. This formalization positioned Devils Postpile more squarely within internal and external networks, providing even greater access to the funds, resources, and expertise to further expand the monument's science program.

One notable result of the network park concept has been Devils Postpile recent recognition as a key site in the Park Service's strategic response to climate change. In 2003, Dulen began working with resource teams in Sequoia and Kings Canyon and Yosemite to take advantage of the monument's location at the boundary between the Eastern and Western Sierra bioregions and its proximity to the headwaters of one of the largest, most heavily developed river systems in the state. That year, regional officials installed a groundwater-monitoring device in Soda Springs Meadow. In 2005, the monument installed an air-quality and ozone monitoring station as part of a joint study between the Forest Service, the Park Service, and several universities. Also that year, Devils Postpile and the Sierra Network partnered with the Scripps Institute of Oceanography and the California Department of Water Resources Snow Surveys Program to install a climate monitoring station at the east end of Soda Springs Meadow. Currently, the station transmits near real-time data on temperature, barometric pressure, wind speeds, snowpack, and river flows. This data contributes to climate research in the Sierra Nevada and helps state officials, power companies, and agricultural interests anticipate water-storage capacity for the many reservoirs and power stations downstream on the San Joaquin River.[22]

In 2008, Dulen presented the results of climate research at Devils Postpile at climate-change workshops held in Yosemite and Bishop. One of her more intriguing suggestions was that due to the north-south orientation of the Middle Fork Valley and its heavy winter snowpack, the area acted as a cold-air trap, making it a possible "refugium" for native Sierra plants and animals as their habitats shift due to a warming climate. Workshop attendees expressed some skepticism of this due to the lack of existing knowledge about the threshold of these types of areas in mitigating climate change. Dulen's suggestion nevertheless spurred calls for more coordinated research and monitoring at Devils Postpile.[23]

By 2009, Park Service teams and contract scientists had conducted extensive research on the vulnerabilities of park resources to climate change. Studies found that groundwater pumping east of the Sierra might affect the health of the monument's meadows and streams. Other research demonstrated that rising temperatures and decreased precipitation might affect wetlands and the various species of amphibians, birds, insects, and mammals that inhabit them. Studies of the fire regime in and around the monument revealed that large fires had been more prevalent in warmer years, suggesting an increased threat of catastrophic fire with global warming. Other studies demonstrated that warming temperatures might encourage the spread of pests and diseases such as the Mountain Pine Beetle and Blister Rust. Finally, warmer temperatures would likely mean a longer recreational season. Increasing visitor use could put further strain on biological resources in Devils Postpile and the surrounding area.[24]

As a result of this work, in 2009, Dulen was asked to serve on the climate change steering committee for the Pacific West Region. Devils Postpile was also added as an important component of the Park Service's Climate Change Response Program, advanced by new Park Service director, and former Pacific West Region director, Jonathan Jarvis. Also in 2009, the Sierra Nevada Alliance recognized Devils Postpile's contributions to climate research, resource protection, and education in the Sierra Nevada, indicating that the monument was "poised to lead the country's parks service in adapting to climate change."[25]

Devils Postpile, the Growth of Mammoth Lakes, and Regional Politics

Devils Postpile's increased emphasis on ecological management and scientific research led to more active involvement in local and regional politics. While the monument had long been an important component of the Mammoth Lakes recreational complex, the park's expanded science program brought greater attention to the ecological connections between the monument and the surrounding area. Dulen and other regional officials began to see participation in regional politics as an obligation, not only to protect monument resources but also to provide expert guidance for more ecologically appropriate regional planning.

The town of Mammoth Lakes grew tremendously beginning in the mid-1990s. This growth followed the general pattern of other ski towns in the American West. In the 1960s and 1970s, corporate interests bought out the original developers of Sun Valley, Aspen, and other resort communities, transforming them from seasonal ski towns into year-round meccas for high-class leisure. Skiing and recreation services actually became secondary markets for the new corporate financiers. Instead, the principal investment opportunity proved to be real estate. In many resort towns, cookie-cutter condominium complexes, sprawling golf-course subdivisions, and kitschy shopping and entertainment districts filled every developable space, replacing the rustic lodges, family-owned shops, and restaurants leftover from earlier ski booms.[26]

This transformation occurred later in Mammoth Lakes, owing to the area's geographic isolation and role as a regional destination tied almost exclusively to the Los Angeles and Southern California markets. The fight to block the trans-Sierra highway in the 1960s and 1970s perhaps delayed Mammoth the fate of other ski resort communities by keeping the region somewhat cut off from the heavily populated San Francisco Bay area. Even in the 1990s, Mammoth Mountain remained little used by San Francisco skiers who generally patronized the more accessible resorts at Lake Tahoe.[27]

The growing population of Southern California and the booming real-estate market of the 1990s increased the appeal of Mammoth Lakes for corporate developers. In 1996, the British Columbia–based Intrawest Corporation purchased 33 percent of Dave McCoy's stock in the Mammoth Mountain Ski Area (two years later, Intrawest purchased an additional 27 percent of the resort). Even more lucrative was the company's acquisition of the resort's developable real-estate land. Over the next several years, Intrawest raked in hundreds of millions of dollars in profits on condominium and townhome developments, shopping and entertainment centers, restaurants, and golf courses in the Mammoth Lakes area. In 2005, CEO Joe Houssian determined that it was "clearly in Intrawest's best interest to monetize a portion of this value now." That year, the company sold the majority of its shares in Mammoth to another multinational giant, Starwood Hotels and Resorts Worldwide, the umbrella company of Westin, Sheraton, St. Regis, W Hotels, and other luxury brands. Starwood's CEO Barry Sternlicht decided to redevelop the resort and the town around the theme of "wellness," seeking to capitalize on the area's popularity for skiing, mountain biking, hiking, rock climbing, and other active outdoor pursuits.[28]

By the early twenty-first century, the potential environmental consequences of the mounting land and resource requirements of Mammoth Lakes had become urgent concerns for the Park Service at Devils Postpile. The monument's expanded science program provided important data regarding the possible environmental effects of this development. In 2005, the Mammoth Visitor Center began receiving numerous letters from the local community asking the Forest Service to consider the impact of Intrawest's and Starwood's development plans on Devils Postpile and the Middle Fork Valley. The Forest Service, in turn, asked the Park Service for its assessment of a potential "land swap," which would privatize tracts of Forest Service land near Minaret Summit for the purposes of ski resort expansion.[29]

Dulen was concerned that development on the east side of San Joaquin Ridge could affect the Middle Fork Valley watershed. Her position was informed by the work of USGS geologist Dave Hill, who in 2002 had "explained how springs and groundwater use on the east side of the San Joaquin ridge could impact the hydrology on the west side where numerous springs occur." Diminished groundwater could affect "west slope springs that provide lush wetland environments and aspen groves where many deer and bird species occur." These considerations led Dulen to argue against the land swap. If it occurred, she recommended that the Forest Service retain water rights. Dulen later identified the watershed ramifications of groundwater pumping east of the Sierra divide as a priority for research funding at the monument.[30]

Proposals to expand the Mammoth-Yosemite Airport located southeast of Mammoth Lakes near Hot Creek also sparked debate. Plans to improve the airport and expand service had been under consideration since the mid-1980s. In 1992, the town of Mammoth Lakes purchased the airport from Mono Country and in 2002, the Federal Aviation Administration (FAA) approved a $28.6 million grant for the expansion of the airport into a major regional transportation hub capable of accommodating larger Boeing 737s and 757s.[31]

Prior to this decision, Dulen challenged business interests in Mammoth Lakes by emphasizing the potential environmental impacts of expansion. In 2001, she wrote to FAA officials, arguing that increased air traffic over the area would interfere with visitors' enjoyment of "the natural sounds of the San Joaquin River, the wind in the trees, the calls of birds, the occasional coyote howl, and a mixture of natural quiet and sound." The noise from low-flying aircraft might interfere with "communication between members of a species during critical phases or crucial times of breeding, nesting, and/or rearing of the young." Increased vibrations also had the potential to damage the Postpile formation itself. She noted "substantial legal precedent authorizing the Park Service to "reach beyond park boundaries to restrict external threats to park values and resources." Furthermore, she argued that NEPA and Department of Transportation regulations required the FAA to consider the resource protection requirements of the Park Service and other public land agencies.[32]

At the same time, a coalition of national and Eastern Sierra environmental organizations filed a lawsuit claiming that the existing EIS for airport improvement was inadequate and outdated. Their concerns stemmed from the increased air traffic and the additional development needed to accommodate more visitors to the region. Local Sierra Club member Owen Maloy expressed these views in an interview with the *Mammoth Times*: "With this project, Mammoth will be subjected to urban sprawl in a pristine scenic area close to wilderness and threatened wildlife," he stated. "We already have many visitors who drive in from Los Angeles and the rest of California. This project proposes to double the number of visitor-days with tourists arriving by plane. People still don't have enough information about how this will change our area. There is risk of destroying the very scenic values that attract visitors."[33] Despite heated protests from the Mammoth town council, local business interests, and ski film mogul Warren Miller, the courts sided with local environmentalists, mandating a more thorough EIS taking into

consideration attendant development, as well as the air traffic and noise issues that could result from the proposed expansion.[34]

In response, the town of Mammoth Lakes decided to cancel the runway expansion, which had been the primary reason for the 2002 lawsuit. As an alternative, town officials made agreements with Horizon Air to increase the number of small aircraft flights from Los Angeles while keeping the runway capacity as is. This allowed Mammoth Lakes and the FAA to avoid the comprehensive EIS and consider only the operational specifications and potential effects of accommodating an increased number of regional flights.[35]

The Park Service voiced the only substantial objections to the revised proposal. Dulen had already restated her earlier concerns in a 2005 letter to the Mammoth District ranger arguing that "the importance of protecting natural soundscapes is integral for providing a quality experience to a broad spectrum of campers, anglers, hikers, and day use visitors to these areas."[36] In 2008, Dulen helped draft a letter expressing the Pacific West Region's concern over "the *cumulative impact* of the proposed action combined with existing noise" in each of the Sierra Network parks.[37] FAA officials responded that while the terms of the Organic Act could be extended to protecting parks and wilderness areas from excessive noise, the particular plan under review would not change past and present noise levels in any of the Sierra Network parks. The FAA also expressed frustration that Park Service officials had not supplied internal agency reports indicating excessive jet noise levels near Tioga Pass in Yosemite, despite repeated requests.[38]

In 2009, the issue was revived when United Airlines sought a contract with the Mammoth-Yosemite airport to accommodate flights to and from San Francisco. This time, the projected flight paths passed directly over Devils Postpile, the Ansel Adams Wilderness, and portions of Yosemite. In June 2010 letter to Mammoth officials, Pacific West Region officials again expressed concern over the cumulative effects of the ongoing growth of Mammoth Lakes and the nearby airport. Ultimately, though, the Park Service's objections carried little weight in the broader economic discussion, and the agency was not able to mobilize a local environmental opposition. In September 2010, United's plan was approved, and six daily flights were added from San Francisco to the Mammoth airport.[39]

In some respects, the Park Service's objections to increased air service represent a renewal of the fight in the 1960s and 1970s to prevent the construction of a trans-Sierra highway, but the corporatization of Mammoth in recent years makes this an uphill battle. As priorities in Mammoth Lakes have changed to reflect the imperatives of the town's corporate financiers, Dulen has become one of the few voices for maintaining Devils Postpile and the high mountain wilderness extending north to Yosemite as a regional destination, tied to the Eastern Sierra and insulated from more populated areas to the west. Whereas in the past, geography made access to Devils Postpile difficult, in more recent decades, maintaining the monument's rustic character has required active engagement in regional politics. It remains to be seen whether the Park Service can accomplish the coalition building so vital to earlier environmental battles to push back against the growth imperative driving Mammoth's new corporate leadership.

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Historical Contexts for the Period of Federal Management: The Mammoth Lakes Sierra, Recreation, and Science

A major theme in the history of Devils Postpile National Monument has been its ties to the surrounding region. Historically, on-site managers have relied on collaboration with the Forest Service and the community to provide visitor services at Devils Postpile. Yet, they have also sought to distinguish management objectives at the monument from the recreational agenda on the adjoining national forest land.

Over time, on-site managers worked to uphold the intent of Devils Postpile's establishing legislation and the broader mission of the agency by interpreting the scientific significance of park resources. Prioritizing the monument's "scientific interest" proved difficult as recreation became the primary use of the Middle Fork Valley and the principal driver of the regional economy. Tourists made the difficult drive over Minaret Summit to Devils Postpile to camp in a rustic setting, to fish the Middle Fork San Joaquin, and to hike to the features of the monument. The Minaret Summit road also provided access to the John Muir Trail, making the monument a popular departure point for backpacking, mountain climbing, and, especially, horse and mule packing. The efforts of Devils Postpile's managers to balance the agency imperative to protect, interpret, and monitor the scientific resources of the monument with the region's demands for recreation both reflected and influenced the National Park Service's broader management objectives as they evolved over the twentieth century and into the twenty-first.

Chapter Fourteen

Regional Context: The Mammoth Lakes Sierra

The Mammoth Lakes Sierra developed as a region with ties to both the Eastern Sierra and Southern California. Mammoth City (now Mammoth Lakes) was founded in the 1870s as one of the several hard-rock mining boomtowns that materialized east of the Sierra escarpment during this period. In the late nineteenth century, Dogtown, Bodie, Aurora, and many of the region's other rough-and-tumble mining outposts vanished as quickly as they had appeared. Mammoth City managed to hang on as part of an Owens Valley–based farming and ranching economy, providing resources for continuing mining operations at the Comstock Lode in western Nevada.

In the early twentieth century, the Eastern Sierra became a battleground in the most famous water war in the history of the American West. In 1901, Los Angeles Mayor Frederick Eaton and William Mulholland, superintendent of the Los Angeles Department of Water and Power (LADWP), began purchasing farms and ranches along the Owens River as part of a scheme to secure a water supply to fuel the growth of the city. By the time Owens Valley residents recognized the ploy, it was too late. In 1906, President Theodore Roosevelt validated Los Angeles's claim to Owens Valley water and authorized the construction of the Owens River Aqueduct, completed in 1913. In the decades that followed, Eastern Sierra water fed vast citrus groves and, later, sprawling subdivisions in the previously barren San Fernando Valley. In contrast, by the late 1920s, the desert had reclaimed farms in the Bishop area and along the Owens River. Farther south, alkali dust storms blowing off the now dry Owens Lake bed scoured what was left of formerly green fields.[1]

The city's water grab sparked vehement protest from Owens Valley residents. As the first Owens River water poured into the new reservoirs of the San Fernando Valley, disgruntled Eastern Sierra farmers posted an advertisement in the *Los Angeles Times* declaring: "We, the farmers of the Owens Valley, who are about to die, salute you."[2] Resistance mounted over the ensuing years, with some groups resorting to violence. In 1924, a group of armed ranchers created something of a cause célèbre when they seized the Alabama Gates spillway and dynamited portions of the aqueduct.[3]

The symbolism of the Owens Valley rebellion masked the reality that whatever farming utopia the Eastern Sierra may have been was likely gone for good. By the early twentieth century, the western Nevada silver boom had run its course, all but eliminating the primary market for Eastern Sierra agricultural goods. Los Angeles's water grab may have been the nail in the coffin for local farmers, but rapid population growth in the city to the south also spurred a new economic regime based on tourism and outdoor recreation. By the 1920s, the area's snow-clad peaks, hot springs, and trout-filled lakes and streams had already made the Eastern Sierra a recreational paradise for residents of Los Angeles. The vision of shotgun-toting ranchers defending their land and water against grasping urban bureaucrats resonated with Americans nostalgic for their rural roots, but failed to speak to the economic realities that would shape the region's future.[4]

Devils Postpile, 1935. (Photo: Lester Craig. Courtesy of Nancy Wirth)

The Mammoth Tourism Industry

Los Angeles's diversion of Owens River water did not directly impact the Mammoth area until the 1930s, when the city extended its network of aqueducts and pipelines north into the upper Owens River basin. By then, many of the small family farms and ranches that dotted the area in the late nineteenth century had already been replaced by rustic resorts, fishing lodges, and pack stations catering to Southern California recreation seekers. Improvements to Interstate Highway 395 in the mid-1930s increased the flood of tourists north into the region even as the LADWP continued to siphon water southward. By the start of World War II, the Eastern Sierra had become both a resource hinterland and a backyard playground of Los Angeles.

The Mammoth area served as the hub of this new regional recreation economy. The first tourist lodge was opened sometime around the turn of century by homesteader Charles F. Wildasinn. Years later, Mammoth resident Dorothy Cook recalled family vacations at the Wildasinn Hotel in the first decade of the twentieth century: "What a wonderful place Mammoth was for youngsters as we were. The two-story hotel had a steep narrow stairway to the four guest rooms. The lobby was artistically decorated with a frieze of red-brown Manzanita branches all around the burlap covered walls."[5] At this time, reaching the Mammoth area required navigating the rough dirt track running north from Bishop up Sherwin Grade and along the western edge of Long Valley. While some visitors drove themselves, others paid the $7.50 fare to ride the Bishop–Mono Lake Auto Stage Line. The area's difficult access, combined with its stunning vistas and plentiful trout, gave it a rustic appeal that drew an increasing number of adventurous tourists over the ensuing decades.[6]

Summer cabins also began cropping up around Mammoth City and up into the Mammoth Lakes basin in this period. Most of the cabin builders hailed from Los Angeles. In 1914, two couples, the Barkers and the Carters, decided to vacation "up there." To them the area seemed "a mountain paradise far away across strange country where one would find peace and freedom to camp and fish in lake or stream." In 1917, they bought land from local cattleman Charlie Summers and built a cabin from logs hauled in from the surrounding mountains. The area offered a glimpse into the Old West for these urban visitors, and Olive Barker recalled

heading down to the ranch to "watch Charlie Summers and his cowboys having a roundup and branding." They would also swim in the Whitmore pool in Long Valley, or stop at the Casa Diablo hot spring where North Fork Mono and Paiute groups continued to gather to trade and socialize.[7]

By 1918, Charlie Summers had recognized that tourism was the future of the region. That year, he converted his ranch in the meadow east of the Wildasinn Hotel into a lodge, store, and pack station. Summers's Mammoth Camp became the center of the local tourist economy over the next decade and some locals followed his lead. In 1923, Frank Benney of Bishop built a cabin at Lake George from which he sold handmade boats for local fishing guides then soon after, as increasing numbers of fishermen in the area began demanding a place to eat, Benney and his wife opened the popular Mammoth Lakes Bakery and Lunch Room. The Summers family also continued to expand their operations. In 1932, Charlie's son Lloyd opened the Reds Meadow Resort and Pack Station at the endpoint of the Middle Fork Valley mining road. Soon after, Charlie's youngest son Charlie Jr. and his wife Altha began running the Agnew Meadow Pack Camp a few miles to the north.

Most of the tourist development in the 1920s and 1930s was initiated by Southern Californians who were not originally from the Mammoth Lakes area. In 1915, a group of Los Angeles businessmen bought a large tract of land outside Mammoth City. In the early 1920s, the group hired local carpenters to build several "handsome log cabins" that they then operated as a full service resort and dining room. In 1924, Palm Springs artists Stephen and Beatrice Willard chose the Mammoth Lakes basin as the location for a summer studio. From their cabin and studio at Twin Lakes, the couple greeted tourists and sold postcards and paintings into the 1960s. Through the 1920s and 1930s, other urban transplants built lodges, stores, restaurants, and guide services from Long Valley up to the Lakes Basin. In the process, these *neonatives*, to use historian Hal Rothman's term, transformed the region into a romanticized representation of the rural Old West and a mountain playground for urban tourists.[8]

With improvements made to Highway 395 and other regional roads in the mid-1930s, Mammoth became accessible in winter, setting off a commercial skiing boom that further transformed the region. In 1941, Dave McCoy built the first rope tow on Mammoth Mountain and that year, the *Inyo Register* reported that over 250 skiers visited McCoy's Mammoth ski park over Thanksgiving weekend. The population explosion in Southern California following World War II—together with rising affluence, better roads, and more durable cars—fueled a massive increase in winter visitation. In 1955, McCoy built the first double chairlift on the north face of the mountain and by the 1970s, was hosting as many as 20,000 skiers per day.[9]

Hollywood Comes to the Eastern Sierra

The link between the Eastern Sierra and Los Angeles was further reflected in the area's frequent use as a filming location for Hollywood studios. Hundreds of B-grade westerns and colonial motif movies were shot in the region beginning in the 1920s, most in the Alabama Hills in the shadow of Mount Whitney between the towns of Lone Pine and Independence. Filming was intermittent, but when the studios showed up, motels filled to capacity and local ranchers were paid handsomely to provide cattle and mounts. The big studios "left a lot of money here" recalled one local ranch hand who also worked as an extra on a number of films.[10]

In 1934, Inyo County Catholic priest Father John Crowley, one of the region's most ardent boosters, described an unusual hunting trip in the Alabama hills. Instead of the usual game, he ran across "four hawks, a leopard and an elephant." These exotic animals were there, Crowley

revealed, for the filming of *The Lives of a Bengal Lancer*. "The Paramount Corporation is on location in my backyard, and the Sierras have become, for the nonce, the Himalayas and Mount Whitney right up the company street, if you please, will probably emerge as Khyber Pass." Local Paiutes were also hired as extras, reflecting their continuing role in the shifting labor market of the Eastern Sierra. This "ruined my ethnology," an exasperated Crowley wrote: "I did not know I had a friend in the land of Mahatma Gandhi until half a dozen copper-colored, be-whiskered natives hailed me in good Americanese. They were the town boys, who had ridden horses before they learned to walk. Even unshaven Grevy Fitzgerald looked quite Sikh, or is it Bengalese?"[11]

A few films were also shot farther north in the Mammoth and Reds Meadow areas. In 1934, "The Trail Beyond," starring a youthful John Wayne, featured a dramatic canoe chase down the Middle Fork San Joaquin. In the scene, just before a wounded soldier is swept over the falls in a canoe, Wayne's character dives into the river and pulls the man to safety. At the film's climax, Wayne and the principal villain duke it out near the lip of a basalt cliff as pumice dust swirls around them. In the end, the villain is shot, and we see his body plummet from the cliff.[12]

Notes

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Chapter Fifteen

Devils Postpile and Rustic Recreation

In summer 1930, greenhorn packer Norman "Ike" Livermore Jr. set off on a weeklong traverse of the John Muir Trail with veteran packer Mon Griggs and four clients. On the fifth night, the group camped west of the Minaret divide at the "77 Corral," a notoriously raucous gathering point for sheepherders and cattlemen. During the night, the stock scattered, leading to a late start the next morning. Griggs reassured Livermore that though it had been a hard day, that night they would end up "in the most beautiful camp in the whole mountains." When they arrived at Pumice Flat north of Devils Postpile, however, Livermore was disappointed to find a valley full of automobiles instead of the "great Shangri-la place" he had been expecting. Griggs had been unaware of the construction of the Minaret Summit mining road a few years earlier.[1]

In later years, Livermore pointed to this experience as pivotal in shaping his subsequent efforts—first as a leader of the Sierra Club and later as Governor Reagan's secretary of resources—to fight proposals to extend roads into the High Sierra backcountry. For him, the Middle Fork Valley represented an idyllic wilderness camp better left undeveloped and accessible only to those willing to pack in by foot or stock. Although the car campers he encountered had a more liberal view of access, many of them also regarded the rustic character of the valley and its difficult access to be its most valuable qualities. Until the late 1970s, the unpaved access road over Minaret Summit remained a narrow, bone- and vehicle-jarring affair that turned away many casual visitors. In general, the campers, fishermen, hikers, mountain climbers, and packers that frequented the area endured the punishing road year after year, recognizing that to improve it or extend it westward beyond the intervening Ritter Range could ruin the rustic qualities that made the valley worth visiting. "Those who braved its dust, chuckholes, and six sharp zig-zags," recalled Dorothy Verret who spent nineteen summers at the Reds Meadow guard station with her husband Forest Ranger Lee Verret, "felt that they had really earned their entrance into one of the loveliest places in all the Grand Sierra Nevada."[2]

These impressions of the Middle Fork Valley as a sanctuary for more rustic forms of recreation reflected Americans' changing views of the relationship between recreation and preservation in the twentieth century. As national parks and other public lands became more accessible and more popular, conceptions of an appropriate wilderness experience changed to fit the times. Beginning in the 1920s, Aldo Leopold, Robert Marshall, and the other founders of the Wilderness Society called for the establishment of roadless wilderness areas in national forests to guard against their destruction by hordes of automobile tourists.[3] By the late 1950s, the Sierra Club had all but reversed its earlier stance on recreational development in national parks as necessary for building popular support for preservation. Instead, the club began to challenge development-oriented Park Service programs like Mission 66, which called for improvements to park roads and structures to accommodate rapid increases in visitation.[4]

Most critics of road building and other forms of development were not opposed to all forms of recreation. Instead, they were concerned with defining the types of recreation that would be appropriate in national parks and wilderness settings. By the 1960s, questions about access, regional economics, and the ecological and aesthetic impacts of certain recreational behaviors

Devils Postpile camp, 1935. (Photo: Lester Craig. Courtesy of Nancy Wirth)

and technologies became as important to the management and public enjoyment of national parks and other federal lands as traditional concerns over resource extraction.

These considerations shaped management priorities and visitor expectations at Devils Postpile as the Middle Fork Valley evolved into a key component of the Mammoth Lakes recreational complex. During the twentieth century, the Middle Fork San Joaquin and nearby lakes and streams became popular among enthusiasts of the emerging sport of fly-fishing. The monument also provided access to the John Muir Trail, and served as a popular departure point for hiking and mountain climbing in the surrounding High Sierra. The Eastern Sierra pack-stock industry also had roots in the Mammoth Lakes Sierra, and Devils Postpile, Rainbow Falls, and other features of the Middle Fork Valley became popular destinations for pack trips out of Reds Meadow, Agnew Meadows, and the Mammoth Lakes basin.

Recreation had a profound influence on the monument and the surrounding area. Between the 1950s and 1980s, local conservationists, recreational users, and recreational businesses fought and successfully blocked a proposed trans-Sierra highway and extended the wilderness areas west of Devils Postpile. In the process, they ensured that the Middle Fork Valley, including the monument, would remain a rustic retreat tied to the Eastern Sierra tourist market. Over time, conflicts over the environmental impacts of recreation also developed between pack-station operators, hikers, fly fishermen, bait fishers, and other recreational user groups, reflecting the contested meanings of wilderness in late twentieth-century American culture.

The Making of a Wild Trout Water: Fly-Fishing the Middle Fork San Joaquin

During the twentieth century, fly-fishing moved beyond its roots in elite British and northeastern American culture to become a popular national pastime centered in the American West. In the early century, the intricately tied flies and delicate casting techniques made fly-fishing an appealing alternative to bait fishing for West Coast sportsman's groups concerned as much with the aesthetics of the sport as with actually catching fish. In the 1930s, and especially after World War II, a new generation of fly-fishing entrepreneurs—many of them

recent migrants from Eastern cities—capitalized on the sport's emerging popularity in the region, crafting products and images that reflected the frontier romanticism at the heart of American conceptions of the West.[5]

The fact that most rivers in the American West could be accessed via public land also contributed to the rising popularity of the sport in the region. Referring to the appeal of the work of Norman Maclean, author of the 1976 western classic *A River Runs through It,* historian Paul Schullery observes that while "many readers . . . seem to admire [Maclean] for celebrating the old-timey independence of the western angler, we dare not forget that the public domain is the 'It' that the river runs through."[6]

Prior to its development for irrigation and hydroelectricity in the late nineteenth century, the San Joaquin River was a major thoroughfare for anadromous species including steelhead and salmon. These large fish, when they returned from the Pacific Ocean to spawn, were an important food resource for Native communities on the west slope of the range. Returning fish made it at least as far as the steep canyon upstream from the juncture of the Middle Fork and main stem San Joaquin Rivers. Resident rainbow trout may have been present up to the base of Rainbow Falls, but the falls blocked the migration of fish farther upstream.

In the 1870s, the large population of native wild trout in Fish Creek, a tributary of the Middle Fork San Joaquin south of Devils Postpile, provided both food and recreation for miners in the Mammoth Lakes basin. While miners and local residents began planting trout fingerlings in higher elevation lakes and streams in the mid-nineteenth century, introduced trout were slow to populate the more remote and lightly used areas. Even as late as the 1890s, trout may not have been present in the Middle Fork above Rainbow Falls. When Theodore Solomons passed through the area in 1892, he noted that the presence of trout in Fish Creek meant there were "no more falls down stream on the San Joaquin," since the sheepherders who frequented the area were not inclined to "waste . . . precious time stocking streams."[7]

As the Middle Fork Valley gained notoriety for its recreational potential through the first decades of the twentieth century, local people occasionally planted rainbow, brook, golden, and brown trout in the river and in area lakes and streams to satisfy growing demand. The California Department of Fish and Game began regularly stocking the Middle Fork San Joaquin in the 1930s.[8] By the 1950s, fishing demand often overwhelmed the state's stocking program, and fish were being pulled out of the river almost as fast as the stocking truck could dump them in. Visitor surveys showed that at least half of all visitors in the Middle Fork Valley were there to fish. The geologic features of the monument were, for many, an interesting diversion in their broader recreational agenda. By the mid-1960s, the river was being stocked with 17,000 to 20,000 fingerling trout each summer.[9]

Over time, fishing demand also sparked a conflict over Los Angeles's efforts to divert water from Mono Lake and the Upper Owens River basin. In 1940, the LADWP reached an agreement with the Department of Fish and Game and local fishing interests to maintain a hatchery on Hot Creek in Long Valley. The hatchery supplied fish stocks for area lakes and streams where sufficient water remained. However, as the LADWP tapped nearly all of the feeder streams to Mono Lake and the Upper Owens River basin, fishable stream waters disappeared rapidly. When in 1952 the LADWP began diverting additional water from the Long Valley Dam for hydroelectric power generation, drying up the stretch of Owens River between the Upper and Center Gorge power plants, fishing groups in the area protested. In 1953, these groups earned a concession from the LADWP that fish habitats in Hot Creek and certain sections of the Owens River would be maintained. Meanwhile, the fish hatchery would continue to produce stocks for planting in area waters.[10]

Displaying the catch, 1940. Note the fly rods. (Photo: Lester Craig. Courtesy of Nancy Wirth)

While most recreational fishers depended on the maintenance of fish-stocking programs, many fly fishers in the Middle Fork Valley in the early postwar years preferred the experience of pursuing wild trout in a remote setting. For Charles Nemoy, a frequent visitor through the 1940s and 1950s, the experience began with the drive over Minaret Summit. Nemoy eventually learned to remove the brackets and running boards attached to the frame of his car to prevent them from grinding over the exposed roots and rocks covering the road. Once at the pass, the road narrowed even more. "One would have to put a wheel on the solid ground to stay off the soft shoulder . . . a decision had to be made on which rock side to use. Using the low gear and the brakes it was exciting to guess right." Nemoy considered himself and his fishing companions lucky that they "never met anyone on the switchback" where the road turned south to parallel the Middle Fork San Joaquin.[11]

Upon arriving at Reds Meadow, Nemoy's group would drain the radiator and engine and let the car sit for the duration of the trip. He considered the Middle Fork Valley to be "the best of the High Sierras," with its "good campsites, big trees everywhere, the hot showers [at Reds Meadow], Devil's Postpile, Rainbow Falls, the Gorge, Sotcher and Starkweather Lakes," and most important, "the perfect fly fishing San Joaquin River." The river's attraction for Nemoy was not its large trout, of which there were few compared to other fishing spots in the Eastern Sierra, but its smaller trout that "would come from the deep water like a bullet toward the fly."[12]

For Nemoy and other fly fishers of this era, the sport was about more than simply catching fish—its appeal came from the aesthetics of technique, the thrill of the strike, and the understanding that success at fly-fishing required knowledge of its specialized gear. Nemoy wore "polarized glasses" in order to reduce glare on the water so that he could see the fish charging toward his fly. The fly itself was a hand-tied, nearly weightless simulation of one of the variety of insects that constituted the trout diet. The gear involved a long rod with the reel positioned at the back as a counterweight, which because the fly had almost no weight, required the fly fisher to use the weight of the line to propel the cast forward in a fluid back-and-forth motion that took considerable time and patience to master. Fly fishers also learned to read the currents of the river in order to drift their flies over the most likely trout lies. On

A full stringer of trout, 1940. (Photo: Lester Craig. Courtesy of Nancy Wirth)

the Middle Fork, Nemoy and his fishing companions "learned to fish downstream." They allowed the current to remove the slack from the line and leader while maintaining the fly in a natural-looking dead drift.[13]

The setting was also important. Fly fishers sought the most secluded trout-filled pools where few anglers had been before. Nemoy's favorite fishing holes were downstream from Rainbow Falls. Reaching these spots required a long trek along an unmaintained trail that often disappeared into thick brush. Unlike the trout in the pools near the campgrounds upstream that were generally hatchery-reared recent plants, many of the fish in the lower section of the river were either native fish or wild offspring of planted fish. The area saw limited fishing pressure, allowing many fish to survive and reproduce. These wild fish were also more conditioned to the natural food supply of the river and were more likely to strike a drifted fly.[14]

Fly-fishing was not an entirely solitary experience. Nemoy was part of a small group of locals and frequent visitors who over the years discovered the best fishing spots and refined techniques for success in the various areas. On one trip, Nemoy accompanied Marie and her husband Faye, the owners of Marie's Diner in Bishop, on a fly-fishing trip to Shadow Lake 6 miles northwest of Devils Postpile. On that outing, Marie, "one of the best fly fisherwomen in the Bishop area," taught Nemoy how to catch elusive golden trout on Shadow Creek using a "grey hackle peacock fly" cast upstream toward the head of the pool "with the line leading the leader."[15]

The rustic fishing and camping experience Nemoy enjoyed in the 1940s and 1950s changed as visitation to the area increased during the 1960s. While many of the fishing holes below Rainbow Falls remained infrequently visited, greater numbers of campers and recreational users in the monument and on the Forest Service land created a need for more stringent regulations, which, from the perspective of Nemoy and other longtime visitors, altered the overall experience of a fishing trip to the Middle Fork Valley. It was no longer possible to pull a car off the road into the forest and set up camp; camping was limited to designated sites in increasingly crowded campgrounds, and fish and game officials often showed up to check for

licenses. The fishing experience itself also declined. Improvements in spinning reel technology in the 1950s made it easy for just about anyone to cast bait or lures for trout, and state fish and game officials struggled to keep pace with increased fishing pressure on the Middle Fork and area lakes.

While the Forest Service continued to view trout stocking as an important component of recreational management, the Park Service gradually took a more skeptical view. As early as 1921, the Ecological Society of America began opposing introduction of nonnative species in national parks, and in the late 1920s and 1930s, biologists both inside and outside the agency noted the threat introduced species posed for native fish. In the 1950s, Yellowstone became the first park to end nonnative stocking due to the rapid decline of its native cutthroat populations. A few other parks implemented creel limits and bait restrictions to preserve existing fisheries. Still, most parks continued hatchery programs and nonnative fish planting well into the 1970s despite frequent warnings from biologists.[16]

Efforts to eliminate stocking and regulate fishing in the national park system during this time were intended to protect native species, but at many parks, they had the effect of creating a specifically wild trout fishing experience, making the pursuit of wild trout even more popular as the environmental movement took hold. When the Park Service eliminated fish stocking at Devils Postpile in 1971, the new policy did not significantly lessen the park's appeal as a fishing destination. In fact, the predominance of wild trout in the Middle Fork San Joaquin eventually increased its prestige among the growing numbers of fly fishers in California and the Eastern Sierra. Park managers in the 1980s regarded the monument's "wild fish fauna" as an important resource "enjoyed by hundreds of anglers each season."[17] In the 1980s and 1990s, fly-fishing magazines and regional guidebooks made special note of the Middle Fork San Joaquin where it passed through the monument as one of the few streams where a fly fisher could experience a fishing "grand slam"—catching four species of wild trout including rainbow, brown, golden, and brook trout. This recognition influenced the California Department of Fish and Game's decision to designate the portion of the river flowing through Devils Postpile a "Wild Trout Water" in 1995.[18]

The John Muir Trail and Backcountry Recreation

This increased emphasis on fly-fishing and wild trout at Devils Postpile reflected a broader shift in how Americans viewed wilderness recreation. By the late twentieth century, it was no longer considered appropriate to engage with wilderness in any way one saw fit. As the popularity of outdoor recreation increased, leading to larger crowds and damage to natural resources, specific social rules and agency regulations dictated the behaviors and technologies permitted for recreation in national parks and wilderness areas. This change is particularly evident in the history of backcountry recreation along the John Muir Trail corridor, which included Devils Postpile and the Middle Fork San Joaquin valley.

The construction of the John Muir Trail was closely linked to the emergence of the Sierra Club as an important influence in the American conservation movement. The club was organized in 1892 by John Muir and a group of prominent Bay Area professors and businessmen. The idea was to build a political constituency for preservation by bringing people to the mountains for invigorating recreation. The organization's early history as a hiking club significantly influenced its transformation into the nation's leading conservation organization after World War II. Club members' efforts in the prewar years to blaze and map a network of trails through the Sierra

backcountry and to develop safe, enjoyable means to use those trails informed Americans' shifting attitudes about wilderness recreation in the postwar years.

The idea of creating a trail to run the length of the High Sierra is usually credited to Theodore Solomons who, between 1892 and 1895, mapped a cross-country route from Yosemite to Mount Whitney. Although he described the rugged country south of Mount Ritter as "*terra incognita* [*sic*]," it only appeared unexplored because its recent inclusion in Yosemite National Park had made the area off-limits to mining and sheep grazing.[19] Solomons was thus not mapping a route through pure wilderness but linking a network of preexisting sheep and mining paths. In fact, his accounts of his travels through areas not included in the national park are peppered with descriptions of encounters with sheepherders who provided him with food and directions. Solomons's significance was in interpreting this landscape through a different cultural lens. Rather than viewing the High Sierra as a collection of mining and grazing sites, he presented it as a single region to be valued for its scenery and wild terrain rather than its minerals, forage, or timber. "As a scenic mountain tour," Solomons wrote of his route, "I doubt if the world affords its like."[20]

Through the early twentieth century, the Sierra Club worked to improve Sierra trails. In 1914, Fresno County provided funds to complete a trail along the Middle Fork Kings River. Afterward, club member Meyer Lissner of Los Angeles suggested that state funds might also be secured for building and maintaining High Sierra trails. The following year, the club convinced the state legislature to appropriate $10,000 for the construction of a cross-country trail to roughly follow Solomons's route between Mount Whitney and Yosemite. The trail was named to honor John Muir who had died two years earlier. The club then consulted with Forest Service and State Engineer Wilbur F. McClure who ultimately selected the route. In subsequent years, further appropriations were dedicated to the trail. The final section connecting Bubbs Creek to the head of the Kern River was completed in 1931.[21]

The High Sierra region through which the Muir Trail passed was important to the development of the Sierra Club's views of recreation and preservation. One of the club's initial aims was to "render accessible the mountain regions of the Pacific Coast." This notion reflected Muir's conviction that "if people in general could be got into the woods, even for once, to hear the trees speak for themselves, all difficulties in the way of forest preservation would vanish." In 1901, club Secretary William Colby convinced the board of directors to initiate an annual summer outing to introduce members to the joys of wilderness recreation, and to build a stronger constituency for conservation. That summer, Colby led the first Sierra Club "high trip" to Tuolumne Meadows. Over the ensuing decades, the high trip became the primary means by which the club introduced new members to the Sierra landscape.[22]

The character of Sierra Club outings changed over time to reflect shifting ideas about what John Muir called the "right manners of the wilderness."[23] In the early years, the high trip involved a train of up to one hundred mules carrying supplies for twice as many campers. Initially, the club would set up a series of camps from which day hikes and climbing expeditions would be mounted. These camps were intensely social affairs, with campers putting on musical performances and theater productions (including Ansel Adams's popular "Trudgin' Women"). Mountain courtships were also common, with club leaders Francis Farquhar and Richard Leonard both meeting their future wives during high trips.

As the club became more experienced with high mountain travel, some members began branching off from the larger high trip to pursue more vigorous forms of recreation. During the 1931 outing, Robert Underhill of the Appalachian Mountain Club introduced European

alpine rope techniques to the club on a climb of Unicorn Peak near Tuolumne Meadows. Over the next decade, Sierra Club climbers developed safer belay techniques that allowed for ascents of Mounts Ritter and Banner, the east face of Mount Whitney, and the Higher and Lower Cathedral Spires in Yosemite Valley.[24]

Some younger club members also sought to distance themselves from the social scene of the high trip through "knapsacking." In 1935, in his first article for the *Sierra Club Bulletin*, David Brower described his time spent with minimal belongings far from established trails and constant interaction with mules and people. "Who, once having enjoyed it, does not long for the deep satisfaction of beholding a panorama from a vantage-point, access to which has cost something in effort and training; of knowing that here is a frontier still; of being aloof, and yet in close communion; of being awed by the great, but remaining proud of the success of the organized effort of the small?"[25] In the late 1930s, the club began offering knapsack and smaller burro outings to accommodate its more independent, solitude-seeking members.

Others undertook independent excursions into the mountains for the purposes of blazing new paths and ascending unclimbed peaks. Accounts of these trips were published in the *Sierra Club Bulletin*, which became a clearinghouse for information on hiking and climbing along the Muir Trail corridor. In 1929, Walter A. Starr Jr. (known as Peter), son of prominent Sierra Club member Walter Starr, began compiling a guide to the Muir Trail and the areas through which it passed. Over the next four years, Starr ventured over nearly every trail, pass, and peak along the Muir Trail corridor, often by himself, recording scenic highlights, route markers, and advice for navigating the difficult terrain.

In August 1933, Starr went missing somewhere in the Minarets west of Devils Postpile. In the ensuing weeks, family members coordinated with local law enforcement and the Sierra Club to conduct the most extensive search conducted in the Sierra to date. On August 24, a week after Peter's father had called off the search, a persistent Norman Clyde located Starr's broken body on a ledge on Michael Minaret. Later that year, Walter Starr published his son's notes as Starr's *Guide to the John Muir Trail and the High Sierra Region*. The book became an essential reference for Muir Trail hikers, providing a section-by-section description of the "continuous strip of blue lakes running down the map immediately west of the Sierra Crest."[26]

Even as Starr's guide hit the presses, Brower and others began to sense that the High Sierra, which had previously been nearly the exclusive domain of the Sierra Club, was in danger of being overrun by increasing numbers of visitors. In 1930, veteran outing organizer Marion Randall Parsons wondered whether the club should continue encouraging visitation. "We banished the sheep from the national parks," she wrote, "yet the parking areas and vast spreading campgrounds are treading down the mountain meadows no less surely, no less devastatingly than the trampling hooves." In response, she asked members to consider revising the club's aims: "Our problem is no longer how to make the mountains better traveled and better known. Rather it would seem, how from the standpoint of the mountain-lover 'to render accessible' may be more truly compatible with 'to enjoy.'"[27] It was no longer enough to simply get people to the mountains. In Parson's view, the club also had a responsibility to teach them how to enjoy the wilderness appropriately.

Recreational considerations continued to shape wilderness politics in the postwar decades as an unprecedented influx of recreation seekers flocked to national parks and national forests. Increased affluence stemming from wartime industrialization—in combination with better roads, better automobiles, and rapid population growth in western cities and suburbs—allowed more Americans than ever to visit the Sierra Nevada and other natural areas. The availability of improved outdoor equipment also spurred the growing popularity of recreation. During the

Hikers on the Beck Lake trail, 1939. (Photo: Lester Craig. Courtesy of Nancy Wirth)

war, the Army's elite Tenth Mountain Division—composed of many of the best climbers and skiers in the nation including several Sierra Club members—developed and improved on new technologies including aluminum-frame backpacks, lightweight butane camp stoves, down sleeping bags, waterproof nylon outerwear, nylon climbing ropes, and other tools that eased the hardships of extended backcountry travel. Immediately after the war, much of this equipment became available at Army surplus stores. Over time, manufacturers improved on wartime designs, spurring the growth of a more specialized wilderness-oriented outdoor industry.

Shifts in American youth culture and politics also fueled the "backpacking revolution" of the 1960s and 1970s. The explosion of environmental awareness and political action after the first Earth Day in 1970 sparked a broad popular interest in wilderness recreation. The youth counterculture of that era also valued wilderness as a source of authentic experience, prompting a rising numbers of young people to venture into wilderness areas for recreation. By 1973, *Backpacker Magazine* estimated that some six million backpackers were tramping through public lands each year, nearly three times the number recorded six years before.[28]

The John Muir Trail corridor became one of the most sought after backpacking destinations during this period.[29] As it was one of the lowest elevation points on the trail and the only place along the entire route (with the exception of the end point at Yosemite Valley) where visitors could access the trail from their cars, Devils Postpile served as a popular access point. From the 1960s onward, park managers struggled to accommodate the increasing numbers of backpackers' cars left in the monument parking lot. The most ambitious hikers—"through hikers" attempting the entire 211-mile length of the trail—often placed food caches at the monument prior to embarking. The monument also served as a staging area for technical rock climbing in the Minarets. In 1979, veteran Sierra climbers Alan Steck and Steve Roper included the southeast face of Clyde Minaret, accessible via the Minaret Lakes trail from Devils Postpile, in their book *Fifty Classic Climbs of North America*, drawing further attention to the area.[30]

In addition to bringing more people to the valley, backpacking and climbing also led to increased focus on safety within the monument. Devils Postpile became "the bottom of

the funnel" where accidents were typically reported. The monument frequently served as a "command post" for search-and-rescue operations. Even though most accidents occurred outside monument boundaries, Devils Postpile was the nearest staffed ranger station, and many people in the area went there first if anything happened.[31]

John Muir Trail backpackers resting in Soda Springs Meadow, 1970s. (Devils Postpile National Monument image collection)

For the government agencies charged with managing the Sierra backcountry, increasing wilderness use required more stringent regulations. By the late 1960s, the growing numbers of wilderness devotees heading to the mountains were threatening to "love the wilderness to death." In Yosemite, carrying capacity studies (based loosely on techniques borrowed from range science) revealed that backpackers were trampling fragile meadows, polluting lakes and streams, and disrupting each other's wilderness experiences by their mere presence. Beginning in the 1960s, Sequoia and Kings Canyon National Parks began requiring backpackers to obtain permits before heading into the backcountry. The permit process apparently inspired many campers to clean up after themselves. Backcountry ranger Dana Abell noted "an amazing improvement in camping manners since names and addresses have been required and kept on file."[32] In 1974, the Park Service implemented quotas limiting the number of backcountry campers in Yosemite while the Forest Service established quotas for use of the popular Mount Whitney trail. In the Mammoth area, Inyo officials considered establishing several designated backcountry campgrounds in the Middle Fork Valley along the Muir Trail to accommodate increased use, and to prevent backpackers from camping in fragile meadows and near lakeshores.[33]

Wilderness enthusiasts also took it upon themselves to define standards of behavior for appropriate wilderness recreation. The Sierra Club mantras "Going Light," and later "Walking Softly in the Wilderness" reflected this rising emphasis on personal responsibility in the backcountry. In the 1970s, many guidebook authors, outdoor equipment retailers, and outdoor recreation periodicals called for a "new wilderness ethic" requiring backcountry users to travel through the wilderness without changing it.[34] Backpackers were to stay on trails, pack out their garbage, avoid cutting trees for firewood, and abstain from hunting or building shelters. These social rules formed the basis for the "Leave no Trace" ethic that became standard criteria for backpackers in the 1990s.[35]

The High Sierra Packing Industry and the Recreational Politics of Preservation

Pack mules have a long history in the Sierra Nevada and in the Mammoth region specifically. Early Spanish and American explorers relied on pack stock to navigate the steep trails and passes of the range. Mules and horses were also vital to the US Army in its efforts to subdue Native resistance in the Sierra in the 1850s and 1860s. Through the Gold Rush, prospectors used mule teams to pack supplies into the high mountains. In the 1870s, mules allowed for the development of mines in the Mammoth Lakes basin and in the Middle Fork Valley. Cattlemen in the Mammoth area packed in to the high mountain meadows in Cascade Valley and along the Middle Fork San Joaquin to graze their animals. Packers were also hired by government

agencies to repair roads, build fire lookouts, plant trout, and shuttle supplies for backcountry geologic surveys.[36]

As the Eastern Sierra packing business expanded, local packers were also hired by Hollywood studios shooting westerns and other films in the area. Some were hired for stunt work or to serve as extras. During his career, Thomas Jefferson, an Indian packer from Lone Pine, worked on the sets of various movies including *Rawhide*, *Tarzan*, *Jungle Raiders*, *Desert Mysteries*, and *The Great Race*, among others. Jefferson also packed a number of celebrities into the High Sierra including William Wyler, the director of *Ben Hur*; actor Robert Middleton; Jack Benny's sidekick Eddie Anderson; as well as photographers Ansel Adams and Cedric Wright. [37]

Recreation provided an increasingly important source of income for Sierra packers during this period. In the early twentieth century, wealthy tourists hired packers for tours of the new national parks and extended excursions into the backcountry. Packers carried supplies between hunting camps and brought fishermen to the most productive lakes and streams. In the early years, mules carried everything from mattresses to kitchen ranges to rowboats over the rough Sierra backcountry trails for their clients. Mules were also essential for early tourist excursions into the Middle Fork Valley. In the Mammoth area, rancher Charlie Summers began packing tourists and fishermen over Mammoth Pass in 1918. In 1932, Lloyd and Sybil Summers opened the Reds Meadow Pack Station from which they led visitors south into Cascade Valley and east along the old French Trail.[38]

The Sierra Club depended on Eastern Sierra packers for the annual high trip. Before World War II, most high trips were contracted with Charlie Roberts and his son Allie who maintained several pack stations along the Eastern Sierra front including one at Lake Mary supported by a corral at Pumice Flat. Roberts was one of the few packers with an outfit large enough to accommodate the two hundred or more club members who went on the annual outing, with Roberts' pack mules carrying all of the bedding, tools, food, and cooking supplies needed for the month-long trip between camps. Safety was a primary consideration, requiring skill and experience to manage the upward of 75 to 120 mules and horses, as well as the outing participants who in general had little experience with pack animals. Packers were also usually responsible for blazing trails and selecting appropriate campsites.[39]

Over time, the high trip began to generate some ill will within the Sierra packing fraternity. Norman "Ike" Livermore Jr.—who inherited the responsibility for packing the high trip from Charlie and Allie Roberts after World War II—credited this animosity to the size of the trip and to the Sierra Club's often proprietary attitude toward the High Sierra. Some packers resented that the Sierra Club "would go anywhere in the mountains it wanted to," Livermore recalled. "The informal rule from the packers' point of view is that a trip should either start or end at their pack station, that there's no such thing as a nomadic packer that can go anywhere he wants." [40]

Packers and so-called hightrippers were also products of different cultural worlds. In a 1977 essay, Livermore described the mutual bewilderment that developed in the postwar decades between packers and Sierra Club outing participants:

> Hightrippers' opinions of packers seem to range all the way from disdain through indifference up to admiration. . . . Packers, on the other hand, have a rather uniform and understandable if not quite fair opinion of the Club members . . . a feeling of good natured sympathy which is best expressed by the term "footburner." Packers, born and raised with stock, never have been able to see how people could derive pleasure from hiking . . . they feel genuinely

> sorry for what they regard as misguided souls burning their feet up. And when it comes to rock climbing, of course, a packer definitely loses all sympathy and comprehension. The whole subject is completely beyond him, and its devotees are living examples of life's endless mysteries.[41]

Such feelings led to some minor conflicts. Brower and Livermore, for instance, often disagreed over where to set up camp. While Brower wanted to camp on the rocky benches nearer to the high peaks to provide better access to the best climbing routes, Livermore vied for meadow camps that were farther from the high peaks and passes but provided ample forage for pack animals.[42]

More serious concerns about the environmental impacts of packing also emerged during this time. The packing industry tended to cater to larger parties that paid more but also had a greater impact. As historian Louise A. Jackson explains, "ever larger and more elaborate campsites—including toilet areas, fire and garbage pits, and stock compounds, as well as the trampled tracks between them—were creating almost irreparable damage." In response, both agencies enacted policies to regulate grazing of pack stock. The Forest Service began issuing grazing permits for stock operators in the first decade of the twentieth century. In the 1920s, the Park Service also began to more strictly regulate backcountry pack-stock grazing. In 1936, Park Service wildlife technician E. Lowell Sumner reported that "hardly a meadow in the Sierra remains in its primitive state. Unless active protection measures are taken now, the chance that these meadows will recover completely is slight."[43]

In general, packers resisted formal regulations, although most were willing to cooperate with federal agencies and the Sierra Club by voluntarily adopting less damaging practices. In 1941, the Sierra Club formed a committee on packing practices in the High Sierra. The committee recommended relocating fences, publishing instructions and maps for packers, and limiting use of certain fragile areas. While many packers accepted these measures, others continued to bring large parties to the most scenic spots, leaving behind trash, fire pits, makeshift shelters, and trampled vegetation.[44]

In his report on the 1947 high trip, Brower asked club members to seriously consider the impact of mules on the High Sierra environment and on the overall experience of the outing. That year, the trip traveled from Agnew Meadows to Reds Meadow before continuing south along the Muir Trail to the Mono Recesses at the headwaters of the South Fork San Joaquin. The mules, Brower observed, "determined the itinerary" of the trip: "Could they reach the site in an easy day and make a back-tracking round trip next day for the balance of the supplies?" he asked. "Was feed for them near enough? Where in the general area were there enough bedsites . . . . and was there room enough between sleepers for the mules to run to and fro when they tired of eating and sought amusement?" Additional problems were encountered if another large party came through with the intention of setting up camp in the same area.[45]

More important for Brower was the resulting damage to the fragile High Sierra meadows. The club had long been attentive when it came to minimizing impact and cleaning up after themselves. However, by the postwar years, increasing recreational use began to take its toll. Reflecting on the 1947 outing, Brower suggested that recreational users shared a responsibility for the condition of the landscape.[46] To limit impacts, Brower called for "some criteria of use that will allow men who feel the need for inspiration . . . to take as much of it as they need from the wilderness with as little damage as possible to its source." Packers were willing to work with the Sierra Club. In 1948, members of the High Sierra Packers Association (organized by Norman "Ike" Livermore Jr. in 1937) drew up a "packer's code," promising that members would use only the highest quality mules, equipment would be well serviced and up to date,

and stations would be kept clean. Packers also determined to limit grazing, maintain clean camps, and cooperate in fire prevention and suppression. They agreed to ensure the safety of their customers, to keep to existing trails, to close gates on drift fences, and to work with the Sierra Club to run a camp clean-up program for heavily used areas.[47]

The Sierra packing industry boomed in the 1950s and early 1960s, even as scrutiny of its environmental impacts increased. A pack trip was a particularly attractive way to experience the high mountains for urban people and families with little experience in wilderness travel. It was also not as physically demanding as hiking; and prior to the development of compact, ultralight backpacking equipment, packing allowed visitors to cover long distances and experience the highest Sierra in relative comfort. By the early 1960s, approximately 1,500 mules were carting tourists and their gear along the John Muir Trail corridor each summer, about double the number in 1950.[48]

Lou and Marye Roeser, owners of Mammoth Lakes Pack Station, 1960s. (Courtesy of Lou and Marye Roeser)

The industry also changed in this period. While demand for pack trips increased, the numbers of pack stations decreased due to high overhead costs and the difficulties of sustaining profits in the competitive postwar recreation marketplace. The industry consolidated from around one hundred commercial outfits in the 1920s to about twenty-five in 1965. Two-thirds of these outfits were located in the Eastern Sierra. The Summers family continued to operate in the Mammoth region, but most outfitters in the postwar years were relative newcomers. In 1960, Arizona cowboy Lou Roeser and his wife Marye (who had visited the area annually with her family from their home in Los Angeles since the 1930s) purchased the Mammoth Lakes Pack Station, which they ran until the 1990s. Also in 1960, Bob Tanner purchased the Reds Meadow Resort and Pack Station from Arch Mahan who had purchased it from Lloyd Summers in 1937. Tanner had learned the ropes of riding and packing at McGee Creek Pack Station where he worked summers while attending college in Redlands, California, in the 1950s.[49]

Packers, both old timers and newcomers, were a fiercely independent lot and were notoriously mistrustful of government agencies and outsiders. When Livermore organized the High Sierra Packers Association in 1937, he also found that packers shared a common concern over Sierra roads. They hoped to "keep the High Sierra pristine," both out of their love for the country, and to preserve the high-quality wilderness experience their clients desired. While the association generally served as a clearinghouse for "cursing the Park and Forest Services" over increasing regulations and inadequate trail work, beginning in the 1950s, many members also opposed the planned Minaret Summit highway, viewing the project as an example of the excesses of big government and big industry, and a threat to the integrity of the local economy.[50]

In one sense, packers' objection to the highway mirrored the Sierra Club's increasingly hard-line stance on wilderness as incompatible with roads. For packers, the appeal of the peaks, passes, and alpine basins west of Mammoth Lakes stemmed from the area's difficult access, and the effort necessary to experience its most dramatic scenery. The feeling of solitude of a weeklong pack trip was as essential to the area's wilderness character as the spectacular scenery. To allow greater access to the Mammoth Lakes Sierra via an all-weather highway would destroy the very qualities that made it wilderness. The road would "cause a great loss to the public

of irreplaceable wilderness country . . . for the future generations who need a little breathing space from the problems of the space age," wrote Lou and Marye Roeser in 1961.[51] In 1965, Bob Tanner expressed concern that the Middle Fork Valley might suffer the fate of other areas in the Sierra if a highway were to pass through. "The southern portion of the Sierras has been destroyed by a maze of crossroads, and the wilderness concept is forever gone in that region," he wrote.[52]

Mules crossing the Middle Fork San Joaquin River beneath Rainbow Falls. (Devils Postpile National Monument image collection)

In contrast to the Sierra Club, the local packers, guides, and recreational equipment retailers who fought the road were also motivated by profit considerations and a concern for the economic future of the Mammoth region. In 1956, Chamber of Commerce members in the Mammoth area met to formulate an official stance on the road proposal. "We have been for years an area of high caliber, attracting a definitely superior clientele," they concluded. "It is felt that this clientele come to the Mammoth area repeatedly because it retains its natural primitive, peaceful condition, undisturbed by commercial development. A through highway would immediately impair and eventually totally destroy these qualities so long cherished by residents and tourists alike." The success of the packing business, members recognized, hinged on maintaining "an attractive, vast 'backcountry"' free of roads or other modern facilities.[53] Packers also feared that a highway would transform Mammoth from a "destination" to a place where people stopped briefly en route to somewhere else. Such a change threatened the stability of the industry and the familiarity that had developed between packers and their repeat clients over the years.[54]

Even though packers played a central role in blocking the Minaret Summit highway, their economic focus and resistance to regulation placed them outside the dominant trend in conservation. Packers viewed the High Sierra wilderness from a different vantage point than the increasing numbers of backpackers tramping through the mountains on foot. In contrast to those visitors who viewed the mountains as a temporary escape from the drudgery of urban life, for packers, the Sierra Nevada was a home and a workplace. The wilderness character of the landscape was, for them, a tangible resource upon which their livelihoods depended.

Guided pack trips were also different from independent backpack adventures. They were often cultural experiences as much as encounters with non-human nature. Packers—with their worn Levis, spurred boots, wide-brimmed hats, and stoic mannerisms—seemed products of an earlier era when the mythical Old West was still wild and the mountains were unexplored. While some were taciturn, others regaled their clients with campfire stories about the Indians, sheepmen, cavalry patrols, wranglers, and prospectors that had once roamed the High Sierra. From the 1940s to the 1960s, the most popular trip out of Reds Meadow Pack Station followed the route of the old French Trail to Summit Meadow to Sheep's Crossing on the North Fork San Joaquin and on to the 77 Corral. Packers' time spent in the mountains also gave them a certain historical cachet with their clients. Bud Steele, a veteran packer working the 1947 Sierra Club high trip, was known to boast that he had "helped the Devil pack in to set up Devils Postpile."[55]

By the late 1960s, Americans' preferences for wilderness recreation began to change. The faux frontier experience of packing had less appeal for urban/suburban baby boomers who generally held stricter, more idealized views of wilderness as a condition of pure nature. Some packers attributed this to a lack of experience with stock animals among many younger wilderness devotees.[56] A greater attention to ecological considerations within the Forest and Park Services also affected the packing industry in this period. Land managers imposed regulations on

packers and other wilderness users in order to preserve water quality, to prevent the spread of invasive species, to protect meadows, and to ensure the feeling of solitude sought by other visitors.

Packers had been resistant to formal regulation from the start, but the increasingly complexity of land policy in the 1960s and 1970s exacerbated disagreements. In 1965, Mammoth-area author Hal Roth suggested that packers were especially resistant to enforcement attempts by the young college graduates who often held backcountry ranger positions. He recommended that senior rangers should be responsible for negotiating arrangements with packers "rather than the 21 or 22-year-old college graduates, 'the brash worldbeaters' who are often sent to talk to men who have spent 20 or 30 or 40 years in the mountains and—though sometimes untutored—know and love every boulder and meadow, though they would rather die than admit it."[57]

Some packers were also skeptical of claims by ecologists and conservation biologists about the vulnerability of the Sierra ecosystem. Bob Tanner, for example, felt that the new generation of land managers failed to appreciate the resiliency of the Sierra landscape. For him, increasing visitation did not warrant the increased presence of the Park Service at Devils Postpile: "What can we tear down? We can't move the rock of the Postpile . . . you can't take the falls away, you can't wear it out by looking at it, you can't ruin the scenery by your eyeballs."[58]

Others felt that efforts by environmentalists and federal agencies to measure the environmental impacts of recreation unfairly implicated pack-stock outfits and failed to consider the long history of human use, including grazing, in the High Sierra. Marye Roeser attributed this scrutiny to "an unrealistic view" among urban backpackers and environmentalists that the Sierra could be maintained as "an untouched land as it might have appeared ten thousand years ago."[59] Most packers viewed themselves as responsible stewards of the wilderness. They felt their animals belonged in the landscape. Packing constituted a "historic use," they argued, and was thus compatible with the Wilderness Act and the wilderness concept more generally. Furthermore, for longtime packers who had witnessed the economic transformation from resource extraction to recreation, the Sierra environment appeared in better shape than ever.

Most packers still cooperated with land managers in keeping the backcountry clean, as the condition of the landscape remained important to their livelihoods. Mule teams voluntarily packed out garbage collected by wilderness rangers, packers avoided grazing in sensitive areas, and most were willing to keep group sizes within the limits Forest Serivce officials suggested. According to Lou and Marye Roeser and Inyo National Forest permit officer Michael Morse, most problems were caused by a few "rogue packers" whose refusal to abide by voluntary industry practices and forest regulations reflected badly on the industry as a whole.[60]

By the early 2000s, underlying tensions sparked a legal battle over appropriate use of the Mammoth Lakes Sierra backcountry. In 2000, a coalition of hiking and environmental groups filed a lawsuit alleging that the Inyo National Forest had violated the National Forest Management Act, NEPA, and the Wilderness Act by issuing permits to commercial stock operators without evaluating the environmental impact of stock use in accordance with NEPA requirements. In June 2001, the court ruled in favor of the plaintiffs. The judge ordered the Forest Service to undertake an EIS to determine specific environmental impacts, and to propose limits on group size, trail suitability for various user groups, and appropriate locations for campsites for commercial pack operations.[61]

Determining criteria for regulating the industry proved difficult. In part, this was due to the heavily value-laden debate between packers and hiking groups over the appropriateness of

pack stock in wilderness; but it also reflected the difficulties of assessing the actual impacts of the various forms of pack-stock use, and evaluating how environmental effects have changed relative to historical shifts in the industry. The report noted that since the 1950s, the numbers of pack stations in the Sierra had declined and the popularity of pack-stock trips had dropped off as people gravitated toward backpacking. Regulations limiting hunting, fishing, and other activities also affected the types of trips offered and areas visited. Pack stations began offering fewer multiday full-service and dunnage trips (in which a pack outfit dropped off supplies for hikers) and more day trips to areas near wilderness boundaries in response to these shifts. All of these changes made it difficult to accurately attribute specific impacts.[62]

The various parties involved also had different priorities. Managers at Devils Postpile were primarily concerned with the approximately 1,500 annual day-use riders visiting Rainbow Falls from Reds Meadow Pack Station. As park staff pointed out, the final quarter mile of the trail to Rainbow Falls passed into the Ansel Adams Wilderness. In their view, stock use along those trails should be regulated in a manner consistent with other wilderness trails: "These trails are in wilderness and higher level of trail class has conditions that we feel are not appropriate in wilderness." The final EIS reclassified the Rainbow Falls Trail to reflect the wilderness designation, but day-use permit allocations remained the same.[63]

Mules crossing the Middle Fork San Joaquin at Soda Springs Meadows. Devils Postpile National Monument image collection.

As of this writing, the Park Service is working with Reds Meadow Pack Station and Inyo officials on a plan to install a corral or hitching station at the wilderness boundary, from which day riders can walk the additional quarter mile to the falls. This remains a contested issue, reflecting broader debates over how or if wilderness areas should be "zoned" based on ecological specificities, cultural significance, or recreational demand. Devils Postpile has long been considered a "wilderness threshold" due to its position as a jumping-off point for extended trips into the High Sierra backcountry. Although today much of the monument is technically within the boundaries of the Ansel Adams Wilderness, it receives far heavier use than portions of the wilderness farther from the access road.

Overall, the challenge for land managers and recreational interests in the Devils Postpile area and the Sierra more broadly is to adapt stock use to fit with present recreational interests and resource protection requirements. For Michael Morse, a former packer and the Inyo National Forest's current wilderness supervisor at the Mammoth Ranger Station, the traditional skills of packing complement current resource management needs, particularly in fire management and trail maintenance. In 2009, the Forest Service awarded Morse its Traditional Skills and Minimum Tool Leadership Award for his efforts to ensure "the legacy of wilderness attributes by sharing his specialized skills and promoting the use of packstock as a primitive tool." The award recognized Morse's development of a regional program for supporting the special needs of fire management projects.[64] In Morse's view, pack mules and packers could perform much of the work done by helicopters and chainsaws at a lower cost and with less environmental impact. As he told a youth group of the Student Conservation Association, "a mule costs one-tenth of what a helicopter costs, a mule is not noisy, mules are smart and strong and hard-working and they are a huge part of the history of wilderness in the Forest Service." "Part of the wilderness experience is the quiet, a place 'untrammeled by man,'" he added. "That means quiet. And, as a wilderness manager, my job is also to use tools wisely, to use anything that makes less of an impact to the ecosystem."[65]

Morse and many commercial packers today worry that the gradual decline of the industry and the hostility directed at it from many environmentalists and hiking organizations could lead to the loss of packers' particular skill set. Packers "are an old-style profession in a high-tech world," as Danica Burner of Pine Creek Pack Trains put it.[66] They maintain a practical knowledge of the High Sierra landscape born from a love of the mountains and generations of direct experience with them. Since 1969, packers in the region have sought to raise awareness of the historical role of mules and the packing industry in the Eastern Sierra at the annual Mule Days festival held over Memorial Day weekend in Bishop. Recently, the staff at Devils Postpile has worked to foster better communication between the Park Service and the Eastern Sierra packing industry by contributing to events at Mule Days. Park managers are also considering initiating horse patrols in the monument and using Forest Service mule teams in trail work and fire management. Such policies serve not only to promote regional cooperation and accomplish day-to-day management tasks but also to provide visitors opportunities to learn about the historical role of mules, horses, and the packing industry in the Sierra Nevada.

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Chapter Sixteen

From Geologic Interpretation to Ecosystem Management

While recreational considerations shaped much of the history of Devils Postpile, President Taft's stipulation in the original proclamation that the Postpile formation and Rainbow Falls be protected for their "scientific interest" became the basic tenet by which the Park Service defined its administration of the monument. The manner in which successive managers addressed the monument's scientific significance changed in relation to broader shifts in geologic and biological sciences, and in the priorities of the National Park Service. From the 1930s through the 1950s, on-site managers regarded Devils Postpile as an important site for interpreting the geologic processes shaping the Sierra Nevada. In the 1960s, the rise of the environmental movement led the Park Service to more thoroughly incorporate ecological principles into its administrative priorities. Managers at Devils Postpile responded by expanding the existing science program at the park to include increased emphasis on protecting and interpreting its biological resources. By the twenty-first century, Devils Postpile had become a model network park, drawing on partnerships with the larger Sierra parks, other government agencies, and the local community to develop a regional ecosystem monitoring program.

Geology and Scientific Interpretation

American geologic science evolved in the context of the conquest, exploration, and development of the West. Geologists were vital to the nation's expansion through the nineteenth century. In addition to contributing to knowledge about geologic processes, they also drew maps, plotted roads, and inventoried the region's natural resources.[1]

By the late nineteenth century, geologic surveys in the West led to significant changes in the field and Josiah Dwight Whitney's California State Geologic Survey was an important catalyst of these changes. When the state created the survey in 1863, most legislators imagined it would pinpoint locations likely to produce gold and other valuable minerals. Whitney and his team, though, came to understand their surveys in scientific rather than utilitarian terms. For them, the state was "a laboratory rather than a warehouse of salable goods" as one historian writes. During their 1864 survey of the High Sierra, Whitney and other members of the team—especially William Brewer and Clarence King—came to view the mountains differently from the explorers, trappers, and miners of the earlier era. For King, who went on to head the US Geologic Survey, the mountains were "at once sublime, scientifically interesting, and a source of adventure."[2]

This impressionistic view of the High Sierra reflected the Whitney survey's relative freedom from direct oversight, as well as the nearly impossible task with which they had been charged. "The Sierra Nevada [is] a chain of mountains nearly as extensive as the Alps," Whitney wrote. "When we consider that the number of Alpine explorers and of the published volumes of their results may be counted by the hundreds, their researches extending over nearly a century, we feel that we need not apologize for the imperfections of our work."[3] The survey by necessity involved more reconnaissance than intensive study. The surveyors spent much of their time navigating rocky trails, trudging over trackless passes, and climbing jagged peaks. The resulting

reports exhibited an enthusiasm for discovery, physical exertion, and aesthetics, as well as an eye for environmental interdependence not found in earlier geologic writing.

Whitney's efforts "to grapple with the geological structure of an unknown region of unlimited extent" also resulted in one of the most important state surveys produced in the latter half of the nineteenth century. The survey identified, mapped, and named the highest peak in the nation (Mount Whitney); traced the course of the Kern River; explored and mapped the alpine region between the Great Western Divide and the main Sierra crest; located evidence of past glaciers at high elevations; and noted the predominance of granite in the range, contributing to a debate (which continues today) between metamorphic and intrusive theories of the origins of granite.[4]

By the 1870s, the geology profession was becoming positioned more squarely in the service of economic interests. Whitney's continued refusal to accommodate the state legislature's utilitarian agenda eventually led to his removal as the head of the survey. Whitney's replacement King soon found most of his time devoted to cataloging mineral resources. The freedom from oversight that the California survey had enjoyed in the 1860s was curtailed as the western landscape became better known and as geologic surveys became more closely monitored by state and federal governments.[5]

Geologic study for academic rather than strictly commercial purposes nevertheless continued on a smaller scale at California's up-and-coming universities at Berkeley and Stanford. With few resources for modern laboratories such as those at established eastern schools, university scientists in California concentrated their work in the field. Some of this work was done in conjunction with Sierra Club outings and aided in the advancement of conservation in the Sierra Nevada.

Berkeley geology professor and Sierra Club charter member Joseph N. LeConte Sr. was a key figure in this melding of academic and field geology. Trained under Louis Agassiz at Harvard, LeConte came to California in 1869 to teach geology at Berkeley. In 1870, he visited Yosemite where he met John Muir and became intrigued with then-controversial hypothesis about the glacial origins of the Yosemite Valley. In 1872, LeConte undertook an exploration of the headwaters of the Tuolumne and Merced Rivers with Muir, and was persuaded to agree with the enigmatic Scot's theory that glaciers had carved out these valleys.[6] During the trip, LeConte gave a lecture to his traveling companions on the subject in which he concluded that California had indeed experienced a geologically recent "glacial epoch" during which time "the whole of the high Sierra region was covered with an ice-mantle, from which ran great glacial streams far down the slopes on either side."[7]

LeConte's account of his "ramblings" in the Yosemite high country in 1870 and 1872 contributed to the reservation of Yosemite National Park in 1890. In his journal entries, LeConte interspersed sober assessments of the region's geology with expressions of awe at its spectacular scenery. Perhaps under the sway of Muir, the scientist LeConte could not help but view Yosemite as a divine creation. While camped out in the valley, he wrote: "Here, under the black arching sky and before the grand cliffs of Yosemite, I lifted my heart in humble worship to the great God of Nature."[8]

This blending of empiricism and romanticism also characterized LeConte's work as a geology professor. The Sierra was his classroom, and his students came away from his instruction with an appreciation for both objective observation in the field and the aesthetic experience of the high mountains. Charles Palache, a student at Berkeley in the 1880s and early 1890s, recalled that the "great event of my college career was the horse back trip to the High Sierra" led by

LeConte. As LeConte aged and his field excursions became less frequent, other academics followed his lead. Beginning in the 1890s, geology professor Andrew C. Lawson kept LeConte's emphasis on fieldwork alive at Berkeley by encouraging his students to complement their book research by "going up there and *seeing* the rocks."[9]

In the twentieth century, the Sierra parks became important venues for the intellectual, field-based geology encouraged by LeConte, Lawson, and others at Berkeley, in particular. While Yosemite and Sequoia and Kings Canyon National Parks were better known as locations for geologic study, over time, Devils Postpile also gained recognition as a site for interpreting the geologic history of the Sierra Nevada.

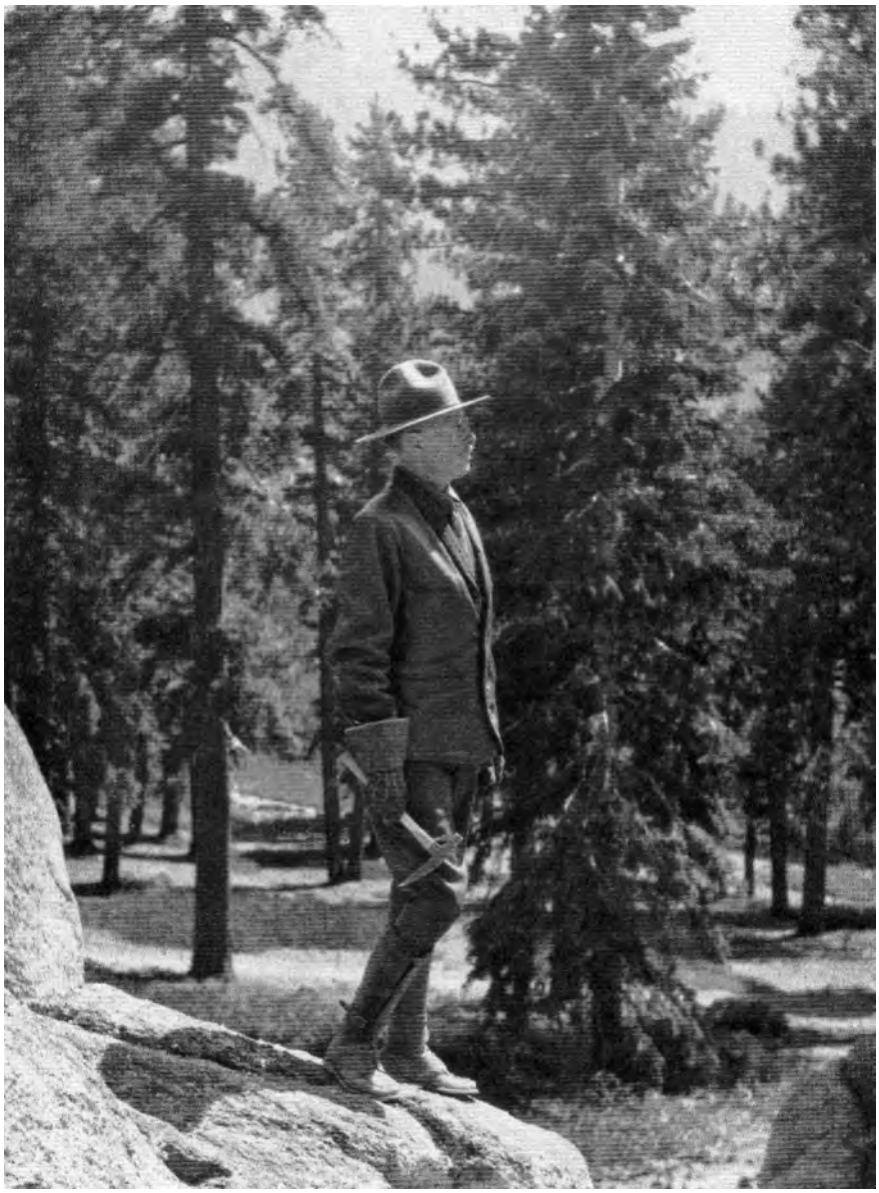
When Devils Postpile National Monument was established in 1911, little was known about the geologic processes that had shaped the Postpile formation and its surrounding landscape. For most observers through the early twentieth century, the Devils Postpile was notable primarily for its strange appearance and scenic setting; its geologic significance derived from its similarity to other known examples of columnar jointing rather than its specific place within the Sierra. In a 1911 letter to President William H. Taft in support of the monument proposal, Joseph N. LeConte Jr. described the formation as "a remarkable example of basaltic columns, the finest, I believe, in America, and ranking with the famous Giants Causeway in England." For Forest Service district engineer Walter Huber, who had first proposed the monument, Devils Postpile constituted a "wonderful natural curiosity" warranting future scientific study.[10]

While its volcanic origins were understood, early efforts to describe the actual process by which the Postpile formed were well off the mark. One observer assumed that the Postpile lava had "flowed in a molten torrent from a nearby crater, plunged over a precipice, split into prisms, and hardened in mid-air."[11]

US Geologic Survey topographer François Matthes produced the first authoritative scientific survey of the Postpile and the surrounding area in 1930 as part of his larger project to document the geologic history of Yosemite and the High Sierra. Matthes was born in Amsterdam but raised in the Swiss Alps where he developed an interest in geology. In 1891, he and his family immigrated to America. Four years later, he earned a degree in civil engineering from Massachusetts Institute of Technology. After graduation, Matthes, who had retained his interest in geology, took a position with USGS as a topographer. His work led him west where he prepared maps of the Bighorn Mountains in Wyoming, the Grand Canyon, and in 1907, Yosemite Valley.

Matthes's work in Yosemite led to a lifetime fascination with the High Sierra. Even though he did not have a degree in geology, his reputation as a topographer and his extensive field experience led to his promotion to the geologic branch of the USGS in 1913. This change allowed him the freedom to pursue his interests in the Sierra. Beginning in the 1920s, Matthes embarked on the most extensive geologic survey to date of Yosemite and the surrounding High Sierra.[12]

In his 1930 publication *The Geologic History of the Yosemite Valley*, Matthes supported John Muir's basic hypothesis about the role of glaciers in carving the Yosemite Valley. He also observed that the range had undergone multiple glaciations, and that the glaciers were never as extensive as Muir had supposed. Stream erosion, he argued, also played an important role in shaping the valley's distinctive features, as did uplifts in the recent geologic past. The significance of *The Geologic History of the Yosemite Valley* lay in Matthes's examination of the valley in the context of the broader geologic story of the entire range. Matthes also had the ability to interpret this complicated story in a language that the general public could understand. His blending



François Matthes in the field. (Source: Matthes, *François Matthes and the Marks of Time*)

of lucid description with scientific analysis made him the most widely read interpreter of the geology of the Sierra national parks. However, it also distanced him somewhat from the profession as a whole. Editors of professional journals consistently asked him to tone down the descriptive language, and he was often regarded as more of a public intellectual than a professional geologist. Nevertheless, Matthes's work had tremendous significance in drawing public attention to the forces that shaped the region's dramatic scenery.[13]

Matthes also published a number of short articles for the *Sierra Club Bulletin* on aspects of Sierra geology. His 1930 essay on Devils Postpile and the surrounding region brought attention to this little-known area and became the basis for subsequent geologic studies of the Mammoth volcanic complex. Unlike most previous observers who viewed the Postpile formation as a geologic oddity, Matthes described it as the most visible example of the volcanic and glacial processes that shaped the Sierra crest in the Mammoth region. Matthes also conducted the first

detailed study of the origins of the Postpile, in which he concluded that the basaltic lava of the Postpile had erupted from Mammoth Pass between 100,000 and 200,000 years ago, between two of the Sierra's major glacial epochs. Matthes also described the action of the Middle Fork San Joaquin Glacier, which had carved away all but the most resistant portions of the basalt obstruction.[14]

Although appearing as "a mere hummock in landscape dominated by mile-high peaks," Matthes wrote, the Postpile constituted "a feature of unusual interest to the scientist as well as to the layman," adding that "the columns that form its steep west front, facing the river, are exceptionally high, straight and cleancut; those at its southern end are remarkable for their curvature and their radial arrangement with respect to a center at the top of the pile. Strikingly beautiful, also, are the six-sided or five-sided end facets of the columns which in places still gleam with the polish that was imparted to them by the overriding glacier."[15]

While Matthes recognized the Postpile as the area's most unusual and recognizable feature, he saw it as only one example of the fascinating geology of the Mammoth region. For him, the area's frequent volcanic activity, the comparatively low elevation of the Sierra divide at Mammoth Pass, and the north-south orientation of the Middle Fork Valley complicated the simple tilted-block theory of the uplift of the Sierra range. He concluded that the basic theory still held, but that the uplift occurred at different times and was influenced by various forces including the makeup of the underlying rock and successive waves of volcanic activity, all of which were highly visible in the Mammoth region. He noted that although Mammoth Pass was the lowest point on the central Sierra crest, it only seemed abnormally so due to the thick layer of ash and pumice on the eastern flank of the Sierra and because it was "overshadowed by the Ritter Range" to the west. The Ritter Range itself, he explained, was composed of hard metamorphic rock that was much older than the predominating granite, demonstrating that the Sierra, rather than being a single mass, was in fact made up of numerous ancient mountain ranges. "Our Sierra Nevada," he observed, "is to be regarded as something greater than a simple mountain range. It is of the order of a mountain system. Its areal extent equals that of all the Swiss, French, and most of the Italian Alps together!"[16]

The next significant geologic work at the monument took place following its transfer to the National Park Service. In 1934, Yosemite officials sent Theodore Cronyn to survey the monument and catalog its resources. During the survey, Cronyn documented several additional features of geologic interest including the basalt columns of the "Buttress," the prominent cliff across the river and downstream from the Postpile, as well as several large, egg-shaped glacial erratics that the retreating Middle Fork glacier had deposited. Cronyn also noted the "striking cascade" where Reds Creek flowed into the Middle Fork San Joaquin, and suggested that it be connected to the monument's trail system.[17]

Budget cuts during World War II prompted a debate about whether Devils Postpile deserved national monument designation. The question hinged on its significance as a scientific resource. After inspecting the area in 1951, veteran Park Service naturalist Dorr Yeager concluded that the Postpile formation was "unique among geologic phenomena of this country," and was thus worthy of monument status. Yeager also determined that Rainbow Falls, though not as spectacular as the falls in the Yosemite Valley, was "a beautiful falls and should . . . be retained in the monument."[18]

In 1952, Ranger Naturalist Richard Hartesveldt synthesized the existing literature on the geology of the Postpile and the surrounding area in an article for *Nature Notes* titled "The Geologic Story of the Devils Postpile." Drawing largely on Matthes's 1930 article, Hartesveldt described the Devils Postpile area as a location where geologic processes originating east of the

Sierra divide had bled over to the west slope of the range. He noted that the features in and around the monument exhibited geomorphic ties to the zone of active volcanism surrounding Mammoth Mountain, providing a clear example of the complex faulting that both contributed to and resulted from the characteristic westward tilt of the Sierra range. Hartesveldt also described the ongoing processes of geologic change evident in the Middle Fork Valley. The older metamorphic rock comprising the Ritter Range, the southward flow of the Middle Fork San Joaquin, the polish and striations at the top of the Postpile, Soda Springs, and the soft pumice covering much of the area, he explained, illustrated the successive waves of volcanic and glacial activity that shaped and continued to shape the Sierra Nevada.[19]

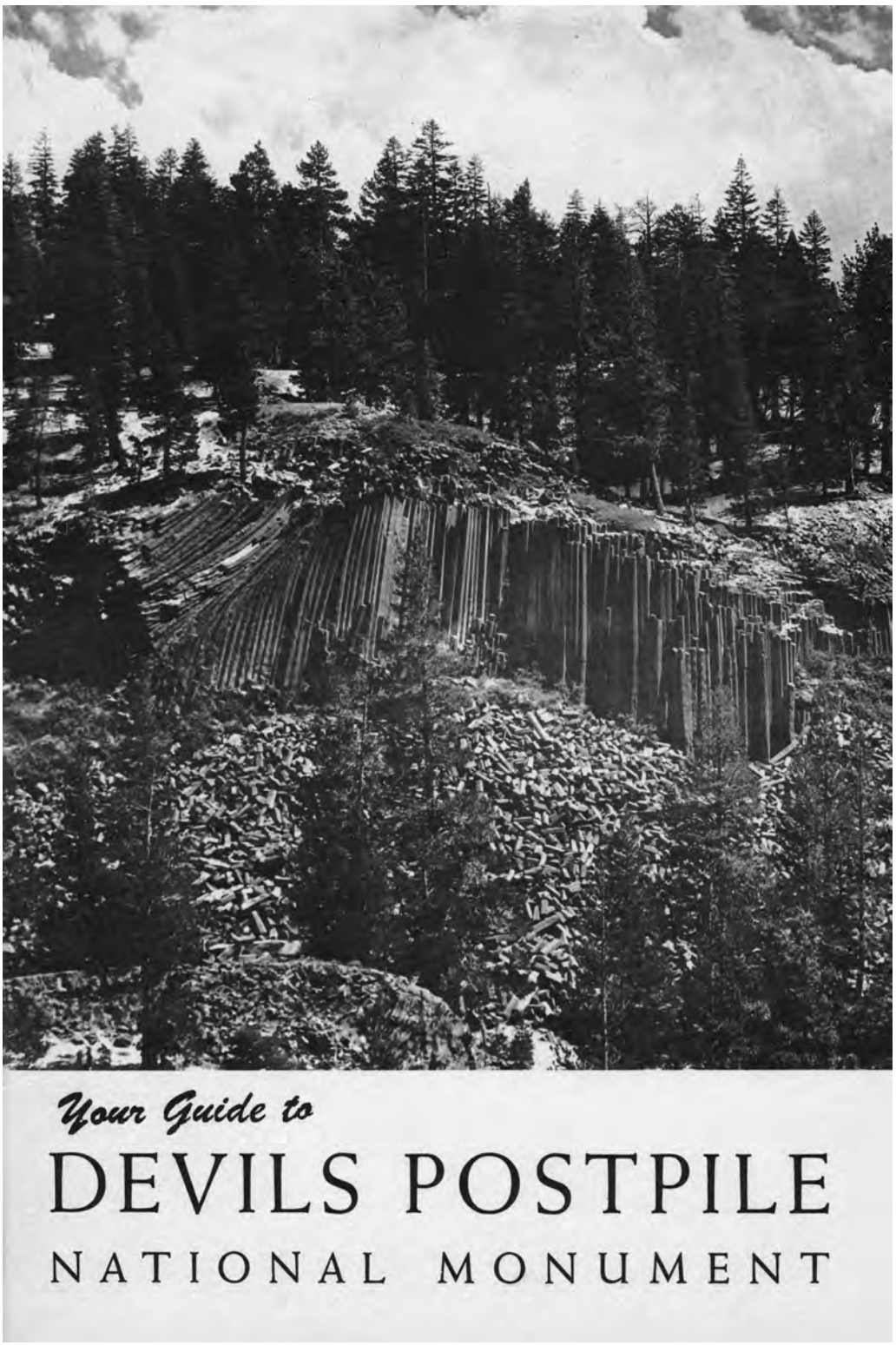
In the years that followed, Hartesveldt's article served as an important promotional tool for the National Park Service. In the 1950s, Ranger Earl Homuth distributed copies to lodges and chambers of commerce throughout the region. The article also became the basis for interpretation at the monument. In 1963, Ranger-naturalists Keith Trexler and William Jones revised and updated the article, republishing it as a tourist brochure titled *Your Guide to Devils Postpile National Monument*.[20]

During the 1960s, a number of scientists published studies of the Mammoth region. Some of this work was done in conjunction with mineral surveys, while other work was completed through university studies. In 1967, USGS scientists N. King Huber and C. Dean Rinehart synthesized previous studies in "Cenozoic Volcanic Rocks of the Devils Postpile Quadrangle, Eastern Sierra Nevada California." Their paper was significant for its description of the results of a recent radiometric dating of the Postpile basalt and other volcanic rocks in the region.[21]

The technique of potassium-argon dating, which involved measuring the decay of potassium-40 (K-40) relative to the amount of argon-40 (A-40) within a sample, had been developed in the early 1960s. While more accurate than any other previous method of dating ancient rock, by 1967, potassium-argon dating was still in its early stages of development. Accuracy was subject to a number of variables including the homogeneity of the samples and the age of the rock (the method was most accurate for rocks between 100,000 and 4,000,000,000 years old). Huber's and Rinehart's data was courtesy of University of California, Berkeley, geologist G. Brent Dalrymple. Dalrymple had at his disposal arguably the best facility in the world for dating volcanic rock. His initial results, which he provided to Huber and Rinehart prior to his own publication of the data, revealed the Devils Postpile lava to be between 630,000 to 940,000 years of age, significantly older than Matthes's estimate of 100,000 to 200,000 years.[22]

These numbers remained the basis for interpretation at Devils Postpile National Monument until the 1980s when Dalrymple's original data was reevaluated. At that time, it was discovered that sometime during the process a decimal point had been misplaced, causing Huber and Rinehart to over-report the age of the Postpile lava by a factor of ten. Following this discovery, park officials revised the monument's geologic story yet again, estimating the age of the lava at approximately 100,000 years and identifying its source as a collection of vents near the present-day Pumice Flat campground.

In recent years, the Park Service has partnered with the USGS to pursue more in-depth studies of the Postpile lava and the other volcanic features of the monument and the surrounding area. In 2010, senior USGS scientist Wes Hildreth evaluated samples of the Postpile lava using the newer process of argon-40/argon-39 dating. The results established a more precise age of approximately 82,000 years. He also suspected that the vents at Pumice Flat may in fact overlay the actual source. Hildreth is continuing his research in collaboration with the Park



Cover of *Your Guide to Devils Postpile*, 1963. (Courtesy of Yosemite National Park Archives, Museum, and Library)

Service. The team is also working on a revised geologic map of the Middle Fork Valley and Devils Postpile.

Geologic research remains an important aspect of the management and visitor experience of Devils Postpile National Monument. This work has not only changed the way the Park Service understands and interprets the natural scene but also sheds light on the region's human history. During a recent research project, Forest Service paleoecologist Constance Millar successfully dated the volcanic blast that covered much of the Postpile region in pumice to 1350 AD Millar was able to arrive at such a precise time frame by matching ring sequences on trees blown down by the eruption with corresponding ring sequences on presently living trees. This remarkable finding provides an opportunity to reevaluate the sequence and character of early human use of the area, and further explore the linkages between environmental and social changes in the region.

Ecological Management

The Park Service approach to natural resource management has historically reflected its core mandate to preserve natural conditions "unimpaired" while also providing for the enjoyment of future generations. How the Park Service has interpreted its mission has changed over time in response to broad changes in culture, politics, and science. For most of the twentieth century, Park Service polices trended toward what historian Richard Sellars has termed "façade management." Early officials were concerned more with barring extractive uses and accommodating scenic tourism than maintaining functioning ecosystems. Especially at the flagship national parks where dramatic scenery required little scientific explanation to appreciate, efforts to satisfy tourist desires led to superficial and often ecologically harmful management practices. In addition to building roads and providing extensive tourist accommodations, the Park Service introduced nonnative species, exterminated predators, managed wild ungulates as if they were domesticated cattle, allowed bears to feed on garbage pits for visitor entertainment, and suppressed natural fires.[23]

Pressure to more fully incorporate science into national park management came initially from the nascent field of ecology. In 1925, biologist Charles Adams charged that the Park Service had "not adhered" to its "theoretical" mandate to protect natural integrity. He argued that naturalists employed by the Park Service were not "devoted to technical research, but in the main to elementary educational work with the park visitors." The agency's manipulation of park flora and fauna to serve these ends had led to a severe loss of biological integrity in his view.[24]

Such critiques initially had little effect on park management. Then, in 1928, independently wealthy biologist George M. Wright offered to fund a systematic survey of wildlife in the parks. Horace Albright endorsed Wright's proposal, viewing it as a good fit with his and Stephen Mather's aim of partnering with private interests to promote scientific research and education. Released in 1933, Wright's *Fauna of the National Parks* was sharply critical of the Park Service's wildlife policies. Wright argued that the agency had been deficient in its singular purpose to preserve "characteristic portions of our country as it was seen by Boone and La Salle, by Coronado, and by Lewis and Clark." He suggested that park wildlife would be best served by restoring park landscapes as nearly as possible to the condition that existed upon the arrival of Euro-Americans. Fulfilling this aim would require extensive scientific and historical research. The effort would also have to be reconciled with the agency's traditional emphasis

on accommodating large numbers of tourists, which, Wright observed, had contributed to a "very wide range of maladjustments" by park wildlife.[25]

Wright's work brought attention to two considerations that influenced the development of the Park Service's science program in later years: the importance of habitat (both inside and outside park boundaries) to the maintenance of healthy wildlife populations, and the recognition that nature was always in flux, that there "is no one wildlife picture which can be called the original one." The latter point required clarification since Wright was also advocating for a historical point of reference—the period just before the arrival of Europeans—as the benchmark for wildlife management. Wright reasoned that prior Native American impacts on the North American landscape had been slight in comparison to the rapid changes brought by the "the introduction of European culture." The Park Service, he believed, had a responsibility to reverse the disruptive effects of Euro-American settlement and restore more natural processes of succession to the parks.[26]

Park Service leaders were initially responsive to Wright's arguments, and appointed him the first head of the agency's Wildlife Division. However, Wright's proposal to radically revise the criteria by which the agency evaluated, managed, and interpreted park resources frequently ran up against an agency culture predicated on loyalty to leadership and tradition. The agency's nods to biological research during this time clashed with its use of New Deal funds to expand the system and make parks more accessible to the public. This limited commitment to science became apparent following Wright's untimely death in an automobile accident in 1936. Wright, it turned out, had been the glue that held the Wildlife Division together. "Although not fully apparent at the time," Sellars writes, "the loss of Wright's impressive leadership skills marked the beginning of the decline of National Park Service science programs."[27]

Drastic cutbacks in national park funding and staffing during World War II prevented revival of the agency's science programs. The inattention to ecology continued after the war, as rapid increases in visitation created severe strains on outdated park infrastructures. In 1956, the agency responded with Mission 66, a ten-year plan to develop the parks to meet the needs of the greatly expanded traveling public of the postwar years. During this period, ecological concerns took a backseat to plans to widen roads, design and build new visitor centers, expand campgrounds, and repair degraded facilities. Although the growing strength of the postwar wilderness movement created some backlash against Mission 66–style development, recreational considerations continued to outweigh scientific considerations in park management into the 1960s.

In 1962, biologist Rachel Carson brought ecosystem thinking into the mainstream with her bestseller *Silent Spring*. By describing in vivid prose the manner by which new synthetic pesticides had penetrated every facet of the environment including human bodies, Carson recast conservation through the lens of ecology. *Silent Spring* had an immediate effect, commingling with a general increase in environmental awareness and political action at the time to produce a groundswell of public interest in ecosystem science.

The rising political influence of ecology in this period motivated the Department of the Interior to take action. In 1962, Secretary of the Interior Stewart Udall convened a special Advisory Board on Wildlife Management, chaired by A. Starker Leopold (son of noted wildlife biologist Aldo Leopold), to examine wildlife management policies in the national parks. Leopold went further, directing his team to evaluate not only the Park Service's wildlife policies but also its entire approach to natural resource management. The resulting report, *Report on Wildlife Management in the National Parks*, better known as the Leopold Report, echoed Wright's

earlier call for greater attention to habitat. The report stressed restoration and protection not of individual species, but of the "biotic associations" that sustained them.[28]

The Leopold Report emphasized the complexity and dynamism of ecological communities and recommended a diverse set of management strategies including nonnative species removal, reintroduction of native species (including predators), the end to outright fire suppression, and the reduction of some ungulate herds. While some of these procedures involved a hands-off approach, others were explicitly interventionist, requiring parks to actively re-create natural processes. Also, like Wright and his team, Leopold's commission adhered closely to frontier mythology, identifying the restoration of the ecological conditions existing at the time "when the area was first visited by the white man" as the goal of resource management. The Leopold Report's statement that "a national park should represent a vignette of primitive America" became the mantra of natural resource management in subsequent years.[29]

The Leopold Report set a significantly higher standard for the use of ecology as a basis for resource management. Gradually, parks phased out nonnative fish stocking, hired biologists to study wildlife and plant populations, worked to eradicate invasive species, regulated recreational activities, and made efforts to reintroduce natural fire regimes. Cataloging, protecting, and restoring not only scenery but also the underlying ecological processes brought the agency more in line with developments in the natural sciences and environmental politics.[30]

Problems nevertheless emerged. Administrators and scientists often disagreed about when to intervene in natural processes through wildlife tagging, controlled use of fire, species culling, or other means in order to restore ecological function. These debates stemmed from a general confusion over what it meant to manage parks as "reasonable illusion[s] of primitive America." In his review of the report, naturalist Adolph Murie expressed concern that park administrators might miss Leopold's intended emphasis on biological processes, and would interpret the report literally as a mandate to "freeze the environment at a certain primitive stage." Such a policy might satisfy tourist expectations, but it would also impede the restoration of natural succession. Additionally, the Park Service had limited funds for hiring professional scientists or conducting formal scientific research. As a consequence, recreational considerations continued to trump ecological management in many instances.[31]

In 1980, in response to criticism that the agency had failed to meet the requirements of the Leopold Report, Congress requested a full review of natural resource policies in the parks. The final "State of the Parks" report recommended a "comprehensive inventory" of park resources with the purpose of developing a "sound resources information base." The report called for revised natural resource management statements for individual parks, and the creation of a natural resource training program to educate superintendents and other management staff in the principles of ecological management.[32] The Park Service also initiated a science training program and stepped up its efforts to monitor air and water pollution. However, disagreements within the agency, coupled with severe budget cutbacks during Ronald Reagan's presidency, continued to impede progress. By the end of the 1980s, despite strong support for ecological management from environmentalists and many agency officials, the Park Service still lacked adequate leadership, funding, and staffing to take significant action.

While this tension between ecological management and scenic tourism affected all units of the national park system, many national monuments experienced this history differently. Due to limited funding and staffing, monuments typically had even less capacity for conducting scientific research than national parks. However, whereas most national parks were established as locations for scenic tourism and the appreciation of natural aesthetics, monuments were created specifically for the scientific or historical values of particular resources. The Antiquities

Act, Sellars has argued, "made it clear that . . . the primary value of such special places lay . . . in their contribution to education and knowledge for the general public good through research conducted and information disseminated by scientific and educational institutions."[33] Many monuments were designated as "representative areas," and so fit well with the Mather's and Albright's attempts to emphasize scientific education in the 1920s and 1930s.[34] National monuments also tended to be smaller than national parks, and most lacked the caliber and diversity of scenic attractions found in their better-known cousins. As a result, on-site managers frequently emphasized their scientific or historical interest rather than their scenic qualities alone.

After assuming jurisdiction for Devils Postpile in 1934, Yosemite officials prioritized the "scientific interest" of the Postpile formation and Rainbow Falls in order to satisfy the requirements of the monument's founding legislation and distinguish the Park Service's management priorities from the Forest Service policies prevailing in the area. From early on, Park Service officials consulted geologists with the University of California and USGS to draft accurate interpretive signs. Onsite staff also worked with Forest Service rangers and nearby Reds Meadow Pack Station to erect signs and conduct visitor education programs.

Beginning in the 1950s, park managers also became concerned with the biological impacts of increasing recreational use. Rangers Homuth and Cahoon both identified fishing trails as detrimental to the integrity of monument meadows. Cahoon was particularly concerned about the impacts of increased horse and mule grazing. By the 1960s, Reds Meadow Pack Station had grown into one of the most popular outfits in the Sierra. Owner Bob Tanner frequently allowed stock to graze freely in Reds Meadow during the tourist season, and the animals often wandered into the monument where they frightened tourists, left behind piles of manure, and trampled riverbank vegetation. Through this period, a number of Park Service officials also recommended closing the monument campground and managing Devils Postpile as a day-use area only. They believed this would divert recreational users to the Forest Service campgrounds in the area, and allow the shorthanded monument staff to focus on interpretation rather than recreation and campground maintenance.

The Park Service's greater emphasis on ecology and research at the national level began to more directly influence Devils Postpile's management in the late 1970s. A 1978 management report recommended an "active research program designed to provide management with decision assistance in all aspects of planning, development, and management." The report also suggested restoring meadows damaged by past visitor use and encouraging universities and other research institutions to "use the resource in geologic education, research, and field studies."[35]

Following the release of the 1980 "State of the Parks" report, Sequoia and Kings Canyon National Parks drafted revised natural resource management statements for each of its constituent parks. The statement for Devils Postpile included the most thorough inventory of the park's geologic and biological resources to date. It also described recent "restoration" projects including the closure of a meadow trail to allow "natural revegetation to occur." This project and others designed "to steer crowds of people and horses in appropriate directions to avoid negative environmental impacts" were intended to fulfill the objective of managing Devils Postpile as "a natural area . . . as unchanged as possible by man for the enjoyment of future generations." In addition to revising interpretive signs, leading science walks, giving campfire talks, and collecting information on the monument's biological resources, rangers worked to "invite" visitors away from the parking lot and other developed areas "to seek out and enjoy the natural aspect of the Monument, where human influence is negligible."[36]

Although steps had been made locally to respond to and implement new environmental management theories at the monument, lack of funding and staffing meant that interpretation would continue to outweigh academic research and ecological restoration. This problem also reflected the partial commitment to science and ecological management in the national park system as a whole during this time. through the 1980s and 1990s, critics from both inside and outside the Park Service continued to express frustration at the lack of substantial progress in these areas. By the 1990s, this pressure spurred the agency to once again reevaluate its approach to resource management.

In 1991, Park Service officials met in Vail, Colorado, to mark the seventy-fifth anniversary of the agency and develop plans for its future. The primary goal was to increase the "environmental leadership" of the Park Service by developing its natural resource management program. Doing so required confronting persistent shortcomings in research, funding, and staffing. While the resulting Vail Agenda expressed a clear commitment to prioritizing science, obstacles to implementation remained deeply rooted in agency culture and politics. Richard Sellars's 1997 critical history of natural resource management in the parks identified many of these obstacles, and called for a more serious push for a substantive resource inventory and monitoring program. Partly in response to Sellars's book, in 1999, Congress approved the Natural Resource Challenge, setting in motion the most significant changes in national park resource management policy since the release of the Leopold Report. The legislation set aside funds for research and created an action plan for evaluating and improving the health of park ecosystems.[37]

One of the requirements of the Natural Resource Challenge was to group individual park units into networks with other parks with similar ecologic and geographic characteristics. The inclusion of Devils Postpile in the Sierra Network along with Yosemite and Sequoia and Kings Canyon National Parks allowed for significantly increased attention to the monument's previously understudied biological resources. Because Devils Postpile was attached to Sequoia and Kings Canyon, inventory and monitoring programs designated for the larger parks carried over to the monument. Devils Postpile has since benefited from increased attention to scientific research and ecological management in the Sierra Network and in the Park Service as a whole.

Historically, the administrative philosophy at Devils Postpile has also been strongly shaped by the individual managers charged with its day-to-day management. This has continued to be the case into the twenty-first century. In 2000, former director of the Inyo National Forest Mono Basin Visitor Center Deanna Dulen replaced Wymond Eckhardt as monument superintendent, bringing with her a different take on natural resource management. Whereas Eckhardt leaned toward a more traditional approach to park management, focusing on visitor contact and interpretation, Dulen actively promoted Devils Postpile as a site for rigorous academic research into the ecological and geologic process characteristic of the Central Sierra Nevada and the Mammoth region. Dulen fully embraced the network concept at the heart of the Natural Resources Challenge, cultivating relationships not only with Yosemite and Sequoia and Kings Canyon but also with other nearby Park Service units, public and private scientific research institutions, Inyo National Forest, USGS, and other government agencies in the region.

The result has been a dramatic increase in scientific understanding of Devils Postpile's natural resources. Studies of bird nesting, bats, fire history, wetlands, meadow formation, air pollution, and climate change have also brought attention to the ecological connections between the monument and the larger area in which it is situated, spurring the Park Service to take a more active role in regional planning. Cooperation with the Forest Service and the local community

has been a central theme throughout the history of the monument, but the recent attention to ecological management has required an even deeper commitment to collaboration.

While the new science program at Devils Postpile represents a significant development, current and future park managers can benefit from attention to environmental history and the role of Native Americans in shaping park ecologies. Past efforts to restore ecological conditions existing at the time of initial Euro-American exploration were predicated on an assumption that Native peoples had no significant impacts on ecological processes. In recent decades, scholars in a variety of fields have demonstrated that indigenous people altered the North American landscape far more substantially than had previously been assumed. The extent to which Native societies transformed ecologies through intentional burning, hunting, and plant gathering, among other practices, suggests a need to reevaluate what it means to manage parks as "vignette[s] of primitive America," and whether this remains an appropriate or even achievable benchmark.[38]

North Fork Mono and Paiutes continue to hold deep concerns for what happens in their tribal homeland. The Devils Postpile area is not only significant as a site of traditional trade and resource collection activities but also features prominently in tribal creation stories. As a result, Native people approach the issue of ecological management both in scientific terms and as a matter of cultural and spiritual survival.

At a discussion of recent scientific research programs held during the monument's centennial celebration in July 2011, North Fork Mono tribal chair Ron Goode stressed the importance of collaboration with Native communities in developing appropriate stewardship policies for the Middle Fork Valley. Goode argued for the replacement of the term *restoration*, which suggests a return to a previously unaltered state of nature, with the concept of *regeneration*, which acknowledges the past, present, and future role of humans in maintaining the ecological health of the area. In contrast to scientists who often attempted to separate human from non-human aspects of a landscape to understand how it would look without human influence, for Goode, the appropriate question to ask is: "If our people were living here, what would it look like?" The heavy growth of willows along the riverbank in Soda Springs Meadow, Goode explained, would probably not be there if Native people maintained traditional uses of the area. North Fork Mono groups would have been "constantly thinning the willow" either with fire or by harvesting young shoots for baskets. Willow thinning would also have made the area safer for children, he said, because "a bear can hide in there and you probably wouldn't even know he was there." Goode also pointed out that many of the lodgepole pine stands rimming the meadow have become crowded with young trees. He observed that while allowing willows and lodgepoles to encroach on the meadow may satisfy the Park Service's aim to keep the area "wild," Indian people would not have left it that way.[39]

From Goode's perspective, a purely hands-off approach to natural resource management may have undesirable ecological and social impacts. For more than a century, the North Fork Mono tribe has suffered from the loss of spiritual sites and the degradation of forests, meadows, fish populations, and other water-dependent cultural resources due to the intensive development of the San Joaquin River for irrigation and hydroelectric power generation. Such problems are likely to be exacerbated in the future by anthropogenic climate change. One of the ways to forestall calls for more dams along the river, Goode argues, is to improve the watershed's retention and release capacity. Medium- and high-elevation meadows such as those in Devils Postpile play an important role in regulating the flow of the river. Native meadow grasses, Goode explained, act like "sponges," holding water and releasing it gradually into watercourses. Willows, in contrast, retain water in their stalks and leaves, reducing cumulative annual flow. In

recent years, Goode has had some success working with the Sierra National Forest to regenerate some of the meadows on the main stem San Joaquin River near the community of North Fork using traditional practices. Such projects have implications for not only the North Fork Mono but also agricultural water users in the Central Valley and ecological restoration projects in the San Joaquin Delta farther downstream, especially in light of climate change.[40]

Incorporating indigenous knowledge into the resource management program at Devils Postpile requires recognition of its natural features as "natural resources that have been used culturally" for centuries. Goode's argument also exemplifies how Native understandings of environmental change and ecology have evolved over time in the context of the broader social, political, environmental, technological, and scientific transformations affecting their lives since initial contact with Europeans. Incorporating both historical and contemporary Native perspectives into natural resource management policies in Devils Postpile and throughout the national park system requires bridging the divide between natural and cultural resources that has long been a part of national park management. It also requires recognizing Indian efforts to adapt contemporary perspectives on ecology and environmental change within traditional cultural frameworks.

A number of historians and anthropologists have also discussed how substantive collaboration with tribes can in fact complement the Park Service's broad aim of natural and cultural heritage preservation. Environmental historian William Cronon has advocated "restorying" wilderness landscapes in order to highlight the ways in which these places reflect not the absence of history but the complex intersections between history and nature.[41] Park Service historian David Louter has similarly suggested that the agency "can benefit from looking at parks through the lens of a preservation principle that does not limit us to thinking of them as places where nature is constantly in decline, as shadows of the past." This new principle "would consider preservation as a dynamic process, one that accepts the human and natural elements of the parks as part of the same mental and physical landscape."[42] In order to more fully include Native people in ecological management, ethnobiologist M. Kat Anderson and plant ecologist Michael Barbour have proposed applying a "Simulated Indigenous Management Model" to natural resource policy. This would involve designating some park areas as "eco-cultural landscapes" to serve as "a middle ground between areas designated as 'wilderness' and other areas that are managed as living museums or 'cultural landscapes.'"[43]

Today, tribal participation in natural resource management in the national park system remains inconsistent despite these calls. In part, this is due to the Park Service's continued commitment to maintaining parks in their "natural condition," which the 2006 management policies statement defines as "the condition . . . that would occur in the absence of human dominance over the landscape."[44] In Devils Postpile, the inclusion of much of the park within the Ansel Adams Wilderness may also complicate efforts to incorporate Indian land-use practices. Finally, many tribes remain mistrustful of government agencies including the Park Service, and continue to resist entering into formal agreements.

At Devils Postpile, the Park Service had limited contact with tribes in the region until 2009 when monument staff collaborated with Donna Vasquez of the Bishop Paiute Tribe to begin a native plant education program for tribal children. The program represented an important step forward, providing a way for the tribe to maintain living heritage by reestablishing connections to cultural landscapes. Vasquez has also requested permission to gather native plants in the monument for traditional purposes, though this remains a hot-button issue for Indian tribes and the Park Service systemwide. Since the 1990s, the agency has permitted Indian gathering for personal consumption, or when it is determined to be consistent with an individual park's

management priorities. Overall, however, the Park Service has been less willing than "multiple-use"-oriented agencies to permit plant harvesting. While some parks have arrangements with tribes, a lack of consistency in the interpretation of agency policy remains. Whether plant gathering will be permitted in Devils Postpile remains a topic of discussion.[45]

Last, greater attention to environmental history and Native American perspectives in recent years has intersected with changes in ecosystem science. Through most of the twentieth century, ecologists adhered to the theory that although ecological communities were dynamic, they tended toward a relatively stable "climax" state if left unaffected by human activity. By the 1970s, some ecologists were questioning this presumption of eventual equilibrium. In place of what they regarded as "an overemphasis upon constancy, balance, and gradual change in traditional ecosystem ecology," these critics advanced "a new ecology that emphasizes indeterminism, instability, and constant change."[46] This view of ecosystems as perpetually imbalanced grew out of new research into the different spatial and temporal scales of ecological change, an increasing recognition of the frequency and magnitude of past environmental changes, as well as a revision of ecological thinking in the context of anthropogenic climate change.

Critics point out that advocates of nonequilibrium ecology tend to oversimplify traditional ecologists' understanding of stability and change in ecosystems.[47] Others worry that by moving beyond a tight focus on non-human nature, ecologists have become more accommodating of resource extraction and development schemes.[48] The greater attention to imbalance, however, has permitted more flexibility in determining what constitutes a healthy ecosystem. Ecologists' emphasis on biodiversity, resilience, and sustainability in recent decades demonstrates a less exclusive commitment to reproducing a mythic non-human wilderness, and suggests a need to consider alternative benchmarks for ecological management in the National Park Service.

In their introduction to a recent compilation, geographer David N. Cole and conservation social scientist Laurie Yung encourage scientists and land managers to "think beyond naturalness, to articulate park purposes in terms that are both more specific and more diverse then naturalness and to adopt a wider array of management approaches."[49] In particular, Cole, Yung, and other contributors stress the profound effects of more recent anthropogenic changes including pollution, land fragmentation, invasive species, and especially global climate change on the biosphere. Put simply, these changes have created new ecological baselines that in many cases either prevent the restoration of previous landscape conditions or render attempts to do so potentially detrimental to biodiversity and resilience. In response, the authors propose a "toolbox" of management strategies adaptable to the specific preservation requirements of individual parks.[50]

Determining appropriate resource policies thus involves acknowledgment that management decisions are always value-laden and historically contingent. Such a perspective encourages a different appreciation for the national parks, not as remnants of a bygone wilderness, but as barometers of American environmental history, places where we can learn about and reflect on the many ways in which people have perceived, engaged with, and altered nature over time.

Devils Postpile's current emphasis on climate change adaptation, mitigation, and communication can benefit from this more responsive approach to ecological management. One of the more intriguing suggestions to come out of recent research in the park is that because of its north to south orientation, the Middle Fork Valley may remain somewhat insulated from the warming that will affect other areas of the Sierra Nevada. The monument could potentially serve as a "refugium" for threatened Sierra species, and a location for studying how ecosystems respond to a changing environment at different scales. The goal, however, should not be to

wall off Devils Postpile from human-induced climate change—to try to maintain it as an island of pure nature unaffected by history—but to better understand how it fits into the broader environmental history of the Sierra Nevada, so that the region can continue to be recognized as an important part of American natural and cultural heritage even in the face of dramatic change.

Notes

1. Goetzmann, *Exploration and Empire*, xiii.
2. Quotations from White, *"It's Your Misfortune and None of My Own,"* 129. See also Farquhar, *History of the Sierra Nevada*.
3. Quoted in James G. Moore, *Exploring the Highest Sierra* (Stanford, CA: Stanford University Press, 2000), 65.
4. Whitney quoted in Michael L. Smith, *Pacific Visions: California Scientists and the Environment, 1850–1915* (New Haven, CT: Yale University Press, 1987), 33. For the survey's contributions to science, see Moore, *Exploring the Highest Sierra*, 65–66.
5. White, *"It's Your Misfortune and None of My Own,"* 129–35.
6. For the controversy over Muir's theory of glaciers, see Farquhar, *History of the Sierra Nevada*, 155–56; Dennis R. Dean, "John Muir and the Origin of the Yosemite Valley," *Annals of Science* 48 (1991): 453–85; and Donald Worster, *A Passion for Nature: The Life of John Muir* (New York: Oxford University Press, 2008), 192–202.
7. Joseph LeConte, *A Journal of Ramblings through the High Sierras by the "University Excursion Party"* (San Francisco: Francis & Valentine, 1875). www.yosemite.ca.us/library/leconte/ramblings3.html; and Worster, *A Passion for Nature*, 196.
8. Le Conte, *A Journal of Ramblings through the High Sierra*.
9. Smith, *Pacific Visions*, 46, 126.
10. J. N. LeConte [Jr.] to President Wm. H. Taft, March 29, 1911, Walter L. Huber Papers, WRCA.
11. Quoted in N. King Huber and Wymond Eckhardt, *Devils Postpile Story*, rev. ed. (Three Rivers, CA: Sequoia Natural History Association, 1995), 23.
12. Fritiof Fryxell, "François Emille Matthes," in Matthes, *François Matthes and the Marks of Time*, www.yosemite.ca.us/library/matthes/francois_matthes.html.
13. Ibid.
14. Matthes, "The Devils Postpile and Its Strange Setting."
15. Ibid.
16. Ibid.
17. Theodore Cronyn, "Devil Postpile National Monument Boundary Survey, 1934," 3–4, Devils Postpile Central Files, 1915–1953, ACC. 5121, YNPA.
18. Dorr Yeager, Regional Naturalist, to Regional Director, re: "Inspection of Devils Postpile National Monument," September 17, 1951, Cultural Resources Folder, Devils Postpile National Monument.
19. Richard Hartesveldt, "The Geologic Story of the Devils Postpile," *Yosemite Nature Notes* 31, no. 10 (October 1952): 140–48.
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Conclusion: Regional Cooperation and the Future of Devils Postpile

Recognition of the human dimensions of ecological change at Devils Postpile underscores the vital importance of maintaining and building on the interagency and regional cooperation that has been a basic part of Devils Postpile's management over the past century. Although the potential for regional conflict exists, the National Park Service has for the most part maintained cooperative relationships with the local community and the Inyo National Forest. These good relations are, in part, a product of Devils Postpile's significance as a draw for visitors to the Eastern Sierra. The long history of collaboration between the Park Service and the Forest Service has also been an important basis for mutual support. In the Mammoth region, the two agencies have learned to live together, to share resources, and to respect each other's particular administrative mandates and agency cultures. While the Forest Service's utilitarian agenda has at times clashed with the Park Service's emphasis on protecting and interpreting the scientific resources at Devils Postpile, Inyo officials have also provided support in development, facility maintenance, and regional planning. The Park Service has historically complemented the Forest Service's recreational agenda in the area by offering more in-depth interpretive services. In recent years, the monument's increased emphasis on ecological management and scientific research has provided an important knowledge base for managing the entire San Joaquin watershed as an integrated ecosystem. This whole-ecosystem approach offers an opportunity for even greater coordination not only between the Forest Service and the Park Service but also among local governments, recreational interests, Indian tribes, and others with something at stake in the environmental health of the Sierra Nevada.

Regional cooperation continues to be an important theme in the management of Devils Postpile. Beginning in 2005, the Park Service and the Inyo National Forest began considering the possibility of incorporating the mandatory shuttle system into the regional public transit system. Doing so would help mitigate increasing fares, which have in the past correlated with decreased use of the shuttle. In 2006, monument staff negotiated an arrangement with the Inyo National Forest and Mammoth Lakes to share space at the new Mammoth Visitor Center. In return for staffing the information desk part-time, the Park Service received records management assistance from the Inyo National Forest and additional office space at the visitor center. This arrangement has increased the visibility of the Park Service in the region and provided a physical space for day-to-day interactions among agency employees.[1]

In 2008, Devils Postpile staff and the Pacific West Regional office began preparing the first general management plan (GMP) for the monument. By establishing formal management objectives for the next fifteen to twenty years, the GMP represents a significant step in the maturation of Devils Postpile as an independent park. The priorities of the GMP also reflect the monument's deep historical and ecological ties to the Middle Fork Valley and the Mammoth region. The guiding principle is to encourage "seamless management of the monument and the surrounding national forest" in order to provide "a quality visitor experience and enhanced resource protection."[2] This objective meshes neatly with the more than seventy-five-year history of interagency cooperation between the Park Service and the Forest Service at Devils Postpile. It also reflects the area's historical appeal as a retreat from the crowded

resorts of Mammoth Lakes and the sprawl of Southern California, where most visitors have hailed. The wilderness designation shared by the monument and surrounding national forest provides another important basis for interagency cooperation in maintaining the valley's rustic, minimally developed feel.

For current managers at Devils Postpile, regional cooperation is also essential for protecting the broader Sierra ecosystem upon which the health of the monument's natural resource base depends. Devils Postpile is a "postage stamp-sized unit" within a much larger complex of public land, making it highly susceptible to environmental threats originating outside its boundaries. In the past, jurisdictional issues and shortages of funding and manpower have often prevented extensive Park Service engagement with these threats. Today, however, the park's independent status and inter-park and external networks have increased its capacity for addressing regional ecological concerns.

GMP discussions also reflect concern over the future growth of Mammoth Lakes. A 2007 general plan for the town called for an increase in hotel bed capacity from 35,000 to 55,000 and recent additions of direct flights from Los Angeles and San Francisco make this expansion likely. In the 1990s, skyrocketing home values related to increased tourism priced out many longtime residents, including some Park Service employees, and resulted in new threats to resources on surrounding public lands. Despite the recent collapse in home values in the Mammoth area, similar challenges may emerge in the coming years.

A primary aim of the GMP is to take advantage of Devils Postpile's interagency and regional partnerships, its science program, and its location at the crossroads of the Western and Eastern Sierra bioregions to guide more ecologically sustainable regional planning.[3] The monument's more assertive stance in regional politics has required significant community outreach. In May 2009, Dulen presented the monument's GMP proposal to the Mono County Board of Supervisors, emphasizing the importance of collaboration with the Inyo National Forest in ecosystem protection and transportation planning. The superintendent also informed the board of the upcoming public scoping process for the GMP. She called on local "stakeholders," including "anyone who owns a business in the area," to comment on GMP planning. She established a mailing list, handed out postcards, urged public comment through the park's website, and outlined a schedule for a series of public scoping open houses.[4]

Park Service officials have also taken steps to fulfill the agency's legal obligation to establish government-to-government relations with federally recognized Indian tribes associated with the Devils Postpile area. In 2009, monument officials began actively seeking input from Paiute and North Fork Mono groups regarding the cultural significance of the Devils Postpile area. A complete ethnohistorical study would provide important baseline information for developing collaborative relationships with these communities in both cultural and natural resource management.

The Postpile's local and regional outreach efforts encapsulate the challenges and opportunities of national park management in the twenty-first century. They also represent components of a general strategy for increasing the involvement of small parks with minimal base funding and staffing in regional politics and planning.

Despite recent successes, Devils Postpile faces an uphill climb. The development of a regionally integrated ecosystem management plan has and will continue to clash with the growth imperative driving the Mammoth Lakes tourism and recreation industry, which means that the Park Service will likely face a choice in the near future: managers can either take a hard-line stance that ecological protection invariably conflicts with economic imperatives or seek some

middle ground between the two. Those who prefer compromise would benefit from revisiting the argument made by opponents of the trans-Sierra highway in the 1960s and 1970s that the environmental health of the region is vital to its appeal as a recreational destination. This option would also be more in line with the Park Service's foundational mission to balance resource protection with visitor enjoyment. The choice itself exhibits the significance of regional politics in shaping how individual parks fulfill this national mandate.

Notes

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Appendix A
Summary of Historic Contexts and Associated Resources

A primary function of a Historic Resource Study is to provide historic contexts for interpreting cultural resources and evaluating their eligibility for listing on the National Register of Historic Places. For the purpose of evaluating the significance of specific resources, a statement of historic context must include reference to associated historical themes or subjects (including groups of people), the history of the relevant geographical area or areas, and the particular historical time period.[1] The historic contexts covered in this Appendix provide a foundation for identifying and evaluating resources in Devils Postpile and the surrounding area.

Devils Postpile National Monument contains few of the types of structures and artifacts typically covered in a historic resource study. Frequent volcanism, animal activity, erosion, and heavy winter snows have combined to erase many remnants of the region's human past. Present, however, are a number of subtle clues in the form of physical artifacts and environmental alterations exhibiting how different groups of people viewed and engaged with the Middle Fork San Joaquin Valley prior to and after its inclusion in the federal trust. These cultural resources are valuable for what they reveal about the diverse groups of people that have shaped the history of the Sierra Nevada from prehistory to the present. They are also suggestive of the effects of broad historical and environmental transformations on remote mountain landscapes in the American West.

Native Americans: Trans-Sierra Trade and Environmental Change

For thousands of years, Native inhabitants of both the west and east slopes of the Sierra Nevada passed through the Devils Postpile area for trade. These trans-Sierra trade relationships were vital to the social and economic life of indigenous societies in the region. Scattered archaeological sites containing obsidian points, basalt chips, and granite bedrock mortars remain as tangible evidence of the antiquity of the human presence in the Postpile region.

The trail passing from the North Fork San Joaquin River through the Middle Fork Valley and over Mammoth Pass was used frequently by North Fork Mono and Paiute communities into the modern era. As a result of both geography and efforts by those who used the route to protect it, the trail remained relatively unknown and untraveled by Euro-American settlers in California until late in the period of American expansion, despite the fact that Mammoth Pass is the lowest point along the 250-mile Sierra escarpment. Although few obvious signs of Indians' passage remain, their general route can still be traveled by following the present trail system over Mammoth Pass, to Reds Meadows, through the north end of the monument, over the King Creek Trail, and on to Sheep's Crossing on the North Fork San Joaquin.

The Devils Postpile area can also serve as a location for examining how tribes used and altered remote ecosystems in the High Sierra. Recent fire studies of the monument and oral histories collected from tribal elders and longtime residents of the area suggest that Indians may have intentionally burned the region to open trails, encourage the growth of certain plants, and facilitate hunting. It is difficult to determine precisely how Native people influenced the

ecology of the Middle Fork Valley. However, the extent of these kinds of modifications in other parts of the Sierra has led a number of anthropologists, geographers, and biologists to suggest that the removal of Native Americans from the Sierra created an ecological "disequilibrium" that must be taken into consideration when drafting current and future natural and cultural resource management plans.[2] As one Southern Sierra Miwok put it, "The white man sure ruined this country. It's turned back to wilderness."[3]

This change to wilderness did not occur overnight. Many Native practices were continued by ranchers, sheepherders, and other commercial users of the region through the late nineteenth century. North Fork rancher Betty Jamison indicated that her father, John O'Neal, had "learned some of the burning techniques from the Indians" who he often hired to herd sheep during the summer months. While ranchers and sheepherders borrowed some burning practices from local Indians, by the time they did so, extensive brush and litter had already accumulated in many areas. As a result, their fires tended to cover larger areas and were more prone to burning out of control.[4]

Native people were not just historical agents in absentia. They continued to play a role in the settlement and use of the area. Many actively resisted settler intrusions. During the Owens Valley War of the early 1860s, the supposed leader of the Paiute resistance, known as "Joaquin Jim," became a fixture in miners' stories about the hazards of prospecting on the extreme western edge of the Sierra crest. [5] James Wright reported that local Indians knew the whereabouts of the mythic Lost Cement Mine but, in defense of their stronghold, "drove out nearly every party so long as Joaquin Jim lived." Even though Joaquin Jim was reportedly captured and killed by US troops in December 1864, Indians in the area remained "saucy" long after, boasting "that they whipped the white man in their war." Wright also noted the difficulty of securing Indian guides willing to lead miners to gold deposits. Native guides perceived correctly that it was gold that had brought white men to the area. Such methods of resistance probably limited the development of the Middle Fork Valley for mining, and may have prevented some of the environmental changes that would have followed.[6]

Through the early twentieth century, many Indians in the region found employment as guides and, in the process, gained a measure of control over which areas US Army patrols, surveyors, miners, sheepherders, and early tourists passed through. In the Mammoth region, some Paiutes earned a living procuring resources for area mining camps. An 1879 article in the *Mammoth City Herald* indicated that local Indians supplied trout caught in Fish Creek south of Devils Postpile for "50 cents a dozen."[7] One miner reported accompanying a Paiute known as "Indian Jim" on a fishing trip to Fish Creek.[8] North Fork Mono groups also continued to use the Mammoth Pass trail long after French's toll road had shut down. Through the 1930s, west slope groups traveling over the pass commonly used the sweathouses at Casa Diablo or visited with Navajo Johnson who ran an Indian trading post near the hot spring.[9]

Acknowledging indigenous peoples' present and historical relationship to this place involves acknowledging that seemingly natural resources such as montane meadows, riparian vegetation, fish and wildlife populations, and charcoal scars indicating past fire regimes also qualify as cultural resources. By taking into account the role of Native people in shaping the ecology of the Middle Fork Valley, and by recognizing the area's importance to the spiritual and cultural survival of the tribes in the future, managers at Devils Postpile can begin to construct a richer basis for interpretation, as well as more historically informed methods for environmental monitoring and management.

Mining, 1848–1930s

Mining played a significant role in the development of the Sierra Nevada in the nineteenth and early twentieth centuries. The discovery of gold at Sutter's Mill in 1848 provided the impetus for American expansion and settlement of the area through the late nineteenth century. The penetration of miners into the more remote corners of the Sierra range was made possible by the actions of volunteer and state militias and, eventually, federal troops to clear the region of its prior inhabitants. This process took longer to reach Devils Postpile than in the west slope foothills, but was no less significant in bringing about environmental changes and hastening the area's incorporation into the larger economy of the American West.

Few obvious traces of mining remain in the monument today, though a recent archaeological survey located some buried tools and cookware probably left by prospectors in the late 1800s or early 1900s.[10] In the decades following World War II, the Forest Service removed many of the dilapidated structures still standing in the region. Today, the largest number of intact artifacts in the region can be found at the Minaret Mine site located 6 miles west of the monument. Established initially in 1878, the Minaret Mine did not see significant development until the late 1920s when its owner C. C. Randall financed the construction of a road from Minaret Pass across the Middle Fork San Joaquin to the mine site. Portions of the original roadbed from the monument to the mine are still visible along the popular hiking trail to Minaret Lake. Mineral rights for the area changed hands several times after the mine closed in the 1930s. In the early 1970s, the claim was held by Reverend Ralph York of Los Gatos, California, who reportedly made improvements to existing structures in order to use them as a summer camp for his church. In 2008, media crews flocked to the area after the wreckage of a single-engine airplane piloted by millionaire aviator Steve Fossett was found on a steep slope above the mine site.[11]

Although a few prospectors tried their luck in this remote locale, the Postpile area served primarily as a place to pass through for those headed east to the mines in the Mammoth Lakes basin. During the summer months between 1879 and 1881, the French Trail, a 54-mile toll route from present-day Oakhurst to the Mammoth Lakes basin, brought hopeful miners past the Postpile formation. The stretch from the North Fork San Joaquin to Mammoth Pass proved too rugged for wagons and so remained a foot and horse trail. While no clear evidence of the toll route exists today in the monument, the general route can still be traced as current trails trace the general course of the original trail.

It was common during this period for private contractors to construct toll roads over the Sierra crest to provide access to mining, timber, and grazing sites. The French Trail followed the pattern of several trans-Sierra toll routes completed in the 1860s and 1870s. These predecessors included the Sonora Pass Trail to the north as well as the Denning and Hockett Trails, which both bisected the southern portion of present day Sequoia and Kings Canyon National Park.[12] Although the French Trail toll route remained in operation only for a short time, it provided an important early connection with the more populated areas to the west and facilitated the initial settlement of the Mammoth Lakes area. At various times since its closure, the trail has been identified as a possible location for a trans-Sierra highway. Due to local protests and difficulties posed by the area's geography, these plans have never been carried out.

The collapsed cabin near the base of the Postpile is the monument's most visible remnant of the area's mining past. There are conflicting reports about the origins of the cabin. Edwin Gudde, in *California Place Names*, indicated that Red Sotcher built it in 1878, although later reports suggested that the cabin "looked new" in 1909 when it was occupied by a man named Moore. It is possible that the cabin was built in conjunction with the mining boom of the late

nineteenth century and that Moore and other inhabitants rehabilitated it in later years. The cabin remained in use by various individuals into the 1930s, but began to deteriorate after that time. In 1954, heavy snow caused the cabin to collapse. The Park Service removed most of the ruins soon after despite frequent calls from local people and some agency employees to restore the cabin as a tourist site or ranger station. Today, only the foundation and the large stone hearth remain visible.

When it was standing, the cabin exhibited unique architectural qualities not found in other cabins in the Sierra Nevada. According to Yosemite ranger Robert F. Uhte, larger logs were used to form the base, and progressively smaller pieces of lumber were linked together to form the walls, giving the cabin a "sturdy appearance." Other unique features include the deep recessed windows and the "shake and wedge-shaped chinking" used for the roof. The cabin may have been constructed in this manner to ensure that it would stand up to the particularly heavy accumulations of snow in this area.[13]

Sheepherding, 1860s–1900s

Sheepherders, including those originating from the Basque country of Western Europe, were pivotal to the history of resource use and the early history of conservation in the Sierra Nevada. Yet their voices are largely missing from most histories of the region. This is due to the paucity of traditional historical sources left behind by these little understood "gypsy herders" and the conservation perspective that has usually shaped historical interpretations of the Sierra. Devils Postpile National Monument can serve as a location for better understanding and interpreting their stories and their perceptions of the region.

While it is difficult to determine their precise impacts, sheepherders likely affected the environment of the Postpile region—primarily through grazing, but also by setting fires and blazing trails into the remote canyons adjacent to the present-day monument. Sheepherders were also responsible for naming the Postpile formation and for establishing the trails that facilitated later explorations of the area. The real and perceived environmental effects of grazing also provided the impetus for many early conservation efforts in the Sierra Nevada, particularly the establishment of Yosemite National Park in 1890s. Early conservationists viewed sheepherders and their flocks as a pestilence, and in the 1890s, called for their eviction from the newly created national parks and forest reserves. Early maps indicate that through the 1890s the Devils Postpile and Reds Meadow area served as a hub of operations for US Cavalry patrols charged with removing sheepherders from the newly created Yosemite National Park.

Sheepherders often marked their passage through the Sierra Nevada with tree carvings. Arborglyphs are more prevalent in other areas in the Sierra and the Great Basin, yet some remain visible today in Devils Postpile. These carvings are among the few remaining cultural artifacts of a group of people who viewed the Devils Postpile landscape through a significantly different lens than the explorers, surveyors, tourists, and conservationists whose perspectives generally inform historical interpretations of the Sierra Nevada. During their long, lonely summers in the range, sheepherders acquired a detailed knowledge of the topography and the potentialities of the landscape. They knew the area not primarily through recreation, scientific observation, or the contemplation of aesthetics but through the day-to-day challenges of surviving and making a living off the resources available in this remote, rugged place. The tree carvings they left behind, though fragmentary, offer a way to reflect on how these "lonely sentinels of the West" perceived and engaged with the environment of the Middle Fork Valley at a time when many Americans were beginning to call for federal laws limiting grazing and other resource extraction activities in the Sierra Nevada.[14]

Early Conservation and Tourism

Few tourists visited the Devils Postpile prior to (and even after) its inclusion in Yosemite National Park in 1890. Those sightseers who did make their way to this remote corner of the High Sierra during this period encountered not the empty wilderness landscape they expected but an area that had been used extensively for a variety of resource extraction activities. Even though most conservationists had little knowledge of the area, it was well-known by Indians, miners, sheepherders, and hunters. These groups generally did not share the particular view of nature-as-scenery held by the middle- and upper-class tourists converging on the Yosemite Valley and other more accessible areas in the Sierra Nevada at this time.

The accounts of James Hutchings who viewed the Postpile in 1875, George Bayley who visited Rainbow Falls in 1878, and Theodore Solomons who passed through in 1892, reflect the romantic appeal of natural aesthetics and geologic discovery common to the middle- and upper-class travel writing of that era. These accounts also illustrate the cultural divide separating tourists and conservationists from local people who knew and valued the area primarily through their work. The incongruences in these authors' writings between their regard for the pristine, untouched qualities of the landscape and their frequent encounters with signs of human use highlight the fact that wilderness, before it could be preserved, first had to be created—a process that involved an overhaul of federal laws governing land use. Much of the subsequent history of federal management in the area revolved around questions of what was to be preserved, how it should look, and who should have access to it.

Federal Management and Interagency Cooperation

The administrative evolution of Devils Postpile National Monument has reflected deep-rooted tensions in the history of the national monuments and in the broader history of American conservation. These include tensions between utilitarian and preservationist philosophies of conservation; between recreational and scientific considerations in resource management, visitation policies, and infrastructure development; and between local interests and federal land agencies. However, such divisions have also not always been clear-cut at Devils Postpile. The 1911 campaign to establish the monument involved a collaborative effort between Forest Service officials and prominent members the Sierra Club. With the start of National Park Service oversight in 1934, monument staff overcame budget and staffing constraints by working in cooperation with other federal agencies, most notably the Forest Service, and with local recreational businesses to maintain park infrastructure, provide visitor services, and ensure a quality visitor experience including both recreational and educational opportunities.

Several resources in and around the monument reflect this history of interagency and regional cooperation. The Reds Meadow guard station, built in 1927, served as the Forest Service ranger station for all of the Middle Fork Valley, including the monument prior to its transfer to the Park Service in 1934 and during the period of shared management during World War II. The bathhouse located down the hill from the Reds Meadow cabin was built through a cooperative effort between the Forest Service and the Civilian Conservation Corp (CCC) in 1935. This is the only CCC structure in the area.

The first permanent ranger station in Devils Postpile was built in the early 1940s. A 1963 letter from Taylor Johnston, whose family managed the Minaret Mine during the 1920s, indicates anecdotally that the original ranger station had been built from salvage wood from the Minaret Mine (although this may be a reference to the Reds Meadow guard station). According to former superintendent Wymond Eckhart, the front room of the current ranger station is the

original structure from the 1940s. The back room was added during renovations in the late 1970s. Additional research and evaluation will be necessary to establish the historical integrity and authenticity of the structure.

In addition, the John Muir Trail reroute, which runs north along the west bank of the river and includes the bridge over the Middle Fork San Joaquin south of the Postpile formation, was built through a cooperative arrangement between the Park Service and the Forest Service in 1976. The purpose was to redirect pack-stock and backpacker traffic away from the Postpile Trail, which at that time was experiencing increasingly heavy day use from hikers, sightseers, and campers driving in from Mammoth Lakes.

Finally, the Reds Meadow–Devils Postpile shuttle bus system, established in 1979, became the first mandatory shuttle bus operated by a partnership between the Park Service, the Forest Service, and private interests to serve a unit of the national park system. Since its inauguration, the shuttle has mitigated the environmental damage attendant to heavy private automobile use in the Middle Fork Valley and in the monument in particular. It has also played a vital role in protecting the rustic, minimally developed feel of the area, and represents an important link between the Park Service, the Forest Service, and the Mammoth Lakes recreational economy.

Recreation and Preservation in the Twentieth Century

During the twentieth century, the Middle Fork San Joaquin River Valley including Devils Postpile became an important hub of recreational tourism for visitors to the Eastern Sierra and the Mammoth Lakes area. While a few intrepid tourists made their way to the valley either via the trail over Mammoth Pass or from Yosemite to the north in the early twentieth century, the construction of the Minaret Mine road in 1928 made the area more accessible to the increasingly mobile residents of the growing city of Los Angeles to the south. In short time, the area became a recreational "mecca for Angelenos" according to one newspaper report.[15]

The history of recreation in the area reflects the evolution of a broader cultural debate about the meaning and value of rustic or wilderness-oriented recreation from the late nineteenth century to the present. During this period, visitors to Devils Postpile and the Middle Fork Valley generally favored the solitude and physical experience of camping, fly-fishing, hiking, climbing, and packing in a difficult to access rustic setting with few visitor services. While at times different philosophical conceptions of what constitutes an appropriate wilderness experience have led to conflicts between different user groups and government agencies, local residents and frequent visitors have also shared an underlying set of values prizing the area's rustic character and wilderness qualities. Such values were reflected in the development of the packing industry in the Mammoth Lakes Sierra, in the fight to block the construction of the trans-Sierra Highway, in popular and interagency support for the Reds Meadow–Devils Postpile shuttle, and in efforts to prevent the expansion of skiing to the west slope of Mammoth Mountain and to secure a wilderness designation for the undeveloped areas of the Middle Fork Valley including most of Devils Postpile National Monument.

Science and Regional Planning

Early twentieth century observers recognized the Devils Postpile formation as an excellent example of columnar jointing, comparable to better-known sites including Devils Tower in Wyoming and Giant's Causeway in Ireland. The formation's geologic interest became the primary rationale for it inclusion in a national monument in 1911. In later years, others including prominent Sierra geologists François Matthes and N. King Huber recognized the

Postpile and the surrounding area as important locations for understanding the volcanic and glacial processes that shaped the Sierra Nevada generally. The monument and the Mammoth region have remained important venues for geologic research, serving as testing grounds for new dating techniques and new approaches to evaluating the complex forces that produced and are still producing the dramatic landscapes adjacent to the Sierra crest.

In recent years, Park Service priorities at Devils Postpile have broadened beyond geologic research and interpretation to include study of the ecological connections linking the monument to the surrounding region. This change reflects the combined influence of developments in the science of ecology, increasing ecological awareness in American culture, the Park Service's increased attention to scientific management since the 1960s, and the preferences of individual Park Service staff. Recent studies of plant and wildlife populations, climate and air quality monitoring, and measurements of river flow in Devils Postpile suggest the area's significance as an indicator for the overall health of the Sierra Nevada range including areas to the east and the entire San Joaquin River watershed to the west.

The increased scientific capabilities of Devils Postpile's staff and the data they have compiled have allowed this particular Park Service unit to become a potentially vital source of information for ecologically sustainable regional planning, especially in light of climate change. Devils Postpile has long served as a cornerstone for the recreation and tourism based economy of the Mammoth Lakes Sierra. Through more recent cooperative efforts with the Forest Service, science organizations, Mammoth Lakes, and nearby Indian tribes, Devils Postpile is positioned to become a more active contributor to local, regional, state, and national discussions over environmental sustainability, cultural preservation, and economic development in the Mammoth region and the Sierra Nevada more broadly.

In conclusion, while the history of Devils Postpile and the Mammoth Lakes region can be interpreted as the story of a landscape shaped by indigenous people giving way to one shaped by extractive industries, tourism, and conservation, these different land-use regimes have also overlapped. The effects of Indian land-use practices and trans-Sierra trade, American territorial expansion, Indian removal, extractive industries, tourism, and federal land management remain manifest, though not also obvious or self-evident, in the physical environment. It is important to recognize that the boundaries of Devils Postpile National Monument protect not a static slice of unaltered nature, but a storied landscape that reflects the interconnected historical and ecological transformations affecting the entire Sierra Nevada.

Notes

1. Barbara Wyatt, "The Components of a Historic Context: A National Register White Paper," April 9, 2009. www.cr.nps.gov/nr/publications/policy.htm.
2. Beesley, *Crow's Range*, 31.
3. Quoted in M. Kat Anderson and Michael J. Moratto, "Native American Land-Use Practices and Ecological Imprints," in *Sierra Nevada Ecosystem Project: Final Report to Congress,* Vol. 2 (Davis: University of California, Centers for Water and Wildland Resources, 1996), 197.
4. M. Kat Anderson, *Indian Fire-Based Management in the Sequoia-Mixed Conifer Forests of the Central and Southern Sierra Nevada: Final Report Submitted to Yosemite Research Center, Yosemite National Park* (Yosemite: Yosemite Research Center, 1993), 278.
5. Ella M. Cain, *The Story of Early Mono County: Its Settlers, Gold Rushes, Indians, and Ghost Towns* (San Francisco: Fearon Publishers, 1961), 27, 88–90; and Fred S. Cook, *Legends of Inyo County* (Pahrump, CA: The Printery, 1978), 3–9.
6. Wright, *Lost Cement Mine*, 32–33.

7. Quoted in Caldwell, *Mammoth Gold*, 82.
8. Ibid., 69.
9. Quoted in Adele Reed, *Old Mammoth* (Palo Alto, CA: Genny Smith Books, 1982), 105–6, 108–9.
10. Dulen, "Devils Postpile National Monument: 2007 Annual Report," 6.
11. "Mine Plans for Winter Operations Anaheim Group to Push Work on Madera County Mining Property," *Los Angeles Times*, October 15, 1928, 16; and "National Wilderness Areas—They Exist in Name Only," *Los Angeles Times*, August 15, 1971. For a trip report and some personal reporting on the mine, see www.ripleysghosttowns.com/minaretmine.html. For the Fossett story, start with AFP, "Wreck of Steve Fossett's Plane Discovered: Police," October 2, 2008, http://afp.google.com/article/ALeqM5i7Crpovyy44wqBeKBnjcjdmeSfpg.
12. Farquhar, *History of the Sierra Nevada*, 102–3; and Dilsaver and Tweed, *Challenge of the Big Trees*, 38.
13. Robert F. Uhte, "Yosemite's Pioneer Cabins," *Sierra Club Bulletin* 36, no. 5 (May 1951): 70.
14. Mallea-Olaetxe, *Speaking through the Aspens*, 8.
15. Lynn J. Rogers, "Southland Vacationists Flock to the High Sierra," *Los Angeles Times*, August 10, 1941, E4.

Appendix B
National Register Recommendations

National Register Criteria for Evaluation[1]

Criterion	Significance
A	Associated with events that have made a significant contribution to the broad patterns of our history
B	Associated with the lives of persons significant in our past
C	Embodying the distinctive characteristics of a type, period, method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction
D	Having yielded or may be likely to yield, information important in prehistory or history

- The Mammoth Pass Trail from North Fork through Devils Postpile to the Mammoth Lakes basin may qualify for inclusion on the National Register under Criterion A and/or Criterion D as a historic site. While evidence of the original trail may be difficult to locate, existing trails follow the general corridor used by Indian traders both before and after Euro-American settlement; by miners and sheepherders in the late nineteenth century; by US Cavalry Patrols during the early history of Yosemite National Park; and by Indians, Forest Service crews, hikers, and pack-stock outfits through the twentieth century. Between the 1950s and 1970s, the area also became the focus of a citizen movement led by local conservationists, packers, and tourism business owners to prevent a trans-Sierra highway, which, if built, would have followed the general route of the historic trail.
- Historic structures in the area including the Reds Meadow Guard Station, the Reds Meadow Bath House, the Devils Postpile Ranger Station, the ruined cabin at the base of the Postpile, and the existing structures at the Minaret Mine site can be evaluated for inclusion under Criteria A, C, and/or D. The structures are significant representations of the economic development of the area and of the history of interagency and regional cooperation during the period of federal government administration.
- The grounds and some structures at the Reds Meadow Resort and Pack Station can be evaluated for inclusion under Criteria A, B, C, and/or D. The only structure at the pack station meeting the 50-year age requirement for National Register consideration is Cabin One at the resort. However, the pack station itself was significant to the development of the recreational economy of the Mammoth Lakes region and the Eastern Sierra more broadly. It stands as a living testament to the legacy and heritage of mule and horse packing in the Sierra Nevada.
- Natural features including the Postpile formation, Reds Meadows, Soda Springs Meadow, and the Middle Fork San Joaquin River can be evaluated for inclusion as cultural landscapes under Criteria A, B, and/or D. These natural resources have cultural significance to Indian tribes in the area; as sites in the development of geologic interpretations of the Sierra

Nevada; and as locations linked to the history of conservation, tourism, and recreation in the Mammoth Lakes region and the Sierra Nevada as a whole.

Notes

1. For further reference see National Register Bulletin 15, "How to Apply the National Register Criteria for Evaluation," rev. 1995, US Department of the Interior, National Park Service, Cultural Resources.

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Inyo National Forest Supervisor's Office

Mammoth District Ranger Station

Mammoth Lakes Public Library

National Archives and Records Administration, San Bruno

Sequoia and Kings Canyon National Park Archives

Water Resources Center Archives, University of California, Berkeley

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Index

Devils Postpile National Monument
P.O. Box 3999
Mammoth Lakes, CA 93546

Known primarily for its remarkable natural features and scenic surroundings, Devils Postpile National Monument also preserves a valuable record of the intertwined natural and human histories of the Middle Fork San Joaquin River Valley, the Mammoth region, and the Sierra Nevada as a whole. For millennia, Native inhabitants to the east and west crossed the Sierra crest near Devils Postpile to trade. In the wake of the brutal Indian removal campaigns of the late 1800s, miners and sheepherders entered the area in search of economically valuable natural resources. During the twentieth century, geologists and conservationists surveyed the region and proclaimed the significance of its most scenic and scientifically interesting features. The establishment of the monument in 1911 contributed to a transition from resource extraction to tourism and recreation as the principal uses of the area. Since assuming jurisdiction for Devils Postpile in 1934, the National Park Service has worked closely with the Forest Service and the local community to provide for public enjoyment while protecting and interpreting the scientific resources for which the monument was created.

Christopher E. Johnson is a project historian with the National Park Service in the Pacific West Regional office in Seattle, Washington.