Yosemite’s Remarkable Wawona Tunnel
For nearly seven decades now, millions of Yosemite visitors have received their first full look at the incomparable Valley as they emerged from the eastern portal of the Wawona Tunnel at "Discovery View" (elevation 4,410 feet)—a vista former park superintendent Charles G. Thomson aptly described as "fairly explosive in its grandeur."

To the left, the massive form of El Capitan, the world's largest monolith, bulks majestically against the distant sky. On the right, framed by Cathedral Rocks, the luminescent waters of Bridalveil Fall plunge more than six hundred feet in a single shimmering cascade. And in the center, eight miles beyond, the dolphin-head form of Half Dome, perhaps the grandest of all rock formations, stands like a sentinel nearly a mile above the Valley floor.

It is truly a view for the ages, as impressive the hundredth time as the first. Yet the innovative mountain passageway that makes the panorama possible—namely, the remarkable Wawona Tunnel—is now so largely taken for granted that its singular history has been almost forgotten.

The longest motor vehicle tunnel in the West when completed in 1933, the 4,230-foot Wawona Tunnel was drilled through the solid granite bluffs beneath New Inspiration Point in 698 days as part of the 1929–33 realignment and paving of the old Wawona stage road. The original Wawona Road, built by the Washburn interests (owners of the Wawona Hotel and the Yosemite Stage & Turnpike Company) had remained essentially unchanged since its completion from the South Fork to Yosemite Valley in June, 1875. The dusty, circuitous route averaged only 12 to 15 feet in width, with grades as steep as 12 percent in places. The Washburns maintained the road and collected tolls for its use until 1917, two years after motor vehicles replaced horse-drawn stages in the park. At that time they turned the right-of-way over to the federal government in exchange for certain transportation rights.

In the early 1920's, Yosemite travelers still suffered the travails of more than 138 miles of rutted wagon roads, all but 30 of which had been built as toll roads by private capital decades before the automobile became practical. In 1924, after some astute lobbying by National Park Service Director Stephen Mather and his associate Horace Albright, Congress voted the Park Service $7.5 million for a road-building program—more than double the amount appropriated for roads in all the previous history of the national parks.

The following year, the Park Service and the Bureau of Public Roads reached an agreement for the construction of major roads in the national parks. Yosemite benefited almost immediately from the new arrangement when the Bureau paved 29 miles of Valley roads and oiled 15 more between 1927 and 1929. A park spokesman noted that "the one act of paving the roads did more to return the Valley to its natural-appearing condition than anything since the stagecoach first churned up the obscuring dust many decades before."

In 1928 Mather announced plans to upgrade the old Wawona Road. The Park Service believed that a modern highway entering the Valley from the south would make the Mariposa Grove an all-year attraction, promote winter sports in the park, and open up additional camping areas along the Glacier Point Road.

The Bureau of Public Roads sent engineer Harry L. Tolon to make a preliminary survey for the proposed new Wawona route. Tolon found that the section of the existing road between Grouse Creek and Yosemite Valley, which passed over the mountain above New Inspiration Point at an elevation approaching 6,000 feet, was too steep to permit a satisfactory grade. Tolon determined that an agreeable grade could be obtained only by cutting a new right-of-way from Grouse Creek to the Valley that would run along the bluffs below Turtleback Dome at lower elevation.

After two years of "exhaustive studies by some..."
America's most competent landscaping and engineering authorities," the Park Service and the Bureau decided to bore a tunnel through the mountainside, a real innovation in highway construction in the national parks at the time.

"Alternatives to the tunnel were unsatisfactory," Yosemite Superintendent Charles Goff Thomson said in announcing the plan. "A road benched out of the palisades would have made an irremediable scar, ruinous to the landscape. An underpass in the region near the foot of Bridalveil Fall was studied but finally rejected. And a zig-zag road would have been unsafe for modern traffic and would have made an appalling disfigurement."

When construction of the tunnel actually began, on November 30, 1930, crews had already completed the new right-of-way from Wawona to Grouse Creek.

From that point to the Valley, travelers continued to use the old road past New Inspiration Point until the tunnel was finished on April 13, 1933.

Contractors, working under Bureau of Public Roads supervision, were required to bore the tunnel from the east end only for a distance of 4,230 feet (width, 28 feet; height, 19 feet). The average daily progress driving the bore through the solid granite was 20 feet, and 85 tons of drill steel were worn out during construction. Each shift used an average of 5,000 feet of steel.

No timbering was required, although 775 feet of reinforced steel concrete was placed where there was any question of loose rock. A total of 275 tons of powder was required, with the average shot measuring about 2,000 pounds. All excavated material was used in the construction of the approach road from the Valley floor and in the large parking areas at the tunnel's eastern end.

The grade in the tunnel is 5 percent; approaches, 6 percent. The maximum depth of the rock above the tunnel is 550 feet. The maximum distance from tunnel to edge of cliff is 503 feet. Not a single person was killed or seriously injured on the project, which cost $847,500, a significant sum by Depression-era standards.

"The tunnel permits the preservation of the priceless scenic values," Superintendent Thomson said. "At the lower portal the visitor emerges into a view of the incomparable Valley...which a majority of artists and laymen agree surpasses old Inspiration Point itself.

"The National Park Service brought into cooperation the Bureau of Mines, which planned the last word in automatic machinery to free the tunnel of deadly carbon tractor's truck and steam shovel at work clearing rocks from the right-of-way on the western approach to the Wawona Tunnel.
monoxide gas, a product of internal combustion engines... Three telephones are installed for public use in emergencies in the tunnel, and three adits permit passage afoot to the outside face of the cliff if need arises.

"With the early completion of the Wawona Road, a new era dawns in the southern approach to Yosemite, and the improvement is being accomplished by means of this tunnel, which although spectacular because of the boldness of its conception, was the only engineering solution that guarantees the preservation of the priceless palisades, and the full protection of those incalculable landscape values for which the National Park Service is responsible."

Motorists began passing through the tunnel in late April, 1933, and the formal dedication followed on June 10. Called a "Pageant of Progress," the elaborate program consisted of a parade of "look-alikes" representing many of the important people and events in Yosemite history. Included were such notables as the early Indian inhabitants, James Hutchings, Galen Clark, David and Jennie Curry, John Muir, Teddy Roosevelt, and the U.S. Cavalry, along with an assortment of horse-drawn stages, vintage automobiles, and a modern motor coach. The various participants emerged from the east portal of the tunnel in chronological order, accompanied by an appropriate announcement of their significance, and proceeded to the parking area where portable bleachers had been erected for spectators. The ceremony concluded with an introduction of dignitaries and the obligatory speeches.

It took the balance of 1933 for contractors to finish paving the new road all the way from the Mariposa Grove to Yosemite Valley. Civilian Conservation Corps crews who were working in the park at the time, planted native vegetation along the large cuts and fills to restore nature conditions.

Realigning and paving of the old Glacier Point Road from Chinquapin junction followed in 1934-35. The upgraded road approximated the original road on the upper part of the route from Glacier Point to near Bridalveil Creek. There a new right-of-way bypassed the old steep road over the hills, reaching Chinquapin along wide, easy curves with a gentle grade. The revamped highway was completed in October, 1935.

"Motoring into Yosemite Valley has become a new and thrilling experience," said the San Francisco Chronicle. "Relieved of the old hairpin turns and narrow, dust roadbed, the new Wawona Road offers motoring joys for the Yosemite tourist ... The new tunnel, the most outstanding feature of the entire project, blasts through the granite heart of a mountainous cliff towering above the Valley. It provides not only a means of easy passage to a new vantage point with a breathtaking view, but in itself commands attention as a stupendous accomplishment."

Today, millions of sightseers later, the historic Wawona tunnel continues to benefit Yosemite travelers without detracting from the natural wonders they have come to see. It stands as a fitting testimonial to those visionary government road builders who conceived and carried on the remarkable idea.

All illustrations are from the author's collection.

Historian Hank Johnston is a frequent contributor to this journal. His newest book, Ho! For Yosemite, a collection of first-person accounts of early-day travel to the Valley, will be published by the Yosemite Association later this year.
“Look-aliases” depicting Galen Clark, Teddy Roosevelt, and John Muir pose for their picture at the tunnel dedication on June 10, 1933. Gabriel Sovulewski, a member of the original U.S. Army detachment who spent thirty-five years caring for Yosemite, is the man on the left portraying Galen Clark.

A group of local Indians is shown arriving at the dedication area as the first participants in the “Pageant of Progress” on June 10, 1933.
It's morning in the high country. The sun slowly rises above Mount Dana. High in this alpine environment, the white-tailed ptarmigan searches steadfastly for a morning meal of seeds and leaves among the sparse alpine plants. Nothing could be more natural...

A few hours later, the sun shines brightly in Yosemite Valley—dew-covered meadows shimmer in the light. These pristine valley meadows appear to look pretty much as they have for hundreds of years. Another natural scene...

Actually, both of these are examples of what is not natural in the park, despite appearances. The ptarmigan among the rocks and some of the meadow grasses are alien to Yosemite's ecosystem where they now flourish. They are examples of floral and fauna invaders—unnatural members of the environment. There is evidence that our national parks are hosts to a rapidly growing assortment of exotic forms of life that can alter and, in some cases, destroy the habitats of native plants and animals.

These intruders go by several aliases: alien, exotic, invasive, introduced, non-native, and noxious. No matter what they are called, they are a threat to native natural environments. Non-native plants can outcompete native plants, shrink available habitat for wildlife, and limit diversity by creating monocultures. Many scientists believe that invasive organisms are one of the greatest threats to biodiversity.

**THE SCOPE OF THE PROBLEM**

It isn't just the naturalists in the national parks who worry about the impact of these foreign plants and animals. The concern about non-native species is shared through the federal departments of the Interior, Agriculture, and even Commerce. The damage can be seen economically as well as environmentally. Accordingly, President Clinton proposed for the 2000 federal budget a $29 million increase that is earmarked for the reduction and control of non-native species. In a statement issued in February of 1999, President Clinton stated, "Some experts estimate the cost of alien species to the American economy to be as high as $123 billion per year...I urge Congress to join us in protecting our economy and our natural heritage against the threat of non-native species."

Secretary of the Interior Bruce Babbitt mirrored the President's sentiments. "The invasion of noxious alien species wreaks havoc on the environment and the economy... These aliens are quiet opportunists, spreading in a slow motion explosion... Weeds infest 100 million acres in the U.S., spread at 14 percent per year, and—on public lands—consume 4,600 acres of wildlife habitat per day."

Is the problem as serious in Yosemite National Park as is suggested by the concern shown nationally? Definitely, says Sue Frizke, vegetation resource manager, who estimates that there are more than 180 introduced plant species in Yosemite, representing over 10% of the total park flora. The number of identified non-native species has doubled in the last ten years (due in part to more exotics but also to a growing awareness of the problem of non-native plants). Although the numbers aren't as high, similar problems exist for non-native animals.

**UNWELCOME GUESTS**

All living things have a home in some corner of the world. In their native habitats, plants and animals evolve under certain conditions. Within that environment are factors that limit the species' growth and population. These natural parameters help maintain a balanced ecosystem and a healthy distribution of that species. When some species are transported into a foreign environment, they have opportunities to grow at an unnaturally fast rate. In other words, these non-native species are often able to outcompete native plants and animals that are subject to the growth-limiting factors of their own environment.

The different ways an exotic plant species can affect a natural area are numerous. They can:

- displace the native plant species;
- degrade the biological diversity of a natural area;
- alter the soils' chemical make-up, moisture-holding capabilities, and erodibility;
- hybridize with native plants to change their genetic make-up, leading to changes in the species' ability to cope with natural stresses such as drought or insect infestation;
- harbor toxins poisonous to native animals.

Although many of these invaders are hazardous hitchikers from other countries, this is not always the case. A plant may be labeled non-native, even if it is from our own country, if it is foreign to the environment in which it now grows. Whether foreign or domestic, exotic species have been called "biological pollution" by environmental experts.

**PTARMIGANS AND COWBIRDS**

The white-tailed ptarmigan is a bird found naturally in arctic and alpine regions of North America, but not...
White-tailed ptarmigan

Yosemite. Originally released as a game bird on the eastern side of the Sierra Nevada, the ptarmigan has established itself in the subalpine regions of the park.

Annual plants growing at high elevations have only a few weeks to mature, flower and produce new seeds for the following season. The ptarmigan's appetite is suspected of reducing the number of seeds available for the following year's flower crop and altering the intricate balance of the ecosystem above treeline. High elevation plant communities can take years to recover from this kind of effect.

Another non-native bird is a threat in the lower elevations. The cowbird is an innocuous looking species, sometimes confused with a blackbird. Like blackbirds, they are attracted to areas near horses and stables where they dine on the undigested seeds found in horse manure. Cowbirds are considered nest parasites. Instead of hatching their own young, they lay their eggs in the nests of other species and let those foster-parent birds raise the young. The cowbird hatchling is typically bigger than those of the host species, so the parent birds work overtime satisfying the young cowbird's large appetite while their own offspring starve to death. A cowbird can lay up to forty eggs a year. The impact is felt especially by smaller species of birds, such as the yellow warbler, solitary vireo and warbling vireo.

EARLY WARNING

The impact of exotic plants and animals has been in the headlines for several years, but early warnings were sounded nearly seventy-five years ago. Dr. Joseph Grinnell, the first Director of the Museum of Vertebrate Zoology at Berkeley, was an early advocate for eliminating exotic species of animals from the national parks. In 1928, Grinnell addressed a conference of national park superintendents. In his remarks criticizing decisions to introduce non-native animals into national parks, specifically the introduction of elk in Yosemite, he stated, "According to well-known biological law, the introduction of any non-native species is bound to be followed by the disappearance of some native species with which the alien competes."

But the arrival of the first non-native plants occurred long before Dr. Grinnell's outspoken advocacy of maintaining pristine ecosystems. Non-native plants were
introduced into Yosemite Valley with the arrival of the first pioneers. As non-Indians settled in the valley, they quickly planted hay and other fodder for livestock in the valley's meadows. Since that time the problem has grown more complex. Today, seeds from non-native plants can enter the park through a variety of ways such as in the tread of a car’s tires, in the bottom of backpacks and other gear, or in the fill dirt used during roadway building and other construction work.

Attempting to control these out-of-control aliens requires the efforts of a small legion of volunteers as well as park resource management employees. Currently about fifteen species of exotic plants are being managed. The top five troublesome species in Yosemite are spotted knapweed, yellow star thistle, Himalayan blackberry, bull thistle, and common mullein. Those plants have been identified as most invasive, but there are many more: tumble mustard, puncture vine, black locust, tree of heaven, oxe-eye daisy, foxglove, scotch broom, to name a few.

YELLOW STAR THISTLE

Yellow star thistle is a very aggressive non-native that has spread across California in the last several decades. According to a 1998 study by the California Department of Food and Agriculture, yellow star thistle now covers more than 22% of California, over 20 million acres. Not surprisingly, the thistle has worked its way up into the Sierra, and it now ranks as one of Yosemite’s “big five plant menaces. This obnoxious weed quickly dominates any area it invades and has become prolific in the Portal area.

Yellow star thistle is an annual plant varying from inches to 3 feet in height and is easily recognized by the star-shaped cluster of spines surrounding a yellow flower. Each plant can have a few flowers up to hundreds. It is a prodigious seed producer, pumping out as many as 29,000 seeds per square meter. Yellow star thistle kills competitors in part by sending a tap root as deep as eight feet into the ground and sucking the moisture out of the soil. Some scientists believe that the plant may also emit a substance called an allelochemical that stunts the growth of nearby plants. Star thistle displaces not only native plants but also native animals that depend on those plants such as deer, quail, rabbits, skunks and raccoons.

Yellow star thistle is the focus of the infamous Just Work trip called the “Weed Warriors.” Each year, a small but dedicated group of YA members braves the summer heat to attack the plant by pulling it out by hand in vast.
ous parts of the El Portal and Foresta communities.

"We don't have the resources to deal with all the exotics," said Sue Fritzke. "Some plants such as the meadow grasses are more benign than, say, bull thistle. Grasses still provide meadow habitat, whereas bull thistle quickly forms monocultures lacking wildlife habitat and biodiversity. We will expend our resources on those plants that threaten the natural diversity found in the park's most sensitive ecosystems. Wetlands and meadows are most susceptible to foreign take-overs. These ecosystems also are the natural homes to some rare species that show a greater sensitivity to encroachment of foreign competitors."

The Vegetation Management staff works diligently to keep new plants from being introduced into the park, but removal of existing non-natives can be time consuming and expensive. Many require removal by hand. In 1999, approximately 2,400 volunteer hours were dedicated to the removal of unwanted plants. Volunteers from the Yosemite Association and Yosemite Fund work crews, students and teachers with the Yosemite Institute, Yosemite Concession employees and other service organizations all participated in the effort. Without the help of volunteers, efforts to control non-native plants would be seriously hampered.

The "Weed Warriors" trip that attacks star thistle yearly is part of a unique program of cooperative workweeks that occur each summer. These trips involve four of the park partners: YA arranges for members to serve as volunteers and coordinates planning, Yosemite Institute provides staff who direct campground activities for each group and also handle food preparation, Yosemite Concession Services underwrites some of the expenses, and the National Park Service plans the projects and leads the work in the field. This successful program which combines hard work with great camaraderie is in its thirteenth year. Its participants point with pride to many areas throughout the park that reflect their industrious efforts from previous years.

Life member Georgia Stigall began working as a volunteer in 1989 by participating in numerous YA worktrips. Now she volunteers for the NPS Vegetation Management program and coordinates an independent workforce of weed whackers and thistle snippers who average 1,000 hours of volunteer time each year. Many hot summer days are spent in the effort to rid the park of exotic species.

"Volunteers return year after year because they want to give something back to a place that is so special to all of us," said Stigall. "This work can be physically demanding, but we always have a good time!"

If the parks are to be successful in restoring the integrity of the native environment, there must be adequate funding so that the issue of non-native plants and animals can be addressed. "I'd love to have enough funding to support a full-time crew of five. We are getting money through the fee demonstration program for a three-person seasonal crew starting next year for four years, but I'd like to augment the crew with additional staff and extend seasons to nearly year-round," says Fritzke. "This would be another $35,000-$50,000 per year—pretty steep, but if we want to manage those species that are best controlled during the spring and fall shoulder seasons, that's what we would need." With sufficient funding, the task of eradicating non-native species could be met head-on by resources managers, their staff, and concerned volunteers.

LESSONS LEARNED

It's clear that our national parks are important not only for their recreational value, but also for their role in preserving regional ecosystems. As Dr. Grinnell remarked decades ago in his book, Animal Life in Yosemite,

The longer we study the problem, the clearer it becomes that in the natural forests, which happily are being preserved in our National Parks, a finely adjusted interrelation exists, amounting to a mutual interdependence, by which all the animal and plant species are within them able to pursue their careers... Each [native] species carries on its existence in perfect harmony on the whole with the larger scheme of living nature.

Jeff Lahr is a ranger naturalist in Wawona each summer and teaches social studies at the junior high level in Santa Maria.

Editor's note: For information on worktrip locations and dates for 2001, look for an announcement in the winter issue of this journal, or call the YA office at (209) 379-2317. People interested in working with Georgia Stigall can contact her by email at gstigall@aol.com, by phone at (650) 941-1068, or by mail at 17287 Skyline Blvd. #102, Woodside, CA 94062-3780.
Yosemite National Park, among its other distinctions, is home to one of the last hydroelectric dams located in a national park. For seventy-five years, Hetch Hetchy Reservoir has provided water and power for San Francisco area residents, and for nearly as long, movements to restore Hetch Hetchy Valley to its original state have arisen.

Hetch Hetchy, the twin sister of Yosemite Valley, sits in the rugged northwestern section of the park. Entered by gold seekers in 1850, a year before the first European set foot in Yosemite Valley, it remained relatively untrammelled until the construction of the reservoir in 1923. The name Hetch Hetchy is probably derived from an Indian word hetcheti, referring to the grass in the valley whose seeds were used to make porridge.

Indisputably, the valley was a scenic wonder, described by John Muir as a "grand landscape garden, one of Nature's rarest and most precious mountain temples." It matched Yosemite Valley attraction for attraction with its imposing granite rocks, lofty waterfalls, open meadows, and meandering river. Josiah Whitney claimed that Hetch Hetchy Valley was "almost an exact counterpart of the Yosemite Valley" and that it "is not on quite as grand a scale as that valley; but if there were no Yosemite, the Hetch Hetchy would be fairly entitled to a worldwide fame."

The notion of erecting the dam was contemplated within a year of the European discovery of Hetch Hetchy. By 1851 San Francisco had suffered several major fires, made worse by an inadequate and undependable water supply. City leaders realized that the solution to San Francisco's water woes hinged on ensuring municipal control over a shared water supply. Since water in the surrounding counties was controlled by the privately-owned Spring Valley Water Company, the city was forced to look far afield for a water source.

In 1888, George Harris, who held rights to the Tuolumne River, suggested the Hetch Hetchy Valley, 150 miles from San Francisco, as a possible water supply. The city sent an engineer to investigate the location in 1897 and based upon his findings, the 1899–1900
The O'Shaughnessy Dam—one component of a larger Hetch Hetchy system that provides power and water for the city of San Francisco and surrounding areas.

Eighty-five percent of San Francisco's drinking water comes from the Hetch Hetchy system and is collected in three storage reservoirs (O'Shaughnessy being the largest). The total storage capacity of 659,600 acre feet can handle a peak demand of 400 million gallons a day. The Hetch Hetchy Reservoir holds 15 percent of the water storage on the Tuolumne River and supplies water to 2.3 million Bay Area residents.

As the water completes its 150-mile path to San Francisco, it runs through four hydroelectric powerhouses that generate 1.6 billion kilowatt hours of energy. The resulting electricity is used to power, among other things, the MUNI transit system and the San Francisco International Airport; surplus power is sold to Central Valley irrigation districts.

The City of San Francisco realizes an annual profit of $40 million from wholesaling water and power from the Hetch Hetchy system. Under the terms of the Raker Act, the city must pay Yosemite National Park an annual use fee for the water rights of $30,000. However, the city's typical contribution to Yosemite is over $1 million a year for a variety of maintenance projects.
A newly-formed group, Restore Hetch Hetchy, is advocating the restoration of the Hetch Hetchy Valley and the dismantling of O'Shaughnessy Dam. Famed environmentalist David Brower, along with other notables like photographer Galen Rowell and Patagonia Inc. founder Yvon Chouinard sit on the organization's board of directors. The group's goal is to raise enough money for a feasibility study to outline various alternatives for restoring Hetch Hetchy Valley. Chairman Ron Good says that the group is dedicated to finding a "win-win" solution for the City of San Francisco and restoration of the valley.

The push to restore Hetch Hetchy has been active since the Raker Act was passed in 1913—the very next year a bill to repeal the act was introduced in the Senate. It wasn't until 1987 that a truly serious effort was launched, when Secretary of the Interior Donald Hodel advanced a proposal to restore Hetch Hetchy Valley. The Bureau of Reclamation conducted a study that same year that detailed eleven alternatives to the Hetch Hetchy Reservoir. It did not, however, address the economics of removing the dam. The initiative eventually died with opposition from then-mayor Dianne Feinstein and other California politicians.

Restore Hetch Hetchy's Good points out that the timing is appropriate for again reconsidering the removal of Hetch Hetchy Reservoir in light of a recent study released by the San Francisco Public Utilities Commission. The study outlines repairs for the Hetch Hetchy system that could cost as much as $3.5 billion dollars.

Despite the huge repair tag, the Hetch Hetchy system would be difficult to replace. Larry Klein, assistant general manager of operations for the San Francisco Public Utilities Commission, recently told the Stockton Record that "There is no way that I know of that we could replace that water short of taking it out of the Delta...I just don't see how they could be successful at this without asking 2.3 million people to move."
The solution would have to offer alternatives for replacing both the water and power supplies generated by the reservoir. Good says his group's team of consultants is taking into account all of these issues and "is committed to coming up with a solution that addresses water quality, water quantity, and power generation." The 1987 study proposed several opportunities, including the reoperation of Don Pedro Reservoir or the redirecting of water to other facilities on the Tuolumne River. Alternative options for power generation may be more difficult to find, but Good asserts that "keeping the Kirkwood and Moccasin power stations open is something we are trying to incorporate into a solution."

Even if it ultimately proves unfeasible to remove the dam and restore Hetch Hetchy, now seems to be an opportune time to study the matter anew. John Muir just may be sitting up in his grave.

David Brower, board member of Restore Hetch Hetchy, will be speaking at YA's annual Member's Meeting on September 9, in Wawona.

Beth Pratt is Vice President of YA.
As the most popular park in the most populous state, Yosemite National Park owes no small part of its fame to writer and historian Shirley Sargent. One of the most prolific of all the Sierra writers, Sargent has authored or edited over thirty books on the people and places of the Sierra Nevada, particularly the Yosemite area.

Now at the summit of her career, Sargent has created her own mountain world, capped by her reputation as one of the foremost experts on Yosemite. Flying Spur, her mountain retreat, lies about eleven miles west of Yosemite Valley. There, in her own words, she “raises manzanita, echoes, and books.” She has a second home in Mariposa, where she retreats in winter.

Her literary career almost came to a fiery end on August 9, 1990 when a lightning-caused wildfire destroyed her home and those of her Foresta neighbors. With the aid of some heroic firefighters, Sargent herself managed to escape the firestorm. Sadly, she lost not only her home, but also thousands of vintage photographs and other historical artifacts in the blaze.

Unlike many of her neighbors, Sargent has rebuilt her home. But the scars of that holocaust still run deep. Even today, ten years after that fire, much of the Foresta area still looks like a wasteland. At Flying Spur, however, some sixty young pine trees mark a new beginning—a new forest—while the grand views of distant Half Dome and El Capitan remain ageless.

“The fire, the loss of my home and all my historical material, was emotionally devastating,” she reflected recently. “But I came back. My 1993 book, Enchanted Childhood, was very important to me emotionally, because it represented my return to writing...my come-back”

Sargent’s Sierra trail has been long and lasting, often marked with many ups and downs. She arrived in the park in the late 1930s, when her engineer father worked for the Bureau of Public Roads, building roads throughout the Sierra. For the nine-year-old, Yosemite was love at first sight. Soon after that she was stricken with a rare nerve-muscle disease that has confined her to a wheelchair, various three-wheeled vehicles, and some four-legged animals.

Sargent is a profile of commitment and courage. She is quick to castigate those who label her as disabled. In some ways, her “problem” represents a compelling reason to excel and remain productive. For those who appreciate the rich and colorful history of the Sierra, her adversity has produced some compensating benefits. “If she had
had a normal life, that is if she had married and had three
kids, we would not have this literary treasure she has cre-
ated," observed one close friend.

Nearly all of Sargent's books are non-fiction, but
Yosemite Tomboy, though labeled juvenile fiction, borders
an autobiographical. In that book Sargent traces the path
of an angry, rebellious eleven-year-old girl who comes to
the little Yosemite elementary school and ultimately dis-
COVERS the magic and benefits of growing up in one of the
world's most enchanted places.

Of all her works, Sargent believes her 1980 effort.
Solomons of the Sierra, the biography of Muir Trail vision-
ary Theodore S. Solomons, was probably her most schol-
arily effort, even though the book was not one of her
major sellers. Some of the motivation for that book stems
from the fact that her Flying Spur home was originally
Solomons' homestead.

Some of her other better known titles include Pioneers
Petticoats, John Muir of Yosemite, Yosemite, The First
Hundred Years, Yosemite and Its Innkeepers, Galen Clark
—Yosemite Guardian, and Dear Papa, the letters of John
Muir to his daughter. Many of these books have gone into
third and fourth printings. Her latest book, Protecting
Paradise, relates the dedication and adventures of the
eye Yosemite rangers.

Sargent has an unending list of books to complete. She
sees the Sierra as a mountain of potential books, with
many stories waiting to be told. "As a young child I always
wanted to be a rich and famous writer. Well so much for
the first part," she jokes.

In many ways, the author stands at the top of the
Sierra, an elder of the extended Sierra family. Through
the years she has often rubbed elbows with some of the
great Sierra's and counts many as close friends. Ansel
Adams, perhaps America's most famous photographer,
gave her prints as a measure of their long friendship. Carl
Sharsmith, a veteran park ranger and foremost alpine
botanist, helped Sargent replant her scorched yard.

Writing is what Sargent does best. It is her life and crus-
ade. Fellow writers admire her prose for its clarity and
readability. "I expect to die at my typewriter," she says.
"But until then I plan to keep pounding away on it,
because, as John Muir said, 'writing is like the life of a
glacier—one eternal grind.'"

Gene Rose, a retired journalist, is a frequent contrib-
utor to this journal.

Note: Yosemite's Innkeepers by Shirley Sargent has just
been revised and reissued. It is available through the
Catalog in this issue, pg. 21. Other Sargent books are
also available from the YA bookstore.
David Brower to Speak at 25th Annual Meeting

Noted conservationist David Brower, Chairman of the Earth Island Institute, will speak at the Yosemite Association’s 25th Annual Members’ Meeting, which will be held in Wawona on Saturday, September 9, 2000. Mr. Brower has been visiting Yosemite for the past eighty-two years, and lived and worked in the park from 1935 until 1938 for the then concessionaire, the Yosemite Park & Curry Company. He joined the Sierra Club in 1933, became a member of its board of directors in 1941, and served as its first executive from 1952 to 1969. In 1969 he founded Friends of the Earth, which now has branches in sixty-six countries.

Through the years, David Brower has been an eloquent and relentless spokes-person on behalf of America’s public lands. With the formation of Earth Island Institute in 1982, he expanded his area of concern to global issues of peace and environmental and social justice. His recent book, Let the Mountains Talk, Let the Rivers Run: A Call to Those Who Would Save the Earth, contains his views on the global environmental crisis.

Throughout his illustrious career, David Brower has been a controversial figure. He especially likes a quote from the chairman of the council on Environmental Quality in the Nixon administration: “Thank God for David Brower; he makes it so easy for the rest of us to appear reasonable.” At the meeting, Mr. Brower will speak on his efforts through the years to restore the Hetch Hetchy Valley to its pre-dam condition.

YA Members received details on the meeting and lodging in July. In addition to the afternoon meeting, the day will include the usual line-up of naturalist walks in the morning, lunch on the lawn, dance in the evening. David Brower will be available in the afternoon to sign copies of his book.

There is always a greater demand for accommodations than there is space at the Wawona Hotel, but other lodging is available inside and outside the park. For suggestions and other questions, please call Holly or Connie at 209/379-2317.

Update on the Yosemite Valley Plan and the Merced River Plan

Following three months of public review that included a series of open houses and public hearings throughout California and selected cities in other parts of the country, the comment period for the Draft Yosemite Valley Plan and Supplemental Environmental Impact Statement closed on July 7. More than 10,300 public comments covering a broad range of issues were received and are now being analyzed. These comments will be used to improve the Final Yosemite Valley Plan/Environmental Impact Statement.

After the final plan is written and released, it will enter a 30-day no-action period as required by the National Environmental Policy Act. The Pacific West Regional Director is scheduled to sign a Record of Decision by the end of the year.

In late June, Superintendent David Mihalic announced the release of the final Merced Wild and Scenic River Comprehensive Plan and Final Environmental Impact Statement. The final plan will guide future decisions about how best to manage national park lands within the river corridor.

During the formal public comment period, the National Park Service received 2,320 individual comments on a broad range of issues. Some of the responses expressed concern over the proposed boundaries, classifications, Outstandingly Remarkable Values, and the River Protection Overlay. Others offered suggestions for changes to the management zones to respond to camping, parking, boating, and other issues.

This public input led to several modifications of the preferred alternative including extension of the wild and scenic river boundary to one-quarter mile throughout Yosemite Valley and Wawona.

Upon release of the final plan, the document entered a 30-day no-action period. The Pacific West Regional Director was scheduled to sign a Record of Decision as we went to press.

Copies of the final Merced River plan are available by written request from the Superintendent:

P.O. Box 577, Yosemite, CA 95389;
through email at YOSE_planning@nps.gov;
by calling (209) 372-0261;
or on the Internet at http://www.nps.gov/yose/planning/mrp.htm.
Obata Exhibition to Open in San Francisco

Great Nature: The Transcendent Landscapes of Chiura Obata, the first major retrospective of the artist's work since 1977, will be on exhibition at the M. H. de Young Museum in San Francisco from September 23 until December 31, 2000. This show presents 100 of the renowned Bay Area artist's sumi-e (Japanese ink and brush painting), large-scale scrolls, and color woodblock prints, as well as a selection of his own materials, including his brushes, palette, and hand-ground pigments.

Chiura Obata (1885—1975) studied painting in Japan from the age of seven and emigrated to San Francisco in 1903. His earliest works include firsthand renderings of the San Francisco earthquake and fire. In 1921, Obata co-founded the East West Art Society, which sought to promote cross-cultural understanding through art. This goal was reflected in his embrace of the Nihonga style, which fused traditional Japanese sumi-e painting with the conventions of western naturalism. As a popular professor of art (1932—1942 and 1945—1954) at the University of California at Berkeley, Obata played a pivotal role in introducing Japanese art techniques and aesthetics that became one of the distinctive characteristics of the California Watercolor School.

Obata's most famous work, a portfolio of extraordinary color woodblock prints titled the World Landscape Series—America (1930), was inspired by a trip to Yosemite Valley and the Sierra in 1927. Often monumental in composition, yet intimate in their carefully observed details, Obata's luminous landscapes reveal his intensely personal and poetic vision of "Great Nature."

Also included in the exhibition is a selection of works created by Obata while he, his family, and over 8,000 other Japanese Americans were confined in an internment camp in Topaz, Utah during World War II. Obata was the founder and director of the Topaz Art School, which had sixteen artist/instructors who taught subjects to over 600 students. During this time, Obata created reportorial works that serve as a visual diary of the internees' daily life, as well as transcendent works that serve as a testament to the perseverance of the human spirit.

Many YA members are familiar with the life and work of Obata from programs presented by his granddaughter, Kimi Kodani Hill, at several park events. In addition, Obata's Yosemite: The Art and Letters of Chiura Obata from His Trip to the High Sierra in 1927 was published by the association in 1993.

"Evening Glow at Yosemite Falls," 1930.

YA Holds Winter Writers Conference

Enjoy Yosemite in the winter season while meeting western authors, scientists, and artists at YA's first annual writer's conference on February 25 to March 1 at the Ahwahnee Hotel. Gary Snyder, Gretel Ehrlich, Pam Houston, and Kimi Kodani Hill are among the many speakers. This five-day event will include presentations by authors, winter outdoor activities, and park ranger led interpretive programs. To request more information, call 209-379-2646.
Summer/Fall Hikes and Classes

There's still room on great summer and fall seminars in Tuolumne Meadows, Wawona, and Yosemite Valley. Following is a list of some of these outdoor field courses—check your catalog or our web site at www.yosemite.org for the rest!

All programs include free campground space—just bring your tent and camping gear. Classes located in Yosemite Valley and Wawona also have rooms set aside for students at an additional cost. Top-notch instructors offer a wealth of knowledge within these high-quality and fun outdoor experiences. There are day hikes and backpacks for all levels of expertise. Best of all, Yosemite's high country continues to have spectacular wildflowers this year!

Call Penny or Lou at 209/379-2321. FAX any requests to 209/379-2486, or E-mail: YOSE_Yosemite_Association@nps.gov. Check out our live web camera of Yosemite Valley and the detailed descriptions of these and other seminars at www.yosemite.org

Here are a few of the classes that still have openings:

**Identifying Yosemite Wildflowers**
Suzanne Swedo, August 4–6
Tuolumne Meadows

**Eastern Sierra Habitat Diversity**
John Harris, August 7–11
Tuolumne Meadows

**Natural History of Water in Tuolumne Meadows**
Lorrie Gervin, August 18–20
Tuolumne Meadows

**Young Lakes Introductory Backpack**
Suzanne Swedo, August 24–27
Tuolumne Meadows

**Vogelsang Introductory Backpack**
Suzanne Swedo, Aug. 31–Sept. 4
Tuolumne Meadows

**Hawks in Flight**
Jeff Maurer, September 7–10
Tuolumne Meadows

**The Bear Facts**
Julie Miller, September 8–10
Yosemite Valley

**Sketching Yosemite History**
Stan Hutchinson, September 16–17
Yosemite Valley

**Loosening Up With Watermedia**
Pam McAdoo, October 6–8
Yosemite Valley

**Writing Wawona’s Wonders**
Robin Drury, October 6–8
Wawona

**Poetry Alive**
Kristina Rylands, October 13–15,
Yosemite Valley

**Understanding the Chemistry of Plants**
Drs. Keator & Sequin,
October 20–22, Yosemite Valley

**Yosemite Valley Fall Photography**
Lisa Strong Aufhauser,
October 26–29, Yosemite Valley

Leaving a Yosemite Legacy

Since 1920, thousands of individuals and families have helped the Yosemite Association undertake its important educational, scientific, and research programs, with gifts of time, services, and money. Each year we receive critical support for Yosemite in the form of charitable bequests from wills and estate plans. Such bequests play a vital role in our future funding.

We encourage you to consider including a gift to the Yosemite Association in your will or estate plan. It's a way to ensure that others will enjoy Yosemite far beyond your lifetime.

For information about leaving a Yosemite legacy, call (209) 379-2317, or write to P.O. Box 230, El Portal, CA 95318

YA Benefits from Your Online Shopping

Help the Yosemite Association when you shop online. Access your favorite merchants, like Amazon and JC Penney through www.yosemite.greatergood.com and 5% of your purchase will go directly to YA at no extra cost to you.
The Photographer's Guide to Yosemite
with text and photographs by Michael Frye.
This comprehensive new handbook from the Yosemite Association is designed for all photographers, from beginners to experts. The author, an extensively-published professional, provides everything that a visitor to the park would need to capture the grandeur of Yosemite on film. His tips and directions are illustrated with examples of his own work, reproduced in full color.

Every aspect of photographing Yosemite is covered, including in-depth descriptions of nearly 40 outstanding locations; best months and times of day; detailed maps indicating viewpoints; tips on technique and equipment; and 100 stunning, full-color photographs. Adding additional value to the guide are a number of sidebars covering photographic techniques, from choosing film and depth of field, to photographing rainbows and night photography.

There is also a section on seasonal highlights in different locations throughout the year. The appendices include tables for phases of the moon and sunrise and sunsets times, plus a list of resources for photographers in the park. This is an indispensable and handy resource for anyone who wants to take better pictures in Yosemite and elsewhere. 5 inches x 7 inches, illustrated in full color. 130 pages, Yosemite Association, 2000. Sturdy paperback, $7.95

Our National Parks and the Search for Sustainability
by Bob R. O'Brien.
This new book explores the urgent challenge of balancing the public's desire to visit the parks with the parks' need to be protected from too many people and cars, and too much development. The author examines the National Park Service's attempt to achieve "sustainability"—a balance that allows as many people as possible to visit a park that is kept in as natural a state as possible.

The book details the methods the NPS has used to walk the line between those who would preserve vast tracts of lands for "no use" and those who would tap the Yellowstone geysers to generate electricity. The author's six case studies of "crown jewel" parks shows how rangers and other NPS employees are coping with issues that impact these cherished public landscapes.

With an interesting look at Yosemite and its future, plus a list of eight recommended measures to improve and protect the National Park System, this is a thought-provoking and important book. The volume is 6 inches wide by 9 inches high, and illustrated in black and white. 246 pages, University of Texas Press, 1999. Paperback, $19.95
To see an expanded list of the Yosemite-related books, maps, and products we offer for sale, visit our new, secure Yosemite Store on the internet at: http://yosemitestore.com

**Yosemite: An American Treasure—A National Geographic Park Profile Book**
by Kenneth Brower.

This is a study of the beauty and grandeur of Yosemite National Park—a place that attracts some four million visitors each year for a variety of reasons, including rock climbing, backpacking, and sightseeing.

Author Kenneth Brower discusses many aspects of the park, from its plants and animals to its geology and history. His essay is illustrated with more than 120 full-color photographs that depict Yosemite in all its moods. Interestingly, the sense of the author is optimistic: “The message of Yosemite is not how badly the park is run, but how well.”

The book is handsomely designed and produced by the National Geographic Society. 7 inches by 10 inches, illustrated in color. 200 pages, National Geographic, 1997. Paperback, $15

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**The Heart of America—Our Landscape, Our Future**
by Tim Palmer.

In this illuminating portrait of America at the threshold of the new millennium, the author explores and assesses the landscape of the United States—both timeless wonders of natural beauty and lost places scarred by human exploitation. The reader is taken on an informative and inspirational tour of our most vital landscapes, including mountains, forests, grasslands, deserts, rivers, lakes, wetlands, and seashores.

Palmer introduces the basic geography and ecological value of each landscape, describes historical patterns of land use, considers the most serious threats, and discusses what is being done to protect that landscape for future generations.

The book provides thoughtful and useful ideas for how the American land can be protected and restored for decades ahead.

As a chronicle of America’s national glories and our human follies, this is, according to one critic, “the truest state of the union address anyone ever gave.” The book is 6 inches wide and 9 inches high, and illustrated with black-and-white photos. 338 pages, Island Press, 1999. Hardcover, $24.95
Yosemite's Innkeepers—The Story of a Great Park and its Chief Concessioners
by Shirley Sargent.

This is a major revision of the author's 1975 work that was originally titled Yosemite and Its Innkeepers. It covers the history of the major concessioners in Yosemite, primarily between 1899 and the 1950s. Sargent focuses on David and Mary Curry (the originators of Camp Curry) and the family members who followed them into the Yosemite Park and Curry Company.

For twenty-five years, the author collected additional material for each chapter of the book, and she has integrated the revisions for this new version. The book has been laid out in an entirely new format, and is rife with fascinating historical photographs.

Already a classic work of Yosemite history, this updated and improved new edition is more valuable than ever. The 8.5 inch by 11 inch book is illustrated with black-and-white photos, drawings, and maps. 166 pages, Ponderosa Press, 2000. Paperback, $21.95

Yosemite on my Mind—The Best of Yosemite in Words and Photographs
by Falcon Press.

This new gift book celebrates all that is unique about Yosemite—its majestic waterfalls, towering granite cliffs, and meadows decorated with wildflowers—as seen through the eyes of some of the best photographers in the nation. More than 130 stunning images, by such talented photographers as Kathleen Norris Cook, Larry Ulrich, Londie Padelsky, and Jeff Foott, preserve everything unforgettable about the park.

The photographs are paired with the writings of early explorers and others who have been inspired by Yosemite’s magic: John Muir, Lewis P. Mansfield, Edwin Way Teale, and Ansel Adams among them. This is a handsome keepsake volume, full of reminders of the treasures preserved in Yosemite National Park. Illustrated in full color, the book is 10 by 12.5 inches in size. 112 pages, Falcon Press, 2000. Hard bound, $32.95

Pajaro Field Bag

This newly developed waist pack features seven pockets for everything you’ll need when you’re hiking or enjoying time in the outdoors. The main pocket is sized to accommodate field guides, travel books, or binoculars. There are smaller pockets (including one with a zipper) for note pads and maps, and specialized pockets for pencils, pens, and sunglasses.

Best of all, a secret pocket sealed with Velcro keeps keys, credit cards, and other valuables safe. It’s the best such pack we’ve found.

Made in the U.S.A. of durable Cordura in navy blue, forest green or black by Pajaro.

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Yosemite Wilderness Pin
Here's a beautiful enamel pin commemorating Yosemite's unparalleled wilderness. It's circular in shape with a high country scene rendered in blues, grays, and greens. A real treasure for collectors. Approximately 1 inch in diameter. $4.00

Yosemite Association Patch
Our Association logo is embroidered on colorful, sturdy fabric for placement on daypacks, shirts, blue jeans, jackets, or wherever! The newly-designed patch is available in three attractive colors: dark blue, forest green, or maroon. $3.00 (please specify color)

Sierra Nevada Field Card Set
Illustrated by Elizabeth Morales
These handy field identification cards depict the most commonly seen birds, mammals, trees, and wildflowers from the Sierra Nevada region. Illustrated with color drawings and including information about the size, habitat, and other field marks of each, the cards are unbreakable, waterproof vinyl plastic and fit conveniently in one's daypack or glove compartment. Particularly helpful for newcomers to the Sierra as regularly observed flora and fauna can be quickly identified. Four plastic cards printed on both sides, Yosemite Association, 1991 and 1995. $11.00

Yosemite Association Mug
This distinctive and functional heavy ceramic mug feels good with your hand wrapped around it. Available in two colors (green or maroon), it's imprinted with our logo and name in black and white. Holds 12 ounces of your favorite beverage. $6.50 (please specify color)

Yosemite Bookstore Book Bag
Conserve resources with YA's handy book bag made from durable 100% cotton fabric with a sturdy web handle. Cream-colored, it's imprinted in blue with the Yosemite Bookstore logo. Fine craftsmanship and generous oversized design make this a bag you'll want to take everywhere. Approximately 17 x 16 inches. $8.95

Yosemite Association Baseball-Style Cap
Our YA caps are made of corduroy with an adjustable strap at the back so that one size fits all. The cap is adorned with a YA logo patch, and comes in dark blue, forest green or maroon. The cap is stylish and comfortable, and wearing it is a good way to demonstrate your support for Yosemite. $9.95 (please specify color)

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Join the Yosemite Association

You can help support the work of the Yosemite Association by becoming a member. Revenues generated by the Association's activities are used to fund a variety of National Park Service programs in Yosemite. Not only does the Yosemite Association publish and sell literature and maps, it sponsors field seminars, the park's Art Activity Center, the Wilderness Center, and the Ostrander Lake Ski Hut.

A critical element in the success of the Association is its membership. Individuals and families throughout the country have long supported the Yosemite Association through their personal commitments. Won't you join us in our efforts to make Yosemite an even better place?

MOVING?

If you are moving or have recently moved, don't forget to notify us. You are a valued member of the Association, and we'd like to keep in touch with you.

MEMBER BENEFITS

As a member of the Yosemite Association, you will enjoy the following benefits:

* Yosemite, the Association journal, published on a quarterly basis;
* A 15% discount on all books, maps, posters, calendars, publications stocked for sale by the Association;
* A 10% discount on most of the field seminars conducted by the Association in Yosemite National Park;
* The opportunity to participate in members' meetings and volunteer activities held throughout the year;
* A Yosemite Association decal.

When you join at one of the following levels, you will receive a special membership gift:

Supporting: the award-winning video, "Yosemite: The Fate of Heaven."

Contributing: Yosemite—The Promise of Wildness, an elegant book of essays and photographs.


Patron: a matted color photograph by Howard Weamer, "Half Dome—Storm Light."

Benefactor: an Ansel Adams Special Edition print, "Yosemite Valley—Thunderstorms."

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