Getting There: Yosemite and the Politics of Transportation Planning in the National Parks

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Yosemite is, in many respects, the prototypical national park. It was the nation’s first park devoted to the preservation of undeveloped land for public recreation and reflection. It is also where the National Park Service, since its inception in 1916, has grappled most intensely with the challenges of preserving nature for the benefit of a public accustomed to experiencing nature from their cars. Over time, higher levels of visitor use stemming from the growth of San Francisco, rising affluence, increasing automobile ownership, and the Park Service’s own road-building and promotional efforts threatened to overwhelm the scenic landscapes the park was meant to protect. Critiques of the Park Service’s accommodation of car-based tourism began to take shape as early as the 1920s, reaching a crescendo during the 1960s and 1970s with the rise of the wilderness movement. Facing criticism from some of their oldest allies in conservation, including the Sierra Club, administrators and planners at the national and park levels struggled to adapt transportation policies to evolving and increasingly contested cultural conceptions of a quality national park experience.

While always contentious, transportation planning became even more complex in the latter 20th century. The passage of the National Environmental Policy Act (NEPA) in 1969 and the suite of preservation legislation that accompanied it gave an increasingly active public a direct say in management decisions. Since then, the Park Service has faced scrutiny from environmentalists, concessionaires, local communities, recreation groups, historic preservationists, Native tribes, and others in the development and implementation of new visitor management policies for Yosemite. Although planners have devised creative strategies for anticipating, soliciting, and incorporating public responses, the costs and time commitments of preparing the required environmental impact statements and responding to public comments have resulted in a series of drawn-out battles among groups of people who, while generally sharing an interest in protecting the park for future generations, have continued to disagree over specifics.

The essays in this edition of The George Wright Forum outline a new strategy which planners in Yosemite have developed in response to the more complex politics of the present era. In part, the philosophy behind the Integrated Transportation and Capacity Assess-
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ment (ITCA) project reflects the experience of over 140 years of transportation and recreation planning in Yosemite. It derives from a basic recognition that how people get to and move through the park affects the quality of their experiences and the condition of park resources. ITCA also represents a move towards a more integrated, quantifiable, and legally defensible approach to capacity assessment and visitor management. It makes use of new computer modeling techniques to evaluate the relationships between transportation, visitor experience, and resource quality at different scales. If successful in breaking the political (and literal) gridlock in Yosemite, ITCA could provide a model for park planning system-wide.

Transportation and the politics of management

For most Americans in the late 19th century, the Yosemite Valley might as well have been located beyond the ends of the earth. Following Congress’s 1864 decision to grant the valley to the state of California, only the wealthiest Americans had the time and finances to actually see it with their own eyes. The completion of the transcontinental railroad in 1869 significantly eased travel to the Pacific Coast, but tickets were pricey and the trip from New York to San Francisco took several days. From Stockton to Coulterville, travelers endured a dusty, bone-jarring stagecoach journey before climbing onto a horse for the final 37-hour leg. By the time they arrived, many were too exhausted and homesick to enjoy the sights. “As we creep heart sick to bed,” wrote one visitor in 1870, “we can think of nothing but—the Yosemit e Fall, the Bridal Veil, El Capitan, the Cathedral Rocks? No! Of the weary distance which lies between us and civilization.”

If somehow transported to present-day Yosemite, the stage traveler of 1870 would no doubt be amazed by the sheer numbers of people from all walks of life converging on the park in motorized vehicles. They would probably be stunned by the extent of development in the valley and baffled by the myriad regulations and procedures governing visitors’ experience of the natural scenes for which the park was created. The transformation of Yosemite from an elite tourist destination to an icon of the motoring age to a symbol of nature on the verge of being loved to death has reflected the historical transition from stagecoaches to railroads to private cars and more recently to mass transit as modes of conveying people to the parks. Understanding how these changes occurred and what they have meant for Yosemite and the national park system requires an appreciation for the deep connections between shifting cultural perceptions of nature, changes in transportation technology, and the increasingly political nature of national park planning.

From rails to roads

The establishment of the first national parks in the late 19th century was linked closely to the growing popularity of western tourism. Stage operators, lodge owners, and railroads promoted parks and mediated people’s experience of them. Railroads even contributed directly to campaigns to expand the park system. Reflecting on the 1890 establishment of Yosemite National Park, John Muir commented that “even the soulless Southern Pacific R.R. Co., never counted on for anything good, helped nobly in pushing the bill for this park through Congress.” During the campaign, Muir forged personal friendships with some representa-
tives of the Southern Pacific, including magnate Collis P. Huntington, who saw the creation of a large national park in the region as a way to both attract tourists and protect the watersheds supplying irrigation to railroad-owned agricultural lands in the Central Valley.3

If the railroads were crucial to establishing and promoting the first national parks, the automobile was the key to making the 19th-century idea of a national park relevant in the 20th century. Americans’ desire to encounter nature in the national parks through their windshields reflected a conflicted view of technology at the heart of 20th-century conceptions of modernity. As cars became more affordable and more reliable in the 1910s and 1920s, they were widely embraced as mechanical means to escape the problems of the industrial city and return to nature. They also provided an impetus for national park promotion. In 1908, Mount Rainier became the first national park to admit auto tourists. For residents of the nearby cities of Seattle and Tacoma, accommodating automobile travel to Mount Rainier would not only make the park more accessible, it would also draw attention to the region and increase tourist revenue.4

From the start, automobile tourism to Yosemite was not universally embraced. Due to safety and noise concerns, cars were initially excluded from the park. Muir was also ambivalent about admitting cars. On one hand, he believed that allowing automobiles would help build a stronger constituency for the parks and perhaps even forestall the proposed dam at Hetch Hetchy. In 1912, he recommended that a road be extended up the canyon of the Merced River, through Tuolumne Meadows, and down to Hetch Hetchy to enable more people to see it. On the other hand, Muir was skeptical of automobile club delegates who spent “a prodigious lot of gaseous commercial eloquence” defending their presumed right to drive wherever they pleased. Ultimately, he recognized that lifting the ban on “these useful, progressive, blunt-nosed mechanical beetles” would be necessary to build support for preservation. Cars, he conceded, “will hereafter be allowed to puff their way into all the parks and mingle their gas-breath with the breath of the pines and waterfalls.”5

In comparison to Muir, Stephen Mather, the first director of the National Park Service, was unequivocal in his embrace of the automobile. In 1915, just prior to the establishment of the agency, he drew on his own personal fortune to purchase the then-private Tioga Road. He then repaired the road and donated it to the government for use as “a motor gateway to the upper wilderness” of Yosemite.6 By the summer of 1918, some 50 to 60 cars were navigating the single-lane dirt track each day. In the following year, approximately 75% of all park visitors arrived in private vehicles. “The advent of the automobile,” Mather remarked in 1921, “has been the open sesame for many thousands.”7

For Mather and his successor Horace Albright, accommodating auto tourism was entirely consistent with the young agency’s core mandate to preserve America’s natural treasures while providing for their enjoyment by the public. Through the 1920s, as part of his effort to promote the parks and the Park Service, Mather pushed for a 5,000-mile Park-to-Park Highway. He also worked to persuade skeptical locals of the economic benefits of car-based tourism. Roads, he declared in 1925, would bring “a great flow of tourist gold … adding life to communities unprogressive for years.”8 Mather and Albright also coordinated a massive advertising campaign employing the promotional slogan “See America First” to encourage Americans to view the national parks not only as scenery but as expressions of
national culture. By the 1920s, the availability of cheaper, better-made cars, coupled with a rapidly expanding national network of roads, opened the parks to millions of middle-class Americans. Driving to and through the national parks came to be seen as basic American freedoms.9

Mather’s and Albright’s promotional drive was tempered by their belief that poorly planned development could detract from what they considered an appropriate national park experience. They sought out prominent landscape architects, including Frederick Law Olmsted, Jr., Herbert Maier, and Thomas Vint, to develop plans which harmonized with the natural landscape. Roads, lodges, visitor centers, and other projects were meant to enhance scenic vistas and bring visitors in closer contact with the natural features for which the parks were created. These kinds of “improvements” amounted to “the dignified exploitation of the national parks,” as one planner put it.10

Despite this restraint, by the 1920s the rapid influx of automobiles into Yosemite was beginning to stress the park’s natural environment and infrastructure. Pressures mounted as more Americans discovered that auto camping could be a cheap and enjoyable way to spend their vacations. For the most part, the Park Service welcomed the trend. Between the 1920s and 1930s, Mather and Albright oversaw improvements to the Wawona and Big Oak Flat roads and the construction of the Merced River All-Weather Highway. The Park Service also took advantage of cheap labor provided by the Civilian Conservation Corps and the Works Progress Administration during the New Deal to further develop the parks. Even with the additional infrastructure, cars backed up at the Arch Rock entrance station during busy summer weekends. Campgrounds filled to capacity and many drivers encroached into forests and onto meadows in search of free space to set up camp. In 1935, Yosemite officials sought to mitigate the problem of overcrowded campgrounds by enacting a 30-day camping limit.11 At the national level, Albright instituted a requirement that each park draw up a “Master Plan” to guide future development. Although these policies were put in place in response to rapid visitation increases, their primary purpose was to better manage growth, not to limit it.12

Wilderness and the politics of access

The unwillingness of the Park Service and other public land agencies to limit auto tourism in this period led some conservationists, including the founding members of the Wilderness Society, to form a new conception of wilderness as an area accessible only by non-mechanical means.13 Faced with the rising tide of auto tourists in Yosemite, some Sierra Club members began to rethink the club’s mission to “render accessible the mountain regions of California.” In 1930, veteran outing organizer Marion Randall Parsons proposed a new approach: “Our problem is no longer how to make the mountains better traveled and better known,” she wrote. “Rather it would seem, how from the standpoint of the mountain-lover ‘to render accessible’ may be more truly compatible with ‘to enjoy.’”14 It was no longer enough to bring people to the mountains. In Parson’s view, the club also had a responsibility to encourage people to experience wilderness appropriately, which for her meant getting out of their cars and walking or hiring a pack outfit to take them beyond the road head.

This reframing of the aims of wilderness preservation was put on hold as the nation’s attentions shifted during World War II. After the war, the problem of defining appropriate
use became acute. Population growth in western cities, better roads, and the proliferation of automobile ownership contributed to an unprecedented surge in national park tourism. Between 1944 and 1945, visits to the parks leapt from approximately 5 million to nearly 12 million per year before jumping to 25.5 million in 1947. By the mid-1950s, approximately 50 million people were visiting the parks each year, and the number kept growing. Roads, lodgings, campgrounds, ranger stations, and trails not upgraded since the New Deal proved inadequate to handle the barrage of tourists. In 1956, the Park Service responded with Mission 66, a program to revitalize the parks by the agency’s 50th anniversary in 1966. Director Conrad Wirth described the program as necessary to bring the parks “up to a consistently high standard of preservation, staffing and physical development.” However, as plans took shape for ambitious road expansion projects and huge, modern visitor centers, conservationists began to challenge the Park Service’s accommodating stance towards increasing tourism.

The Park Service’s decision to widen, pave, and reroute the Tioga Road in the Yosemite high country galvanized the growing anti-development contingent in the Sierra Club and set the tone for future debates over roads in national parks. The rationale for the project echoed the prewar aims of park planning: an improved road would accommodate more cars, but it would also make other development schemes unnecessary and would channel visitors along a single route, leaving the surrounding wilderness untouched.

The proposal divided the Sierra Club. Traditionalists supported the plan but sought to minimize the road’s intrusiveness. A smaller but more vocal and generally younger group led by David Brower and Ansel Adams questioned whether the road should be improved at all. Their concerns were twofold: not only would the project damage some of the most scenic features of the high country (it would require blasting portions of the granite benches along the shore of Tenaya Lake), it would also grant easy access to “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,” as club member Harold Bradley expressed in 1949. The presence of so many people unwilling “to pay the price in terms of effort and time,” Bradley and others felt, would destroy the qualities that defined the Yosemite high country as wilderness.

Ultimately, the Tioga Road expansion carried too much momentum to be stopped by these objections. The availability of Mission 66 funds after 1956 all but ensured that the project would go forward. Rising affluence, population growth, and greater mobility continued to fuel massive increases in national park visitation. Public support for limiting auto access also continued to grow. By the mid-1960s, concerns over crowding in the national parks intermingled with other concerns about dam construction, nuclear weapons testing, chemical pesticides, air and water pollution, and the loss of open space to spark a broad-based political movement to protect environmental amenities. At the same time, the rising popularity and accessibility of hiking, backpacking, mountaineering, and other more vigorous forms of outdoor recreation contributed to a feeling among many park advocates that cars did not belong in wilderness.

The 1964 Wilderness Act inscribed this conception of wilderness into federal law. The act defined wilderness as “as an area where the earth and its community of life are untrammeled by man, where man himself is a visitor who does not remain.” It also specifically pro-
hibited permanent or temporary roads and any form of mechanical transport within designated wilderness areas. Though initially concerned about the act’s compliance requirements, the Park Service gradually incorporated these definitions into park planning. In 1968, North Cascades National Park in Washington State was created as a wilderness park entirely free of roads. However, the Park Service also recognized that most visitors might not be ready to give up their cars altogether. While no roads entered the park itself, North Cascades was established as part of a larger park complex. Roads and other accommodations were permitted in two adjacent National Recreation Areas.20

The Wilderness Act also had no direct effect on existing developed areas within national parks. Edward Abbey, one of the more outspoken critics of the Park Service’s continuing emphasis on accessibility, saw cars and roads as exemplars of what he deemed “Industrial Tourism.” In his widely read 1968 polemic Desert Solitaire, he accused the Park Service of ignoring the protests of those visitors who were “determined to get outside of their motor-cars for a least a few weeks each year” in favor of “that other crowd, the indolent millions born on wheels and suckled on gasoline, who expect and demand paved highways to lead them in comfort, ease and safety into every nook and corner of the national parks.”21 Abbey’s critique, and others like it, established a divide between a minority of park advocates who favored limiting visitor use for the sake of fulfilling the Park Service’s mandate to preserve nature “unimpaired,” and the majority of park goers who were presumably more accepting of (or even dependent upon) roads, modern campgrounds, and visitor services.22 This division underlay the political battles that erupted over transportation planning in Yosemite and other parks in the decades that followed.

The era of public planning
The challenges of managing visitor use in this period were especially daunting in Yosemite, where visitation numbers doubled from 1 million in 1954 to 2 million in 1967. By the late 1960s, the narrow confines of the Yosemite Valley “reflected more the noise and honky-tonk of an urban amusement park than the pristine beauty and wildness of a national park,” as one historian has observed.23 Traffic jams, car accidents, gasoline odors, nighttime drag races, and the drone of motor home generators became unavoidable parts of the overall park experience. In 1970, Yosemite officials departed from their historically automobile-friendly orientation by closing the Mariposa Grove and the eastern third of the Yosemite Valley to private cars. From then on, these areas were served by clean propane-powered trams and shuttle busses. Beginning in 1971, the Park Service considered various proposals to exclude cars from the valley. These proposals encountered opposition not only from visitors reluctant to leave their cars behind but also from conservationists critical of plans to build large parking lots in ecologically sensitive areas outside the park. Members of the Sierra Club were especially distressed to learn that park officials were considering a gondola to run from the valley floor to Glacier Point.24

Political disputes over transportation intensified in the years that followed. Yosemite’s struggles to gain approval for the 1974 and 1980 master plans, both of which called for limiting automobile access, reflected a new era in park planning in which new legislation enabled the public to play a more direct role in administrative decisions. Meeting the
requirements of the NEPA became a central challenge. The act required all federal agencies to prepare and make available for public comment an environmental impact statement for any development project. By the early 1970s, the Park Service had also begun to place greater emphasis on ecological considerations in natural resource management. Addressing the problems resulting from high levels of visitor use within these new frameworks became a primary goal for the new general management plan.

In developing the plan, planners found themselves under attack from all sides. The Music Corporation of America (MCA), the parent company of Disney and the park’s concessionaire at the time, saw the proposed restrictions on cars as a threat to their bottom line. The company argued that if automobile traffic was to be limited, planners should consider “alternative travel options, such as the Aerial Tramway to Glacier Point and increased parking within the valley.” The Automobile Club also weighed in, urging the park to favor “those who prefer a more moderate stand, much along the lines existing today.” Fearing that park planners would bow to the demands of MCA and the automobile lobby, the Sierra Club called for even greater reductions on automobile use, including the removal of 1,200 day-use parking spots in the valley. The club also supported providing bus service from “staging areas” outside the park, believing that Yosemite “could be a vanguard for alternative transportation systems.” Park officials attempted to steer a course between the two sides, assuring MCA that the valley would not be closed to auto traffic while also entertaining proposals for parking lots outside the park. Lacking confidence that these disputes could be resolved, the Department of Interior rejected the draft plan in December 1974, and the Park Service came out looking like “a weak sister, an outfit easy to manipulate,” as one critic put it.25

Addressing the concerns of the various interest groups that prevented the approval of the 1974 plan became the primary consideration in developing a revised plan beginning in 1978. Park planners came up with an innovative scheme of using interactive graphic displays to allow the public to choose from a variety of alternatives. The thousands of public comments were directed towards a specific set of proposals, and the planning team revised the draft based on the results. This strategy became a model for involving the public in park planning systemwide. To meet the goals of allowing natural processes to prevail and reducing traffic and crowds, the final plan called for the removal of “all private vehicles from Yosemite Valley.” It also recommended expanding the shuttle bus system to provide service from parking areas at El Portal, Crane Flat, Wawona, and eventually from outlying areas and gateway communities.26

While the park’s effort to incorporate public comment during the revision process was effective, implementation proved more complicated. Following the release of the final draft in 1980, concessionaires, local businesses, environmentalists, and recreational user groups continued to challenge aspects of the plan. The stricter legislative requirements also meant that the park would have to propose alternatives and conduct scientific studies to evaluate each component of the plan. These challenges were compounded by shrinking federal appropriations during Ronald Reagan’s presidential administration.27

Some aspects of the plan were eventually carried out. In 1992, the five counties surrounding the park formed the Yosemite Area Rapid Transit System (YARTS). Budget issues and disagreements with some of the counties delayed the start, but in 2000, YARTS buses
began transporting visitors from several staging areas located outside the park. The system received funding from a combination of user fees and federal and county subsidies and represented a crucial first step in a more extensive regional mass transit network. The rainstorm and flood that inundated the valley in January of 1997 provided another opportunity to break the political gridlock and address long-standing transportation and planning issues. An infusion of federal money for flood repairs allowed the park to reduce the number of campsites, eliminate some infrastructure, improve the El Portal road to accommodate busses, and require reservations for overnight stays during the summer. The 1997 flood also provided the impetus for drafting the Yosemite Valley and Merced River plans.28

Despite this progress, the more substantive transportation goals outlined in the 1974 and 1980 plans remained unmet by the start of the 21st century. For instance, while the 1980 plan had called for the reduction of parking spaces in the valley from about 2,400 to 1,200, the amount had more than doubled to 5,000 by the late 1990s.29 In a speech in November 2000 announcing the release of the Yosemite Valley Plan, which reiterated many of the goals of the earlier plans, Secretary of the Interior Bruce Babbitt summed up the planning challenges of the past three decades, telling the crowd, “You are a cantankerous, irascible, quarrelsome and passionate people.” While the planners eventually “produced paper,” he said, they also developed “planning fatigue” as they struggled to navigate the complicated legislative terrain and scores of public meetings and comment sessions.30

Criticisms persisted even after Babbitt’s announcement. Local communities remained concerned about the economic impacts of reduced visitation; representatives of Native tribes pressed for greater involvement in the planning process; and environmentalists continued to demand more attention to transportation alternatives. Just before his death on November 5, 2000, David Brower wrote an editorial charging the Park Service with “trying to do too much, too fast in Yosemite.” To him, the agency seemed “intent on converting this temple into a profit center, with pricey hotels, scant camping, few modest accommodations, wider roads to field bigger diesel busses, ecological roadside mayhem, atmospheric damage and requiring people who want to celebrate Yosemite Valley to park outside the park in various still unspoiled places that are soon to be paved.”31 Underlying all of this, most park visitors, even those supportive of reducing car traffic, retained psychological attachments to the perceived freedom of encountering nature from their cars.32

Conclusion: Quantifying quality
Planning battles also extended into the courtroom. Between 2000 and 2008, the local environmental coalition Friends of Yosemite filed three lawsuits alleging that the park’s proposed Merced River Plan (and its revisions) violated the Wild and Scenic Rivers Act (WSRA) by failing to establish limits on user capacity. In all three cases, the court agreed, ruling that the plan failed to “describe an actual level of visitor use” that would not degrade the river’s “outstandingly remarkable values” as defined under the WSRA.33

These rulings have forced the Park Service to once again rethink how it measures and evaluates the relationship between visitor use and resource quality. In the early years, agency leadership dealt with capacity issues by building roads and providing accommodations, the purpose being to satisfy public demand for car-based recreation while building support for
preservation. As the pressures of increasing visitation mounted after World War II, the Park Service struggled to balance its traditional obligation to provide visitor services with new demands to limit development and restrict use. In the 1960s and 1970s, administrators adopted the concept of carrying capacity, which blended techniques from range science, ecology, and psychology to measure the impacts of backcountry recreation. The political and legal controversies of the past three decades have further elevated the importance of carrying capacity, creating a demand for more transparent, quantitative, and scientific methods of calculating user capacities for all of Yosemite’s natural and cultural landscapes.

The ITCA project, initiated in Yosemite in 2010, gives the Park Service a new tool for meeting this objective in Yosemite and elsewhere. Building on an understanding of the historical importance of transportation in Yosemite, the four preceding papers in this special issue suggest that the park’s transportation system forms the basis for how visitors engage with, perceive, and impact park landscapes and resources. By using computer simulations to integrate transportation data with visitor surveys, ITCA can help planners and managers better understand the relationship between how visitors get to and move through the park and how they perceive the quality of their experience. The resulting models quantify the quality of visitors’ experiences in terms of statistical data on pedestrian and vehicle traffic, allowing planners and administrators to propose clear, legally defensible capacity limits for different activities at multiple scales.

ITCA represents an innovative response to the complex politics of the era of public planning. By establishing a metric for measuring public perceptions of a quality experience and anticipating the impacts of different transportation options, it can provide a basis for a more proactive approach to park management. At the same time, the history of national park planning reveals that “quality” has always been a moving target. How visitors have valued their experiences in Yosemite and other parks has changed relative to broad changes in culture, politics, science, and technology. Perceptions of what constitutes a quality national park experience have also varied tremendously, especially since the 1960s when the parks became more accessible to a broader cross-section of the public. Any effort to quantify quality must contend with the possibility that measurements taken today might not apply tomorrow; and that they may not even be accepted by all (or even most) of the people with something at stake in how the parks are managed in the present.

Endnotes

1. While Yosemite was predominantly an elite destination in its early years, as Anne Hyde points out, its proximity to urban San Francisco and Sacramento actually made it more accessible than other early parks such as Yellowstone and Glacier. Anne F. Hyde, “From Stagecoach to Packard Twin Six: Yosemite and the Changing Face of Tourism,” in *Yosemite and Sequoia: A Century of California National Parks*, edited by Richard J. Orsi, Alfred Runte, and Marlene Smith-Baranzini (Berkeley: University of California Press, 1993), 69.

Commission Frederick Law Olmsted recommended that the majority of the appropriations for the newly established reserve ($25,000 out of a total of $37,000) be dedicated to the construction of a road to the valley and the Mariposa Grove of giant Sequoias. Frederick Law Olmsted, *Yosemite and the Mariposa Grove: A Preliminary Report*, 1865. Online at www.yosemite.ca.us/library/olmsted/report.html.


8. Ibid., 334.


22. For this minority argument see especially Joseph Sax, *Mountains without Handrails: Reflections on the National Parks* (Ann Arbor: University of Michigan Press, 1980), 2. For Sax, the question facing Congress, the Park Service, and the American people was, “Should the national parks basically be treated as recreational commodities, responding to the demands for development and urban comforts that visitors conventionally bring to them; or should they be reserved as temples of nature worship, admitting only the faithful?” He identified public education as the key to more widespread acceptance of the latter view.
27. Ibid., 389–390.
29. Ibid., 77.
34. I would like to give special thanks to David Louter for his support and assistance in writing this article.

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