Introduction

Chapter 1

The Last Traditional National Park: Guadalupe Mountains

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I'm here in an interesting capacity. What I'm trying to do is put some thoughts together for you, not so much about Guadalupe Mountains National Park itself but about its meaning and its place in the history of national parks, as well as in American culture and society. I have become fond of calling Guadalupe Mountains "the last traditional national park," and I do that with my tongue in my cheek. Guadalupe Mountains is really one of three of the last traditional national parks in the lower 48 states. I mean this figuratively. The window during which Guadalupe Mountains National Park was both proclaimed and established, that little six-year period, is a pivotal moment in the history of national parks in the United States. It marks the end of a tremendously long era that began with the establishment of Yellowstone National Park in 1872—the great and enormous Yellowstone National Park—when they just drew a great big line around all that area and said "there ain't gonna be much up there that we can use in commercial economic endeavor, so let's lock it up." With those cool geysers and big waterfalls and wide rivers, not to mention spectacular vistas, we can make a national park out of that land, a place Americans can respect and revere, and not incidentally make some money from. This idea functioned with relative ease throughout the first half of the 20th century; most national parks were scenically spectacular—not necessarily as fantastic as Yellowstone—and they were created mostly from federal land. If you look at the creation of those parks, you get Yellowstone, the transformation of Yosemite from state park to national park, Rocky Mountain, Mount Rainier, and the others; they all share traits with Guadalupe Mountains National Park. First, all are expansive. Yellowstone is of course a great deal bigger than the more than 76,000 acres that Guadalupe Mountains was originally proclaimed to preserve, but Guadalupe Mountains still represents the idea of expansiveness. All such parks were remote or difficult to reach at their time, and it was easy to conceive of them as wilderness.

In a changing society after 1950, park proclamation became a fractured process. By the mid-1960s, the National Park Service had begun to move in many directions. Some of these expanded its reach; others were the result of changing values in American society. The National Park Service had always been among the most supple of federal agencies, the one that had the least trouble responding to the demands of the public—for better and worse—and as its values changed in conjunction with the times, so did the kinds of parks it sought to establish. I have become fond of saying that the Park Service has gone through three basic stages: the first was a long period of landscape architecture and dominance of facilities development, really from the founding of the agency in 1916 until the 1960s. During this time, the agency built a constituency by offering facilities—amenities really—that helped people identify with the national parks and not incidentally with the green of the Park Service uniform. A very short period of science followed in 1963, the year the Leopold report came out, and for a brief instant the Park Service became what some of its constituents thought it should have always been, a preservation-based agency that managed by scientific

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principles. But the growing demand for national parks and their amenities—the same circumstance that led to Mission 66, the greatest development project in the history of the agency—also forced new realities on the agency. By the time of the famous riot in Stoneman Meadows in Yosemite on July 4, 1969, law enforcement—people management actually—had come to dominate the agency. The first era was about building, then a very brief interlude was about thinking and about science, and since then parks have been about people management. I think that's telling. I believe it has the ring to truth to it. It also clearly indicates the pushes and pulls of park management at time of the establishment of Guadalupe Mountains National Park.

By the 1960s, the United States had become a very different place that had different psychic and cultural needs from its national parks. Thirty years had passed since national parks served the purpose of spiritual enlightenment. In late-19th-century America, national parks came to represent the tripartite meaning of American land: they showed the power of Manifest Destiny, after the rise of especially geology, the empirical knowability of science, and of course, the sublime that so enticed the 19th century. The parks told Americans not only that their quest to conquer was justified, but also that they could know about nature—they could create boxes on which they could put labels that gave them the power of definition—and even more, they could appreciate nature's beauty and feel good about themselves for doing so. This was heady stuff for a young nation, feeling its way to maturity during the years before World War I, a time the American writer John Dos Passos called "the quiet afterglow of the 19th century."

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This cultural impulse dominated at the turn of the 20th century. It far exceeded recreation or any other purpose for national parks. Americans came to national parks by train and were in awe when they looked around. They came to understand themselves and their nation, and they felt better about themselves and their culture as a result. In short their reasons were spiritual. I think they went for uplift, to feel closer to their deities, to appreciate the beauty of nature, and especially to feel the power of American society. They affirmed American culture by their actions. That's clearly not what most people were doing, at least not consciously. By the 1960s a great deal of park visitors were "the young me and my parents." We were people headed out West once again, but in a different kind of way. On some subconscious level we traveled to belong, but the affirmation we sought was less of the nation than of ourselves and our position in it. We were driving around in cars, going to national parks because we thought we should. Nothing revealed this need to belong as much as the once ubiquitous "I visited Carlsbad Caverns" bumper sticker. Everybody in the American middle class grew up with one of those; it was a marker of belonging, of being part of the post-World-War-II middle class. If you had one of those bumper stickers, you were somebody! If you didn't, well, tough. I once met somebody who said the hardest thing about his childhood was that his family didn't have one of these bumper stickers on their car. And so somehow, they were left out. This was a different kind of belonging; it wasn't a cultural uplift as much as it was a form of experience, a counting of events and activities that made you part of the nation.

It is in this context that Guadalupe Mountains National Park enters the picture. It's a park with wilderness attributes in its initial formulation, but it comes about at a time when people are looking for experience. It also coincided with the moment in which national goals and aspirations, in general, especially for national parks, were beginning to change. In the cultural climate of the 1960s, national parks seemed remote from the concerns of many Americans. In fact, by the mid-1960s, it was easy for people who were not far from poverty to point to national parks and say, "These are trophies for a certain class of people in our society, and a certain class of people who get all the perks to begin with." What grew out of the response to

that sentiment was nothing less than the latest in a series of reshapings of the boundaries for inclusion in the national park system. Historic sites found their definitions most radically transformed. If you look at, for example, Pipe Springs National Monument on the Arizona-Utah border, you'll find basically a 19th-century Mormon fort set over a well that Paiute people once used, proclaimed in the 1920s as a national monument. It's very typical of the early generation of national monuments. Pipe Spring is an intermediate site, located between Zion National Park and the North Rim of the Grand Canyon, and added to the system because Stephen T. Mather, the first director of the Park Service and the visionary who framed its earliest goals, thought it would be a good place for automobile travelers to stop on the long dusty roads between his crown jewel national parks. Its larger historical significance is minimal, and what significance there is reveals the raw power of Anglo-American society—in this case Mormons—when confronted with the needs and desires of Native Americans.

History in the park system in the 1960s began to mean something far different. It indicated inclusion, belonging, a place at the American table. In some cases, it granted official status, gave specific groups long left out a claim to Americanism. In 1962, the Frederick Douglas home, the property most associated with the famed Abolitionist spokesman who had been born a slave, became a national historic site. In 1980, the Women's Rights National Historic Park came to be. Other areas, commemorating and in some cases sanctifying varieties of American experience, followed. Such places offered categorically different explanations of the past. Their inclusion in the national park system spoke volumes about the broadening of what American history, both officially or unofficially, included. These places told a different story than did Pipe Spring or even what the Civil War battlefields brought into the park system during the New Deal of the 1930s. A place in the park system meant a place in the nation.

Against that backdrop, another kind of national park area began to be created, but these aren't really national parks in the traditional sense, but national recreation areas. A significant percentage of national park areas also experienced local use. Bandelier National Monument, which on some days serves as a city park for Los Alamos, was typical. People from the nearby Los Alamos National Laboratory have a close relationship to the park. They enter for no charge under an agreement; many come down there to eat their lunch and view the archaeological sites, and they engage in an entire range of recreational and cultural activities. That has always been one of the functions, but it's never been even the primary function of any of the more traditional national parks, places like Yellowstone, Yosemite, or Glacier national parks. With the creation of national recreation areas, especially Gateway in New York and the Golden Gate National Recreation Area in the San Francisco Bay area, a new kind of national park developed. Here was a nationally reserved area aimed at day users, at local people, and at regional constituencies that traditional national parks did not always do much to serve. This development represented a broadening of the purpose of national park areas, even more so than did the new historic sites. National recreation areas gave recreation a pre-eminence in the park system, which it had not achieved earlier.

I have become fond of referring to Golden Gate as the first national park of the 21st century. Its goal, its mission, is no less than to be all things to all people all of the time. At Golden Gate National Recreation Area, even dog waste has a constituency; there are people who will battle for the right to take their dogs into the park and accept the responsibility of cleaning up after them. This is a park manger's dream and nightmare rolled into one. Here is a constituency that accepts responsibility for its impact, but simultaneously sees that it is entitled to create an impact that may have deleterious effects beyond what its proponents anticipate. This is truly a

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remarkable situation; it is what happens when parks are created atop prior public and private uses—patterns of usage established over time that give users a proprietary feeling about the land in question. At Golden Gate National Recreation Area, people used the lands that became the park before the Park Service received mandate to administer. Those people—citizens and taxpayers—had to be brought in to the management equation. They were very often vocal representatives of communities in the area and they had—or believed they had—rights. No federal agency can afford to ignore a vocal public. So a different picture of a national park resulted. It is a national park that serves the local-use constituencies, has lots and lots of historic features, has lots of natural features but has some wilderness—but people hang-glide there too. This is not traditionally what the national parks were about.

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Now why is this happening? Of course it's one of the many results of the massive cultural changes in the post-war United States, but it is also happening because the National Park Service itself is changing. Between 1916, the founding of the agency, and 1953, one generation of people ran the National Park Service. Of the first five directors, only one, Newton Drury, did not come up through the ranks and was not, at one point or another, Stephen T. Mather's assistant director. Drury was the only exception to that pattern and as the only genuine preservationist to head the agency, he was a most interesting exception. In 1954 Conrad L. Wirth—who had come into the National Park Service as a landscape architect during the New Deal, which served as the first great development program in national park history—ascended to the head of the agency. Wirth's agency offered a very different focus, a very different way to look at the world. What Wirth wanted to do was build park areas, places that people would use and places that people would see largely from their cars. Wirth saw himself representing tradition in the Park Service, not as a preservationist but as a promoter, extending the reach of the park system. The problems of national parks in the 1950s and 1960s were hardly a lack of visitation; the lack of facilities to accommodate visitors topped the list of issues for the agency. This was a move away from national park values of the turn of the century, not its goal of reaching the people but in the way it reached them. George Hartzog, who succeeded Wirth in 1964 and lasted until 1972, was the last director of the agency who was not a political selection, the last person who didn't survive some kind of political loyalty test to get appointed to the top position in the agency. He was also very much a promoter who strongly valued preservation. In this context, the proclamation of Guadalupe Mountains National Park looks pretty remarkable. It is starting to look like an afterthought or somebody's pet project—which is not entirely untrue—or just something that came together despite the dominant currents of its moment.

Now, the traits of these new parks are that they are all things to all people, they are created from prior uses, and they have easy access for day use. It is surprising to find that Guadalupe Mountains actually shares a history of prior uses with such parks. Guadalupe Mountains is the last major national park created not from federal holdings or gifts, but by purchasing land. There weren't any federal lands in Texas, which was a unique arrangement with the United States upon entering the Union in 1845. Guadalupe Mountains also shared initially another dimension, one that generated a bit of controversy for the park. The traditional national parks—e.g., Yosemite, Yellowstone, Glacier—all did a tremendous amount to obliterate human history within their boundaries. One disgruntled former Park Service employee once told me that there is an enormous wall of file cabinets—and this is of course apocryphal—in the Washington Office of the Park Service that details every historic structure of the national park system that has ever been destroyed, and there are thousands of them. I don't know how true this is, but the point is that the Park Service had a tremendous investment in making the wilderness free of people. At Guadalupe Mountains that

erasure by and large, did not happen. In fact, human history was included within the park, and I think that is part of its own process of making a national park in this new era. That is, the natural past was sufficient at the turn of the century when people revered nature as spectacle, as scenery, as affirmation of culture. But in this increasing post-industrial world, in this world of service economies, it has become very important to have a human past in natural areas. So you have Frijole Ranch, Williams Ranch, Ship-on-the-Desert, and other vestiges of a human history preserved within the boundaries of a national park.

Another issue that speaks very much to this changing situation at Guadalupe Mountains National Park was the question of the tramway. The proposal for a tramway to the top of Guadalupe Mountains was an enormous fight, and I will try to locate it in the context here. Tramways were not uncommon propositions in the early 1970s. The idea of accessibility gained great sway as an antidote to charges of elitism in the national parks. Not everybody can get to the top of Guadalupe Peak on his or her own, but on a tramway everybody can. The proposal blended different currents in the park system—in particular the oldest challenge that faced the agency, how to preserve and create access simultaneously—and it loomed very large for the Park Service particularly during the 1960s and 1970s. Was access for everyone, everywhere what a national park ought to offer? Was the goal to offer accessibility or was it to preserve a special kind of experience? I don't think we're through with that dialog yet. Ask any superintendent of a national park with a feature that people desire to see but don't want to do the work to reach it. The Park Service handled the situation as well as it could. It commissioned a number of studies and held a bunch of meetings, and eventually personnel stood by and hoped that the project would die, and in fact it did. It died as much as a result of cultural change, as being studied to death. The studies eventually said that fewer than 50% of the people wanted the tramway, but the fact remained that in some cases, the appearance of action as opposed to real action—a passive approach to not getting things done—makes them disappear just as well as an active approach. This is another version of the old adage that there is more than one way to skin a cat.

In every sense, a national park is a reflection of the moment of its creation. The real dance, the real trick, the difficult thing to do is to maintain the integrity of the values of a national park area as the values of the society change around it. In this context, Guadalupe Mountains is part of what I call the "great aberration," the period of time from 1945 to 1973 when more people in this country did better than they had ever dreamed of doing, economically better than any group of people in human history. There was more wealth, and because of that wealth, people were willing to look at putting things aside in a permanent way. They shared a vision of optimism; they could see their way to a better world. In the 1960s Lyndon Johnson used to talk about ending poverty for all time. Now we're happy to settle for holding the line at 13% of the population below the poverty line. During that great aberration it was possible to attempt and sometimes accomplish social, political, and even environmental objectives that could not have been considered during other times. It was possible to say, here's a tract of land with about 100,000 acres that we can hold aside. First of all, we can get it cheaply. Second of all, there aren't a lot of evident ways that it is going to offer us great economic benefit.

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Guadalupe Mountains also falls within a category that I call "quality of life maneuvers." This category really begins with the implementation of air and water pollution standards in the late 1940s and 1950s and ends more or less with the Endangered Species Act in the 1970s. It includes the Wilderness Act of 1964, as well as all kinds of legal mechanisms that represent the success of traditional environmentalism in the United States. Why does Guadalupe Mountains fit in here? As in many other places, wilderness became a representation of

quality of life, proof of a society that could expand and save at the same time. And of course, with the proclamation of wilderness—first in Guadalupe Mountains, later at Carlsbad, and then finally including the wilderness study area in the adjacent national forest, a large complex of interconnected wilderness, which is really the intellectual province of Guadalupe Mountains National Park, was established.

Wilderness had a very special resonance during this time period, because we were again feeling ourselves over-civilized, again feeling unable to get in sync with ourselves even as the economy seemed to be going well around us. Wilderness became a marker not so much of cultural affirmation as it had at the turn of the century, but of individual experience. Never mind that we were able to accomplish this experience largely with the technological tools created by the space program—the lightweight pack frames and the featherweight hiking shoes, the freeze-dried food, and other technological improvements—that made the wilderness possible for even the most unfit of us. Without those accouterments, we'd have to experience wilderness on its own terms. Many of us might like to think we're Daniel Boone, but we're not.

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As wilderness experiences have been made more palpable, more accessible, it has become available to more people. What has happened, I think, in the 25 years of this special place, is that the park was established for one purpose and now it is gradually acquiring another one. It seems to me that Guadalupe Mountains National Park was invented, was created to preserve itself and to preserve its specialness. This is me waxing eloquent as opposed to being cynical; there are cynical things to point to in the creation of any national park. But what's happened is that national parks have become, and have had to become, more than stored-up scenery to be admired. They are also agents of economic development. The mayor of Carlsbad just got up here and acknowledged the incredible significance of tourism in his town. In Wyoming, where I recently spoke, one of the things they still have a hard time doing is getting tourism out of the shadow economy and into the sun. Very clearly, that process has happened here in the last ten years or so. But in fact, the rise of tourism here has been instrumental in perpetuating Guadalupe Mountains National Park, and in making it far more significant to a wider audience.

The resistance to oil exploration in the vicinity illustrates this point. During the late 1970s and early 1980s, oil companies sought to create access to drill in and near the wilderness areas. Oil prices were sky-high and domestic oil production was an agreed-upon goal. Yet, the people of southeast New Mexico were not only unhappy about this prospect, they battled against it. A local newspaper, the *Carlsbad Current-Argus*, came out against oil drilling in the Guadalupes. It argued that in this case, environmentalists had a significant point: drilling for oil ought to take place first in less environmentally desirable areas. The idea that a local newspaper editor in the American West would say that environmental goals should supersede energy exploration in 1980 is almost beyond comprehension. Tourism—that nebulous invisible source of jobs—over oil exploration, patriotic and industrial? Guadalupe Mountains, as well as Carlsbad Caverns, is part of a revolution that is clearly underway. The service economy has come in incredibly important ways and projects an economic future: the transfer payments of retirees, accepting low-level nuclear waste, and more and more tourism. This is made possible by more and more technology and mitigated by the vast distance from the interstate to the Guadalupe Mountains, in particular, and to Carlsbad Caverns as well. There is no greater barrier for tourism in postmodern America than being more than twenty minutes from the interstate highway.

So this is where we stand at the 25th anniversary. Guadalupe Mountains is a national park with a wilderness that is

desirable to a certain constituency. As the wilderness comes to represent the meaning of the national park and as distance from the main arteries of American society becomes even more a marker of group values, the constituency for places like Guadalupe Mountains—which can claim remoteness and wildness—will continue to grow. Here is a park that is bifurcated in complicated ways.

I want to leave you here briefly with two thoughts: one from the iconoclastic writer Edward Abbey, who observed in the 1970s from atop Guadalupe Peak: "This is a harsh, dry, bitter place, lonely as a dream. But I like it. I know I could live here if I wanted to, if I had to." Then, finally, with Nevada Barr's Anna Pigeon, the ranger from *The Track of the Cat*, which I know is probably not everybody's favorite book. But there is a marvelous scene in that book when Anna finds herself on horseback taking water to Pentecostals marching for Jesus to the top of Guadalupe Peak. Of course, they are unprepared; there are pregnant women; there are people who are too overweight to be able to make the trip; they don't have enough water per person. Yet here they are streaming up the side of the mountain by the thousands in the hot, late-spring sun. They are recklessly endangering themselves, and it's the ranger's job to make sure their danger is not too real. I think encapsulated in those two little vignettes are two futures, the two intertwined and largely inseparable futures of Guadalupe Mountains National Park.

Chapter 2

A New National Park: Research Needs and Challenges in the 1970s

DONALD A. DAYTON is a resource consultant. He retired from the National Park Service after 35 years. He was the superintendent of Guadalupe Mountains National Park from 1972–1981.

Welcome to the Guadalupe Mountains Symposium. It is almost like a reunion for me with all the faces that I recognize from the 1970s. My 10-year association with this park was one of the most enjoyable and fulfilling of my 35-year career with the National Park Service.

For better or for worse, the new national park authorized at Guadalupe Mountains was born at the time of controversy and upheaval within the research discipline of the National Park Service. Historically, research had played only a minor role in the functions of the National Park Service prior to the 1960s. In fact some early administrators of the agency, as well as congressional committees, were openly hostile to the need for basic research in the National Park Service.

It was not until Director Hartzog's assumption of office in 1964 that research began to gain recognition. Even then, Director Hartzog had to substitute the designation "resource studies" for "research" and disguise the program in budget requests to get a reluctant congress to appropriate significant funds. However, with recognition and significant funding finally achieved, controversy erupted on who should direct the work of park scientists. This wavered back and forth for several years. Director Hartzog initially placed all research and supervision of the scientists in the National Park Service under the chief scientist in the Washington Office. A division of Natural Science Studies under the director was created.

Centralized management of the National Park Service science program began to fade in 1969 when Hartzog removed the program from under his direct supervision and buried it in a cluster of eight divisions in the Washington Office. Then in 1971 shortly before Guadalupe Mountains National Park was formally established, Hartzog transferred Washington Office staff scientists to regional offices, some to serve as regional chief scientists reporting to the regional directors. This may have been fostered by a perceived need to de-emphasize pure research in favor of research that met resource management needs. The development of the Resource Management Plan program for all field areas was getting under way and with it came the realization of the need for developing large amounts of basic resource data as a foundation for the plans. One issue that developed at Carlsbad Caverns National Park a couple of years earlier may have helped to influence this change. The resident biologist under the direction of the Washington Office chief scientist took deer specimens for research purposes at Carlsbad Caverns National Park in direct defiance of New Mexico requirements for state issued collecting permits. The issue went into court and ultimately to the secretary of the interior. While the court decision confirmed the authority of the federal government in collecting specimens inside federal areas, the secretary nevertheless mandated that henceforth, the National Park Service would cooperate with state agencies in the taking of large mammal specimens for research purposes. The fallout from this created some problems for the Service.

Guadalupe Mountains was born at the time of controversy and upheaval within the research discipline of the National Park Service.

Scientific research in the early years of the National Park Service was minimal.

With the decentralization of the Service's research program, pressures began to mount. The role of the park superintendent increased. While biologists stationed at parks were under the technical supervision of the regional chief scientist, administrative direction came from park superintendents. It took considerable cooperation between the regional chief scientist, park superintendents, and field biologists to make this type of organization work. Success varied from park to park and with the attitudes of the personnel involved. As the first superintendent of the new Guadalupe Mountains National Park, I had the good fortune of having previously been employed as a research parasitologist at the U.S. Department of Agriculture Research Center at Beltsville, Maryland early in my career. As a park manager, this gave me the perspective of looking at issues from the standpoint of a former researcher as well as a manager. Unfortunately, not many superintendents had this advantage.

Having arrived at Carlsbad Caverns National Park in 1971 when the park biologist was still directly under the Washington Office and then being able to compare this experience with the later organization proved to be beneficial. With the reorganization, superintendents were closely involved with the regional chief scientist and field biologists in the coordination of research planning with resource management planning. I recognized the great benefits available in basic research data inventories serving as a valuable tool in developing a complex resource management plan for the new park. Fortunately, Guadalupe Mountains National Park came on line just as the Servicewide emphasis began to be focused on research as well as resource management planning. Regional Scientist Roland Wauer was instrumental in setting up an excellent research program for developing a comprehensive basic resource data inventory plan and cooperatively we were able to get it funded at the rate of $25,000 per year initially for five years. This was later extended. While not a big sum today, it was significant in the early 1970s when research and resource management were just coming into their own. This funded project came at a critical time, and we looked forward to it. Through a contract with Texas Tech University, Ro Wauer was able to get a cadre of highly talented scientists to tackle this ambitious research project. Disciplines deemed to be of top research priority for this project included:

1. Inventory of flora
2. Fire ecology
3. Inventory of fauna
4. Climatological data
5. Inventory of significant geological features
6. Vegetative analysis
7. Faunal factors
8. Data analysis
9. Human intrusion on the ecosystem
10. Soils inventory and analysis
11. Water resource analysis
12. Inventory of microorganisms
13. Ecosystem analysis

The association with these enthusiastic research professionals proved to be one of the more enjoyable parts of my management experience in these early days of the new park. Coordination and cooperation between all parties was excellent.

The arrival of Dr. Gary Ahlstrand as the staff biologist for both Carlsbad Caverns and Guadalupe Mountains was a tremendous asset. He was able to work well with the contract research program and provided much to the great success of the project. He later went to Texas Tech to head up the first CPSU by the Service at that location.

Guadalupe Mountains National Park was probably one of the few new national parks to benefit from such a comprehensive basic resource data inventory in those days and it fell right in sync with the other park planning taking place. It proved to be of immense value in developing the Resource Management Plan, Wilderness Plan, General Management Plan, later Master Plan, Interpretive Plan, Resource Protection Plan, and Development Concept Plans for the new park.

As stated previously, scientific research in the early years of the National Park Service was minimal. Probably some of the earliest research efforts in the Guadalupe Mountains area took place in the late 1920s, when J. Stokely Ligon, a biologist with the U.S. Biological Survey spent two years doing a wildlife survey of the Guadalupes for the State of New Mexico. In 1931, Ben Thompson of the National Park Service and George Wright of the University of California conducted a preliminary wildlife survey and reported on the unique wildlife resources of the Guadalupe Mountains.

October 15, 1966, was a momentous occasion for the Guadalupes of West Texas. With the signature of President Johnson on legislation authorizing Guadalupe Mountains National Park, 32 years of effort by many people in Texas, New Mexico, and the National Park Service came to fruition. However, this was only a step in the process required to create a new national park. It was not until September 30, 1972, after the mineral rights and land acquisition requirements had been met that the new national park was formally established by Federal Register notice.

As a park project under the administration of Carlsbad Caverns National Park from 1967 to 1972, the area received only minimal caretaker staffing and protection. With the formal establishment in 1972, a new park was born and visitors began coming. As superintendent at Carlsbad Caverns, I was given the additional duty of superintendent of this new national park. Initially relying largely on the staff at Carlsbad Caverns, a new organization for joint operation of the two parks was established and headquartered in the town of Carlsbad.

Recognizing that the new park was not only of national geological significance but equally of great ecological and historical importance, the need for many research studies and investigations became critical. Unfortunately, until the park was formally established, significant funding for anything other than land acquisition was hard to come by. Suddenly, we had a new park with fragile ecosystems and little research data with which to develop a Resource Management Plan. To compound the problem, the area was not pristine but had been subject to years of grazing by domestic goats. Fortunately, it had been owned for many years by people with a feel for the environment. Both J. C. Hunter Jr. and Wallace Pratt had preservation utmost in their minds as they ranched the mountainous terrain. Nevertheless, heavy grazing of the high country, the westside desert, and the Dog Canyon area over many years took its toll on the ecology of the area. The accumulation of domestic goat manure in the Bowl area of the high country contributed to an unnatural buildup of a grass and brush understory beneath the relict forest. A tremendous fire potential existed. Without research in fire ecology, particularly in the Bowl and the relict forest area, it was almost impossible to plan a fire management program.

Unfortunately, some of the private land to the north and west of the park boundaries had been heavily grazed—down to bare rock in many places. Huge erosion gullies were prevalent. Some of this erosion extended into the Dog Canyon area of the park. Livestock trespass into portions of the new park was a severe problem. Consequently, one of the priority projects early on was to obtain funding for boundary fencing on the north and west boundaries. Five years later, the comparison of vegetative growth from one side of the fence line to the other was very significant.

Fortunately, the McKittrick Canyon area, one of the most ecologically fragile areas of the park, escaped much grazing activity in the early days because of the rough terrain. Even the reintroduced elk population had been fenced off from a portion of McKittrick Canyon by the early owners. The floor of McKittrick Canyon itself had been available to motorized vehicle travel as far as the Hunter Lodge in the upper canyon. For many years the owners invited overnight guests into the area. Upon acquisition, the Hunter Lodge was removed before it reached historical status. Fortunately, in 1968 a major flood wiped out part of the

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road into the Canyon. This provided the impetus to permanently discontinue public vehicle use of this road. The relict forest of the high country, and accompanying plant associations, needed much study in order to properly manage and interpret this valuable resource.

The Pine Springs-Frijole Ranch area also had received significant grazing over the years. With protection, it has gradually recovered. The west-side low desert land of the park in particular had received very heavy grazing over the years. Because of substantially less rainfall than other parts of the park, this area has been very slow to recover.

Fortunately, some advance knowledge of the ecology of McKittrick Canyon existed because of the extensive and valuable studies by Dr. Barton Warnock of Sul Ross College in the years prior to and during the park authorization period. However, in order to obtain additional knowledge of the interaction of periodic natural flooding of the canyon and natural plant succession, much more needed to be done. This periodic flooding and intervening reestablishment of the travertine seal of the stream bed needed research studies to further identify the effects on the ecology of plant species in the canyon bed and along the canyon walls. It was also crucial for later planning to determine the extent and type of public use that could be permitted in the canyon.

The reintroduction of elk by early owners of the property created management problems for the new park, particularly after the artificial water supply in the high country was removed.

Geology was probably one aspect of resource studies that received the most research prior to the establishment of the park. However, this was concentrated almost entirely on geology related to oil exploration and was carried out by various oil exploration companies trying to find significant oil reserves in the reef formation. These companies were very cooperative in sharing data after the park was authorized. The Guadalupes were also used as a training ground for student oil geologists. Cave resources in the fossil reef had essentially not been inventoried prior to the park establishment. Previous landowners took a dim view of spelunkers and generally prohibited cave exploration. The National Speleological Society and National Park Service cave specialists began extensive studies of the karst resources after the park was established.

Outside of the development and utilization of small springs during ranching days, practically no research had been done on water resources or the watershed of the park. With the semi-desert climate existing in much of the park, knowledge of the water resources was critical in order to properly plan for management of the park. It was essential that utilization of water resources for park facility developments be very limited and selective to cause the least damage to the resource. A very low flow spring at Dog Canyon barely provided for the previous ranch employee residence. The Pine Spring originally with a moderate flow, was almost destroyed when early ranchers tried to increase the flow by the use of dynamite. Frijole Spring was one of the few with a significant flow. The Williams Ranch area on the west-side lowland did have some water. Little was known of climate and watershed effects on the plant ecology. Research was needed. When the land for the park was acquired, it came with an extensive network of old pipes, pumps, and reservoirs distributed over the Bowl area of the high country. An earthen tank had been constructed to store water. This network provided water to large herds of goats that grazed the area. It also provided an unnatural water source for wildlife in the high country, including elk. Research was needed to determine what the wildlife distribution should be without this unnatural water source.

As mentioned earlier, the wildlife resources of the Guadalupes received some of the earliest research attention. The reintroduction of elk by early owners of the property created management problems for the new park, particularly after the artificial water supply in the high country was removed. The deer population and their distribution needed study. The mountain lion population in the northern part of the park and the predator-prey relationships needed further study. The peregrine falcon known to nest in the park needed

significant research to determine causes of population decline. Wild turkey was known to exist in the high country as a result of reintroduction years earlier. A non-native species of trout had been introduced into waters of McKittrick Canyon. The black bear was beginning to make a comeback. University researchers from New Mexico, Texas, and Arizona, and other states joined in accumulating valuable resource data on the fauna of the new park.

In the early efforts for the creation of a park in the Guadalupes, little attention was given to the historical and cultural significance of the area. The remains of the old Butterfield Stage Station at Pine Springs were about the only historical artifacts to receive much recognition. However, early on, rich historical and cultural resources were discovered. Unfortunately, little research on the history of the Guadalupes had ever been performed, and management had little data to use. The importance of research in this field was recognized. There was early Indian history, Spanish involvement, the U.S. Cavalry, early-day ranching history, impacts of the California Gold Rush, the early settling of the West, and the tales of lost treasure—all fascinating elements that needed research.

The availability and emphasis of a comprehensive, basic-data research program early in the planning stages of the new park was of tremendous importance in developing management plans. It was hoped that those plans would protect and preserve the unique and fragile resources in the years to come, as well as providing an interpretive base to make visits by the public more enjoyable.

I want to extend my thanks and gratitude to all the great scientific talent that contributed so much to the knowledge of the natural, historical, and cultural resources in those critical years of the new park.

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Chapter 3

Stewards of the Land: The Role of Discovery, Science, and Research

JANICE A. WOBBENHORST has been with the National Park Service for 27 years and at Guadalupe Mountains National Park for the past 10 years. She is the chief of resource management and visitor protection for the park. Her duties include the overall management, coordination, and supervision of the natural and cultural resource management program. She has a Master's degree in environmental affairs.

We're here today to talk about something that is really special to all of us—the Guadalupe Mountains, a very special place. I'd like all of you to think for a minute about your first experience in the Guadalupes—the first time you went there, or some special time when you were in the Guadalupes that has a meaning for you and a memory for you. When I first got back to Guadalupe Mountains in 1988, I told the staff I had a very special and fond memory of the Guadalupes. I told them the story I'm going to tell you now.

I'm a flatlander out of Nebraska. I grew up in northeast Nebraska and I started working for Carlsbad Caverns in 1970. Every day, I'd look out the window from the Caverns toward the Guadalupe Mountains and there was this big peak there. Finally, in 1971, I had the opportunity to go down and climb that mountain. From a flatlander's point of view, I'd never been in the mountains. I don't know that I'd ever seen one before I saw the Guadalupes. There weren't many trails in those days. I climbed to the top of Guadalupe Peak, the highest point in Texas, and stood there just overwhelmed. I opened up the trail register at the top of the peak, and there in the trail register, somebody had written, "How high are we? I think I hear angels." You know for me, that summarized the feeling I had that day with that absolutely awe-inspiring view from the top of our "island in the sky" and with that desert surrounding where you can see for miles. I bet every one of you have had an experience over the years like that, which has stuck with you and made you come back to the Guadalupes.

Our theme for today's conference is stewardship. We're talking about 25 years of cultural and natural resource stewardship in the park. I'd like to look back at stewardship and the role of resource management—explorers and discoverers—those people that have come to the park over the years. I want to go back quite a ways as I talk about that. Let me first talk about the definition of stewardship. What do we mean by stewardship? Webster says that stewardship is [the practice of] somebody who takes care of something, somebody who manages affairs. From the National Park Service point of view that means that we preserve and protect that resource for future generations while we allow people to come use it.

I climbed to the top of Guadalupe Peak, the highest point in Texas, and stood there just overwhelmed.

So what does that mean about the people that were here in the past? I'm sure that the Mescalero Apache, when they were living here, utilized and occupied the resource, and they thought they were pretty good stewards. Likewise, the ranchers, when they were here, were taking care of the land from their perspective and they were pretty good stewards. Now it's our job—yours and mine—as the current-day people involved in the park to take care of this resource and be stewards.

I'd like to look back at the people who have come to the park: those people on whom we found our research today. The first known writings on the park were

from 1692—we've just discovered this. Don Diego de Vargas was governor of Mexico at the time and he got a group of people together—they came from El Paso to the salt flats—to harvest salt. We are fortunate because the Vargas Project at the University of New Mexico has been translating some of his early journals. He describes the journey to the salt flats and then he describes a side journey they took into a beautiful canyon. He describes the vegetation and the spring in the canyon and he describes a juniper tree next to that spring to such detail that some people think we even know which juniper tree it was in Guadalupe Canyon today. Those early records give us such valuable information that we can base our research on [them] today, and base management decisions on what the park was like in the past.

It was kind of like a mecca for all of these geologists.

The next group of people in the park of which we have records came in the 1850s. In 1850, Marcy led an expedition into the Guadalupe Mountains and he talked about the lush vegetation: the grama grasses growing everywhere. And then in 1855, Captain John Pope came to the Guadalupe Mountains. He brought with him a keystone figure, George G. Shumard. He [Shumard] was a physician for that military group. He was a doctor but he was also a geologist. We have a copy of his journal, published in 1886—published after the war. He talks about leaving San Antonio on April 16, 1855, and he arrived at Guadalupe Pass on September 27—quite a journey! He was probably the first geologist to really look at the Guadalupes and study them, and he is the first geologist that we know of that collected fossils in Pine Spring Canyon during that expedition. His journals give us all kinds of incredible information about the Guadalupes. Shumard Peak, of course, is named after George Shumard.

Other people came through the area like John Russell Bartlett when he was doing the boundary survey. The Butterfield Stagecoach came through from September of 1858 to August of 1859. Bartlett described his trip as he rode through the pass, "winding and turning in every direction, we follow the intricacies of Guadalupe Pass. Before us stood the majestic bluff in all its grandeur—solitary and alone." All of these people give us a rich heritage and all kinds of information of what the mountain was like in those days.

I'm going to jump a few years to 1905. In that year we had the publication by Vernon Bailey, with which many of you are familiar. He was a biologist doing the initial biological surveys for the state of Texas. He came into the Guadalupe Mountains and wrote about the bighorn sheep in Pine Spring Canyon – something we don't have today. Again, this is valuable information that tells us a little bit about what the Guadalupe Mountains were like back then. All of those people from that early period give us references to help us manage the resource today.

Since the early 1900s we've had lots of people do research. In the early years, what is now the park was private land, so not much archaeological work got done, but a little bit of biological work got done. People like Davis and Robertson came in. In 1940, they did a mammal survey of Texas and Culberson County. That's valuable information for us today. But the geologists—they're the ones who really came to the park. It was kind of like a mecca for all these geologists. What I would like to know is: when was the very first geological field trip to the Guadalupe Mountains? I don't mean to Carlsbad Caverns; I'm talking about the Guadalupe Mountains. To be honest, I'm not really sure if I've found a definitive answer. But I can tell you that there was a field trip in 1947 by the West Texas Geological Society, and they published a field trip guide book for that field trip. But I also found reference to an earlier one: Philip B. King visited the Guadalupe Mountains on a field trip in 1932. This gives you an idea of how many years people have been going and studying geology at the Guadalupes. Even though it was private land, those geologists were down there exploring, looking, and doing research in the park.

Then came the 1960s and the 1970s. As the park was created a lot of research was done in the park—the initial inventory. This inventory was done primarily by a large group of people from Texas Tech. The National Park Service had a CPSU, a Cooperative Park Studies Unit, with Texas Tech. That facilitated a cooperative relationship between the park and the university. There were all kinds of people from Texas Tech that came to the park and did research. Twenty-three years ago this month, they had a symposium up in Lubbock at Texas Tech on the biological investigations that were being done. They produced this book, *Biological Investigations in the Guadalupe Mountains National Park, Texas*. It's been out of print for a long time. So today, we have it on sale, reprinted specially for the conference today. We're really proud to be able to put this back on the shelves and provide people with this information, because all those people that did that original biological work in the park are referenced in this book. But it wasn't just them, it was people like the Katzes—all kinds of people doing work in the initial inventory.

Now, what does that mean for us today? We, today, are trying to do the resource stewardship in the park.
We're doing the research, we're looking at the resource and providing management with the information that management needs to guide us into the next century. What is our role? It's to find that balance. We talked about the balance between visitors and the park. There's also a balance between people doing research and collecting in the park and providing the information. In our quest to find information and answer resource management questions, [that is] to have enough information to provide us the detailed information we need to make management decisions, we've also got to look at [researchers] cooperating with us to make sure that we preserve the resource.

I'd like to give you an example from when I worked at Bandelier National Monument. One of the special things that I remember about Bandelier is there was this one little mesa top called Tsankawi. You hiked up the trails to this little mesa top. The ground was covered with pot shards, lithic scatter, and little pieces of obsidian everywhere. In 1974 when I walked up there, you couldn't put your foot on the ground without stepping on a pot shard. That's how prevalent they were. In 1995, I went back - 20 years later.
Now when you stand on top of the mesa at Tsankawi, you have to look hard to see a pot shard. What happened to all of them? All the visitors—thousands of people that visited the park—said, "Oh, I'll just take one little tiny piece. If I take one little tiny piece and slip it into my pocket, nobody will notice it; nobody will miss it." And so after 20 years, impact on the resource has been incredible.

That's our challenge in managing our resource. The National Environmental Policy Act (NEPA) says that we need to consider cumulative impacts of everything we do. So we have to think about all the research, and all the collecting, and the information that we gather. And as we go out and seek information in our quest for gathering information about the park, we also have to remember that our ultimate goal is to preserve and protect this park, and to be good stewards of the land for the next century.