

*Crowning the Queen of the Sonoran Desert:
Tucson and Saguaro National Park*

An Administrative History

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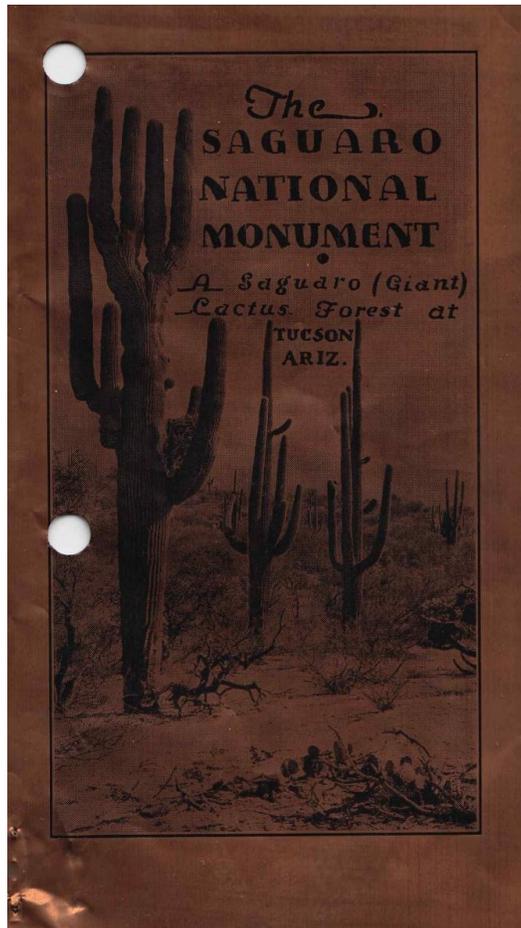


Figure 1. Copper Pamphlet produced by Tucson Chamber of Commerce, SAGU257, Box 1, Folder 11, WACC.

“In a canon near the deserted mission of Cocospera, Cereus giganteus was first met with. The first specimen brought the whole party to a halt. Standing alone upon a rocky projection, it rose in a single unbranched column to the height of some thirty feet, and formed a sight which seemed almost worth the journey to behold. Advancing into the canon, specimens became more numerous, until at length the whole vegetation was, in places, made up of this and other Cactaceae. Description can convey no adequate idea of this singular vegetation, at once so grand and dreary. The Opuntia arborescens and Cereus Thurberi, which had before been regarded with wonder, now seemed insignificant in comparison with the giant Cactus which towered far above.” George Thurber, 1855, Boundary Commission Report.¹

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¹ Asa Gray, “Plantae Novae Thurberianae: The Characters of Some New Genera and Species of Plants in a Collection Made by George Thurber, Esq., of the Late Mexican Boundary

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Introduction

Crowning the Queen of the Desert



Figure 2. Homer LeRoy Shantz in the University Cactus Forest, 1930, UAIr.

The Question of Social Value and Intrinsically Valuable Landscapes

Some western national park landscapes rose to national prominence because of obvious aesthetic qualities of beauty or grandeur; other areas were set aside for their exceptional contributions to science or history. The volcanic pools of Yellowstone fascinated and the soaring cliffs and plunging falls of Yosemite wowed nineteenth-century visitors. Consider, as well, the Grand Canyon's layered, immense depth and its revelation of the earth's antiquity, Mt. Rainier's symmetry, Mt. McKinley's remote splendor, Zion's flying canyons. These are landscapes at once other-worldly and also symbolic of America as exceptional: a blessed people in an exceptional

landscape.² In a similar fashion to other parks, Saguaro National Park (SNP) has the evocative language of exceptional nature embedded into its creation story:

Nowhere in the world is there so fine a stand of the giant sahuaro (*Carnegiea gigantea*) as in the area included in the University Cactus Forest. Here the plants rise so close together that at times it is difficult to see through them for any great distance.³

Homer LeRoy Shantz, pictured above in the Rincon District, a botanist and President of the University of Arizona from 1928 to 1936, wrote these words to convince his Board of Regents that the place had natural features worth preserving. Shantz was an expert in arid lands and his audience was receptive to making the link between saguaro cacti with Arizona, and by extension, offering to the American nation, a space preserving Arizona's most iconic flora. They were receptive because they had, since Americans encountered the Sonoran Desert's giant cactus in the mid-nineteenth century, gained the symbolic power to evoke Arizona. Shantz also knew his audience when he associated Tucson with a cactus forest. For a quarter century, American Tucson had embraced a desert aesthetic as symbolic of its place in the Sonoran Desert and its history as a Sonoran America town. In 1908, William Hornaday named Tucson the "Queen City of Cactus Land."⁴ What struck the eastern conservationist most was the relative lush palo verde-saguaro desert. In particular, saguaro cacti dominated the *piedmont/ bajada* of the Santa Catalina and Tucson Mountains. Likewise, scientists looking for a desert laboratory, chose Tucson as a central hub linking desert with metropolis. The future sites of Saguaro National Park, the *bajadas*

² For a recent interpretation of the National Parks as central to American democracy see the Ken Burns documentary *The National Parks: America's Best Idea*. This synthetic work captures major themes in linking American democracy and society to nature.

³ H. L. Shantz, "Description," September 20, 1929 University of Arizona Board of Regents meeting in Ben H. Thompson, "Concerning the Boundaries of Saguaro National Monument," April 23, 1945, RG79, E10, Box 2365, Folder 602, NARA II.

⁴ William Temple Hornaday, *Campfires on Desert and Lava* (New York: Charles Scribner's Sons, 1908), 14.

surrounding the city, were the crowning jewels of Tucson's saguaro lands. Placing a National Monument on these lands made a claim on the American nation: Here are the best local landscapes that exemplify a distinct natural landscape to add to America's National Park geography.

We should pause here and think about how we commemorate this iteration of the creation story since the area's exceptionally dense cacti seem to indicate a natural destiny of protected spaces—university science preserve, state park, national monument, national park, designated wilderness. There is no doubt that the dense stand of saguaro struck an aesthetic cord in Americans bent on preserving the place. Botanists and ecologists like Shantz could read the deep time and the complexity of the saguaro forest as precious, enduring, and worth saving. Other visitors could simply enjoy the desert flowers, the strange twisting plants, and, if from out of town, the alien heat and glare of the desert. Focusing too closely on the area's exceptional features, however, makes the process seem inevitable and Saguaro National Park's creation destiny. Nature matters in the history of Saguaro National Park (SNP), but so also do the social networks of supporters, and the compromises and conflicts between people who supported or decried the monument. Many Americans could both marvel at the cacti and yet resist the idea of a national monument. Their appreciation would not have led to a national monument. What we lose if we believe that all people value landscapes in the same way is a sense of the area as a deeply cultural place, laden with aesthetic values and social meaning. Saguaro was a site of struggle and of alternative dreams and narrative trajectories. A narrative of exceptional nature could lead us to forget that nature has many meanings and uses in American life. Hetch Hetchy and Glen Canyon famously remind us that soaring rock canyons make good dam sites while,

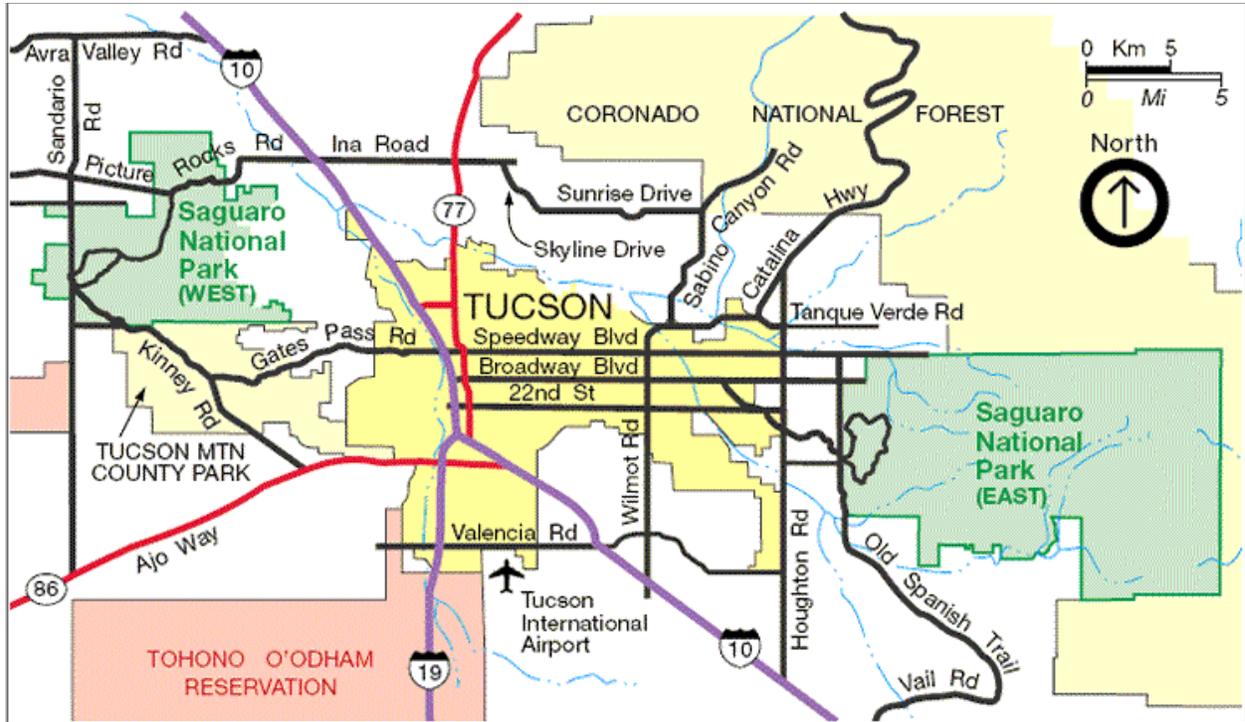
mighty forests remind us that towering trees built forestry empires and suburbs, as well as sacred groves.

Like many other national lands, the creation of Saguaro National Park faced legal and political debate for decades. Advocates had to compromise on crucial land use issues to achieve their goals, and the Park continues to face significant challenges today: policing park use, air pollution, falling ground water, private land, feral animals, climate change, shifting animal and plant populations, invasive species, the list goes on. Yet, the initial image for the monument, an integrated desert area “ranging from the desert floor to the top of one of the mountains” held because the position had both natural and social merit.⁵ Its natural merit is captured in the descriptive term ‘sky island;’ its social value is multifaceted. Saguaro is a recreational open space, a source of local pride, and a vast laboratory for science. In effect, if we focus too closely on exceptional natural attributes we mask the human histories that also make places important. We might forget that the process of creation is as instructive as the accomplished fact.

Those who study the formation of National Parks and Monuments know there are many pathways to their establishment. Private landowners, local activists, National Park Service land hunters, national politicians, or other advocates work to create these places. Saguaro’s history is no exception. Local conservationists propelled the creation of the monument. National politicians, with local ties, acted decisively in 1933 and 1961 to proclaim the Rincon Mountain and Tucson Mountain Units respectively. The National Park Service (NPS) controlled New Deal and Mission 66 money to develop the interpretive infrastructure. NPS managers compromised with grazing permit holders to maintain control of the Rincon District. Environmentalists pushed for wilderness designation. Advocates of slow growth supported wilderness. Many of these

⁵Homer Shantz to John E. Harrison, December 18, 1930, John Harrison Papers, AZ170, Special Collections, University of Arizona Library, Tucson (hereafter UASC).

episodes had countervailing voices protesting against the Park. Cattlemen wanted the NPS out and the monument reduced; developers wanted to sell suburban ranch homes in the cactus forest and slopes of the Tucson Mountains; national and state politicians advocated mining, ranching, or other extractive uses for both districts; some locals and NPS officials advocated for a road up the Tanque Verde Ridge. The present shape of SNP is not destiny; it reflects decision.



Map 1. Present-day map of Saguaro National Park, Arizona.

Today, SNP occupies two districts covering large portions of mountain ranges surrounding the city of Tucson: the Rincon Mountain Unit (RMU) on the east and the Tucson Mountain Unit (TMU) to the city's west, southwest. Physically, the two sections are quite different. The Rincon district ranges from 2,670 to 8,666 feet. It contains six biotic zones with forests crowning the upper slopes. Contiguous with a section of the Coronado National Forest, this eastern district is part of a large and expansive sky island. The TMU, ranging from 2,180 to 4,687, contains two biotic zones. It is now an island within the city. In common, the districts contain desert thorn scrub, desert grassland, and Saguaro forests. At its higher elevations, the

Rincon district has Oak woodland, pine-oak woodland, pine forest, and a mixed conifer forest at successively higher elevations. It is a sky island in the basin and range country.

The creation of this two district landscape involved a decades-long process during which the city, nation, National Park Service, and park system became vastly more complex. The New Deal of the 1930s and Mission 66 (1956-68) development pushed SNP into existence as a modern national park with visitor infrastructure. Scientific explanations of the Sonoran Desert and sky islands provided evolving scientific justification and popular metaphors for the park's natural value to American society. The history of Saguaro National Park embodies these changes in a 20th-century story reflecting the elaboration of desert science, population growth, development of the Southwest, the growth of the NPS into a fully functional bureaucracy, the growth of the National Park system, the popularization of conservation politics, and the growth of American prosperity. This history brushes up against these larger trends.

Two Districts with a Shared History

The districts followed different trajectories to National Park status yet shared commonalities. Local politics mattered in both cases. Tucson conservationists first viewed the Rincon District as a potential national monument in the 1920s. Likewise, some of the same individuals supported the creation of Pima County's Tucson Mountain Park (1929). This 1920s local concern for conservation represents a period of time when local people were able to link themselves to the landscape through the merger of natural science and civic concerns. A handful of Tucsonans pushed through the creation of the Rincon District as a national monument administered by the Agriculture Department's Forest Service in March 1933. The result was today's Rincon Mountain District. Local politics also account for the Mountain District. Its heart

became a Pima County Park in 1929. The National Monument, proclaimed 1961, overlaid the northern portion of this park.

Federal and local politics also mattered in both places. President Herbert Hoover, empowered by the Antiquities Act, proclaimed the Rincon District in 1933; President John F. Kennedy utilized the Antiquities Act to proclaim the Tucson Mountain District in 1961. Local politicians utilized their clout at the national level in both cases. Frank Harris Hitchcock, crucial to establishing the Rincon District, was a leading Republican operative and President William Howard Taft's Post Master General from 1908-1911. He was Arizona's Republican national committeeman at the 1932 convention that elected Herbert Hoover.⁶ Hitchcock shepherded the proclamation through the Hoover Administration. Likewise, President Kennedy's Secretary of Interior Stewart Udall, three-term Representative from Arizona's Second District, and longtime Tucsonan, spearheaded the effort to proclaim the Mountain District amid popular support.

Federal money developed the visitor infrastructure. President Franklin Roosevelt's New Deal policies provided the money and labor to develop both the Rincon District and Tucson Mountain Park in the 1930s. Likewise, both units received money from the NPS's Mission 66 program. Initiated to modernize the NPS facilities in 1955, Mission 66 money was the last big building effort in SNP and proclamation of the Tucson District allowed the district to receive funding for the Red Hills Visitor Center (originally completed 1968).

Tucson's growth played a prominent role in pushing the creation of both monuments. Urban development impinged on both districts. In the 1930s and 1940s concern over the fast

⁶ Robert S. La Forte, "Frank Harris Hitchcock," *American National Biography Online*, <http://www.anb.org.ezproxy1.library.arizona.edu/articles/06/06-00281.html?a=1&f=Hitchcock,%20Frank&g=m&ia=-at&ib=-bib&d=10&ss=0&q=1>, January 24, 2011.

approaching urban development into the Santa Catalina foothills echoed alarms over growth into the Tucson Mountains in the 1920s. The growth of Tucson was always a motivator for protecting the districts.

Finally, the dates of establishment (1933, 1961) hide an important point: while 1933 marks the official proclamation of the Rincon District, the NPS only gained legal control of the cactus forest through land deals dating from 1951-1976, during the same post-war era as the creation of the TMU. Similarly, while 1961 marks the establishment of the Tucson Mountain Unit, its core preservation moment dates from 1929. Thus, the districts shared in the common watershed eras of civic park building and the emerging environmental movement. That receptive climate of public support for ‘environment’ led to deeper integration between Tucson and its parks.

Once described as the Queen City of the Desert, post-World War II Tucson became both creator and destroyer of the Sonoran Desert. In many ways, the city became synonymous with Pima County, drawing on the resources of the county and projecting its needs and ideals upon the surrounding county. Its growth, with attendant problems of pollution, habitat destruction, declining water table, and the myriad impacts created by a metropolis, also furthered big conservation thinking. Perhaps the most obvious example is integration among Pima County’s Sonoran Desert Conservation Plan, SNP, private groups, and other federal agencies. The plan’s big integrative ideas utilize links between places like Saguaro National Park and smaller habitats on the desert floor to broadcast conservation over the entire suite of Southern Arizona’s biomes.

Saguaro National Park is a reflection and creation of 20th-century American politics. It is a natural jewel in Tucson’s desert crown. As Tucson and America grew so too did the SNP, and the conservation mission behind it.

Chapter 1

Uncertain Pathways to Saguaro National Monument, 1911-1933



Figure 3. Amid the University Cactus Forest. Homer Shantz, 1933, UAIr.

To allow this area to pass to private ownership and to allow these great plants to be destroyed or shipped and sold would not only be a calamity to Arizona but to the nation and to science as well. Unfortunately, the area had already been homesteaded, but the vegetation still remains in its virgin state. Many people have been interested and have contributed to the preservation of this area...No finer natural area can be found—but an area that must be protected or it will soon be destroyed. Homer Shantz⁷

Saguaros and the Sonoran Desert

A Forest of Saguaros

Walk around Tucson and saguaro cacti (*Carnegiea gigantea*) immediately capture your eyes; they are a dominant feature of the landscape. It is common to see a half dozen growing closely in a tight yard—a sight that led National Park Service Assistant Regional Director John Davis to speculate, in the midst of the city's post World War II growth, that Tucson yards were

⁷ Homer Shantz, "Description," September 20, 1929 in Ben Thompson, "Concerning the Boundaries of Saguaro National Monument," 1945, RG79, Entry 10, Box 2365, NARA II.

illicitly gaining untold numbers of saguaros from federal lands.⁸ Today, they decorate shopping malls, gas stations, trailer parks, and the natural landscaping of homes.⁹ Gathered from the surrounding hills or bought from plant nurseries, saguaros signify desert living in the Sonoran Desert. The desire to acquire, admire, and protect these distinctive cacti shaped the historical establishment of the present-day Saguaro National Park, and is captured in the name of the park itself.

Known by many appellations through the years—including its earlier designation as Saguaro National Monument—Saguaro National Park marks a landscape that has also changed (through legal designation, as experienced in relationship to the nearby city of Tucson, and in its ecology) during the twentieth century. In the first decades of the twentieth century, the dense stand of saguaro along the Tanque Verde Wash (Rincon District) was known as the Tanque Verde Cactus Forest to devotees of desert ecology, desert aesthetics, and conservationists. When, in 1929, the University of Arizona bought land for a scientific preserve, many began to call the area the University Cactus Forest. During the New Deal, when Shantz engaged Emergency Conservation Work designed for state and local conservation, he referred to the area as the Cactus Forest State Park. After 1933, the cactus forest became the visitor centerpiece of Saguaro

⁸ John Davis made the comment to NPS Director Newton Drury in the following context: “I am not fully convinced that grazing is as damaging to reproduction of young saguaros as it has been believed. Recently Superintendent King had found 12 very young saguaros which he had been showing to monument visitors. On a recent visit to observe these young plants it was found that they had been removed—no doubt by a Tucson resident who wanted them for his garden. The removal of young plants has beyond question been an important factor, perhaps more important than has been realized in the past, as Tucson had hundreds of saguaros and many of them must have come from the monument,” John M. Davis to Newton Drury, January 26, 1949, SAGU275, Box 4, Folder 3, Western Archeological and Conservation Center, National Park Service, Tucson, AZ (hereafter cited as WACC).

⁹ See Gregory McPherson and Renee A Haip, “Emerging Desert Landscape in Tucson,” *Geographical Review* 79, no. 4 (October 1989): 435-49.

National Monument, although it remained a tapestry of state and private land. Whatever the name, the landscape drew and impressed people.¹⁰

A cactus forest drew attention. In 1897, economic entomologist Henry G. Hubbard told a correspondent: “The entire mesa at the foot of the Sta. Catalina Mountains near Sabina canon, about 18 miles northeast of Tucson, is covered for miles and miles with immense giant cactus, in one unbroken army, as thick as mullein stalks in an eastern cattle pasture.”¹¹ Observers applied the designation cactus forest to certain locations where cacti grew close and dominant. The criteria were both scientific and aesthetic but lent an aura of exotic adventure. Imagine finding oneself bewildered in a forest of cactus. The idea resonated in American historical imagination: the forest as a scene of wilderness adventure.¹² At a certain visual tipping point, the increased density of the saguaro rose as if from the background noise of desert plants. Observers noted cactus forests composed of cholla (Jumping or chain fruit, *Cylindropuntia fulgida*, for example) and yucca forests of Joshua Trees (*Yucca brevifolia*), as well as saguaros. In the first decades of the twentieth century, saguaro forests of note existed near present day Florence (and the town of Cactus Forest), Sells, the Tucson Mountains, and, of course, the southern and western slopes of the Catalina and Rincon Mountains, as well as in many other locations. Those who traveled

¹⁰ As discussed in this paragraph, the present-day Saguaro National Park has undergone name and boundary changes over the years. Throughout this document, I will use the historically accurate name (whether Saguaro National Monument or Saguaro National Park) when discussing the specific history of the place. I will use Saguaro or SNP as the overarching terms to refer to the entire history of the place.

¹¹ H.G. Hubbard, letter from April 22, 1897, “Insect Fauna of the Giant Cactus of Arizona,” *Psyche* 8 (May 1899, supplement): 1-14.

¹² For some 19th- and early 20th-century observers, the cactus forest was not necessarily visually baffling. Its vegetation density compared readily to that of American eastern forests which Americans could recall in memory or through literature. The cactus forest, however, presented serious impediments to movement. Lieutenant William Emory, who led a military topographical unit through the terrain during the Mexican-American War, reported cutting a path through dense cholla to roll howitzers. Ross Calvin, ed. *Lieutenant Emory Reports* (Albuquerque: University of New Mexico Press, 1968).

widely in North American deserts knew these Arizona locations were outposts of the great cactus lands farther south, yet were impressive enough to deserve designation as a forest.¹³ Thus, the Tanque Verde Cactus Forest (TVCF) was among a handful of striking cacti forests in Arizona and a representation of the great tropical cactus forests found in Meso-America. And, as distinctive vegetation, saguaros became closely associated with the broader desert region that characterized southern Arizona and northern Sonora.



Figure 4. Well past the aesthetic tipping point, University Cactus Forest, Shantz 193, UAr.

¹³ For example see Daniel Trembley MacDougal, *Botanical Features of North American Deserts* (Washington, D.C.: Carnegie Institution of Washington, 1909); MacDougal points to Tehuacan in southern Mexico. In 1906, MacDougal believed: “the Cacaceae are more abundant here than in any other part of the world yet visited, several of the species being massive forms, which constitute very prominent features of the landscape,” 24. MacDougal included a picture of “a forest of *Pilocereus tetetzo*,” plate 21.

Discovering the Sonoran Desert

Today we routinely acknowledge the existence of an ecological region known as the Sonoran Desert. In large part, we owe this linguistic habit to the scientists working out of the Tucson-based Carnegie Desert Botanical Lab (DBL), as well as, other academic arid lands specialists. The Carnegie Institution of Washington, D.C., founded the lab in 1902 to study desert environments. It opened in 1903 half way up Tumamoc Hill, above the Santa Cruz River and overlooking Tucson. Dedicated to generating knowledge about arid lands, its research staff continued work until 1940.¹⁴ Among the extensive research projects DBL scientists undertook was the division and classification of North America's deserts.

The DBL refined earlier definitions of the Sonoran Desert and in the process reduced a less nuanced and more broadly defined life zone model proposed by Alexander Von Humboldt.¹⁵ His Sonoran Division was one among many names given to the desert Southwest and northern Mexico in the nineteenth century. Richard Brinsley Hinds called the region the "Chihuahua Region" in 1843. Hinds thought of the region as extending from the Gulf of California and Colorado on the west, to the United States prairies and Gulf of Mexico on the east and north. Over the next fifty years, scientists called the region different names: the Arizonian, New

¹⁴ William G. McGinnies, *Discovering the Desert* (Tucson: University of Arizona Press, 1981); Janice Bowers, *A Sense of Place: The Life and Work of Forrest Shreve* (Tucson: University of Arizona Press, 1988); Patricia Craig, *Centennial History of the Carnegie Institution of Washington, Volume IV, The Department of Plant Biology* (New York: Cambridge University Press, 2005).

¹⁵ Donald Worster, *Nature's Economy: A History of Ecological Ideas*, 2nd edition (New York: Cambridge University Press, 1994), 134. Worster writes: "The central concept of the *Geography of Plants* was that the plants of the world must not only be considered in their taxonomic relations but also grouped in relation to the geographic conditions in which they live. Humboldt called these groups 'divisions physiognomiques,' of which he identified fifteen general categories: there were groups dominated by palms, first, cacti, grasses, mosses, and so forth. Each major kind of community, in other worlds, was named after the species most responsible for its composite appearance. The effect of this procedure was to emphasize the visual patterns in vegetation, leading to a basically aesthetic approach to the 'ensembles' of nature."

Mexican, Cactus, Mexico-Californian, Aztec, Mexican Forest, North Mexico and Texas, Sonoran Transition, and Sonoran Province.¹⁶ The region also had culturally defined place names: New Mexico, Sonoran, Pimeria Alta, Papagueria. Sonoran Province was C. Hart Merriam's preferred term. His category was broad:

The Sonoran Region as a whole stretches across the continent from Atlantic to Pacific, covering nearly the whole country south of latitude 43° and reaching northward on the Great Plains and Great Basin to about latitude 48°... while to the southward it occupies the great interior basin of Mexico and extends into the tropics along the highlands of the interior. It covers also the peninsula of Lower California, the southern part of which seems entitled to rank as an independent subdivision.¹⁷

Merriam noted that within this bio-geographic division, one could differentiate between upper and lower Sonoran using temperature and also divide it into arid and humid categories by moisture. The humid lower Sonoran merged “insensibly” into the arid in the Oklahoma and Indian Territories and Texas.¹⁸ What others later thought of as the Sonoran Desert was, to Merriam, part of the arid Lower Sonoran.

During the early decades of the century, scientists reworked nineteenth-century descriptions of the various deserts. In 1908, Daniel MacDougal of the Carnegie Desert Botanical Lab described the Sonoran Desert as a region delineated on the west by the Colorado River delta, generally following the Gulf of California coast southeast and including the mountain ranges. He told readers: “accurate information concerning this region is, however, difficult to obtain.”¹⁹ That lacuna had led MacDougal to mount a famed expedition from Tucson to the Gulf of California.²⁰

¹⁶ C. Hart Merriam, “The Geographic Distribution of Life in North America with Special Reference to the Mammalia,” *Proceedings of the Bio. Soc. of Washington* 7 (April 1892): 1-64.

¹⁷ Merriam, “Geographic Distribution,” 26.

¹⁸ Merriam, “Geographic Distribution,” 28.

¹⁹ MacDougal, *Botanical Features*, 34.

²⁰ D. T. MacDougal, “Across Papagueria,” *Bul. Am. Geo. Soc.* 40, no. 12 (1908): 705-725; Hornaday, *Camp-fires on Desert and Lava*.

His exploration of ‘Papaguera’ (land of the Papago) or the “Pacific Coastal Desert,” mapped many of the mountain ranges yet yielded no coherent short-hand name for the region. In 1908, MacDougal placed Tucson at the “heart of the desert of Arizona,” but not explicitly within the Sonoran Desert.²¹ He was, however, firming up a more contemporary view through his travel and study. In 1912, MacDougal told readers that the Desert Lab was in a wide valley of the Sonoran Desert. His travels, based on so much borderlands and Mexico experience, allowed him to think across the international border. Like MacDougal, DBL researcher Forrest Shreve was also beginning to gather the observations and experience to define the Sonoran Desert. Although he would not publish the research until the 1940s, his publication reflected decades of intellectual toil and regional travel. In 1917, Shreve was calling the U.S portion of the Sonoran Desert “the Arizona Succulent Desert” and drawing distinctions between it and the California Microphyll Desert (Mojave) to the west and the Texas Succulent Desert (Chihuahua) to the east.²² Yet, in 1924, Shreve felt comfortable telling his readers that the well-known desert of southwestern Arizona “may well be termed the Sonoran Desert” since it extended from the Colorado Plateau on the north, Sierra Madre Occidental on the east, and the Colorado River and Gulf of California on the west and covered a portion of the Mexican State of Sonora and southern Arizona.²³ This definition remains in use today. Mark Dimmitt of the Arizona Sonoran Desert Museum describes the Sonoran Desert as covering roughly 100,000 square miles. It has six subdivisions, including Saguaro National Park’s Arizona Upland, and extending across the

²¹ MacDougal, *Botanical Features*, 44.

²² Bowers, *Sense of Place*, 74.

²³ Forest Shreve, “Across the Sonoran Desert,” *Bulletin of the Torrey Botanical Club* 51, no. 7 (July 1924): 283.

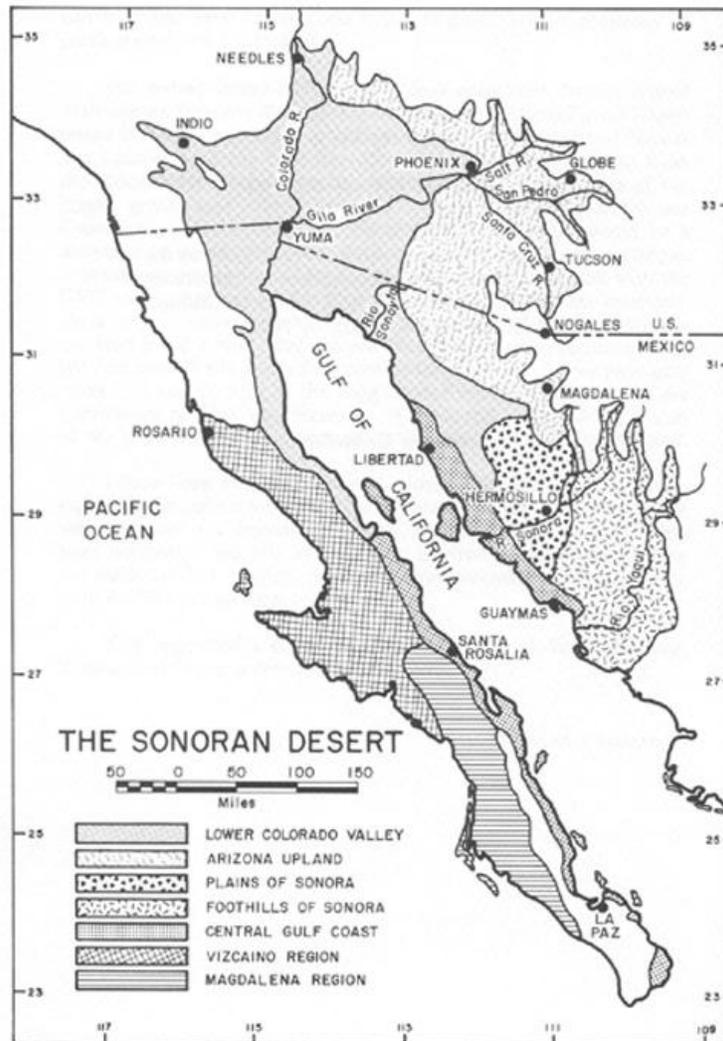
Colorado River to Indio and El Centro, and follows the shoreline along the Gulf of California to Guaymas Sonora on the east and down to La Paz, in Baja California Sur.²⁴

Among North American deserts, the Sonoran is notable for its luxuriant plant life. The Arizona Upland division that surrounds Tucson is also referred to as the saguaro-palo verde forest because of that verdancy. The comparative lush growth and, crucially, the ratio between rain and evaporation, led Dimmitt to tell his readers that they should not feel surprise if the area around Tucson loses its desert status someday.²⁵ The conservationist William Hornaday, visiting in 1908, insisted on calling the desert around Tucson the “arboreal desert” since so many plants towered over the land.²⁶ Of particular importance for our story is the biogeography of the saguaro since they are such a distinctive landscape feature that always impressed itself upon the landscape aesthetic.

²⁴ Mark A. Dimmitt, “Biomes & Communities of the Sonoran Desert Region,” in Steven J. Phillips and Patricia Wentworth Comus, *A Natural History of the Sonoran Desert* (Berkeley: University of California Press, 2000), 13-15.

²⁵ Dimmitt, “Biomes & Communities,” 16.

²⁶ Godfrey Sykes, *A Westerly Trend: Being a Veracious Chronicle of More than Sixty Years of Joyous Wanderings, Mainly in Search of Space and Sunshine* (Tucson: Arizona Pioneers Historical Society, 1944), 272.



Map 2. *The Sonoran Desert.*

University of Arizona. *Deserts of the World: The Sonoran Desert*, 2002.

<http://alic.arid.arizona.edu/sonoran/documents/mcginnies/mcginniesmap.html>

Carnegiea gigantean

The saguaro is one of a handful of giant columnar cacti in the Sonoran Desert. It is missing from the other major United States deserts yet distinctive of portions of the environment we call the Sonoran Desert. Like the Chihuahuan Desert's *Yucca elata* (soap tree yucca) and the Mojave's Joshua Tree (*Yucca breviflora*), the saguaro is a striking visual signal of a specific place. Generally, these columnar giants grow in tropical and sub-tropical environments. Other

large columnar cacti in the U.S. include the Organ Pipe Cactus (*Stenocereus thurberi*) and the Senita (*Lophocereus schottii*). Both occur in Organ Pipe Cactus National Monument, at the edge of Arizona's southern border.²⁷ The saguaro can grow into the tallest and most massive of these 'American' cacti. It is much more widespread in southern Arizona than other portions of its habitat. Before the common transplantation of the species, a few lived as a relic of changing river patterns on the California side of the Colorado River yet most lived in the Arizona Upland subdivision. They are thus highly distinctive natural feature of the southern part of the state. In a sense, the saguaro was a natural signifier telling people that they were in the Sonoran Desert.



Figure 5. John Russell Bartlett's 1857 drawing of Tucson

Saguaro show up as an obvious presence in correspondence from nineteenth-century travelers, explorers, and trappers writing to the American public. In his adventure tale of trapping

²⁷ At the beginning of the century, Arizona had a population of *Lophocereus schottii*, or Sina cacti. However, by 1930, Forrest Shreve worried that collectors had removed the few individual plants north of the border. This proved untrue. They are also found on the Tohono O'odham Reservation and in Sacaton they were planted on the Gila Indian Reservation. Forrest Shreve, *The Cactus and its Home* (Baltimore: The Williams & Wilkins Company, 1931), 134; Phillips and Comus, *Natural History*, 195.

beaver along the Gila River in Mexico, James Ohio Pattie told readers he encountered “a species of tree, which I have never seen before...It grows to the height of forty or fifty feet. The top is cone shaped, and almost without foliage. The bark resembles that of the prickly pear; and the body is covered with thorns.”²⁸ George Thurber, botanist on the Boundary Commission, suggested that “description can convey no adequate idea of this singular vegetation, at once so grand and dreary.” He felt the sight of the first cactus made his trip worthwhile.²⁹ When John Russell Bartlett drew Tucson for his boundary report, saguaros told the story of the place: exotic and distinctive.³⁰ Likewise, when artist H.B. Möllhausen needed to express to his audience the intense exoticism of the Apache, he posed them with saguaro.³¹ Travelogues and fiction from the nineteenth century endlessly remarked on the pitayha (saguaro) harvest as emblematic of the strange links between local people (Mexican and Indian in different accounts) and local landscape. These accounts placed the saguaro squarely within what we would call a political ecology of regional people. Territorial boosters made the link between Arizona and saguaro explicit in their 1883 *Resources of Arizona*. “Arizona,” wrote the author, “is the land of the *cereus giganteus*, called by the Indians and Mexicans the *sahuaro*.”³² Such close identification

²⁸ Timothy Flint, ed., *The Personal Narrative of James Ohio Pattie, of Kentucky* (Chicago: Lakeside Press, 1930).

²⁹ Gray, *Plantae Novae Thurberianae*, 302.

³⁰ John Russell Bartlett, *Personal Narrative of Explorations and Incidents in Texas, New Mexico, California, Sonora, and Chihuahua, Connected with the United States and Mexican Boundary Commission, during the years 1850, 51, 52, and 53* (New York, D. Appleton, 1854); Robert V. Hine, *Bartlett's West: Drawing the Mexican Boundary* (New Haven: Yale University Press, 1968).

³¹ Robert Taft, *Artists and Illustrators of the Old West, 1850-1900* (New York: Charles Scribner's Sons, 1953); William H. Goetzmann and William N. Goetzmann, *The West of the Imagination*, 2d edition (Norman: University of Oklahoma Press, 2009).

³² Patrick Hamilton, *The Resources of Arizona: A Description...* 2nd edition (San Francisco: A.L. Bancroft & Co., 1883).

linked Arizona and saguaro tightly together and meant that any national monument preserving Sonoran Desert flora in Arizona would necessarily need saguaro.

Desert Monuments

The Changing Landscape

During the end of the nineteenth century and early twentieth century, Arizona's economy and population grew and prosperity seemed assured by a cattle boom, irrigation projects, and copper mining. Entrenched problems, including those of isolation, Apache dominance, and distant markets, receded. With prosperity seemingly assured, progressive-era Arizonans began to think about conserving their pioneer landscape. Preservation of Casa Grande, dating from the 1880s, and Tumacacori Mission both commemorated cultural landscapes: Hohokam and Spanish-Mexican, respectively. Preserving endemic flora also became fashionable. Phoenix progressives efforts to establish Papago Saguaro National Monument in 1914 demonstrates the urban origin of these conservation impulses.

Established by President Woodrow Wilson, Papago Saguaro was a creature of the Antiquities Act and the State Parks Movement. The Antiquities Act allowed proclamation of a monument if it protected cultural, historic, or scientific features. Designed as a shortcut to the slow Congressional action associated with Park creation, the Antiquities Act grew from the specific problem of unregulated collecting of artifacts at Chaco Canyon, New Mexico, yet rapidly filled a wide range of conservationist objectives.³³ At first, the Antiquities Act focused mainly on rural archeological sites. But as a catchall land use category, it could serve many

³³ Although Chaco Canyon was the fifth monument, the debate over Richard Wetherill's artifact collection at Chaco was the fulcrum of the debate. See Hal Rothman, *Preserving Different Pasts: The American National Monuments* (Chicago: University of Illinois Press, 1989).

goals. For example, Devil's Tower was monumental landscape with geological significance, Montezuma Castle and Chaco Canyon, and a host of others were archeological, all were remote. Muir Woods, created in 1908, broke with this format by preserving a tract of land in demand for a San Francisco reservoir site and for its timber.³⁴ Like Muir Woods, Papago Saguaro was metropolitan and embroiled in the politics of prosperity.

Phoenix specifically, and Arizona generally, were undergoing quickening economic growth. The late nineteenth-century rail connections knit the loosely flung urban centers to global markets. Rail cars poured cattle into the state so they could graze under the welcoming winter sun.³⁵ Copper mining created rural boom towns; irrigation on the Salt River led to large acreage under plow. All these industries took apart landscapes. The cattle boom denuded grasslands and caused large scale flooding by the turn of the century; mining tore apart landscapes and stirred up political unrest; irrigation mowed over desert plants. The response was a style of conservation that celebrated these economic developments while also valuing the desert's natural accoutrements. Rather than directly challenging the growing political dominance of a pro-business, pro-development state government, conservation could service these ends.³⁶

Leisure and health also drew more people into contact with the arid southwest. Many of these people came explicitly for the dry desert air. Tubercular patients were some of the first climate tourists to the region. The well-to-do filled sanatoriums, or like John C. Van Dyke and Harold Bell Wright lived in their own houses. The less well-off were 'burro' tourists before World War I, or sagebrushers (auto campers), after the war.³⁷ Tourists traveled the "golden

³⁴ Rothman, *Preserving Different Pasts*, 61-64.

³⁵ Nathan Sayre, "The Cattle Boom in Southern Arizona: Towards a Critical Political Ecology," *Journal of the Southwest* 41, no. 2 (Summer 1999): 239-271.

³⁶ Thomas E. Sheridan, *Arizona: A History* (Tucson: University of Arizona Press), 162.

³⁷ Sheridan, *Arizona*, 233-34.

circuit,” followed the tracks of the Fred Harvey Company, or, before the depression, took the Wonderbus across the deserts, sagebrushing amid splendor.³⁸ All viewed the desert climate, and by extension its flora, as necessary to their health.

Increased contact with desert nature as a space for leisure, and continued development, led to calls for the protection of natural and cultural sites in the arid southwest. In Arizona, Petrified Forest, Chaco Canyon, Gila Cliff Dwellings, Tonto, Grand Canyon, Natural Bridges, Navajo, Mukuntuweap (Zion), and Rainbow Bridge all preceded Papago Saguaro and the creation of the National Park Service. After 1916, and during the 1920s, the young NPS rushed into the region as well. In 1923, the NPS, now in control of fourteen monuments, created a regional organization under Frank Pinkley, custodian of Casa Grande. NPS leaders Stephen T. Mather and Horace Albright hoped to maintain their focus on the scenic National Parks yet the growing number of sites necessitated more administration. They tasked Pinkley with managing the historical and scientific southwestern monuments.³⁹

While struggling to maintain the lands they already administered, the NPS also sought new acquisitions. Roger Toll, Superintendent of Yellowstone (Rocky Mountain and Rainier previously) and the lead investigator of potential parks for the NPS head hunted lands throughout the region—Big Bend, Canyon de Chelly, Organ Pipe, Kofa Mountains, Joshua Tree, and Arizona National Monument. Some of these became reality, others failed to materialize. The NPS worked amid and ahead of a quickly changing landscape since the progressive forces pursuing protection for natural places also unleashed developmental forces that were reshaping the deserts for agriculture.

³⁸ Warren McArthur, Jr., “The Arizona Wonder-Bus,” *Progressive Arizona* (October 1926).

³⁹ Rothman, *Preserving Different Pasts*, 121-22.

In Phoenix, concern to preserve natural environments led to the creation of Papago Saguaro National Monument. The story of Papago Saguaro demonstrates the difficulty of negotiating local politics when preserving natural places in the changing southwest. Tracking this first Sonoran Desert monument to the second, Saguaro National Monument, places SNP in a context where establishment was uncertain and disestablishment possible.

A major engine for transforming the early-20th century Arizona landscape was the Newlands Act, which offered federal support for irrigation projects. Reclaiming America's western deserts had a fervent Progressive constituency. People like Frederick Newell of the United States Geological Survey, irrigation lobbyist George H. Maxwell, Nevada's Representative Francis Newlands and President Theodore Roosevelt, among many others, foresaw a future for the American West as an organized and irrigated garden. Federal money would build the necessary infrastructure; agrarian farmers would create an "irrigated Eden" promoting democracy, efficiency, and Americanism.⁴⁰ At the heart of this dream was the necessity of harnessing the West's intemperate rivers, impounding the seasonal waters behind dams, and irrigating under the year-round sun. Progressives like Newlands envisioned Jeffersonian farming families building a strong, productive, American nation if they could only have reliable water in the desert. Passed in 1902, the Newlands Act, or Reclamation Act, provided for the construction of dams, creation of reservoirs, and building concrete or earthen

⁴⁰ For works on these themes start with Samuel P. Hays, *Conservation and the Gospel of Efficiency* (Pittsburgh: University of Pittsburgh Press, 1959); the term "irrigated Eden" comes from Mark Fiege, *Irrigated Eden: The Making of an Agricultural Landscape in the American West* (Seattle: University of Washington Press, 1999); also see William DeBuys, *Salt Dreams: Land and Water in Low-Down California* (Albuquerque: University of New Mexico Press, 2001) and Douglas Cazaux Sackman, *Orange Empire: California and the Fruits of Eden* (Berkeley: University of California Press, 2005).

canals. The sale of public land in sixteen states would largely finance the cost of the water. Farmers would pay roughly 1/10 of the cost of the water.⁴¹

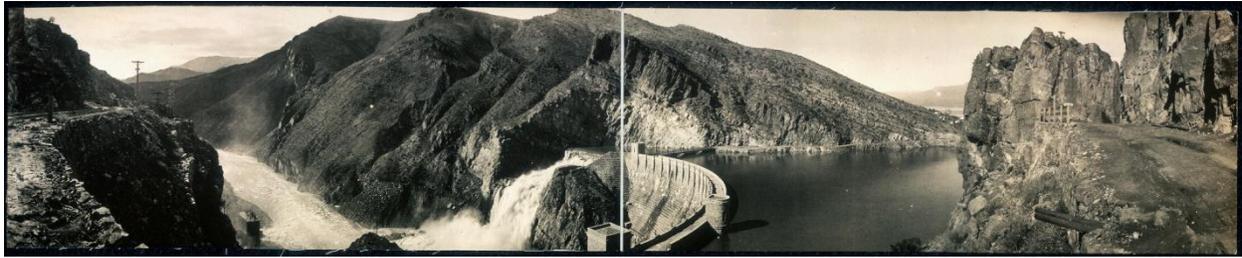


Figure 6. Roosevelt Dam, Prints and Photographs Division, Library of Congress, PAN US GEOG - Arizona no. 84 (E size).

For Phoenix, the Reclamation Act flowed through the Roosevelt Dam and the Salt River Valley Water Users Association.⁴² As one of the original federal projects authorized under the Act, and the first completed, Roosevelt Dam was constructed at the confluence of the Tonto and Salt Rivers. When, on March 18, 1911, former President Theodore Roosevelt claimed from atop his namesake dam that the Salt River Valley “one of the richest agricultural areas in the world” he hinted at the dramatic changes accelerating in the Phoenix bowl. In the first decades of the

⁴¹ For more information on the Newlands Act and water in the West see Marc Reisner, *Cadillac Desert: The American West and Its Disappearing Water* (New York: Viking, 1986); Donald Pisani, *To Reclaim a Divided West: Water, Law, and Public Policy, 1848-1902* (Albuquerque: University of New Mexico Press, 1992); Donald Worster, *Rivers of Empire: Water, Aridity, and the Growth of the American West* (New York: Pantheon, 1985); Norris Hundley, Jr., *Water and the West: The Colorado River Compact and the Politics of Water in the American West* (Berkeley: University of California Press, 1975); also useful is John Opie, *Nature's Nation: An Environmental History of the United States* (Wadsworth Publishing, 1998).

⁴² See Hays, “Store the Floods,” *Conservation and the Gospel of Efficiency*; Thomas E. Sheridan, “Water and Cotton,” *Arizona: A History* (Tucson: University of Arizona Press, 1995), especially 207-211.

twentieth century, the landscape dominated by creosote bush, white bursage, cholla, and prickly pear became crops and then monoculture fields glistening green with year round water.⁴³

In 1911, there were obvious environmental transformations associated with the irrigation. Today, we would point to loss of biodiversity or some other language, but for progressive Phoenix boosters, the problem was not ecological; it was human and historical. Loss of the landscape severed links to the territorial past. Embracing statehood, Phoenicians wanted to proclaim their membership in the American nation. The hostile desert, contained, became romantic in its loss. The exceptional flora offered an opportunity for Phoenix to proclaim membership in the American state.

The dominant ideology behind developing the desert had a self-appointed prophet in William Ellsworth Smythe who used sacral language to promote the reclamation with irrigation. Toiling in other ways and other deserts, he had a powerful ideological opponent, John Van Dyke. At roughly the same time that Smythe was evoking a divine plan for irrigation and salvaging the mythical Jeffersonian farmer from land tenancy and political (moral) emasculation, Van Dyke was describing an aesthetics of nature by arguing that the desert, rather than a wasteland, was the ultimate subject matter upon which art and aesthetics could be found. In explaining Van Dyke, historian Patricia Nelson Limerick argued, “in looking at a landscape [Van Dyke] saw a moment in time as well as a location in space. When he rode toward a range of desert mountains, he saw ‘the surviving remnant...of some noble range that long centuries ago was beaten by wind and rain into desert sand.’”⁴⁴

⁴³ Cited in Sheridan, *Arizona*, 211; Gary Paul Nabhan, “Welcome to the Sonoran Desert,” in Steven J. Phillips & Patricia Wentworth Comus, eds., *A Natural History of the Sonoran Desert* (Tucson: Arizona-Sonora Desert Museum Press, 2000).

⁴⁴ Patricia Nelson Limerick, *Desert Passages: Encounters with the American Deserts* (Albuquerque: University of New Mexico, 1985), 98. Discussion of Smyth and Van Dyke are

Smyth and Van Dyke told related stories about the landscape: Smyth a story of future progress and Van Dyke a history worth pushing into the future. The land told a story worth saving. Phoenix boosters exemplified this dual vision. They believed that the desert, with its distinctively Arizona flora, was coming undone by the (welcome) expansion of irrigation. Preserving some vestige of the past landscape would, in effect, preserve a monument to the city's past. It would preserve a snapshot of a land against which they had demonstrated the amazing progress of their city. To encode this history upon the land, and to tell the nation that Phoenix was American, Phoenix boosters sought the creation of a national monument.⁴⁵

Papago Saguaro National Monument

In 1914, President Woodrow Wilson, acting at the behest of Congressman Carl Hayden, Phoenix boosters, and a range of other interested parties proclaimed the Papago Saguaro National Monument on the outskirts of Tempe and Phoenix in Maricopa County.⁴⁶

For Phoenix's Committee on a Cactus Park, the proposed lands represented both economic wasteland—"not included in the land under irrigation by the Salt River Irrigation Project, nor will this land ever be included...on account of the elevation [and] soil."—and an exemplar of the iconic desert flora of the area—"The said area of land has at this time growing thereon a great number of every species of cacti and especially are there large numbers of Giant

drawn from Limerick's *Desert Passages*, chapters 4 and 5. Her quote is drawn from John C. Van Dyke, *The Desert: Further Studies in Natural Appearances* (New York: Charles Scribner's Sons, 1901), 1.

⁴⁵ In his work, *Preserving Different Pasts*, Hal Rothman follows the logic and power of the monument idea—created from the antiquities act (see especially his chapter on "Preserving Different Pasts: the Southwest and National Monuments.")

⁴⁶ Proclamation No. 1262, 38 Stat. 1991 (January 31, 1914); April 22, 1913 letter from Phoenix Attorney Thomas J. Prescott to Carl Hayden; Board of Trade, Phoenix, AZ report from the Committee on Cactus Park, Records of the National Park Service, Record Group 79, NPS, NARA II, College Park, MD, (hereafter RG79, NARA II) Central Classified Files, Box 662.

Cactus, the Sajuara.” The proximity of the land to Arizona’s capital offered “a convenient place for the preservation of these most unique forms of desert plants, where the great variety of desert vegetation may be observed and studied by the people generally.” The advance of irrigation had “caused the destruction of great areas of this plant life of the desert, and many people are each year willfully destroying, by burning, a great number of these cacti.”⁴⁷ Exceptional plants, a distinctively Arizonan landscape, a local population center to utilize the ‘park,’ scientific and aesthetic interest, links to the past, the pressures of development in destroying similar landscapes, and the obvious slow growth rates of cacti all pointed city representatives toward protection. Furthermore, the new monument would encompass a popular local natural feature, Hole-in-the-Rock. Beyond accomplishing all these goals, the national monument offered symbolic value for a city in the American borderlands. The ‘park’ would make a statement about modernity and inclusion in the American nation. This point did not escape the notice of the field agent for the General Land Office who noted:

The City of Phoenix is growing rapidly, within a few years its population should be in excess of one hundred thousand. Its citizens are of the stalwart, virile, native American variety, who take great pride in the advancement of their country, state and city. The municipality, as a whole, is greatly interested in the creation and improvement of this National Monument, not only for its great scientific interest, but that at some future date they may assist in making of it a great botanical garden of desert flora.⁴⁸

Clothed in the rhetoric of progressivism, proclaiming a monument was easy since it required few resources nor greatly affected land use behavior and therefore, required little initial political defense or economic cost. So little was done that Harry Welch of the Phoenix Chamber of Commerce wrote Arizona Representative Carl Hayden in 1916 asking for an end to the open

⁴⁷ Committee on Cactus Park Report, RG79, Central Classified Files, Box 662, NARA II, p. 1-2.

⁴⁸ Letter from Field Agent [Helms] to Commissioner of the General Land Office, Oct 4, 1913, recommending establishment of the Monument, RG79, Central Classified Files, Box 662, NARA II, p. 3

range, “if we desire to preserve the cottonwood trees and the young growth in the Park.” The Commissioner of Public Lands suggested to Stephen Mather, busy establishing the National Park Service, he set up signs, since no funds were available for fencing. A year later, J.S. Palmer of the Biological Survey wrote Assistant Director H. M. Albright with alarm at the absence of any indication that the land was a national monument. Palmer noted: “Inasmuch as the reservation is on the main highway between Phoenix and Tempe, and the main road to the Roosevelt Dam, along which thousands of people pass annually, it would seem highly desirable that some signs should be posted along the boundaries and at the ‘Hole-in-the-Rock,’ so that the public may be advised of the existence of the monument.” Further, he noted litter and even advertising painted on the rocks. The Monument was little more than a name and concept set along the “Apache Trail” road leading to Roosevelt Dam.⁴⁹

The ease of establishment rapidly proved a liability. Invisible, the monument was soon also under pressure from development. One NPS landscape engineer noted: “There seemed to be a feeling in Phoenix that this area, if developed as a golf club, could be made more or less exclusive, but its being a government reservation, I doubted the advisability or probability of this step.” A doctor wrote asking to lease land for a hospital to treat tuberculosis patients. He was denied. The monument contained a shooting range for the Phoenix Gun Club and a local paper, the *Arizona Republican*, argued for a “large auto camp ground and the much-needed landing field for aircraft.” The paper went on: “Possibilities of National Cactus Park are considered unlimited, going far beyond those of an auto camp ground or a landing field for aircraft... [the] 2,000 acres are filled with beautiful spots and natural settings for architectural gardening and

⁴⁹ Harry Welch to Carl Hayden May 22, 1916; Hayden to Secretary of Interior May 27, 1916; Commissioner of Public Lands to Stephen Mather June 23, 1916; J. S. Palmer to H. M. Albright May 14, 1917, RG79, Central Classified Files, Box 662, NARA II.

improvements of every description. The park, through the co-operation of the people here and federal government, can be made one of the best in the country and a permanent attraction for visitors and people of the community. Here could be built waterfalls, a series of ideal pleasure parks tucked away in the nooks of the rocky hills, with the 100 or more varieties of cacti standing as landmarks on the desert.” This particular story caused Frank Pinkley, then custodian of Casa Grande Ruin, to comment to Mather: “You will notice that they seem to be thinking of our Monument, not from a national standpoint, but as a playground for the especial benefit of the city of Phoenix.”⁵⁰

Pinkley was entirely correct. Phoenix residents viewed the monument as a “park” along the lines of New York’s Central Park. The social value of the place overrode the natural features of the park or any scenic, historic, or scientific values the NPS might highlight. Central Park’s designer Frederick Law Olmstead developed his landscape engineering in the context of the “environmentalism” of social reformers during the nineteenth century. The environmentalism of these reformers became a staple of the reform thought of Gilded Age and Progressive America.⁵¹ Like Olmsted, Progressives believed that by constructing parks, eliminating slums, and cleaning up cities generally, they would facilitate a positive change in the behavior of the poor, creating

⁵⁰[illegible names], January 23, 1918; Earl M. Tarr to Franklin K. Lane June 13, 1918; Custodian J. E. McClain to Stephen Mather, October 9, 1919; “Cactus Park of 2,000 Acres May be Landing Field,” *Arizona Republican*, [June 26, 1920]; Frank Pinkley to Stephen Mather June 27, 1920; “Famous Park Site Will Be Improved,” *Arizona Gazette*, August 11, 1920, RG79, Central Classified Files, Box 662, NARA II.

⁵¹ The classic and comprehensive work on this topic is Paul Boyer, *Urban Masses and Moral Order in America 1820-1920* (Cambridge, MA: Harvard University Press, 1978). Boyer writes: “Today, parks are so ubiquitous and familiar a feature of the urban scene that we give little thought, beyond a vaguely favorable feeling, to their social significance. Thus, it takes a considerable imaginative leap to realize that the park movement once had the force of a fresh social discovery that could arouse intense and passionate commitment, and that its moral implications were carefully explored and debated by moralists, urban reformers, social critics, landscape designers, and municipal authorities alike,” p. 236 and continuing a discussion of the parks movement and the moral and social objectives of park advocates.

civic virtue and American middle class values.⁵² A park was a place to highlight human interactions through exposure to a controlled nature, and did not necessarily preserve nature in any pristine sense. A park could elicit in residents a sense of place, of citizenship, and pride; the impetus behind local support for Papago Saguaro drew from these social concerns. The parks movement spread from New York across the country in a roiling expansion that one historian called a “parks Americana,” of local, county, and state parks numbering in the thousands.⁵³ Papago Saguaro fit nicely into this model of an urban social space but did not mesh with the ideals of the national monument system under the stewardship of the emerging National Park Service.

Phoenix’s utilitarian outlook toward Papago Saguaro continued to increase in the decade after establishment. In 1920, Monument Custodian McClain passed on an *Arizona Gazette* article that reported impending picnic improvements and plans to withdraw 20 acres for a “recreation park.” The NPS had heard of neither proposal and, although somewhat amenable, Arno Cammerer responded by reminding the custodian, who was a Tempe local and friend of Arizona Representative Carl Hayden, that the NPS would have to approve any such plans. Still, during the twenties, pressure continued to mount over which view of the monument would win out: preservation of desert flora or a socializing grounds for Phoenix. In 1926, Phoenix General Manager H.B. Watkins requested right of way to extend Washington Boulevard to the Apache Trail. In his request, all the ambiguities of local views of the monument become apparent. First, he erroneously called it a national park. Second, he seems sure that this status would

⁵² See Witold Rybczynski, *A Clearing in the Distance: Frederick Law Olmsted and America in the 19th Century* (New York: Scribner’s, 1999); also Anne Whiston Spirn, *The Granite Garden: Urban Nature and Human Design* (New York: Basic Books, 1984).

⁵³ Ney C. Landrum, *The State Park Movement in America: A Critical Review* (Columbia: University of Missouri Press, 2004)

accommodate a boulevard for the convenience of city dwellers and especially people who had purchased land in the Paradise Valley area. Their claim was to Salt River Valley water with the goal “to develop this splendid valley and make it one of the most productive in the United States.” The thoroughfare (once built) alongside the developmental approach represented by the Manager meant that the Monument’s days were numbered. The city was re-imagining Papago Saguaro even as it engulfed it.⁵⁴

By the mid-1920s the NPS was beginning to question Papago Saguaro Monument’s viability in the face of declining support. It was under local threat, and although it did have many splendid cacti, its location was originally determined more by customary use—Hole-in-the-Rock—rather than its merit as a distinctly rich desert environment. Further, Mather was busy setting parameters on the National Park system since existing parks and monuments were woefully underfunded. Seeking a way out of accepting every public location as a park, Mather and Horace Albright had pushed forward a National Conference on Parks to encourage states to make and manage their own parks.⁵⁵

The turning point arrived in response to Arizona Governor George Hunt’s backing of an Arizona Department of Fish and Game request for a fish hatchery. Secretary of Interior Franklin K. Lane’s office reflected on earlier encroachments—shooting range, road easement, efforts to make picnic areas—and then argued: “this area was established a national monument for scientific reasons, and...any further reduction in area would affects its value as a national monument.” The Interior memo went on: “In view of these persistent requests for use of land within the monument for State and city purposes, I would be glad to approve legislation whereby

⁵⁴ Arno B. Cammerer to J. E. McClain September 4, 1920; H.B. Watkins to Hubert A Work, Sec. of Interior January 20, 1926, RG79, NARA II.

⁵⁵ Landrum, *State Park Movement*, 2.

the entire monument be abolished as such and turned over to the State or the City of Phoenix, as may seem best, for either a State or a city Park.”⁵⁶

The emerging clarification that the land would be better as a state or local park came from influential Arizonans like Governor Hunt and Bryan Akers of the *Arizona Gazette*. They imaged a developmental model that included picnic areas, a zoo, a botanic garden, a golf course, or other uses. Akers continued to insist on developing the “park.” A misnomer that best summarized his vision of what the area should provide to him and the city. Despite Arno Cammerer’s reminder that monuments preserved historic or scientific commodities, a growing constituency, the same powers behind its creation, now wanted Papago Saguaro for other uses. Their new demands came in a flurry. Akers showed his hand in requesting the withdrawal of a tract of monument land upon which he could homestead; the military asked for land to expand their rifle range. Others clamored for the accoutrements of a city park. By 1929, without much resistance on the part of the NPS, Senator Hayden was moving to gain local control of the monument.

Besides the developmental problems, there were political pressures behind the scenes influencing the NPS in acquiescing to the political winds. In a letter from M. R. Tillotson to Director Albright, Tillotson suggested that NPS cooperation in giving up the Monument might ease jurisdictional issues over Grand Canyon National Park. Such horse swapping, especially given the corrosive lack of local support for the Monument as a natural place, was already moot since the NPS had committed to relinquishing Papago Saguaro, but certainly did not hurt these

⁵⁶ Sec. of Interior to Arizona Governor George Hunt, 1926, RG79, Central Classified Files, Box 662, NARA II.

larger negotiations. Either way, by 1930 the lands were back under state control. Developed as a city park, Papago Saguaro fulfilled local expectations during the coming decades.⁵⁷

Searching for a New Monument

When President Woodrow Wilson had first proclaimed Papago Saguaro National Monument in 1914, the NPS was simply an aspiration.⁵⁸ By 1930, Mather and Albright had shaped a competent bureaucracy and successfully promoted the National Park Service as the face of American nature conservation, displacing the Forest Service claims to this mission. Initially unenthusiastic about National Monuments, the co-leaders came to value the monuments as part of a system of visitation. Mather envisioned a system of monuments spaced so as to guide tourists to system jewels like the Grand Canyon.⁵⁹

During the late 1920s and 1930s, the Hoover and Roosevelt administrations were amenable to proclaiming monuments. These included nine in the Southwest: Arches 1929, Sunset Crater 1930, Canyon de Chelly 1931, Death Valley 1933, and Saguaro 1933, under Hoover. Roosevelt proclaimed Cedar Breaks, 1933, Joshua Tree, 1936, Organ Pipe Cactus and Capitol Reef in 1937.⁶⁰ The loss of Papago Saguaro, while somewhat regrettable, offered opportunities to refocus on a new location. In December 1930, Superintendent of Grand Canyon National Park, M. R. Tillotson wrote to NPS Director Horace Albright noting, “for some time I have been greatly interested in the establishment somewhere in southern Arizona of a national

⁵⁷ Cammerer to M. H. Layman, Sec. to Senator Ashurst, July 22, 1927; Carl Hayden to Sec. of Interior, Oct. 26, 1927; Sec. of War to Sec. of Interior, July 23, 1927; Tillotson to Albright Feb 4, 1929; A.E. Demary to Tillotson, Feb. 16, 1929, RG79, Central Classified Files, Box 662, NARA II.

⁵⁸ Donald C. Swain, “The Passage of the National Park Service Act of 1916,” *The Wisconsin Magazine of History* 50, no. 1 (Autumn 1966): 5.

⁵⁹ Rothman, *Preserving Different Pasts*, 101-04.

⁶⁰ Rothman, *Preserving Different Pasts*, 236-237.

monument, the feature of which would be typical desert flora and especially the Giant Sahuaro.”

He went on:

While in Tucson recently Mr. Hoffman Birney casually mentioned to me an area on which there was an especially fine sahuaro forest and I therefore took occasion to visit the site of which he spoke. I found this to be at the foot of the west slope of the Rincon Mountains, some 17 miles east of Tucson. This is undoubtedly the finest sahuaro forest I have seen with my limited knowledge of that country. It amounts in extent to some two or three thousand acres, lying in a slight basin or depression. The Sahuaro there is exceptional, not only because it grows especially large and with the characteristic varying shapes, but principally because of the fact that here the growth is heavier than in any individual area I happen to know of. This particular forest is readily accessible over a good road by way of Wrightstown, from Tucson, and is only about 17 miles distant. If it were set aside as a national monument for the preservation of this characteristic growth especially it should, therefore, attract many visitors.⁶¹

Tillotson noted the need for both caution and action. He celebrated Arizona’s recent protection of native flora, but argued there remained a need for federal protection. Perhaps other areas in the state might have more diverse flora; the question warranted more research. Given these concerns about land ownership and warning Albright that desert flora were woefully under-protected regionally, but with a sense that the Rincon area was a likely candidate for a new monument, Tillotson recommended a search of the surrounding areas for other sites, wondering if there was another location, regardless of legal title, that would provide a better showcase of desert flora, than the Tanque Verde site. Either way he felt the NPS must act quickly to establish a new presence in the cactus lands of Arizona.⁶²

Tillotson’s interest was nothing new. Locals had sought to interest the NPS in the site years before, but Papago Saguaro had blocked these earlier efforts. NPS naturalist E. D. McKee noted:

⁶¹ Tillotson to Albright, December 13, 1930, RG79, entry 10, Box 658, NARA II.

⁶² Tillotson to Albright, December, 13, 1930, RG79, entry 10, Box 658, NARA II.

This area was first shown to Dr. Vorhies of the University of Arizona by Mr. Harold Bell Wright, shortly after the former's arrival at Tucson over ten years ago. Dr. Vorhies then attempted to have the area made into a National Monument but *because of the existence of the Papago-Sahuaro Monument near Phoenix at that time, he met with no success* [emphases added]. Still recognizing the value of the land, he later obtained the interest of Dr. Shantz and had a small portion set aside as university land...[the site] contains what is probably the finest sahuaro forest in the state, also many large Palo Verdes, and a representation of most other desert types. The approach is featured by an especially dense area of Cholla. At one place within a radius of ten feet, fifteen Sahuaros were found...After visiting this exceptionally fine area in company with Dr. Vorhies, I was forced to agree with him that all other areas, at least in this part of the State, appear as very poor exhibits by comparison.⁶³

Albright was immediately interested in Tillotson's report on the Rincon site and asked for a legal description of the land east of Tucson. Initial investigation revealed that most of the land was already in some way disposed from federal control. Of the forty-six thousand acres in Tillotson's brief initial description, nearly twenty-three thousand had been surveyed and only 2200 remained in federal hands. Hedging his bets, Albright cast a wide net, and authorized a winter search for other potential locales.⁶⁴

Western writer Hoffman Birney did not gesture randomly to the foothills of the Rincon Mountains. The area appears in nineteenth-century Arizona "handbooks," Territory-sponsored inventories of the natural and human attributes of Arizona. In 1878, author Richard J. Hinton informed readers that "the giant cactus grows in great abundance on the southern slopes of the Santa Catalina Mountains."⁶⁵ Likewise, University of Arizona botany professor James W. Toumey told *Popular Science Monthly* readers in 1897: "the finest and largest specimens [of

⁶³ E.D. McKee, Park Naturalist, "Memorandum to Superintendent concerning areas suitable for establishment of a National Monument featuring Desert Flora;" Tillotson to Albright April 18, 1931, p. 3, RG79, Central Classified Files, Box 658, NARA II.

⁶⁴ Albright to Tillotson, January 2, 1931, RG79, Entry 10, Box 658, NARA II; Albright to Tillotson, Feb. 5, 1931, RG79, Entry 10, Box 658, NARA II.

⁶⁵ Richard Josiah Hinton, *The Handbook of Arizona: Its Resources, History, Towns, Mines, Ruins and Scenery* (San Francisco: Payot, Upham & Co, 1878), 342.

saguaro] that I have ever observed are growing only a few miles from Tucson, on the foothills of the Santa Catalina Mountains, where hundreds may be seen growing on a single acre.” This was, Toumey reminds readers with an image of two women amid the saguaro, “a cactus forest.”⁶⁶

In 1930, as the NPS searched for a new monument, there was already an established coalition of local conservationists and scientists who desired the protection of what was known locally as the Tanque Verde Cactus Forest or Giant Cactus Forest. Named for the wash running out of the foothills of the Rincon Mountains, the forest occupied a dozen square miles in the *bajada* at the foot of the Rincon Mountains. In the 1920s, many of these interested individuals were members of the Tucson Natural History Society, a group of scientists and prominent locals that included Coronado National Forest Supervisor Fred Winn, Department of Agriculture county inspector Cornelius B. Brown, University of Arizona scientists Charles T. Vorhies, J. J. Thornber, and Andrew A. Nichol, Carnegie Desert Lab head Forrest Shreve, the Biological Survey’s Walter P. Taylor, and a number of other prominent professionals and community leaders. Established in 1923, the Society’s interests read like a catalogue of Southeastern Arizona’s natural areas. The *Arizona Daily Star* reported Society excursions to “Summerhaven in the Santa Catalina Mountains, the Giant Cactus Forest, Chiricahua Pinnacles National Monument, Picture Rocks, Sabino Canyon, Old Baldy in the Santa Rita Mountains, Baboquivari Peak, Cochise Stronghold, Papago Indian Reservation near Indian Oasis, the ‘Window’ in the Santa Catalina Mountains,” and others.⁶⁷

Society members were active in shaping the landscape of southern Arizona. Winn managed the Coronado National Forest; University scientists worked through the Agricultural

⁶⁶ James W. Toumey, “The Giant Cactus,” *Appleton’s Popular Science Monthly* 51 (September 1897): 641-42.

⁶⁷ Walter P. Taylor, “Natural History Society Here Introducing Tucson to Nature,” Tucson Natural History Society Ephemera File, Arizona Historical Society, Tucson (Hereafter AHS).

Extension Agency to promote farming and ranching; Taylor worked for the Biological Service; Shreve and Thornber were each respectively working from their institutional bases to describe the cactus family scientifically and in popular print. Both brought out popular works on cactus in 1930-31. All were shaping the agricultural and forest lands of Southeastern Arizona, and they had also begun to shape conservation landscapes.

In their newsletter, Society members argued: “the Tucson Natural History Society believes strongly that scenery is an economic asset, in addition to being worth careful preservation for its own sake.”⁶⁸ One example of this attitude was the creation of the Marshal Creek Wildlife Preserve in the Santa Catalina Mountains, high above Tucson. The *Tucson Citizen* reported on the dedication ceremony:

Supervisor Fred Winn was the chief speaker...[he] spoke on the wilderness movement which is being launched in a number of sections of the country. It was a plea for the preservation of the few primitive forests, untouched by motor cars and tourist camps, where canoe and pack trips into the back country may still be enjoyed by lovers of the wild. He referred particularly to the southwest, where in the past few years several material inroads have been made on the wilderness areas. The Gila forest now remains as the best possible wilderness area, and he expressed a hope that no tourist camps or modern roads would be constructed into the heart of this region⁶⁹

Taylor was in conversations with the NPS over the creation of Organ Pipe, and all these people provided advice on regional land uses. One Society priority was the Tanque Verde Cactus Forest.

In the Society’s 1928-29 Program, C. T. Vorhies offered to lead a trip to the forest. The

⁶⁸ Tucson Natural History Society Ephemera File, AHS.

⁶⁹ *Tucson Citizen*, June 1, 1926, Tucson Natural History Society Ephemera File, AHS.

Program notes argued: “The Tanque Verde Cactus Forest is probably the best and densest forest of sahuaro in the United States. The permanent preservation of this area is one of the items of work the society is engaged upon at present.”⁷⁰

Like the citizens of Phoenix, TNHS members wanted to protect a treasured local landscape; unlike Phoenix activists, the Tucson contingent consisted of many of America’s leading experts on arid lands. As the NPS cast about for a Sonoran Desert Monument, Tucson, Arizona’s largest community in 1930, had a network of well-placed experts and advocates ready to assist and promote the potential of the area as a National Monument.

Initial NPS reports of the cactus forest as a potential monument were not favorable. Most of the land of interest, other than the Coronado National Forest, was spoken for by private parties, Arizona, or the University of Arizona; the Forest Service had a well-established presence on the mountain but the cactus forest was a patchwork of properties. With many regional projects underway, and given its recent eviction from the Phoenix hinterlands, the NPS was not eager to pursue this site through a thicket of legal titles.⁷¹ The obvious course of action was to broaden the search. Turning to the Tucson scientific and conservation cohort, the NPS asked for recommendations.

To direct the search, Minor Tillotson called on local expertise. Respondents included Vorhies who mentioned an unclaimed site east of Wickenburg that held Joshua Trees, “dense cholla and prickly pear,” but no saguaro.⁷² From the Desert Lab, Shreve and William McGinnies pointed to a valley in the Comobabi Mountains on the Papago Indian Reservation north of Sells,

⁷⁰ “The Tucson Natural History Society Program, 1928-29,” Tucson Natural History Society Ephemera File, AHS.

⁷¹ Albright to Tillotson, Feb. 5, 1931, RG79, Entry 10, Box 658, NARA II.

⁷² Vorhies provided maps [not available to the author] and described the area as nine miles west of Congress Junction, Vorhies to Tillotson, RG79, Entry 10, Box 658, NARA II.

Arizona. The site was a saguaro-filled valley between the northern and southern Comobabi ranges. It had access along the road from Tucson to Ajo but was far from population centers. The presence of O'Odham villages did not, for the scientists, seem to be a deterrent. The Quijotoa Mountains, Shreve's other suggestion, was in the heart of the Reservation.⁷³ E. D. Wilson and Godfrey Sykes recommended the Tinajas Altas near the international border and southeast of Yuma. This site had the added advantage of Big Horn Sheep although it was deep desert with less lush vegetation. Shreve pointed to the Picacho de Calera northwest of the Tucson Mountains near Marana. This peak, named for its limestone, is now a large hole in the ground after it became a mine for Arizona Portland Cement beginning in the 1940s.⁷⁴ During the 1930s, the area contained many of the major species of desert plants and was quite close to Tucson. Several members also mentioned the Tucson Mountains, north of the Tucson Mountain Park.⁷⁵

The canvassed respondents knew what they were talking about. All of them had tramped, ridden, bicycled, or driven the Sonoran Desert for years or even decades; some had raised arid lands adventure to a fine art. Godfrey Sykes was known as a man who could cross all terrains, building and rebuilding transportation on the trail; Forest Shreve would ride all day unfazed.⁷⁶ All agreed that the cactus forest at the foot of the Rincons was the finest stand. Although other locations could provide similar catalogues of desert plants and beautiful settings, there was a sense among everyone that aesthetically, and perhaps ecologically, the Tanque Verde site was the best choice.

⁷³ Forrest Shreve to Edwin D. McKee, May 16, 1931, RG79, Entry 10, Box 658, NARA II.

⁷⁴ Raymond M. Turner, "Pima County's Withdrawal from its Past," Sonoran Desert Conservation Plan, Pima County, Arizona, 2003, p. 21.

⁷⁵ E. D. McKee, "Memorandum...concerning areas suitable for establishment of a National Monument featuring Desert Flora," RG79, Entry 10, Box 658, NARA II.

⁷⁶ Godfrey Sykes, *The Colorado Delta* (Washington, D.C.: Carnegie Institution of Washington and the American Geographical Society of New York, 1937) and Sykes, *A Westering Trend*; MacDougal, "Across Papagueria;" Bowers, *A Sense of Place*.

The ringing endorsement of the desert experts, coupled with Tillotson's recommendation that the NPS could swap land with the state and university to craft a monument did not impress everyone. One park official told Albright that "there are practically 20,000 acres of alienated land within this area and, as stated by our letter of February 5th to Supt. Tillotson, this practically removes the area from any further consideration as a proposed national monument."⁷⁷ Instead the Service should look further afield. Other options seemed easier politically. The Sells, Arizona, site was "within the Papago Indian Reservation and therefore undoubtedly all Government owned." This site, noted for its heavy saguaro, could provide a reasonable alternative. Further, the implication was that the Papago would be in no position to argue over the imposition of a monument upon their lands.⁷⁸ However, unlike the Tanque Verde Cactus Forest, these locations were far from centers of habitation. The NPS was already working on a project to control Organ Pipe National Monument and a second remote monument made little sense.

Tucson, like Phoenix before it, represented a population center along developing lines of transportation. Preservation was important but so were outreach and visitation, as well as the Park Service's interest in projecting a presence in the desert Southwest. By the 1920s, Papago Saguaro had received more than 50,000 visitors a year.⁷⁹ It was hoped that a monument near Tucson, along transportation corridors, and near a burgeoning population could replicate this level of exposure. In short, the Rincon site was both

⁷⁷ Tillotson to Albright, April 18, 1931, RG79, Entry 10, Box 658, NARA II; Brooks to Albright, April 28, 1931, RG79, entry 10, Box 658, NARA II.

⁷⁸ Brooks to Albright, April 28, 1931, RG79, Entry 10, Box 658, NARA II; David M. Brugge and Raymond Wilson, "Administrative History: Canyon De Chelley National Monument Arizona" (Washington, D.C., United States Department of Interior, National Park Service, 1976).

⁷⁹ Rothman, *Preserving Different Pasts*, 91.

ecological and geographically ideal, but represented the problems of Papago Saguaro in reverse—the NPS would have to cobble together a monument from a patchwork of owners. NPS staff members were hesitant to undertake the requisite enterprise.

In Tucson, pressure was mounting to act in a highly visible and local way to defend desert plants from exploitation. Through his *Tucson Daily Citizen*, Frank Hitchcock called for a showcase monument. On May 1, 1931, he editorialized on “Despoiling the Desert.” In particular, he lamented the business of shipping rail car loads of cacti out of the state. Citing General L. H. Manning’s (former Tucson Mayor, namesake of Manning Camp, and geological surveyor) concern over the laxity of state laws in protecting cacti from export and despoliation, Hitchcock argued to Director Albright that these practices “suggests again the importance of preserving certain cactus areas for the benefit of future generations.” Dr. Charles Vorhies was also pressing the case of the Tucson Natural History Society. Writing to Grand Canyon National Park Naturalist Edwin McKee, he expressed doubts about the NPS’s ability to establish the monument but pleaded that “If there is any way by which they can strain a point to save this area, whether for the use of the University or as a national monument, we should like to see it done.”⁸⁰

From the perspective of the NPS, acquiring the Rincon location had two major liabilities: private land holdings and a region-wide resistance to federal control of land. As Director Albright noted to the head of the Carnegie Institution, John C. Merriam, although the NPS was searching hard, the problem of finding unoccupied land seemed

⁸⁰ “Despoiling the Desert,” *Tucson Daily Citizen*, May 1, 1931, p. 18; Hitchcock to Albright May 12, 1931; Vorhies to Edwin McKee May 14, 1931, RG79, Entry 10, Box 658, NARA II.

insurmountable.⁸¹ With many projects across the West, the NPS had to work through paths of least resistance and with a limited budget. The NPS was not in the business of buying land; they did not have the budget. They crafted monuments through re-labeling public land and through land swaps. In particular, the Southwest monuments operated on a shoestring. There was simply no money available to buy up the inholdings in the projected monument.⁸²

In contrast to Albright's pessimism, University of Arizona President Homer Shantz felt the time had come to push the agenda through the private avenues of land purchase. Tucson was building eastward and the time to act, as Vorhies, Hitchcock, and Tillotson had already noted, was pressing. Shantz had already retained realtor John E. Harrison to act as the University's agent. Harrison used university and private funds and set about piecing together land options and investigating claims and claimants to what he marketed as the University Cactus Forest. He succeeded in interesting private donations through a short-lived University Cactus Forest Association.⁸³ He moved quickly, and by August 1931, Harrison told Hitchcock "the University now has an investment of twenty one thousand dollars and has a lease on four and three-quarter sections." Further, Harrison had arranged to gain control of an additional 480 acres and petitioned private

⁸¹ Albright to John C. Merriam, RG79, Entry 10, Box 658, NARA II.

⁸² For a sense of the budget constraints see Hal Rothman, "Forged by One Man's Will: Frank Pinkley and the Administration of the Southwest Monuments, 1923-1932," *The Public Historian* 8, no. 2 (Spring 1986): 83-100; Jared Farmer highlights this shoestring approach with the example of the Echo Park Dam site in Dinosaur National Monument. In 1939, Bureau of Reclamation surveyors built a road into the monument without NPS approval. Farmer notes: "No one stopped them because no one was stationed at Dinosaur at the time. The Park Service couldn't afford a ranger and typically didn't need one there," Jared Farmer, *Glen Canyon Dammed: Inventing Lake Powell and Canyon Country* (Tucson: University of Arizona Press, 1999), 135-36; Rothman calls this practice "Warning Sign Preservation," *Preserving Different Pasts*.

⁸³ Harrison Letter, RG79, Entry 10, Box 658, NARA II.

donors in the name of a “University Cactus Forest Association.” Large contributors included Mrs. Hobart Johnson and Mrs. W. J. Young. Notable in his resistance to participation was Harold Bell Wright, the man who pointed Vorhies toward the forest a decade earlier. Harrison had also gained the support of two prominent Arizona political leaders, former Governor John C. Phillips and present Governor George W.P. Hunt. Both of these endorsements were hardly surprising given that Phillips went hunting with Shantz, Fred Winn, and other Tucsonans while Governor Hunt was in the midst of attempting to fend off federalization of lands in Arizona (and would therefore welcome non-federal solutions to conservation).⁸⁴

Governor Hunt was concerned with a rapidly spreading Federal presence in Arizona since all these land withdrawals diminished state control, revenue, and opportunities to exploit resources. In 1931, Utah and Arizona had funded a commission to investigate federal land withdrawals of some six million acres. Presenting the report, Hunt wrote other western governors:

The federal forest service, the Indian department, and the park service appear desirous of extending their respective spheres of influence by seeking additional mandates of territory in our states...Realizing the political ability and influence of those in the federal bureaus, and the funds they have for disseminating propaganda, and for entertaining public officials, etc., I consider them formidable antagonists, that, in order to be checked, require the united cooperation of the western states.⁸⁵

In particular, Hunt was concerned with federalization of lands around the Grand Canyon, but tension over the process poisoned the cooperative atmosphere surrounding the search for the new

⁸⁴ Tillotson to Albright April 18, 1931; Brooks to Albright April 28, 1931; Albright to Tillotson May 1931; Albright to Merriam May 1931, Harrison to Hitchcock August 19, 1931, RG79, Central Classified Files, Box 658, NARA II; H. L. Shantz, “Hunting the Collared Peccary in the Rincons,” *Arizona Wildlife and Sportsmen*, 2 (March 1930): 4.

⁸⁵ “Move to Block U. S. Land Withdrawals in West Urged by Hunt,” *Arizona Republic* Sept. 4, 1931, collected in RG79, Central Classified Files, Box 658, NARA II.

desert monument. Thus, the university (i.e., state) and private collaboration to protect the University Cactus Forest was a welcome alternative to a federal space. Superintendent Tillotson, without funds and mindful of these nuances, wrote to Albright with the following argument:

If this acreage has already been purchased by the State through the University there would be no further complication toward the acquisition of land as would be the case if a National Monument were to be established. If this particular area should be administered by such men as Dr. Shantz and Dr. Vorhies of the University and Dr. Shreve of the Desert Laboratory the purpose would certainly be served just as well as if it were included in the proposed National Monument. This would also be a good opportunity for the National Park Service to cooperate with the State and to initiate and encouraged a movement for State Parks. Furthermore, Arizona is, as you know, at least under the present administration, violently opposed to further so-called 'Federal Encroachments'. I have been all along and still am very enthusiastic about the preservation of desert flora and...in urging the establishment of a National Monument for this purpose...However, if a State Park, serving the same general purpose could be established and if we should get behind such a movement, rather than to insist upon the establishment of a National Monument of this character it might be a politic move on our part to indicate that we are not anxious to acquire more land merely for the sake of increasing the Federal holdings, but that our primary interest is solely in the preservation of the objects of scenic, scientific and historical interest.⁸⁶

That Shantz, on behalf of the University, was willing to act, and could find political support at the local and state level, dialed down the sense of urgency Tillotson and the NPS felt over protection. However, under pressure from Hitchcock, a prominent Republican with ties to President Herbert Hoover, the Service sent out a negotiator to look over the situation.

The NPS dispatched Roger Toll, Superintendent of Yellowstone, to investigate all the various Sonoran desert areas. He had plenty to choose among. The Park Naturalist for the Southwestern Monuments, Robert Rose, sent a detailed report on a cactus forest near Florence, Arizona. In addition to the areas proposed earlier, Florence gave the Service eight potential sites. The site had road access (today reached most easily along 79), contained large numbers and

⁸⁶ Tillotson to Albright, September 24, 1931, RG79, Central Classified Files, Box 658, NARA II.

diversity of cacti, had ocotillo, and even included an area of “picture rocks,” petroglyphs chipped into a basalt band along one edge of the cactus stand.

Toll was not impressed with Florence or any alternative. Responding to the photos Rose included, he wrote Albright: “Mr. Rose [sic] notes and photographs are interesting, but his photographs indicate that the stand of the Sahuaro is by no means comparable with the University of Arizona tract sixteen miles east of Tucson. No area has as yet been reported that approaches this area in excellence of cactus exhibits. If you wish Mr. Rose to go into this further, would suggest that he first familiarize himself with the University of Arizona tract and then try to find something on public domain which is nearly as good.”⁸⁷ Toll concurred with earlier recommendations: the Tucson Mountains and University Cactus Forest were the best sites and both had other conservation projects underway.

Having only just relinquished Papago Saguaro to local interests, and pursuing a broader regional agenda and ongoing conservation efforts, it is hardly surprising that the NPS was not eager to rush into a potentially difficult land deal. The same could not be said for local enthusiasts and scientists. If we look over the contact points between the agency and the respective communities, the difference in perspectives comes into sharp contrast. Take, for example, one of the NPS correspondents, J. J. Thornber, of the University of Arizona. While advising on the monument, he was at work with co-author Frances Bonker preparing the popular work *The Fantastic Clan: The Cactus Family*. As an author who would open a work by positioning the reader to think,

Here in our own back yard, as it were...time has carved and chiseled out wonderful valleys and canons, and graced their floors with tiny streams...This

⁸⁷ Robert H. Rose, “Notes on Cactus Forest Area which Begins Five Miles East of Florence, Arizona on the Improved Ray Road,” July 26, 1932; Toll to Albright August 30, 1932, RG79, Central Classified Files, Box 658, NARA II.

desert fairyland is brimful of Nature's most curious plants and flowers. Here in Nature's workshop you will find plants and flowers weird and marvelous, of fantastic shapes and grotesque design, of glowing hue and exotic fragrance,

Thornber was unlikely to vote the decommissioning of a desert monument in favor of a golf course.⁸⁸ Likewise, Forrest Shreve, with more than twenty years at the Carnegie Desert Lab, was in the process of publishing his popular work on cacti: *The Cactus and Its Home*. C. B. Brown, Chairman of the Pima County Park Commission, and member of the Tucson Natural History Association, had also formed the Tucson Game Protective Association in 1922. Part of the Arizona Game Protective Association, with ties to other game protective movements across the region and nation, the Association advocated for conservation laws as well as access to hunting grounds. Brown would also lead efforts to create the Pima County Tucson Mountain Park.

Perhaps no one was as effective a booster for protecting the Tanque Verde Cactus Forest as Homer LeRoy Shantz. Since he played such a large role in acquiring and shaping SNM, it is worth spending time considering his relevant background and perspectives. A relative late comer to the area, Shantz became president of the University of Arizona in 1928 and found himself immediately recruited to the local conservation and scientific causes. Vorhies, Thornber, Shreve, MacDougal: all could testify about the quality of the stand and Shantz concurred. He saw the forest in the context of a global network of botanic gardens and from the perspective of strengthening the university. The roots of this vision lay in his experiences as a botanist and a photographer.

A westerner by birth, Shantz was a plant physiologist and plant geographer of wide intellectual latitude and experience. He received a 1901 Doctorate for the study of vegetation in Colorado and worked on grasslands ecology and the acculturation of plants to the arid West. By

⁸⁸ J. J. Thornber and Frances Bonker, *The Fantastic Clan: The Cactus Family* (New York: Macmillan, 1932).

end of his life in 1959, his work had become internationally recognized and his classification for the natural regions of North America was considered standard. Trained to think in terms of ecological systems and recognized the grandeur of climax ecology promoted by ecologist Frederick Clements, Shantz was also a photographer with vast experience. He utilized photography to survey plant species and distribution, document erosion, and simply record the spectacular. In his work, he described levels of ecological organization and then illustrated them with images of ‘typical’ formations. In the processes, Shantz was working toward visualizing healthy landscapes, and interpreting ecological science visually. By the end of World War I he had taken thousands of photographs recording ecological conditions in the Great Plains and across the West.⁸⁹



Figure 7. Saguaro Flower in Cactus Forest, Shantz, 1935, UAIR.

In 1919, working for the Department of Agriculture, Shantz turned his photographic botanical skill upon Africa to map the resources of the continent for American policy makers. In

⁸⁹ Carl O. Sauer, “Obituary: Homer LeRoy Shantz,” *Geographical Review* 49, no. 2 (April 1959): 278-280; Michael G. Barbour, “Ecological Fragmentation in the Fifties,” *Uncommon Ground: Rethinking the Human Place in Nature*, ed. William Cronon (New York: W. W. Norton & Company, 1996): 234-36; H. L. Shantz, “A Study of Vegetation of the Mesa Region East of Pike’s Peak: The Bouteloua Formation,” *Botanical Gazette* 42, no. 1 (July 1906): 16-47; Homer L. Shantz Biographical File, “Obituary,” and “Biographical Note,” Special Collections, University of Arizona Library, Tucson. Shantz’s images can be found in digital form at <http://uair.arizona.edu/>.

1919 and in 1924, Shantz made major transits of Africa.⁹⁰ Captivated by the landscape as well as by the botanic gardens he visited, he was especially drawn to the aesthetics, organization, and setting of the South African National Botanical Garden in Cape Town, Kirstenbosch.⁹¹ Like other gardens, Kirstenbosch was both a refuge for plants, a site for scientific investigation, and provided a location for the presentation of native and introduced species to the public. Surveying the possible creation of a national monument in the 1930s, Shantz used precisely these ideas, and referred specifically to Kirstenbosch as a model, while describing his hopes for the cactus forest a decade later. He wrote:

This cactus area lies close to the University of Arizona, and it is sage to predict that if it can be preserved for scientific use it will become not only outstanding in its value to the scientists of the Southwest but also an area known throughout the world of science for nowhere else can so fine a collection of native desert plants be found as on this lands. What we hope is to secure an area of about nine square miles adjacent to the Coronado National Forest. If this can be secured, we can probably secure additional land in the forest to give us an area ranging from the desert floor to the top of one of the mountains. *There is only one garden in the world which would compare with such an area and that is Table Mountain in South Africa* [emphasis added]. This garden is maintained as a great natural area, and a small portion of it is set aside for the inclusion of native species which grow in the region but are not included naturally in the area. One can in a day at this great garden see growing under practically natural conditions most of the interesting plants of South Africa. *If the Tanque Verde area can be secured for the University, we can reproduce here a garden of this type, being careful to retain the natural character throughout most of the region* [emphasis added].⁹²

⁹⁰ John E. Sanford, "A 9,000-mile Trip Through Africa in Search of New Crops," U.S. Department of Agriculture Press Release" (Monday, December 6, 1920), Homer Leroy Shantz Papers, MS30, Box 8, folder 6, University of Arizona Special Collections, Tucson, Arizona (hereafter UASC); H. L. Shantz, "Travel Notes on a Trip Through Africa From the Cape to Cairo," MS30, Box 5, pp. 172, 177, Shantz Papers, UASC; Christopher Willis, Gideon Smith, and Ian Oliver, "From Whitehill to Worcester," *Veld & Flora* (March 2006): 34-39; William Roger Louis, "The United States and the African Peace Settlement of 1919: The Pilgrimage of George Louis Beer," *Journal of African History* 4, no. 3 (1963): 413-433.

⁹¹ In 1913, the South African government dedicated The South African National Botanic Garden on the grounds of Cecil Rhodes' Kirstenbosch Estate. The garden's mission was to cultivate endemic and exotic plants for the economic benefit of South Africa. Donald P. McCracken, "Durban Botanic Gardens, Natal: 1851-1913," *Garden History* 15, no. 1 (Spring 1987): 64-73.

⁹² Shantz to John E. Harrison, Dec. 18, 1930, John Harrison Papers, AZ170, UASC.

Shantz was true to his vision and stood ready to act when the National Park Service was not.

Superintendent Tillotson's argument that the National Park Service should not push for a monument and instead defer to the state and university became the official position following Roger Toll's 1933 report. After traveling to alternatives, Toll agreed that Tanque Verde was the best and the Tucson Mountain stand, second best. Both were worthy of national monument status but were already protected by the university and Pima County respectively. Additionally, the University site had land ownership complications. Given these conditions, Toll recommended against establishing a monument at either location.

Frank Hitchcock did not agree with this opinion and instead argued vigorously for a monument. Toll reported:

I expressed these conclusions to General Hitchcock but he is not in accordance with them. He ... feels the area would be better protected under Federal control than under State of University control. He would like to see the area enlarged by including a part of the Coronado National Forest and also other adjacent lands now in private ownership or subject to valid existing claims. He believes that all obstacles can and should be overcome and asked me to cooperate toward that end. I told him that I was in agreement with him so far as recognizing that this is the finest area of sahuaro, that it should by all means be protected and that it was of a quality suitable for a national monument.⁹³

Director Albright patiently responded that Toll should "study definite boundaries and seek approval of state and local homesteaders to exchange lands as a first step."⁹⁴

⁹³ Toll to Albright, February 8, 1933, cited in Ben H. Thompson, Chief, National Park Division Branch of Lands, "Report to Mr. M. R. Tillotson, Regional Director National Park Service, Region Three Santa Fe, New Mexico, *Concerning the Boundaries of Saguaro National Monument*, Central Classified Files 1933-1949, National Monuments, Box 2365, Folder 602 "Boundaries Saguaro," RG79, NARA II (hereafter cited as Thompson Report), p. 5.

⁹⁴ Albright to Toll, Telegram Feb. 7, 1933, Thompson Report, RG79, entry 10, box 2365, folder 602, NARA II, p. 6.

Shantz and Hitchcock were no longer waiting for the NPS. They both faced their own deadlines. Shantz was under pressure to recoup university funds and Hitchcock was watching the clock run down on a friendly Hoover administration.⁹⁵ They turned to Fred Winn, supervisor of the Coronado National Forest, and together began to craft a monument from University and National Forest land. Winn, a staunch proponent of conservation and something of an acolyte of Aldo Leopold's love for wild lands, was ambivalent about the need for designating the area as a monument. He thought the national forest designation protection enough for the area, but since the Monument would retain the land use status quo, and since he favored protection, he willingly went along. To preserve established grazing rights on the mountains, Winn inserted a clause protecting "use of the land now within the Coronado National Forest for national forest purposes." He was expressly referencing the five grazing claims that overlaid the Rincon and Tanque Verde mountains.⁹⁶

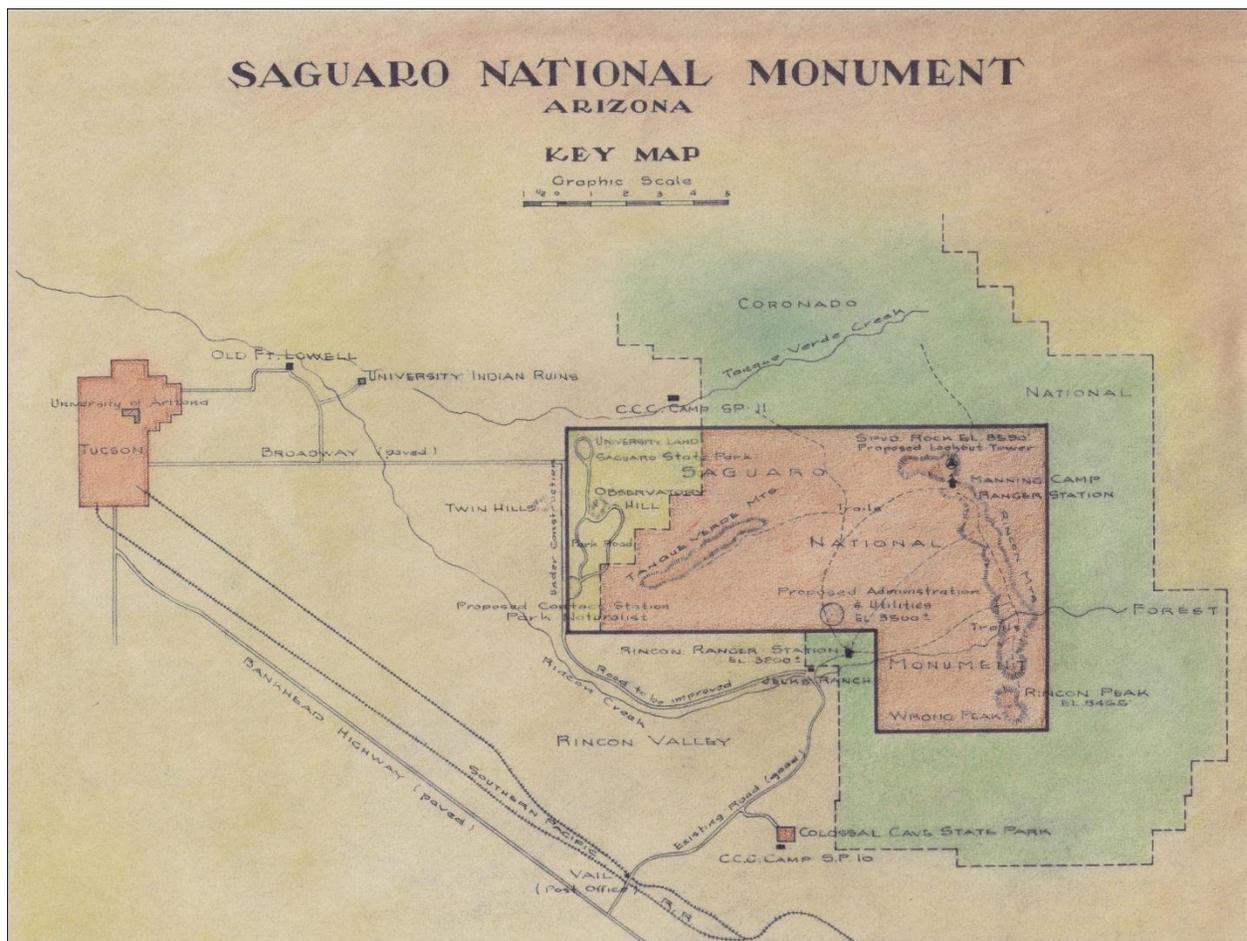
With documents prepared, Hitchcock went to Washington, D.C., in the final days of the Hoover Administration to finalize and witness the proclamation. Director Albright supported the designation, writing Interior Secretary Wilbur, "I am in hopes that the Forest Service will be agreeable to establishing a national monument" and administering it.⁹⁷ Wilbur supported it. Secretary of Agriculture Arthur W. Hyde supported it. Chief Forester Robert Y. Stuart supported it. With everyone on board, Secretary Hyde transmitted the recommendation to President

⁹⁵ "We have been working most diligently to perfect the plan and to get it before you in season for action by President Hoover. It will be a grievous disappointment to those of us especially interested if action is not taken before March 4th to preserve for all time the remarkable growth of giant cactus..." Hitchcock to Sec. of Interior Ray Lyman Wilbur, February 20, 1933. Copy included in Thompson Report, RG79, Entry 10, Box 2365, Folder 602, NARA II.

⁹⁶ "History and Legislation," SAGU 257, Box 1, Folder 2, WACC.

⁹⁷ Albright to Wilbur, February 24, 1933, copy included in Thompson Report, RG79, Entry 10, Box 2365, Folder 602, NARA II.

Hoover. Signed in March 1, 1933, Saguaro National Monument was a hybrid place: It was a forest service monument with grazing rights included. Its main feature—the saguaro cacti—was largely under private, university, and state ownership. Both the cactus stand and forested mountain underwent a legal re-designation without real distinction. Some lands were withdrawn from homesteading. The University retained its lands. No monies changed hands. Like Papago Saguaro before it, designation was easy. No one lost their rights.



Map 3. 1937 Preliminary Map, SAGU257, Box 2, WACC.

Because of these ambiguities, and the history of Papago Saguaro, the NPS had willingly watched a second Sonoran Desert monument slip from its grasp. Were they wrong to do so? The trajectories of Saguaro and Saguaro Papago were similar. Both represented cherished local

landscapes. The National Park Service of 1933 was a much stronger agency than the General Land Office of 1914. However, like the GLO, it acted within a social context limiting the possible. In March 1933, the two monuments were tracking on remarkably similar paths. There were differences. Saguaro National Monument had a constituency Papago Saguaro never had: arid lands scientists, local conservation organizations, and a university reluctant, yet willing, to absorb some financial risk to have access to a world class scientific park. Both represented easy establishment: protecting status quo. Easily established amid the social engineering of the progressive Arizona, the Phoenix constituency refashioned Papago Saguaro into a city park in the Phoenix cityscape. Other differences were equally important. Saguaro, arriving a decade later, came into being after an additional decade of development and the continued destruction of Sonoran Desert ecosystems. Further, by the 1930s, Saguaro's advocates had a science and rhetoric to explain the desert: ecology and an emerging wilderness movement. Additionally, Saguaro was distant to the immediate needs of the city; this distance gave a kind of breathing room into which New Deal money would flow during the decade. But mainly, Tucson had a coalition, the "fantastic clan" of arid lands experts and advocates who were instrumental in pushing for protection. Fred Winn and Homer Shantz funneled these conversations into Frank Hitchcock, who shuttled them to the Progressive Herbert Hoover. This upwelling of activism is clear in the language of the Proclamation:

Whereas a certain area within the Catalina Division of the Coronado National Forest in the State of Arizona and certain adjacent lands are of outstanding scientific interest because of exceptional growth thereon of various species of cacti, including the so-called giant cactus, it appears that the public interest will be promoted by reserving as much land as may be necessary for the proper protection thereof as a national monument.⁹⁸

⁹⁸ Proclamation No. 2032, 47 Stat. 2557 (March 1, 1933).

The “scientific interest,” of the monument was in the “public interest.” This belief hinged on the ideal that natural diversity contained valuable social qualities. The public was the Tucson-based scientists, the people of Tucson, and Americans generally. The Monument bridged the link between natural attributes of a local landscape and a claim on inclusion in the American nation.

At no point was the future of Saguaro National Monument assured and when created, it retained an insecure foothold. But once established, it did not remain invisible. In June of 1933, President Roosevelt would reorganize the national monument system, sweeping them all into Harold Ickes’ Interior Department, and placing them under Arno Cammerer’s control. The transfer stirred up a storm of concern from stakeholders. More importantly still, the New Deal brought money and energy to Saguaro, making a physical fact of a place that was a monument in name only.

Chapter 2

Building Saguaro:

From New Deal to National Monument, 1933-1940

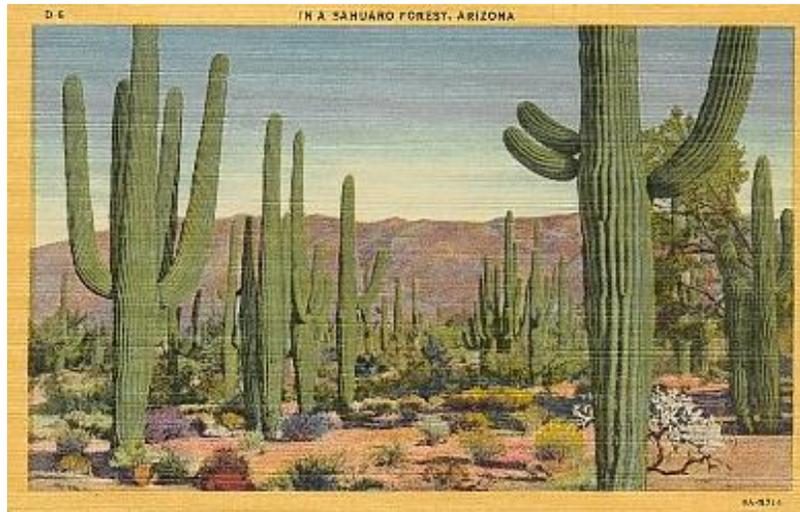


Figure 8. *In a Sahuaro Forest, Arizona.*

“Located in the sheltered foothills of the Tanque Verde Mountains, an area set aside by the government for the preservation of the giant cactus. The habitat of the Sahuaro is confined to a limited area of southern Arizona and northern Mexico. In this particular park over 1,200 varieties of cactus abound and the finest growth of giant cactus to be found in the world.” 1936.⁹⁹

“Tucson Mountain Park is the largest State Park in Arizona and the most extensive recreational area in the Southwest. It covers greatly varied topographical areas, which encompass an amazing variety of Desert Flora and Geological formations. Here the scientist, the botanist and nature lover find a great unspoiled region resplendent in the glory of the wilderness and developed to encourage and meet the needs for study and relaxation of an erudite community, a mecca for scholars, artists and eastern visitors.” Clinton F. Rose¹⁰⁰

⁹⁹ Linen-texture postcard distributed by Lollesgard Specialty Co., Tucson, Arizona. Printed by Curteich, Chicago, Il., Number 6A-H714, 1936. Jack Mount Postcard Collection, <http://saguaro.homestead.com/files/saguarocard.html>

¹⁰⁰ Clinton F. Rose, “Narrative Report of CCC Accomplishments,” March 31, 1936, RG79, E95, Box 5, NARA II.

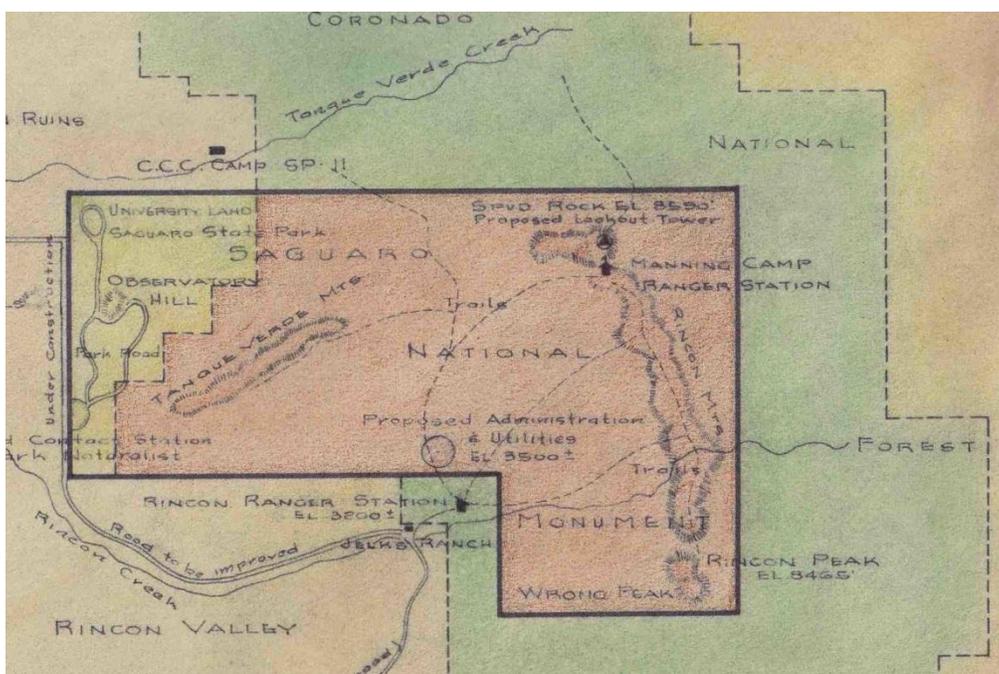
Mapping the Saguaro National Monument

The ink upon Hoover's Presidential Proclamation authorizing the Saguaro National Monument had scarcely dried when the incoming Franklin D. Roosevelt Administration began a national conservation effort that shook up the National Park Service and the nation. Until it sputtered out amid war preparations, emergency conservation work transformed American landscapes. Across the country places like Saguaro National Monument and Pima County's Tucson Mountain Park became national development projects built with Emergency Conservation Act money and Civilian Conservation Corps labor. The political energy transformed a nascent SNM from an idea into a working fact with visitor infrastructure.

Roosevelt also changed the political calculus behind the Monument. President Hoover had proclaimed Saguaro into existence under the Department of Agriculture's Forest Service. When Hitchcock had presented his plan in Washington, D.C., in March, Forest Service administration had smoothed the way since the vast bulk of the Monument was Coronado National Forest. In June, Roosevelt transferred administrative responsibility for monuments and national parks to the Department of the Interior. Saguaro National Monument was among the designated monuments that would be administered by the National Park Service.¹⁰¹ The transfer ignited outstanding questions of land use. Stakeholders expressed their fears that the National Park Service would undermine customary grazing rights and other management strategies. Despite initial NPS reluctance to take over the Monument and intense lobbying by grazing lease holders James Converse, Melville Haskell, and J. Rukin Jelks, Secretary of Interior Harold Ickes accepted the Monument. Further, control of the Monument did not mean control of the cactus

¹⁰¹Executive Order 6166 (June 10, 1933). The transfer of responsibility was scheduled to take place in August 1933. On the federal agency controversy surrounding the transfer see A. Berle Clemensen, *Cattle, Copper and Cactus: The History of Saguaro National Monument* (Denver: Denver Service Center, 1987), 120ff.

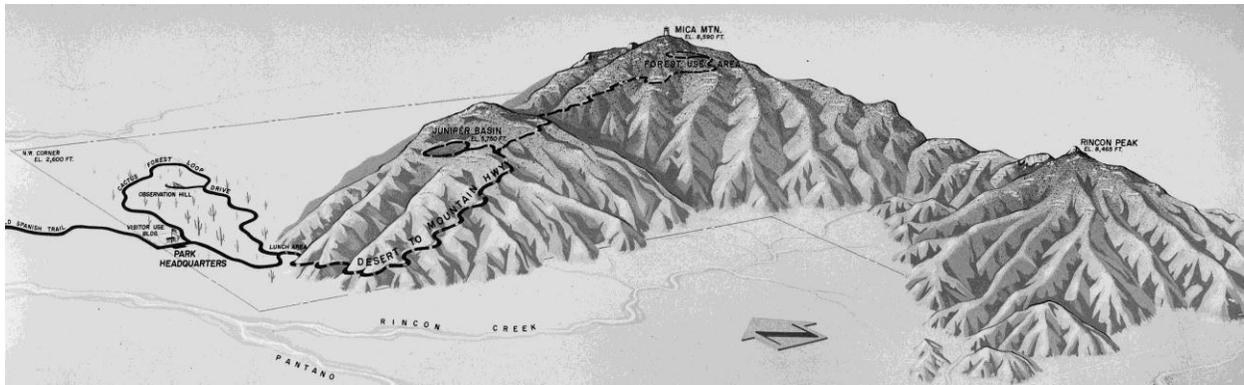
forest and the NPS suddenly found itself in the exact position Roger Toll and Minor Tillotson had sought to avoid. Delegated with Saguaro National Monument, the NPS really only became neighbor, not manager, to the cactus forest. As illustrated on the map detail below, NPS land is in red, University, private, and state land in yellow, and the National Forest in green. Most of the red section had previously been part of the Coronado National Forest.



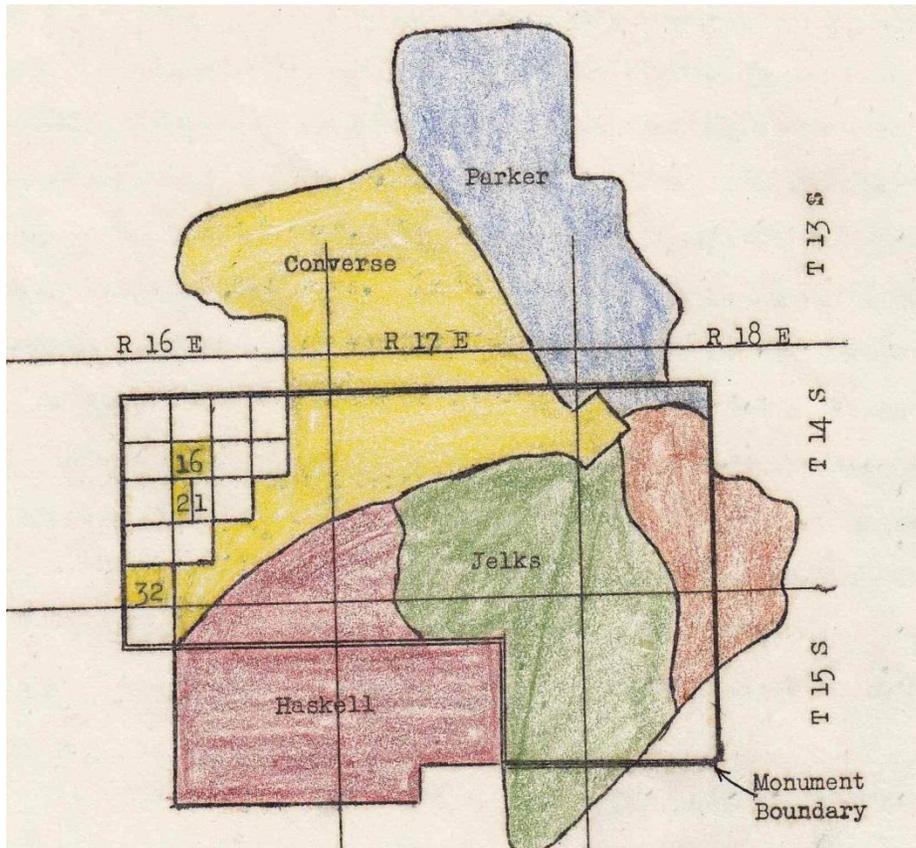
Map 4. Detail from the 1937 Preliminary Map, SAGU257, Box 2, WACC.

The cactus forest was generally confined to lands as-of-yet only imagined to be part of the Monument. An evaluation of topographical and grazing permit maps clarifies the relationships among land ownership, the cactus forest that surrounds the loop road (finished in 1940), the mountains, and the grazing allotments. Comparing the map above, with the topographical representation in the next image, we see the NPS controlled the mountains—Tanque Verde ridge, Mica Mountain, and Rincon Peak—but much of the *bajada* containing the cactus forest was outside park ownership. The next map depicts the five grazing allotments. Permit holders

who previously had utilized the Coronado National Forest lands now overlaid the Park Service's national monument.



Map 5. Mica Road map (never built), RG79, E40, Box 14, NARA II



Map 6. Grazing Permits overlaying Saguaro National Monument, 1937 Survey, SAGU257, Box 2, WACC.

Uncertainties engendered by the political transfer raised calls to disestablish the Monument as the Depression fueled increasingly frantic efforts by the University to divest its land to the

federal government, while vocal ranchers complained and politicians including Carl Hayden questioned the merits of the cobbled together monument. From the vantage point of the Forest Service, Fred Winn had just given away 40,000 acres of the Coronado National Forest. The NPS was also ambivalent about this new monument. Frank Pinkley, ‘Boss’ of the Southwest Monuments and a fierce champion of monuments and NPS interests, continued to express ambivalence over SNM since existing monuments were chronically underfunded.¹⁰² Further, SNM’s mountainous terrain required management expertise to oversee the Monument’s grazing allotments and forest fire control. Finally, the cactus forest area was a thicket of legal titles, none owned by the NPS in 1933.

For the NPS, New Deal money provided a developmental approach to the SNM although it did not resolve the land use questions. In 1937, with the CCC working away, the NPS committed to retaining Saguaro, leased a headquarters site in the cactus forest, and assessed the Monument. By 1940 the agency had its major managerial infrastructure in place: the loop road and custodian residence. New Deal money provided an effective monument presence in the non federal lands and paved the way for a 1948-51 negotiation among the University of Arizona, Arizona state, and the NPS. This deal made legal a monument that New Deal money had already pre-determined. CCC work meant that visitors would experience an interpretive loop road through the *bajada* while the mountain would remain a wilderness backcountry dominated by trails.

Civilian Conservation Corps labor literally built the monument into the land; it built a management and visitor infrastructure centered in the cactus forest. The result was a monument

¹⁰² Rothman, “Forged by One Man’s Will,” 91. Rothman notes that in 1927 Pinkley’s eighteen Southwestern National Monuments accommodated 270,000 visitors with less than 15 thousand dollars. In contrast, Mesa Verde National Park had some 72,000 dollars and 11,000 visitors, 91.

focused on university, state, and private land and away from the NPS-controlled mountains. The backcountry became defacto wilderness accessed by trails, while the cactus forest emerged as something of a 'trailside' museum where visitors could drive, hike, and interpret in proximity to picnic areas and easy automobile access.

Depression and New Deal

The Depression came upon Arizona quickly and late. In 1929, copper production peaked as Arizona provided half of all United States copper. Ranchers enjoyed high prices in 1928 and cotton was trending up toward 1920 levels. The stock market crash hit copper rapidly. Mines closed. Copper production fell 94% between 1928 and 1933. Employment fell 80% from 16,000 to 3,300 miners. Ranchers saw prices for their cattle fall by 2/3rds and suffered from the return of drought in 1933. Cotton prices plummeted. Banks began to fail, consumer spending dried up and people began to migrate out of the state. The disruption was profound. Historian Thomas Sheridan writes: "by 1933, 27 percent of all Arizonans (104,565 of 391,847) received aid from the Federal Emergency Relief Administration."¹⁰³ The state slashed budgets as property values declined; the boom was over.

The economic downturn affected Tucson and the University of Arizona. In his institutional history, Douglas Martin calls the University *The Lamp in the Desert*. By 1932 that lamp was guttering in the winds of economic decline as the optimism of the late 1920s rapidly turned to a siege mentality. Homer L. Shantz, who took office as University President on the first of July 1928, had entered with high expectations for expansion. He "wanted buildings for chemistry and physics, language and literature, the social sciences, College of Music, Arizona

¹⁰³ Thomas E. Sheridan, *Arizona* (Tucson: University of Arizona Press, 1995), 254.

State Museum, infirmary, an auditorium, and new dormitories for men and women.”¹⁰⁴ Instead, as state monies dwindled, he faced a budgetary siege. Amid these darkening skies, Shantz convinced the Board of Regents to spend limited money on the cactus forest. For both the University, and the cactus forest, the Depression proved a blessing in disguise as New Deal money replaced state funding.

As Shantz began his tenure with ambitions to expand the University’s infrastructure, part of his plans was buying up the cactus forest. He considered the Forest a site of ecological and astronomical study: ecological because of the rich desert flora, astronomical because it lay beyond Tucson’s light pollution. For Shantz, this acquisition would preserve a world-class ecological site and provide a new home for the University’s Steward Observatory. Between 1928 and 1936, and despite the Depression, he managed to accomplish many of his goals by drawing New Deal money to the University. He oversaw a broad expansion of the University even as the state whittled salaries and staff and under-cut programs. He drew WPA grants and loans worth more than a million dollars.¹⁰⁵ Beginning in 1929, he convinced the University to purchase and option several thousand acres of the cactus forest. Efforts to secure the forest gained momentum when President Herbert Hoover, withdrew four and a half sections from homesteading on August 2, 1932. The federal government turned this land over to Arizona to benefit the University.¹⁰⁶ Over the next six years, Shantz would repeatedly attempt to lure the federal government into buying the land and absolving the University’s debt.

During the 1930s New Deal money poured into Arizona. Programs like the Civilian Conservation Corps, Pubic Works Administration, and Works Progress Administration

¹⁰⁴ Douglas D. Martin, *The Lamp in the Desert: The Story of the University of Arizona* (Tucson: University of Arizona Press, 1960), 158.

¹⁰⁵ Martin, *Lamp in the Desert*, 153, 166.

¹⁰⁶ Clemensen, *Cactus, Copper, Cattle*, 117.

employed thousands and spent and loaned hundreds of millions of dollars. Between 1933 and 1939, the Federal government spent some \$342 million in Arizona while the state paid \$16 million into the federal treasury.¹⁰⁷ These funds broadcast widely. Dreamed into existence at the height of the Depression's economic and social disruption, Saguaro National Monument became a major beneficiary first of Arizona's lingering prosperity then of New Deal money. Shantz's cactus forest was born in the budgetary breathing space between 1928 and 1931, when Arizona was still spending money they did not yet realize did not exist. Therefore, the project to buy the forest predated the economic collapse by just enough to make its initial creation possible. When prosperity faltered, countercyclical spending filled the gap. The Depression developed the Monument far more than any of its creators, or the National Park Service, ever expected.

Transfer of Saguaro from the purview of the Forest Service to the NPS broke the coalition politics behind its creation. Ranchers and the Forest Service worked to undo the new reality and found sympathetic support from Arizona politicians and interest groups. University representatives, starting with Shantz, found themselves caught in a power struggle between advocates of a large NPS monument and those advocating return of Coronado National Forest to Forest Service control. Seeking federal money to buy out its investment in the Monument, the University worked to reduce the Monument to the cactus forest and clear the way for federal purchase. Within the NPS, Frank Pinkley, never a strong supporter of the Monument, favored its reduction. Outside the Service, advocates of a reduced monument found a champion in Senator Carl Hayden who made a number of legislative attempts to link a reduced monument and money to purchase the cactus forest. At the center of the struggle was a question of whether the NPS

¹⁰⁷ Sheridan, *Arizona*, 255; Leonard Arrington, "Arizona in the Great Depression Years," *Arizona Review* 17 (1968): 11-19; William S. Collins, *The New Deal in Arizona* (Phoenix: Arizona State Parks Board, 1999).

would assure existing grazing rights. The struggle over land use was more broadly conceived and fought: it utilized rhetoric then becoming commonplace in the struggle between supporters of the New Deal and its detractors. The fear of federal encroachment, coupled with the necessity of federal Depression aid, hinted at the Federal Government's growing presence in American life. Ranchers also played into, and manipulated, a bureaucratic struggle between the NPS and the Forest Service. Despite efforts by NPS Director Cammerer and Secretary of Interior Harold Ickes to assure claimants that their grazing rights were secure, the struggle to reduce the Monument remained intense until 1950.

While the Depression was painful for the private sector, it was a boom for federal employment and agencies. Like other federal agencies, New Deal money transformed the Park Service. Its budget grew nearly fivefold, from 11 million dollars in 1933 to 51 million annually during 1934 through 1936. In the same period, Service employment rose from 2000 to 17,598. The Civilian Conservation Corps (CCC) program was one motor behind this growth. CCC money and the labor it brought to bear on American landscapes propelled NPS budgets and programs. As historian Richard Sellars notes: "During the New Deal the Service's expansionist tendencies led it into enormous new responsibilities in recreation and historic site management. Especially with CCC funds, it extended its activities and influence far beyond national park boundaries, becoming involved in complex planning, intensive development, and preservation work with state and local governments from coast to coast."¹⁰⁸ Coming on the heels of FDR's reorganization order, the Service became a far larger, more powerful, and national organization during the 1930s.

¹⁰⁸ Richard West Sellars, *Preserving Nature in the National Parks: A History* (New Haven: Yale University Press, 1997), quote 140, statistics from 141.

CCC labor created Saguaro National Monument in several ways. It built infrastructure in the University's cactus forest and Pima County's Tucson Mountain Park. In effect, this infrastructure was the necessary basis to fashion a monument. The CCC built a visitor center/custodian house, the Skyline Loop road, miles of trails and road in both districts, and important fencing. CCC labor also helped the NPS announce the repurposing of the land. They erased social roads, razed shacks, filled mines, and collected litter. In short, they allowed the NPS to start a process of claiming the land as a monument. The vast majority of CCC work transformed lands that were not federally owned. However, work on Tucson Mountain Park and the Cactus Forest State Park built infrastructure the NPS would later control. In the 1930s, these acquisitions were years or decades away but the federally-funded CCC projects created a legacy that legitimized NPS control later. In essence, the NPS managed efforts in both locations created an expectation of these areas as natural NPS sites later.

New Deal money also directed long term development. In 1933, the NPS only controlled the mountainous reaches of today's Rincon Unit; the University of Arizona owned portions of the cactus forest feature of the Monument, the state of Arizona owned sections, and private parties owned large portions. Reluctant to spend money on the forested mountain embroiled in a dispute with the Forest Service, the NPS did not apply for funds for Saguaro National Monument proper.

Although the NPS did not request those camps, Homer Shantz and Pima County did. This local choice shaped the ultimate presentation and development of Saguaro. One example of these cascading effects is clear in the 1937 *Preliminary Survey for a Master Plan*. Surveying the options for developing Saguaro National Monument, Wildlife Technician W. B. McDougall wrote: "It is the consensus of opinion that the main headquarters of the monument should be on

the south side in the vicinity of the present Rincon Ranger Station, with a secondary headquarters in the Saguaro Forest to serve as a contact station.” McDougal believed that this headquarters required the water rights from Jelks Ranch. He argued: “if some way could be found to buy out Mr. Jelks and add his ranch to the monument, three very desirable attainments could be accomplished at one stroke. First, a very large percentage of the grazed area would be freed from domestic animals. Second, the water rights to a very good and much needed spring would be recovered. Third, an excellent site and office building for the main headquarters would be obtained.”¹⁰⁹ The NPS achieve none of these goals. Instead, they moved onto the University land, leased a CCC-constructed building, and by 1950 were on final track to exchange land with the University and utilize the CCC infrastructure in the cactus forest. Uncertainty over the ultimate shape of the Monument, coupled with the direction of CCC funds, predetermined the Monument’s shape. Since there was no money to buy out Jelks, no consensus the Monument would remain intact, and no willpower to fight for a monument without the cactus forest, the CCC era presented them a fait accompli: a building and a road through the most striking landscape feature. Focus on the cactus forest also foreclosed later efforts to build a desert-to-mountain road. CCC money shaped the ultimate outcome of the NPS monument because it funded a way to present the land to visitors; later reinterpretations became superfluous to this vision.

Civilian Conservation Corps

The CCC, Tucson Parks and NPS

President Roosevelt viewed the CCC as a vehicle to produce three outcomes: make work for young men suffering from Depression job losses, address the major conservation issues of

¹⁰⁹ W. B. McDougal, “A Preliminary Report for The Master Plan Saguaro National Monument Arizona,” May, 1937, SAGU257, Box 2, WACC, pp. 2-3.

America, especially protection of forests and promoting soil conservation, and finally, as a program to create political support for New Deal policies. The CCC was successful in its pursuit of all three goals. Between March 1933 and Summer 1942, more than three million men planted some two billion trees, sculpted erosion control on forty million acres, built ten thousand reservoirs, made forty-six thousand vehicular bridges, built thirteen thousand miles of hiking trails, stocked one million fish, killed 400,000 predators, and worked on the infrastructure of 800 new state parks.¹¹⁰ Most CCC work occurred on public lands, and most of these lands were in the West. In all four of his elections, Roosevelt ran well ahead of Democrats by 20% in western states. He dragged the party along with him in presidential election years and consequently, Democrats controlled most state legislatures from the beginning of the New Deal until the end of World War II. In part, historian Richard White attributes FDR's popularity to "the power of political personality" and patronage. Per capita, western states received more aid than other regions and programs like the CCC were highly visible and intensely popular program.¹¹¹ Starting in March 1932 CCC camps spread rapidly across the country. The first, NF-1, or "Camp Roosevelt," worked in the George Washington National Forest, Virginia. By July, 1463 camps employed 317,000 workers.

Management of these programs fell heavily on existing agencies and the NPS benefited with massive infusions of capital and labor. NPS Director Albright understood Roosevelt's political motivations and readied the service to take advantage of resources emerging from the Emergency Conservation Work Act (CCC-enabling legislation). He issued orders to create lists of "shovel ready" projects in the national parks and monuments. Secretary of Interior Harold

¹¹⁰ Neil M. Maher, *Nature's New Deal: The Civilian Conservation Corps and the Roots of the American Environmental Movement* (New York: Oxford University Press, 2008),

¹¹¹ Richard White, *"It's Your Misfortune and None of My Own: A New History of the American West* (Norman: University of Oklahoma Press, 1991), 472.

Ickes appointed Albright as the Interior Department's liaison to the ECW advisory council, the group coordinating distribution of CCC labor among the Departments of Agriculture, War, and Interior.¹¹² Although most CCC work took place under the auspices of the Department of Agriculture (Forest Service and Soil Conservation Service), work in the National Parks was exactly the kind of labor that Roosevelt favored. It took largely urban workforces into natural settings, practiced an interventional conservation, built the infrastructure for a prosperous and sustainable future, inspired hope and purpose, and was relatively cheap and labor intensive. Young men could work, take hope in their future, and believe in America. In a world where fascism, militarism, and communism drew the youth of Germany, Italy, Spain, and Japan into the streets, the CCC looked like a cheap strategy for conserving American democracy.

The CCC provided labor to build infrastructure in state parks and the NPS was in a special position to act as coordinator and liaison between the federal and state agencies in matters of park management. In the early 1920s, Steven Mather and Horace Albright had responded to a burst of park enthusiasm by facilitating the creation of a states parks movement and were thus conversant with the needs, goals, and politics of local parks.¹¹³ In the twenties, their support encouraged states to act on their own in preserving places deemed of local or regional importance (freeing the NPS from managing places like Papago Saguaro) while also

¹¹² Most CCC work operated under the Department of Agriculture, especially the Forest Service. However, the Corps worked on a range of projects on land that was both public and private. Roosevelt was careful to present private forest conservation and erosion prevention as beneficial to the public interest. He believed this to be true. This approach, rather than disingenuous, provides insight into Roosevelt's overwhelming sense that the health of the populous and the health of the land were both paramount to a healthy nation. See Maher, *Nature's New Deal*, Chapters 1 and 2; John C. Paige, "The Civilian Conservation Corps and the National Park Service, 1933-1942: An Administrative History" (National Park Service, 1985), http://www.nps.gov/history/history/online_books/ccc/index.htm, "National Park Service Role."

¹¹³ Landrum, *State Park Movement*.

creating (and supporting) a park constituency across the nation. Faced with coordinating CCC work in state county and municipal parks, the NPS was an easy fit.

Nineteen thirties Arizona had county and municipal rather than state parks.¹¹⁴ The Tucson Mountains were on county land and most of the work undertaken at Saguaro National Monument fell under the state park category since the University owned the cactus forest and Homer Shantz had declared the area a state park. Historian Berle Clemensen convincingly argues this designation was a fiction without legal basis. These were, however, public lands of a sort. In an April, 1935 letter to Herbert Maier, Richard Sias, a regional inspector for the NPS's Emergency Conservation Work program, downplayed ownership questions. What was important, he argued, were development aesthetics and the cactus forest's importance to a future monument:

Of the proposed work program recently submitted, practically all... is on state owned or controlled land, and administered by the University of Arizona. This land lies within and forms an integral part of the Sahuaro National Monument, and, though a small part of the whole Monument, comprised practically all of the valuable part of the monument, at least as far as the Sahuaro Forest is concerned. With these inescapable facts in mind, I have endeavored from the first to make my position absolutely clear to all parties, i.e., the regional office, the University authorities, and the National Park Service representatives at Coolidge, concerning the nature and character of any development which the State Park Service might be called upon to do on the state lands... that this work can, and of course should, be done completely in sympathy with the type and character of the project, and strictly in accordance with National Park Service ideals.¹¹⁵

That this land was not technically a 'state park' was immaterial to the CCC program. Roosevelt designed the CCC to employ as many people as possible in conservation work. Work on university land, whatever its designation, fell well within the political goals of the program.¹¹⁶

¹¹⁴ Jay M. Price, *Gateways to the Southwest: The Story of Arizona State Parks* (Tucson: University of Arizona Press, 2004).

¹¹⁵ Richard Sias to Herbert Maier, April 18, 1935, SAGU257, Box 3, Folder 21, WACC.

¹¹⁶ Clemensen writes: "Although the 1937 master Plan for the monument state that the Arizona State Legislature set aside the Saguaro Forest State Park area in February 1934, that was not possible. The legislature only met every other year in odd numbered years. A check of the

Massive conservation work took place on private farm land to mitigate erosion. Underlying these positions was the notion of nature as a commons. Whatever the legal reality of the Cactus Forest State Park, in the political space park designation created, the NPS could develop a tourist infrastructure, and Tucson could receive sorely needed employment for local men.

The CCC projects overturned the relationship between the NPS and Tucson's park landscape. In 1933, the Service had reacted with reticence to efforts by Frank Hitchcock and other Tucson boosters to acquire local attractions like Colossal Cave, the Tucson Mountain Park, Picture Rocks, or SNM. Some were too parochial, others too encumbered. NPS management of the States Parks Division reversed this relationship. It became a major coordinator in Pima County's Tucson Mountain Park and Colossal Cave, Tucson's Randolph Park, and the University's Indian Ruins and Cactus Forest State Park.¹¹⁷

Tucson Mountain Park and the CCC

Pima County had resolved to create a park in the Tucson Mountains in 1929. Heading the effort was C. B. Brown, Chair of the County's Park Board, President of the Tucson Game Protection Association, and a Department of Agriculture county agricultural agent. To create the

legislative journal for 1933 and 1935 did not show any action taken to create a state park. At the same time a check of the governor's papers and calendar did not reveal that he signed any bill dealing with a Saguaro Forest State Park. The Annual Reports of the Arizona State Land Commission, under whose administration such a park would fall, showed no mention of the park or of a budget allocated for it in the period 1933-40. As a result, one has to conclude that University President Shantz merely designated the area Saguaro Forest State Park for his own purposes." (Clemensen, *Cactus, Copper, Cattle*, 153). Shantz created a fiction that fit well with Roosevelt administration goals. Roosevelt was not choosy about distributing funds. He wanted stimulus. The act of officially disentangling university from federal lands could have had consequences in debates over the national monument's very existence. Those people advocating the return of the mountain to Coronado National Forest could point to the State Park as containing all the protections and flora deserving protection. The mountain National Monument would become superfluous.

¹¹⁷ Clemensen, *Cattle, Copper, Cactus*, 148. Clemensen argues that NPS staff oversaw all work on state, county, and city parks.

park, the county asked the Interior Department for 30,000 acres. Brown worked with Carl Hayden and Pima County personnel and, on 29 April 1929, Interior granted their request, withdrew mining and homestead claims, and leased Pima County the land. The County then leased fifteen thousand additional acres. Brown, through the Pima County Park Board, began grading roads, hired ranger J.C. McCain, and developed some picnic areas. Together they designated the area as a game refuge complete with water tanks. They scavenged labor from the depression's rising tide. Transients under the guidance of the Salvation Army provided much of the early labor.¹¹⁸

The Tucson Mountains bewitched Brown. "Here," he wrote, "are limitless views of desert vegetation, strange giant cacti forms, rock formations uprising sharply into forms and craggy peaks almost unreal to strangers and ever fascinating in the changing flood of desert light."¹¹⁹ The mountains formed a viewscape for the setting sun, and framed the city's western edge. As a member of the Tucson Game Protective Association and Pima County Agricultural Agent Brown was sensitive to the landscape transformations wrought by industry, agriculture, ranching, and increased population during the preceding decades. Although explicitly focused on wildlife habitat, the Association was part of a regional network of hunting groups filled with people intellectually and physically engaged with conserving local habitat.¹²⁰ The Tucson Mountains were not for hunting but rather habitat and scenery. Close to the city, they were ideal for recreation, picnicking, and encountering the Sonoran Desert. Their volcanic slopes and

¹¹⁸ Pima County requested the land under 44 Statute 741, June 14, 1926; Unknown, "Tucson Mountain Park History," 11/21/69, SAGU257, Box 11, Folder 6, p.2, WACC.

¹¹⁹ Peggy Larson and Sam Negri, "Cornelius B. Brown: A Vision of Tucson Mountain Park," *Arizona-Sonora Desert Museum News* 10, issue 4 (Oct., Nov., Dec. 2009), 2, UASC; Ethel Stiffler Carpenter and Roger Carpenter, *Letters from Tucson, 1933-1942* (Tucson: American University, 2009).

¹²⁰ Places-Arizona-Tucson-Organizations-Arizona Game Protective Association, ephemera file, AHS; Frederic Winn Papers, MS875, AHS, Tucson.

valleys were completely within the desert biome. Like the rest of the pre-World War II Tucson Basin, there were areas where ground water approached the surface but they had arroyos rather than rivers. Luxuriant cacti, palo verde, mesquite, ironwood trees, and a host of shrubs covered the slopes. Dense saguaro stands marched up the hills.

The area was not, perhaps, the ‘wilderness’ Clinton F. Rose reported to NPS superiors. It was part of the Amole mining district, and had been close to human populations for centuries. For a desert lover, scientist, or botanist, however, it offered an easily accessible site for the study and enjoyment of the desert.¹²¹



Figure 9. Tucson Mountain Park, Richard D. Sias, SAGU275, Series 4, Box 4, WACC.

In 1933, with a County Park in place, Pima County was in a strong position to request CCC money. The county officials had a legitimate project and felt they could undertake the labor-intensive projects favored under the ECW. The result was that the CCC established two camps in the mountains: Camp Pima (SP-6-A) and Camp Papago (SP-7-A, Preventorium in the map below). As was the case in many camps, it was mainly local men, hired through Pima County Reemployment Committee, who worked on Tucson Mountain Park. Their work focused

¹²¹ Clinton F. Rose, “Narrative Report of CCC Accomplishments,” March 31, 1936, RG79, E95, Box 5, NARA II; Clemenson, *Cattle, Copper, Cactus*, 88-109.

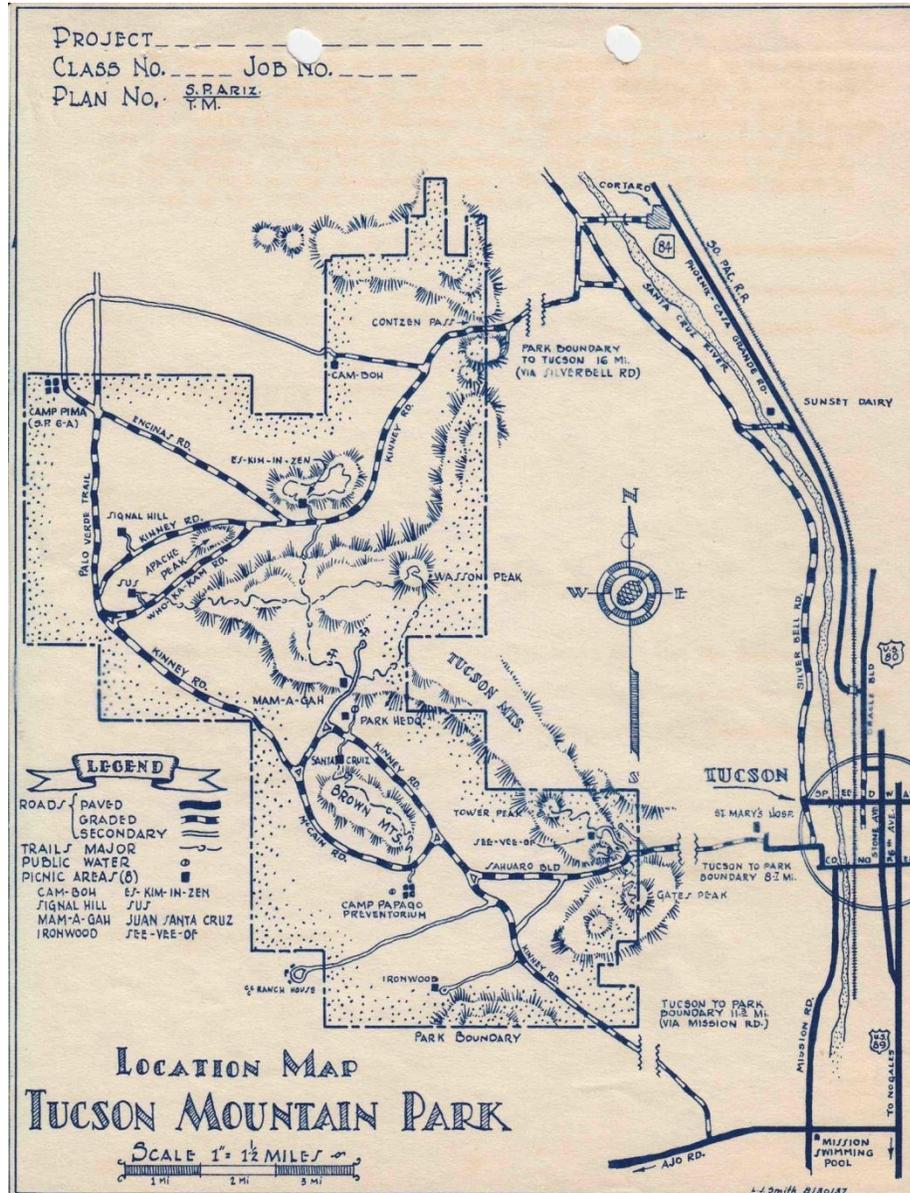
on building recreational infrastructure, fencing, windmills, water storage reservoirs, and roads, controlling erosion through revegetation, adding water catchment dams, as well as removing old social roads and human structures. Project Supervisor Clinton Rose, could claim that “development has followed a true conservation program to preserve the natural resources of the area and to protect game and wildlife. Enough area has been opened up by road and trail construction to enlighten the public on the true value of this park, and to provide recreational features congruous to the region.”¹²² They worked toward three general goals: to enhance wildlife habitat, facilitate recreation, and erase past land practices.

Camp Papago, SP-7-A, quickly built a series of buildings and roads, and transplanted plants but mismanagement and a lack of water at the site led to its demise by May 1934. The short-lived camp had a rocky history. Established in October 1933, it closed May 7, 1934 and its personnel dispersed into the CCC system. Most workers went to Colossal Cave across the valley at SP-10-A, others moved to SP-6-A, located in the present-day Tucson Mountain District of Saguaro. From the federal government point of view, SP-7-A’s first superintendent, Martin Cahill, mismanaged personnel and records. The source of the problem is obscure but Cahill resigned in February 1934. Rich Thompson argued that records did not reflect actual work performed, and conveyed to his superiors the sense that Cahill had wasted labor and resources.¹²³ Whatever occurred, Cahill oversaw the construction of the camp facilities. Beyond the buildings, camp workers planted 200 orange trees, dozens of cacti, desert spoons, and other desert plants. They created a cactus garden filled with cacti displaced from their work. Workers also built

¹²² Rose, “Narrative Report,” March 31, 1936, RG79, E95, Box 5, NARA II.

¹²³ “Project Reports CCC,” RG79, Entry 95, Box 5, Folder SP-7-A NARA II.

miles of roads accessing all areas of the park.¹²⁴ By 1937, the buildings of SP-7 became Camp Papago Preventorium. The site, run by the non-profit Community Service, Inc., housed underprivileged children in an effort to prevent tubercular infection.¹²⁵



Map 7. Overview of Tucson Mountain Park, by L. J. Smith, 8/30/37, SAGU257, Box 3, Folder 20, WACC.

¹²⁴ These projects are briefly laid out in "Project Reports CCC," RG79, Entry 95, Box 5, Folder SP-7-A, NARA II.

¹²⁵ Unknown, "Tucson Mountain Park History," 11/21/69, SAGU257, Box 11, Folder 6, p.2, WACC.

The second camp, Camp Pima (SP-6-A), had a longer life and was more influential on the Tucson Mountain landscape.¹²⁶ Tucson Mountain Park was a recreational facility for city residents and needed to accommodate picnics, hikers and riders, handle traffic, and link the mountains' western slopes with the city on the east. Pima County wanted it fenced to protect wildlife and desert plants from grazing and to delineate the boundary. Beginning in December 1933, SP-6's crew built its way into the park. They "rebuilt" the road to camp. The road was widened (18 to 20 feet across) and leveled, with sweeping turns. Rock reinforced edges. The focus on these roads was to present the land as unscarred. Nearly all visitors to the park would arrive in automobiles yet they would be going into nature and thus, roads needed to appear natural.

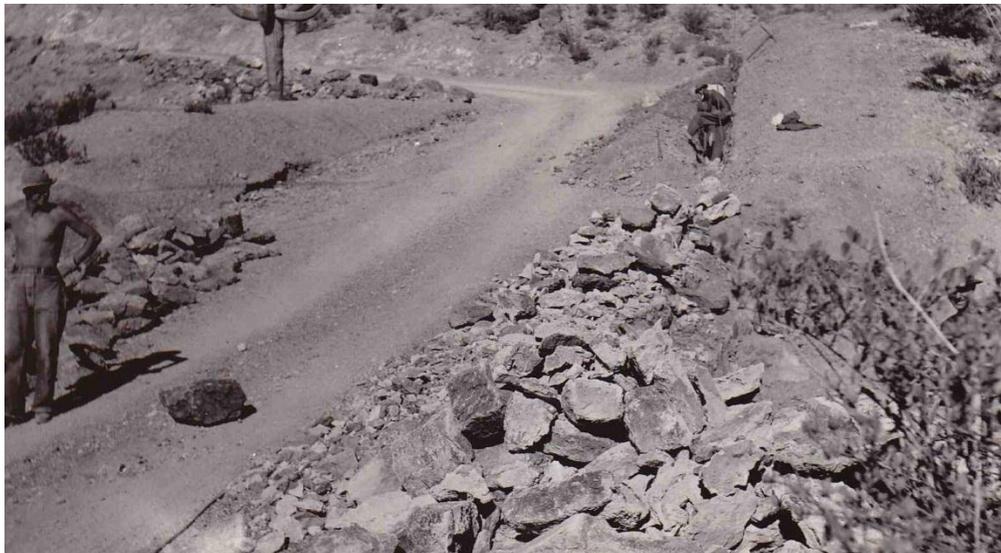
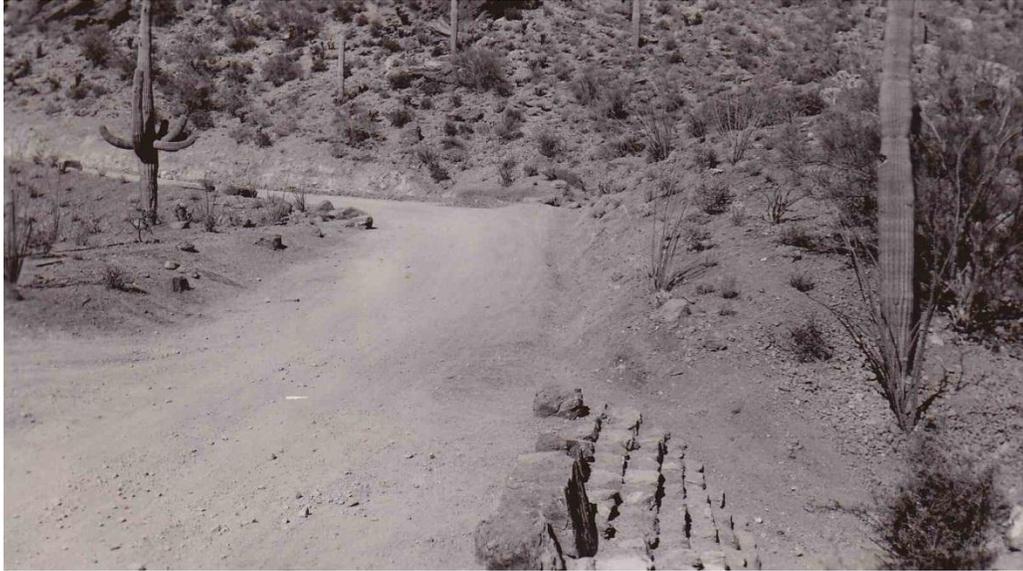


Figure 10. "Before sloping & planting of bank slope, near a mountain grade culvert in the Gates Pass mountain area." SAGU257, Box 3, Folder 20, WACC.

¹²⁶ Camp Pima was redesignated CP-1, County Park One, after 1940.



*Figure 11. After. Note the rock work and the re-vegetation work on both sides.
SAGU257, Box 3, Folder 20, WACC.*

The road network grew to circle the mountains. The CCC completed two of the most crucial links, Kinney Road and King Canyon in 1934 and 1936 respectively. Workers from DSP-1-A, who lived and worked at Camp Pima from August 1, 1934 to June 1935, completed King Canyon Road, finished the Wasson Peak horse trail, built dams, and worked on the park administration building.¹²⁷ The roads drew park users to picnic ramadas, camp grounds, and vistas on the mountain's western slopes.

¹²⁷ Clemensen, *Cattle, Copper, Cactus*, 151.



Figure 12. Sus picnic area, circa 1950s, SAGU257, Series 4, Box 4, WACC.

New roads afforded brand new vistas and opportunities. Kinney Road and Gates Pass provided a “roundtrip” drive for Tucsonans. At the pass, the CCC built latrines and a lookout shelter. Of this building, Superintendent Thompson noted: “This structure, situated on a high part of mountain from which a vast panorama of desert plains and mountains spreads to the east and west of the Tucson Mountains, is expected to prove the most popular of our Park facilities.”¹²⁸ Thompson’s description reflects an important and deeply embedded component in NPS design culture. Since the mid-1840s, Andrew Jackson Downing had promoted the shelter for its framing of view. The NPS had adopted this program through its roots in landscape architecture. From large venues to lookout shelters, NPS designers sought to craft their buildings to illicit emotions in visitors. Gates Pass shelter conformed to Downing’s purposes. Towards Tucson, the Catalina and Rincon Mountains hugged the city basin. Looking away from Tucson, afforded a panoramic view of the Avra and Altar Valleys and the Baboquivari Mountains beyond. In the foreground were the dense chain fruit cholla (*opuntia fulgida*) and saguaro stands of the Tucson Mountains’

¹²⁸ Narrative Report, SP-6, March 31, 1935, RG79, Entry 95, Box 5, “Project Reports CCC,” NARA II.

southwestern slope. The dark volcanic rhyolite, tuff, breccia of the Tucson Mountain Chaos rose jagged about the shelter framing the view as from a high window.¹²⁹ A practical gateway for visitors from the city, the shelter opened easy access to a classic vista.

The Kinney Road entrance took a different approach. It reached the park through Robles Pass, and welcomed visitors with stone work, wood, and Saguaro rib signs. The road rolled through a mixture of ironwood trees, palo verdes, and native vegetation including, ocotillo, desert shrubs, and the usual gang of cacti: saguaro, cholla, bisnaga.



Figure 23. Kinney Road Sign, SAGU257, Series 4, Box 3, WACC.

¹²⁹ U.S. Department of the Interior, National Park Service, “Geology of the Tucson Mountains,” SNP pamphlet.



Figure 14. Tucson Mountain Park, Rockfellow, SAGU257, Series 4, Box 4, WACC.

Building roads was part of building an experience based in a focused design strategy. All park infrastructures worked to conform within the naturalistic and harmonious design and landscape preservation codified and practiced by Thomas Chalmers Vint, Herbert Maier, Clinton Rose and others in the NPS.¹³⁰ Cattle guards and road signs utilized decorative saguaro ribs and wooden signs. The images of the roads above and those of built structures below reveal this aesthetic stamp. Natural materials and the presentation of harmony between built and natural environment were crucial attributes in 1930s NPS design approaches.

¹³⁰ Linda Flint McClelland, *Building the National Parks: Historic Landscape Design and Construction* (Baltimore: The Johns Hopkins University Press, 1998).



Figure 15. Building with stone, SAGU257, Series 4, Box 4, WACC.



Figure 16. Saguaro rib veneer on concrete posts, stone foundations, SAGU257, Series 4, Box 4, WACC.

Workers made extensive use of saguaro ribs for roofs and as veneer in their signs and posts. They utilized stone over concrete for picnic tables and stone for latrines. The CCC built nine picnic areas. These included Ez-Kim-In-Zin, Signal Hill, Sus, Cam-boh, and Mam-A-Gah. The first two were completed in 1934, and the last three, 1935.¹³¹

¹³¹ Clemensen, *Cattle, Copper, Cactus*, 151. Clemensen claims five, Clinton Rose claims nine. They are shown on the map below: Cam-Boh, Es-Kim-In-Zen, Signal Hill, Sus, Mam-A-Gah, Park Headquarters, Juan Santa Cruz, See-Vee-Of, Ironwood.

The CCC also worked to obliterate old signs of human habitation, control erosion, and develop wildlife habitat. Examples of obliteration included replanting small scale, “social” roads, and impacted roadways off of the main track. These projects, visible in the CCC work diagram below, contained automobiles to official roads and naturalized the interface between visitor and park.



Map 8. “Road Obliteration Projects” SAGU257, Box 4, Folder 18, WACC.

Each yellow orange penciled mark denotes an effort to contain visitors and naturalize the land adjacent to the road.

Erosion control and replanting improved the aesthetics of roadways and stabilized disturbed landscapes. In the next series of images we see a contour dam, seeded growth, a replanted intersection, and a seeded and replanted roadway. All these approaches were typical to CCC work in the Tucson Mountains.



Figure 17. Note the contour dam in the foreground. Described as 'blending with landscape.' SAGU257, Box 3, Folder 20, WACC.



Figure 18. "Seeding operations on earth fill dams showing return of small plant growth and grasses," SAGU257, Box 3, Folder 20, WACC.



Figure 19. "Landscape planting treatment on a former desolate intersection of Park Roads. Desert growth restored in natural plant composition to enhance appearance of newly [sic] erected Park Signs," SAGU257, Box 3, Folder 20, WACC.

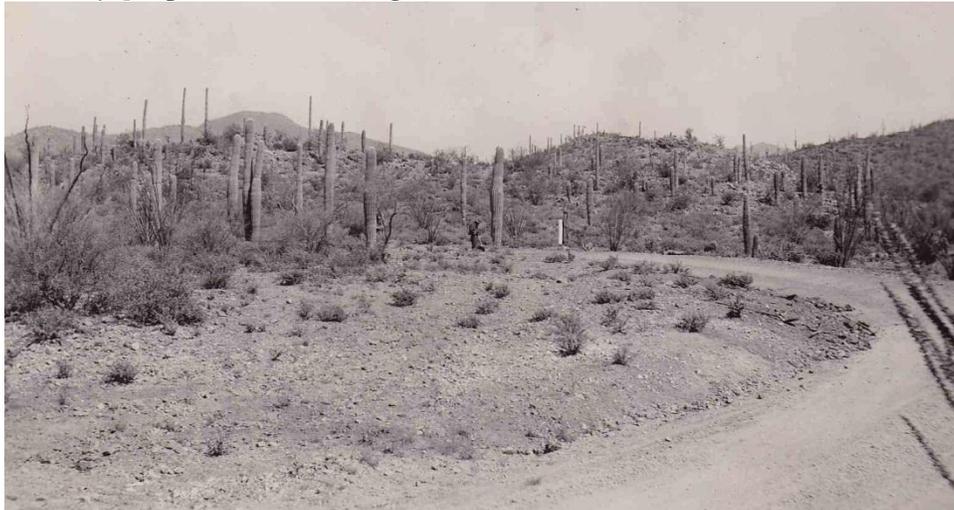


Figure 20. Before and After planting: "Before moving in desert scrubs and cacti to restore Natural landscape as a badly scarred road intersection"

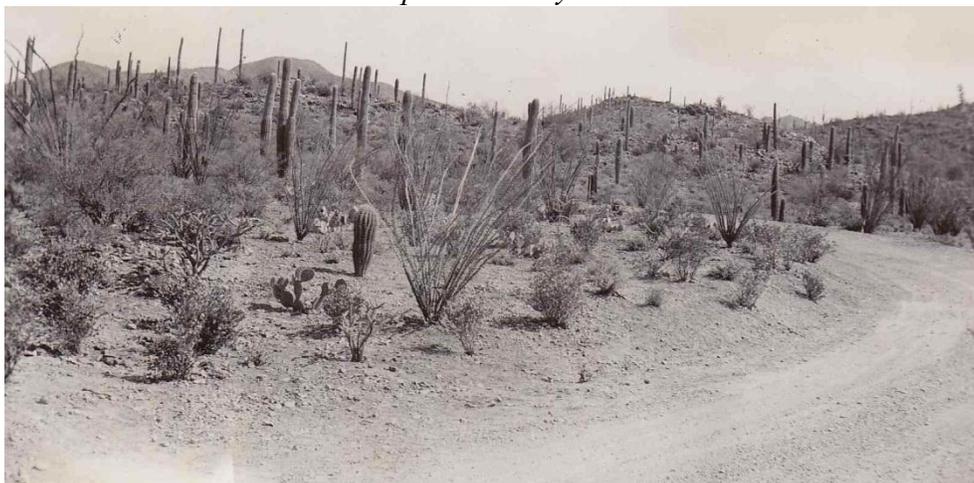


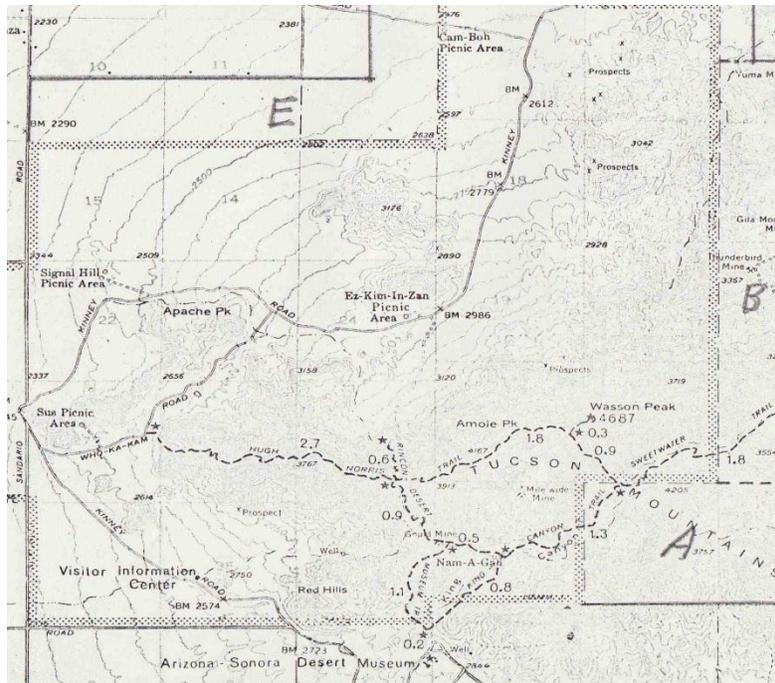
Figure 21. "Restored," both photos from SAGU257, Box 3, Folder 20, WACC.

The Civilian Conservation Corps built twenty-six dams, most earthen and half in what later became Saguaro National Monument. In 1936, Clinton Rose listed 1.5 miles of contour dam “with accompanying rock-filled sausage dams and spillways,” twenty-two masonry dams, and forty-five miles of fence: “practically the entire area.” The CCC built 19.5 miles of trails for horse and foot travel, graded 46 miles of road, built whole new roads like the one through Gates Pass, and a park headquarters building.¹³²

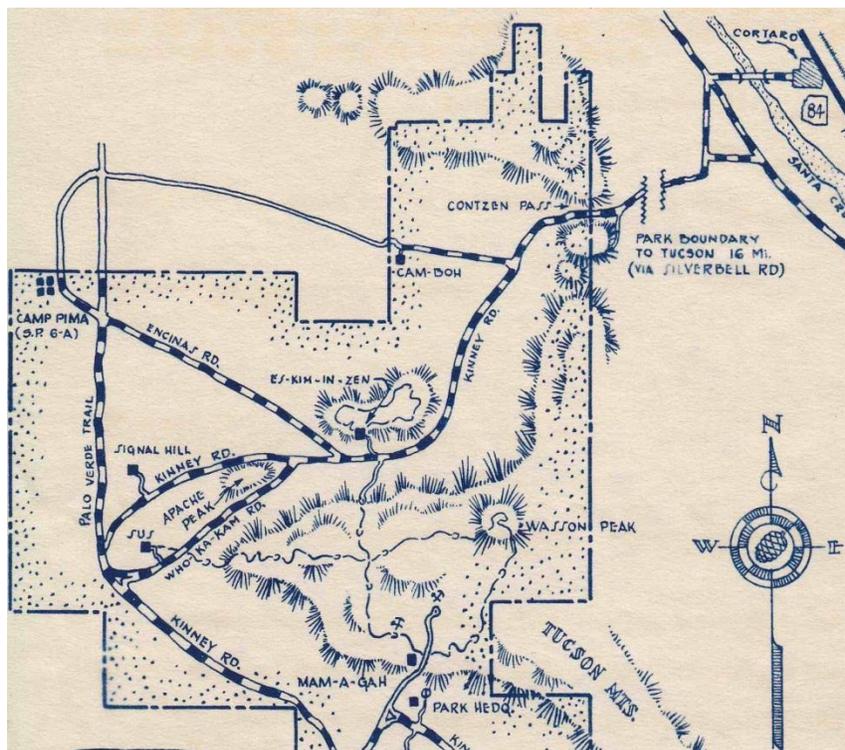
The aesthetic remodeling demonstrated to users that managers cared for the land. It told visitors that the landscape had purpose. If Rose’s lofty expectations were not completely shared by many users, they did capture a sense of the literary and scientific rhetoric of the era. Visitors might come to the park to picnic with their family, but they did so in a place looking largely undisturbed beyond the curb. Visitors arrived by automobile and could experience the viewscapes along the roads but were then afforded the opportunity to encounter nature by stepping away from the auto and into a series of trails.

The future Tucson Mountain Section (1961) of Saguaro National Monument benefited directly from CCC work in the access roads linking Tucson across and around the mountains, in picnic areas, and miles of paths. More broadly, the infrastructure built by the CCC took the park from aspiration to fulfillment. Visitors had many ways to enjoy an area that was highly visible, easy to access, and conveniently close to the city. The following two maps compare the overlap. The first is a map produced in 1968 as part of land acquisition plans for the Tucson Mountain District of SNM. The second is the same area in the 1937 CCC base map.

¹³² Clemensen, *Cattle, Copper, Cactus*, 151; Clinton F. Rose, “Narrative Report of CCC Accomplishments,” March 31, 1936, RG79, E95, Box 5, NARA II.



Map 9. SAGU257, Kucera, 1968, Box 7, Folder 3, WACC.



Map 10. SAGU257, 1937, Box 3, Folder 11, WACC.

As these maps indicate, by the opening of World War II, and the wind-down of CCC projects, the bulk of the road building and infrastructure necessary for visitors was complete. Two decades

later, the NPS would formalize its control of the area, inheriting the infrastructure it designed in the 1930s.

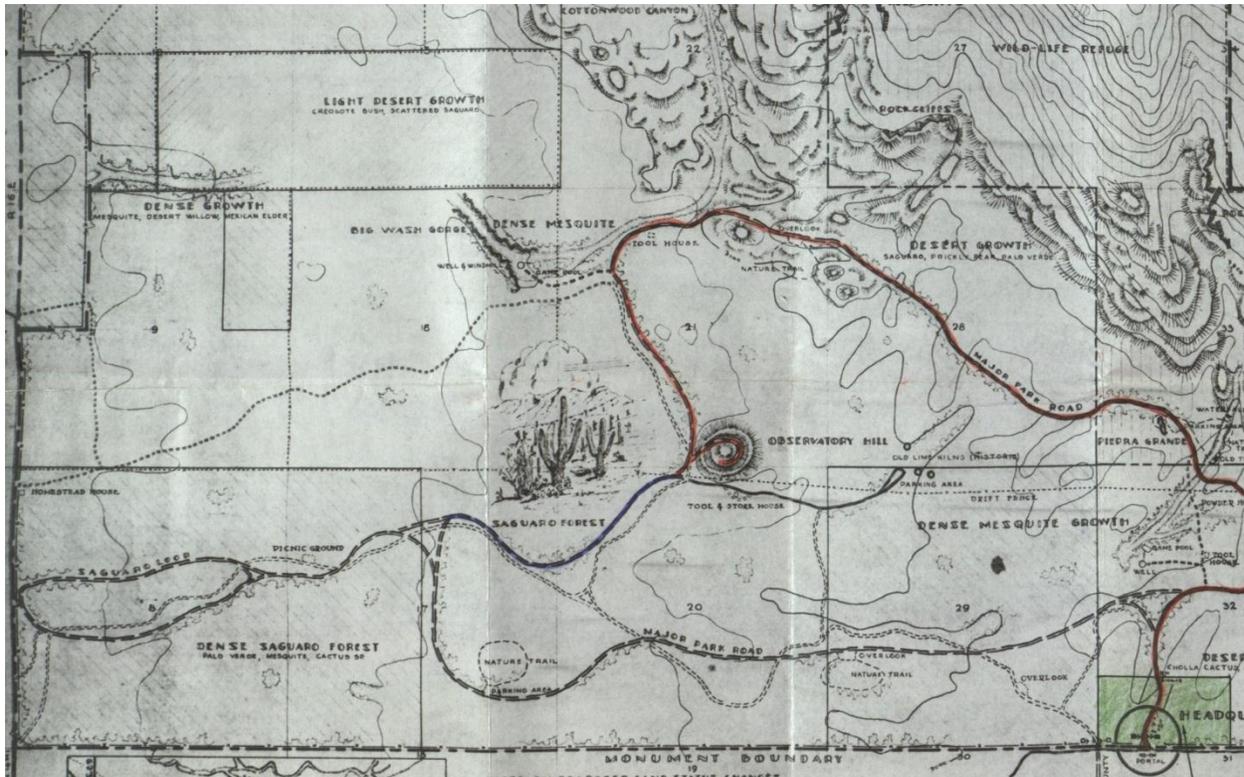
Tanque Verde State Park and the CCC

Across the valley, in the shadow of the Rincon Mountains, other CCC workers engaged in transforming the lands on and near the designated Saguaro National Monument. In November 1933, the Forest Service opened a CCC camp on land leased from James Converse along the Tanque Verde wash. A large facility that included 297 men, Tanque Verde camp operated through the winter and closed May 30, 1934. When work began on “national forest land” that November, its project list included plans for twenty-three miles of telephone line, twenty-nine miles of roadside fire prevention, twenty-six miles of truck trails, a tool house, five public camp ground clearings, two public camp ground latrines, twenty miles of fence, a well, six livestock reservoirs, stock bridges, mapping and surveying, and “foundations for the University of Arizona observatory” on Observatory Hill. In its six-month life, workers accomplished many of these goals.

Unlike later NPS work, FS-1 was working in from the northeastern edge of the monument and their development spread from there. In the map below we can see a number of their projects. This 1937 NPS map includes some of the preexisting Forest Service work. Note the projected loop road in color, and the existing ‘official’ road as a dark broken line. The light dashed lines are ‘truck trails;’ there are also tool sheds, picnic areas, and faint fence lines. Although difficult to ascertain exactly where all the work occurred, some of these facilities date from the Forest Service effort.¹³³ When the 1934-35 work season rolled around, the Forest

¹³³ Monthly Progress Reports, 1933-42, Forest Service A3297 Jan. 1935 to June 1935, RG35 “Records of the Civilian Conservation Corps,” Roll 19, NARA II.

Service no longer had a vested interest in pursuing CCC work in the cactus forest and did not re-initiate their camp.



Map 11. Detail, 1937 Saguaro National Monument Map, RG79, NARA.

In 1935, Homer Shantz applied for a camp to work on his university cactus forest. Granted, the request became Camp Tanque Verde (SP-11-A) designed to work on the University's portion of Saguaro National Monument—a location Shantz designated Saguaro Forest State Park.¹³⁴ The second Camp Tanque Verde took up where the first left off as crews began work at the end of July 1935. Workers focused on removing evidence of earlier land uses: mine test pits, squatters' camps, social roads, and garbage. They buried trash in the Loma Verde Mine, camouflaged miles of old roads with replanted brush and cacti, razed several buildings,

¹³⁴ Throughout the section on the CCC in Tucson, I borrow from Clemensen, *Copper, Cattle, Cactus*.

and “neatened” the desert. The goal was to erase signs of earlier uses and naturalize the landscape.¹³⁵

CCC work in the forest was extensive. In the map below, each circle represents a job. There was heavy activity around the Observatory Hill and the headquarters site, as well as at picnic areas. The extensive network of existing roads and new roads (some show up as checked lines in this 1937 map) also formed a major component of the work undertaken by CCC labor. Through this labor, the CCC began a process of repurposing the monument land from the mixed traditional uses of unassigned land to the directed landscape of the NPS.

This was ‘restorative’ work designed to recapture a pristine past and a prospective program to exclude alternative uses. Central to the effort was containing auto travel. Camp Superintendent W. A. Burnham, reported “the Park had been disfigured with a net work of old roads impassable to automobiles.”¹³⁶ Eliminating these social roads contained visitors to better maintained official roads. Project 707 captures the extent of the effort. Designed to contain automobile traffic and clarify the border between road and desert, the project worked throughout the cactus forest. The following sequence of images clearly demonstrates the process. Note that the CCC workers disturbed the soil, seeded, and transplanted more mature plants. They moved more than a thousand plants, including fair sized saguaros.

¹³⁵ Clemensen, *Copper, Cattle, Cactus*, 154; H.L. Shantz to Arno B. Cammerer, April 20, 1935, General Correspondence November 17, 1933 to Dec. 31, 1935; Narrative Report, SP-11-A, Saguaro Forest, Tucson, AZ, October 3, 1935, CCC Projects, Box 8; W.H. Wirt, “Report to the Director, National Park Service on ECW at SNM” February 29, 1936, master plan, SAGU257, Box 4, WACC.

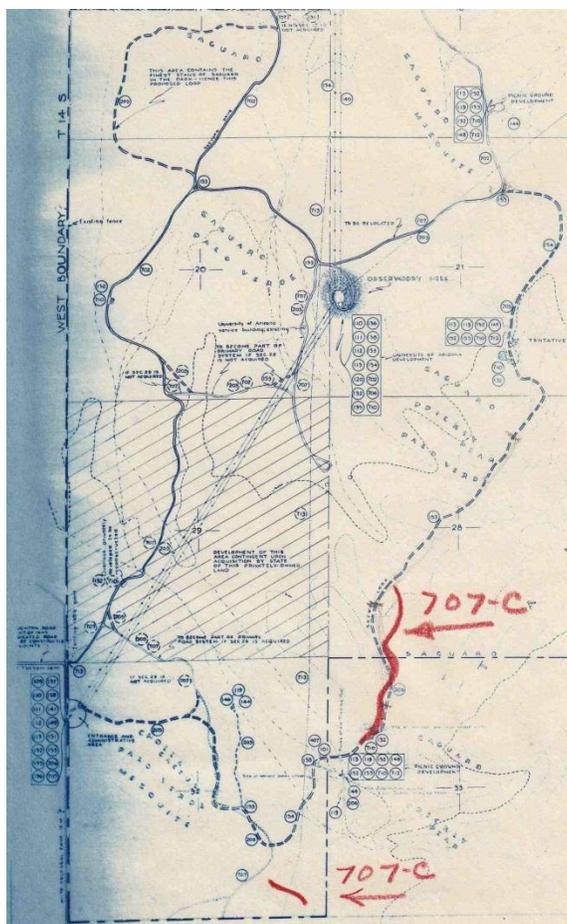
¹³⁶ “Narrative Report Camp SP-11-A,” April 1, 1936, Box 5, Folder SP-11-A, RG79, Progress Reports CCC, Entry 95, NARA II.



Figure 22. "A side road to be obliterated. This old road tempts tourists into trouble." Project 707, 1935, SAGU257, Box 4, Folder 19, WACC.



Figure 23. "The ground was scarified, good earth, vegetable debris and hardy cactus introduced and the area planted with fertile indigenous seed." Project 707, 1935, SAGU25, Box 4, Folder 19, WACC.



Map 12. Project 707 modified and erased roads; note the extensive work throughout the cactus forest. Each circle contains a CCC job number. SAGU257, Box 4, Folder 19, pt.1 WACC.

Repurposing the Monument

Transforming Land Use Practices

CCC work in the cactus forest transformed land use practices more than in the Tucson Mountains. This difference arose partially from the area's proximity to the national forest and also from different ecological settings. The Rincon Mountains forest drew people for firewood and hunting. A system of roads bled off the end of Speedway and led into the washes and piedmont cactus forests. Recreational and subsistence hunters, wood gathers, campers, and picnickers filtered into the cactus forest to park their cars among the cacti and use the landscape.

Ranchers ran their cattle and horses through the forest and the Tanque Verde Wash was the site of long standing pastoral and subsistence lifestyles.¹³⁷



Figure 24. "Reserva Monte Sahuaro de la Universidad de Arizona. No se permite Tirar o Cazar. No se permite cortar lena. No se permite sacar o arrancar sahuaros, chollas, plantas, o Arboles." Sign in the style of the CCC defending the Monument from various traditional uses: cactus gathering and wood cutting in particular. SAGU257, Series 4, Box 4, WACC.

The CCC naturalized and ordered the landscape in the name of an idealized tourist user group. These people would experience the place as a landscape of leisure not labor. Visitors who came to gawk, picnic, walk or ride were, of course, the NPS target audience. The Tucson hinterlands were, however, the location of many informal uses including the site of housing, hunting, grazing, and gathering. The cactus forest was no exception. Its resources were part of many informal economies and people contested the process of ascribing new meanings to the land. With a great deal of private land intermixed with the (former) national forest, land ownership was sometimes ambiguous. Some people set up dream shacks. Living like

¹³⁷ Robin Lothrop Pinto, manuscript on Rincon Mountain history, author's possession.

impoverished Harold Bell Wrights, they planted their squatter's shack next to a saguaro and lived off grid. Many people lived at the margins of the city during the first years of the twentieth century. They might be searching, like John Van Dyke, for an aesthetic relief from modernity, or for "breathing space," from tuberculosis. As Arizona historian Thomas Sheridan notes, "the majority of the health seekers...could not afford to get well or die in comfort. Instead, they camped out in wagons or wandered across the desert as 'burro tourists.'"¹³⁸ Some may have settled down. Squatters were problematic to NPS landscaping. They utilized the landscape for its wood, built trails, built latrines, displaced animals and plants, and created a human presence diametrically opposed to managers' efforts to naturalize the land. The response, historian Karl Jacoby argues, was that in the pursuit of conservation, "American lawmakers radically redefined what constituted legitimate uses of the environment."¹³⁹ From this vantage point, we recognize that the monument was the redefinition of a commons. This closure was strictly true in the sense of an end to homesteading, but more broadly, the monument narrowed the range of human action on the land.

The creations of parks and closure of commons could come as acts of imperialism, as with the removal of Natives from Yellowstone National Park, the negation of Blackfoot rights in Glacier National Park, or the dispossession and commodification of Miwok life in Yosemite.¹⁴⁰ But Native Americans were not the only people to find themselves displaced amid changing landscape designations. Definitions of legitimate land use like private property, productive use, or conservation could displace one user group with another. The park system was certainly not

¹³⁸ Sheridan, *Arizona*, 233-34.

¹³⁹ Karl Jacoby, *Crimes against Nature: Squatters, Poachers, Thieves, and the Hidden History of American Conservation* (Berkeley: University of California Press, 2001), 1.

¹⁴⁰ Mark David Spence, *Dispossessing the Wilderness: Indian Removal and the Making of the National Parks* (New York: Oxford University Press, 1999).

the only source of these repurposed landscapes. Corporations displaced rural people in the South and West all the time. National Forests were particularly disruptive to rural people. Specifically, a handful of ranchers and homesteaders suffered dispossession with the formation of the Coronado National Forest.¹⁴¹ Conservation was, for its benefits, a legal path that made ‘traditional’ uses illegal.



Figure 25. A dream shack razed in the cactus forest [precise location unknown to author], RG79, E95, Box 5, NARAIL.

Closure of the Cactus Forest was different in scale rather than quality from these other examples. Re-designing area use affected was smaller number of people. Potentially, the most obvious, and problematic, transformation of the moral ecology was the transformation from rangeland to park. The removal of cattle was a real ecological revolution. However, this transformation proceeded slowly. The last cattle cleared out in the early 1980s (more on grazing later). Grazing rights had a social cache and Arizonans celebrated cattleman culture through horseback riding, dude ranching, and on working ranches. In the 1930s national American

¹⁴¹ Clemensen, *Cattle, Copper, Cactus*, 68-9; John P. Wilson, *Islands in the Desert: A History of the Uplands of Southeastern Arizona* (Albuquerque: University of New Mexico Press, 1995).

imaginarium, cattle-raising was a good economic solution to lands that were unproductive for agriculture. Saguaro National Monument encompassed six grazing leases in 1933 with perhaps a couple thousand cattle utilizing the monument lands.¹⁴²

Like ranching, some Americans saw homesteading as an authentic and acceptable land use. Since the Revolutionary War, the federal government had financed its operations through the sale of Native American land. Homesteading and the politics of land use are thus deeply embedded in American history. As the United States urbanized and industrialized after the Civil War, homesteading was one way Americans justified the idea that America would turn out differently than Europe. There would be no tenancy, no peonage, in a land of freeholders. Yet, by the 1920s, conservation minded urbanites like C.B. Brown recognized that homesteaders could claim and destroy local viewsapes like the Tucson Mountains. Similarly, Minor Tillotson had argued in 1930 that the NPS should act to buy or gain control of the Tanque Verde Cactus Forest since homesteaders were moving into the area. Homesteading threatened to fragment these landscapes. In both places, the CCC erased squatter's houses and the relics of earlier housing from the landscape.

Beyond these sanctioned practices were the grey areas of wood-cutting, squatting, hunting (poaching if out of season or on private land), and, as people began to value cacti for their landscaping aesthetics, cacti collecting and poaching.¹⁴³ These uses of the commons,

¹⁴² Donald Worster, *Dust Bowl: The Southern Plains in the 1930s* (New York: Oxford University Press, 1982).

¹⁴³ In February, 1929, Arizona passed "An Act to Protect Native Arizona Plants from Destruction, Mutilation and Removal; To Prescribe Penalties for Violation; And Declaring an Emergency." The main force behind the bill was a group of four women: Mrs. E. E. Ellinwood, Mrs. Dale Bumstead, Mrs. James H McClintock, and Mrs. A. J. Chandler, all prominent Phoenix garden club members. The Act disallowed taking of cacti from state or private land without prior permission. Most of SNM's cacti were on either state or private land. Of course, the Antiquities

especially on the edge of a growing city, were antithetical to NPS goals. The formalization of space, undertaken by the CCC, gave the NPS a built place to begin to exclude all these behaviors.

Given the supposed future for the cactus forest—the core of the national monument—CCC work followed a prepared set of ecologically informed landscape ideals developed during the prior fifteen years.¹⁴⁴ These design parameters used natural materials designed to blend artifice with nature. In particular, Frank Albert Waugh merged the built environment with ideas about nature systems.¹⁴⁵ His *natural approach* promoted following the “informal order” found in nature and, crucially, treating the landscape as an ecosystem. Landscaping should pay attention to associations among plants, animals, and climate. Unlike the ‘naturalistic’ approach that emphasized making a landscape look natural, Waugh argued for ecological purity. By 1917, Waugh was a consultant for Forest Service recreational projects and when National Park Service Assistant director Conrad Wirth, Waugh’s former student, needed a manual detailing NPS landscape policy, Waugh wrote *Landscape Conservation*, specifically for work in state parks like Saguaro National Monument’s Cactus Forest.¹⁴⁶

The land was heavily impacted from decades of prospecting, trail and road building, and inhabitation.¹⁴⁷ Removing structures and redirecting roads to eliminate wandering tourists was

Act protected cacti on federal land. “Arizona’s Conservation Act,” *Journal of the Cactus and Succulent Society of America* 1, no. 1 (July 1929): 12.

¹⁴⁴ McClelland, *Building the National Parks*, 381; Peter MacMillan Booth, “The Civilian Conservation Corps in Arizona, 1933-1942,” M.A. Thesis, University of Arizona, 1991; Robert Joseph Moore, *The Civilian Conservation Corps in Arizona’s Rim Country: Working in the Woods* (Reno: University of Nevada Press, 2006).

¹⁴⁵ McClelland, *Building the National Parks*, 81.

¹⁴⁶ McClelland, *Building the National Parks*, 85; Frank A. Waugh, *Landscape Conservation* (Washington, D.C.: Department of Interior, National Park Service, Emergency Conservation Work, [1937]).

¹⁴⁷ “Road Obliteration in Saguaro Forest State Park,” SAGU 257, Box 4, Folder 27, WACC.

part of a larger process of landscaping the monument. Concern over minimizing impact on the cactus forest led Thomas Vint and Herbert Maier, leading NPS landscape architects, to block placement of the ECW camps in the park. For Vint the issue was clear. He wrote Maier that since the “University Land within monument contains [the] only sahuaro cactus in monument area” it “should have as little work as possible done.”¹⁴⁸ To erase earlier human uses workers moved cacti, including saguaro, from the path of construction, replanting to fill older impacted sites.¹⁴⁹ They hauled and buried trash, erased social roads and trails, filled prospecting pits, created water catchment systems for desert animals, and razed several squatters’ cabins. By removing these vestiges of past activity, Park Service personal and CCC labor reworked the land into what appeared to them as natural. They paid especially close attention to the area around the main show—the loop road.

Building the Loop Road

The “Skyline Loop Road” was the grand plan for mediating between tourists and monument. Designated Project 205 by the CCC, it built upon, redirected, formalized, and expanded an infrastructure of existing roads. Building the loop proceeded through a series of work projects between 1936 and 1940. During those four years, the CCC fashioned an eight-mile road through the Monument. When completed, it became the focal point of visitation and NPS interpretation.

Formal road work in the monument began under the Forest Service and built on existing roads. The Forest Service roads were somewhat rough and proceeded without attention to NPS design aesthetics. In 1934, NPS engineer Walter Attwell noted that the roads through the forest

¹⁴⁸ “Telegram from Thomas C. Vint to Herbert Maier,” April 27, 1935, SAGU 257, Box 1, Folder 11, WACC.

¹⁴⁹ SAGU257, Box 4, Folder 17, WACC.

were ugly and hard to maintain. Writing to Chief Engineer F. A. Kittredge, Attwell complained: “This report refers especially to the type of road building...adopted last year under the E.C. W. Program. It is sincerely hoped that no road construction of the type adopted last fall will be permitted...That type of road is most foreign to the area, entirely needless, and due to narrowness a real hazard.”¹⁵⁰ Instead Attwell wanted a “desert type” road. In his letter, he spent some time defining its particulars:

This desert area demands a desert type road with a rolling grade as the entire country is flat. No ditches are necessary because there is no surface water to drain...With a desert type road very little cost is involved as no grading is done. The cacti are cleared and grubbed out. There is no definite width to the roadbed. When a car meets traffic it turns out between the cacti and immediately after passing again returns to the beaten tracks.¹⁵¹



Figure 26. “New road recently graded in Saguaro National Monument. Note narrow roadbed, high crown, bad unsightly ditches—no sloping.” SAGU257, Box 4, Folder 17, WACC.

¹⁵⁰ Attwell to Kittredge, June 5, 1934, SAGU 257, Box 3, Folder 17, WACC.

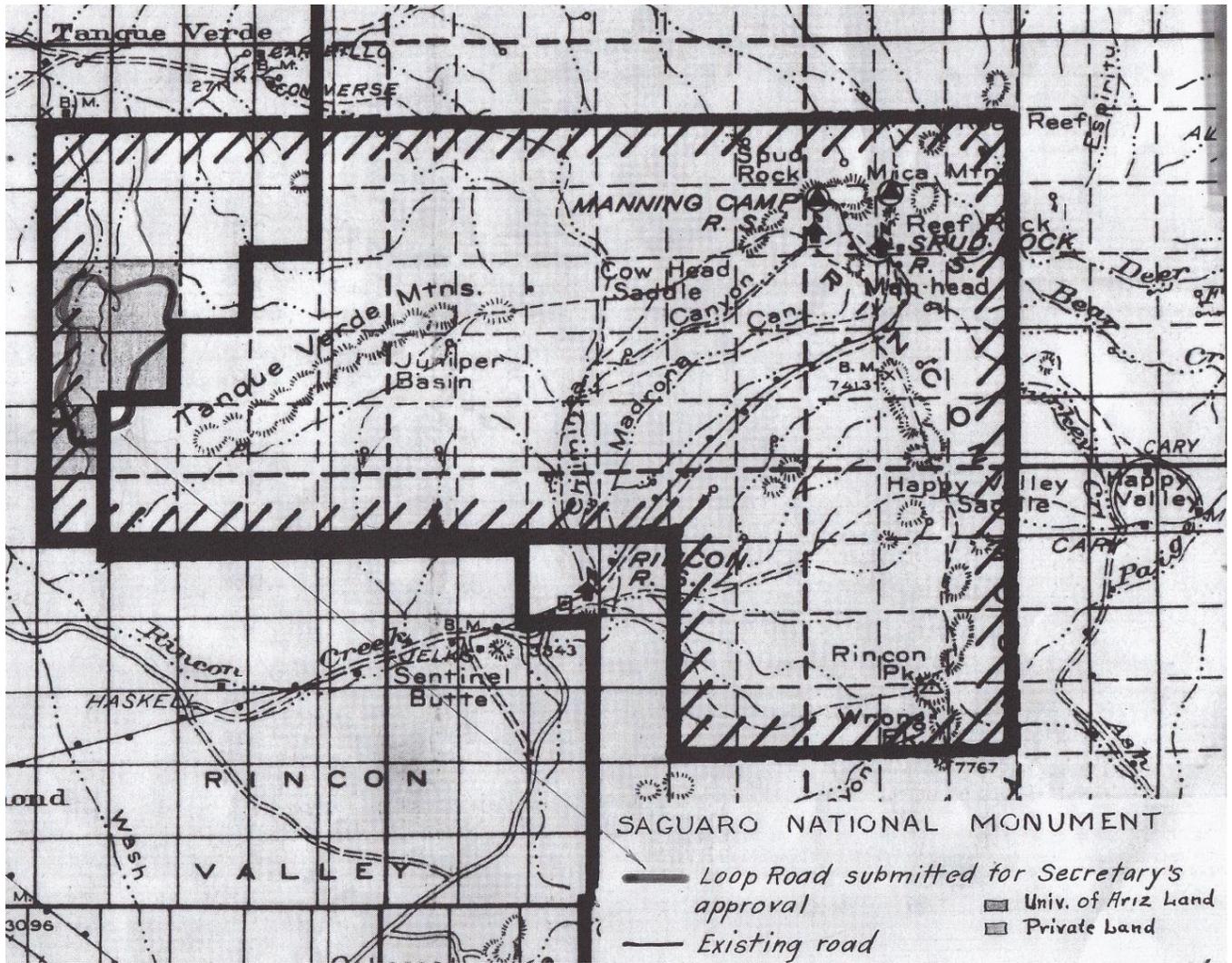
¹⁵¹ Attwell to Kittredge, June 6, 1934, SAGU 257, Box 3, Folder 17, WACC.



Figure 27. “A desert type of road, typical in the Saguaro country. This beautiful desert road is restful to tired Tucson people as it winds harmlessly thru the cacti—without a scar.”
SAGU257, Box 3, Folder17, WACC.

By 1936, as the NPS was gearing up to build the loop road, their concerns over lowering the visual impact of the roads increased. Seeking Secretary Ickes’ approval for the road plan, Director Demaray underscored the themes of cheap, low impact, and aesthetic road design. Demaray wrote: “This road would not be a highway, but would be an inexpensive road of simple design and inconspicuous location, routed to permit visitors to reach important scenic points.” Ickes signed off on the project. In the approval packet, Attwell’s model was celebrated for its low impact and naturalistic look.¹⁵²

¹⁵²A. E. Demaray to Harold Ickes, March 11, 1936, RG79, Box 2366, Folder 885, NARA II.



Map 13. Loop Road approval map, signed by Harold Ickes, 3/16/1936, RG79, Box 2366, Folder 885, NARA II.



Figure 28. Working to define the loop road in the 1930s, SAGU 257, Series 4, Box 4, WACC.

The construction of the loop road proceeded slowly. To gain diversity, the route wound up into the foothills and workers broke through bedrock as they climbed into the hills. Their road impacted the land much more intensively than the open, graded “auto trails” of the desert road. But the completed road managed to capture a range of vistas. Further, the road directed the flow of traffic into a narrative flow that would prove incredibly valuable in later years.



Figure 29. Into the foothills, SAGU 257, Box 4, Folder 19, pt. 2, WACC.

Moving first through the cactus forest, the road stopped at a number of vistas that situated the viewer. Historian David Louter argues that for the National Park Service roads were crucial to “knowing” parks. Not only did they allow automobiles to convey tourists through the land, they staged the experience into a series of culturally recognizable scenes.¹⁵³ Richard Sias argued as much in justifying the road project. He stressed that existing roads were difficult to maintain, missed features of the monument, and left tourists wandering in the Monument.¹⁵⁴ In Saguaro, the choreography invited tourists to stop and view aspects of the Sonoran Desert organized into a series of venues linking viewer to the basin and range vistas of the Monument.

The visitor took a route that first provided a view of the Santa Cruz Valley and the Santa Catalina and Rincon Mountains. The panorama prospect of the valley revealed a broad story of the Sonoran Desert with wide-open views encompassing the saguaro forest and the mountains.¹⁵⁵ If this view was not explicit in early NPS messages, it was present in the planning. It captured Homer Shantz’s original vision of an ecological park, revealing the range of elevations and environments surrounding Tucson and set the cactus forest in the context of basin and range. The road then dropped into the cactus forest, where visitors could walk on nature trails, or stand among the cacti, comparing themselves with the saguaro. This anthropomorphic exercise was a wildly popular pastime for early visitors. They might mimic the shapes of the saguaro arms, blending themselves into the desert through play.¹⁵⁶ Ruth Egermayer, longtime resident at the monument and wife of the first permanent custodian, demonstrated these acts of play from the cover of the first monument brochures.

¹⁵³ David Louter, *Windshield Wilderness: Cars, Roads and Nature in Washington’s National Parks* (Seattle: University of Washington Press, 2006), 13-21.

¹⁵⁴ Richard Sias to Herbert Maier, April 18, 1935, SAGU257, Box 3, Folder 21, WACC.

¹⁵⁵ Jay Appleton, *The Experience of Landscape* (London: John Wiley, 1975), 69-73.

¹⁵⁶ Gary Nabhan, *The Desert Smells Like Rain: A Naturalist in Papago Indian Country* (Tucson: University of Arizona Press, 2002).



Figure 30. Ruth Egermayer, Nov. 1941. SAGU257, Series 4, Box 4, WACC.

The road then led up into the foothills and past a permanent spring hugging the rugged west face of the Tanque Verde Ridge. The route told a story about the Monument's nature. It provided a narrative upon which to discuss the desert. For visitors, the road became the core of Saguaro National Monument.

New Deal resources settled a number of Saguaro's land use issues. Since the University owned only cactus forest land, road construction remained on the *bajada*. Later efforts to build a road up into the peaks, a sporadic effort over the years, foundered because Saguaro had the loop road, and because the Forest Service had its road up the Catalina Mountains. Shantz's decision to designate a state park, and the NPS decision to accept this fiction, set the ground rules for Saguaro National Monument. Former forest lands became the backcountry; university, state, and private land contained visitors on the road and trails in a relatively small and low portion of the monument. The result was that the NPS had a working monument on land it did not own that required few resources but provided a foothold in the Sonoran Desert.

By 1940, the NPS had focused CCC labor for seven years upon scripting the development in both Saguaro National Monument and the Tucson Mountain Park. They had a road and a relationship with the city. Between 1935 and 1951 the National Park Service would solidify its position, deal with the fallout of the boundary dispute, and establish the groundwork for expansion. The Park Service would also begin to develop and offer the public interpretations of Saguaro National Monument.

Chapter 3

Interpreting the Monument: Scientific and Filmic Narratives of the Ecological Monument and its “Wilderness of Unreality,” 1935-1950



Figure 31. Marvin Frost in the Cactus Forest, 1941. Ruth Egermayer, SAGU257, Series 4, Box 3, WACC.

“Here in the wilderness of unreality, the Saguaro National Monument near Tucson, Pop Frost carefully adjusts his camera for another picture of the fantastic residents of the cactus forest.” Arizona Highways, January, 1942.

“Because of cattle grazing and cactus collecting, many of our cacti are conspicuous in the scarcity or absence. This explains the need of a restored area, near the ranger station, where the more rare varieties of cacti may be replanted and studied”¹⁵⁷ Charles Powell, 1935.

“‘A wilderness of unreality’ is the dense leafless forest of massive columnar cacti which covers the undulating desert, 17 miles east of the historic old city of Tucson.” SNM visitor pamphlet, 1942.

¹⁵⁷ Charles Powell to Frank Pinkley, May 22, 1935, SAGU257, Box 1, Folder 11, part III, WACC.

Dreams and Plans

Botanic Desert Gardens

When Charles, “Cactus Charlie,” Powell, custodian of Chiricahua National Monument arrived at Saguaro in March 1935 as the first SNP seasonal custodian, the Monument was in a state of transition.¹⁵⁸ The Forest Service CCC camp was closed but their work building fence, erasing roads, clearing Observatory Hill, and collecting trash had left a decided mark on the land. Attwell was bemoaning the aesthetics of CCC roads and the NPS landscape architects were laying out a program to develop the cactus forest in more delicate ways. Largely unfenced, the cactus forest was crisscrossed by roaming cattle, social roads, and hunters and wood-cutters continuing to use the area in their traditional patterns. Frank Pinkley sent Powell to protect NPS interests, but what those were, or would be, was largely uncertain to Powell, Pinkley, and the NPS in 1935. Between 1935 and 1937, the NPS would plan and dream a series of possible monuments and by 1940 a pattern took shape. The NPS combined aesthetic and scientific narratives to interpret a working monument centered on the University’s lands, bounded by a fence, embedded in a land dispute with the Forest Service, ranchers, and Senator Carl Hayden, and focused on interpreting the desert through ecological stories and the beauty of the desert plants. Visitors could encounter a small transplanted garden and watering hole near the headquarters and then traverse the loop road. New Deal money and CCC labor built the Saguaro, but Powell and the NPS also imagined it into being.

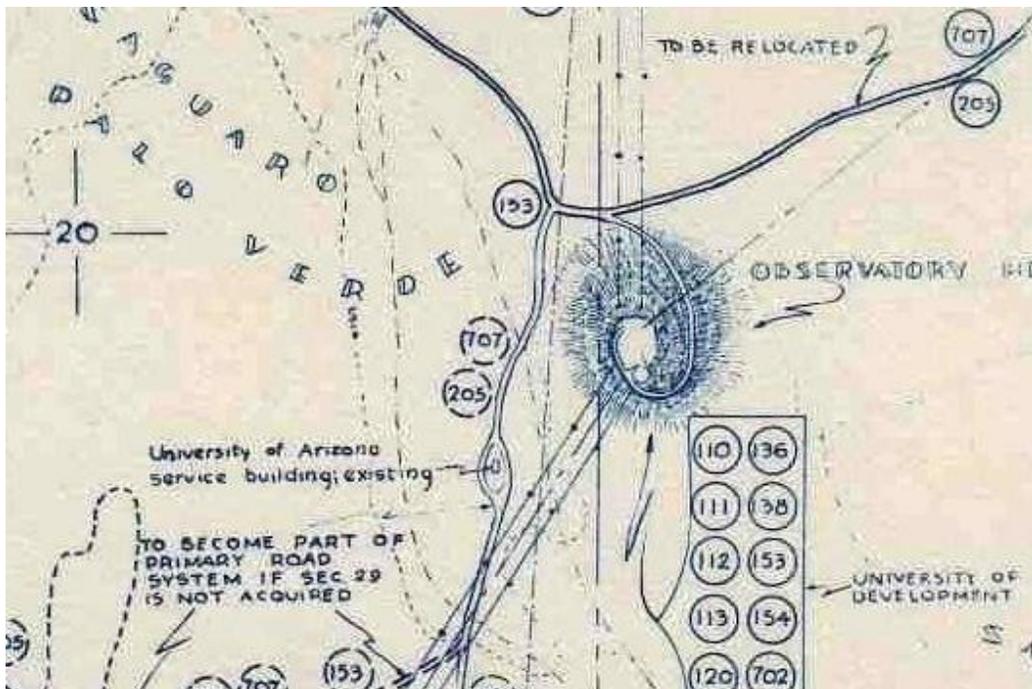
Arriving into this chaotic setting, Powell moved into an available structure, a university tool shed (see below), and began to imagine how he could present Saguaro to visitors. The tool shed, built by workers from the Forest Service CCC camp FS 42, was in section 20, near

¹⁵⁸ “Abstracts from Superintendents Monthly Reports,” circa 1967. SAGU257, Box 11, Folder 1, p. 1, WACC.

Observatory Hill. Since there was access to the Monument from both north and south, this building had the advantage of central location. It had few other advantages. Powell hauled water, and found himself, like future custodians, constantly roaming to contact visitors.



Figure 32. "Ranger Residence building owned by University of Ariz. View from northwest, Natt Dodge and Carleton Wilder, Oct 13, 1938."
SAGU257, Series 4, Box 3, WACC.



Map 14. Note the University of Arizona service building.
SAGU257, Box 4, Folder 19, pt. 1, WACC.

He roamed, contacted, and kept Pinkley informed. Powell dreamed of educating visitors about the desert. To accomplish this goal, he planned and began a cactus garden. We know Powell began his garden at the tool shed through tantalizing hints in disapproving letters about “exotic” cacti and in press about the next Saguaro-assigned ranger Paul Beaubien’s use of the garden to host visitors.¹⁵⁹ Powell’s garden gives us a look into a common 1930s approach for presenting desert flora to visitors. Yellowstone’s bison had charisma and history, the Grand Canyon’s precipitous depths offered dizzying exposure, desert plants needed an introduction and forum. Gardens and ecology were two of the most important approaches. In Arizona, the links among desert plants (native plants), garden clubs, and political action were well established by the 1930s. In 1929, leading members of Phoenix society convinced the Arizona Legislature to pass “An Act to Protect Native Arizona Plants from Destruction, Mutilation, and Removal.”¹⁶⁰ The integration among conservation, domestication, and desert plants was extensive.

Homer Shantz initiated common cause with Garden Club members and civic minded citizens. His new allies often saw the desert as a natural garden and, an extension of their community boosterism and beautification efforts. As landscape historian Linda Flint McClelland has persuasively shown, Park designs changed in tandem with of an aesthetic movement based in gardens.¹⁶¹ With growing popularity by 1914, homeowners in California began embracing Eugene O. Murmann’s “California gardening” designs. A California garden might follow the

¹⁵⁹ “Tucson Garden Club Members have Pilgrimage to Cactus Forest,” In an abstract from the *Arizona Daily Star*, dated March 10, 1936, the writer describes a tour of the ECW infrastructure—SP-11-A, Cactus Forest, and University Indian Ruins. Specifically, “The party was entertained by Paul Beaubien, forest ranger, at his cabin when a stop was made for lunch. Mr Beaubien spoke informally about his collection of cacti and other interesting details of the forest.” RG79, Entry 95, “Project Reports CCC,” Box 5, Folder SP-11-A.

¹⁶⁰ “Arizona’s Conservation Act,” 12.

¹⁶¹ McClelland, *Building the National Parks*, Chapter 2, “An American Style of Natural Gardening.”

“natural” theme based in nineteenth-century gardening norms that included exotic plants or might incorporate a cultural theme—a Japanese garden, for example. However, Murmann’s work also included gardens and parks featuring autochthonous arid and semiarid plants. Regionally distinctive plants like cactus, agave, and yucca acknowledged the local environment.¹⁶² The “California garden” aesthetic allowed Tucson gardeners to plant local plants like zebra and pelona agave with their spreading rosettes of stiff leaves, the soap tree yucca with its towering slender trunk and creamy white flowers, or any of the many flowering cacti of southern Arizona. These plants were exclamation marks in a garden; they announced a distinctly regional aesthetic.¹⁶³

One group of Tucson women was particularly struck by the power to beautify society through gardening with local plants. The Tucson Garden Club formed in 1935 when six women, attending the State Federation of Arizona Garden Club meeting in Phoenix on March 21, 1935, became inspired to form a club. Eight days later, when they held their first meeting at the University of Arizona auditorium, Shantz was in attendance. He presented a talk on “The Value of a Garden Club to a City,” and offered the University’s assistance. Also in attendance was Tucson Mayor Henry Iaastad.¹⁶⁴ The women of the Club formed a rapid partnership between the University and community. They worked to create a ground swell of support for local plants; in

¹⁶² McClelland, *Building the National Parks*, 66-8.

¹⁶³ Mark A. Dimmitt, “Flowering Plants of the Sonoran Desert” in *A Natural History of the Sonoran Desert*, ed. Steven J Phillips and Patricia Wentworth Comus (Berkeley: University of California Press, 2000), 159-60,

¹⁶⁴ The founding members were Mrs. Alexander Murray, Mrs. L. D. Darrow, Mrs. W. H. Messer, Mrs. C. P. Kramer, Miss Josephine Wallace, and Mrs. J. A. Hunter, in March 29, 1935 and April 1, 1936 club minutes, “Minutes 1935-1937” MS 907, Box 1, Folder 2, Tucson Garden Club Records, Arizona Historical Society Archives, Tucson, AZ, hereafter abbreviated as TGC, MS 907, AHS.

the process, they helped boost the idea that natural associations of creatures (ecosystems) were valuable to the community.

The Club constitution is a stirring summation of their sense of mission: “the object of the Club shall be to stimulate the knowledge and love of gardening among amateurs, and to aid in the protection of native trees, plants and birds, and to encourage civic planting.”¹⁶⁵ Their pursuit of knowledge drew University of Arizona professors of botany and horticulture to lecture on cacti, wildflowers, and “Color in the Garden.” Lectures on famous gardens and on the garden as “an oasis of beauty,” alternated with concerned discussions and projects promoting native plants and conservation. Their mottos, “Plant another Tree” and “To Enjoy and Not Destroy,” both carried the lilt of conservation rhetoric. The women of the Tucson Garden Club could see themselves playing a special role through their conservation efforts. They had a mission to change men, to protect nature, and thereby to change society. This mission is captured in their Club constitution, their mottos, and in the words of August H. Brewer, President of the National Council of State Garden Clubs. She wrote, “since men’s strongest impressions come through the eyes, it is through our Beautification Program and work that we can develop a feeling of pride in the general public, that this is our own, our native land, and that it must be preserved and made more beautiful for the generations to come.”¹⁶⁶

Club member Lilly Starkweather took their message outside the club and to public forums. In a 1940 lecture titled “Conserving the Native Desert Plants,” Starkweather neatly summarized the links combining conservation of native plants with a celebration of the spectacle of desert flowers:

¹⁶⁵ “Yearbook,” TGC, MS 907, Box 1, Folder 1, AHS.

¹⁶⁶ “1941-1942 Yearbook,” TGC, MS 907, Box 1, AHS; “Minutes 1935-1937,” TGC, MS 907, Box 1, AHS. There are clear parallels between this expression of preserving land and the climax ecology underwriting the Monument.

Because of the unusual rainfall during the past winter, the Arizona desert has been on parade. We have not only seen acres of Arizona poppies in bloom, but whole sections of them. As far as the eye could see they waved in all their golden glory...[but] I am sorry to that on the desert too, the pastime of the great American public was carried on assiduously. Tubfulls of these golden poppies were tornup.¹⁶⁷

Despite signs posted by the Desert Garden Club of Tucson at El Picacho State Park, motorists picked the blooming abundance. Starkweather contrasted the callousness of visitors with the newly discovered ravages blighting saguaro over hundreds of square miles. The Saguaro blight was terrible, but paled when compared to instances “when man deliberately destroys beautiful, slow-growing plants for commercial reasons.”¹⁶⁸ The pace of growth of plants like the sotol (spoon flower or *dasyilirion wheeleri*), a nolina that produces a soaring inflorescence covered with flowers, made picking them morally unjustifiable.¹⁶⁹ Starkweather bemoaned that state laws protecting these plants did not apply to private property, or stop cattle from eating the tender stems. Besides the loss of beauty, the loss of the desert’s unique flowering plants was also bad economic and environmental policy, leading to erosion.

To support her point, Starkweather relied on the opinion of a scientific expert, University of Arizona botanist J. J. Thornber, who stated that the sotol bloomed only after it reached around fifty years of age.¹⁷⁰ These slow growing, vulnerable plants were part of a commercial florist business. Fighting back, the Desert Garden Club of Tucson began a national campaign to stop their sale. Garden Club members sent out letters to flower shows across the country, including

¹⁶⁷ Mrs. M. H. Starkweather, “Address on ‘Conserving the Native Desert Plants,’” Merritt H. and Lilly E. Starkweather Papers, 1916-1982, MS 1035, Box 1, Folder 30, Arizona Historical Society Archives, Tucson, AZ, 1; Hereafter Starkweather, MS 1035, AHS.

¹⁶⁸ Starkweather, MS 1035, Box 3, AHS.

¹⁶⁹ Dimmitt, “Flowering Plants,” 163-64.

¹⁷⁰ Starkweather, MS 1034, AHS, 3-4.

“before” and “after” photos of the destruction wrought by the sotol harvest, and asking them to stop presenting and selling the dried flowers. Response was swift from the Society of American Florists who agreed with the campaign.¹⁷¹ The campaign was nation-wide, successful and well planned. The mixture of scientific authority and aesthetic concerns over the sotol required supporters to imagine a landscape vulnerable to natural and human disruption, beautiful and irreplaceable and worth protecting; the climax ecology of saguaros and sotol commerce both threatened that image.

The desert was no doubt a pleasing garden that held similar interests for Shantz and Starkweather. Mutual interests found expression in cross-pollination between University and Club. The December following the Club’s founding, Shantz organized a field trip to the Cactus Forest. The Club secretary recorded that Shantz provided a surprise: chairs arranged “on a knoll with a beautiful view of the forest” where over fifty people had “cake and coffee” and a lecture.¹⁷²

As Shantz played host, he displayed the Forest like a garden to the club members. Perhaps they saw the bright red fruit of the Christmas Cholla, or the feathery leaves masking the ocotillo’s wicked thorns, both winter blooms. Whatever else they saw, they could see thick saguaro, many of the 120 tree species found in Arizona, fifty species of cacti, and numerous birds and animals.¹⁷³ The lecture, chairs, and refreshments choreographed the visit; they were a group of

¹⁷¹ Ibid, 4; Starkweather reports the coalition that supported the ban on sotol harvest included the Desert Garden Club of Tucson, Cactus & Succulent Society of America, Arizona Cactus & Native Flora Society, Phoenix, AZ, and Arizona Federation of Garden Clubs.

¹⁷² Tucson Garden Club Minutes March 29, 1935 and December 4, 1935, MS 907, Box 1, Folder 2, AHS.

¹⁷³ Friends of Saguaro, www.friendsofsaguaro.org, (April 11, 2007).

conservationists taking coffee in the garden. They may even have seen themselves in the desert ecology where “plants were social” and required networks of interactions—like garden clubs.¹⁷⁴



Figure 33. *Coffee in Saguaro National Monument, 1936. Shantz, UAiR.*

The record does not show whether Powell was in attendance at the coffee but he was certainly in sympathy with the Garden Club’s goals and appreciation of desert plants. In 1935, he fashioned a garden plan from his discussions with the same University of Arizona botanist and desert popularizer whom Starkweather had consulted—J.J. Thornber.¹⁷⁵ Powell, part of a generation which had grown into loving the desert, wanted his garden to take its shape from the cactaceae family tree (see fig. below). In doing so, he reflected the perspective of scientists like Thornber and Forrest Shreve who, among many others, presented desert plants as part of a sense of place. For avid American collectors of cactus, a practice that dated from shortly after the Civil War, Thornber and other such writers placed the plants in ecological context. Rather than a

¹⁷⁴ Worster, *Nature’s Economy*, 194.

¹⁷⁵ Thornber, with co-author Janice Bonker, had published his popular work on the cactaceae family, *The Fantastic Clan*, only a few years earlier.

portable commodity (to plant in the collector's home), plants in place told a story people like Starkweather and Powell wanted to hear: the plants were part of a whole, attached and indivisible.

Powell also had two local models of successful desert gardens to emulate. The University of Arizona's extensive cactus garden included exotics like the boojum and soap tree yucca, as well as many endemic species. First established by Prof. James Toumey, Arizona Agricultural Experiment Station botanist, and extended by Shantz, the garden and its plantings spread out from Old Main. Powell would have been well acquainted with the University's efforts to make campus grounds an informal botanical garden.



Figure 34. Sketching and Agave shottii, UA cactus garden. Circa 1932, UAIr.

Powell's other model was Boyce Thompson Arboretum in Superior, Arizona. In particular, Boyce Thompson had adopted a semi-naturalistic approach to presenting the desert—a botanic garden in a natural setting. Powell wanted to educate with a more formal desert garden and writers like Thornber provided a who's who of spectacular cacti. His 'fantastic clan' referred to plants that marked the area as an exceptional ecological setting. Visitors could use this

knowledge to acknowledge and interpret their relationships with the desert. Using a garden approach, in print or nature, was becoming an acceptable way to narrate the silent flora of the Sonoran Desert.

Powell also felt it necessary to gather and present the desert because the land was so worked over around his headquarters. In a May, 1935 letter to Frank Pinkley, Powell argued a garden was necessary “because of cattle grazing and cactus collecting, many of our cacti are conspicuous for their scarcity, or absence. This explains the need of a restored area, near the Ranger station, where the more rare varieties of cacti may be replanted and studied.”¹⁷⁶ To create a garden, Powell needed to fence out cattle, and then, arrange cacti according to their taxonomy categories. “Cactus” Charlie Powell’s love of the cactaceae is apparent in his note.

The reason for the tree shaped trails is that a diagram of the cactus family shapes itself in that manner...The first branch, Opuntieae, forks into two arms representing the subgenera cylindrapuntia, and platyopuntia...[he continues on] By superimposing the tree-shaped diagram of the cactus family upon the plat of my enclosed and restored ten acres, I have arrived at the plan for my Cactus garden museum, which Dr. Thornber says cannot be improved upon. (Dr. Thornber will use this diagram in his next book on the cactus family.) The trails which I have been trying to describe will fit into the terrain, and by utilizing the ground cover as is, the whole may be blended into the landscape.¹⁷⁷

His continued reference to Dr. Thornber indicated an ongoing conversation among devotees to the Sonoran Desert. They gathered around the University and its staff of arid lands experts.

Powell did not stay to fulfill his entire vision; he went back to Chiricahua National Monument. However, some version of the cactus garden existed around both subsequent visitor centers.¹⁷⁸

Furthermore, throughout the following decades, NPS managers utilized the language of a natural garden to present the desert. In describing how visitors would experience the desert, encounters

¹⁷⁶ Powell to Pinkley, May 22, 1935, SAGU257, Box 1, Folder 11, part III, WACC.

¹⁷⁷ Powell to Pinkley, May 22, 1935, SAGU257, Box 1, Folder 11, part III, WACC.

¹⁷⁸ This is most evident in images of the first CCC built structure and subsequent 1953 building. The garden would play an important role in describing desert flora to visitors for decades.

Surveying Saguaro, 1937 Master Plan

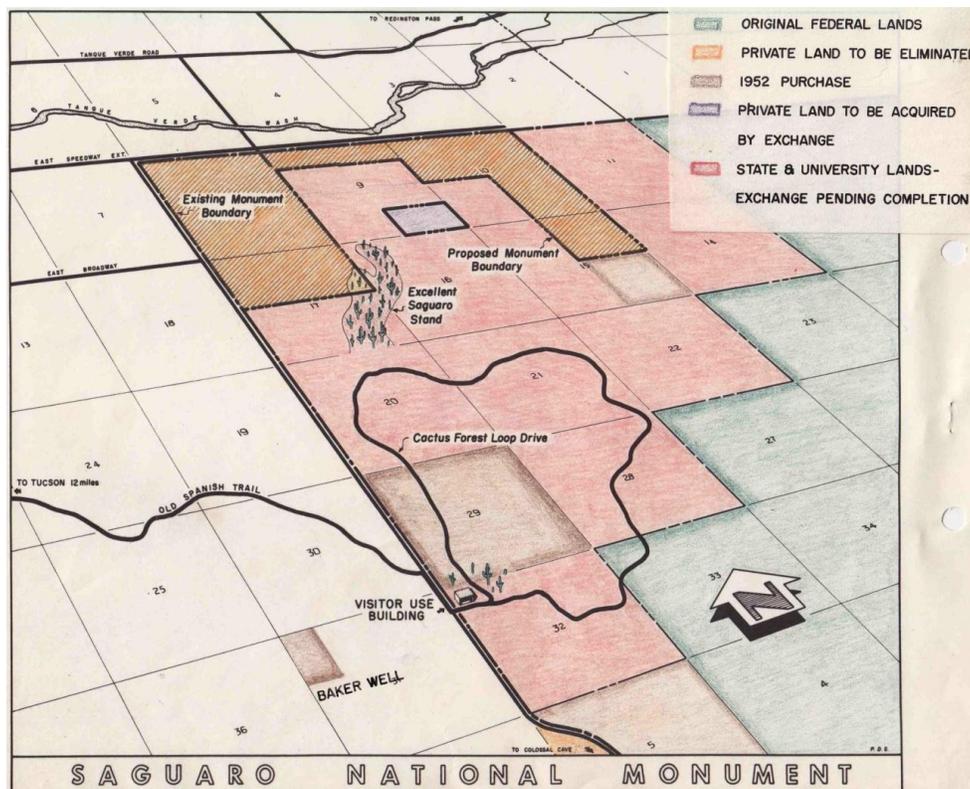
Over the next two years, the NPS had an on-and-off presence at the Monument. Paul Beaubien, who followed the high season between northern Arizona's Walnut Canyon and Saguaro, was only in residence for part of each year. The CCC was hard at work and A. A. Nichols, range ecologist from the University, was overseeing the Monument for the University. The transformation from "open range" to Monument was sputtering forward but questions over what that Monument would look like remained.

Questions of land ownership plagued every NPS decision. Senator Carl Hayden, acting on behalf of major grazing permit holders, pushed a series of bills designed to return the mountain to the Forest Service and provide money to buy the cactus forest for the NPS. In 1937, he began a series of efforts to forge a smaller monument confined to the cactus forest. He introduced S2648 in 1937, S7 in early 1939, S394 in 1941, S379 in 1943 and S68 in 1945.¹⁸⁰ For a variety of reasons, these bills failed. Many parties were vying to shape the size of the Monument. Lease holders James Converse, Melville Haskell, and J. Rukin Jelks wanted a reduced monument, believing their rights were in danger. John Harrison, land agent acting on behalf of the University, continued to push for federal purchase. He brokered deals assuring himself a realtor's percentage. The University Board of Regents continued to push to recoup their expenditures. As early as 1936, they made common cause with Converse in the belief that they could broker a deal to gain the money they sought. They believed that once stripped of its forest lands, the NPS would be forced to buy the cactus forest. Frank Pinkley, Landscape Architect Harold Langely, and Regional Director Minor Tillotson all advocated a smaller

¹⁸⁰ 81 Cong. Rec. 11, 669 (1937); 84 Cong. Rec. 15, 633 (1939); 87 Cong. Rec. 15, 718 (1941); 89 Cong. Rec. 13, 643 (1943); 91 Cong. Rec. 14, 752 (1945); see also S. Rep. 77-263 (May 5, 1941), *Saguaro National Monument Report to Accompany S.394*.

monument for various reasons. Tillotson and Pinkley sought a reduced monument as helpful for other projects. Pinkley had always been skeptical of the Monument's importance. He and Tillotson were particularly concerned about brokering a deal for Organ Pipe and Saguaro's land issues were unneeded headaches.¹⁸¹

Clearly the land situation in the cactus forest was ridiculously complicated in 1934. The University owned less than one section outright. The state had slightly over nine sections. Private land holders held five and a half. The NPS controlled no land in the cactus forest itself. Even in the simple Mission 66 map below, created much later, we can sense the complexity. However, small holders, and overlapping concerns complicated the clean lines depicted in this rendition.

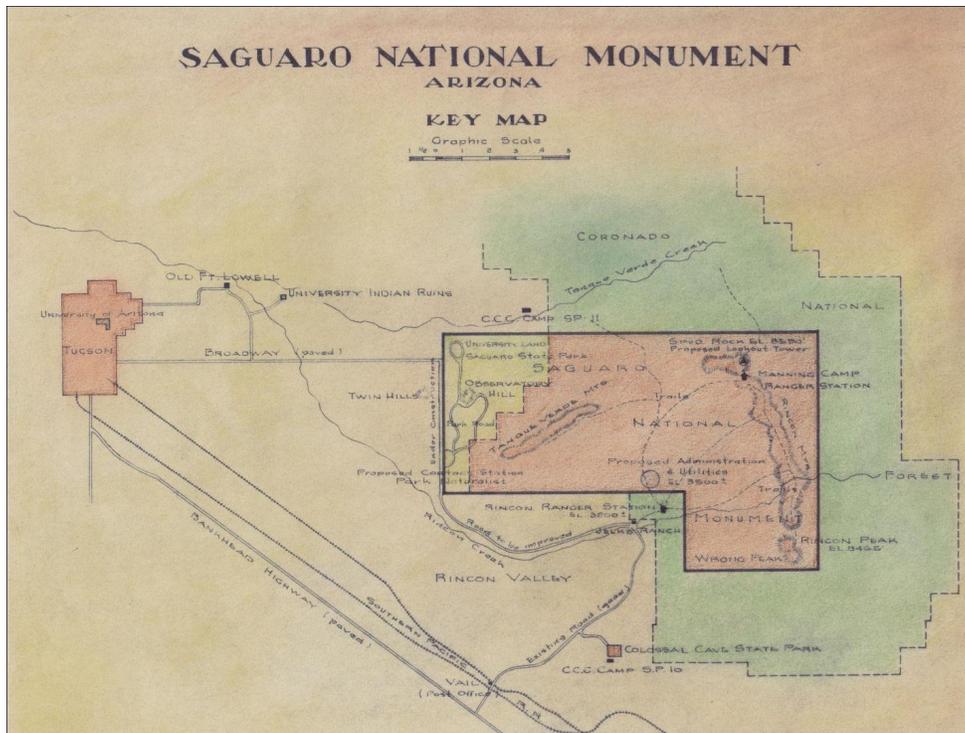


Map 15. Mission 66 Map. RG79, Entry 40, Box 14, NARA II.

¹⁸¹ This discussion here, and in the paragraphs to follow, draws on Clemensen's excellent recount of the boundary dispute, Clemensen, *Cattle, Copper, Cactus*, 120-150.

Despite these complexities, some advocates thought the NPS should retain the whole monument. Director Cammerer and Harold Ickes both believed that they could have a NPS monument with grazing rights intact. Cammerer seems acutely aware that without the forest, the NPS would find itself forced out of Saguaro all together. He sought to have the University donate the land to the NPS. He believed that failing to gain control of the cactus lands would necessitate a NPS withdrawal. Shantz and the Board of Regents balked. They kept noting the 56,000 dollars the University spent in the early 1930s. They did not mention the more than one million dollars in federal money spent on the University during the same period. Nor, was the CCC money spent building the Monument's infrastructure included in the equation. President Roosevelt resisted the idea of buying the land from the University. He wrote Hayden arguing that park lands should come from donations and that purchase of land set a bad precedent that was counter to the spirit of the national park system.¹⁸² The threat of a reduced monument prompted Cammerer to send a survey team to Saguaro and find out whether it was worth keeping and if the mountains were of National Park Service quality. Their short visit generated a Preliminary Report and an opinion: the NPS should keep the entire Monument.

¹⁸² Roosevelt to Hayden, RG75, NARA II.



Map 16. Map from Preliminary Report, 1937, SAGU257, Box 2, WACC.

In April 1937, the NPS team assembled at the Monument to conduct an assessment and survey. The survey proved a turning point in NPS attitudes about the shape of the Monument. Historian Berle Clemensen argues, convincingly, that wildlife technician W. B. McDougall’s advocacy for the “large” monument became the favored position of the NPS and Interior Department.¹⁸³

The survey was a quick reconnoiter of the Monument but by including a broad array of experts it was really the first assessment of the place as an integrated unit. While Roger Toll’s 1930 visit had focused on the cactus forest, the 1937 survey extended to the entire Monument. Included in the party were wildlife technician W. B. McDougall, NPS regional forester W. H. Wirt, geologist Vincent Vandiver, Assistant Superintendent of Southwestern Monuments Hugh Miller, Assistant Regional Landscape Architect C. A. Richey, Regional Landscape Architect H.

¹⁸³ Clemensen, *Cattle, Copper, and Cactus*, 128.

H. Cornell, Resident Landscape Architect Clinton Rose, and District Forester W. Ward Yeager. Through their itinerary, they physically experienced the transitions and integration between desert and mountain. Over the course of several days, the party met with stake-holders in Tucson, toured SP-11, and then hired horses at the Jelks' Ranch. They traveled the mountain trails, touring Manning Camp, and generally assessing the Monument's resources: views, plant and animal life, geography, trail network. In their report, the group provided the NPS its first real description of Saguaro National Monument.

Geologist Vandiver set the stage:

Within the boundaries of the Monument are included most of the Tanque Verde Mountains and the northern half of the Rincon Mountains. The Rincon range merges with the Tanque Verde Mountains on the north which in turn joins the more rugged Santa Catalinas. These three mountain uplifts are separated by saddles and each have prominent westerly projections. The general region was broadly folded near the close of the Paleozoic and the mountains usually maintain a northwest trend, however, the faulting shows no such orderly arrangement. Spud Rock, the most prominent land mark of the Monument and the highest point in the Tanque Verde's [*sic*], attains an elevation of 8,590 feet. Rincon Peak, with an elevation of 8455 feet, is the highest point in the Rincon Mountains. The elevation of the valley floor at the base of the mountain ranges is around 3,000 feet with a gradual slope to the Santa Cruz River valley, in the vicinity of Tucson, with almost 1,000 feet less in elevation. The mountains in general rise about one mile above the desert plain.¹⁸⁴

Beyond the image of the mountains, Vandiver confined his report to the question of water. His finding supported the general attitude of the party. Only one source of reliable water existed beyond those captured in the gravels at the base of the mountains: the spring in Madrona Canyon. This was Mr. Jelks' source of ranch water. Based on this factor, Vandiver argued for a

¹⁸⁴ Vincent Vandiver, *Preliminary Report for the Master Plan Saguaro National Monument*, May 1937, SAGU257, Box 2, WACC, p. 5. Each member filed a report. These were compiled into the final document.

main headquarters near the (Forest Service) Rincon Ranger Station, a secondary headquarters in the cactus forest, and a high mountain presence at Manning Camp.¹⁸⁵

Wirt and McDougall concurred that the NPS should base its monument out of the Madrona area. As Forester Wirt noted, “Mr Jelk’s [*sic*] permit, which is by far the largest of the four, covers almost all of the Rincon drainage and it is upon this area that the center of monument administration would logically fall.”¹⁸⁶ Since “the permanent right to the only spring water found on the south side of the monument” belonged to Jelks and his 3,000 acres, “in order to obtain the necessary water and approach to the monument the acquisition of this property seems desirable if the National Park Service is to have proper administration of the monument.”¹⁸⁷ Wildlife biologist McDougall too identified Jelks’ Ranch as an ideal headquarters location. In McDougall’s opinion, this acquisition would have the additional positive effects. He speculated:

If some way could be found to buy out Mr. Jelks and add his ranch to the monument, three very desirable attainments could be accomplished at one stroke. First, a very large percentage of the grazed area would be freed from domestic animals. Second, the water rights to a very good and much needed spring would be recovered. Third, an excellent site and office building for the main headquarters would be obtained.

McDougall then added: “The recommendations of Mr. Wirt, Forester, concerning trails, roads, and overnight cabins are concurred in. No road should ever be built in the monument outside of the Saguaro forest proper.”¹⁸⁸

¹⁸⁵ Vandiver, *Preliminary Report*, Ibid. 7.

¹⁸⁶ At the time, other permittees included: Converse, Parker, and Haskell. Converse certainly had the most sensitive permit, but he had already refused to sell to the University. The Happy Valley permittee also operated within the monument.

¹⁸⁷ W. H. Wirt, *Preliminary Report*, Ibid., p. 4. Wirt also noted that “The forest service has regulated grazing in such a way that no evidence of overgrazing is apparent on the part of the area examined.”

¹⁸⁸ W. B. McDougall, *Preliminary Report*, Ibid., p. 3

All these opinions assumed that the mountains would be an attraction and focus of the Monument. This assumption made sense given the ambiguity over the cactus forest. Moreover, the survey group saw the mountains as symbiotic with the cactus forest. They were the watershed of the cactus forest; they placed its development in context. The Preliminary Report provided a fulcrum upon which NPS resolved to keep SNM's whole forested monument and acquire the cactus forest.

The Report clearly considered the mountain as inherently part of the Monument. In doing so, it reflected the rise of ecological values in the NPS, as traced by historian Richard Sellars. In this instance we see the power of the ecological argument in the hands of NPS wildlife biologists. Starting with biologist George Wright and Ben Thompson, the Wildlife Division in the NPS became the center for those advocating for ecological management of the National Parks. In the words of Sellars, they constituted, "a minority 'opposition party'" in the NPS.¹⁸⁹ In 1937, Acting Superintendent of Southwestern Monuments Hugh Miller argued that protecting wildlife habitat provided the primary justification for maintaining the contiguous monument.¹⁹⁰ The head of the survey party, Regional Wildlife Technician W. B. McDougall favored ecological management and the survey party agreed the NPS should retain the forested mountain. He told Cammerer, "the area between 4,500 and 7,500 feet elevation to be an interesting section of semi-desert and Mexican flora" and "any decrease in the size of the area would detract from its value as a sanctuary for both plants and animals."¹⁹¹ Such diversity of plant life and animal habitat

¹⁸⁹ Sellars, *Preserving Nature*, 93.

¹⁹⁰ Hugh M. Miller, March 24, 1937, SAGU257, Box 3, Folder 2, WACC.

¹⁹¹ Clemensen, *Cattle, Copper, Cactus*, 128; Clemensen draws upon W.B. McDougall, "Special Report: The Vegetation of the Saguaro National Monument," January 7, 1937, Gen. Correspondence August 23, 1936 to September 6, 1940, SNM files.

undermined the logic behind Senator Carl Hayden's efforts to sell the idea that the mountains were somehow worth sacrificing to gain the cactus forest.

Of course, Homer Shantz had recognized the important ecological continuity of a *bajada*-to-summit monument. Shantz was certainly thinking of C. Hart Merriam's 1880s work in Arizona's San Francisco Peaks. Merriam described travelling through life zones and equated elevation with latitude. Merriam's life zones model held powerful metaphorical power and a great deal of truth. They presented an organizational schema to understand how a series of plant and animal communities lived at different elevations and "together they represent a system of ecological units precisely scaled to a spectrum of temperature change experience either in climbing a mountain or traveling north toward a pole." While this "temperature summing" fell from favor among specialists like Shantz, it captured important truths about ecological diversity in Arizona's basin and range mountains. Animals migrated up and down the mountain; the mountains provided a watershed for the arid valley.¹⁹²

Forrest Shreve of Tucson's Carnegie Desert Lab also weighed in on the ecological whole of the Monument. In a December, 1940 conversation, McDougall recounted Shreve's position on the issue:

Dr. Shreve, being a botanist, is not particularly interested in the animal part of a biotic community. His discussion of the scientific values of the Saguaro National Monument, therefore, was confined to the saguaros and their plant associates. He has done an immense amount of field work in southern Arizona and northern Mexico and he thinks that this monument is the most ideal place for saguaros that he has seen. The granitic soil and favorable moisture conditions have caused the saguaros and many of their associates to grow better here than on any other area of comparable size. He is inclined to believe that this forest is no older than some of the other saguaro forests that he has seen but that the greater size of the individuals and the greater density of the stand is due to the more favorable ecological conditions under which these plants have grown... He states that he

¹⁹² Worster, *Nature's Economy*, 19; Aaron Sachs, *The Humboldt Current: Nineteenth-Century Exploration and the Roots of American Environmentalism* (New York: Penguin Books, 2006).

hopes very much that the National Park Service will obtain and retain full control of this particular saguaro forest...He realizes that the Rincon Mountain watershed is largely responsible for the very favorable moisture conditions in the Saguaro forest and that this watershed should, therefore, be protected.¹⁹³

Shreve went on to express ambivalence over whether the Forest Service or the NPS controlled the mountains, as long as they received protection.¹⁹⁴ Alternatively, the University of Arizona's Dr. Vorhies, as a zoologist, "believes that that greatest scientific value of the monument lies in its value as a biotic community and not merely as a saguaro forest. He realizes, therefore, that the scientific value is, and will remain, much greater if we retain everything from the Saguaro desert up to the yellow pine forest than if we have the saguaro forest only." Vorhies also told McDougall he understood the complexities of the ownership issues and had no opinion on federal ownership.¹⁹⁵ All three men recognized the potential to understand the Monument as originally conceived: "an area ranging from the desert floor to the top of one of our mountains."¹⁹⁶ The model all men were driving at others would later call a sky island. The use of life zones would become a foundational metaphor to narrate and justify the Monument.

Following the favorable 1937 report, the NPS signed a five-year lease for a headquarters site at the edge of the cactus forest.¹⁹⁷ The CCC built a combination contact center and custodian building on this land. Completed in 1940, the residence that would serve as the primary connection point for Monument personnel and visitors over the next thirteen years.

¹⁹³ Milton J. McColm, Acting Regional Director, Memorandum to the Director, February 14, 1941, SAGU257, Box 4, Folder 40, WACC.

¹⁹⁴ McColm, "Memorandum," February 14, 1941.

¹⁹⁵ McColm, "Memorandum," February 14, 1941.

¹⁹⁶ Homer Shantz to John Harrison, December 18, 1930, AZ170, John Harrison Papers, UASC.

¹⁹⁷ Clemensen, *Cattle, Copper, and Cactus*, 145. Clemensen writes: "On September 18, 1937 a five-year lease was obtained from the University for the W1/2 of the NW1/4 of Section 32, T14S R16E." His citation is the "Preliminary Report" but I have not found evidence that the lease is part of that report. That the NPS did lease the land is obvious in many references. Further, the CCC built the first visitor center on this property.



Figure 36. Looking west from the NPS residence completed by CCC in 1940. Note the Tucson Mountains to the right, beneath the flag. SAGU 257, Series 4, Box 3, WACC.

The building had a tiny museum display box attached to the wall of the front porch. Visitors could stand in the shade and thumb through a book of images and interpretive materials. Mostly, the building provided a residence for NPS staff, starting with Don and Ruth Egermayer. The infrastructure of residence and road gave the NPS a way to manage the Monument on a shoestring budget.

Filmic and Aesthetic Representations of the Monument

Alongside the scientific assessment of Saguaro National Monument, filmic and aesthetic approaches both integrated, and departed from, the ecological metaphors. A good starting place to examine these approaches is the photographic collection of Homer Shantz who combined vivid black and white photography with rich description. In a *National Geographic Magazine* article, titled “The Saguaro Forest,” Shantz notes “a Forest of Cacti Seems Unreal,” but we call this a saguaro...forest, and it requires trees to make a forest, a dense stand of trees at that...” The

saguaro form a forest because they are “dense as yellow pine in the Rockies or even that of the red pine in Michigan and Minnesota or of the long-leaf pine in the South.”¹⁹⁸ The desert plant life provides a disjuncture to make the reader take a second look at the landscape in general. This is a wild land, a weird land, to the unaccustomed eye, and Shantz wants readers to awake from their cultural stupor, perhaps the cacti act as what Roland Barthes called the *punctum* of an image, shaking the reader loose and bringing the subject into question, and focus. Shantz wanted his readers to see that the cacti meant something about the landscape.

As noted above, Shantz had drawn his initial inspiration for the Cactus Forest from Kirstenbosch National Botanic Garden in South Africa. In his writings the euphorbia plants of South Africa and the sharp colonial tensions of the area merged into a particular western European discourse. Like those of other contemporary observers and writers, such representations reflected a form of 19th-century literary imperialism which defined native peoples and lands as exotic, primitive and uncivilized. This approach was also applied to the unfamiliar Southwest, “a region of the imagination,” in historian Leah Dilworth’s term. In Arizona, early expressions of this narrative trope included Charles Lummis’s *Land of Poco Tiempo*, and his observation, “it is a land of quaint, swart faces, or Oriental dress and unspelled speech, a land where distance is lost, and the eye is a liar.” Celebrating and idealizing the exotic past was common by the 1930s; the idealization of a ‘Spanish’ past was the dominant trope describing Southern California while Mary Austin venerated an ideal Pueblo past.¹⁹⁹

¹⁹⁸ H. L. Shantz, “The Saguaro Forest,” *National Geographic Magazine* 71 (April 1937), 515.

¹⁹⁹ Scholars, drawing on the insights of Edward Said, often use the term “orientalism” to refer to this process. Edward W. Said, *Orientalism*, 25th Anniversary Edition (New York: Vintage Books, 1994); Leah Dilworth, *Imagining Indians in the Southwest: Persistent Visions of a Primitive Past* (Washington, D.C.: Smithsonian Institution Press, 1996), 1-2; Phoebe S. Kropp, *California Vieja: Culture and Memory in a Modern American Place* (Berkeley: University of California



Figure 37. Cactus Forest, March 1, 1930, Homer Shantz, UAiR.

In his article, Shantz explicitly draws upon this discourse to explain the ecology of the cactus forest. The reader ‘learns’ that Coronado named the saguaro as he searched for the city of gold in 1540. That a “century and half later,” Father Eusebio Francisco Kino “looked upon the fluted giants and wondered at the marvels wrought by the divine Creator.” The San Xavier del Bac, gleaming against a clouded sky follows. Burrowing backwards through time, Shantz reminds us that before the “Romans had entered Spain, this land had been used by man; the fruits of the saguaro had sustained him, and the forms of these giants had influenced his arts. Everywhere the area lives in rich relics of past civilizations.”²⁰⁰ These antique pasts established,

Press, 2006), 3; David W. Teague, *The Southwest in American Literature and Art: The Rise of a Desert Aesthetic* (Tucson: University of Arizona Press, 1997).

²⁰⁰ Shantz, “Saguaro Forest,” 515-16.

Shantz details the “desert that isn’t a desert,” and takes the reader on a ride (on horseback) through the cactus forest and some of its ecological relationships. We learn about celebrated species: ocotillo, biznaga (barrel cactus), and *opuntia*. Shantz is now writing to the informed and lists plants and natural settings. The desert is luxuriant, fascinating, filled with the shapes, textures, and colors of plants. In turn, Shantz populates it with animals—antelope jack rabbit, gila monster, desert bobcat, Gambel’s quail, birds of many species, and jaguar.²⁰¹ Ecology, biology, history, and aesthetics all merge in the photos of people near plants, on horseback, or gazing at saguaro cacti. These people, Shantz suggests can connect to these human histories by experiencing the natural landscapes of the cactus forest.

The blending of the themes of human and natural histories took on a decidedly photographic essence in the hands of the first cohort of Saguaro National Monument workers. NPS Naturalist Natt N. Dodge worked with photographer Marvin Frost, Custodian Don Egermayer, and Ruth Egermayer to produce a unified set of images of the Monument blending the otherworldliness of the plants and animals with an ecological storyline. Dodge’s January, 1942 *Arizona Highways* article captured the otherworldly landscape with the title “The Wilderness of Unreality.”

Marvin Frost’s photographic pursuit forms the opening subject. He was an avid photographer, an immigrant from Illinois whom the desert enchants. Dodge uses “Pop” Frost to alert readers that an intimate and animate world awaited them in the monument. Frost’s interest in photographing the light and life of the Monument places naturalizes his presence and his interest, in turn, promotes informed admiration.²⁰² Identified as “acting naturalist” at Saguaro in

²⁰¹ In 1950, there was a reliable sighting of a jaguar near the Madrona Ranger Station, SAGU257, Box 3, Folder 1, “Area History Files,” WACC.

²⁰² Natt N. Dodge, “The Wilderness of Unreality” *Arizona Highways* (January 1942).

1948, Frost regularly contributed brief reports to *The Desert Magazine*, encouraging tourists, botanists, photographers and rock-hounds, to come visit and appreciate cactus blooms and other attributes of the desert landscape. A friend of William H. Carr, Frost's photographs would adorn the Arizona-Sonora Desert Museum and populate numerous books celebrating the Southwest deserts.²⁰³

Bounding the Garden

Promoting a particular type of ecological tourism ran into challenges for the Saguaro National Monument custodians when their visions of land use ran counter to local practices. The protection of Saguaro posed a problem for people accustomed to gathering cacti, flowers or wood, hunting or camping at will on its lands. When it formed in 1916, the Park Service had a particular approach to land use that rendered land into landscapes staged to evoke emotion. With New Deal money, the Southwest Monument bureaucracy set out scripting encounters with nature along NPS guidelines.²⁰⁴ The effects of this policy bumped up against a moral ecology expressed through gathering wood, hunting deer, rabbits and quail, driving cars across the desert, and drinking beer around fires made of desert litter.²⁰⁵ The process of transformation of the moral ecology is a long-term negotiation. People come to believe they have certain rights to use an area. The most jarring aspect of the transformation at Saguaro was felt by people who hunted and cut wood. These behaviors occurred in the cactus forest and on the mountain above.²⁰⁶ In this

²⁰³ *The Desert Magazine* (February, March, April, 1948); see, for examples of Marvin Frost-illustrated works, William H. Carr, *Desert Parade: A Guide to Southwestern Desert Plants and Wildlife* (New York: Viking Press, 1949); Philip Wells, *Meet the Southwest Deserts* (Globe, Arizona: Dale Stuart King, 1960).

²⁰⁴ Sellars, *Preserving Nature*; Rothman, *Preserving Different Pasts*.

²⁰⁵ Egermayer made note of all these activities in his "Custodian's Diary," 1939, SAGU 257, Box 1, Folder 7, WACC.

²⁰⁶ Jacoby, *Crimes against Nature*, 3, 6; Louis Warren, *The Hunter's Game: Poachers and Conservationists in Twentieth-Century America* (New Haven: Yale University Press, 1997).

case, science and recreation displaced hunting and woodcutting. Resolving the conflict was a constant preoccupation of Custodian Egermayer as the Monument's infrastructure emerged.

One of the primary sources of concern that the Custodian faced was enforcing NPS anti-hunting laws. One incident in January 1940 exemplifies these interactions. While on a mail run, Egermayer recorded, "heard shots, and Mr. Jackson, a neighbor who was also waiting for mailman, said there were two men in a California license car in there. So went over and found them, asked for their licenses (which they did not have) and read them the riot act, just to discourage them in future. They had not, as yet, killed anything, but were stalking a covey of quail when I came up to them. Did not see any profit to Service in making an arrest, as they were not on monument property."²⁰⁷ Sometimes hunters complained about the regulations, complaining that the boundary was poorly marked, making compliance difficult.²⁰⁸ Ambiguous legal encounters, like that one mentioned above, were the norm along the boundary of the Monument. However, Egermayer also made arrests. He captured five local residents who he described as "reputable business men."²⁰⁹ A month later, he arrested three deer hunters and narrowly missed catching some quail hunters who "made good their escape" from monument land before he arrived.²¹⁰ Besides increased patrols during quail and deer season, Egermayer was constantly listening for the sound of gunfire, following vehicle tracks into the thickets, and preempting hunts. Competing and overlapping histories of use and land ownership, along with ignorance of local and national laws, proximity to the city, and sometimes conflicting valuations of wildlife, conspired to challenge the Custodian's protection of animal.

²⁰⁷ Egermayer, "Custodian's Diary," January 2, 1940, SAGU 257, Box 1, Folder 7, WACC.

²⁰⁸ Egermayer, "Saguaro National Monument Monthly Report," November 1939, SAGU 257, Box 1, Folder 7, page 3, WACC.

²⁰⁹ *Ibid.*, 6.

²¹⁰ *Ibid.*, 6.

Fauna like deer, quail, mountain lions, coyotes or rabbits were not the only creatures targeted by poachers; cacti and flower gathering was also a problem. Egermayer wrote Fred Pinkley that “one matronly visitor was highly indignant when the flowers she had just picked were confiscated and she was politely ejected from the area; if all the Congressional displeasure she threatened to call down upon our heads were to materialize, it is sadly feared that Saguaro would shortly be in need of a new custodians.”²¹¹ The custodian was especially pressed to control visitor behavior on weekends when car travelers made fires along the edge of roadway. They burned the desert liter including dead wood and saguaro ribs, leaving trash and fire pits as evidence of their nocturnal presence.²¹²

Egermayer also had to contend with protecting NPS prerogatives against the agendas of federal and state agencies. In November 1939, Superintendent Pinkley alerted Director Cammerer that a lion hunter for the Biological Survey was planning to hunt in the Rincon Mountains. At first, Dorr Green, Chief of the Division of Predator and Rodent Control assured the NPS they planned no hunting in the monument. However, he included a letter from the district agent demonstrating the fiction that lion and hunters could respect property lines. Agent Mercer wrote:

We have no intention of placing a trapper in the Rincon Mountains during the winter months, but one of our lion hunters left yesterday enroute to the Rincon Mountains in answer to an urgent requisition from Mr. A.B. Cary, a local stockman...our hunter was instructed to avoid carrying on control operations on the Saguaro National Monument. It is realized that should a mountain lion be jumped outside the Monument and followed on to the Monument by the hunting dogs, it will be necessary for the hunter to pursue and overtake his dogs...*Such an instance is not likely to occur since when hunting in the vicinity of a national*

²¹¹ Egermayer, “Monthly Report—March, 1940,” p. 5, SAGU 257, Box 1, Folder 8, WACC

²¹² Egermayer, “Monthly Report—January, 1940,” p. 4, SAGU 257, Box 1, Folder 8, WACC.

*monument, our hunters always commence operations near the monument area and work away [my emphasis].*²¹³

In several sentences Mercer managed to convey the fiction that either the lions or the hunting dogs were constrained by the formal boundaries across Coronado National Forest, private property, and Monument lands. He also alerted the NPS that he viewed the Monument as a likely refugio for lions and therefore good hunting country, and he justified the hunt based on an ‘urgent request’ from a besieged stockman. Mercer finally argued that, while the Biological Survey had only “taken three mountain lions in the past four years,” private hunters reportedly killed some eighteen. Mercer used this ‘fact’ as an ameliorating condition designed to soothe NPS fears. Either way, the multiuse status of the mountain created a commons over which the NPS had little control.²¹⁴

Monument managers were struggling with their own predator-prey conundrum in the early 1940s. In this case, the relationship was between coyotes and javelina. Custodian Egermayer and Superintendent Pinkley were fond of the javelina. Pinkley, in particular, argued that Saguaro was a preserve for the “wild hog...in the natural state.” Coyotes, generally reviled, were also widespread and therefore did not warrant the same unique status. The answer was not predator control but a study. Pinkley recommended a study since javelinas were important to the Monument and A.A. Nichol had noted that the coyote, whose population fluctuated during the season, were responsible for roughly 90% of the javelinas’ deaths. Herbert Maier pointed out that

²¹³ Quote from E.M. Mercer to Chief Gabrielson, December 7, 1939; Pinkley to Cammerer November 18, 1939; Dorr Green to Carl Russell December 21, 1939, RG79, [E10], Box 2365, NARA II.

²¹⁴ Dorr Green to Carl Russell December 21, 1939, RG79, [E10], Box 2365, NARA II. In his provocative work on American efforts to eradicate and then save wolves, Historian Jon Coleman demonstrates how the Biological Survey worked to celebrate the animals they destroyed. They made legends of the last wolves by painting them as noble but doomed. Is something similar happening here? Jon Coleman, *Vicious: Wolves and Men in America* (New Haven: Yale University Press, 2004), especially part 4, “Annihilation and Enlightenment.”

undertaking a study faced the additional hurdle since the NPS wildlife division had been transferred to the Biological Survey.²¹⁵

Since 1905, the federal government had been directly involved in killing predators in the national forests. In 1915, at the behest of stock raisers, the Bureau of Biological Survey initiated a sustained program of predator eradication whose main client group was western ranchers. During the 1920s and with gaining momentum in the 1930s, wildlife biologists questioned the wisdom of predator control. Spectacular disequilibriums like the Kaibab deer irruption cast a long shadow over control policies. In the NPS, a cadre out of University of California, Berkeley, including George Wright, Joseph Dixon, and Ben Thompson, with the support of Joseph Grinnell, led the change. Wright funded the 1933 *Fauna No. 1*, a survey of wildlife in the national park system. By 1939, the wildlife division moved into the Biological Survey in a consolidation effort by Secretary of Interior Ickes.²¹⁶

Saguaro National Monument Custodians balanced their management and promotion activities, from enforcing anti-hunting laws and wildlife control, to scripting encounters with nature.²¹⁷ Just as Shantz had staged the Forest for the Women of Tucson Garden Club, the Park Service staged the Monument for visitors. The Cactus Forest was the most recognizable aspect of the park, heralded in all the literature, and it acted as buffer, spinning tourists through the corner of the Monument. Handed a foldout pamphlet, motorists were invited to a “Wilderness of Unreality,” and presented a 1930s image of a dense stand of saguaros. They were reminded that “Giant Cactus” were rare and therefore of National importance. The drive led them through a

²¹⁵ Pinkley to Herbert Maier Jan 6, 1940, RG79, [E10], Box 2365, NARA II.

²¹⁶ Thomas R. Dunlap, “The Coyote Itself”: Ecologist and the Value of Predators, 1900-72,” *Environmental Review* 7, no. 1 (Spring 1983): 54-70; Sellars, *Preserving Nature*, 97-99, 147.

²¹⁷ Saguaro National Monument Arizona Brochure,” 1942, Saguaro National Monument Vertical File, UASC.

“climax of a desert type of plant life not found elsewhere in our country.” Saguaros were “people in a crowd” and alternatively “grotesque rather than beautiful.” The pamphlet coached the tourists, suggesting that in saguaros’ strangeness one could find “a weird feeling of friendliness in each massive, awkward hunk. The imaginative person may find in many of them a strange resemblance to the figures of humans and animals, punctuation marks, and other familiar objects.”²¹⁸ The road then passed an intermittent stream, practically the definition of a refuge in the desert, before heading up a steep grade close to the Rincon Mountains.²¹⁹ The mobility of the car—its safety—allowed tourists to pass easily through the forest. The loop road twined between the “desert skyscrapers” on a road that literally placed people among the scenic treasures of the Monument. The auto provided a window looking out at nature while protecting the remainder of the Monument from high levels of visitation.²²⁰

The infrastructure to manage Saguaro was ready by 1940. The Monument’s garden, staged for presenting desert ecology, led motorists on the eight-mile loop of the road and the branched walking trails Shantz and Cammerer had visualized. Yet, even as the road opened, emerging concerns over dramatic losses of saguaro cacti raised questions about whether or not the Park Service should retain the Monument.

²¹⁸ Saguaro National Monument Arizona Brochure,” 1942, Saguaro National Monument Vertical File, UASC.

²¹⁹ “Justification, Project 205, Park Roads in Saguaro Forest State Park,” SAGU 257, Box 4, Folder 27, WACC; Images from SAGU 257, Box 4, Folders 17 and 27, WACC.

²²⁰ Saguaro National Monument Arizona Brochure,” 1942, Saguaro National Monument Vertical File, UASC.

Threats to the Ecological Narrative

Dealing with Cactus Die Off

In 1939, nearly simultaneously with the completion of the loop road, University of Arizona Plant Pathologist James G. Brown began to document disease in regional saguaro populations. Brown, working in several areas of Arizona, believed the disease might be contagious and epidemic, that a bacterium was striking across the Sonoran Desert. His reports of a regional epidemic among saguaro cacti led to a panicked reaction.²²¹

The Service was seriously concerned with the cactus disease. In a special report, McDougall, NPS regional biologist, warned, “The most important wildlife problem at Saguaro National Monument...is the bacterial disease...attacking many of the saguaros.” Proceeding with unexpected rapidity, the “disease” attacked the iconic saguaros.²²² They were literally decomposing, shedding their skins and draining the thousands of pounds of water in their tissue. Although we now look back and recognize that the cactus disease was almost certainly a function of the cactus stand’s advanced age and harm caused by an extended freeze, in other words normal, natural, and to be expected, at the time, the decline seemed to call for action. The response was far more intrusive than a photograph.²²³

²²¹ Joseph R. McAuliffe, “Saguaro Cactus Dynamics,” in William L. Halvorson and Gary E. Davis, eds., *Science and Ecosystem Management in the National Parks I* (Tucson: University of Arizona Press, 1996), 101.

²²² Milton J. McColm, “Memorandum for the Director,” in “Special Report Saguaro National Monument,” SAGU 257, Box 4, Folder 40, WACC, 1-2.

²²³ Warren F. Steenbergh and Charles H. Lowe, *Ecology of the Saguaro III: Growth and Demography* (Washington, D.C.: U.S. Dept. of Interior, NPS, 1983). Steenbergh and Lowe provide an extensive discussion of the disease and treatment, including primary documents, in Appendix I. Their earlier volume, Warren F. Steenbergh and Charles H. Lowe, *Ecology of the Saguaro: II Reproduction, Germination, Establishment, Growth, and Survival of the Young Plant* NPS Scientific Monograph No. 8 (Washington, D.C.: U.S. Dept. of Interior, NPS, 1977), offers a useful summary of the hypotheses and studies conducted up until the time of publication. Part I of their work, a paper, was published as W.F. Steenbergh and C.H. Lowe, “Ecology of the

Viewed as a contagion, the blight elicited a flurry of activity among plant pathologists as they sought to determine how to deal with the issue. The decision was to designate a test area, delimitate a control area, and destroy diseased plants in the test area, located in Section 17 at the far northwestern corner of the Monument. There is no clear indication why Brown selected Section 17. Pathologist Lake Gill argued they chose the section for study because it was in the middle of the densest stand and that the disease “appeared” to be very extensive.²²⁴ There were other pragmatic considerations. The area had good frontage on Freeman Road, was north of the loop road, was at the northern edge of the monument, had representational stands of cactus and was state owned.²²⁵ The section was already split in half, with the north half in private hands, and the southern half owned by the University/State of Arizona. Of course, there were notable drawbacks. Its road frontage meant that vandalism was common, and since the northern, control, half, was private lands, they could undergo development at any time. In general, the gamble paid off. The north section remained generally undeveloped.

Saguaro. I. The Role of Freezing Weather on a Warm-desert Plant Population,” in *Research in the Parks*, National Park Service Symposium Series no. 1 (Washington, D.C.: Government Printing Office, 1976), 69-92.

²²⁴ L. S. Gill, “Mortality in the Giant Cactus at Saguaro National Monument 1941-1950” (January 31, 1951) in Warren F. Steenbergh, *USDA Bureau of Plant Industry Cactus Disease Investigations: Reports and Related Correspondence 1941-1951* (NPS, March 1980).

²²⁵ Until 1956, its southern half was state owned. The NPS bought out the northern half in a series of purchases and exchanges from 1970 to 1972. Land Files, SAGU 275, Box 5, WACC.



Figure 38. Looking North through Section 17, MS1255, Folder 489a, Arizona Historical Society

From October 1940 to May 1941, Custodian Egermayer directed National Youth Administration engineering students from the University of Arizona, as they marked Section 17 into 10-acre plots.²²⁶ Lake S. Gill, Senior Pathologist with the Bureau of Plant Industry, and University of Arizona Paul Lightle led the effort beginning in spring 1941. All living saguaro in sixty-four 10-acre quadrants received numbered stakes (12,968) between September 1941 and January 1942. The north half was staked, counted, and each saguaro received notes, but otherwise, these 320 acres acted as a control group. Researchers also recorded 1836 dry cactus skeletons. A visual survey determined which cacti researchers would remove. Those deemed infected received a paint mark. At the site where the disease cacti had stood, workers disinfected the ground and any nearby cacti. By November of 1941, workers were hauling and destroying

²²⁶ Lake S. Gill and Paul C. Lightle, *Cactus Disease Investigations: An Outline of Objectives, Plans, and Accomplishments on Project J-2-8* (Albuquerque, NM: Bureau of Plant Industry Forest Pathology, June 20, 1942), 10, in Steenbergh, *USDA Bureau of Plant Industry Cactus Disease Investigations*.

between fifteen and eighteen per day. In different reports, the exact overall number of removed cacti varied. James Mielke, Associate Pathologist for the Bureau, claimed 335.²²⁷

Joseph R. McAuliffe described the methods of the study as a form of hysteria.²²⁸ We might add it was a form of war hysteria. In 1942, Gill's study fit with the highly visible action of the war effort. In his June 1942 *Natural History* article, "Death in the Desert," Gill used the type of rhetoric, argumentation, and iconography so common from the early war. Words like plague, virulent, and rot describe the behavior of the bacteria—*Erwinea carnegieana*. For Gill, the bacteria attacked and killed its victim, operating through military metaphors of precision and treachery. Equally importantly to his presentation, science identified the problem quickly, and then scientists acted in a completely lucid way—they transformed the world through physical work. Images accompanying the *Natural History* article showed readers a chain, attached to an off camera truck, pulling down a mighty cactus.

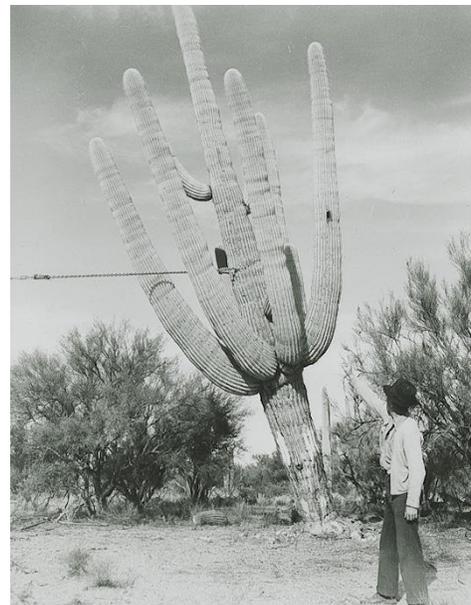


Figure 39. Removing Saguaros-1, MS1255, Folder 489a, AHS

²²⁷ Don Egermayer, "Monthly Narrative Reports, Southwestern National Monuments," September 1941, 30, WACC; Egermayer, "Monthly Narrative Reports," November 1941, 24 WACC; Lake S. Gill, "Memorandum," SAGU 257, Box 4, Folder 44, WACC; Meilke in Steenbergh, USDA Report, 1980.

²²⁸ McAuliffe, "Saguaro Cactus Dynamics," 101.

Men sprayed chemicals on the infected ground; sectioned cacti with a cross-cut saw, hoisted them with log moving equipment, and buried them in a prepared trench. These acts were not thoughtless acts of vandalism; scientists observed, authorized, and directed the work.²²⁹



Figure 40. Removing Saguaros-2, MS1255, Folder 489a, AHS



Figure 41. Removing Saguaros-3, MS1255, Folder 489a, AHS

²²⁹ Lake S. Gill, "Death in the Desert," *Natural History* 50 (June 1942):22-26.



Figure 42. Marvin Frost (Camera) MS1255, Folder 489a, AHS



Figure 43. James Mielke MS1255, Folder 489a, AHS

These images of purposeful work in nature, coupled with the warlike text, as well as the public's familiarity with the working ethos conservation of the CCC, legitimated the rush to judgment and action. Juxtaposed against the gentle aesthetic of the photography of Natt Dodge and Marvin Frost, the images should have shocked readers; apparently they did not.

Representatives from the NPS were split over the course of action. While, fear over the loss of the cactus forest justified the Bureau of Plant industry's actions for Regional Director Milton McColm, the intervention raised alarm bells for W.B. McDougal. On a visit as the work

got underway, McDougal voiced his concern about the underlying assumptions and resulting intervention of the study:

If this bacterial necrosis were a recently introduced exotic, it would not be considered strange if it were to threaten the existence of the entire host species. I understand, however, that Dr. Gill has found a reference as early as about 1886 which seems to refer to this disease, and in conversations with such men as Mr. Nichol, Dr. Vorhies, and Dr. Shreve I have gained the impression that the disease has been known to them for many years... The only place where the disease has seemingly assumed serious proportions is in that part of the Saguaro National Monument where the forest is fully mature; so mature and in so dense a stand that there is practical no reproduction.²³⁰

McDougall felt that in this climax forest, change was natural yet warranted concern. He noted, “The most important wildlife problem at Saguaro National Monument... is the bacterial disease that is attacking many of the saguaros.” He thought “young and vigorous” saguaros were combating the illness while the “old” were succumbing in several months. Other scientists were also less certain either of classifying the phenomenon as a disease, or viewing it with alarm. Forrest Shreve was among those who took a longer view, feeling certain that growing conditions would improve.²³¹ Despite these voices of caution, the scientific study went forward based on the assumption that the blight represented a disease that needed quarantine. The study, designed to see if destroying the diseased saguaro would slow the rate of the disease, lasted in various forms until 1950. Some sense of a balanced response remained because, as McAuliffe points out, a scientist failed to get approval for aerial spraying of DDT.²³²

²³⁰ W. B. McDougall, Regional Biologist, “Special Report Saguaro National Monument,” RG79, Box 2363, NARA II; Clemensen, *Cattle, Copper, Cactus*, 165-68.

²³¹ Milton J. McColm, “Memorandum for the Director,” in “Special Report Saguaro National Monument,” SAGU 257, Box 4, Folder 40, WACC, 1-2.

²³² McAuliffe, “Saguaro Cactus Dynamics,” 103; Clemensen, *Cattle, Copper, Cactus*, 167. To date, the best summary of the cactus disease and managerial response is Joseph R. McAuliffe’s “Saguaro Cactus Dynamics.” McAuliffe identifies “three chapters” in the study of saguaro decline: mortality studies from 1939 to the 1960s; ongoing ecological studies into saguaro propagation and survival begun in the 1950s; studies of the effect of air quality dating from the Clean Air Act. Of these three chapters, the initial response was qualitatively different because the

Countering the Narrative of Decline

Saguaro National Monument faced seemingly intractable problems. The cactus die-off was intensely disheartening and provided ammunition in efforts to reduce or abolish the Monument. Although the NPS no longer faced concerns about retaining the Monument, they faced serious questions: What if the saguaro died off completely in the cactus forest section? Regional Director Minor Tillotson, arguing to abolish the Monument in 1945, noted that Dr. Mielke felt the Monument saguaro “doomed.”²³³ Even the more optimistic Ben Thompson assessed that “the spectacular quality of the main saguaro stand in the Monument will be lost in the foreseeable future.”²³⁴ Of all the problems encountered by NPS Saguaro National Monument management—the loss of the cacti raised the most concern and spilled over into uncertainty about the future of the Monument itself. Perhaps this anxiety and uncertainty is not surprisingly in light of the aesthetic and scientific narratives that had sustained the emergence of the working monument.

Some disagreed with the idea that the Monument was no long naturally, nor aesthetically monumental. Off and on ranger Paul Beaubien told Tillotson that “the cactus patch still has great value despite inroads of the saguaro disease.” As usual for supporters of the monument project, he argued for substantial managerial changes: elimination of grazing, destruction of harmful rodents, planting of young saguaros, and soil conservation could salvage the stand. In 1945, he was willing to sacrifice the mountainous portion to cultivate local support and quiet the harsh

Bureau of Plant Pathology actively destroyed cacti in an effort to contain the blight. In contrast, the other two eras involved measuring and monitoring. McAuliffe, “Saguaro Cactus Dynamics,” 96-131.

²³³ Minor Tillotson to Director Newton Drury July 18, 1945, RG79, Entry 10, Box 2365, NARA II.

²³⁴ Minor Tillotson to Director Newton Drury July 18, 1945, RG79, Entry 10, Box 2365, NARA II.

criticism of local ranchers who, he pointed out, “denounce us” and “have influenced their brother ranchers all over Arizona.”²³⁵ Biologist Victor Cahalane informed Director Drury he saw two paths forward: abolish the Monument or make “a sincere effort to protect and conserve” its natural resources. He reminded the director: “From the viewpoint of the biologist, Saguaro National Monument is a fine example of spectacular vegetation. The fact that the area extends from low cactus desert to pine-covered mountain top makes it outstanding in the botanical field...No other single area in the Southwest duplicates the protective function of this monument.” Land problems aside, Cahalane emphasized, “the root of the various evils is grazing. Lack of plant reproduction, the bacterial disease of the saguaros, soil erosion, the abundance of rodents—all appear to spring from the depredations of livestock.” Cahalane felt the NPS owed “scientists and laymen” the effort required to preserve the monument intact and eliminate grazing.²³⁶

Homer Shantz also did not agree with the gloomy pronouncements issued by Tillotson. For him, these changes in the cactus forest were a long time coming and not so utterly devastating. Placing the contemporary concerns into a longer historical context, he noted in a 1948 letter to Director Drury that “about 20 years ago I talked over the matter of setting aside the area with Harold Bell Wright. He said at that time that so many plants were dying that he had lost interest [in supporting the project]. Certainly many plants have died and many were taken out by the pathologists.” Shantz then recounted a recent visit to the Monument when

I was greatly surprised to see the area looking so well and delighted to find your man Sam King so much interested and so alive to the value of the monument. In order to give substance to my observations I attempted in the short time to compare photographs made in 1935 and 1936 with duplicates of the same plants

²³⁵ Paul L. Beaubien to Regional Director, Region 3, May 18, 1945.

²³⁶ Victor H. Cahalane to Newton Drury, September 6, 1945, RG79, Entry 10, Box 2365, NARA II.

made Nov. 17, 1948. I made measurements of height and diameter. We had generally estimated the rate of growth to be about 1 inch a year for saguaro. My measurements had to be done in a hurry and are probably not too accurate but in 17 measurements the annual growth ranged from 1.2 inches to 5.5 inches per year with an average of 2.96 or 3 inches a year for saguaro, and for 5 visnaga [sic] measurements from 0.8 inches to 2.0 inches on an average annual growth of 1.4 inches. It is evident therefore that these plants can be replaced much more rapidly than we had thought. It should be remembered also that the years 1935-1948 have been rather dry. I compared the amount of plant showing in photos duplicated in 1935 and 1948 and found a slight increase (10%) [in one area] and another over one of the most depleted areas showed a decrease to 80 percent of the 1935 value.

Based on this photographic evidence and field measurements, Shantz concludes that “there is little reason therefore to assume that the area is deteriorating or the amount of saguaro stems decreasing perceptibly.” Indeed, he notes, “it would be a crime to lose the area. Some of the regents are more interested in the dollars than in the educational and inspirational value to be derived by conserving the area. But I hope the Park Service will not drop the project.”²³⁷

Shantz based his sense of optimism on the belief that NPS control would largely eliminate disturbing factors like cattle grazing or, as he mentioned, young eastern men shooting saguaros so they could enact western behavior. For those people who, like Shantz or Ben Thompson, could see the ecological continuity of the entire Monument, the cactus forest diminished in importance. As Forest Shreve, Shantz, and others argued so many times over the decades, the ecology made the forest and the ecology could make it again.

²³⁷ Shantz to Drury, December 22, 1948, RG79, Entry 10, Box 2365, NARA II.

Chapter 4

A People's Park, 1948-1966



Figure 44. Presenting the Desert in the Rincon District, Mission 66, SAGU257, Series 4, Box 4, WACC.

“On behalf of the Residents of Tucson, I call for no compromise in this issue. You can not have two uses in the area—we have already lost too much valuable recreational lands...as development advanced behind the bulldozer.” Tucson Mayor Don Hummel²³⁸

“Conservation for recreation is conservation in its broadest aspects, for it involves not only preservation of the intrinsic values of areas of scenic, scientific, and historic importance, but planning and development for the proper use of these values to meet human requirements. Through it, human lives are made richer and more abundant in experiences...” Paul V. McNutt, 1940²³⁹

“Ecology is the new word in civilized living. It deals not alone with controlling the disbalance in nature brought by presence of man, but sights that offend the senses...It would be a pity indeed were planners and developers, however they lace the legitimate profit motive with public service, to despoil our desert.” Leland D. Case, 1969.²⁴⁰

²³⁸ “Tucson Mountain Park Annex History,” SAGU257, Box 11, Folder 6, WACC.

²³⁹ Paul V. McNutt, “Conservation for Recreation: The Landscape Architect as Land-Use Planner in Public Works,” *Landscape Architecture* 30, no. 4 (1940): 174, in McClelland, *Building the National Parks*, 455.

²⁴⁰ Leland D. Case, speech at zoning hearing, November 24, 1969, SAGU257, Box 6, Folder 1, WACC.

Trading Up: Brokering Saguaro Land Deals

Saguaro National Monument Confronts its Problems

The discussions over the impact of the saguaro blight on the future of Saguaro National Monument dovetailed with longstanding issues. The National Park Service had made a deal to gain control of the state and university lands but private land holdings continued to cause problems. Hillory Tolson had felt a successful outcome doubtful since money to purchase land was not forthcoming from Congress. The Forest Service could adequately protect the forested mountains and the cactus forest was as bogged down in legal dispute as in 1933. If the NPS retained the Monument, Tolson felt reducing its size could “show those concerned that the National Park Service is not a ‘land grabbing’ agency as alleged by some.”²⁴¹ Should the NPS close up shop and move to a new location? Should they focus on Organ Pipe National Monument? Should they move the Monument across town to the Tucson Mountain Park where the saguaro stands were healthier? Tillotson and Tolson pointed to Organ Pipe National Monument, already established, or even to the Tucson Mountains where questions of ownership were more straightforward and grazing absent. If the NPS stayed at the Rincon Mountain location, how would they manage a monument beset by grazing and by resistance from Senator Carl Hayden, grazing lessees, the State of Arizona, and developers? Remember that between 1937 and 1945, Senator Carl Hayden had introduced five bills to return the mountain section to the Forest Service and buy out state and private land in the cactus forest.²⁴² All had failed, but the NPS faced continued insecurity over the future. Arizona was in a defensive crouch complaining about federal land grabs. Two of the three active lease holders, James Converse and Gordon

²⁴¹ Hillory Tolson to Director Newton Drury July 25, 1944, RG79, Entry 10, Box 2365, NARA II.

²⁴² Clemensen, *Cattle, Copper, Cactus*, 131-135.

Packard, were powerful figures in the Stockman's Association and considered NPS control a step toward undermining their grazing rights. They were philosophically, as well as financially, opposed to the NPS project. Finally, developers, subdividing tracts of land around the monument, were pressuring landowners and making inroads into the Monument.

At the heart of the issue was the inability of the NPS to control the most ecologically fragile and spectacular portion of the Monument: the cactus forest. The problems were acute and many supporters of the Monument felt pessimistic. Forester J.D. Coffman argued that if the NPS could not fence out grazing from the cactus forest it ought to relinquish the land. In fact, that point was only one of a series of seemingly intractable contingencies that he felt blocked any other conclusion. His litany:

If the Congress will promptly appropriate funds sufficient to acquire the State, University and private lands within the main saguaro exhibit, together with sufficient funds to fence out all grazing, correct existing erosion conditions, and restore in part at least the site quality through the planting of vegetation...then I would vote for retention of the saguaro forest portion of the monument...The above recommendation is contingent upon the ability of the National Park Service to terminate all grazing permits within that area upon gaining the ownership of the alienated lands therein. If there are any contractual obligations which would permit grazing privileges upon the area after the acquisition of the alienated lands...I would be opposed to assumption of the responsibility for the protection and preservation of the saguaro forest by the National Park Service. Conditions are so critical now that it is essential that all grazing within the saguaro stand be terminated without delay. If the National Park Service takes over the ownership complicated by grazing, there will be no opportunity to bring about better conditions and the public will hold the National Park Service to blame for the deterioration of this wonderful exhibit. If grazing cannot be eliminated promptly, it would be far better to abandon the monument and let the responsibility for the deterioration of the saguaro stand rest where it belongs-upon the University, State, and grazing permittee.²⁴³

A 1948 letter from Don Egermayer, the past custodian who, with his wife and friends, created a visual archive of SNM's beauty in the 1940s, captures the ambivalence of the situation well. He

²⁴³ J.D. Coffman to Newton Drury August 25, 1945, RG79, Entry 10, Box 2365, NARA II.

recalls an early idyllic 1935 visit to Saguaro, when he spent hours “driving, walking, and photographing among the cactus stands.” Now, in comparison to this “rather vivid mental picture,” “...the stand of Saguaro remaining represent approximately two-thirds the number of mature individuals seen on the occasion of that first trip...parts of the west section of the monument appeared almost bare, and all six of my ‘pet’ saguaros, all large plants, had died.” Egermayer implies the causes of these changes—“cattle grazing, which had been continued under permit since proclamation.” “Throughout the finest portions of the cactus stand lying within the western section of the monument equally continuous grazing of stock has so badly depleted the cover species that it is doubtful if they can recover even if the stock were to be removed immediately.” He also notes the seemingly intractable problem of land ownership:

in the fifteen years since the monument was created, funds for land acquisition have not been obtained [and] For the past two years all of my contacts with civic groups in the city of Tucson indicated that their attention was focused more on the Tucson Mountain Park west of the city than on the monument, which local people apparently felt was not as well suited to their needs.²⁴⁴

Feeling abandoned by the community, unable to buy or control the crucial lands, and facing irreparable loss of the flagship species, Egermayer felt that “it is now too late to either retain or regain the principal values for which the area was established, and which were to have been preserved in perpetuity.”²⁴⁵

The Grazing Issue

In 1933, when the National Park Service took over management of Saguaro, cattle had been an active presence in the regional environment for more than half a century. Use of the land for grazing arose out of the blending of the natural landscape with the history of dispersing

²⁴⁴ Don Egermayer to Director Newton Drury, June 22, 1948, RG79, Entry 10, Box 2364, NARA II.

²⁴⁵ Ibid., Egermayer to Drury.

public land to private use for grazing. According to available records, ranching use of future Saguaro National Monument lands began established with Manuel Martinez, and the Fort Lowell Military Reservation. In 1872 and 1873 respectively, both began ranching the Tanque Verde wash; Emily Carrillo, William Oury, the Tellez brothers, Joseph Mills, and a host of other Mexican and Mexican Americans followed. The U.S. military kept cattle and stock within their reserve and Walter Vail of the Empire Ranch, grazed the Pantano Wash and Happy Valley. By 1880, historian Berle Clemensen estimates the total number of livestock in the Rincon and Tanque Verde mountains at 17,000 (including horses and sheep).²⁴⁶ These numbers did not persist, but certainly influenced the ecological setting for the later landscape.²⁴⁷

The forested mountains were reservoirs of natural wealth and the *bajadas* had substantially more rainfall and ground water. The golden grasslands that so capture a mythical yearning for the heady days of the 1880s lay beneath both. All these features made the land appealing for grazing, and away from water sources, grazing, rather than agriculture, was the only option. Southern Arizona's inclusion into the national economy spurred by military demand, the railroad, and mining, had brought a new human rush into the area in the 1880s. Claimants for land arrived from Mexico and the U.S. and took to grazing the mountains and *bajadas*. When first the Forest Service, and then the National Park Service gained control of the land, they had to reckon with a history of use that presumed the positive social qualities brought by grazing cattle, yet had witness a great overgrazing at the end of the nineteenth century. The

²⁴⁶ Clemenson, *Cattle, Copper, Cactus*, 67-68.

²⁴⁷ When thinking about the impacts of cattle on the SNM landscape, it is useful to divide them into four phases: pre-Forest Service (1872-1907), Forest Service Management (1907-1956) Full National Park Service Control (1956 on), and closing the range (1956-81).

horror of the drought year 1894-95 lay heavy upon regional memories. Managers thus recognized that the landscape was changing under the weight of grazing.²⁴⁸

Cattle numbers matter. Resting heavily on our narrative is the massive overstocking of the late nineteenth century: by 1890, Pima County had more than 100,000. The heavy grazing, coupled with drought, “fixed” an ecological transformation onto the land. Arroyo cutting, increased erosion, and a declining water table, dried out the landscape.²⁴⁹ Cactus-oriented science was also gaining an established baseline. Clear examples of these effects were observed decades earlier and across the valley at the Carnegie Institute’s Desert Lab. Established in 1903, the Desert Lab perched atop Tumamoc Hill and from its vantage acted as a hothouse for arid lands studies. It was on the surrounding slopes that scientists, cattle, fencing, and cacti first enter the scientific record. Seeking to protect their research quadrants from cattle hooves and stomachs, and preserve the grounds un-molested by pot hunters and other human disturbance, employee Godfrey Sykes oversaw the construction of a fence around 860 acres of the hill.²⁵⁰ These early efforts provided the research basis for an eight-five year study of saguaro population dynamics. During the period, the saguaro population doubled but for scientists at the lab, the

²⁴⁸ Alan Trachtenberg, *The Incorporation of America: Culture and Society in the Gilded Age* (New York: Hill and Wang, 1982); Sheridan, *Arizona*; Jay Wagoner, “History of the Cattle Industry in Southern Arizona, 1540-1940,” *University of Arizona Bulletin* No. 20, 1952.

²⁴⁹ James Rodney Hastings and Raymond M. Turner, *The Changing Mile: An Ecological Study of Vegetation Change with Time in the Lower Mile of an Arid and Semiarid Region* (Tucson: University of Arizona Press, 1965); Michael F. Logan, *Fighting Sprawl and City Hall: Resistance to Urban Growth in the Southwest* (Tucson: University of Arizona Press, 1995).

²⁵⁰ Craig, *Centennial History of the Carnegie Institution*. Godfrey Sykes hired on in 1905 after the Carnegie Institute committed to a long term lab and an increased budget oversaw the construction. Craig notes that the Tumamoc Hill land was mostly (640 acres) “leased from the nearby university and the Territory of Arizona” (19). Further, “Fencing would...allow the place to revert to its original state, making possible the long-term studies of undisturbed desert vegetation that [Volney] Spalding held so dear” (20). For more on Sykes see his own writings: *A Westerly Trend*; Diane Boyer, “The Lost Pinacate Diary of Godfrey G. Sykes,” *Journal of the Southwest* 49, no. 2 (June 22, 2007). Also see other Pinacate articles in the same issue.

effects were soon visible. More broadly, cattle were seen as an ecologically disruptive force and the theme of range overstocking was part of a common explanatory repertoire to scientists at the turn of the century.²⁵¹

The idea that cattle habits disturbed cacti was therefore part of a common explanatory repertoire long before Homer Shantz utilized University funds to purchase the Tanque Verde Cactus Forest or the University and National Park Service initiated studies into the saguaro die-off in the Monument. Once established, monument personnel had a community of local scientists to call upon who believed cattle were partially responsible for the decline in young saguaro. For a clear early example of the conversation among University, Lab, and Monument personnel we can track the relationship between C.E. Powell and J. J. Thornber. Recall that when Powell wrote to Frank Pinkley in 1935 about his proposed cactus garden, he began his discussion arguing, “Because of cattle grazing and cactus collecting, many of our cacti are conspicuous for their scarcity...this explains the need of a restored area, near the Ranger station, where the more rare varieties of cacti may be replanted and studied.”²⁵²

Saguaro National Monument’s roots as a National Forest created an ambiguous relationship with grazers.²⁵³ Since the Monument was established under the auspices of the Forest Service, the National Park Service offered to continue grazing rights after gaining control in 1934. There were real pragmatic reasons for this decision. First, control of the mountainous upper elevations of the monument was in doubt until the 1950s. Second, the land ownership issues in the Tanque Verde Cactus Forest (owned by the University of Arizona, State of Arizona,

²⁵¹ Elizabeth A. Pierson and Raymond M. Turner, “An 85-Year Study of Saguaro (*Carnegiea Gigantea*) Demography,” *Ecology* 79, no. 8 (December 1998): 2676-2693.

²⁵² C.E. Powell to Frank Pinkley May 22, 1935, SAGU 257, Box 1, Folder 11, part. 3 “General and Misc. Correspondence, 1933-35,” WACC.

²⁵³ Larry S. Allen, “Livestock and the Coronado National Forest,” *Rangelands* 11 (February 1989): 14-20.

and private individuals), drew managers' attention. Finally, by the time the National Park Service had consolidated control, some allotments no longer had grazers.²⁵⁴

A study published in 1963 and surveying a number of locations in the Tucson basin found a strong correlation between the advent of grazing and the decline in saguaro reproduction. One of the authors, William A. Niering, Department of Botany, Connecticut College, protested continued grazing in a letter dated February 1964; "Saguaro will not reestablish itself along the Loop Drive under present conditions." He cited the Carnegie Institute's Desert Lab observations and noted that "for further evidence of the role of grazing one can compare slopes of the Catalina Mountains in the Coronado National Forest, which have been protected from grazing for about 25 years, and comparable slopes currently being heavily grazed on the Rincon slopes of the Saguaro National Monument. Reproduction of young plants is excellent on the Catalina slopes but poor on the Rincon slopes."²⁵⁵ For Neiring, the long history of grazing was clearly to blame for the saguaro decline.

The land now a part of Saguaro National Monument was subjected to heavy grazing from the late 1800s to its establishment in 1933. When established, the desert community had been seriously disturbed and saguaro were failing to reproduce. Degradation of the community continued until 1958 when grazing was removed from a part of the saguaro population adjacent the scenic loop Drive where the finest saguaro occurred. Today many of the remaining large cacti along the Loop Drive are dying from bacterial necrosis and natural replacement is not occurring. It is estimated that the Drive will be saguaro-less by the year 2000.

²⁵⁴ For a more extensive discussion of the grazing allotments see Clemensen, *Cattle, Copper, Cactus*, 67-79.

²⁵⁵ Letter from William A. Neiring, Box 6, Folder 99, SAGU275, WACC. Neiring also identified the impact of predator control programs: "Over the decades continued overgrazing and predator control programs have resulted in an increase in the rodent population. The effect of the rodents on young saguaro in the Monument is well documented (*Science* Oct. 4, 1963)... If planted the young plants will need protection from rodents, if this is possible."

In addition to the dire situation in the Cactus Forest, “the rocky Rincon slopes needs immediate attention since this area is still being grazed and here saguaro reproduction, although poor, would probably increase if the saguaro ‘nurse plants’ were allowed to recover from the effects of severe overgrazing.”²⁵⁶

Even when the NPS faced near certainty that cattle grazing was disrupting saguaro, they did not end grazing. Why? If we want to point to one document preventing a succession of managers from ending grazing in the Monument it is NPS Director A. E. Demaray’s March 13, 1950 letter to permittees. The crucial text reads as follows:

This is to advise you [the permittee] that it is now and hereafter will be the policy of the NPS to continue to recognize the existing grazing permit to you so long as your use thereof conforms with the rules and regulations and practices of the USFS as to lands under its jurisdiction held under grazing permits from it. To carry out this policy, the NPS will acquiesce in any assignments of said grazing permit now held by you in connection with transfers of title to the base lands (lands outside the monument now owned by you) either by sale or devise or inheritance, so long as the grazing permit contributes to the value of such base lands or until such time as the then owner...shall voluntarily surrender or abandon said grazing permit.²⁵⁷

The letter points to a broader reality. Saguaro, crafted out of tapestry of Forest Service and private land, began its existence with messy questions of legal title and the bureaucratic struggle between the NPS and Forest Service. Furthermore, monument land had a different land use history. To redefine appropriate use the NPS worked hard over the decades cultivating relationships with the ranching neighbors whose perimeter ranches acted as a buffer zone for the Monument.

²⁵⁶ Letter from William A Neiring, Box 6, Folder 99, *SAGU275* WACC.

²⁵⁷ Letter from A.E. Demaray to Mr. Gordon Packard (X-9 Ranch), March 13, 1950, *SAGU 275*, Box 7, Folder 112, WAAC; Letter from A.E. Demaray to James P. Converses (Tanque Verde Allotment), March 13, 1950 and described by unknown archivist as the “Famous Letter;” Memorandum April 17, 1972 referencing Demaray’s “Famous Letter” *SAGU 275*, Box 7, Folder 98, WACC.

Another way to analyze the problem is to recognize that the National Park Service did not have the power to eliminate grazing until it had become a moot point. Evidence of this weakness is visible in the decision to have the Forest Service manage grazing permits until 1973. At that time, the NPS announced the end of grazing. Yet another way to understand the issue is to recognize that grazing was not solely responsible for these changes. Deforestation of mesquite and palo verde for fuel and fences stripped the *bajada* slopes of nurse plants. By the 1960s, even as interest group pressure mounted to eliminate grazing, urban pressures were at least as disruptive as grazing. Securing the cooperation of the perimeter landowners was therefore increasingly important.

Like the rest of valley in the post-World War II decades, Saguaro National Monument was experiencing the pressure of new subdivisions. The most notable development included the subdivision of Section 8, located at the far northwestern corner of the monument and just north of Section 17. The section's owner, Jane Lee Wentworth, sold the section in 1946. A succession of sales diffused ownership more. Custodian Egermayer reported that roads divided the section into eight sections and that one owner was drilling a well. Originally platted within the Monument, yet never owned by the NPS, the loss of Section 8 presented a grim future for all the private lands interior to the Monument. Outside and adjacent to the monument lands developers subdivided sections 25 and 30, a total of 1240 acres, in October 1946. Along Saguaro's western boundary, this subdivision represented the grand scale of development's eastward march. Land buyers were swarming about the area. "Real estate agents have twice stopped at Monument Headquarters recently to inquire as to private lands for sale in this area," Egermayer told Associate Director Demaray. Mrs. Freeman received seven offers in September and October, 1946 for her Section 5. In 1933 when President Hoover had proclaimed the Monument, literature

described these newly protected federal lands as seventeen miles east of Tucson. A mere thirteen years later, the metropolis was lapping against its edges and even over running its border. The city had arrived on Saguaro's doorstep.²⁵⁸

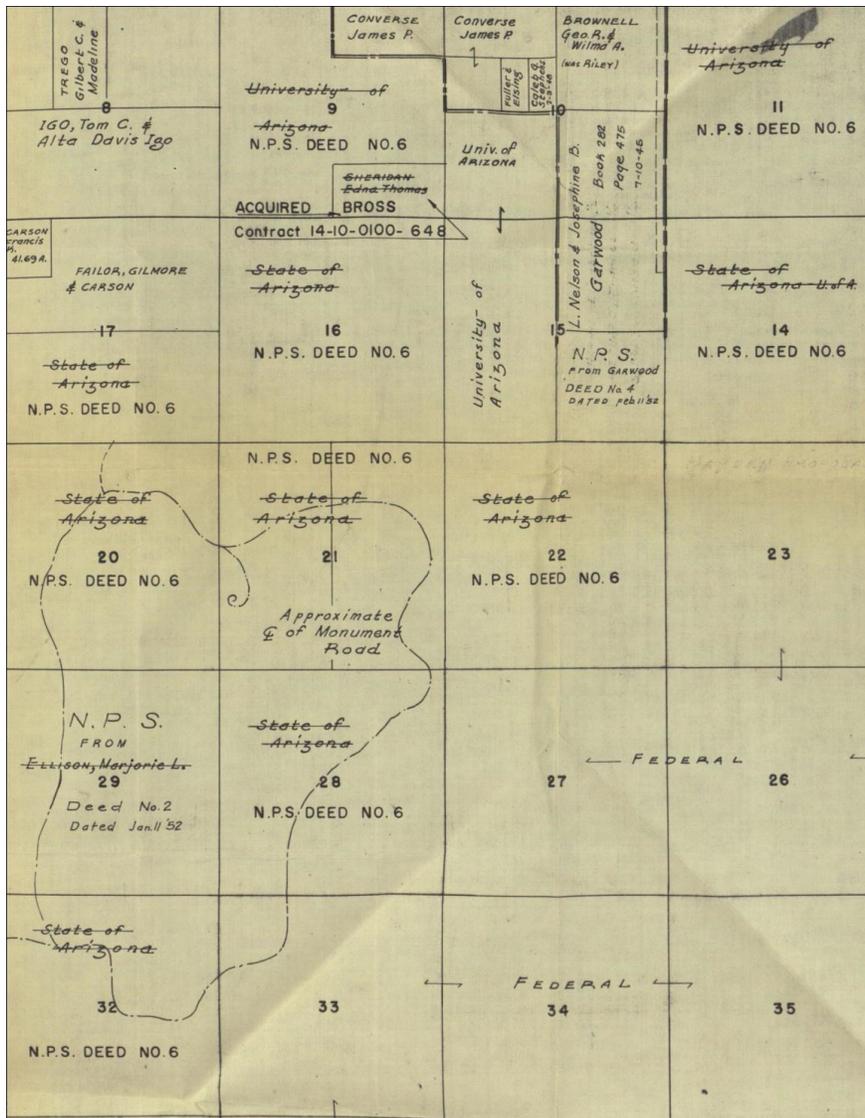
Private owners of monument lands were feeling intense pressure to sell their land. Many had waited years for a solution from the federal government. Some, like the Freemans, wanted to sell their property to the NPS; they wanted to preserve the land as a legacy. Others, like Marjorie Ellison, owned crucial portions of the Monument; her Section 29 contained part of the CCC loop road and huge numbers of saguaro. Ellison's real estate agent told Director Drury he had posted a price of 85 dollars per acre but that Ellison would sell the 640 acres to the NPS for 35,000 dollars (\$55 per acre).²⁵⁹ Tillotson and Egermayer cautioned Drury that the NPS must have her property.²⁶⁰ The danger associated with not acting to secure the lands was easy to find. In Section 8 Gilbert Trego built a house reported to cost 35,000 dollars (this at a time when the mass produced homes of Levittown cost from eight to ten thousand and Del Webb's Sun City in Phoenix had prices ranging between eight and eleven thousand on opening day 1960).²⁶¹ Thirty-five thousand dollars was roughly one-third the total asking price for all university and private lands in the monument and posed insurmountable financial hurdles. The march of development swamped Egermayer, who watched helplessly, as the Monument slipped through NPS hands.

²⁵⁸ Don Egermayer to A.E. Demaray November 17, 1946, RG79, Entry 10, Box 2365, NARA II.

²⁵⁹ R.E. Dunn to Newton Drury, April 29, 1950, SAGU 275, Box 4, Folder 4, WACC.

²⁶⁰ Minor Tillotson to Directory Newton P. Drury May 9, 1947, RG79, Entry 10, Box 2365, NARA II.

²⁶¹ Acting Superintendent Lawrence Wilde to Tillotson, December 25, 1948, RG79, Entry 10, Box 2365, NARA II; Kenneth T. Jackson, *Crabgrass Frontier: The Suburbanization of the United States* (New York: Oxford University Press, 1987), 236; John M. Findlay, *Magic Lands: Western Cityscapes and American Culture after 1940* (Berkeley: University of California, 1993), 183.



Map 17. Property Ownership Map, WACC

The pressure was on the NPS to make their monument or move on. Some of the story of that beginning is written in the details of this 1957 map. The NPS did gain Marjorie Ellison's Section 29, most of the Freeman's Section 5 (just off the map beneath section 32), and Nelson Garwood's property in the se1/4 of section 15 in 1952. Section 8, was lost to development and removed formally in 1976 but the NPS purchased the remaining private lands in 1972.²⁶² The

²⁶² Clemensen, *Cattle, Copper, Cactus*, 139-40.

crisis of land acquisition and saguaro die-off was a pivot upon which the future of the Monument rotated and the NPS used both to its negotiating advantage.

The Great Compromise?

To gain control of the University of Arizona lands, and therefore, all the land in the cactus forest, the NPS brokered a deal recognizing perpetual grazing rights in all monument lands other than the university lands. Looking back at this decision, many have questioned the wisdom of this 1950 agreement. However, when contextualized, Acting Director Demaray's decision provided a pathway forward from which the modern Saguaro National Park grew. Like so many important turning points in Saguaro history, local politics combined with NPS goals to forge the outcome. And like so many cases, the NPS acted through negotiating local power in their quest to forge national landscapes.

The potential loss of Saguaro National Monument caused consternation with private Tucsonans and in Tucson and Pima County government circles. Whatever the fiction of the monument, Saguaro National Monument adorned Chamber of Commerce maps and Tucsonans minds. It acted like a paired book end to the Tucson Mountains. Many were proud of it for its national symbolism and took civic pride in seeing Tucson as a place that celebrated the desert and the ideals of preserving nature. Some experienced a more visceral and intimate concern: the Monument was their neighbor and one of the reasons they lived in vicinity. The open space and natural view of the Monument was part of their lifestyle. In 1947, SNM's neighbors formed a neighborhood association called the Saguaro Forest Associates. In the coming decades they proved valuable allies in contesting urban sprawl. Another group that worked to articulate local concerns about the Monument was the Saguaro Land Committee, created by the Chamber of Commerce in October 1948. The prominent list of members included a who's who of Tucson

political and business leaders: George Chambers of Tucson Newspapers Inc., J. Byron McCormick, University of Arizona President, J. Homer Boyd, Chairman Pima County Board of Supervisors, Tucson Mayor E. T. Houston, and Fred Stofft, President of the Tucson Chamber of Commerce, and a handful of others..²⁶³ As Tucson Chamber of Commerce President Chambers explained: “If the Saguaro cactus Monument is abandoned a lot of people are going to ask why this was permitted, and properly so.”²⁶⁴

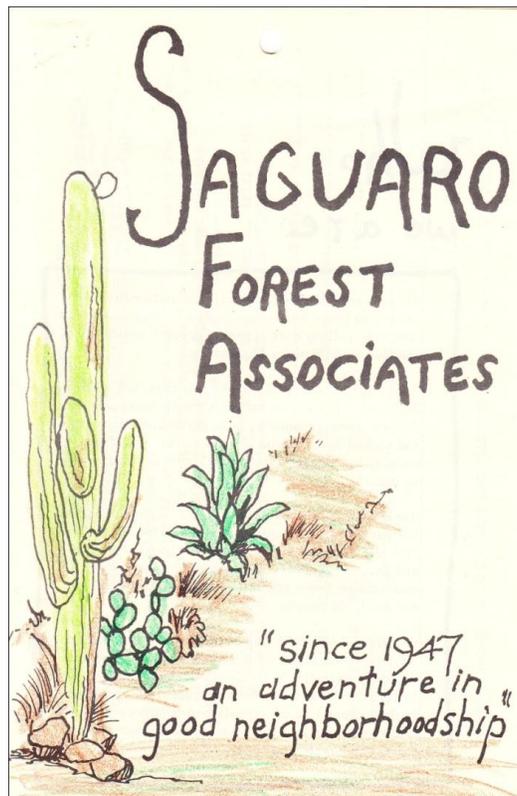


Figure 45. Pamphlet Cover, Saguaro Forest Associates, SAGU 257, Box 6, Folder 1, WACC.

Supporters voiced incredulity at the idea of eliminating the Monument. Homer Shantz told Director Drury “It seems inconceivable that there can be any question of abandoning the

²⁶³ List of the Saguaro Monument Committee, SAGU 275, Series 4, Box 4, Folder 3, WACC. The cast would change slightly over the next year, and so too would the committee’s recommendations.

²⁶⁴ “Chamber News,” December 1, 1948, RG79, Entry 10, Box 2364, NARA II.

area.”²⁶⁵ A solution took shape between 1948 and 1951 when the NPS, State of Arizona, and University of Arizona agreed, in principle, that the federal government would exchange land, rather than money, for state and university holdings in the cactus forest. To achieve this breakthrough, the NPS agreed to allow cattle grazing in perpetuity. This agreement charted a path forward that led to a monument with recognizably modern shape.

The NPS began a serious engagement to resolve the land issues when Ben Thompson held a week-long round table in July 1948. Among attendees were University President Byron McCormick and zoologist Charles Vorhies, Edward Gayette of the Tucson Chamber of Commerce, BLM’s District Grazier John Johnson, and Arizona State Land Commissioner O. C. Williams. At the time, the University was looking to exchange lands in Fort Huachuca. Thompson repeatedly emphasized that the University should cancel grazing permits in the Cactus Forest. Vorhies, long an advocate of the Monument, concurred but President McCormick equivocated. McCormick’s interest was in facilitating the land swap. The Fort Huachuca property, near the international border, southeast of Tucson, was roughly 45,000 acres in the foothills and into the mountains tops. Today, still home to the Fort, it contains a mixture of National Forest and private lands. The University saw it as a potential experimental range for breeding livestock. Thompson told Director Drury that it could provide enough of an enticement that the NPS could exchange lands in Saguaro National Monument and potentially other inholdings in Arizona national monument or Grand Canyon National Park.²⁶⁶

As a result of land clearance complications, the exchange took an additional eleven years to complete. But by 1959 the final acres were traded and the future of Saguaro National Monument seemed assured. In the end, instead of leading to the Monument’s termination, threat

²⁶⁵ Homer Shantz to Newton Drury, December 22, 1948, RG79, Entry 10, Box 2365, NARA II.

²⁶⁶ Ben Thompson to Newton Drury, July 16, 1948, RG79, Entry 10, Box 2364, NARA II.

to its saguaro and a potential withdrawal spurred the NPS, the University, and Tucson Chamber of Commerce into action. University President J. Byron McCormick and Arizona State Land Commissioner O.C. Williams agreed to seek a land swap with the federal government. Instead of seeking new monies from Congress, a land swap was politically easy.

Mission 66

With its future presence secured, the NPS began to build the Saguaro National Monument's modern infrastructure in the National Park lands renovation effort known as Mission 66. The program made money available for development to deal with declining infrastructure and increased visitation. Mission 66, kicked off in 1956, was a 10-year drive to revitalize the national parks for their sesquicentennial in 1966 and the realities of their post war popularity. In 1955, the National Park system had grown to 181 sites and recorded fifty million visitors in facilities built to accommodate half this number. *Reader's Digest*, revealed the "Shocking Truth about Our National Parks" to its readers. That truth was that litter blighted overcrowded facilities and concessionaires provided mediocre services at the nation's flagship parks. While still concentrated most heavily in the American West, the NPS system had spread across the nation. That the NPS landscape was both nationally prominent and visited at unprecedented levels was not news to the NPS, visitors, or Congress. At places like Big Bend and Everglades, funding increases started early in the 1950s but the sense of urgency increased as visitation mounted. Relative neglect during the urgency of war and its aftermath had left deferred maintenance and a reduced park service staff. Mission 66 addressed both problems and laid the foundation for the projected 80 million visitors expected on the Park Service's 50-year

celebration. Under the 1954 Federal Highway Aid Act, Congress provided three years of funding to improve park roads. Congress also increased NPS funding 39% in 1956, and 11% in 1957.²⁶⁷

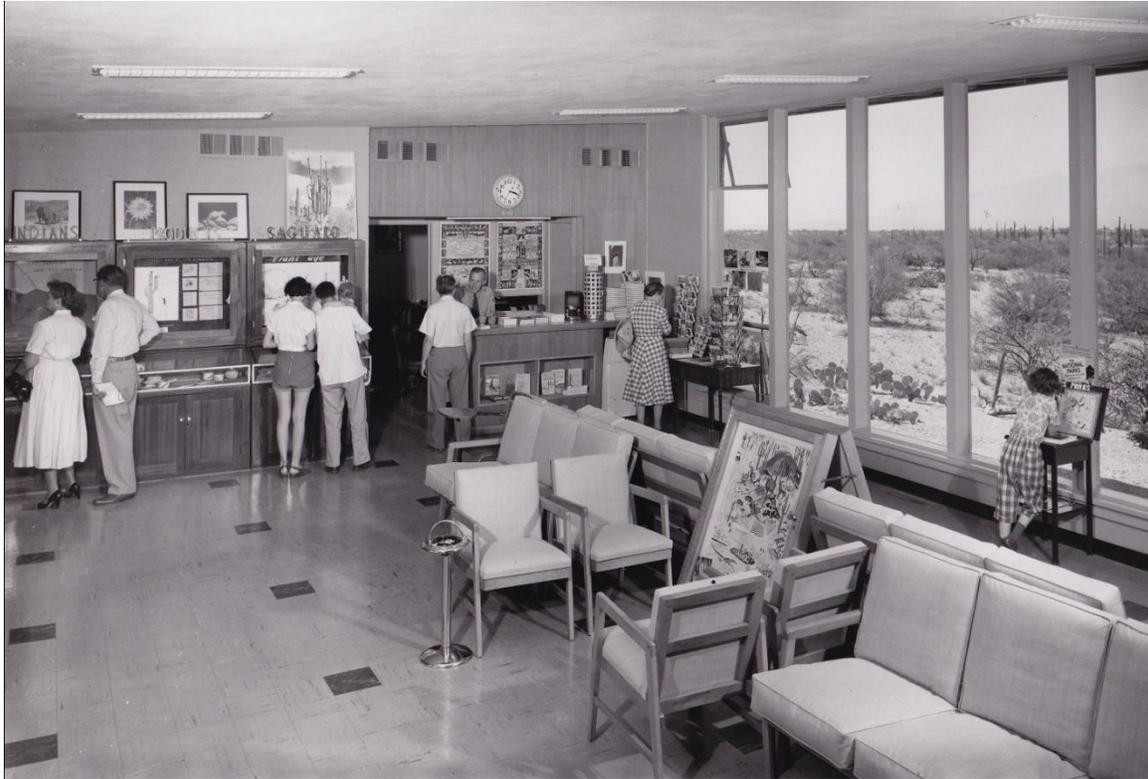


Figure 46. Sign on Visitor Center, SAGU257, Series 4, Box 4, WACC

With an existing road, but lacking a visitor center Saguaro National Monument was poised to gain substantially from the Mission 66 windfall. In 1953, they built a new visitor center to replace the earlier combined contact station and residence that had housed custodians since 1940. The new building was constructed on Section 32 land that the NPS had re-leased, in anticipation of the land exchange. The center took on the design characteristics of the era. It was open, clean, modernist, and well lit. No squat stucco structure, SNM's visitor center had a glass wall facing north, northeast. Sited on a rise, visitors could look out and over the desert at the Santa Catalina Mountains. Outside, a small pathway wound through a cactus garden. The NPS landscaped the stark land around the center by placing transplanted saguaros, other cacti, bushes, and trees. Unlike Custodian Powell's erudite idea for a garden based on family tree of the

²⁶⁷ By 1957, the NPS had built seven visitor centers, nine park headquarters, many "comfort stations," park support buildings, parking for thousands of cars, and had improved 130 miles of existing road, built 47 new miles, and somewhat less in trails. Private capital built 2300 rooms, 930 new campsites, and renovated 1300 campsites. All of these themes and details are found in McClelland, *Building the National Parks*, 462-69.

cactaceae, the new pathway was of simple design and designed to introduce the casual visitor to the species of plants in the Monument.



*Figure 47. Interior of visitor center with interpretive displays.
RG79, Entry 40, Box 14, NARA II.*



*Figure 48. "Visitors in Arboretum" at old contact station, 1951.
SAGU257, Series 4, Box 1, WACC.*



*Figure 49. Museum Aide Dee Dodgen with Girl Scouts, March 1961, George Olin
SAGU257, Series 4, Box 4, WACC.*

Tucson Mountain Park

Turning to the Tucson Mountains

During the crisis of the 1940s, the NPS took another serious look at the Tucson Mountains. The site had been a potential monument location in the early thirties but was never seriously considered since Pima County was protecting the area. We must remember however, that the NPS had walked away from Saguaro originally as well citing the potential problems (realized) and noting that the University was protecting the cactus forest. As noted above, both the Tucson Mountains and the Cactus Forest received CCC labor camps run by the NPS. Now, as the number of saguaro declined in the Cactus Forest, a number of people advocated relocating the monument or simply adding the area as a detached unit.



Figure 50. CCC Construction crew at work on Water Conservation Dam, October 1934, Sina Bar Dam, Tucson Mountain Park, Arizona.

The document that best captures this moment of turning is a report compiled by Ben Thompson in 1945 as a guide for senior NPS officials to use in responding to Carl Hayden's final, as it turned out, bill seeking a reduction in the Monument. In brief, Thompson concluded:

1. The Tucson area was an appropriate place for a Sonoran Desert monument due to its rich biodiversity. 2. The existing monument had value because it ranged all the way up the Rincon Mountains. 3. However, the Monument was failing in its goal because of land ownership issues, the impact of grazing on saguaro reproduction, and the uncertain future of the saguaro—“bacterial rot” was destroying the existing stands, and too little was known about saguaro biology to indicate whether the stand would re-grow. 4. Despite these conditions, reducing the Monument would eliminate the saguaro cactus forest watershed, most of the mountain biodiversity, and lead to a fragmented monument of sharply reduced value. Thompson’s recommendations provided a plan or action largely followed in subsequent years. He advocated ending grazing, beginning a program of study on the ecology of the saguaro, and buying the X9 Ranch (the old Jelks Ranch). In addition to advocating retention, Thompson recommended expanding into the Tucson Mountains.²⁶⁸ Thompson wrote:

In view of the fact that the Tanque Verde saguaro area for many years will be primarily valuable as a research area [since the scenic quality would decline], and in view of the outstanding quality of the Tucson Mountain Park area, which is a fine spectacle and is unquestionably of national significance, it is suggested that consideration be given to the possibility of including the Tucson Mountain area as a detached unit of Saguaro National Monument, if local sentiment is favorable, as it was several years ago. The two areas are supplementary to each other and it is believed that their coordinated management would result in greater public benefit than is possible under the present separate programs.²⁶⁹

As evidence of the quality of the cacti, Thompson supplied the following images, so reminiscent of the 1933 images from the Tanque Verde:

²⁶⁸ This recommendation reiterated the 1937 Preliminary Report’s recommendation that the NPS gain control of the Jelks’ ranch to eliminate grazing and secure a headquarters site outside the cactus forest. Ben Thompson, “Concerning the Boundaries of Saguaro National Monument,” 1945, RG79, Entry 10, Box 2365, NARA II.

²⁶⁹ Thompson, “Concerning Saguaro,” conclusion, RG79, Entry 10, Box 2365, NARA II.



Figure 51. Ben Thompson Photo-1, RG79, Entry 10, Box 2365, NARA II.

Accompanying this image Thompson noted the presence of ironwood trees, that the saguaros were of many ages, and that the area contained a greater diversity of desert plants than the Tanque Verde.



Figure 52. Ben Thompson Photo-2, 1945, RG79, Entry 10, Box 2365, NARA II.

Thompson's images of the Tucson Mountains showed a land thick with scenic saguaros and other desert vegetation. Adding the Tucson Mountain unit offered a way or recapturing aesthetics lost to the cactus disease, grazing, woodcutting, and other abuses in the Rincon District.

Crisis and Call to Arms

In 1957, Pima County's lease on the Tucson Mountain Park expired. While reviewing the lands, the Bureau of Land Management, from whom Pima County leased the Tucson Mountain Park, agreed to open 7600 of the former park's 33,000 acres to mining. The deal took place without consulting the County. Gilbert Ray, head of Pima County's recreation department and Arthur Pack, philanthropist, member of the County Recreational Committee, and driving force behind the Sonoran Desert Museum, were caught off guard. Pack told the *Arizona Daily Star*, "It is regrettable that the government would do anything like this."²⁷⁰ The *Star*'s editor, William R. Matthews, blamed Secretary of Interior Fred Seaton and Assistant Secretary Roger Ernst for facilitating the deal in secret. Arizona Representative Stuart Udall called for a House hearing and told Seaton, "It seems strange that there was not any newspaper publicity for nearly ten days after the order was published in the Federal Register August 29."²⁷¹ Faced with the surprisingly vocal and negative press, Banner Mining Company, lead applicant, tried to assuage public fears with assurances that they were only exploring, that they would insure "public access" and work with County officials. County Attorney Harry Ackerman noted that nothing in the law compelled the company to provide access or work with county officials. They could build a smelter, strip mine, or wander around with pick axes; Banner could close the area to hikers, could fence out wildlife, or pretty much do as they pleased once they had control of the land. Mayor Don Hummel articulated the opposition view when noting that Tucson had nothing to gain and much to lose in this type of multiuse approach. Speaking on October 29, 1959 to a thousand people in Tucson's Pioneer Hotel, the Mayor powerfully asserted, "I call for no compromise in this issue.

²⁷⁰ Ibid., quoting *Arizona Daily Star*, September 10, 1959, p. 1.

²⁷¹ Ibid., *Arizona Daily Star*, September 19, 1959.

You can not have two uses in the area. We have already lost too much valuable recreational lands...as development advanced behind the bulldozer.²⁷²

The Mayor's populist tone, concern over development's darker side, and vote of confidence in the values of natural places reflected the ambiguities many felt about post World War II prosperity. A bulldozer despoiling neighborhoods forests was a common trope for conservationists in the go-go years of 1945-1960. In these "years of confidence," America became dramatically more affluent and populous but cities plowed natural landscapes under vast suburban belts. Whereas in 1945-46 the acute housing crisis made home builders culture heroes as they cranked out family housing for returning G.I.s and their new families, by 1960 they were under attack by conservationists who decried the "rape of the land." Home building was both a fulfillment of the promise of the fruit of victory and promoted dramatic disturbance in the landscapes of everyday life. As historian Adam Rome argues, "In new subdivisions, the bulldozer seldom was far from the living room, so the environmental destructiveness of postwar industry often intruded on the comfort of postwar prosperity."²⁷³ Between 1946 and 1960 America experienced a baby boom, adding 30 million people in the 1950s, and reaching 180 million by 1960. Families needed homes and mass produced homes coupled with federal financing created instant communities, new roads, steep demand for schools, and millions of new cars. Development in America had never looked like this.

In July 1955, the cover of *Time* magazine informed readers that the "American Desert" was "The Air-Conditioned Frontier" and that a "new civilization" of "asphalt ribbons," linking

²⁷² Ibid., p.3.

²⁷³ Adam Rome, *The Bulldozer in the Countryside: Suburban Sprawl and the Rise of American Environmentalism* (New York: Cambridge University Press, 2001), 6.

“clustered homes, was filling the desert from Los Angeles to Tucson.”²⁷⁴ The American West, and the sunbelt cities in particular, were growing rapidly. Between 1940 and 1950, Arizona and California both grew at a 50% rate. Most of Arizona’s growth was in Maricopa (Phoenix), Pinal, and Pima (Tucson) Counties. People were sucked out of smaller towns like Bisbee, while population accreted into the core cities of Phoenix, Tucson, and the ring cities in the Phoenix metropolitan area.²⁷⁵ If the Southwest wasn’t quite the “frontier,” *Time* sought to evoke, the writer captured well the frenzied pace of development. The desert greened with wells; shining homes grew up at a terrific pace. The Sunbelt was not exceptional in its pace of development; across America, suburbanization occurred at a terrific pace. Responding to frantic pent up demand for housing, the Federal Government utilized the FHA and GI Bill to underwrite mortgages. Housing starts rose from 114,000 in 1944 to more than 1.6 million in 1950.²⁷⁶ Focused on single family homes, and underwriting developers like Abraham Levitt and Del Webb, federal policy and the process of mass producing cheap homes on cheap land pushed cities across the landscape.

During the 1950s, Tucson’s population grew 368%. In 1950, the Tucson metropolitan area was home to 45,000 people; in 1960 almost 213,000 lived in a landscape that was sprawling across the valley between the Tucson, Catalina, and Rincon Mountains.²⁷⁷ The physical expansion of the city was equally dramatic. During the 1950s, Tucson grew from roughly 10 to 70 square miles. Some of this expansion was fueled by population growth, some by the acquisition of unincorporated areas into the city. Historian Don Bufkin mapped this expansion in

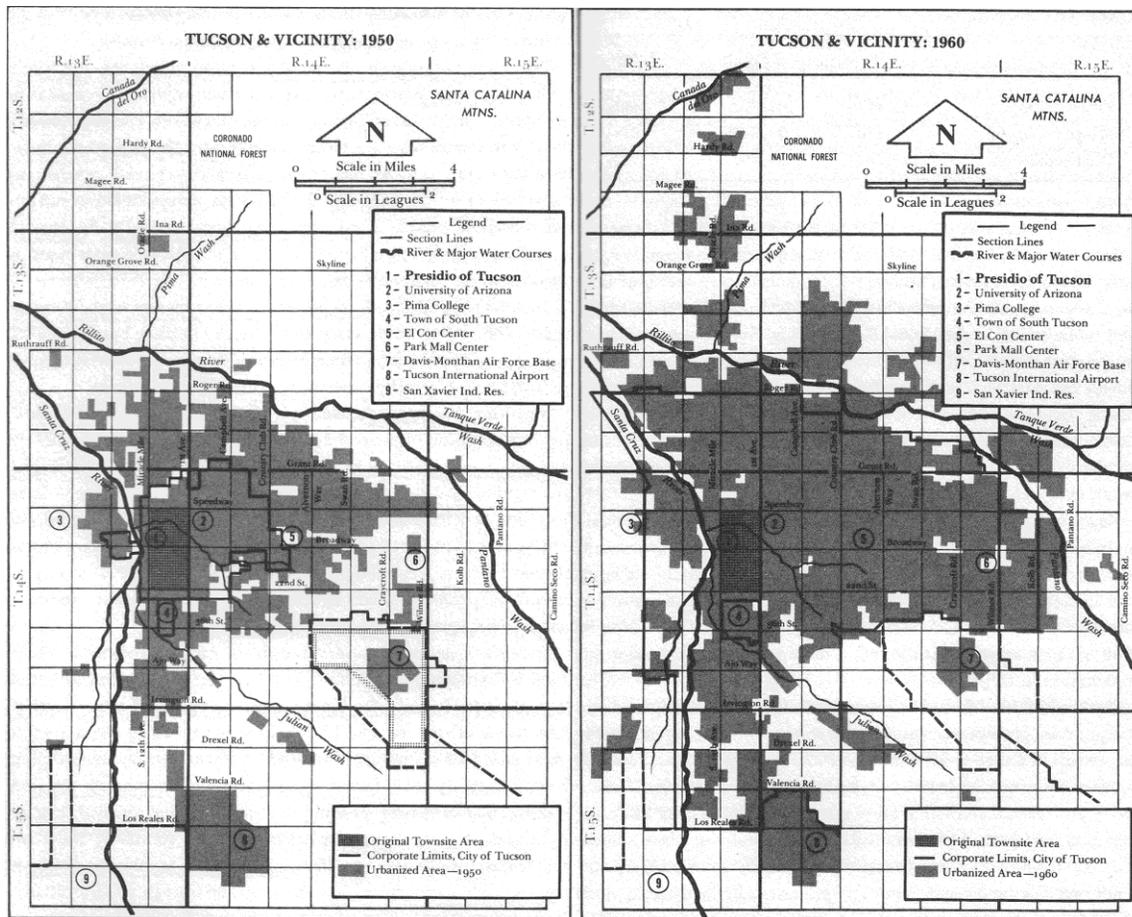
²⁷⁴ “The American Desert, 1955: A New Way of Life in the U.S.,” *Time* (July 25, 1955).

²⁷⁵ Gerald D. Nash and Richard W. Etulain, *The Twentieth-Century West: Historical Interpretations* (Albuquerque: University of New Mexico Press, 1989), 53-58.

²⁷⁶ Jackson, *Crabgrass Frontier*, 233

²⁷⁷ Michael F. Logan, *Desert Cities: The Environmental History of Phoenix and Tucson* (Pittsburgh: University of Pittsburgh Press, 2006), 159-60.

the following maps. Note that the city was expanding across the Rillito and Tanque Verde washes and along the Santa Cruz River southward. It brushed up against Saguaro National Monument, and crept into the foothills of the Tucson Mountains. Opponents of mining the Tucson Mountains felt that they were watching their natural landscape unmade. The Tucson Mountains would soon become islands of open space in a sea of urban sprawl.²⁷⁸ Mayor Hummel, like so many Tucsonans, was a booster of this growth but the Tucson Mountains were special. Tucsonans had worked to keep them as open space since 1929.



Map 18. Don Bufkin, "From Mud Village to Modern Metropolis," 1981.²⁷⁹

²⁷⁸ "Tucson Mountain Park Annex History," 4.

²⁷⁹ Don Bufkin, "From Mud Village to Modern Metropolis: The Urbanization of Tucson," *Journal of Arizona History* 22 (Spring 1981): 63-98; See also, Michael F. Logan, *Fighting Sprawl and City Hall: Resistance to Urban Growth in the Southwest* (Tucson: University of Arizona Press, 1995).

The rapid growth had many boosters. They worked as a “growth machine” to push the kinds of agendas in codes, building permits, roads, commercial space, tax incentives, etc. that would boost the economy.²⁸⁰ In Tucson, notable changes included the World War II expansion of Davis Monthan Air Force Base, airfields in Marana and Avra Valley, and increased rail capacity. In the 1920s, developers had platted areas far beyond the boundary of city. After the war, housing developments began to make these subdivisions reality. Davis Monthan drew new businesses and builders cleared the desert for homes. Hughes Aircraft built a factory in 1950.²⁸¹ Tucson’s growth crisis resulted from the unmaking of natural areas at the city’s outskirts. Developers pushed beyond the zoning and taxes of the city only to have Tucson expand. The developers’ race across the desert reached into Saguaro National Monument in 1946. Unrestricted growth like a halo outpaced the city limits.

In 1949, Pima County gained the legal power to zone at the county level. In 1950, only 55,000 of the 122,000 metropolitan area residents were within the city limits. For county planners, they faced a race to shape development in the valley and they had support. In 1953, voters supported county level land use planning. These decisions set the legal tone but did not stop development. The conversion of the desert pushed out across the valley to the north and eastward toward Saguaro National Monument. By 1960, the city had expanded across the Rillito River, up Pantano Wash, and up Oracle Road. When Mayor Don Hummel called for no compromise with the bulldozers, he could point around the valley at how the *Times*’ new

²⁸⁰ Sackman, *Orange Empire*, 4-5; Logan, *Fighting Sprawl*, 13; Harvey Molotch, “City as Growth Machine: Toward a Political Economy of Place,” *The American Journal of Sociology* 82, no. 2 (September 1976): 309-32.

²⁸¹ Sheridan, *Arizona*, 285, 326.

civilization was re-fabricating the desert. The Tucson Mountain Park was becoming an island of pre-war Tucson within a sea of development.²⁸²

There were also many detractors of the growth. Transience, pollution, noise, constant change, and the general transformation of landscapes shook established communities.²⁸³ And when it came to the Tucson Mountains and development, many Tucsonans were ready to resist because by the 1960, the Tucson Mountains had become synonymous with the Sonoran Desert.



Figure 53. Natt Dodge, 1962, Tucson Mountain Park, WACC.

Interpreting the Desert

Since 1929, the Tucson Mountain Park had provided Tucson a backdrop for sunsets, an open space, and wildlife habitat. By 1952, it was also the home to a widely popular trailside museum dedicated to interpreting the Sonoran Desert. The Arizona Sonoran Trailside Museum opened Labor Day, 1953. It was the brain child of William Carr, Arthur Pack, Bill Brown, Marvin Frost, George Olin, and others in the city working for the Tucson Parks and Recreation

²⁸² Bufkin, "From Mud Village," 84-6.

²⁸³ Findlay, *Magic Lands*, "Chapter 1: The Explosive Metropolis."

Commission. In particular, the museum harnessed Bill Carr's expertise. He had spent his life working on presenting nature to the public. At Bear Mountain Park along the Hudson River, he was integral to the establishment of Bear Mountain Nature Trails and Trailside Museum. His parks were outdoor museums because they blended the educational approach of the museum with nature trails set in the interpreted environment. Carr's philosophy was simple and populous. "When people wander through woods or desert or climb a mountain," he explained, "they encounter plants, rocks, birds, mammals, and reptiles wherever and in whatever state they occur naturally. And, if one wants to meet and become familiar with these natural things, this is done most advantageously and pleasantly in their natural setting, rather than in any departmentalized or systematized institution. Simple recognition of this proven fact is the 'formula' we used for many years in building nature trails and developing outdoor museum concepts."²⁸⁴ His book on the desert museum bore the title *The Desert Speaks* and he, and the museum staff, was intent on providing the desert a vocabulary accessible to a broad public.²⁸⁵

Like so much out-of-town talent, Carr had moved to Tucson in 1944 for health reasons. He set up a book shop, wrote, and toured the desert with Marvin Frost. In 1951, Arthur Pack recruited him to plan the museum. Its site utilized some left over CCC-built structures just outside the boundaries of Tucson Mountain Park. George Olin claimed that, at one point, the NPS wanted these 1936-built buildings as a component in a "Three Points Desert Monument," comprised of Tucson Mountain Park, Saguaro National Monument, and Organ Pipe National

²⁸⁴ William Carr, "Philosophy of the Desert Museum," William Carr Papers, Box 3, American Heritage Center, University of Wyoming, Laramie.

²⁸⁵ William H. Carr, *The Desert Speaks: The Story of the Arizona-Sonora Desert Museum 1951-1979* (Tucson: Arizona-Sonora Desert Museum, 1979).

Monument.²⁸⁶ They never pursued this plan. Local groups used the “Mountain House” buildings, as they were called, for gatherings. Despite some stiff resistance from groups who made habitual use of the buildings, Pima County leased the buildings as the core for museum.

Project money came from Arthur Newton Pack. A Tucson philanthropist in 1951, he was a former editor of *Nature* magazine before arriving in Tucson in 1941. Throughout his life, he generally extended the conservation behavior initiated by his father. Once in Tucson, he and his wife worked hard to finance the creation and upkeep of St. Mary’s Hospital and other philanthropic causes. He took over management of his father’s foundation, the Charles Lathrop Pack Foundation, and directed some of its resources to establishing the Desert Museum.

For Carr, Pack, Olin, and Frost, the Museum was a forum to make, in Carr’s words, the desert speak. They built on the growing visual record created like Frost and others, and the popularization of nature films, and presented the desert in a burst of visual and lived experience. Opening day was packed, and since opening millions have toured the museum, known today as the Arizona-Sonora Desert Museum. If the Tucson Mountain Park was begun by elites, and grew through the populous labor of the CCC, the story of the mountains as a valuable ecological landscape became wildly a popular story in the 1950s. This re-commitment to the Tucson Mountains explains the shock of the Department of Interior’s agreement to open the area to mining. By 1960, the Tucson Mountains had become more even more deeply incorporated into the fabric of the city.

²⁸⁶ William H. Carr Oral History Interview, 1971 (Margaret Gerow interviewer), AV371, Arizona Historical Society, Tucson; George Olin, June 19, 1976, pg. 6, William Carr Papers, Box 3.

Adding the Tucson Mountain Unit

Responding to the concerns of Tucson citizens to the threat of mining in their beloved Tucson Mountain Park, in 1960 and 1961 Arizona's Congressional contingent, including Representative Stewart Udall, and subsequently his brother Morris K. Udall, Senator Carl Hayden, and Senator Barry Goldwater all introduced bills intended to add Tucson Mountain Park to Saguaro National Monument. Stewart Udall proposed the first bill "to provide that certain real property of the United States shall be made part of the Saguaro National Monument" and it was sent to the Committee on Interior and Insular Affairs for review on January 11, 1960.²⁸⁷ With his appointment as Secretary of Interior after the election of John F. Kennedy, Stewart Udall found himself in a more powerful position with the ear of the President.²⁸⁸ His interventions circumvented the legislative process and on November 16, 1961 President Kennedy proclaimed 15,360 acres of the Tucson Mountains part of Saguaro National Monument.

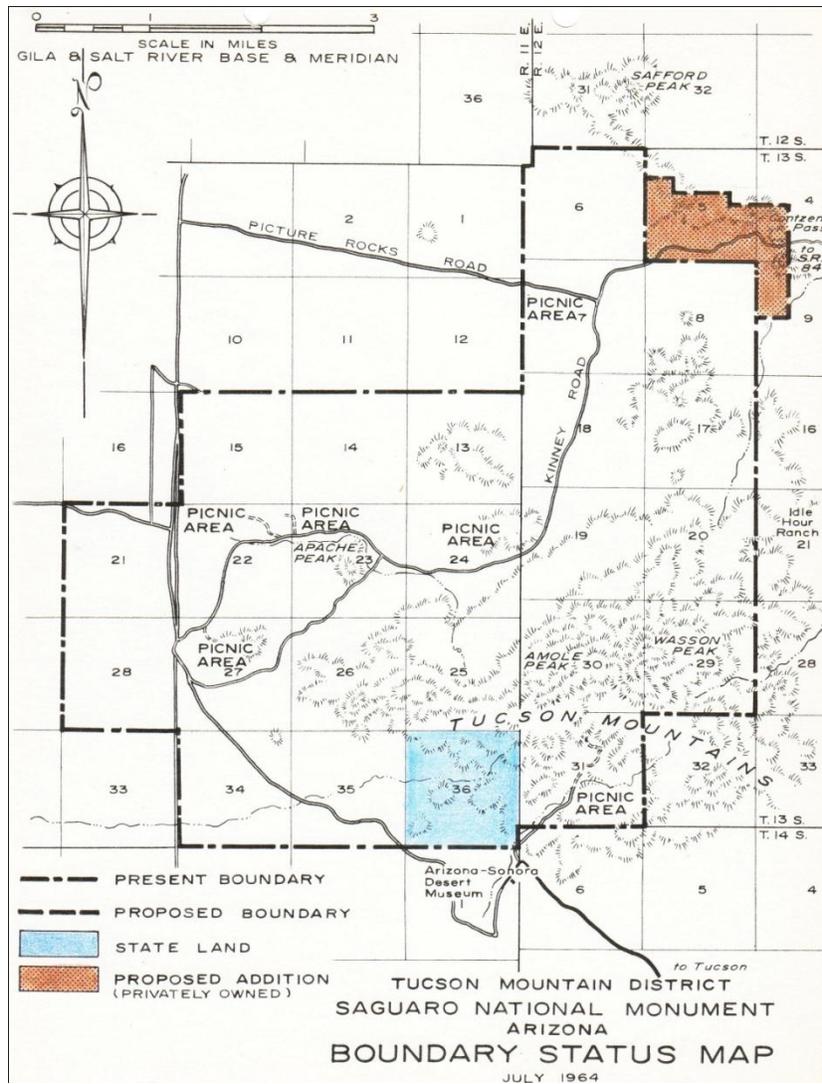
Written into and between the proclamation's text were the stories of the Monument's struggle: fear over the decline of the cactus forest appeared in the justification that the Tucson Mountain Park contains "a remarkable display of relatively undisturbed lower Sonoran desert vegetation, including a saguaro stand which equals or surpasses saguaro stands elsewhere in the nation."²⁸⁹ The Mountain District of Saguaro National Monument overlaid slightly more than

²⁸⁷ 106 Cong. Rec. H288 (January 11, 1960), H.R. 9521; 107 Cong. Rec. H58 (January 3, 1961), H.R. 1103; 107 Cong. Rec. (February 9, 1961), S.R. 827; 107 Cong. Rec. H13,510 (July 26, 1961), H.R. 8365; 107 Cong. Rec. S16,758 (August 23, 1961) S.R. 2458.

²⁸⁸ "Saguaro National Monument," Box 158, Folder 10, Department of the Interior: Issues and Achievements, Parks and Recreation-Variou, 1961-1968, Stewart Udall Papers, AZ372, Special Collections, University of Arizona Library, Tucson.

²⁸⁹ Proclamation No. 3439, Enlarging the Saguaro National Monument, Arizona (November 16, 1961).

half of the Tucson Mountain Park's 29, 988 acres. It began just north of the Sonoran Desert Museum and ran to just south of Safford Peak.



Map 19. Boundary Report Map, SAGU 275, Box 4, Folder 4, WACC.

Unlike the Rincon District, the Tucson Mountain Unit arrived with very few land concerns. Its fifteen thousand acres were mostly Federal; the only exception was state-owned section 36. The TMU nearly covered the entire northern half of the 1937 Tucson Mountain Park. Here there was also an exception in Section 5. Further smoothing the transition was an existing visitor infrastructure of roads and trails, and a well-established culture of use. The CCC trails and

facilities were aging but serviceable. From this core, SNM would expand by adding lands at its edges.²⁹⁰

Between 1950, when the National Park Service, University of Arizona, and State of Arizona agreed in principle to a land swap to consolidate NPS control of the Rincon District, and 1966, on the fiftieth anniversary of the park service, the Saguaro National Monument and Tucson had established themselves more firmly in the valley. Saguaro expanded to the Tucson Mountains, the NPS revived its promotional agenda, the Arizona Sonoran Desert Museum opened its doors to public acclaim, and sunbelt migration sold desert living to greater numbers of Americans. The era also included some harbingers of change: Tucson experienced a brief slow grow moment, and America awakened to a brewing environmental crisis in pollution, loss of open space, and destruction of wild places. At the end of the period, Saguaro National Monument was larger, had gained a massive saguaro stand, had two fully functional visitor and interpretive centers and was beyond the questions of establishment.

²⁹⁰ Public Law 94-578 (October 21, 1976).

Chapter 5

Conservation in the Sky Islands and Sonoran Desert, 1960-2010



Figure 54. "TUCSON MOUNTAINS. View northwest along the east flank of the Tucson Mountains. Golden Gate Pass Road in middle distance with Wasson Peak on skyline." SAGU 275 Series 4, Box 9, Folder 158, WACC.

Since the [interpretive] program at Saguaro was initiated, the role of interpretation within the National Park Service has changed from emphasis on natural history presentations to emphasis on making the parks relevant in today's world. National Parks can no longer exist as isolated enclaves. Through effective interpretation, the parks enter the world arena and present the total environmental picture.²⁹¹

The combination of Tucson and wilderness is a beautiful idea. We must try to make it a reality. Patricia Vivian, Wilderness Hearings, 1972.²⁹²

²⁹¹ Harold Jones, Harold Coss, Charles Clapper, Marc Sagan, "Interpretive Planning Conference Report Saguaro National Monument March 1970," Box 6, Folder 33, SAGU257, WACC.

²⁹² Patricia Vivian, "The Public Hearing of the Wilderness Proposal for Saguaro National Monument," Tucson Arizona, March 25, 1975, RG79, Box 44, "Sagu. Vol. 1," NARA II.

Developing Conservation Landscapes

Dual Role

After the 1960s, Saguaro National Monument moved beyond problems of establishment and embraced a dual role as Tucson's open space and a reservoir of biodiversity. The addition of the Tucson Mountain Unit showcased the desert at its floristic best and linked the NPS mission to the recreational opportunities provided by the Tucson Mountain Park's trails and the interpretive structure of the Arizona-Sonora Desert Museum. Saguaro thus took control of one of Tucson's largest urban open spaces and entered a race with builders to firm up enlarged boundaries even as the metropolis spread around the peaks. The politics of land ownership and zoning became common problems for both districts. Across the city, in the Rincon District, purchase of lands in the cactus forest continued into the 1970s while the NPS also initiated efforts to buy land on its southern boundary. Loss of public access through Henry Jackson's X-9 ranch in 1967 and the reality of the Rocking K development transformed SNM's land strategy.

The meaning of the Monument continued to grow and evolve. As the Tanque Cactus forest faded from view, interpretation of the Rincon District relied more on seeing the mountains as a link in a desert archipelago of sky islands set in a desert sea. The term, "sky islands," describing the mountains stretching from Northern Sonora, through south-eastern Arizona to the Mogollon Rim, came into heavy use as a metaphor for Saguaro in emerging debates over land ownership and use. Americans were ready to broadcast and receive an ecological narrative placing saguaro in the wide natural context. Many bemoaned the death of the cactus forest but many others were hiking and riding into the mountains with a more complex understanding of ecology as a web of life. Even as the field of American ecology 'fragmented' into specialties, Americans were discovering that nature was a system of interdependent relationships or as Barry

Commoner argued in 1975: “everything is connected to everything else.”²⁹³ In the post war years, as American power and cultural influence spread across the globe, Americans generated an increasingly reflective environmentalism. The triggers are diverse and well known: concern over global nuclear winter, suburbanization and the loss of open space, popular works on toxicity like *Silent Spring*, smog, images of the earth from space, and environmental accidents. The result was an era of environmental legislation and a popular sense that people lived in a natural and fragile world. Like other landscapes, Saguaro National Monument, along with the NPS, monument staff, and its public constituency, was enmeshed in this milieu.

The sense that the city faced serious environmental problems is evident in a 1971 survey conducted on how Tucsonans viewed their environment. Asked to rate the degree of seriousness attached to sixteen environmental problems, most respondents mentioned littering, air pollution, and traffic congestion. Among others, noise pollution, juvenile delinquency, falling water table, and lack of open space also drew concern.²⁹⁴ For concerned citizens, their sense that quality of life in cities was deteriorating directly increased support for the SNM.²⁹⁵

In the five decades after establishment of the Tucson Mountain Unit, the stresses of metropolitan growth pushed monument conservation in several sequential, and not always compatible, directions: promoting recreation, establishing wilderness, and expanding conservation into a regional conservation strategy. Recreation underlay much of the justification of the TMU and Rincon backcountry. The idea that recreation was part of the National Park

²⁹³ Barbour, “Ecological Fragmentation in the Fifties,” 233.

²⁹⁴ T. F. Saarinen and R. U. Cooke, “Public Perception of Environmental Quality in Tucson, Arizona,” *Journal of the Arizona Academy of Science* 6, no. 4 (June 1971): 260-274.

²⁹⁵ See Patricia Vivian’s testimony at the wilderness hearings for this link. “The Public Hearing of the Wilderness Proposal for Saguaro National Monument, Tucson Arizona,” March 25, 1975, RG79, Box 44, “Sagu. Vol. 1,” NARA II.

experience dated from its roots but gained a revitalized message in the trans-World War II era. We can see this revitalization in a 1941 publication titled “A Study of the Park and Recreation Problem of the United States.” This work, which prepared the ground for the Mission 66 development program, opens with the bold justification linking recreation with quality of life and the American dream: “Recreation is the pleasurable and constructive use of leisure time. It is a physical and mental need, a necessary relaxation and release from strain.” Looking forward through the uncertainty of a careening world at war, the authors considered recreation a part of the promise of American abundance. It was a question of quality of life and provided the engine for innovation. Basing their report on Elmer D. Mitchell and Bernard S. Mason’s *The Theory of Play*, they argued that the Interior Department had the opportunity to create environments where the natural and necessary practice of play could lead people into closer connections with nature.²⁹⁶ In recommendations for recreational sites, the authors proposed a society-wide approach including playgrounds, playfields, community centers, parks, parkways, and “protection of urban and suburban streams.”²⁹⁷ The proximity of the Tucson to SNM made the Monument a perfect tool of manifesting the goal of opening nature for play. Hiking clubs like the Southern Arizona Hikers association, established in the 1950s became focal points for the politics and practice of linking SNM with the metropolis.²⁹⁸ Physical experience and a flood of environmental thinking linked Monument to city as more people came to define their lives through their leisure and within a world view infused by environmental thinking.

²⁹⁶ Elmer D. Mitchell and Bernard S. Mason, *The Theory of Play* (New York: A.S. Barnes and Co., 1934).

²⁹⁷ “A Study of the Park and Recreation Problem of the United States” (Washington, D.C.: GPO, 1941).

²⁹⁸ Southern Arizona Hiking Club Ephemera File, AHS; Ramblers Hiking Club Photograph Album, 1946-1953, PC212, AHS; SAGU257, Box 11, WACC.

The increasing interpenetration between city and monument led to a second approach toward managing the Monument. Like a tangent line to the sinuous curves of 1960s environmentalism, federal wilderness offered a seemingly quick and absolute opportunity to protect SNM from harm. The Wilderness Act of 1964 provided the mechanism to exclude a whole series of behaviors from the landscape and conservationists began to seek wilderness designation for many fragile landscapes. In the words of the Act: “A wilderness, in contrast where man and his own works dominate the landscape, is hereby recognized as an area where the earth and community of life are untrammelled by man, where man himself is a visitor who does not remain.”²⁹⁹ The process to create wilderness in Saguaro began in 1967 and concluded with the designation of Saguaro Wilderness in 1976. Wilderness promised advocates a permanent solution to protecting the Monument, however, in the following decades, implicit ecological links between monument and region became increasingly unavoidable and led to a cross boundary approach to managing nature in SNM. As the century closed, Saguaro National Park existed in regional conservation frameworks merging local to federal and spanning public and private property. The best example for this type of conservation matrix is the Pima County’s Sonoran Desert Conservation Plan: an effort to incorporate science-based planning into the metropolitan landscape of human environment. Ecological links between monument and city necessitated a broader approach to preserving nature in SNM and as human impacts scaled up, so too did conservation needs and strategies.

Land Deals and Conservation Deals

Saguaro’s history demonstrates that many conservation deals are also land deals. In 1961, when the NPS gained control of the TMU, the district had a core of federal land surrounded by

²⁹⁹ Section 2c, Public Law 88-577 (16 U.S. C. 1131-1136) 88th Congress, Second Session, September 3, 1964. <http://wilderness.org/content/wilderness-act-1964>.

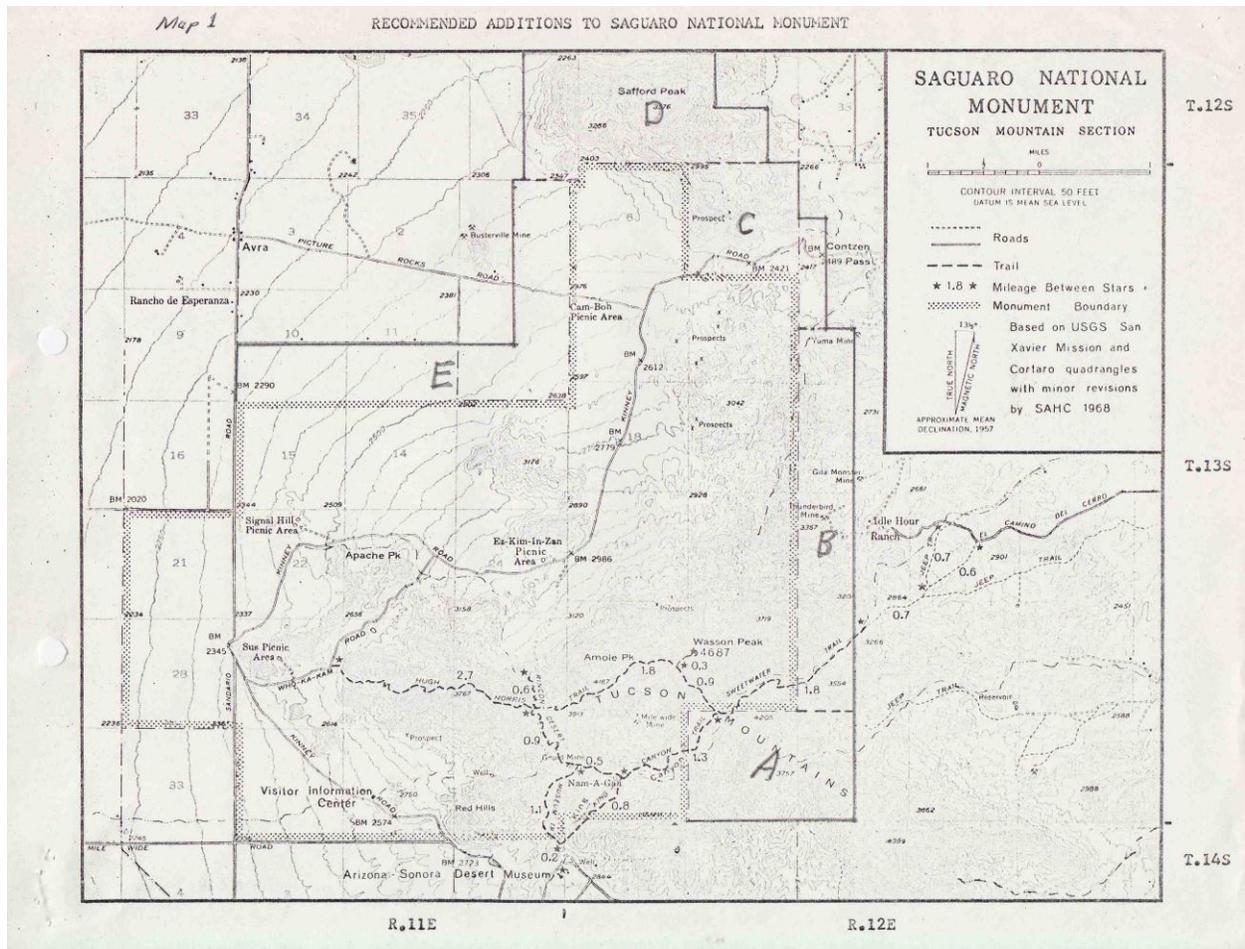
state and private land. Like efforts to ‘finish’ the Rincon District, NPS staff laid out a plan to round out the Tucson Mountain Unit. They wanted to create an integrated whole for their new cactus forest. They justified their efforts by pointing out that the Tucson Mountains contained the best saguaro forest in the nation. In a 1961 memorandum in support of the TMU, the NPS rehashed arguments once made for the Rincon District. These lands had a “remarkable display of relatively undisturbed lower Sonoran desert vegetation” and “constitute one of the few large tracts of essentially virgin desert left in Arizona.” With saguaro densities estimated at between 15 and 20 thousand per square mile, the area held “a veritable forest, equaling or surpassing any other saguaro stand in the Nation.” Finally, with the bacterial necrosis thinning the Tanque Verde cactus forest, the Tucson Mountains had a vibrant of both mature and immature plants. The western Unit’s high number of immature saguaros promised a future for the plants in the Monument.³⁰⁰

To protect these treasures, the NPS wanted to buy up inholdings and fringe properties that could damage the pristine qualities identified as exceptional. Interest focused on a number of contiguous lands surrounding the TMU that could serve the purpose of buffers between existing development and the more pristine Monument core. Plans included gaining control of lands on all edges but had three major areas of interest. The first was the Safford Peak area at the north end of the district. Staff described the area as “a wild, relatively undisturbed island of wilderness [that] forms the northern terminus of the range and makes a logical and natural north boundary.”³⁰¹ Cotzen Pass was seen as “a natural entrance to the Tucson Mountain saguaro basin.” The NPS also wanted to add the King Canyon drainage in order to control access to

³⁰⁰ Conrad Wirth to Legislative Council, Office of the Solicitor, February 27, 1961, SAGU275, Series 4, Box 4, Folder 12, WACC.

³⁰¹ Harold Jones, “Boundary Status Report,” May 2, 1969, SAGU275, Series 4, Box 4, Folder 13, WACC.

Wasson Peak. Controlling and destroying the King Canyon road would eliminate a great deal of vandalism, shooting, and illegal dumping. Finally, they were interested in protecting the east side of the mountains to preserve the viewscape.³⁰² Successful efforts to buy the land greatly expanded the margins of TMU over the coming decades. The NPS bought out private landholders through direct purchase and exchange. Yet, even as the NPS gathered land into the Monument, the city outpaced the mountains, making a conservation island in the metropolitan area.

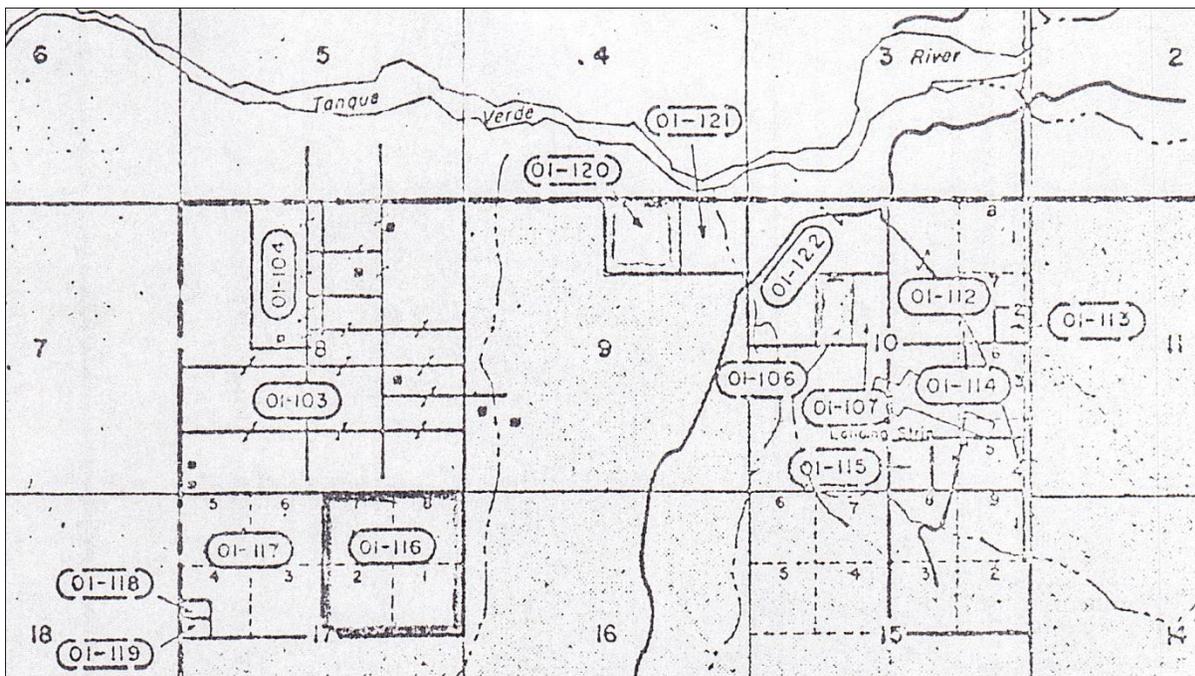


Map 20. Land Acquisition Plan, 1968, SAGU257, Box 7, Folder 3, WACC.

The Rincon District was also under construction. On September 11, 1961 the NPS at last finalized the land exchange between the University and NPS for the University's cactus forest

³⁰² Boundary Status Report, 1.

lands. Still, the process of piecing together federal ownership of private lands in the cactus forest lands was torturous. The University and State of Arizona only owned some of the cactus forest. Faced with the ambiguity of success at acquiring these lands, the NPS had waited on further purchases of other alienated land until the University committed. The State waited for the University to agree to a land exchange. After Director Demaray's letter assured ranchers perpetual grazing rights in 1950, the University agreed to a land swap. The NPS responded by purchasing some crucial properties and building a visitor center. They continued to purchase lands until 1973.³⁰³



Map 21. Tract Map, SAGU275, Box 5, Folder 54, WACC.

In the above map we see the NW corner of the Rincon District with the Tanque Verde Wash along the top. With the exception of Section 8, all of the numbered claims represent NPS file numbers for land purchases. The NPS owned all the cactus forest land by 1973.³⁰⁴

³⁰³ See land purchase history in SAGU275, Box 5, WACC.

³⁰⁴ Clemensen, *Cattle, Copper and Cactus*, 140; SAGU275, Box 5, WACC.

Outside the ongoing efforts to purchase cactus forest lands in the district's northwest corner, managers were looking again at the old Rudkin Jelks' ranch. Of special interest were the elimination of grazing and the acquisition of land on the Monument's southern border. As the old problems of controlling the cactus forest gave way to pyrrhic success, the NPS was thinking about the Rincon Mountains through new prisms.

Sky Islands

From C. Hart Merriam's description of the San Francisco Peaks to Forrest Shreve's work in the Catalina Mountains, scientifically-oriented observers recognized that mountains created ecological diversity by effectively substituting altitude for latitude. Climbing the steep flanks out of the desert valleys, the observer moved through successive life zones often analogous with northerly travel. They also noted that fauna on the mountains had an isolating valley barrier reminiscent of island archipelago at sea. In 1957, Joe Marshall, in his work on pine-oak birds of the region described the island mountains stretching from Arizona's Mogollon Rim to Sonora's Sierra Madre Occidental mountains as the Madrean Archipelago. A decade later, Weldon Heald popularized the phrase sky island.³⁰⁵ Setting sail on a southeasterly course from the Mogollon, the imaginative sailor would thread among forty islands en route to the Sierra Madre Occidental. In his 1972 natural history, Napier Shelton, drawing heavily upon Natt Dodge's earlier work, told readers, "scattered through the wide, lonely Sonoran Desert, isolated mountains ranges raise jaded blue silhouettes against the sky. The high ones wear a crown of dark pines and a speckled mantle of oaks. Lapping against their feet is the desert sea, studded with the green masts of giant

³⁰⁵ Joe T. Marshall, *Birds of Pine-oak Woodland in Southern Arizona and Adjacent Mexico* (Berkeley, CA: Cooper Ornithological Society, 1957); Weldon F. Heald, *Sky Island* (Princeton, NJ: Van Nostrand Co., 1967).

saguaro cactuses.”³⁰⁶ Although not explicitly using the term sky island, the rest of the metaphor is obvious. Seeing Saguaro in the context of the Sonoran Desert was, of course, the Monument’s original point of departure. However, by the 1970s, in the shadow of Earth Day, fears of over population, and a sense that America had reached a threshold of scarcity, NPS staff were willing to think broadly and promote Saguaro as exemplary of the sky island and desert sea landscape of the Sonoran Desert’s basin and range landscape.

The Madrean Archipelago holds a wealth of ecological diversity and the Rincon District is no exception. Peter Warshall of the Office of Arid Lands Study at the University of Arizona put it this way: “The Madrean region has exceptional species richness, super-species complexes, unusual neoendemics and archeoendemics, an exceptional mixture of species from the Nearctic and Neotropic regions, important influences from the eastern and western biogeographic provinces.” One of only twenty similar complexes in the world, the Madrean Archipelago is the only such chain to cross two floristic realms, “two major faunal realms as well as the convergence of three major climatic zones (tropical, subtropical, and temperate).”³⁰⁷ In short, they are a four-dimensional ecological crossroads—linking south to north, east to west, valley to mountaintop, and remnant ecologies from past landscapes to the present.

The Rincon Mountains were emblematic of these biogeographical realities. Traveling up, temperature drops and rain increases. Shelton presented a hike from cactus forest to Mica Mountain as equivalent to a 900-mile northern journey. Moving through these Merriam life zones, the hiker enters lingering fragments of the past landscape and effectively encounters many

³⁰⁶ Napier Shelton, “Saguaro National Monument, Arizona” (Washington, D.C.: GPO, 1972), 1.

³⁰⁷ Peter Warshall, “The Madrean Sky Island Archipelago: A Planetary Overview,” in *Biodiversity and Management of the Madrean Archipelago: The Sky Islands of Southwestern United States and Northwestern Mexico*, Leonard F. DeBano et. al. eds. (Washington, D.C.: GPO, USDA Forest Service General Technical Report RM-GTR-264, July, 1995), 6-18, quote, 6, 16.

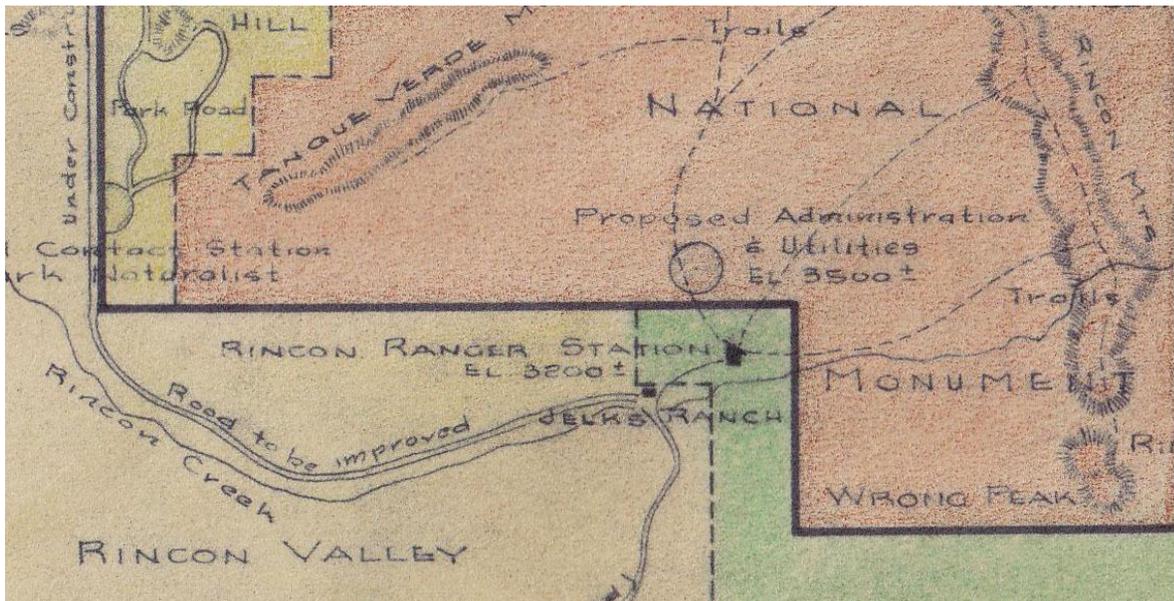
species commonly found further north.³⁰⁸ Within these mountain islands there are biological hotspots along rivers. One such hotspot was the area around Rincon and Chiminea Creeks along the Rincon District's southern boundary, where conflicts broke out over habitat protection and development.

From X-9 to Wilderness

Access and Open Space: The X-9 Ranch

“At the present time we have no public access to Madrona Ranger Station in that location, and to the mountain trail system on the Rincon Mountains...” Superintendent Harold Jones³⁰⁹

Back in the 1930s, when Saguaro was formed, a conspicuous notch of Forest Service land crept along the Monument's southern boundary. There, in a green patch of the map, the Forest Service maintained the Rincon Ranger Station which foresters used to access the backcountry.



Map 22. Detail of 1937 Preliminary Master Plan Map showing Rincon Ranger Station, WACC.

After the NPS gained control of the Monument in August 1933 the Forest Service did not abandon the property to their rival agency and they tore down the Rincon Station.³¹⁰ Since their

³⁰⁸ Shelton, "Saguaro National Monument," 19.

³⁰⁹ Harold Jones Letter, SAGU275, Series 4, Box 9, Folder 140, WACC.

first look at the Monument, the NPS officials had wanted to utilize the area as part of the Monument. Indeed, their failure to gain control of the Rincon Ranger Station and subsequent failure to pursue purchase of Rudkin Jelks' ranch left them with a tenuous presence along the creek.³¹¹ In 1965, the NPS began a new effort to gain control of the area as land developers raised the stakes with a series of major planned communities around the valley. Growth of the city, as well as general affluence, meant that people were sprawling across the valley in search of places to live and recreation. And, according to projections by Pima County's General Land Use Plan, passed in 1960, an ever increasing population would result in 1.4 million residents by the year 2000.³¹² These trends led Saguaro Superintendent Paul Judge to write NPS director George Hartzog in 1965 with a plan to expand the Rincon District's southern boundary. His argument was a recap of and expansion on earlier justifications. Among the ecological arguments: the area contained a Sonoran Desert riparian woodland that would be unique among NPS conservation areas; it was rich wildlife habitat and an excellent spot for birding; there was 'great' saguaro reproduction. In addition the area offered good trails into the backcountry. At the time, trail access to the Happy Valley Saddle required trespass over the privately-owned X-9 Ranch. Purchase of the ranch would also provide the NPS with water and buildings that might be important to further monument development. Finally, Judge warned Hartzog that "without protection, the area will almost certainly fall to the subdividers, and quite probably, soon."³¹³

³¹⁰ Recall that the Monument was established as a Forest Service monument. There would be no specific reason to include the station in the Monument since jurisdiction was the same for both areas: National Monument and Coronado National Forest. On the destruction of the Rincon Station see Charles A., Richey, "Confidential Memorandum to the Director," May 15, 1944, SAGU257, Box 11, Folder 5, WACC.

³¹¹ There is no record that Jelks ever considered selling his land to the NPS. They never asked.

³¹² Pima County population in 2000 was, in fact, 843,746.

³¹³ Paul Judge to George Hartzog, August 11, 1965, SAGU275, Series 4, Box 4, Folder 13, WACC.

Three months later, the question of ownership sharpened when, on November 11, 1965, Henry Jackson, the owner of the X-9 Ranch, closed the road leading to the Madrona Ranger Station.



Figure 55. Ray C. Foust, SNM Ranger, Nov. 12, 1965, "Gate Locked by Henry Jackson of the X-9 ranch." SAGU275, Series 4, Box 3, WACC.

The X-9 was the remnants of the Rudkin Jelks' Casa Blanca Ranch. Robert Chatfield-Taylor renamed it the X-9 (1941-47), Gordon Packard owned it until 1955 when Henry Jackson bought the property and grazing rights. The X-9 surrounded the Madrona Ranger Station and sat astride the intersection of the ecologically valuable Chiminea, Rincon, and Madrona creeks. Madrona was a popular access point to the Monument's southern edge and backcountry. As noted above, the NPS had visualized the property as a potential headquarters site for the Monument.³¹⁴ The idea re-emerged in the 1960s after the Monument was well established and land speculation transformed the land into development commodity. With the threat of dense development looming, the City, Monument users, and the NPS all turned to confront the future of the X-9.

³¹⁴ "Memorandum for the Files," April 29, 1937, SAGU257, Box 11, Folder 5, WACC.

Jackson closed the ranch road under pressure from misuse by the public. He told the Pima County Zoning Board: “When we bought the ranch in 1955 there was no access. We let the park go through for their necessary trips and it was more or less open until hunters started shooting at our cattle, at our kids and our water tanks so we locked it up.” Jackson was well versed in the disagreeable aspects of ranching at the edge of the city yet he hit a tipping point after one especially dangerous incident involving someone shooting his daughters horse. His answer was to eliminate access to the road and effectively seal the area off to automobiles.

At the time, Jackson offered free access for NPS business and the NPS seemed agreeable to the arrangement.³¹⁵ This revelation had consequences for the NPS and Jackson as avid hiker and *Tucson Citizen* writer Peter Cowgill and others spread the word of Jackson’s action and the NPS complicity. The NPS’s Thomas J. Williams found himself in a bind. Jackson had the power to close public access, and, he told the director, “Actually, our sympathy is with Mr. Jackson. However, when it becomes public knowledge that access to this popular trail head is closed, we expect plenty of publicity...It is expected that the Southern Arizona Hiking Club and other groups, as well as individuals, will protest strongly.”³¹⁶

Users reacted strongly and increasingly negatively. “Manning Access is Closed: X-9 Ranch Road Padlocked by Owner” blared a June 15, 1967 *Arizona Daily Star* article. The article admitted that Jackson had justification for his complaints. Steers had been shot, fences cut, gates left open, and illegal hunters apprehended on both federal and X-9 property. Yet the 3900-acre ranch between the public and the monument posed a barrier to city dwellers.³¹⁷ Joseph Hoxie of

³¹⁵ Henry Jackson, “Transcript from the Pima County Planning and Zoning Commission,” SAGU275, Box 9, Folder 140, WACC; Thomas J. Williams, “Memorandum,” May 2, 1967, SAGU275, Box 9, Folder 141, WACC.

³¹⁶ Thomas J. Williams, “Memorandum,” May 2, 1967, SAGU275, Box 9, Folder 141, WACC.

³¹⁷ *Arizona Daily Star*, June 15, 1967, SAGU275, Box 9, Folder 140, WACC.

the Southern Arizona Hiking Club presented the sense of betrayal and dispossession hikers felt in an August 1967 letter to Superintendent Robert Giles. Hoxie told Giles: “we are aware that many legal and financial problems complicate this matter. Nevertheless, it has been almost four months in which the public had been excluded from Saguaro National Monument lands in this area. During this time it has been a private recreation area for NPS, and X-9 ranch employees and their friends. On several occasion we have heard of persons who have keys permitting access to the area which they acquired from X-9 ranch employees.”³¹⁸ Would the Monument become essentially a private park? The NPS was caught in the middle. Jackson had offered keys to the NPS but how would they negotiate public pressure for access?

Pressure on the NPS was moving up the political chain to Washington. Nationally recognized writer Joseph Wood Krutch, a Tucson resident, wrote to Stewart Udall seeking assistance.

Dear Stewart,

The Madrona Ranger Station used to be one of my favorite spots and I have been irritated for some time by the situation described below [road closure]. I was told once that it is unlawful to deny access to public lands. Is that untrue? Also I remember reading in a local paper a few years ago about a case in which hunters forced a rancher to allow passage to some public lands. Is there some reason why the same could not be done in the present case?

Best wishes, Joseph Wood Krutch³¹⁹

The NPS found itself caught between their sympathy for, and neighborly relationship with, Jackson, and criticism from their usual constituents. Jackson had provided easy access, pasturage for NPS grazing stock, and in many other ways had been a good neighbor for the NPS for thirteen years. Further, the acts leading to Jackson’s road closure were not acceptable to private property advocates, the NPS, or common sense. These types of behavior did not stop at

³¹⁸ Joseph Hoxie to Robert Giles, August 31, 1967, SAGU275, Series 4, Box 9, Folder 140, WACC.

³¹⁹ Krutch to Udall, April 1, 1968, SAGU275, Series 4, Box 9, Folder 140, WACC.

the Monument boundary. They were problems that SNM and Jackson had in common. They were problems with which Saguaro had struggled for years: illegal hunting, damage to natural resources, vandalism, litter, and disregard for monument rules. Park supporters living along the margins of the Monument often bore the brunt of many of these behaviors. Like Jackson, Harold L. Kingston with property on Wentworth, felt that the roads near the Monument should be closed since they led to crime.³²⁰ Caught between city and monument, land owners saw the best and worst of monument use and NPS staff members were often sensitive to these issues.³²¹

Besides Krutch's frustration with NPS inaction, and the sense among some that the Service was interested in preventing access, the NPS also came in for criticism for its apparent failure to assure access to the Madrona Station. Writing to Udall and members of Arizona's congressional delegation, an upset Tucson doctor complained to the politicians, "If this person [Jackson] indeed has the legal right to block the road, this at least represents an incredible lack of foresight on the part of the Park Service in not obtaining a permanent access."³²² Superintendent Harold Jones reported glumly, "we are subject to criticism and censure from the general public, the Southern Arizona Hiking Club, the Sierra Club, the Audubon Society, the Wilderness Society, the National Parks Association, the Boy Scouts of America, and other local and national

³²⁰ Memorandum, Harold R. Jones to Director, Southwest Region, June 10, 1970, SAGU275, Box 9, Folder 143, WACC (another copy, SAGU 275, Series 4, Box 6, Folder 92); Harold L. Kingston December 16, 1972, SAGU275, Series 4, Box 9, Folder 143, WACC.

³²¹ Kristina M. Ratzlaff, "Access to Public Lands: Access to Saguaro National Monument and the X-9 Ranch," Department of Natural Resources, University of Arizona. Accessed online http://www.srn.arizona.edu/~gimblett/Access_To_Public_Lands_X-9_Ranch.pdf (January 2011). Ratzlaff's essay explores the public access issues related to this history, and relies on SNM Supervisor Monthly reports for May & June 1967.

³²² Robert D. Rawson to Senator Carl Hayden, June 19, 1967, SAGU275, Series 4, Box 9, Folder 141; also reported in "Memorandum," June 10, 1970, SAGU275, Series 4, Box 9, Folder 143, WACC.

organizations for not providing public access and as a consequence our public relations suffer.”³²³

For many of these correspondents, the closure of Madrona seemed similar to the grazing compromise. Without a sense of the inherent contingency embedded in SNM’s creation, they could only shake their heads that the public patrimony could falter upon the decisions of a private landholder. From the NPS point of view, Jackson could represent a potential partner with whom they could work to solve many outstanding problems. One of those problems lay with the long-standing grazing allotment permits.

The crucial Twin Hills Allotment in the Cactus Forest ceased in 1955 and Jackson, interested in developing his property rather than running cattle, forfeited his claim in 1968.³²⁴ Jackson’s forfeiture was a huge triumph for removing cattle from the Monument. His lease area was some 23,000 acres and spread atop the mountain. Removing cattle had been a primary goal of the NPS since its 1937 Preliminary Study (when Rudkin Jelks held the lease), and Jackson’s act bought well deserved gratitude from NPS employees. Jackson’s cession left only two real ranchers operating in the Monument and the Happy Valley Ranch ran most of their cattle lower on the eastern slopes of the Rincon Mountains.³²⁵

The other problem Jackson could help solve for the NPS was how to mitigate the monument-city interface. If he kept the ranch intact and closed to the public, his property

³²³ Jones to Director, Southwest Region, June 10, 1970, SAGU275, Series 4, Box 9, Folder 143, WACC.

³²⁴ “Saguaro National Monument: Historic Resource Study, Appendix B, Grazing Allotment Owners, SAGU275, Box 6, Folder 107, WACC.

³²⁵ In 1967 Kenneth Kaecker of the Tanque Verde Ranch held grazing leases on the Tanque Verde Allotment, Ranchlands Incorporated, a development company, had a lease on the Pantano Allotment, and Malcolm MacKenzie ran cattle on the Happy Valley Allotment. See Roderick J. and Evangeline MacKenzie’s impassioned, prescient, and tragic plea to leave their grazing allotment out of the wilderness area, SAGU275, Box 9, Folder 155, WACC.

provided a shadow monument for wildlife and a buffer for the problems of inappropriate use. If he sold to the NPS, they could gain the other half of the 1937 goal: control of important parts of the Chimenea Creek drainage.

The effort to provide a buffer zone, a ‘green desert’ between monument and city, had roots in responses to the Pima County’s 1959 Rincon Plan. That area plan was under revision in 1970, and the ensuing public conversations reflected emerging slow-growth voices.³²⁶ Attempts to stop developers were, however, only partially successful. Some developers sought to challenge zoning initiatives and promised to ‘crack it,’ open, and push their urbanization plans to the edge of the Monument.³²⁷ Citizen groups found alliances with the Saguaro National Monument. In 1970, Harold R. Jones, Saguaro Superintendent and now also acting President of the Saguaro Forest Associates, told former superintendent John Lewis, “we have been fighting battles to try to resist high density developments along Old Spanish Trail and in a buffer strip surrounding the monument.”³²⁸ The idea was to head off monument-city boundary problems by providing a mile and half buffer of low intensity development set at one residence per four acres or greater.³²⁹

This part of the revised Rincon Plan was a direct response to developments at the X-9 and Rocking K Ranches. Both developments, Jones noted, “included higher density zoning within a mile of the monument boundary.” As he reported to the NPS Southwest Region Director, “I recommended a mile buffer strip to lessen the impact of high density development on the

³²⁶ As noted earlier, Arizona counties did not have legislative rights for zoning or planning until 1949. The Rincon Plan was one of five Pima County plans established in the 1950s. Logan, *Fighting Sprawl and City Hall*.

³²⁷ Robert Pfeil, “National Citizens’ Committee to Deflect Urban Sprawl from the Green Desert Environs of Saguaro National Monument,” SAGU275, Series 4, Box 9, Folder 155, WACC.

³²⁸ Harold R. Jones to John G. Lewis, December 11, 1970, SAGU 257, Box 11, Folder 43, WACC.

³²⁹ Assistant Sec. of Interior H. R. Jones to David M. Baker, March 3, 1972.

monument and its environs. The county planners took this into consideration and zoned most of the areas adjacent to the boundary as SR or one house to four acres.” Although portions of the plan remained “objectionable from our standpoint,” since some areas allowed commercial, multi-family housing, industrial and one house to the acre, “we will still have an opportunity to object when individual requests for rezoning specific areas come up for public hearing.” Of equal concern was the lack of available water for the planned 80,000 population. Hydrologists had reported that available water in the Rincon Valley would not even support a population of 30,000.³³⁰

On the other hand, a rancher like Jackson seemed to offer at least a temporary reprieve to these pressures. In 1967, the *Arizona Daily Star* reported Jackson would accept \$550 per acre for his 3900 acres.³³¹ If the NPS could acquire some or all of these lands the agency could avoid the (contemporaneous) piecemeal negotiations required to purchase lands in both districts. If they could intervene at the zoning level, they might be able to mitigate the impact of development. Jackson’s notice of intent to sell was a double edged sword offering a window to act that might enable the NPS to shape the area’s development.

In 1960, Jackson had gained control to two additional sections of Forest Service land through a swap. This move had more firmly established him along the critical habitat interesting to the NPS. In 1969, Harold Jones approached the Nature Conservancy asking them to facilitate

³³⁰ Harold R. Jones to Director, SW Region, December 15, 1970, SAGU 275, Series 1, Folder 1.

³³¹ “Manning Access is Closed: X-9 Ranch Road Padlocked by Owner,” *Arizona Daily Star*, June 15, 1967.

purchase of the land.³³² Efforts to shape the sale of the X-9 failed. Jackson sold off the property in 36-acre chunks and public access remained tenuous.

Open space, especially the efforts to establish “buffer zones” through zoning, also continued to be a hotly contended issue in both Tucson and Pima County. In 1987 two initiative petition drives—one to place an initiative on the city of Tucson ballot, and the other to do so for Pima County ballot—began to collect signatures. The initiatives proposed to amend city and county governance documents in order to establish areas adjacent to Saguaro National Monument, Tucson Mountain Park, Coronado National Forest and other large open space preserves as “buffer zones.” As the city initiative gained some 25,000 signatures to place the issue before voters at the November election, the developers went to court. They asked for an injunction to halt the action, arguing that such “rezoning by initiative” would violate their due process and state statutes; they eventually succeeded in the legal and political arenas.³³³

The Question of Wilderness

In the late 1960s, the stinging controversy over access to Madrona was part of the debate over zoning and access to open space. Advocates for conservation soon wrapped it into the debate over wilderness in the Monument. The 1964 Wilderness Act had established a land

³³² Harold Jones to Huey Johnson, June 16, 1969, SAGU275, Box 4, Folder 14, WACC. The lands the NPS wanted were G and SR Meridian T158, R17E, E ½ Section 9, all of Section 10, North ½ Section 15 and right of way.

³³³ *Arizona Daily Star*, August 4, 1987; Logan, *Fighting Sprawl and City Hall*, 88-89; *Transamerica Title Insurance Co., et al v City of Tucson, et al.*, 157 Ariz. 346; 757 P.2d 1055 (1988). In 1998 the Arizona legislature further clarified the issue by adding a subsection to its session laws. Subsection (F) in § 11-829, 1998 Ariz. Sess. Laws, ch. 55, § 1; 1998 Ariz. Sess. Laws, ch. 204, § 10 provided: “The legislature finds that a rezoning of land that changes the zoning classification of the land or that restricts the use or reduces the value of the land is a matter of statewide concern and such a change in zoning that is initiated by the governing body or zoning body shall not be made without the express written consent of the property owner. The county shall not adopt any change in a zoning classification to circumvent the purpose of this subsection.”

category designed to promote roadless lands into a category designed to preserve their primitive conditions into the future by eliminating most mechanized and motorized travel, road building, commercial exploitation, mining, and other extractive industries. With exceptions, these areas were supposed to possess qualities that made ‘man a visitor.’³³⁴ For people concerned over the preservation of natural places, wilderness designation offered a seemingly permanent category for protection. A wilderness could fend off efforts to re-invigorate nineteenth-century mining claims, it could eject cattle, it could eliminate motorized vehicles. As early as 1963, in anticipation of the Act’s passage, the NPS began to look over their properties for lands that met the standards. With all the city’s pressures pouring over the Monument, advocates for protection took up the cause of wilderness designation for both districts.³³⁵

The question of wilderness became a hot potato. Advocates seeking maximum protection were willing to overlook earlier land uses. They argued for the broadest inclusion of lands. In essence, these lands would re-wild. Others wanted a more narrow definition. Advocates of wilderness were also critical of too expansive a definition. In his regular *Arizona Daily Star* column, “On the Trail,” Pete Cowgill weighed in on the wilderness issue. “An avid supporter of wilderness,” Cowgill advocated separating the high country wilderness from the saguaro desert lands, and placing the proposed wilderness areas of the Rincon Mountains into Forest Service hands. He also rejected any wilderness designations in the heavily used Tucson Mountain District. “...let us not prostitute the Wilderness Preservation Act by including areas that do not

³³⁴ Public Law 88-577 (September 3, 1964).

³³⁵ Sellars, *Preserving Nature*, Chapter 6, fn 19. At the time, the National Park Service was not a proponent of the wilderness legislation. The Act required the NPS to evaluate all roadless parklands of 5,000 or more acres for potential designation as wilderness areas, a task to be accomplished within a 10-year period.

qualify just to protect them from future human encroachment.”³³⁶ Cowgill’s recommendation to return the mountain to the Forest Service was a revival of arguments for the continued presence of grazing on the mountain. The Forest Service countenanced grazing as compatible with wilderness, the NPS did not. Struggles over the meaning and definition of wilderness were thus at the heart of the debate over the future of wilderness designation in SNM.

Advocates of the broad approach, like Tucson environmentalist Robert Lee Coshland, criticized purists who found no place ‘wild’ enough. In a letter written as Arizona representative of the National Parks and Conservation Association to Acting Superintendent John Cook, he explained how SNM’s wilderness could create a regional environment for greater Tucson while criticizing the Forest Service’s overly narrow approach: “on the subject of Regional environment, mention might be made of the important role which is played by both Districts of the Monument as vital links in the green belt surrounding the City of Tucson, and separating it from future satellite cities which constitute an element of sound urban planning.” Wilderness Act requirements might necessitate cleaner air standards.³³⁷ He continued by arguing that the Forest Service was utilizing the “high standard” of wilderness to defend themselves from actually forming any. “It is precisely this value [the access to wilderness for a large number of urban residents] which the Forest Service underestimates when it refuses to study an area for wilderness on the grounds that it is located within the sight and sound of ‘civilization.’”³³⁸

Establishing wilderness required public input at a series in communities that might be affected by the proposal. The NPS made gave notice in the Federal Register on January 25, 1972

³³⁶ Pete Cowgill, “On the Trail,” *Arizona Daily Star*, March 19 and April, 2, 1972; copies in SAGU 275, Series 4, Box 7, Folder 109, WACC.

³³⁷ Saarineen and Cooke, “Public Perception of Environmental Quality in Tucson, Arizona.” Air pollution was a shared concern for many Tucson citizens in the 1970s.

³³⁸ Coshland to Cook, May 7, 1973, SAGU275, Box 9, Folder 157, WACC.

and the first public hearing took place two months later. Paul Kalkwarf from the NPS presented the proposal. He told the collected public that the Wilderness Act built on a tradition of wilderness inherent in the NPS mission. Assuring attendees that wilderness status would not reduce “park values.” The 60,000 acres of the Rincon District were largely roadless but contained grazing leases on 27, 000 acres. A NPS wilderness would not contain grazing cattle. Therefore, the NPS was proposing a total of 32,300 acres of wilderness in both districts. The wilderness line would be lie at least one-eighth mile from the boundary, Manning Camp would remain outside the wilderness, as would other back country camps. The Rincon District would hold all the wilderness in two sections. Excluded were the grazing Happy Valley and Tanque Verde grazing leases. Overall, the NPS proposal took a very conservative approach to wilderness. Roadlessness was crucial but past mining in the TMU eliminated the 8100 contiguous acres from consideration.³³⁹



Figure 56. “RINCON MOUNTAINS. View north of X-9 Ranch. Riparian woodland along Rincon Creek in middle distance. Cowhead Saddle on skyline.” SAGU 275, Series 4, Box 9, Folder 158, WACC.

³³⁹ The Public Hearing of the Wilderness Proposal for Saguaro National Monument, Tucson Arizona, March 25, 1975, RG79, Box 44, “Sagu. Vol. 1,” NARA II.

Response to this cautious approach was not favorable. Bob Curtis of the Arizona Game and Fish Department (AGFD) called on the NPS to include the grazing leases. In this vision, nearly the entire monument, excluding the cactus forest infrastructure would be wilderness. His argument was twofold. Wilderness would protect game and as city growth increased “the need of the people for wild areas increases.” Wilderness was not defined by roadlessness, lack of cattle, or a landscape pristine from past mining. Curtis, speaking for the AGFD argued for a “environment of solitude.” Quoting Henry David Thoreau, Curtis asked the NPS and collected audience, ““Why should not we, who have renounced the King’s authority, have our natural reserves, where no villages need be destroyed, in which the bar and panther and some even of the hunter race may still exist and not be civilized off the face of the earth.”” There were ecological reasons to preserve the place: “highly specialized species of plant and animals...have adapted exclusively to the very unforgiving environment. They live in a fragile web which separates them from extinction.”³⁴⁰ This delicate landscape should receive the full protection of the law, argued Curtis. Further, the NPS was not living up to its own wilderness standards by excluding areas with grazing. Pointing to the section on grazing in the Service’s 1970 “Wilderness Use and Management Policy,” Curtis noted that grazing was acceptable when there was a plan in place to eliminate the cattle at a fixed future date. This situation applied to SNM. “In the master plan we discussed this morning for Saguaro National Monument,” said Curtis, the NPS stated its goal of eliminating grazing by 1975.

Wilderness was spinning out of NPS control. Scottsdale’s Bryan Massumi, representative of the Tri-City Chapter of Zero Population Growth and Saguaro High School Ecology Club, called the NPS exclusion of grazing and mining land “paradoxical.” The mines

³⁴⁰ “Wilderness Hearings,” Bob Curtis testimony, 12.

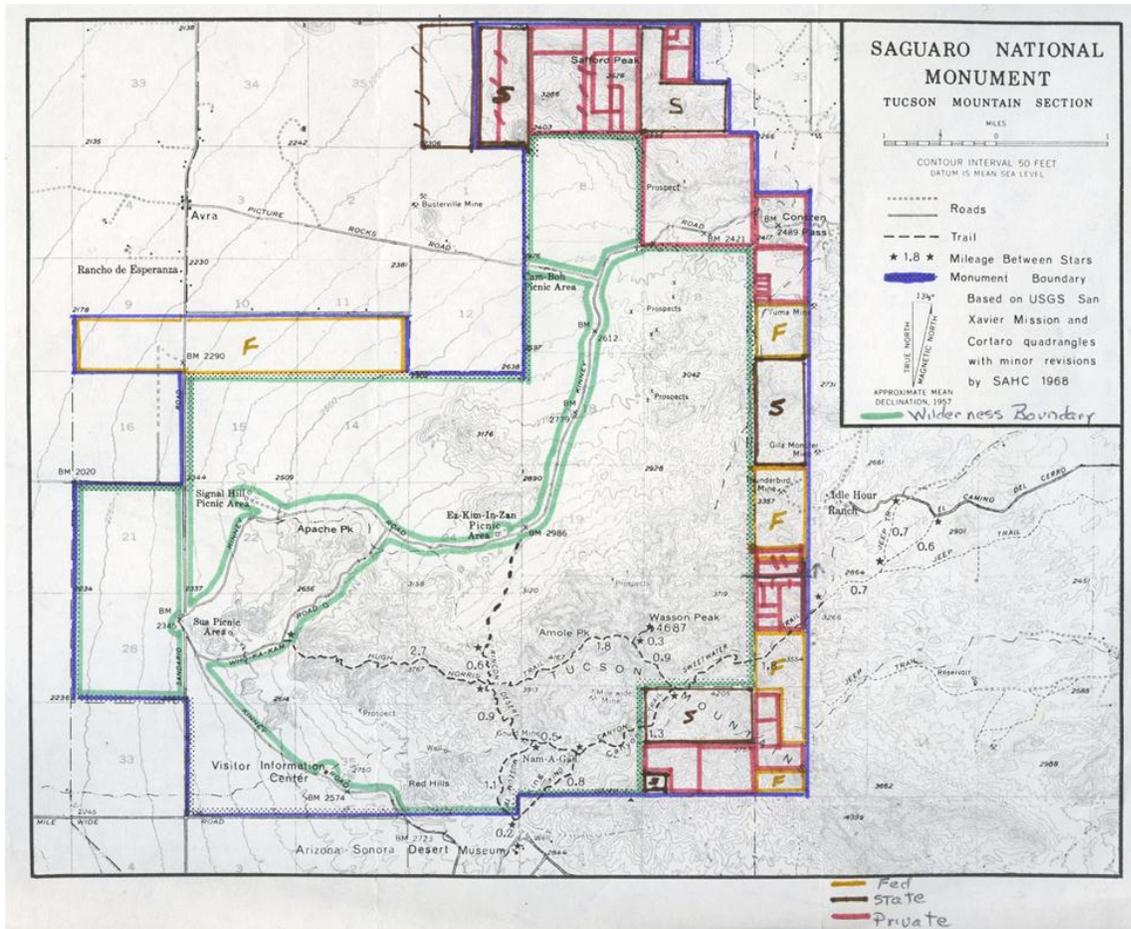
would never go forward and the cattle were not exceptionally damaging to the environment. Using either seemed an unwarranted “procrastination.” The tone was cordial and polite but the message was clear: follow the roadlessness standard and push for the biggest area possible. The danger of procrastination was a theme picked up by others. Tucson’s Patricia Vivian warned the NPS that the Monument’s boundaries seemed “fragile” in the face of “relentless bulldozing,” as development rushed up like a rising tide. Wilderness could stand like a strong wall against the forces of development. Vivian even rejected the eighth-mile buffer: too much desert had already been lost. The entire area should gain wilderness status to protect the entire range of ecological zones and also to “protect ourselves.” She told those assembled:

Most of the land in our country is used and exploited by man in one way or another. Very little is saved for its own intrinsic values. The city of Tucson is unusually fortunate to have natural areas close enough to incorporate into our way of life and to aid our city esthetically. Many of us may never intimately explore these areas as our urban existences close in around us, but when we drive down our clogged city streets breathing and smelling polluted air, hearing the constant noise of machines and seeing the manmade world of metal and concrete in countless forms which hide the land and shy, we have got to be able to look out and see some of our land on its own terms.³⁴¹

The hearing exposed the deep passion people held for SNM. Norval Langworthy of the Tucson Audubon Society told the hearing officer that his organization wanted the maximum wilderness designation. Presenting a series of photographs from a recent trip through the grazing areas of the Rincon District, Langworthy claimed: “From the character of the terrain and vegetation, it is obvious that each side of the boundary [between monument and national forest] is de facto wilderness with no apparent impact on the environment from the continuous grazing allotment in both areas.” The NPS should not just designate wilderness on their land, they should

³⁴¹ “Wilderness Hearings,” Patricia Vivian testimony, 16-23.

expand to protect adjacent lands. Total wilderness was only the start, the Monument should continue to grow.³⁴²



Map 23. Land ownership map - Proposed Wilderness Additions [1975].
SAGU 275 Series 4, Box 9, Folder 143, WACC.

National organizations like the Federation of Western Outdoor Clubs (130,000 members), National Parks and Conservation Association, and the Sierra Club, and local organizations like the Marana Ecology Club and La Sociedad Mearns de la Fauna Silvestri argued for the maximum wilderness model. Don Kucera told the NPS to “get with it” in the Tucson Mountains. They “should start next Monday and eliminate [Kinney] road.” Further, the outspoken Kucera stated, “grazing has to go.” Kucera told the officer, “the Monument was

³⁴² “Wilderness Hearings,” Norval Langworthy testimony, 24-28.

named Saguaro after an outstanding plant form, but the Monument really consists of much more than that... We have to look at it as a whole... ‘We really aren’t managing saguaro anymore.’ The monument means more than the saguaro. It’s a symbol. It’s a symbol of the west, and it’s an ideal word to call it. We need to cherish that area for all its values.” Wilderness would do this best.³⁴³

A minority of speakers opposed wilderness on many of the same points proponents argued for creation. Arthur Kelley thought the city would surround and encroach on the Monument and thus made wilderness impractical. Kelley saw no “outstanding physical characteristics” in the area, and had neither a clear mission nor appropriate development. Unlike supporters, Kelley was unwilling or unable to see the ecological basis of the Monument. He was also unaware of how the long struggle shaped efforts to fashion Saguaro. Kelley wanted an entirely different monument that did not include NPS rules. His testimony indicated that he grouped himself with the dispossessed: “For fifty years I left the care of my land and your land in the hands of the National Park Service. Now, in an attempt to collect the interest, I found out they stole even the principal.”³⁴⁴ Thomas O’Hare shared Kelley’s belief that the wilderness was just a further restriction benefiting special interest groups. Overall, most speakers supported more wilderness. Of the individuals who responded, four wanted no wilderness, thirty-one supported the NPS version, and 261 wanted more wilderness. Of the twenty organizations whose representatives commented, only one had no position. The rest favored more wilderness. Tucson’s Mayor L. C. Murphy supported the NPS proposal.³⁴⁵

³⁴³ “Wilderness Hearings,” Don Kucera testimony, 29-38.

³⁴⁴ “Wilderness Hearings,” Arthur Kelley testimony, 62-64.

³⁴⁵ Table of summary, “Wilderness Hearings,” The Public Hearing of the Wilderness Proposal for Saguaro National Monument, Tucson Arizona, March 25, 1975, RG79, Box 44, “Sagu. Vol. 1,” NARA II.

The most eloquent plea against wilderness came from the MacKenzie family of the Happy Valley Ranch. They held grazing leases on NPS and Forest Service lands along the east side of the Rincons. Roderick MacKenzie had begun ranching the lease in 1943 and Malcolm MacKenzie took over in 1965.³⁴⁶ On April 20, 1972 Roderick and Evangeline MacKenzie wrote the NPS requesting that the wilderness plan exclude their lease and thereby prevent their eviction. Their argument was straight forward. They needed to run their cattle on monument land to succeed as ranchers. Like advocates suggesting that cattle did not destroy the wilderness, they argued that their cattle were not destroying the landscape. Without the ability to use public land, they would find themselves forced to sell and subdivide. They focused on how wilderness would affect their entire ranch and the surrounding environment, warning “the rancher will be forced to sell his land against his will to a developer” with the consequent transformation of an environment where ranching and recreation co-existed into a landscape dominated by “the cyclists [motorcyclists], jeepsters, beer can litterers and sub-dividers.”³⁴⁷

The vision offered by the MacKenzie family was far sighted. They wanted conservationists to include their lifestyle in regional conservation plans. Rather than a choice between a working ranch or wilderness and the destruction of the ranch’s economic viability, they called for a hybrid space preserving both work and leisure. This compromise required limited road access, restrictions on motor vehicles, no hunting, research into proper grazing techniques and the eradication of invasive species, eliminating other developmental threats like high voltage powerlines (planned), and advertising that the area needed protection. It did not require elimination of the ranch as a buffer zone. Citing the Club of Rome’s *Limits to Growth*,

³⁴⁶ Clemensen, *Cattle, Copper, Cactus*, “Appendix B: Grazing Allotment Owners,” http://www.cr.nps.gov/history/online_books/sagu/hrsab.htm

³⁴⁷ R. J. and Evangeline MacKenzie to Harold Jones, April 20, 1972, RG79, Box 45, Wilderness Hearings, NARA II.

the MacKenzies reminded the NPS: “This is not a plea for the private interest of any rancher, but rather for conservation now of every resource of our land.”³⁴⁸

The Tucson-based conversation over wilderness extended to Washington, D.C., in 1974, when the House subcommittee on National Parks and Recreation considered an omnibus bill to include wilderness areas into national parks. The bill included H.R. 11850 which had been introduced by Rep. Morris Udall to designate 71,000 acres within Saguaro National Monument as Saguaro Wilderness.³⁴⁹ Coshland, a member of the Tucson Audubon Society Wilderness Committee, spoke for a coalition of environmental groups when he criticized the Forest Service’s recently completed inventory of roadless areas, especially those in the Rincon Mountains: “Much to the chagrin of Tucson environmentalists...one of the most flagrant omissions was the de facto wilderness embodied in the lands contiguous to the Saguaro National Monument.”³⁵⁰

Complaining that the Forest Service has ignored their evidence and appeals—“in some instances even public hearings, which produced testimony pointing clearly to wilderness qualifications, were ignored during the decision-making process”—, Coshland especially endorsed a provision of the bill that required the Forest Service to study those areas for possible wilderness designation, calling it “a bold and well-justified step to rectify an obvious miscarriage in the implementation of the Wilderness Act.”³⁵¹

³⁴⁸ MacKenzie to Jones, April 20, 1972, pg. 4, underline in original.

³⁴⁹ “Designation of Wilderness Areas, Part 4,” Hearings before the House Subcom on National Parks and Recreation, Committee on Interior and Insular Affairs, March 22, 25, 26 1974, Cong 93, sess 2; Douglas Kenney and Doug Cannon, *Saguaro National Park Case Study* (Natural Resources Law Center, January 9, 2004) claim, incorrectly, that “the first efforts to designate wilderness in the Saguaro National Monument” were initiated in 1975. In March 1972 NPS field hearings were held in Tucson—a citizen’s proposal for wilderness designations was presented at those hearings.

³⁵⁰ “Designation of Wilderness,” Robert Lee Coshland testimony, 134.

³⁵¹ “Designation of Wilderness,” Coshland testimony, 135.

Another Tucsonan John McComb, the Sierra Club's Southwest Representative, argued that the Saguaro Wilderness would help correct an imbalance in the current Wilderness System—not only did the Rincon Mountain District offer a high island mountain range “in an undisturbed, natural condition for its scientific value in helping us to understand the changes that man has wrought in the remainder of the state,” but the Monument's desert ecology helped rectify the “lopsided selection of ecological types.”³⁵²

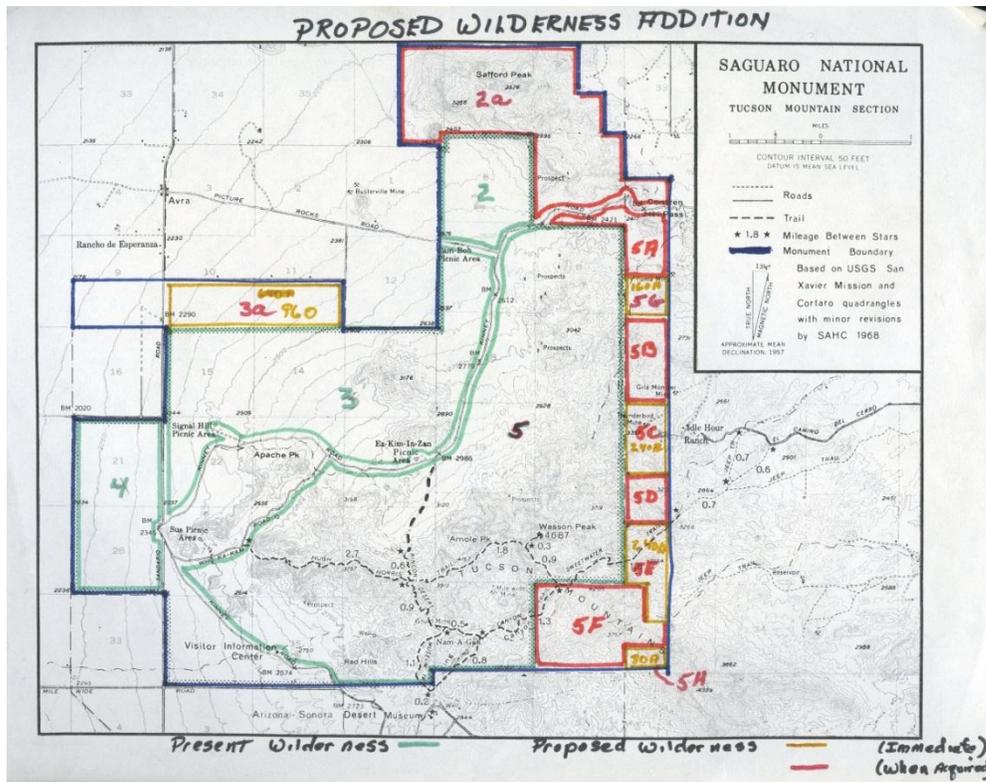
McComb outlined “several disagreements with the wilderness recommendations of the National Park Service for Saguaro National Monument,” especially over areas—grazing allotments, areas of potential mining claims—excluded from immediate designation of wilderness and placed in the “potential wilderness addition” category.³⁵³ And rather than adding a 10-acre enclave around the Manning Camp, used as a summer administrative site, they proposed to phase out the facility and prepare it for a wilderness designation. The Sierra Club endorsed Congressional bills – H.R. 13562, H.R. 13568, and H.R. 11850— which rectified those differences. Harry Crandell of the Wilderness Society pointed out that the NPS recommendation is for “only 42,400 acres” leaving out “27,000 acres of undeveloped land. This is unwarranted under the Wilderness Act.”³⁵⁴ [Those omitted lands included 19,500 acres of grazing land in the Rincon Mountain unit and 7,600 acres of potential mining areas in the Tucson Mountain District.] As Toby Cooper for the National Parks and Conservation Association noted, the proposed area “is badly marred by grazing and mining claims,” but that “these rights have a firm termination date.” “Wilderness designation will not threaten existing rights as long as the leases

³⁵² “Designation of Wilderness,” John McComb testimony, 147.

³⁵³ “Designation of Wilderness,” McComb testimon, 148-49.

³⁵⁴ “Designation of Wilderness,” Harry Crandell testimony, 173.

are valid.” And once the classification is established, the NPS “will receive additional incentive to acquire the land and avoid the possibility of renewing the leases.”³⁵⁵



Map 23. Proposed Wilderness Addition [1975], SAGU 275 Series 4, Box 9, Folder 143, WACC.

The wilderness victory confirmed the prominent role that Tucsonans played in supporting the Monument. Overwhelmingly, they wanted maximum protection and the finished product looked similar to an effort the Southern Arizona Hiking Club generated in 1967.³⁵⁶ While the prominent role of the Tucson Audubon Society and other local organizations brought into sharp relief the level of support the monument had from local groups, the fact that wilderness was a national idea, and that national organizations like the Sierra Club and Wilderness Society campaigned for Saguaro Wilderness, reveals the Monument’s national prominence. Truly a national monument, decisions over its future drew national input.

³⁵⁵ “Designation of Wilderness,” Toby Cooper testimony, 167.

³⁵⁶ John McComb, “Wilderness Hearings, 1972,” 45.

Wild Cattle

Wilderness designation allowed the National Park Service to terminate grazing in the Happy Valley allotment but cattle persisted inside Saguaro's boundaries on Kenneth Kaecker's Tanque Verde allotment and as feral animals. Kenneth Kaecker purchased the Tanque Verde Ranch from the Converse family in 1955. It is therefore fitting that the cattle problem should both begin and end with the Tanque Verde Ranch. James Converse had proven strongly resistant to the Monument in the 1930s and 1940s. It was his Twin Hills cattle that had grazed upon the cactus forest until removed in 1955. The University of Arizona's J. Byron McCormick resisted finalizing the University land swap until Arthur Demaray agreed to allow cattle to continue grazing. In 1973, notified that the NPS would terminate grazing in 1975, Kaecker went to court and called his congressional representatives.³⁵⁷

The NPS challenged allowing continued grazing by citing the provision of SNM founding act forbidding "any use of the land which interferes with the preservation or protection as a national monument is hereby forbidden."³⁵⁸ That interference was deteriorating ecological conditions. Pointing to Demaray's letter, Superintendent Boyd Evison argued Demaray's "assurances were not given in a fit of misguided generosity, but as a condition to the acquisition of State and University lands. There was an exchange of values – assurance for acquiescence."³⁵⁹ These assurances had run their course and the NPS had the right to terminate grazing as incompatible with the Monument's central mission-preservation of Sonoran Desert nature-yet

³⁵⁷ Kenneth A. Kaecker and Golden Kaecker v United States, et al, U.S. District Court, CIV-76-223-PHX-CAM. The Tanque Verde allotment included both Forest Service and NPS lands; in the 1970s 12,000 acres of the allotment were Monument lands.

³⁵⁸ Boyd Evison, Superintendent, SNM to Director, Western Region, January 17, 1973, SAGU 275, Series 4, Box 7, Folder 110, WACC.

³⁵⁹ Evison, January 17, 1973.

placed a moral obligation on the Service. The solution was to purchase a termination of grazing rights.

Kaecker did not wait to see what the NPS would do. He gathered allies from the Arizona Cattle Growers Association, and sought Congressional support from Barry Goldwater, Paul Fannin, and Morris Udall. Working through the courts proved a drawn out process but in 1982 Kaecker received \$156,000 for termination of grazing. After 49 years, the NPS had eliminated grazing rights in the Monument.³⁶⁰ Yet, at the end they faced the same problems bedeviling the process from the start: Private entitlement based on the old western economy rang loud and clear in political and legal circles. The idea that Kaecker could use access to public land to create speculative value remained intact. Of course, this victory for the NPS only reinforced the question posed by the MacKenzies: How do we have both production and conservation? The end of grazing was a vindication of decades of efforts, by scientists, managers, and advocates, to remove the beasts from the Monument, but was it the best possible outcome? The X-9's fragmentation argued that there might be a fate worse than cattle.

Cattle also did not respond automatically to this new status as unwanted intruders. In 1976, feral cattle from Jackson and MacKenzie ranches were still grazing in the Monument. Both ranchers, citing Arizona's 'fence-out' law, placed blame on the NPS. The Service disagreed. Citing case law from 1897, 1908, and 1956, NPS legal counsel stated unequivocally that the cattle were trespassing.³⁶¹ Questions of how to remove these cattle proved a difficult legal and management problem into the late 1980s.

³⁶⁰There are extensive files generated by the Kenneth Kaecker case in SAGU 275, Series 4, Box 7, especially folders 116 -126; SAGU275, Box 7, Folder 110, WACC.

³⁶¹ William G. Lavell, January 1977, SAGU257, Box 7, Coss Report, WACC.

Cattle had proved active agents in transforming the Monument before their eviction and feral cattle loose in the monument pushed these effects into the wilderness. In 1981, Harold Coss of Saguaro and R. Roy Johnson of the University of Arizona produced a report on feral cattle. Their goal was to count cattle, map their movements, and assess the resulting impacts to the monument.³⁶² Tracking these cattle was not easy. Observers saw evidence when hiking through the area but Coss had to fly over the Monument in order to see the cattle. In all, Coss estimated that 20 plus cattle were living along the Rincon Creek drainage from Happy Valley Saddle, east of the Madrona Ranger Station and north of Rincon Creek. They were occupying three biotic communities: desert scrub, grassland, and oak woodland. Coss and Johnson attributed these cattle to remnants grazing Henry Jackson's Rincon Allotment. Jackson had voluntarily terminated his grazing in December 1967 yet by 1976, there were some 80 white faced Hereford descendents loose in the Monument.

Efforts to remove the cattle began in May 1976 when Malcolm MacKenzie rounded up cattle. He took out at least six bulls. The following February (1977) the NPS notified all adjacent ranchers that they must remove their cattle by September 1, 1977. No one responded. That same February, the NPS hired Glen Fortenberry, a professional with experience rounding up feral burros in the Grand Canyon. The experience was harrowing and speaks to the difficulty of the task. In sixteen days, Fortenberry's team rounded up two cattle, a calf and bull. The bull later died. Five other cattle and a horse also died in the effort. Bulls charged everyone, gored a horse,

³⁶² Harold T. Coss and R. Roy Johnson, "Feral Cattle Survey, May-September, 1981, Rincon Creek Drainage," SAGU275, Series 4, Box 7, WACC.

and knocked down two others. The cost for the effort was \$3000 plus 10 days for an NPS staff member and was deemed a failure.³⁶³

“Direct removal,” a euphemism for shooting the cattle, became a favored option for NPS personnel, but the public response to such an alternative was mixed.³⁶⁴ “I’m disappointed in the Saguaro National Monument,” wrote Joanne Kane:

So you are intending to send out your rangers to shoot all the wild cattle – shoot them and let them die and rot. They have always been there. When I owned what is now called The Bellota Ranch (used to be A 7 Ranch) there were a few and we rounded up what we could every year and sold them with the other cattle. What harm are they doing? Defacing the beauty of the country with their droppings? One would think cow manure would be a beneficial fertilizer. And don’t the deer and other rodents subsist on browse rather than grass?

My idea of a Park is a place where animals are given freedom to live as nature planned. Seems to me you could think of a better method of coping with this vast over-population. There are still people who could use some beef rather than having you shoot them down at random, “the sooner the better.”

“P.S.,” Kane added, I’m writing a similar letter to the Arizona Star.”³⁶⁵

Shooting cattle was a double sin: a hanging offense in western movies and counter to the Kane’s idea of a wilderness management approach. Superintendent Bill Lukens tried to defend the decision:

...so far two different ranchers have attempted to catch the cattle and have failed. The cattle must be removed from the area because the purpose of a natural area of the National Park System is to preserve the area in its natural condition. Cattle are not native to the area. ... Your ideas of a part being a place where animals are free to roam is the same as ours, We want nature to be able to take its course to the fullest extent possible. We try to keep all exotic plants and animals out of the area. There is no desire on the part of the Park Service to shoot animals and leave them lay. We only want to do what is possible and practical. It does not seem practical to spend more money than an animal is worth to bring it out of the backcountry.

³⁶³ “Feral Cattle Removal, Rincon Mountain Unit, Situation Report, March 23, 1983, SAGU275, Series 4, Box 7, Folder 110, WACC.

³⁶⁴ Ibid.

³⁶⁵ Joanne Kane to Sirs [Saguaro National Monument], November 19, 1976, SAGU 275, Series 4, Box 7, Folder 109, WACC.

You will be interested to know that as a result of the newspaper article we have had a number of persons offer to try to remove the animals. We will no doubt try at least one more time to roundup, trap or otherwise remove the animals before we make the final decision.”³⁶⁶

By February 1979, Superintendent Lukens estimated the population at seventy. A year later in March, Henry Jackson dropped any claim to the cattle. The result was that the NPS could declare the cattle feral and gained ownership. In two 1980 roundups, Dave Quinn claimed removal of thirty-seven with one cattle death. The level of dead cattle was alleged as much higher. Quinn suffered serious injury and the second roundup ended. Overall, he had been very effective in removing cattle. The 1981 NPS census estimated twenty, while a private September 1982 census estimated half that number. In January 1983 the NPS again provoked public response with its decision to shoot the remaining cattle, however, the following March, Hal Coss found no cattle. They were wandering, dispersed across the vast mountain tops.

These numbers sound small but the impacts of cattle were an ongoing concern for Saguaro staff. Coss and Johnson wrote that cattle caused:

the alternation of plant composition, the reduction of plant vigor and ground cover, the reduction of seed and prevention of seedling establishment, and miscellaneous adverse effects on wildlife habitat. Soil cover at cattle bedding sites and on trails rapidly erodes away during heavily rains, since grasses which absorb rainwater and mitigate soil removal are absent or in poor condition.³⁶⁷

To illustrate their point, the authors pointed to the damage cattle caused to saguaro reproduction. This hot button concern stood as the ultimate indictment of cattle in the monument since many blamed cattle grazing for the dramatic absence of young saguaro along the loop road. These ill effects led the authors to declare cattle grazing “completely incompatible” with the Monument’s mission.

³⁶⁶ William M. Lukens to Mrs. Robert E. Kane, November 29, 1976, SAGU 275, Series 4, Box 7, Folder 109, WACC.

³⁶⁷ Coss and Johnson, “Feral Cattle,” 1.

The recommendations were obvious. Since the cattle were reproducing (a calf was observed in 1982), and, the herd could reasonable grow at 25% per year, letting the situation process would build the herd quickly. Options for removal included public hunting, further round ups and professional hunting. The last option was the most economical and feasible.³⁶⁸

The cattle were proving themselves the “wildest and wiliest” of creatures.³⁶⁹ Their persistence may have offended NPS conservation goals but it reiterated the wildness of the land. Without roads, it was very difficult to remove the cattle. The wilderness had, of course, also created these wild beasts. In the normal course of ranch operations, Jackson’s cowboys would have frequently rounded up cattle before they could become so difficult. On the other hand, the wilderness was proving more porous than the legal designation seemed to imply. Past and present, private and public landscapes were tied through the history and ecology of the area.

An Island or an Ecosystem?

Even as wilderness clarified the ecological and soft recreational future of the Monument, the fears of uncontrolled growth and destruction of natural environments was accelerating across the valley. These links extended from the obvious, like cattle, to the less visible, like the water table and air pollution. Patricia Vivian could express dismay at Tucson’s 300,000 population size in 1972 but the population grew and spread in the following decades. As Saguaro Superintendent Robert Arnberger evaluated the situation in 1984, “Twenty years ago, both park units were 20 miles outside of town. Now we have subdivisions literally up to the boundary fence. ... Resources in the park are suffering from the increase of heavy visitation and urbanization. Clean

³⁶⁸ Memorandum Roy Allen, Acting General Superintendent, Southern Arizona Group, NPS, to Regional Director, Western Region, October 15, 1982, SAGU 275, Series 4, Box 7, Folder 110, WACC.

³⁶⁹ “Feral Cattle Removal Situation Report,” 4.

air problems, noise and visual pollution and a diminishing federal budget makes my job harder each year.”³⁷⁰ SNM’s districts became ever more isolated amid a massive metropolitan development. At a May, 2000 Tucson conference, panelists working on SNP and its environment argued that “perhaps the most pervasive and intractable threat to the long-term integrity of national park units and other protected areas is incompatible development of adjacent lands.”³⁷¹ Saguaro’s wilderness stood like an island but it was beset with constant interactions with the sea of the Tucson Metropolitan area. To protect the Monument would require a much broader vision of protection: a regional approach and an ecosystem approach.

What panelists recognized was that, as Starker Leopold had predicted in 1963, no park was large enough to protect a whole ecosystem. Rather than set the park in opposition to the surrounding development, the NPS and other agencies had to work with other landscapes to craft the most advantageous outcome. Looking back at a 1985 study addressing these questions, panelists told the conference that parks would have to work with landowners and local governments to further both park and non-park goals. Only through creative collaboration could the NPS hope to help shape regional outcomes. Elaborating on the MacKenzies’ emotional 1972 call for preserving people in place, the panelists asked, how do we merge conservation into the fabric of our productive society?

Two of the most successful efforts seeking to answer this question in the Sonoran Desert were SNM’s negotiations with the Rocking K and Pima County’s Sonoran Desert Conservation Plan. The first example put into practice the idea that the NPS should work collaboratively to

³⁷⁰Edward B. Havans, “‘Progress’ eating away at the Desert,” *The Bulletin* (Bend, Oregon) September 26, 1984; this UPI news report, filed in Tucson, showed up in a number of newspapers.

³⁷¹Luther Propst, Bill Paleck, and Liz Rozen, “National Park Planning: Stewardship across Boundaries,” in “Conference Proceedings Alternative Dispute Resolution and Natural Resources...” May 16-19, 2000, Tucson Arizona,” 30.

shape the landscape around SNM. The second example offers an example of how the scale of conservation increased as the human imprint became more overwhelming. Both pursue to create legal structures and cultural awareness for the preservation of biodiversity and the conservation mission.

The Rocking K development emerged as one of the greatest land struggles in SNM history. Rocking K was a huge 6000-acre development sharing an eight-kilometer boundary with the Rincon District. The original plan presented to Pima County called for 21,000 houses, four resorts, three golf courses, and 600 acres of commercial space. The size of project—50,000 people—angered area residents and catapulted Saguaro Superintendent Bill Paleck into action. This development presented a real tangible threat to Saguaro; it also presented an opportunity to solidify the borderland between the monument and the city. Paleck realized that some form of development was going forward. The only question was how well it would co-exist with the Monument's conservation goals. He identified four areas of concern: Riparian habitat, desert tortoise habitat, mule deer, and scenic views. Accepting Rocking K as a compromise with positive aspects that included the ability to plan on a grand scale, Paleck and the NPS worked with Rocking K to craft an ecologically-informed design. They identified and mapped wildlife corridors, and defined around 2000 acres of crucial habitat. Rocking K agreed to remove nearly the entire 2000 acres from development. Housing units were clumped and large areas of open space included in the design. Further, Rocking K embedded conservation goals into the very structure of home ownership through the creation of the Sonoran Institute.

Negotiations produced an amazing transformation to the Rocking K design. The NPS bought 1900 acres of crucial habitat and an additional 1600 acres of ranchland. The degraded riparian lands surrounding Rincon Creek received restoration. The plan reduced housing units

from 21,000 to 10,000. Half of the remaining land was open space. Finally, homeowner fees funded the Sonoran Institute, a research and education engine promoting conservation of the Sonoran Desert. The result was something of a triumph. Rocking K went forward as a planned development and the NPS stabilized its border and scored an important victory in a new approach. The creation of the Sonoran Institute broke down barriers. It amassed a coalition of organizations that convinced Congress to appropriate money for the land purchase and designate the Monument a National Park.³⁷² The fact was that conservation needs were bigger than any NPS holding and SNM was only a piece of the Sonoran Desert. As people overran the desert many realized they needed more than an “ark” for carrying nature safely to the future; they wanted and needed to live with and in the desert.

The big model for conservation arrived at Pima County’s doorstep in a tiny package. In 1997 controversy over threats to the cactus ferruginous pygmy owls broke into the open. The response was creation of the Sonoran Desert Conservation Plan to head off a nightmarish repeat of the spotted owl controversy by bringing Pima County into compliance with the Endangered Species Act.³⁷³ The Plan covers the 5.9 million acres of Pima County and focuses on five focal points: critical habitat and biological corridors, riparian restoration, preservation of mountain parks, protect historical and cultural sites, and conserve ranching.³⁷⁴ In the Conservation Plan, Pima County has elaborated on a long time conservation relationship with the Sonoran Desert.

From the creation of Tucson Mountain Park, through the Pioneer Hotel’s crowded hall when Mayor Don Hummel told Tucsonans to stand against the bulldozer, in the voices in support at the wilderness hearings and the angry demonstrations outside the Zoning Committee’s

³⁷² Propst, et al., “National Park Planning: Stewardship across Boundaries,” 36-40.

³⁷³ Keith Kloor, “Score One for the Desert,” *Audubon Magazine* (May 2005)

<http://www.audubonmagazine.org/features0505/solutions.html>

³⁷⁴ Sonoran Desert Conservation Plan, <http://www.pima.gov/cmo/sdcp/intro.html>.

Rocking K meeting, and running through the Rincon Plan and the implementation of the Sonoran Desert Conservation Plan, Tucson and Saguaro National Park have a rich tradition of acting for conservation. Even as Tucsonans voted with their wallets to overrun the valley, they supported the idea and the practice of preserving desert environments. In the middle of the century these efforts focused on firming up borders but as the city began to dwarf the natural world, conservation infused the planning process for human developments. The love of wilderness did not blind Tucsonans or the NPS to opportunities to save 'cut over' lands and to inhabit hybrid landscapes. The result is an ongoing effort to protect nature in the Sonoran Desert.

Conclusion

The Journey of a Monument

In 1934, the National Park Service recorded 2,500 visitors to Saguaro National Monument. While this number may be a dramatic undercount, when compared to the 717,000 visitors recorded in 2010 the difference is staggering.³⁷⁵ Counting certainly improved over the years but even today many park users still enter the Saguaro's districts without registering to drive the loop road. The scale of increase, therefore, mostly reflects the amazing expansion of Tucson and America since the hard years of the Great Depression. In 1933, people talked about the Rincon district as 17 miles from Tucson. Today, it is tucked up against the metropolis.

While the growth of the city deconstructed the desert environment in many ways, it was also a motor for creating today's Saguaro National Park. Looking back, we might say the initial establishment was the single most important act in the story. Without a NPS monument, we might have had a local park of some kind on 480 acres of cactus forest lands. Without a doubt, these acres would stand like an island amid development. Possibly, as bacterial necrosis knocked down the large saguaros, the University of Arizona's commitment to the site as a scientific preserve would have wavered. Perhaps the University would have used the lands as first intended: sale to fund the school. If, in 1945, Senator Carl Hayden had succeeded in removing the mountain from the Monument, would the NPS have lingered? Would the federal agency have had the funding to buy up private lands in the cactus forest? Would the Monument have remained at all? Once the cacti began to die what story would the rangers tell visitors? Who would visit? The NPS might have washed its hands of the project and turned full attention to Organ Pipe National Monument and other regional holdings. If SNM was gone, what would have

³⁷⁵ Statistics drawn from http://www.nationalparked.com/US/Saguaro/Visitation_History.php, July 31, 2011.

happened to the Tucson Mountain Park after its leases lapsed in 1959? What institutional home could house this desirable real estate? What institutional coffer would pay to buy up land around its margins? This speculative game could go on ad infinitum but highlights the value of the initial proclamation and subsequent defense of the Monument.

Between 1933 and 2010, SNM benefited from people willing to push for its preservation. Specific Park Service decisions certainly shaped the Monument's history, but so too did the social networks of supporters. In 1937 and 1945, the NPS decided to stay put and control the whole monument. In 1950, Arthur Demaray compromised on grazing to gain control of the core of the cactus forest. This was a hard made choice but kept the monument process moving. In 1960, Tucsonans raised their voices to protect the Tucson Mountain Park from mining and Secretary of Interior Stewart Udall, a Tucsonan, convinced JFK to proclaim the endangered section a national monument. In 1959 and after, neighborhood associations worked together with SNM to create a green desert of low intensity development as a moat between monument and city. A range of individuals, from high school students to professional environmentalists, and organizations advocated a wilderness monument to thwart any possibility of developmental inroads. In the 1990s, Bill Paleck won a major victory in helping shape the Rocking K development. These actions built the Monument's geographical reach.

They also indicate how supporters perceived their lives in relation to the Monument. Scientists found research topics and careers among the saguaro and in the mountains. Visitors sampled the desert as exotic, as a place filled with flowers, and as a venue for art. Locals felt pride and a sense of ownership. Horse riders and hikers found decades of exertion and adventure on its slopes. Tucsonans viewed the sunrise over the Rincons and the sunsets over the Tucson Mountains. So that even from a distance, SNM was part of the urban landscape.

Monuments represent a certain type of landscape that, although broadly defined, has limits. They represent a choice about land use and by so doing, they are inherently political and imbedded in ongoing local and national concerns; their existence represents a history of conflict and compromise as well as support. The historical record best reflects these conflicts when dealing with grazing. The recreational and ecologically informed landscape of the Monument displaced the productive and managerial relationships generated by ranching and Forest Service management. The contention that cattle could damage the land, easily established through regional studies, struck at the heart of the extractive economy of the late nineteenth and early twentieth century. It also struck at an ideological belief that cattle ranching was a natural use for Arizona's grass lands. The nineteenth-century idea that southern Arizona was a cattleman's paradise should have fallen flat by 1901 when D. A. Griffiths of the Arizona Experiment Station described the region as "more completely divested of range grasses than any other in the entire country."³⁷⁶ Yet, the ideology that ranching was good for America, and the Southwest, resonated across the century and into the Sonoran Desert Conservation Plan.³⁷⁷ Ranchers were not the only users of the monument but they had a powerful rhetorical arsenal.

As the Monument formulized its presence, there were other struggles of ideologies and land use, especially with land developers and real estate issues. The *bajadas* of both districts were prime real estate and advocates for the Monument faced continual challenges in their race to beat developers. C. B. Brown and other conservationists were explicit in wanting to protect the Tucson Mountains from homesteading. Likewise, Charles Vorhies worried that homesteading would preclude protecting the Tanque Verde cactus forest. The Freemans received increasingly

³⁷⁶ Nathan Sayre, "The Cattle Boom in Southern Arizona: Towards a Critical Political Ecology," *Journal of the Southwest* 41, no. 2 (Summer 1999): 248.

³⁷⁷ Sharon McKenzie, "The Range of Rhetoric: The Politics of Grazing in Southern Arizona," Ph.D. diss., University of Arizona, 2003.

generous offers for their property while awaiting NPS action.³⁷⁸ Given the relatively large sums used to buy up the remaining monument inholdings and additions in the 1970s and beyond, early NPS efforts look parsimonious.³⁷⁹ However, we know that budgets grew in the 1950s and beyond. Money that seemed trivial in 1970 was out of reach in the 1930s.

Land deals and land speculation were at the heart of the Monument's story from the beginning. Homer Shantz hired a realtor to buy land and purchase options; ranchers held on to their land for speculative purchases; the Monument's presence drove up land prices. The forces of land speculation, and the struggle to decide the future of the lands in question, shaped Saguaro. Through the twentieth century, the histories of Tucson and the region, within which both the city and the monument are linked, were contested on very similar terms.

While the shape of Saguaro National Park is now assured, the nature of the place is still in flux. The fading of the Rincon District's cactus forest after 1940 is a clear reminder that nature obeys its own rules. As climate change transforms Sonoran Desert ecology, SNP will also change. The role of people as agents of global change is yet a further expression of the experience all Park Service staff understand in a visceral way. As the climate changes, perhaps Saguaro can be ambassador and educator for creating room for species on the move. It is probable that the Park will last long enough to see a new forest arise in the Rincon Mountains *bajada*, but chances are, the environment will be substantially different when the young saguaros push through their nurse plants to tower and awe visitors.

³⁷⁸ Don Egermayer to A.E. Demaray November 17, 1946, RG79, Entry 10, Box 2365, NARA II.

³⁷⁹ For example, in 1976, the north half of Section 17 in the RMD cost the government some \$700,000 and 40 acres of exchange land. SAGU 275, Box 6, WACC.

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Appendix A

Chronology of National Park Service Officials Saguaro National Monument/Saguaro National Park

Powell, Charles	March 1935 to Aug 1935	Ranger/Custodian
Beaubien, Paul L.	Jan 1936 to May 1937	Ranger-in-Charge*
Egermayer, Don W.	Oct 1939 to June 1942	Custodian
Peavy, Ira John	July 1942 to March 1944	Acting Custodian
Cooke, Clair V.	March 1944 to July 1944	Acting Custodian
Beaubien, Paul L.	July 1944 to Aug 1946	Custodian
Egermayer, Don W.	Sept 1946 to April 1948	Custodian
King, Samuel A.	April 1948 to March 1953	Custodian/Superintendent
Steele, Grover E.	April 1953	Acting Superintendent
Lewis, John G.	April 1953 to Aug 1956	Superintendent
Herschler, J. Barton	Oct 1956 to April 1958	Superintendent
Cook, John O.	May 1958 to Jan 1962	Superintendent
Fitch, Monte E.	March 1962 to Aug 1962	Superintendent
Judge, Paul A.	Sept 1962 to Sept 1965	Superintendent
Gunzel, Louis L.	[Oct] 1965 to Dec 1965	Acting Superintendent
Giles, Robert L.	Jan 1966 to April 1968	Superintendent
Jones, Harold	May 1968 to Nov 1972	Superintendent
Evison, Boyd	Nov 1972 to March 1974	Superintendent
Cook, John O.	March 1974 to May 1974	Acting Superintendent
Boyer, Richard H.	May 1974 to Aug 1975	Superintendent

Gastellum, Luis A.	[Aug] 1975 to Oct 1975	Acting Superintendent
Lukens, William A.	Nov 1975 to May 1980	Superintendent
[Eck, Arthur	June 1980]	Acting Superintendent
Hopkins, Ross R.	July 1980 to Nov 1982	Superintendent
[Eck, Arthur E.	Dec 1982]	Acting Superintendent
Martin, Carol A.	Jan 1983 to June 1983	Acting Superintendent
Arnberger, Robert L.	June 1983 to April 1987	Superintendent
Paleck, William	April 1987 to 1992	Superintendent
Morris, Douglas K.	Jan 1993 to Nov 1997	Superintendent
Nasiatka, Paula	Nov 1997 to [] 1998	Acting Superintendent
Walker, Franklin C.	[July] 1988 to June 2001	Superintendent
Bellamy, Jim	June 2001 to June 2002	Acting Superintendent
Craighead, Sarah	Aug 2002 to March 2009	Superintendent
[April 2009 to May 2009]	Acting Superintendent
Sidles, Darla	June 2009 to present	Superintendent

*Beaubien split his year between Walnut Canyon and Saguaro National Monuments; he spent the winter months at Saguaro. The records show only temporary rangers at Saguaro (such as Carleton Wilder in October 1937) until 1939.

Information drawn from several sources, including *Historic Listing of National Park Service Officials*, http://www.cr.nps.gov/history/online_books/tolson/histlist.htm; “L-N Fact File,” SAGU 275, Series 5; Saguaro National Monument Superintendent monthly reports; Saguaro National Park management plans; annual reports; correspondence; newspaper articles; press releases. There are some date inconsistencies between the main sources—*Historic Listing of National Park Service Officials* and Superintendent Monthly Reports—especially in the early years; this chronology follows the dates in the monthly reports. Other dates or information that have not been fully verified are found within brackets.

Appendix B

List of Major Park Legislation

Pres. Proc. 2032 (Mar. 1, 1933), *Saguaro National Monument-Arizona*
Establishes Saguaro National Monument

Pres. Proc. 3439 (Nov. 15, 1961), *Enlarging the Saguaro National Monument, Arizona*
Adds 15,350 acres transferred from Tucson Mountain Park

Public Law 94-567 (Oct. 20, 1976), *Act to designate certain lands as wilderness, to expand boundaries, and for other purposes*
Designates 77,400 acres as wilderness under the Wilderness Act

Public Law 94-578 (Oct. 21, 1976), *Act to increase appropriation ceilings and boundary changes in certain National Park units*
Adds 5,378 acres to Tucson Mountain Unit

Public Law 102-61 (June 19, 1991), *Act to expand Saguaro National Monument*
Adds 4,111 acres to Rincon Unit

Public Law 103-364 (Oct. 14, 1994), *Act to establish Saguaro National Park*
Changes official name from Saguaro National Monument to Saguaro National Park and expands the boundaries of Tucson Mountain Unit, adding 3,460 acres (108 Stat. 3467)

Appendix C

Interview Questions Saguaro National Park: An Administrative History

General Questions

1. What has been your relationship with Saguaro National Park/Monument (SNP)?
2. How long have you been/were you involved with SNP?
3. What is your assessment of the impact of...
 - ...the 1994 change in designation from a national monument to a national park?
 - ...the land deals that have increased the size of the park over time?
 - ...the establishment of wilderness designations?
4. What, in your opinion, is the role of the SNP?

Specific Questions (these questions will vary depending on the interviewee's public role with the Saguaro National Park)

For NPS officials/staff:

1. What is/was your title and responsibilities at SNP?
2. At what other national parks have you worked? How would you compare the administrative needs of SNP with those of other parks?
3. Explain your roles and work at SNP.
4. What are the challenges with SNP's administration?
5. Some superintendents place a higher priority on certain park resources (cultural, scientific, recreational, ecological, etc.) than others. What have been the priorities that shaped SNP during your tenure? How have those priorities affected SNP administration?
6. Please describe any administrative, policy or developmental changes you experienced during your time at SNP.
7. Do you have any burning questions/issues related to SNP's administrative history that you'd like us to cover in our interviews?
8. Is there anyone you strongly recommend we interview?
9. Anything else you would like to add?

For landowners:

1. Do you own, or have you owned land, near the SNP? How do you use your land?
2. What has been your relationship with SNP? Has it changed over time?
3. How have land deals and the expansion of SNP affected your lands?
4. Do you have grazing rights or other use rights on federal lands? If so, how have those changed over time?
5. Are you aware of any impact of invasive species, recreational use, scientific studies, and/or park maintenance on the environmental resources you share with SNP?
6. Do you have any burning questions/issues related to SNP's administrative history that you'd like us to cover in our interviews?
7. Is there anyone you strongly recommend we interview?
8. Anything else you would like to add?

For scientists:

1. What is your scientific area of expertise?
2. Please describe any ecological or archeological research you have conducted in the park.
3. How was your work administered by the SNP?
4. What have been the results of your research?
5. Did those results have any impact on SNP administration?
6. Do you have any burning questions/issues related to SNP's administrative history that you'd like us to cover in our interviews?
7. Is there anyone you strongly recommend we interview?
8. Anything else you would like to add?

For politicians:

1. What is your public title and role? How do you interact with SNP?

2. What is your opinion of SNP?
3. Do you and/or your constituents use SNP? If so, in what ways?
4. Please discuss any involvement you have had with Pima County zoning and developmental efforts, especially in relationship to SNP.
5. Do you have any burning questions/issues related to SNP's administrative history that you'd like us to cover in our interviews?
6. Is there anyone you strongly recommend we interview?
7. Anything else you would like to add?