Natural Resources and Environmental Issues

Volume 3 *Conflicts in Natural Resources Management : Integrating Social and Ecological Concerns*

Article 14

1-1-1995

Elk, the cow, the ranger, and the rolex: Urban/wildland resource management conflict at Mt. Diablo State Partk, California

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The Elk, the Cow, the Ranger, and the Rolex: Urban/Wildland Resource Management Conflict at Mt. Diablo State Park, California

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Abstract

The grazing dispute at Mt. Diablo State Park in California provides a case study for examining the dynamics of conflict over park management. It also offers a glimpse of what the future likely holds for many wildland parks in the United States. The dispute illustrates that no park is an island, either ecologically or socially. The ecological setting and the human participants in the conflict have a dynamic interaction moderated by cultural values and norms. At Mt. Diablo, cultural values and the myths that give them cohesion have encouraged the participants in the conflict to strive toward impossible and apparently irreconcilable goals for the park. Proposed solutions must offer a way to reconcile these divergent views if they are to last.

INTRODUCTION

Mt. Diablo State Park, located about twenty miles east of San Francisco Bay, has become, over the last decade, a gigantic suburban park—18,000 acres of wildland hemmed in on three sides by encroaching suburban development. As a case study for examining the dynamics of conflict over park management, the grazing dispute at Mt. Diablo provides a glimpse of what the future likely holds for many wildland parks in the United States. What is learned from studying the conflict is that no park is an island, either ecologically or socially. The ecological setting and the human participants in the conflict are deeply intertwined. The connection between the people and the Park is through cultural values. In the case of Mt. Diablo, cultural values and the myths that give them cohesion have encouraged the participants in the conflict to strive toward impossible and apparently irreconcilable goals for the park. This paper examines the roles of people, of the environment, and of cultural values in a conflict about livestock grazing at Mt. Diablo State Park.

Several questions plague planners and managers of national parks and other natural areas or reserves (Huntsinger and Fried 1993):

1. How is *natural* defined?

2. How is a changed and/or truncated ecosystem managed?

3. What is a cultural resource, and how is the pro tection of cultural and natural resources bal anced?

4. What responsibilities and relationships should a park have with local communities?

These questions challenge California's state-park-system personnel, including the managers of Mt. Diablo State Park. The answer to each question depends to some degree on the values or norms of the people answering the questions. Resource managers, trained to manage for the ecology or for the resource, often forget that they too are subject to the mediation of their own values and norms in the resource management decisions they make.

Cattle are the focus of many debates over resource management; they even played a prominent role in Harris's (1966) seminal work on culture as a buffer between people and their environment. Perhaps cattle fill this role because grazing cattle typically act as an ecological intermediary between people and environment. In resource conflicts, cattle often come to symbolize a particular type of relationship between people and nature. The Mt. Diablo conflict features the cow as a focal point in the struggle over competing visions of the Park's future. For some, the cow is the despoiler of the pristine wilderness and a symbol of human conquest and exploitation of wildlands. For those who romanticize the frontier and the cowboy, the cow is a nostalgic remnant of the Old West that shaped the American character. Perhaps most significantly for Mt. Diablo State Park, the cow, and her capacity for ingestion of raw biomass, is the heroine of those who seek a safe haven in suburbia and a congenial neighbor in nature.

MT. DIABLO STATE PARK

The 18,000-acre Park centers on Mt. Diablo itself, a 3,849-foot peak that is the northernmost extension of the Diablo Range. Because it is an isolated, distinctive peak, it was used to establish the Mt. Diablo Baseline and Meridian of the U.S. Coast and Geodetic Survey in the nineteenth century. From the summit, as much as 40,000 square miles of country are visible on a clear day, looking across the Sacramento Valley into the Sierra Nevada and north to Mt. Shasta 300 miles away (California Department of Parks and Recreation 1990). Contra Costa County, where the Park is located, has a rapidly growing population of more than 800,000 people.

The Park is managed with an island theme. Because of its position at the end of the Diablo Range and its relative isolation, the mountain is home to a diverse flora, including several endemic species. The characteristic vegetation is oak woodland, annual grasslands, and chaparral or coastal scrub. A paved road winds through the Park to the summit, and most of the 500,000 people who visit each year drive to the top, look around, and drive back down. There are, however, many hikers, bicyclists, horseback riders, campers, and wildlife or plant-life aficionados who spend time on the trails.

In the open annual grasslands and woodlands of the western slope of the mountain is a 60-acre inholding called the Diablo Ranch. The cattle raised by the owner of this ranch graze approximately 7,500 acres of the Park annually (California Department of Parks and Recreation 1990). The Diablo Ranch grazes between 300 and 570 cows year-round in the park, rotating them from pasture to pasture so that at any given time far less than 7,500 acres are being grazed. This pattern of livestock grazing is but the latest chapter in the almost 200-year grazing history of the land now designated as Mt. Diablo State Park.

PARK HISTORY

As far as is known, the original human inhabitants of the Park were Miwok Indians. In the nineteenth century, most were killed outright, died from introduced diseases, or were shipped off to Mission San José to serve as slave labor for the Spanish. About one-third of the mountain was included in an 1834 Mexican land grant known as *Arroyo de las Nueces y Bolbones*. In the years following statehood in 1850, almost all of the grant properties in this part of California became public domain or were owned by Anglo ranchers. Transfers were often due to prohibitive legal costs associated with confirming grants given by the Spanish and Mexican governments or to defaults on property taxes. Because of its outstanding natural features and scenic value, 630 acres of public domain land at Mt. Diablo's summit were set aside as a game refuge in 1921. When the state-park system was established in 1931, the refuge became a park. In the 1960s, the park system began an ambitious acquisition program, mostly carried out by purchasing adjacent ranches.

In 1979 most of the Diablo Ranch was purchased from the elderly Angel Kerley. She sold 1,600 acres to the state parks, donated 281 acres, and kept the

small inholding now known as Diablo Ranch. At the time the ranch was sold, a ten-year renewable grazing contract was signed. Some of those present at the signing and Angel Kerley's heirs argue that the intention was for grazing to continue in perpetuity as a "living resource" for future generations, as is also indicated by contemporary newspaper accounts, but there was no written agreement to this effect (Stark 1987). In 1984 as the Park continued to grow, the contract was amended to extend grazing by the permittee to new acquisitions, over time bringing the grazed acreage to the present 7,500 out of 18,000 total Park acres. There is argument over the validity of this amendment too: Park staff argue that it was made by the politically appointed park-system director without proper consultation with park-system resource management professionals.

In 1989 after public hearings, resource inventories, and the other accouterments of public-lands planning, the general plan for the Park was completed. Publication of the plan coincided with the expiration of the first ten-year grazing contract. The plan called for the removal of grazing from most of the Park. Instead of the present commercial cattle ranch, a ranch interpretive of the Spanish *rancho* period was recommended, with 100 or fewer cattle or some longhorns and with grazing restricted to less than 1,000 acres. Volunteers dressed in period costume would interpret this simulated ranch for visitors. The livestock might not be on the Park property year-round, depending on the size of the herd, and the Park would lose the revenue it received from grazing receipts, but this was judged to be well worth the expected benefits to Park ecosystems (California Department of Parks and Recreation 1990).

THE FACTS

In the debate about whether to graze at Mt. Diablo, irrefutable facts about the actual impacts of grazing on the park environment are few. The "factual" or "scientific" arguments made in the general plan for the removal of grazing were often persuasively countered by equally expert arguments in letters and hearings. Following are some examples of dueling expert arguments made about grazing impacts at Mt. Diablo:

1. Grazing encourages wildflowers by reducing grass competition and making the flowers more visible. Cattle trample and eat wildflowers.
2. Grazing causes undesirable vegetation change. Grazing suppresses poison oak.
3. Cattle eat young oak seedlings, slowing or preventing oak regeneration. Grazing reduces the grasses that compete with the seedlings and reduces the hazard of fire by preventing a buildup of dry fuel around the young oaks.
4. Cattle grazing introduces and encourages exotic grasses and weeds on the mountain. Exotic natives and invade even without livestock grazing.
5. Cattle grazing just replaces former grazing by now-absent but once-abundant tule elk. Cattle and tule elk have quite different grazing behaviors.
6. Fences are ugly and detract from the hiking experience. Fences add to landscape interest and give the Park a bucolic character.
7. Cattle grazing damages soil. Terracettes, trails that follow the contours of the hills, are one example of possible damage to the soil. Terracettes enhance water infiltration by creating level areas. Terracettes reduce water infiltration by in creasing soil compaction.
8. Grazing causes accelerated soil erosion. Roads cause most of the accelerated erosion on the mountain.
9. Ranchers have put water developments in streams, disturbing the natural hydrology. The local wildlife has come to depend on the year-round water supplies that have resulted.

In the end, Park staff writing the Mt. Diablo State Park General Plan resolved all this confusion by determining that current grazing at the Park was an "unacceptable improvement." Unacceptable improvements are described in the California park system's legislative mandates as follows: "Improvements which do not directly enhance the public's enjoyment of the natural, scenic, cultural, or ecological values of the resource, which are attractions in themselves or which are otherwise available within a reasonable distance outside the park" (California Public Resources Code, § 5019.53).

Livestock grazing was found to have some value as a cultural resource, which the state parks are mandated to protect, particularly if presented as an opportunity to interpret the Spanish period. A commercial cattle ranch, no matter how exotic or anachronistic it may seem to urban Californians, was not judged to be a cultural resource with sufficient legitimacy or to be of enough interest to Park visitors to justify grazing 7,500 acres.

The decision exceeded the expectations of groups like the Sierra Club, which had sought only to confine grazing to the 2,000 acres of the original Diablo ranch, and was much heralded in the environmentalist press. Given that Mt. Diablo is located in such a heavily urbanized—or, more accurately, suburbanized—setting, one that does not allow any possibility of arguing the economic benefits to rural

communities of continued public-lands grazing, this conflict should have been short-lived. Instead, the conflict has dragged on for years, becoming a feud that appears to have caused great damage to local feelings about the state parks. The conflict has gone to the courts, where the Park system's position was upheld, yet cattle still graze the Park. Why?

To analyze the dynamics of this conflict, and to determine how typical or atypical it might be of current and future grazing conflicts or park-management conflicts in the West, each of three components--environment, people, and culture—of a model derived from the work of Harris (1966) and others must be conidered (Figure 1). The dynamic interrelationship of ecology and social values has shaped this conflict.

cities where most earn their keep. In addition, some industrialization is taking place along the freeway corridor immediately to the west of the Park. As a result, the extensive and contiguous tracts of oak woodland, annual grassland, orchards, and farmlands that once surrounded Mt. Diablo have now been fragmented by housing and commercial developments of every description.

Homes near the Park are not cheap. Suburbanites attracted to living near Mt. Diablo pay well above $300,000 for what would be considered anywhere else a modest tract home. Even these modest homes have given way to developments that can only be described as gated communities of mansions, such as the Blackhawk development on the Park's southwestern flank. No home in Blackhawk proper sells for under $600,000.

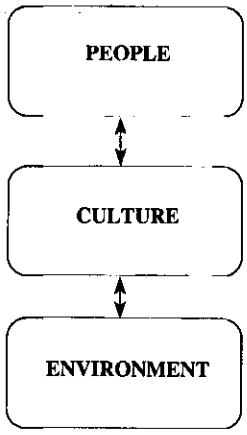

Figure 1. Culture as a buffer.

THE ENVIRONMENT

Three environmental characteristics of the park have had a major influence on the nature of the conflict. First, Mt. Diablo State Park is now indisputably at the suburban/wildland interface. Next, the ecology of the Park has been irreversibly altered and its ecosystems truncated artificially by the borders of the Park. Finally, the Park is located within the Mediterranean climate zone. This environmental setting has significantly influenced the types of people who believe they have an interest, or a right, to determine how the Park is to be managed, particularly with respect to livestock grazing.

The Suburban/Wildland Interface

In 1900 central Contra Costa County was a land of cattle ranches and extensive land use. Today the population of the County is rapidly growing, and the Park is ringed by commuter communities. The inhabitants seek a home life far from the crime and poverty in areas of Oakland, San Francisco, and other Bay Area

Changed Ecosystems

In the journal of William H. Brewer, written in the early 1860s, the former abundance of various types of wildlife at Mt. Diablo is described: "Game was once very abundant—bear in the hills, and deer, antelope, and elk like cattle, in herds. Russell said he had known a party of thirty or forty to lasso twenty-eight elk on one Sunday. All are now exterminated, but we find their horns by the hundreds" (Brewer 1966).

Largely because of the market hunting of the Gold Rush period, much of the fauna of the Mt. Diablo area was eliminated. The tule elk was once the largest herbivore on the mountain, and with the pronghorn antelope, it grazed the grasslands. The elk prefer grasses, while antelope prefer the broad-leaved herbs and deer prefer the shrubs. Today the mule deer are all that remain of this herbivore complex. The grizzly bear was once the largest predator in the area; today the coyote and an occasional mountain lion are left. The possibility that any of this fauna might be reintroduced to the park is negated by its urban setting. Feral pigs also wander the park, as do roaming packs of domestic dogs and, near housing, domestic cats.

The flora has undergone even more massive change. The grassland has been almost entirely converted from one most likely dominated by native perennial bunchgrasses, such as purple needlegrass (*Nassella pulchra*), to an annual grassland comprised of exotic species from other Mediterranean climate regions. The native species are now found concentrated in refugia of endemic soil types or with other characteristics that limit the growth of the highly competitive annual grasses or in areas excluded from grazing or cultivation since settlement or for a very long time.

The Mediterranean Climate

On a spring day, the view from the Park out to Blackhawk is of lush green hillsides dotted with luxury homes. In a wet year, the grass can average four feet high on some sites. During the summer, it is a different matter. The hillsides are brown and covered with a mat of dead annual grasses: California has a drought every year, starting in about May and running into October. A wet rainy season merely increases the amount of vegetation that will dry out in the summer. Almost all of the rainfall comes during the winter when temperatures are mild. During the hot summers, California essentially becomes a grass-drying oven. Because of this climate pattern, which is typical of Mediterranean regions throughout the world, fire is an unavoidable part of the ecology of the area.

The vegetation types in the Park have evolved with fire, and the pattern of fires that occurs can greatly affect the type of vegetation found on a particular site. While soil characteristics play an important role, the frequency and intensity of wildfire can determine whether a site is occupied by shrubs, trees, or grasses. The generalized successional models used in many areas for setting resource management objectives are not very effective in this kind of situation, where disturbance, in the form of fire pattern, is an integral part of plant-community dynamics. A highly simplified state-transition model provides a way to look at the role of fire at Mt. Diablo (Figure 2). In very general terms, the major plant communities are stable when certain patterns of fire occurrence prevail. A shift from a low-intensity fire every five years to a high-intensity fire every thirty years, however, can have profound effects.

Evidence of fire is easy to spot on the mountain. The peak's prominence no doubt makes it a magnet for lightning. Miwok Indians and nineteenth-century ranchers intentionally burned areas for a variety of reasons. The flammable nature of the mountain has had a profound effect on the dynamics of the grazing controversy.

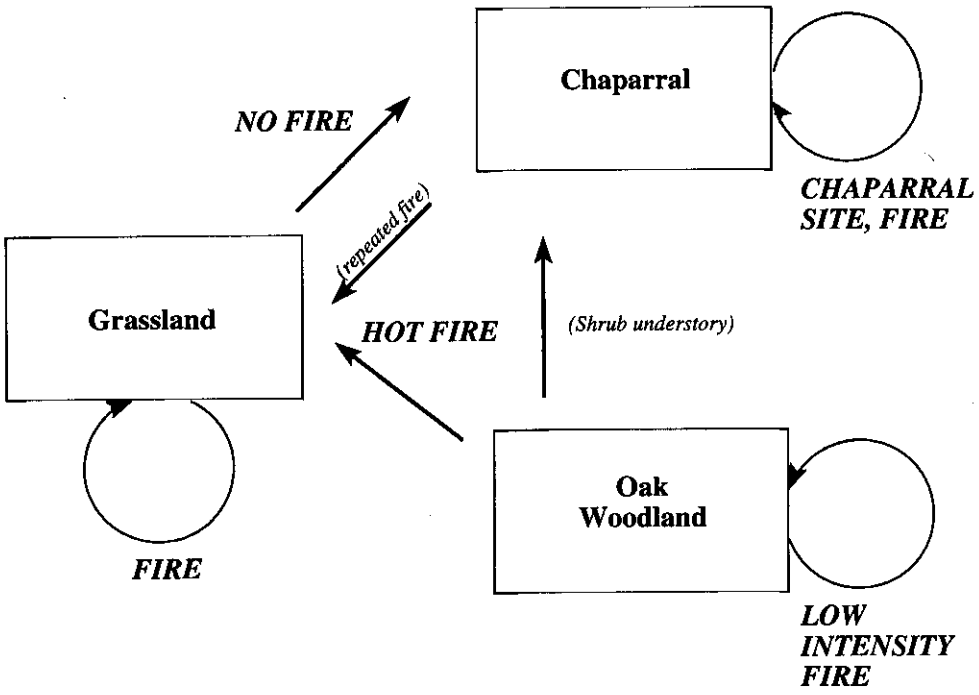

Figure 2. A state-transition model for California-coast-range vegetation and fire.

PEOPLE AND CULTURES

The environment has influenced the kinds of groups enmeshed in the battle and, in turn, the cultural biases and underlying beliefs about the appropriate human relationship with nature that have caused such conflict.

From the point of view of public-agency staff, in the archetypal public-lands grazing dispute there are two major kinds of players or stakeholders: the environmentalists and thecowboys. The Mt. Diablo case is no exception. These two groups are usually thought of as highly polarized. In a study that surveyed members of environmental groups concerned with public lands in eastern Oregon and ranchers concerned with grazing permits, more than 90 percent of the ranchers thought there was too much wilderness in the local Bureau of Land Management district, while more than 90 percent of the members of environmental groups said there was too much grazing in the district (Huntsinger and Heady 1988). At least one interpretation puts a conflicting set of mythologies at the heart of such conflict. The first myth defines pristine nature as the original, harmonious human home, one that has been all but lost due to destructive human behavior. The second myth describes pristine nature as a dangerous but potentially bountiful provider that has always needed taming to support human civilization. These underlying visions are reflected in conflicting idealizations of parks as fragments of pristine wilderness as opposed to parks as vignettes of the frontier West that shaped the independent, self-sufficient, American character.

In accordance with the first view, people ruin things when they attempt active management strategies: a hands-off approach to management is the safest course. The second viewpoint demands a human role to give meaning to an otherwise "empty" or wasted resource. For one, the cow symbolizes the taming or spoiling of perfection; for the other, the cow represents the taming or domestication of a wild and errant landscape that is the key to prosperity and human well-being.

This stereotypical view of public-lands grazing disputes is ubiquitous enough that Park staff, in the early stages of the Mt. Diablo conflict, had every reason to believe that community support, in communities of exactly the white-collar, professional people who make up the membership of the typical environmental group, would favor the decision to remove grazing. The conflict should have been a short one, with a few remnants of the local livestock industry battling the forces of State and local governments and organized environmental groups. But due to the ecological characteristics of the park, in particular the Mediterranean climate, a third group with yet another set of values is playing a great role in the dispute. This third group is the suburbanites who own homes near the Park. These suburban dwellers believe they have much at stake in how the Park is to be managed.

Buying a home in the suburbs indicates a desire not only for a landscape with more plants in it but also a desire for a safe place to raise the kids and a safe, long-term investment in a home. A survey of people who lived in suburban/wildland interface areas indicated that more than 80 percent of them chose to live in that environment because they wanted to "be near natural beauty" (Huntsinger and Fortmann 1990). Unfortunately, those who bought homes near Mt. Diablo soon discovered that they were living next to a looming, 4,000-foot-tall fire hazard. Such a hazard or risk runs counter to the cultural value put on safety by the typical suburbanite.

Fear of fire has driven the suburban neighbors of Mt. Diablo into the fray. A set of insiders, including agency staff, environmentalists, and grazing permittees, has long been the group most often involved in the typical grazing dispute and in previous parkland-use planning at Mt. Diablo. The current controversy engages the new group—the suburbanites—which believes it also has a strong interest in how the Park is managed. This group, right or wrong, believes that livestock grazing prevents or slows the spread of fire in the grasslands. Members of this group also feel more comfortable looking out their back windows into the baleful eyes of a cow rather than at a prescribed burn or herbicide spraying operation (Bates 1991). For this reason, a third set of cultural values has become a major part of the conflict. The underlying mythology of this third group is perhaps similar to the one that holds that the taming of nature was a necessary preamble to human achievement, but the emphasis is on maintaining a comfortable truce between people and nature. People who hold this point of view want nature and the Park to be a good neighbor. To them, the cow symbolizes a gentler, safer kind of landscape.

The Role of Professional Norms

Professional norms can significantly affect administrative decision-making (Fortmann 1990, Schiff 1966). The decision to remove commercial grazing from the Park was made based on Park staff interpretation of legislated state-park mandates and directives, which they believe directed them to remove grazing from the Park. The evolution of state-parks management directives as written in state legislation has followed an evolution similar to that described for the national park system (Chase 1987).

Initially, the purpose of acquiring State parks was described as simply to protect significant natural or historic features and to perpetuate their values for

future generations. Following World War II, provision of recreational facilities was recognized as an objective of the state-park system, and the system was expanded to achieve it. In 1971, a time of intense public interest in ecology, the California legislature amended the Public Resources Code (§ 5019.53) concerning the State parks to reflect the spirit of the times: "Each State park shall be managed as a composite whole in order to restore, protect, and maintain its native environmental complexes to the extent compatible with the primary purpose for which the park was established."

In the Mt. Diablo General Plan, Park staff take this institutional ideology even further, stating that not only will the Parks be managed for native environmental complexes but that natural processes will be used to accomplish this objective. This point of view illustrates a set of professional norms similar to the values of those searching for pristine wilderness in the park and advocating a hands-off management strategy. In line with this view, Park management historically has been inward facing, directed toward what goes on inside the "island" Park because the hope is to make it pristine and to insulate it from human despoilment. Land outside the Park is irrelevant because it is already spoiled by commodity production or housing. For Park staff, the cow came to symbolize human exploitation of the landscape.

The flammability of the Park makes the unrealistic nature of the Park staff's goals only too apparent. To get local fire districts to sign off on the general plan, a wildfire-management plan was developed (Maxfield 1991). The plan mandates the use of herbicides along Park roads and the maintenance of an extensive network of fuel breaks (California Department of Parks and Recreation 1987). The first spraying along the paved road was more extensive than intended and destroyed what had long been an ungrazed refuge for the park's remaining native grasses. At a public hearing on the general plan, one citizen broke into tears when describing the destruction of these stands of native grasses.

Also as part of the fire-danger mitigation plan, the Park proposes to construct and maintain annually over 100 miles of fuel breaks, twenty- to fifty-foot wide strips cleared of all vegetation, often by bulldozers (California Department of Parks and Recreation 1987). The general plan acknowledges that the planned construction of fire roads and fuel breaks makes the entire Park (which currently sports roadless areas thousands of acres in size) ineligible for any wilderness-area consideration. Prescribed burning is proposed as a substitute for directed grazing as a vegetation-management tool. However, urban air-quality issues, high costs, and perceived risks to nearby homes will make this difficult to implement.

Clearly, what happens outside a park—in this case suburban development—has profound implications for what happens and what can happen inside a park. Earlier attention to local land-use planning might have preserved more management options for Mt. Diablo, but institutional ideologies and professional norms instead supported the park-as-island concept. Unlike the U.S. Forest Service, there is no historical mandate to support local communities. In fact, there is little guidance of any kind for state-park staff seeking to chart a course in park/community relations. Mt. Diablo Park staff are now beginning work to examine what is happening outside the park and to evaluate how working with other public-land ownerships might head off further damaging conflicts and protect biodiversity and wildlife habitat in Contra Costa County on a larger scale.

CONCLUSIONS

The Mt. Diablo grazing controversy raises all of the familiar issues in park management, with new twists related to the imperatives of environment and the implications of suburban development near parks. Referring to the three-part model (Figure 1, page 70), a Mediterranean fire-adapted ecosystem influenced the types of people involved in the conflict. Most significantly, a wealthy and activist group of nearby homeowners who felt threatened by the flammability of the Park became involved. This group's involvement shifted the conflict away from the expected one of cowboy-versus-environmentalist values. In fact, livestock interests were nearly relegated to the spectator's seat as the homeowners' and environmentalists' visions of what a park should be clashed. Imagine a public hearing where a man gets out of his BMW, strides up to the podium in his Italian shoes and silk shirt, and toys with his Rolex as he attests to the wonders of cattle grazing.

No park is an island: the environment and the setting of a park, and the values of the people who feel they have a stake in decisions about park management, ultimately affect available management options. In the case of Mt. Diablo, the cow became both focal point and symbol of the different cultural values held by the participants in the conflict. Some people desire a park that is a pristine landscape, unspoiled by conspicuous indications of human use such as the grazing cow. Others see the cow as a symbol of the taming of a landscape to permit human success or as indicative of a safer, kinder, pastoral type of environment. Based on idealizations and unrealistic goals, these views are difficult to reconcile.

There is more than one common-sense solution to the difficulties faced at Mt. Diablo, but the insular

focus of the state-park system may make it difficult to arrive at such a solution. This conflict has already evolved into a feud that has significantly damaged Park/community relations. In fact, the views of all participants are based on unattainable visions: the park is not a pristine wilderness; it is not a remnant of the Old West; nor is it a safe, well-behaved neighbor. A new "negotiated" definition of what the park should be, and of how it should be managed, is needed--and an important first step is for each participant to recognize their interdependence.

There are some important lessons here. First, strong, enlightened land-use planning could have kept a grazed or cropped buffer around this Park. Second, conflicts over resources are a function both of human values and the environmental setting of the conflict. Third, conflicts over park or resource management cannot be solved by science alone. Finally, resource managers should not delude themselves into thinking that they are objective participants in such conflicts, free of values or norms that influence their decisions and perceptions. When areas are managed for ecosystem integrity, or whatever the latest buzzwords are, a particular set of values--institutional or personal--is espoused. This set of values is used to determine whose voice gets heard, and whose rights are represented, when park-management decisions are made.

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