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# Chapter 8:

# Effects of Fire on Intangible Cultural Resources: Moving Toward a Landscape Approach

Long before the Secretaries of the Departments of Agriculture and Interior signed the *Federal Wildland Fire Management Policy* in 1995, most land and resource professionals in the United States had recognized unprecedented fuel accumulations in western forests as management priorities. The *Policy*, its 2001 revision, the 2003 *Healthy Forests Restoration Act*, and the sequence of costly fire seasons that spurred these developments made it clear that fuels reduction would remain the driving issue in forest management in the United States for the foreseeable future (Franklin and Agee 2003). The central message embedded in this policy shift is that the foregoing century of fire suppression and other management practice has disrupted the balance among land, resource conditions and values, as well as the people who rely on public and Indian lands for livelihood, raw materials, and senses of place (see Karjala and Dewhurst 2003; Moseley and Toth 2004).

As the implications of enabling fire to reclaim its roles in wildland ecosystems continue to unfold, we are learning about how we value, view, and treat public lands, forests, fire, archaeological and historical sites, and associated human communities. The forest and fire management reorientation underway in the United States opens a window for looking at whether commonly applied standards and protocols for cultural resource conservation are adequate.

This chapter examines intangible cultural resources that are defined as conceptual, oral, and behavioral traditions providing the social context for artifacts and sites. Often derived from time-tested associations between ecosystems and human communities, intangibles are the fragile and often threatened or neglected linkages among geography, cultures, forests, trees, and people. Thus, intangible cultural resources warrant careful consideration in all stages of forest and heritage policy and practice, including wildland and prescribed fire and other fuels reduction programs.

## Fire Policy and Standard Practice in Cultural Resource Management

Translating fire management policy into effective and balanced practice requires detailed understanding of local and regional ecosystems (Franklin and Agee 2003) as well as associated historical and prospective human roles. Initial implementations of the 1995 *Fire Management Policy* (updated in 2001) recognized the need for better coordination and collaboration with the local communities directly affected by fire programs on public lands (http://www.nwcg.gov/branches/ppm/fpc/archives/fire_policy/index.htm, accessed March 30, 2011). By 2010, thousands of communities had completed wildfire protection plans developed in collaboration with government agencies. These plans generally emphasize short- and mid-term fuels reduction and incident management. Although there are notable exceptions in the form of in-depth consultations concerning landscape-level fire effects assessments as well as fire management planning (see Burns and others 2003), there are few indications that consultation has widely permeated protocols and practices for re-establishing or sustaining fire-land-community relations.

The lack of sustained or widespread consultation regarding local communities' uses and values of forests limits our understanding of the varied ways in which human communities relate to wildland fire and public land management. Factors affecting relationships among communities, fire, and management range from ecosystem processes, global timber markets, and national policies to fuel models, community politics, and local patterns of forest utilization (Burns and others 2003). These relationships are becoming more complicated in western North America because of diminishing commercial timber reserves, increasing fuel loads, surging human occupation in and use of forests, global climate change, and escalating claims by Native Americans to government-to-government consultation rights and other recognitions of sovereignty (Field and Jensen 2005). This interplay of people, places, politics, lands, values, dynamics, and fire is attracting attention by researchers, managers, local community advocates, and leaders throughout the world (for example, South Africa National Parks 2006; Yibarbuk and others 2001).

For cultural resources, the most immediate and apparent result of the policy shift has been a substantial increase in the number of acres slated for "clearance" (that is, project compliance with relevant statutes and regulations) in preparation for fuels reduction by prescribed burning, hand, or mechanical thinning. Relevant measures are difficult to come by, but the 2007 *Healthy Forests Report* indicates that fuels reduction treatments have been applied to more than 138,000 $km^2$ (34 million acres) from the period of 2001 through 2009 (http://www.forestsandrangelands.gov/resources/reports/documents/healthyforests/2009/FY2009HFAccomplishments.pdf, accessed March 30, 2011. Through one of the dozens of *Healthy Forests Restoration Act* subprograms, as of early 2006, one region of the U.S. Forest Service had awarded about 130 stewardship contracts for fuels reduction and other treatments on 665 $km^2$ (162,000 acres) in the southeastern United States. Plans call for the expansion of this and other HFRA programs as technologies and markets are developed to utilize the surfeit of smaller diameter trees being removed through thinning. For the foreseeable future, legions of archaeologists will be engaged in cultural resource surveys covering terrain likely to be affected by forest and fuels treatments.

What are survey teams looking for and what are we finding? More to the point, what are we failing to seek and what are we missing? There are slight variations from region to region and agency to agency, but the general protocol for addressing cultural resources threatened by land alterations have remained much the same for the last three decades: identify, document, and avoid or minimize effects. Tools for finding, recording, and limiting impacts to tangible cultural resources have become more sophisticated in the digital era (Banning 2002). Legal, ethical, and practical developments have made it clear that intangible cultural resources deserve and require consideration (UNESCO 2006; Wild and McLeod 2008). Nonetheless, on-the-ground efforts to integrate wildland fire management and the conservation of intangible cultural resources have been limited and isolated.[1] Fire policy has shifted emphatically away from knee-jerk fire suppression. Most archaeologists and many other resource professionals recognize that artifacts and built features are merely the tangible manifestations of the cultural traditions and community values that are our ultimate concerns. Standard cultural resource management practice, however, continues to equate to finding, documenting, and providing limited protection for the physical dimensions of cultural resources. In other words, the importance of intangible cultural resources and the closely related needs for in-depth consultation are, except in a few isolated instances, being either downplayed or overlooked in a rush to reduce fuel loads and accommodate other policy mandates. Most land managers have started to see the forests through the trees; however, to extend the metaphor, only a few have caught glimpses of the cultures through the sites (fig. 8-1).

[1] USFS operations in California may qualify as an exception to this general claim, but publications documenting these innovations have yet to appear.

**Figure 8-1**—Tangible cultural resource threatened by fire.

## Approach, Scope, and Goals

This chapter suggests that we can and should do a better job of considering the full range of cultural resources in fire-related management contexts and offers some suggestions in this regard. The discussion considers communities and landscapes as the sources and repositories for values that drive management decisions and social systems. Communities and landscapes, along with the specific places and associated intangible cultural resources from which we derive our distinctive and sustaining identities, are the primary cultural resources that deserve foremost management consideration.

Cultural resources, the objects, places, and traditions significant in culture and history, exist in both tangible and intangible forms. Tangible cultural resources include sites, structures, districts, artifacts, and documents associated with or representative of cultures, processes, and events. Tangible cultural resources also include plants, animals, and other environmental elements as well as physical features, such as caves, mountains, springs, forest clearings, dance grounds, village sites, and trails—particularly as these may be associated with deities, spirits, ancestors, or ceremonies. Intangible cultural resources include conceptual, oral, and behavioral traditions, most of which overlap and are interdependent. Most tangible cultural resources are finite and irreplaceable if lost or destroyed; intangible cultural resources, although often vulnerable, are produced by each generation. Intangible cultural resources may be renewed and expanded through intergenerational transmission and various forms of creative endeavor (http://www.nps.gov/dsc/d_publications/d_1_gpsd_4_ch4.htm, accessed July 21, 2010). Most or all tangible cultural resources have intangible components in the form of associations and significance; many intangible resources have tangible components.

Implicit in the above definitions, however, is the truth that many cultural resources, especially intangibles, cannot be identified, fully documented, or have their significance assessed by archaeologists or other professionals without engaging representatives of the source culture (fig. 8-2).

**Figure 8-2**—Cultural resource protection crew assigned to the Cradleboard incident command team, White Mountain Apache Tribe lands, Arizona.

Fire effects on cultural resources, tangible or intangible, may entail consequences for personal and communal identities and their spiritual health. Information exchange is clearly implicated. Sustained institutional and interpersonal relationships are an essential basis for recognizing intangible cultural resources, determining the best and most appropriate means for their conservation and, perhaps most importantly, understanding these resources both in their own terms and in terms of management implications. Traditional ecological knowledge (TEK) has justifiably attracted most of the research attention directed toward the linkages among intangible cultural resources, fire ecology, and management (Berkes and others 2000; Raish and others 2005; Turner 1999). Identifying the full spectrum of cultural resources associated with a project area and assessing the full range of effects on cultural resources potentially associated with a project or program requires knowledge available only from the culture or cultures that create, use, and maintain connections to the resources.

No systematic attempt is made here to review previous studies on this subject. The reason for this is the broad range of relevant issues and subjects including, in addition to those already mentioned, American Indian philosophy and pre-contact environmental stewardship (Pyne 1982, 1995; Williams 2000), disaster sociology (Quarantelli 1998; Stallings 2002), community forestry (Baker and Kusel 2003), cultural property law (Hutt and others 2004), etc.—and the paucity of previous research focused on how and why fire mediates ties between people and place.

Instead of attempting to survey this vast terrain of concepts, practices, and policies, the primary objective of this chapter is to offer a framework of ideas and tools for supporting constructive interaction among representatives of local and management communities—groups that care about and have distinctive, yet often

complementary perspectives on this and other land management issues. The discussion focuses on how to approach the effects of fire on intangible cultural resources by engaging local communities in identification and assessment. The ultimate goal is to enhance and expand land and fire management programs and policies respectful of and responsive to all pertinent cultural resources, as well as to the social, spiritual, scientific, economic, practical, and aesthetic values. Community consultations concerning intangible cultural resources provide an excellent point of departure for broader agency/tribe/public discussions of common goals, long-term plans, and best management practices.

## Why Consider Fire Effects on Intangible Cultural Resources?

There are at least two broad reasons for considering the full spectrum of cultural resources in the context of land and fire management: (1) statutes and regulations most familiar to the management community; and (2) common sense, ethical concerns, and human rights issues. Legal mandates, especially as they relate to the complex relationships among Federal agencies and Indian tribes, were the original impetus for including a chapter on intangible cultural resources in this volume. Numerous Federal, tribal, State, and local statutes, regulations, court decisions, and policies recognize cultural resource values and set standards for their protection. These authorities generally require the identification and assessment of cultural resource values in the course of project planning and decision making (chapters 1, 9). The procedural requirements boil down to looking (and consulting) before you leap, rather than specific protections (Zellmer 2001).

Through four decades of experience with the National Historic Preservation Act (NHPA), the National Environmental Policy Act (NEPA), and other pertinent authorities, the parties involved in Federal land modification (legislators, applicants, land managers, oversight agencies, tribes, stakeholders, and courts) have negotiated widely recognized procedural standards in order to expedite projects and program deliveries. Although there are many good reasons for the use of standard protocols, one drawback is the difficulty of effecting positive change once standardization is in place. In the case of the "identify, document, and avoid or minimize effects" protocol, the uniformity has given rise to a checklist approach to cultural resource management that generally discourages individual and organizational sensitivities to novel or complicated situations. Streamlining environmental and cultural resource compliance processes too often results in steamrolling the often cumbersome issues linked to intangible cultural resources (Welch and others 2009b).

The second reason derives from common sense, ethical concerns, and human rights issues. If these concerns seem at first beyond the scope of a NEPA analysis or NHPA compliance process, it is worth recalling Congress' explicit purpose for NEPA: "to use all practicable means and measures… to foster and promote the general welfare, to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations" (Sec. 101 [42 USC § 4331]). Similarly, NHPA's first section aptly addresses tangible cultural properties as the physical manifestations of that which NHPA was created to protect. To paraphrase NHPA's core principles (www.achp.gov/nhpa.html, accessed July 21, 2010):

- History and culture are the foundations for national spirit, direction, and orientation.
- Cultural resources deserve conservation as a vital element of living communities.
- Preservation of irreplaceable cultural heritage serves national, educational, aesthetic, scientific, and economic interests.
- Collaborative partnerships among governments at all levels, corporations, institutions, and individuals are required to expand and enhance cultural heritage conservation.

When management decisions affect cultural resources, they also affect people and local communities—sometimes in direct and damaging ways. A combination of bureaucratic expediency and market forces has redirected NHPA purposes toward a comparably sterile cultural resource management emphasis on buildings, sites, objects, and undertakings (King 1998:6-19). Nonetheless, cultural resources—especially those linked to or reflective of the spirits and vitalities of distinctive communities—deserve protection, or at a minimum, careful consideration before being burned, altered, or appropriated for new uses. NHPA was not created specifically to protect intangible cultural resources, but the view that conceptual, oral, and behavioral traditions may be disregarded in the course of government-sponsored projects and programs is similarly indefensible. Both NHPA and NEPA provide conceptual and practical foundations for collaborations to address intangible cultural resource issues and concerns (table 8-1 lists pertinent Federal authorities requiring tribal consultations in the context of land and fire management).

**Table 8-1**—Some Federal authorities requiring tribal consultation in relation to land and fire management program planning and implementation.

| Federal authorities | |
|---|---|
| Statutes and Regulations | ***National Historic Preservation Act of 1966*** |
| | (P.L. 89-665; 80 Stat. 915; 16 USC. 470; 36 CFR 800)—NHPA "Section 106" mandates Federal agency consideration of effects of projects on "historic properties" (places, structures, objects with historical significance). Requires Federal agencies to consult with potentially affected tribes on the areas of effect of undertakings, on the identification of properties, on whether an undertaking will affect a property, and on plans for avoiding or reducing adverse effects. 1992 amendments recognize rights of tribes to assume State Historic Preservation Officer (SHPO) functions for Indian lands and sites of cultural and religious significance as historic properties. |
| | ***National Environmental Policy Act of 1969*** |
| | (P.L. 91-190; 83 Stat. 852; 42 USC 4321; 40 CFR 1500, et al.)—NEPA establishes national policy for the protection and enhancement of the environment, including the preservation of "important historic, cultural, and natural aspects of our national heritage." Requires Federal agencies to communicate with tribes on the significance of the impacts of projects and programs on tribal lands and communities. NEPA is often overlooked as a viable link between project planning, the human environment, and trust responsibility. |
| | ***American Indian Religious Freedom Act of 1978*** |
| | (P.L. 95-431; 92 Stat. 469; 42 USC 1996)—AIRFA establishes federal policy for preservation of American Indian, Eskimo, Aleut, and Native Hawaiian right of freedom to believe, express, and exercise their traditional religions, including access to and use of sacred sites and objects. |
| | ***Archaeological Resources Protection Act of 1979*** |
| | (P.L. 96-95; 93 Stat. 721; 16 USC 470; 43 CFR 7.5; 25 CFR 260)—ARPA requires Federal agencies to consult with tribes that may have cultural or religious ties to a site or other resource that may be affected by issuance of an ARPA permit. |
| | ***Native American Graves Protection and Repatriation Act of 1990*** |
| | (P.L. 101-601, 25 USC. 3001)—NAGPRA requires issuance of ARPA permit for intentional excavation of cultural items from Federal or Tribal lands and Indian involvement in permit decision; Requires tribal involvement in event of inadvertent discovery of cultural items. |
| Executive Orders and Other Authorities | ***EO 13007 (5-24-96)—Indian Sacred Sites*** |
| | Requires Federal land managing agencies to "(1) accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners and (2) avoid adversely affecting the physical integrity of such sacred sites." Further requires tribal consultation on policies and implementation. |
| | ***EO 13175 (11-06-00)—Consultation and Coordination with Indian Tribal Governments*** |
| | Establishes Federal policy of Regular and meaningful consultation and collaboration with Indian tribal governments in the development of regulatory practices that affect their communities and the avoidance of imposing unfunded mandates upon tribal governments;<br>Requires Federal agencies to (1) be guided "by principles of respect for Indian tribal self-government and sovereignty, for tribal treaty and other rights, and for responsibilities that arise from the unique legal relationship between the Federal government and Indian tribes;" and (2) maintain "an effective process to permit elected officials and other representatives of Indian tribal governments to provide meaningful and timely input;" |

## Cultural Resources in Local and Management Community Context

Recognizing and understanding the diverse values embedded in and ascribed to cultural resources is a critical first step in providing for their protection and appropriate use. Putting this proposition into effect requires communication and cooperation among the individuals and communities concerned with one or a group of related cultural resources. Communities are defined here as groups of people who share interests and places. Two general community types merit distinction, definition, and discussion.

### Local Communities

Local communities are most American Indian tribes and other place-oriented groups that derive elements of their world view, identity, and value systems through long-standing and ongoing attachments to their region of current or previous occupation or use. Local communities deserve attention because of growing recognition of management guidance and other benefits derived from collaboration with those willing to share knowledge of intergenerational experience with particular ecosystems. The place-based communities most relevant to this discussion are typically enclaves with variably porous boundaries defined by legal status, ethnicity, religious orientation, or some combination. Prominent examples include tribes, Hispanic villages, and communities defined by participation in irrigation systems or religions.

### Management Communities

Management communities are clusters of offices and individuals having designated regulatory, policy, program, and trust responsibilities for ecosystems, public and Indian well-being as well as cultural resources. This community includes researchers, decision makers, and implementation and enforcement teams. Community is a useful and appropriate referent because these groups often have substantial interests—personal as well as professional—in establishing and sustaining constructive relationships both within their clusters and among people, forests, fire management, and cultural resources in specific geographical settings. Many biologists, hydrologists, archaeologists, foresters, soil scientists, enforcement officers, and decision makers develop and maintain long and deep individual associations with particular regions that complement their professional associations (Welch 2000; Nicholas and others 2007). A culture of professional stewardship is especially prominent within the U.S. National Park Service and the U.S. Forest Service. Both agencies are staffed by highly trained and skilled professionals—many of whom are following in their parents' footsteps—with profound personal attachments to public landscapes (Gartner 1999:2). These ties serve as powerful performance motivators for stewards and should not be trivialized. On the other hand, they should not be confused with the sense of place or connection experienced by American Indians and others to whom land and landscapes are inherited birthrights rather than acquired affinities.[2]

Differences in perspectives and interests frequently constitute barriers to communication and collaboration between local and management communities (Burns and others 2003). For better or worse, most communication opportunities occur in the context of management community planning driven by government program mandates and policies. The compliance checklist emphasizes quick planning and early project implementation. This expedited process may not allow sufficient time to define the full range of cultural resources or examine long-term means to safeguard their values, much less to integrate management and community interests.

Most chapters in this volume reflect the materials science approach that has dominated discussions on the effects of fire on cultural resources. The discussion here seeks to highlight prospects for transcending both the compliance and the materials science emphases. Although prioritizing consultation and collaboration holds promise, it does not, by definition, predetermine outcomes. A local community, for example, might see prospective fire effects on a sacred site or other cultural resource with crucial intangible values primarily in terms of threats to cultural traditions (Welch 1997). This perception could, depending on the values at stake, translate into preferences that fire either be excluded from the site in perpetuity or allowed to play its natural ecosystem role without regard to site contents or boundaries. Either approach would pose management challenges. Decision makers might see the issue primarily in terms of the proposed treatment's compliance checklist—what needs to be done to satisfy regulatory requirements? Researchers in the management community might view the situation as an opportunity to either learn more about the cultural traditions or, if inclined toward materials science, about the physical and chemical impacts of fire on artifacts, petroglyphs, or other site elements.

[2] Another discussion might include *issue-oriented communities* as a third community type, defining these as individuals and organizations that derive their commonality from advocacy for one or more stewardship goals or practices. Although issue communities are important stakeholders in resource management, advocacy for both preservation and consumptive use is beyond the scope of further discussion here.

Much work remains to be done if we are to balance the compliance and materials science approaches to fire effects with community-oriented efforts to manage for the full range of fire effects on the full spectrum of cultural resources. One low-cost starting point is attention to vocabulary used in communications with local communities. Bureaucratic and compliance jargon such as "undertaking," "area of potential effect," and "mitigation" impede free flow of information from non-specialists. Common binary terminology—such as: site vs. non-site, prehistory vs. history, nature vs. culture—has persisted beyond most analytic utility and also often hinders collaboration between management and local communities. These false dichotomies and their underlying concepts tend to constrain rather than enhance relationships between managers and landscapes, landscapes and local communities, descendent communities and cultural resources, etc. Any language or program that defines cultural resources independently from local communities increases the likelihood of misunderstanding and conflict (Welch and others 2009a).

It is difficult to assess the depth or breadth of this terminological issue, and many proactive fire management programs are engaging local communities to achieve in-depth understanding of cultural resource issues. Nonetheless, two extensive bibliographies of fire effects on cultural resources (Halford 2001; Rude and Jones 2001) compiled into a joint publication of the Bureau of Land Management (Halford 2001) contain no uses of or references to intangible, sacred or traditional ecological knowledge (TEK). Only one reference was made to tribal communities and two were made to traditional fire use. The point is that neither the details of agency procedures for complying with statutes and regulations, nor the degree of pitting, cracking, and spalling on pot sherds are generally of interest to local communities. At the risk of oversimplification, what local communities care most about is the continued use and enjoyment of important places. In contrast to compliance and materials science, however, project and program planning are often important to local communities. Planning initiatives provide the basis for local community outreach on issues ranging from the protection of sacred sites to individual employment prospects. Landscape concepts and consultation provide good points of departure for engaging local and management communities' interests and goals along with those of multiple stakeholders (Burns and others 2003). It bears mentioning, however, that in the absence of decision maker willingness to terminate or modify a project or program that threatens intangible cultural resources, consultation cannot be expected to either satisfy a community concerned with the protection of the resources or lay the foundations for future collaboration.

## Landscapes as Common Ground

In accord with Haecker (chaper 6), a landscape approach to fire effects provides a flexible framework for identifying and evaluating the significance of diverse cultural resources in ecological, historical, and community context. Landscapes are defined here as constellations of physical elements and symbolic associations with earth surfaces. Landscapes are culturally constructed and thus constitute one type of intangible cultural resource (Ashmore and Knapp 1999). This definition is distinct from the common use of landscape in forest and fire management planning contexts to refer simply to regions or groups of timber stands (Finney 2001). As is true for cultural resources in general, landscapes do not exist independently from local communities. In other words, without reference to historical and conceptual associations, landscape is space rather than place (Tuan 1977).

Because the identification of landscapes requires local community engagement, the landscape approach invites detailed considerations of how people have interacted with lands, plants, and animals through systems of meaning as well as through behavior and technology. Linkages among tangible cultural resources, local communities, ecosystems, and management initiatives, such as the *Wildland Fire Policy*, often seem elusive. Landscapes provide literal and figurative common ground (Zedeño and others 1997). Concepts and vocabulary underlying landscape approaches achieve greater coherence and relevance when related to local community perceptions and values. Many cultural resources are intangible, and most occupy or play roles in landscapes. A landscape approach thus provides tools for organizing and understanding intellectual and practical issues engaged by the topic of fire effects on cultural resources.

Zedeño and others (1997:126) suggest that landscapes are defined and characterized by three dimensions: formal, historical, and relational. The formal dimension is what can be seen, heard, tasted, or felt—the physical characteristics and resource properties of a landscape. The historical dimension is what has happened on and with a landscape through time—the sequential associations among places, resources, and communities. The relational dimension is what links material and conceptual realities—the social and symbolic connections that make landscapes meaningful and useful.

Thinking about landscapes in terms of formal, historical, and relational dimensions complements the more straightforward notion of landscapes as compilations of spatial-temporal-symbolic 'layers' that change through time in terms of formal and relational characteristics. This historical or developmental approach, which has become increasingly useful through geographic

information systems (GIS), seeks to identify each layer in terms of places, resources, characteristics, values, and meanings as they represent local community perceptions and interests (Corbett and others 2006). More than one layer may be required to portray a landscape for a single community having evolving interests (for example, pre-reservation vs. late 20th century formal and relational dimensions). In the context of land and fire management, geography and local community-based mapping offers the common ground required to highlight connections among resource classes, local community resource uses, and prospects and limitations for fuel treatments and other disturbances (Lewis and Sheppard 2006). If cultural resources are to endure as functional pillars of community spirit and identity, their values (religious, social, economic, educational, and management) must be recognized, incorporated into planning frameworks, and engaged in pursuit of common ground objectives (Welch and others 2009a,b).

The fact that landscapes appear to easily accommodate cultural, historical and management perspectives may also be a prospective stumbling block: landscapes are difficult to define and delimit. Although never infinite, landscapes often eschew specific boundaries. This limitation raises philosophical questions, but these are often easily, if not exhaustively addressed in landscape approaches to land and resource management. In these contexts, geographical boundaries for plans, programs and actions are rigorously defined by pre-established jurisdictional and budgetary frameworks. If potential conflicts between local community landscape definitions and management community programs can be resolved, then applied research employing landscapes to integrate resources, communities, and values contribute to landscape theory, as well as more immediate management objectives (Karjala and Dewhurst 2003).

## Beyond Compliance and Materials Science

Applying a landscape approach to cultural resource issues in fire management requires a departure from previous emphases on mitigation of fire effects on cultural resources in which effects and resources are defined primarily by the management community. Changes in laws, public opinion, and professional ethics have highlighted the inadequacies of compliance and materials sciences approaches for addressing local community concerns. The statutory and policy mandates relevant to these concerns reflect a growing responsiveness to issues raised and emphasized by American Indians and other local community representatives. Gaps are likely to persist between statutory possibilities and management realities. Regardless of where one turns for help, consultation with local community representatives remains one answer to pressing questions. Core subjects include the effects that land management programs and projects may have on cultural resources, as well as general interests in building understanding and partnerships in public land and resource management contexts.

Previous and ongoing research into the role of fire in the American West prior to the establishment of land and fire management agencies and policies has pushed fire effects on cultural resources discussion beyond the compliance and materials sciences approaches (Dods 2002). Investigations of local communities' uses of burning and accommodations to wildfire (Blackburn and Anderson 1993; Pyne 1982; Raish and others 2005) have highlighted the intimate links among cultures, landscapes, and fire. For example, according to Wukchumni scholar Hector Franco (1993:19), landscape burning was integral to the Yokuts economic and religious life: "Indian people, we talk to fire. We've learned through religious teachings that fire lives inside of us…. Fire was thought of in a very reverent manner." The abundant literature on American Indian use of fire also underscores the important point that landscapes are not today, and never have been in the past, static entities that can be preserved without major losses of resilience. Like the cultural resources they contain and sustain, the survival of many landscapes, including wilderness areas, as healthy and meaningful entities is dependent on respectful and considerate use by the communities of which they are a part.

The Sonoran Desert oases of Quitovac and Quitobaquito are good examples of complex habitats sustained by and integral to American Indian communities.

> Through burning, flood-irrigating, transplanting, and seed-sowing…O'odham families have nurtured a diversity of plant and bird species far greater than that for any areas of comparable size…. Yet after the last O'odham left Quitobaquito in the 1950s, a park superintendent decided to deepen the oasis pond, eliminate burning and irrigation for pastures and orchards, and halt any replanting of cottonwoods, willows, or other wild plants, native or non-native. As the oasis lost its dynamic nature, biologists began to notice declines in the endangered pupfish and mud turtle populations there….Whereas disturbance was once equated with threat by most conservation biologists and wilderness advocates, it is now recognized that some wild plants and animals require a certain level of exposure to fires, floods, or loosened soils (Anderson and Nabhan 1991: 29-30).

This account would be even more sobering if it included discussion of the effects of the disrupted management regime on the O'odham community for whom the oases are critical elements of group identity and history.

Careful consideration of the pre-management roles of fire in American Indian, Hispanic, and early Anglo communities is required for several reasons. First, use of fire reflects culturally based conceptions of landscapes, fire, stewardship, and of the links among them. Such conceptions must be included in management vocabularies as bases for communications with local communities and, perhaps more importantly, to afford glimpses of landscapes from distinctive, time-tested viewpoints. Second, pre-industrial use of fire has, in many world regions, profoundly shaped ecosystems, landscapes, and community and inter-community relations (table 8-2 lists uses of fire). It should not be a surprise, then, that management community restrictions on burning have angered local communities, alienated them from landscapes, and affected vegetation regimes, habitat, and other important resources. Management communities need to know the full range of factors that have shaped current conditions and must, as complements to relevant research (for example documentary, tree ring, and land use studies) consult local community representatives.

To focus and extend this line of argument, the history of Federal land management is too often a history of dividing people from places and resources critical in their material and spiritual lives. There is value in building upon many excellent examples of local-management collaborations through holistic approaches to land and resource conservation. Decision makers and researchers who think that local communities cannot be trusted stewardship partners are encouraged to review and emulate instances of community-focused efforts to sustain ecosystem health while providing for human needs (Agrawal and Gibson 1999; Berkes 2004; Coconino National Forest 1999; Maines and Bridger 1992; Netting 1993). Even where elders and cultural specialists holding location- or issue-specific knowledge or training are unavailable or unwilling to consult with management communities, local community interests are valid sources of management recommendations. The bottom line is that Federal and State lands are public lands, and we—trustees and beneficiaries alike—are obliged to seek better ways to balance, maintain, enhance, and perpetuate the diverse values embedded in these lands.

## Steps and Stumbling Blocks in Inter-Community Collaboration

Each step in a landscape-oriented approach to the identification and assessment of links between fire management and cultural resources involves, at a minimum, an exchange between local and management communities. Generalized steps in the Federal land management compliance process are outlined below in terms of opportunities to recognize interests shared by local and management communities and to engage a landscape approach for exploring common ground and reaching agreement on management issues.

Several principles that serve to facilitate and enhance communications and collaborations deserve restatement. Each local community is unique, existing in its particular place and time because of historical processes operating on distinctive cultural and geographical substrata as well as current interests and goals. For this reason and because of the often contentious history of relationships between local and management communities, there is ample potential for improved collaborations based on the specification of common interests. Community forestry studies provide examples and discussions of the needs and benefits of refocusing

**Table 8-2**—Non-domestic uses of fire in pre-industrial communities (Raish and others 2005).

| Non-domestic uses of fire |
|---|
| Clear land for agriculture fields and pastures |
| Replenish soil nutrients in agricultural fields |
| Kill woody species in rangelands and encourage grass growth |
| Increase wild seed production |
| Stimulate shoot formation – the production of straight shoots for basketry and other implements |
| Improve growth of both wild and cultivated tobacco and other plants |
| Kill and control varmints, vermin and flying insect pests |
| Drive and hunt game |
| Create diversions to facilitate raiding of or escape from enemies |
| Destroy enemies' food stores, agricultural fields, homes, hiding places |

land and resource management through attention to the interests and goals of local communities (Baker and Kusel 2003; Gibson and Koontz 1998; Henderson and Krahl 1996; Kelly and Bliss 2009; Kleymeyer 1994).

Consultation is defined here as an exchange of information and views as part of a good faith effort to reach agreement. Many specific issues associated with fire effects on cultural resources and landscape-level analyses have yet to be addressed. Stoffle (1998) provides a nine-step consultation program developed in the context of Department of Defense efforts to engage Indian tribes in processes prescribed by the Native American Graves Protection and Repatriation Act of 1990 and the executive order on Sacred Sites (13007). Burns and others (2003) offer a model for engaging diverse stakeholders, developing shared understandings, achieving a convergence of goals relating to how fire-dependent landscapes should look and function, and launching collaborations in pursuit of the goals. In November 2008, the Advisory Council on Historic Preservation (ACHP) released "Consultation with Indian Tribes in the Section 106 Review Process: A Handbook," http://www.achp.gov/regs-tribes2008.pdf (accessed August 2, 2010). This addition to NHPA guidance includes issue-by-issue interpretations as well as four summative recommendations and numerous useful suggestions. The four principal points are "Respect Is Essential; Communication Is Key; Consultation: Early and Often; Effective Meetings Are a Primary Component of Successful Consultation." The National Association of Tribal Historic Preservation Officers (2005) prepared *Tribal Consultation: Best Practices in Historic Preservation*, which provides specific approaches and tools for working with tribes within a NHPA framework. On the basis of these works and experience linked to forest and fire management, the suggestions here may be useful to representatives of management and local communities. Communication and the prospects for constructive collaboration can be enhanced by understanding and employing the following principles in consulting or otherwise interacting with local communities:

## People First

- Build trust through respectful relationships. Even in the context of government-to-government relations, consultation occurs between individuals; there is no substitute for genuine personal attention to other participants and their perspectives. On the other hand, a professional, transparent, and respectful atmosphere for consultation based on a history of mutual trust is often more important than either the individuals involved or whether communications are face-to-face (NATHPO 2005:26). Without a combination of personal and community investment, consultation is usually unsustainable.
- Establish clear and open communications with at least one duly designated representative from potentially affected or interested local communities.
- Prioritize communications with representatives of those communities most affected by the project or program. In an ideal world, these will be the representatives most interested in and well informed about the consultation topic.
- Empower representatives to help set the definitions, priorities, times, places, media, and agenda for consultations. Document information for circulation to all consulting parties with a request for assistance in assuring that the record is faithful to the proceedings.
- Designate at least one individual who is not an official community representative to serve as the official keeper of consultation records and notes.

## One Local Community at a Time

- Recognize commonalities and divergences among local communities and consider employing these to structure consultation processes.
- Make it possible for representatives of distinctive communities to have the exclusive attention of researchers and decision makers. Provide equal time for each local community in such settings.
- Avoid use of one community representative to assess or address issues of potential interest to a second, separate community.
- Avoid pursuit or engagement of multiple points of contact in order to identify individuals or organizations more likely to provide sensitive or accommodating information. It is reasonable to expect, encourage, and even insist upon a single official position on a particular issue from each involved community.

## Deal Face Up

- In advance of face-to-face consultation, identify and respect the authorities, responsibilities, and goals of those participating in the communications. Avoid face-to-face meetings prior to the disclosure of the purpose and scope of the consultation, including policy and schedule mandates or limitations.
- Establish a respectful, but rigorous mutual understanding of mandates and prerogatives associated with the consultation process and likely outcomes. Acknowledge the costs associated with consultation and collaborate on means to reduce and share the financial and time commitments.

- Facilitate stakeholder access to all data being engaged in the decision process and in understanding the full range of issues and values at stake.
- Avoid the creation of any obligation on the part of stakeholders to assume agency duties or responsibilities without compensation, or to otherwise participate in the interactions if they are not ready or willing to do so.
- Provide for the appropriate acknowledgement—typically from the head of the agency—for any individual or community that assumes duties that contribute to the achievement of management community goals or mandates.

### The Sooner the Better

- Engage stakeholders as early as possible in project planning or decision making. Avoid eleventh hour notifications and short time frame response deadlines.
- Request local community representatives' assistance in establishing procedural time lines and in anticipating likely contingencies.
- If the consultation requires additional time and a schedule extension is a possibility, collaborate in developing a new consensus-based schedule.
- Until consultation is completed, make sure that all parties are aware of the schedule for the next steps and of what actions will facilitate these steps.

### Go to the Source

- Create opportunities for stakeholders to provide first-hand accounts of the cultural resources they care about, especially through the definition and description of landscapes. Knowledgeable leaders or technical specialists should be engaged as full partners or hired to assist in meeting the responsibilities of management communities in relation to large, complicated, or controversial programs or activities.
- Visits to project areas and other landscapes are useful contexts for consultation.
- Avoid privileging publications, experts not recognized by the local community, and stereotypes about the local community over group memory, self-perception, and self-representation.
- Get help as necessary, through training in cultural sensitivity or conflict resolution. If mistrust or conflict persists to the point of impeding communications, consider changing the focus of a consultation to procedural matters, such as the use of a professional facilitator or dispute mediator known or acceptable to the local communities.

### Respect Tribal Sovereignty

- Recognize tribes' rights and privileges, recognized statutes, court decisions, and executive orders.
- Acknowledge Federal trust responsibility for the welfare and advancement of individual Indians and Federally recognized tribes. Federal agencies do not have special fiduciary responsibilities to State-designated tribes.
- Honor tribal requests for government-to-government communications. A tribe's elected leadership may designate its representation and insist upon documented delegations of authority from the head of the management or program agency. A Federal agency designee may, in turn, request documentation for the delegation of authority from the tribe's governing authority.
- Consider the benefits of developing memoranda of understanding or other agreements to guide consultations.

The adoption and application of these principles entails substantial investments in communications. Available resources may be inadequate, and any limiting factors should be disclosed to the consulting parties. On the other hand, such communication promises to provide significant and largely unprecedented benefits to those contributing to the dialogues, as well as to the ecosystems potentially affected by proposed programs or actions. Experience and study of consultation appears to be converging on the general formula that respect leads to trust, trust to collaboration, collaboration to success, and success to additional success (NATHPO 2005; Welch and others 2009b).

## Summary and Recommendations

Approaching intangible conceptual, oral, and behavioral traditions as cultural resources requires open and sustained consultations between land managers and local communities having substantial experience with the lands under management. Proper consultation can facilitate identification of a full spectrum of values and their associated cultural resources, thus enabling the definition of landscapes and the assessment of fire effects on regional, site, and artifact levels. The broader and deeper understanding produced by consultation of this sort—perhaps in conjunction with participatory GIS or other forms of community mapping—promises to improve the planning basis for the conservation and treatment of forests and woodlands where fire plays a role.

Although much of this chapter may read like an ambitious recommendation, the following ten points

summarize the discussion and offer specific guidance for addressing the effects of wildland fire on intangible cultural resources.

1. Unlike wildland fire, which exists independently from humans, intangible cultural resources attain definition and value only through and with groups that rely on them. The alteration or loss of cultural resources—whether through fire or another agent—can have profound and deleterious effects on the resources themselves, as well as on groups and individuals deriving elements of their identities and senses of place from these resources. It bears mention that many local communities regard wildfire effects on cultural resources as "natural" and often even preferable in comparison to prescribed burning or other management actions or land alterations. This perspective acknowledges fire as a powerful planetary element that demands respect and, in many instances, deference. Human endeavors and institutions, especially management communities, seldom receive comparable deference from local communities.
2. A landscape approach offers potent and flexible means for consultation, research, and planning in the broad context of fire effects. Applicable in both planning and post-fire incident scenarios, the landscape approach is intended to foster broadened, community-oriented consultation concerning the conservation of cultural resources in the context of public land management in general and fire and fuels management in particular (see Field and Jensen 2005). Management communities should make the most of landscapes and other common ground with local communities. The land and its health provide excellent points of departure and goals for stewardship collaborations. One visionary collaborative model involves local communities reclaiming their intrinsic roles as creators and sustainers of cultural resources; research communities gathering information to assess ideas and provide new perspectives; governance communities of decision makers working for the long-term interests of their constituents; and land managers serving liaison roles by fostering beneficial ties among these communities and the ecosystems that are the ultimate source of our health, wealth, and happiness (Kelly and Bliss 2009).
3. Federal land managers' statutory, regulatory and trust obligations are generally met and exceeded by a common sense, good neighbor policy of communication and collaboration concerning the consideration of the full range of cultural resources and potential effects in the course of planning for programs and projects (for example, forest management plans, prescribed burn plans, best management practices for fire suppression, etc.). Additional guidance concerning landscape-level approaches to the identification and consideration of cultural resources is available in National Register Bulletins 30 (*Guidelines for Evaluating and Documenting Rural Historic Landscapes*) and 38 (*Guidelines for Evaluating and Documenting Traditional Cultural Properties*).
4. Decision makers and researchers should embrace opportunities to serve local communities in addition to scientific truths or management objectives. Many of the sacrosanct and vitalizing practices and meanings that once bound people to their lands and to one another have been lost or degraded as local communities have been obliged to interact with their lands according to alien and alienating rules and concepts imposed by management communities. Approaching fire effects on cultural resources through emphasis on either compliance checklists or materials science typically results in self-limiting perspectives, criticism from local communities, and heightened potential for conflict. The results of this alienation, coupled with global climate change, continental-scale pest problems, and ever-increasing population pressure, are seen in the widespread disintegration of ecosystems, local communities and links among them. Local communities and landscapes deserve consideration as management priorities.
5. Wildland fires often create unique opportunities in cultural resource science, management, conservation, and inter-community collaboration. These opportunities are typically short-lived, as fire and its indirect effects often elevate and escalate the potential for vandalism and theft, watershed destabilization and loss due to rehabilitation activity. In general, the more recently created or used the cultural resource, the greater the potential effects that fire may have on the resource. This is true both because a more recently created or used site is more likely to contain fire-sensitive items and features and because such a site is more likely to be valued—in its immediate post-use or pre-fire condition—by individuals and communities. This is not to suggest that truly ancient sites are disrespected by local communities or should be disregarded by managers.
6. The embeddedness of cultural resources in landscapes is true both literally and figuratively. Tangible cultural resources are very often located within, and sometimes fully encapsulated by, soil systems. Soil systems are components of watersheds, and watersheds are almost invariably affected by post-fire processes involving sediment relocations. Activities associated with wildland

fire suppression, especially heavy equipment operations, often have direct, indirect and cumulative effects on cultural resources, the consequences of which too often include additional alienation between places, people, and the cultural resources that connect them.

7. There is value and unrealized potential in integrative consultations and studies focused on particular landscapes and ecosystems. Especially encouraging are efforts to connect or re-connect local communities to historical and management issues through research, education and outreach efforts focused on fire history, ecology, and management, as well as community response to catastrophe. Research has been completed on the use of fire by local communities, and this line of inquiry should be expanded to examine the impacts of fire on local history and culture.
8. Local and descendent community connections to cultural resources should be fostered and conserved for their intrinsic value, as well as for prospective management applications. It is arguable that local communities and the intangibles that give them identity and vitality are more important than the artifacts and features that many of us think of as cultural resources. Local communities are often endangered and require support and conservation. Without people who care about and sustain cultural resources—including landscapes—managers and researchers are concerned with the relatively sterile enterprises of minimalist compliance, materials science, and management driven by either internal value systems or second-hand interpretations of local community interests and public values. The inclusion of local communities and other stakeholders as partners in public land and fire management opens the door to a search for understanding and truths regarding the critically important relationships among landscapes, history, culture, and management.
9. As one means for integrating practical and legal mandates, fiduciary principles espoused by institutional and financial trustees offer a guide for expanding considerations of fire effects on cultural resources beyond basic management and pro forma compliance, toward true stewardship. All employees of public land management agencies share the burden of upholding the public trust, the doctrine of fiduciary responsibility for the maintenance and improvement of the terrain and resources under their control (Dunning 2003). In addition to general duties as public trustees, all U.S. Federal officials share specific fiduciary responsibility for the welfare of American Indians (Chambers 1975; Welch and others 2009b). American Indian communities and individuals often depend on land-linked cultural heritage for everything from raw materials required for religious practices to the foundations of group identity and moral guidance (Basso 1996; Friedlander and Pinyan 1980). This truth also applies to most place-based non-American Indian communities.
10. NEPA, NHPA, and fiduciary principles converge on the mandate for public land managers to harmonize their programs with local interests and long-term ecosystem health. One criterion for assessing land management is the degree to which policies and practices strengthen land-linked communities and enhance their ties to lands and other resources. A second criterion is the degree to which a management policy or practice results in the maintenance or enhancement of the value of lands as trust assets, as evaluated by the beneficiaries. Fiduciary obligations to the public at large and American Indians in particular suggest the need for long-range planning and the identification and evaluation of all significant cultural resources potentially affected by management decisions and actions. There are, of course, many regional and agency interpretations of what these obligations mean, and it is useful for practitioners to understand both legislative intent and the political and bureaucratic forces that have shaped actual practice.

## Concluding Thoughts

Fire is a unique and powerful element of the Universe, existing as both tool and symbol in all cultures. Given our interests in understanding the world, protecting ourselves, and harnessing fire, the enduring fascination with fire is little wonder. Nonetheless, in the face of countless lessons learned about fire's destructive force, and innumerable billions spent on subjugation crusades, fire continues to defy mastery. Fire thus serves as a catalyst for change and a sometimes cataclysmic reminder to local and management communities of the mandate to seek harmony with ecosystem processes. Many local communities have heeded this reminder, incorporated fire's lessons into cultural resources, and embedded themselves in fire-dependent landscapes and ecosystems since time immemorial. Management community representatives and researchers are urged to consider the benefits of protecting local communities and their landscapes as cultural resources. Once people and the places they care most about are safe, the possibilities increase for learning what lessons they may offer concerning ecosystem disturbance, resilience, and balance, as well as the consequences when these are disregarded or exceeded.