



Presented Papers

Community Needs

(What are the problems?)

Community Fragmentation: Implications for Future Wildfire Management'

Robert G. Lee²

Abstract: Two meanings of human community compete for public attention: (1) community as a sense of belonging to a particular social group within a society, and (2) community as a global ideal consisting of political expression, religious fulfillment, and/or harmony with the world at large. The latter meaning has become increasingly prevalent as we approach the year 2000. This idealistic sense of community is represented in the Clementian theory of ecological succession that formed traditional fire suppression practices. Modern fire management, as practiced by the Forest Service, U.S. Department of Agriculture, is a very recent attempt to substitute rational fire management and particularistic thought for fire suppression practices motivated by such unrealistic ideals. There are signs that rational fire management, as legitimated by responsiveness to particular social groups, is competing with the pursuit of an ideal of a self-regulating natural world--where a "natural harmony" is produced by cycles of disturbance uninfluenced by human volition. Such "millennial fire management" substitutes idealism and aristocratic suffrage of fire scientists for particularistic social and political processes used to identify fire management objectives. Will the year 2000 bring the return of fire to the "Act of God"--even though it is a god whose design for natural ecosystems is revealed by scientists?

"Wildland Fire 2000" is a theme pregnant with meaning for a sociologist. The celebration of a 1000 year anniversary takes for granted the parochial origins of our calendar and invests the arrival of a given year with extraordinary significance. Despite our pretense of rationality, the year 2000 suggests to many the coming of transformation--even a millennium, "a period of great happiness or perfect government or freedom from imperfections in human existence." (Websters) The phoenix--the logo for this conference--symbolizes this expectation of transformation; like the setting and rising of the sun, life will rise again from the fires of destruction.

Reflections on this theme released a stream of images that tell a story fundamental to contemporary fire science and management. But contrary to most stories, after an extensive preface, this tale opens with the present strivings to anticipate a future beyond the wall of the year 2000, and then proceeds to reconstruct in reverse order the historical sequence of events that gave rise to the present. Reversal of this story is especially revealing because the meaning of present and future events is to be discovered in the continuity of past beliefs and practices. Moreover, those similarly disinclined to accept linear concepts of progress may, along with T.S. Eliot, discover that

. . . the end of all our exploring
Will be to arrive where we started
And know the place for the first time.

My principal device for discovering the future of wildland fire management in the past is to review the sociological origins of applied ecological thought. Emphasis will be placed on review rather than research because the sociology of ecological knowledge has been examined by others far more skilled in historical scholarship (see especially Tobey 1981, Schiff 1966, and Schiff 1962). Remarks

¹Presented at the Symposium on Wildland Fire 2000, April 27-30, 1987, South Lake Tahoe, California.

²Professor and Chair, Division of Forest Resource Management. College of Forest Resources, University of Washington, Seattle.

will be limited to summarizing past work, interpreting modern fire management in light of accumulated work, and suggesting fruitful directions for future research.

PRELIMINARIES: IBSEN'S "LIFE'S-LIE"

There is little novelty to the idea that the structure of human communities influences how people think about the behavior of the natural world. But we find it easier to see where we have been than where we are now or where we are going. The sociological origins of Clementian ecology are clear to modern observers who take the time to examine the social and ideological origins of this pioneering school of ecological thought (Tobey 1981). We find it relatively easy to assert that Frederick Clements' theories were affected by his social circumstances. Yet is is generally unthinkable--and an affront to our pride in rationality--that our current ecological theories and practices may reflect our social circumstances. Somehow each generation of scientists believes that enduring truths are in sight, if not already in their grasp. How comfortable we are to have replaced the fanciful pursuit of fire control with the certainties of rational fire management!

But is our sense of pride and self-assurance only possible because we have been successful in imposing a convincing system of thought on a turbulent flow of events? Is it simply another form of self-deception to act as an agent for nature by purposely imposing "disturbance events" as surrogates for wildfires? I will discuss this possibility below, and mention it here to illustrate how we attempt to simplify the diversity and complexity of the world around us by abstracting selected elements of our experience. At one point in human history fire is an alien, destructive force, yet only a few years later it is the agent for regeneration and perpetuation of natural systems.

All systems of thought necessarily focus on some things and ignore others, and can only be maintained by denying the reality of experiences that contradict commonly accepted understanding of what is happening (Bailey 1983). Since simplification is necessary for all thinking, we cannot avoid disregarding some experiences in favor of others. This is contrary to our common sense, which tells us that our actions always conform to cultural patterns and rational explanations. Bailey (1983) cites Ibsen's Wild Duck as poignant illustration of the

inevitability of inhabiting a make-believe world in which we pretend reality takes a form we secretly or unconsciously know it does not take. Ibsen referred to this common-sense pretense as "life's lie," and suggested its abrupt revelation yields only a nihilistic hell.

Few contemporary scientists would disagree that the history of wildfire control in North America involved denying our experiences of the beneficial functions of fire as a natural process. Schiff's (1962) masterful critique of wildfire research in the Forest Service, U.S. Department of Agriculture, interprets the fire researchers' own "life's lie"; following from Clements, fire was conceived as an alien, disruptive event that interrupted the progressive development of vegetation toward a stable climax.

Yet are we any less likely to deny our experience than was Frederick Clements and his followers in the Forest Service? Do we share a "life's lie"? And how do we reveal our denials of experience without falling into the hellish pit Ibsen forced us to confront in the final act of Wild Duck? Answers to these questions will help us transcend the present enough to understand how the future is contained in the past. We certainly can't see through the wall we have imposed by emphasizing the year 2000 without becoming more conscious of our make-believe worlds. And perhaps we will even discover that the "future" is, like all simplifications, a myth we invent to satisfy an urgent need to understand what is going on in the present.

My vantage point for viewing our future approach to wildfire is to review what is known about forms of human community in the present and past with the purpose of anticipating the future. The last section of this paper will be devoted to a discussion of the relationship between changes in human community and systems of ecological thought that guide wildfire policy. Particular attention will be given to the implications of contemporary fragmentation in the national sense of community. However, this discussion will be prefaced by a methodological note on how denials of reality embedded in conventional wisdom can be revealed constructively.

THE POLITICS OF REVELATION

When as an undergraduate forestry student I first began to study the history of wildfire control in the United States, I presumed that the leaders of the Forest Service and other land management agencies naively believed in a Clementian crusade of "fire exclusion." The "Ten-a.m. Policy"³ for containment along with the unwavering commitment to limit the number of fires and acreage burned, suggested a resolve rooted in a missionary zeal to rid forest and other wildlands of the chaotic disturbances originating in "demon fire." Fire prevention propaganda from the 1920's to the 1960's emphasized fire as a destructive agent. This system of thought contradicted the experience of wildfire I had acquired while growing up in a fire-prone northern California community.

Only later did I realize the diversity of scientific opinion that obtained in land management agencies, and appreciate that early in this century agency leaders had begun to discuss the limitations of aggressive fire control policies informed by Clementian ecology (Schiff 1962). What appeared to outsiders to be monolithic opinion and commitment was increasingly a willful effort to construct and maintain explanations for wildfire that would enable their advocates to protect the integrity of their organizations and to maintain a political advantage. Knowledge, at first suppressed into the unconscious to protect "life's lie." must be contained by deliberate falsification (denial) when its eventual emergence threatens to undermine the superior position of an individual or organization (Bailey 1983). The politics of knowledge regarding wildfire was central in motivating me to study sociology and has remained a compelling interest.

³What is termed the "First Work Period" or "Ten-a.m. Policy" was developed to help dispatchers and fire managers determine the strength of attack that they should make on a forest fire to insure control regardless of economic considerations. The aim was to achieve control before the beginning of the next day's burning period--generally around 10 a.m. Failing this, action was taken to dispatch sufficient force to control the fire before the advent of the burning period of the following day.

Unlike Europeans. Americans, especially the honest, down-to-earth folk that tend to become foresters, are abhorred by the idea that denial of reality is a necessary part of everyday experience. Foresters who work for private industry have preferred to deny the contradictions expressed when defenders of free enterprise and unconstrained market processes seek government intervention and regulation when they can benefit from it. And only recently have government agency foresters begun to reveal the extent of their denial and, like their kin in the ministry, cultivated "cynical knowledge" to manage the contradictions inherent in institutionally transmitted belief systems. Goldner. Ritti and Ference (1977:539) use this term to "describe the understanding by members of an organization that presumably altruistic procedures or actions of that organization actually serve the purposes of maintaining the legitimacy of existing authority or preserving institutional structure."

A distinction between overt and covert knowledge (Bailey 1983), with skillful management of the latter by institutional gatekeepers, is as commonplace in land management agencies as in businesses, families and other ongoing forms of social organization. "Airing the dirty linen" or disclosing "skeletons in the closet" are met with reactions ranging from degradation rituals to loss of group membership through expulsion.

Control over covert knowledge is essential for maintaining group integrity and protecting opportunities to exercise power. Specialized knowledge, especially if clouded in technical jargon, or reports of extraordinary experience, tend to elicit deference from the unknowing. Phophets and futurists (and, in the Forest Service, econometricians responsible for FORPLAN) rely on such deferential behavior to legitimate their pronouncements. They are sometimes lucky, or influential enough to stimulate self-fulfilling prophesies, "proving" they are gifted with divine insight or exceptional sensitivity to hidden forces at work in society. But there is also another important way that the politics of revelation relates to the future.

A free society is characterized by the widely held norm that people have a "right to know." The responsibility for revealing covert knowledge has generally been assumed by the press. But increasingly, the public has itself taken an active part in revealing covert agency

agendas through participating in planning processes. The National Forest planning process is clearly the most ambitious effort ever undertaken to respond to the interests of a wide variety of publics. When successful, forest plans become "social contracts" for inventing a future to be shared by the Forest Service and interested parties in society (Shannon. In press).

Laws and regulations guiding the national forest planning process provide citizens the opportunity to participate in the construction of agendas for future forest management. Although Forest Service officers retain ultimate decisionmaking authority, power is dispersed among citizen groups that exercise their right to know both what government agents are intending to do, how they will do it, and why these actions are justified. The most significant result of forest planning has been to reveal covert knowledge. Forest management decisions are now far more open to public inspection, democratic debate and compromise. A democratic, socially responsive planning process does not eliminate covert knowledge. It simply helps reveal any hidden agendas of management agencies without requiring competing interest groups to reveal their hidden agendas.

Democratization of national forest planning provides at least a partial answer to Ibsen's dilemma of how we can reveal our denials without suffering excessive cultural shock. Although many wounded Forest Service veterans might disagree, socially responsive planning has provided a compelling rationale for openly admitting imperfect knowledge and inviting a multitude of perspectives on how forest should be managed. Power sharing accompanies the admission of ignorance as well as the sharing of knowledge.

The Forest Service's attempt to conduct a socially responsive planning process, however, is contradicted by its simultaneous adoption of FORPLAN, a complex linear programming technique for rationally scheduling the production of forest goods and services. Since this technique uses a computer model to translate social values into economic measures that can be weighed for purposes of prescribing action, it inevitably necessitates the denial of experiences shared by interested publics. Even beyond the computer simulation technician's attempt to maintain the integrity of the "system" in the face of public criticism, willful manipulation of the assignment of economic values to predetermine

allocation decisions has been a common practice of institutional gatekeepers--especially by the Reagan administration.

An understanding of the planning processes is essential for anticipating how the future emerges from the present. Such understanding will enable us to anticipate who is likely to be in positions to invent the future. Additional understanding of how ecological knowledge mirrors changing patterns of human community will help us to anticipate the direction in which these inventors of the future are likely to direct their thinking.

SOCIOLOGY OF ECOLOGICAL KNOWLEDGE

Ideals and Particularity in American Community

A commitment to an idealistic sense of national community is perhaps the principal reason Americans find it so difficult to accept the contradictions of daily life--including its inevitable denials of reality. National identity and political coherence stem largely from our Revolution and its institutional expressions rather than from common experience and social homogeneity (Frisch 1976). The latter bases of national solidarity, so important to the European nations to which we most often compare ourselves, have not connected individuals, groups, and the larger American society in an integrated whole. Social and political turbulence accompanied the settlement of a vast continent, waves of immigrants from diverse cultures, rapid geographic and social mobility, industrialization, and a bitter Civil War that brought industrialization to the entire nation. Americans have idealistically denied the reality of social differences, the particular groupings and identities that have given American society its richness and variety. We have until lately overlooked the reality of ethnicity, race, class, gender, and other forms of contiguity that are central to identification with particular communities.

The traditional American farming community, with the family and church at its center, has survived as a national ideal--enshrined in a make-believe world of sturdy yeoman farmers who constitute the "backbone of democracy." The fact that the traditional rural American communities are now almost nonexistent, and never exhibited the stability and endurance of their counterparts in other nations, has almost

been swept from our national consciousness by our enthusiastic pursuit of ideals.

Consequently, we today find ourselves in a dilemma not unlike that faced by other revolutionary societies. Common identity, political coherence, and sense of contiguity are tied to the pursuit of political ideas and their institutional expressions. The Reagan administration was initially enormously successful in developing public support because it understood how ideological symbols serve as the source of our national community. The American Dream and the American Way are inspiring, powerful, and creative political ideals, both at home and abroad. Yet these ideals are also dangerous, delusive and destructive, since they deny the reality of an increasingly heterogeneous society with tremendous disparities of wealth, power, status, and cultural legitimacy.

Blind pursuit of our ideals has led us to blunder into wars where we destroy people in attempts to save them, school integration programs where we produce residential separation of the races in attempts to achieve racial balance, and social welfare policies where we institutionalize dependency on the state in attempts to make people more self-reliant. The law of unintended consequences haunts all who seek community in the global ideals of revolutionary transformation! Surely we are free from such self-deception in our attempts to control wildfire.

The tension between the pursuit of ideals and the realities of everyday living is as much a part of contemporary fire management as it is of war, racial integration, and social welfare. We already know how we conspired to deny the beneficial natural processes in our forest by attempting to control wildfire (Schiff 1962). But our pursuit of ideals continues uninterrupted. Two poles of community--idealism and social particularity--underlie contrasting fire policies and the biological theories that inform these policies. These two types of community are presently differentially expressed by two leading federal land management agencies. The National Park Service. U.S. Department of the Interior has leaned toward pursuit of an ideal "natural" ecosystem in which fire takes a course unconstrained by human intervention. In contrast, the Forest Service has, through its forest planning process, attempted to become more responsive to particular groups, interests, and communities.

A comparison of these two expressions of community will help us to understand both how applied ecological thought has stemmed from social circumstances and where changes in the American community are likely to lead fire management in the future.

Contemporary Fire Management Issues

"Natural" Fire as a Ideal

To illustrate the persistent influence of idealism on our response to wildfire, I will focus on the National Park Service's attempt to reintroduce "natural" fire regimes into Sequoia-Kings Canyon National Park. Current National Park Service fire policy is permissive. Individual park units may develop approaches to managing wildfire that suit the park's objectives for perpetuating natural ecosystems and natural or cultural features. Sequoia-Kings Canyon has for over a decade been experimenting with prescribed burning in sequoia groves in an attempt to learn how to perpetuate these majestic giants. However, park scientists have recently proposed a change in their fire management policy (Christensen and others 1987). Rather than attempting to reproduce the low intensity ground fires described by early explorers, and attributed even earlier to the activities of Indians, Park Service scientists are considering the possibility of letting wildfire play a far more dynamic role in the sequoia ecosystem. Less frequent, more intense, and more destructive wildfire would be allowed so as to reproduce the "natural processes" that obtained prior to either European or Amerindian civilizations. Restoring fire to its "natural" role is expected to heavily char if not kill patches of large sequoias, as well as more shade tolerant species in the understory. This will create openings favoring widespread natural reproduction of sequoia.

The primary biological goal of this new policy would be to reintroduce the "natural" disturbances that were thought to occur before human occupancy. Expression of this alternative ignores the tremendous uncertainty regarding past fire frequency, intensity and effects--with the impossibility of ever knowing enough about past climate and vegetation to mimic "nature" (Brubaker 1987), to say nothing of influences from contemporary "unnatural." irreversible atmospheric changes in the biosphere. Because of its unusual emphasis on "natural process," this proposal offers an outcropping from which

to interpret underlying social and cultural structure.

The pursuit of "nature," uninfluenced by human activity, is an idealistic expression of national community that predates our Revolution. In its earliest expression, humans were included in "nature," and what was sought by American colonist in our venture "into the wilderness," was a kingdom where human sin and wickedness were left behind (Bellah 1975). The boundary of this national community has shrunk, now including only those who understand and respect "nature" well enough to serve in her sanctuaries as priests or their acolytes. Yet, like all such idealistic communities, its sustenance is drawn from the hope or expectation of a period of great harmony (including "natural" harmony) and freedom from human greed, avarice, and competitiveness--in short, a millennium. And, correspondingly, it must aggressively defend itself against the realities that are inconsistent with these ideals by denying both the arbitrary secular religious origin of its vision and the impracticalities of its implementation.

Although the National Park Service goal of "natural process" incorporates a role for periodic catastrophe unacceptable to earlier Clementian ecologists, it stems from the tradition of idealism and management elitism that informed earlier ecological doctrine. A brief historical review of this doctrine will illustrate both the continuity in ecological thought and its sociological roots.

Clementian ecology grew out of a long tradition of Germanic idealism in which organismic functioning was imputed to supra-individual entities such as "society" or "nature." It was assumed that stability in such "organisms" was a natural product of equilibrium-seeking processes (Schiff 1966). Clements was most immediately influenced by social science idealists such as Roscoe Pound, and two sociologists, Herbert Spencer and Lester Frank Ward (Tobey 1981). Clements drew upon Ward's terminology for an organism-like society to describe ecological processes, and imputed ontological status to vegetative associations--vegetative "formations." A stable climax was assumed to inevitably dominate the "natural landscape" (Schiff 1966). All successional stages leading up to this climax were "imperfections" in the natural order.

But to fully understand Clementian doctrine, we must look for its roots in society. Its American intellectual origin was in "the genteel tradition" of the late nineteenth-century middle class. "Idealism" was defined by a belief in the "existence of nonmaterial or nonnaturalistic standards of quality, such as beauty, independent of human mind but recognized only intellectually" (Tobey 1981:32). Two of its primary spokesmen were Alexander Agassiz, a zoologist and engineer at Harvard University and Joseph Le Conte, famed University of California geologist. Their ideas were essential for understanding the continuity of thought found in fire management.

According to Tobey (1981), Agassiz rejected Darwin and advocated a catastrophe theory to explain the origin of the earth and its life forms. Geologic history was seen as a "succession of paleontological forms" interrupted by catastrophes that destroyed flora or fauna, with the deity creating life anew at the beginning of each epoch. (Echoes of the phoenix!) However, Le Conte adopted a gradualist view of God's creation, with emphasis on the process of divine creation rather than the act. For both Agassiz and Le Conte supernatural "ideals" were to be discovered through their manifestations in nature. (Now we have found company for the romantic idealism of John Muir and his reflections of the divine spirit in nature.)

But we have also discovered historical parallels, if not antecedents, for an emphasis on "natural processes" in national park management. After years of struggling to contain wildfire in the realm of reason and science, it appears to have escaped to again become an "act-of-God"--even though the toy of a playful God whose wrath has been tamed by a Marana course in anger management! I urge you to study the rational, scientific justification for a possible policy change at Sequoia-Kings Canyon National Park before dismissing my interpretation as the hallucinations of a demented sociologist. You will find that belief and its accompanying denials are far more prevalent than scientific proof.

This legacy of idealism has found continuing expression in a tradition of public land management in which scientifically trained experts planned society. The natural environment, like society, was perceived in terms of the people as a whole, not particular groups, classes or communities. Individual

initiative and competition are outside the bounds of this "natural community" (Bellah 1975), and are to be discouraged, if not deliberately denied (Schiff 1962). Clements was so troubled by the destruction of the prairies that he rejected the legitimacy of the individualistic and competitive society and advocated the concentration of authority in the hands of experts (Tobey 1981).

Park Service fire management policy has perpetuated this tradition by minimizing opportunities for individual citizens and social groups to participate in deciding how parks should be managed. It is presumed that science will be a sufficient guide for future action, and that the diversity of particular values found in society is not a legitimate basis for building vegetation management plans.

Responding to Particularity as an Antidote for Institutionalized Disaster

The Forest Service has taken a different path by adopting a socially responsive planning process in combination with scientific expertise incorporated in interdisciplinary teams. As a result, a creative tension was established between particularistic and idealistic forms of community. The goals for resource management are informed by involving a wide variety of publics early in the planning process. The feasibility and efficiency involved in reaching these goals are evaluated by technical experts. As part of forest management, wildfire is treated as a plan-governed event--with the goals of fire management derived from the interaction of diverse communities of interest. Rational, plan-governed fire management is new to the Forest Service. It originated in the early 1970's following three-quarters of a century of fire suppression activity dedicated to reducing the role of fire as a catastrophic event. Clementian notions of ecological succession and stable, fire-free climaxes were ruling theories during most of this period (Schiff 1966). Although the intellectual roots of Forest Service fire policy resembled those of the Park Service, a sociological dynamic that sustained fire suppression was far more pronounced in the Forest Service. This dynamic was integrally related to the creation and maintenance of an idealistic national community.

The establishment of organized governmental fire suppression early in this century was accompanied by public information campaigns. Efforts were made to convince the public at

large that fire was destructive and should be eliminated from forests wherever possible. Aside from minor attempts to target communications on particular publics, emphasis was placed on the creation of a national community of concerned citizens who would cooperate fully with the fire suppression agencies. Both Pyne (1982) Lee (1977) have traced this information campaign from the late teens to the 1960's, and noted its phenomenal success as a public relations effort. However, a new interpretation of this campaign sheds light on how it sustained fire suppression policies and practices.

The United States is a revolutionary-based society that continues to depend on an idealistic national community for social coherence. It lacks the stability found in homogeneity and long-shared traditions. Periodic crises may be needed to produce the social cohesion essential for maintaining the society. Barkun (1974) suggest that such societies periodically invent disasters to restore the widespread sense of group solidarity and emotional excitement to which the people trace their common origins. He quotes the psychologist Robert Lifton's comments on the Chinese Cultural Revolution: "it has meant nothing less than an all-consuming death-and-rebirth experience, an induced catastrophe together with a prescription for reconstitution of the world being destroyed (Barkun 1974:208, original emphasis). We are reminded immediately of the phoenix, and of Alexander Agassiz's views on successional progress in the natural world. Was Agassiz's thought process simply mimicking the social dynamics of a revolutionary society? And are National Park Service scientists at Sequoia reflecting a contemporary societal need for invigorating disasters? But before I jump ahead of my story, let me suggest that this dynamic was perhaps best represented by fire suppression in the Forest Service.

Remember that the Forest Service and other wildfire suppression agencies first invented "demon fire" to symbolize the ever-present threat. Continued vigilance was required in face of the threat, and immediate mass mobilization was the habitual response to a wildfire. The construction of a national community that would respond in unison to the cues of centralized fire control agencies was completed during World War II when the Wartime Advertising Council issued a propaganda campaign under the slogan "Careless Matches Aid the Axis." Smokey-the-Bear and the association of

wildfire with Cold War threats sustained this vigilance until the late 1960's.

Periodic wildfires, with numerous major disasters, reinforced the coupling of disaster and social solidarity. A permanent revolution was institutionalized; evil (the fire demon) must be destroyed so that a new order (world) could be created (Barkun 1974). "And if evil remains, that only means we have been inefficient in destroying it. We must try again" (Barkun 1974:210). Doesn't this remind us of what Pyne (1982) described as the "Heroic Era" of fire suppression? These parallels of idealistic thought, national community and social action offer intriguing hypotheses for future investigation.

We also need to remember that the Forest Service took the initiative to change its wildfire suppression policy. Social solidarity and disaster were at least partially decoupled, and a surrogate for mass mobilization was discovered in a socially responsive planning process. Social connectiveness was rediscovered in particular communities and interest groups. But, more importantly, the interaction of these groups in the planning process yielded an appreciation for civility and mutuality--the basic ingredients for building a society stabilized by the respectful interaction of particularistic communities. This cooperative approach to planning was to a large extent inspired by the ideal of small-town democracy and the weaker rural tradition of particularistic community. Does the planning process contribute to the construction of a society that will not need periodic wildfires, wars, or other disasters to hold it together?

Community Fragmentation and Cooperation

The idealistic sense of national community weakened substantially during the 1960's and 1970's in response to growing citizen dissatisfaction with large public and private institutions. Awareness of an environmental crisis and the tragedy of the Vietnam War sapped legitimacy from private corporations and the government. A series of faltering Presidencies signified a loosening of the national societal fabric. And the Reagan administration has recently been less than successful in rebuilding an idealistic national community--despite its attempts to invent evil forces in the world. Fragmentation in the national community is well underway.

Yet, despite such fragmentation, our society is not dissolving. Compensatory processes are at work to fill the void left by shrinking national purpose. We appear to be entering an era in which social cooperation will become far more important as a source of stability. This trend is exhibited by a greater sense of partnership between government and industry, a willingness for sharing and cooperation among competing interest groups, and a reidentification of citizens with the stabilizing mediating structures found in churches, neighborhoods, extended families, and voluntary associations (Berger and Neuhaus 1977). I have already noted how forest planning processes can result in social contracts--agreements among particular groups and a government agency for predictable management of a given tract of forest land. In my own state of Washington, long warring timber, fish, game, and environmental interest groups have recently solidified an agreement to cooperate rather than continue fighting over State regulation of forest practices. What do these trends portend for fire management?

CONCLUSIONS

The contrasting cases represented by Park Service and Forest Service fire management point toward a fork in the path, which we will reach by the year 2000. Rather than choosing one direction over the other, we will most likely find ourselves in new territory recognizable by the signs articulated in this paper. But we will need to suspend our inherited make-believe worlds long enough to read these signs and recognize where we are. And, if I have been successful in describing these signs, we will know where we are because we will be able to recall where we have been and will correctly interpret signs of continuity and change.

We may find a firm sense of national unity brought about by mass mobilization necessary for fighting a popular war or for repairing the biosphere following a global environmental disaster. These social conditions are likely to favor centralized authority for fire management, with responsibility for defining both ends and means delegated to scientifically trained experts. Since science can tell us little about where we should be going, but much about where we have been (Medawar 1982), we are likely to perpetuate institutionalized disaster--either in the heroic form typified by aggressive fire suppression or in the ritual of symbolic

recreation of ecosystem (world) integrity through planning "natural" disturbance events. But we will have to watch carefully for the vengeance of "false gods" when we find ourselves attempting to invent either of these two forms of disaster to compensate for the loosening of a national sense of community. Playing "God" with wildfire may anger competing "gods" found in a society where a plurality of social groups increasingly share authority for directing fire management.

Alternatively, we may read the signs and discover our nation has escaped popular wars and environmental disasters, and is searching for social contiguity found in particularistic community. Fire management is likely to have become more pluralistic in its goals and approaches. It is likely to be seen as a tool for creating or enhancing resource values sought by a wide variety of social groups. Fire managers are likely to be trained to facilitate, mediate, and generate agreement among competing communities of interest. They would no longer be the scientific experts who decide both what is in the interest of the society and how it should be achieved. They would turn to experts for answers to questions of biological possibility, economic feasibility and social acceptability in order to become more responsive to a pluralistic society.

I am not a prophet and can not see into the future. And, I don't trust anyone who claims such knowledge. But if I had to guess what fire management would be like after the year 2000, I would opt for the scenario built on the assumption of community fragmentation--perhaps because I find hope in this possibility. It would enable us to examine our "life's lies" without generating nihilism. And, as a result, we would be more likely to learn how to substitute self-restraint for the invention of disaster. This would make us wiser resource managers.

But I am also a realist, and having watched 46 years of human folly unfold before my eyes. am drawn again to the lines of T.S. Eliot:

What we call the beginning is often the end.
And to make an end is to make a beginning.
The end is where we start from.

REFERENCES

- Bailey, F.G. 1983. *The Tactical Uses of Passion: An Essay on Power, Reason, and Reality*. Ithaca, NY: Cornell University Press. 275 p.
- Barkun, Michael. 1974. *Disaster and the Millennium*. Syracuse NY: Syracuse University Press. 246 p.
- Bellah, Robert N. 1974. *The Broken Covenant: American Civil Religion in a Time of Trial*. New York: The Seaburg Press. 172 p.
- Berger, Peter L; Neuhaus, Richard J. 1977. *To Empower People: The Role of Mediating Structures in Public Policy*. Washington DC: The American Enterprise Institute. 45 p.
- Brubaker, Linda B. 1987. Vegetative history and anticipating vegetative change. Paper presented at Ecosystems Management Workshop; College of Forest Resources, University of Washington; 1977 April 6-10.
- Christensen, Norman L; and others. 1987. Review of fire management program for sequoia-mixed conifer forests of Yosemite, Sequoia-Kings Canyon National Parks; Final Report. 37 p.
- Frisch, Michael. 1976. Social particularity and American culture: two-edged sword of community. In: Gilman, Sander. ed. *The City and Sense of Community*. Ithaca, NY: Center for Urban Development Research; 32-37.
- Goldner, Fred H.; Ritti, Richard R.; Ference, Thomas P. 1977. The production of cynical knowledge in organizations. *American Sociological Review* 42(4): 529-551.
- Lee, Robert G. 1977. Institutional change and fire management. In: Mooney, Harold A.; Conrad, C. Eugene. tech. coords. *Proceedings of the Symposium on Environmental Consequences of Fire and Fuel Management in Mediterranean Ecosystems; 1977 August 1-5; Palo Alto, CA*. Washington DC: Forest Service, U.S. Department of Agriculture: 202-214. General Technical Report WO-3.
- Medawar, Peter. 1982. *Pluto's Republic*. New York: Oxford University Press 351 p.
- Pyne, Stephen J. 1982. *Fire in America: A Cultural History of Wildland and Rural Fire*. Princeton, NJ: Princeton University Press. 654 p.

- Schiff, Ashley L. 1962. Fire and Water: Scientific Heresy in the Forest Service. Cambridge, MA: Harvard University Press.
- Schiff, Ashley L. 1966. Innovation and administrative decision making: the conservation of land resources. Administrative Science Quarterly 11 (June): 1-30.
- Shannon, Margaret A. In press. Citizen participation in land management planning: the formation of a social contract. In: Lee, Robert G.; Field. Donald R.; Burch, Jr., William R. eds. Community Forestry: Continuities in Natural Resources Sociology. Boulder: Westview Press.
- Tobey, Ronald C. 1981. Saving the Prairies: The Life Cycle of the Founding School of American Plant Ecology, 1895-1955. Berkeley: University of California Press.