



Photo Courtesy Gary Cones

Can History Help Guide Our Fire Management Futures?



Photo By Eli Lehmann



A summary report on the special panel presentation featured
at the International Association of Wildland Fire's
Third Fire Behavior and Fuels Conference

Beyond Fire Behavior and Fuels: Learning from the Past to Help Guide Us in the Future

October 25-29, 2010
Spokane, Washington USA



International Association of Wildland Fire

Dr. Karen Cerulo,
*"Can History Help
 Guide Our Fire
 Management
 Futures?"* panel
 member, was also
 featured as the
 conference's
 plenary keynote
 speaker.



Photo courtesy International Association of Wildland Fire

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*Paul Keller, Writer-Editor for the Wildland Fire Lessons Learned Center,
 prepared and designed this report.*

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“ Our goal with this panel is not only to have the audience listen to four excellent speakers talk about the uses of history, but to seek feedback from that audience—using techniques of large group facilitation—about what they have heard. This should make for a lively give-and-take discussion. ”

“ Most of us are familiar with the American philosopher George Santayana’s quote that: ‘Those who do not learn from history are doomed to repeat it.’ In the context of this panel, I believe we should consider: ‘Those who cannot remember the Mann Gulch Fire, the Howling Fire, the Dome Fire, the 1910 Fires—are condemned to repeat them.’ ”

Dave Thomas
Panel Moderator

Panel Moderator: Dave Thomas



Over a 37-year career with the U.S. Forest Service, Dave Thomas held a variety of fire positions, including firefighter, district fire management officer, type I fire behavior analyst, and wildland fire use specialist. Thomas was one of the principal authors of an early fire plan for the Selway-Bitterroot Wilderness.

From 1999-2000, he served as the fire management analyst for President Clinton’s Forest Service Roadless Area Conservation Environmental Impact Statement. In 2006, Dave retired as the regional fuels specialist for the Intermountain Region.

As a “high reliability organizing” consultant with the Wildland Fire Lessons Learned Center and a research associate with the Aldo Leopold Wilderness Research Institute, Thomas currently works with Dr. Dorothy Leonard of the Harvard Business School to capture the “deep smarts” of fire practitioners with high expertise in prescribed fire, fire behavior, and managing natural ignitions.

Panel Discussion

Can History Help Guide Our Fire Management Futures?

Panel Members



Steve Pyne is a Regents Professor in the School of Life Sciences, Arizona State University in Tempe. He is the author of more than a score of books, most of them on the history of humanity and fire; among them, *Year of the Fires: The Story of the Great Fires of 1910* (<http://www.public.asu.edu/~spyne/>). In a previous life he was a member of the North Rim Longshots for 15 seasons at Grand Canyon National Park. He has just published *Voyager: Seeking Newer Worlds in the Third Great Age of Discovery*. *Voyager* is an account of the Voyager space program—its history, scientific impact, and cultural legacy.

Karen Cerulo is Department Chair and Professor of Sociology at Rutgers University, located in Piscataway, New Jersey

(<http://sociology.rutgers.edu/FACULTY/cerulo.html>). Her research interests address culture and cognition (with a special emphasis on conceptualization), decision-making, technology, social change, and community. Her articles appear in a wide variety of journals. Her books include *Never Saw It Coming: Cultural Challenges to Envisioning the Worst* (University of Chicago Press). Currently, she edits *Sociological Forum*, the flagship journal of the Eastern Sociological Society.



She has served as the Chair of the American Sociological Association's Culture Section and the Vice President of the Eastern Sociological Society.



Jennifer Ziegler is an Associate Professor of Communication at Valparaiso University in northwest Indiana (<http://blogs.valpo.edu/jziegler>) where she teaches courses in organizational and corporate communication, as well as digital media and liberal arts. Her research focuses on rhetoric and culture in the management and practice of safety in dangerous occupations, with a particular emphasis on communication in wildland firefighting. Her research has appeared in journals such as *Communication Monographs*, *Leadership*, as well as *Management Communication Quarterly*, where she now serves on the editorial board. Committed to the cause of wildland fire safety, Professor Ziegler has helped in the planning of other IAWF conferences, including the Human Dimensions Conference and the Wildland Fire Safety Summit.

Jim Roessler is a Timber Sales Forester for the Confederated Salish and Kootenai Tribes in western Montana. Jim, raised in Enderlin, North Dakota, worked four summers as a steel gang laborer for the Soo Line (now Canadian Pacific) Railroad. Following his railroad experiences, he worked nine seasons on the Flathead, Lolo and Mission Valley Inter-Regional Fire Crews throughout the U.S. Jim retired from Federal Service in 2006 after spending 29 years in Fire Management for the U.S. Forest Service, Bureau of Indian Affairs, and BLM-Alaska Fire Service. Jim earned an A.S. Forestry, North Dakota State University-Bottineau; a B.S. Forestry, University of Montana; and an M.S. Natural Resources Management from the University of Alaska Fairbanks (UAF). His thesis at UAF is titled "Disturbance History of the Tanana River Basin in Alaska: Management Implications."



Panel Highlight 'Pull Quote' Comments

"There must begin to be some process of sifting, vetting, and judging (actual fireline experience stories). We have to have some way to evaluate and make sense out of these. Otherwise, the past just becomes a digital junkyard—filled with everything there but you can't find anything, you can't use anything, and you can't do anything with it."

"Flawed judgment is more often the source of error than faulty equipment or protocol. Humility matters as much as knowhow."

"Science helps make better pumps and pulaskis; history helps tell us what to do with them."

Steve Pyne

"Those who want to consult history and who want to learn from it and who want to apply it are fighting a difficult battle. It's not an impossible battle. But it requires us to understand the counter messages to which we're all being socialized. Messages that we're carrying around in our heads: 'Don't live in the past. Don't look back. Move forward now'. I think that recognizing those obstacles is critical to overcoming them."

Karen Cerulo

"For history to guide our fire management futures, we first need to understand the people management paradigms of the past and the present. We can then use our comparisons of different eras to escape what I call the 'tyranny of the present.' That is, we can import new management tools or rethink old ones in ways that tell a different kind of story about how people managing fire can relate to one another."

Jennifer Ziegler

"In terms of how things have changed regarding firefighter safety, my most recent bad experience was the I-90 Fire. . . It was like: 'they're doing LCES—everything is fine.' But in my book, things weren't fine."

I was also trying to get them to put in the shift plans that 'blow up' conditions are here. But I couldn't get that in there. And, as you probably know, we ended up almost having some fatalities there."

Jim Roessler

Introduction

Making Sense and Locating the ‘Cash Value’ of this Bewildering and Fascinating Theme:

The Uses of History

**By Dave Thomas,
Panel Moderator**

“If the destructible forest benefits and values are primarily sociological, what do the sociologists say? So far—almost nothing, just, nothing!”

Harry T. Gisborne

Harry T. Gisborne operating a double tripod heliograph in 1915 on Tip Top Lookout on the Wenatchee National Forest in Washington.



To meet the intent of the conference’s organizing theme, the 100th anniversary of the 1910 fires, the steering committee for *Beyond Fire Behavior and Fuels: Learning from the Past to Help Guide Us in the Future* decided, early in its program planning cycle, to design a panel discussion consisting of academic experts and field practitioners. The mission of the panel presentation—entitled “Can History Help Guide Our Fire Management Futures”—was to have a robust discussion as to whether history can actually help fire managers do a better job of natural resource management, whether foresters can learn from the past to help guide their futures.

There is strong historical impetus to ask such socially oriented, historical questions, especially at a conference dedicated to fire behavior, fuels and the history of the Big Burn.

In 1943, Harry T. Gisborne, a historical figure of no small repute in fire behavior and forestry circles, founder of modern fire behavior research and the Missoula Fire Lab, in an article entitled “Sociological Shackles on Forestry,” linked forestry practices with sociology. He chided sociologists for their absence from helping foresters do their work. Their motto, Gisborne wrote, seemed to say, “Let George, the forester, do it all.” (Gisborne died of a heart attack while on a field trip to study the burn patterns of the Mann Gulch Fire.)



Panel members (from left to right): Jim Roessler, Jennifer Ziegler, Karen Cerulo, Steve Pyne, and moderator Dave Thomas.

Photo courtesy International Association of Wildland Fire

Panelists Prompted with Broad Questions

Our four distinguished panelists were given such broad questions as these to ponder: *Is applying history only a matter of grabbing what was available from history books and putting it to use today? Are there specific lessons to be learned from the 1910 fires that can be applied in the 21st century? Was there any truth to American philosopher George Santayana's oft-quoted statement that "Those who cannot remember the past are condemned to repeat it?" What, to piggyback on William James's phrase, is "the cash value" of history and forest management?*

The panel consisted of three academics and one practitioner chartered to discuss American fire history and its potential use in forest fire management: **Stephen Pyne**, the noted environmental historian at Arizona State University; **Karen Cerulo**, Department Chair and Professor of Sociology at Rutgers University who has studied the American version of the "optimism bias" and how this bias has created a society reluctant to fear the worst; **Jennifer Ziegler**, Professor of Communication at Valparaiso University whose research focuses on rhetoric and culture in the management and practice of safety in dangerous occupations, with a particular emphasis on communication in wildland firefighting; and **Jim Roessler**, a working—feet-still-on-the-ground—forester with numerous years of field experience, including work in fire behavior prediction and using fire history scar analysis as a management tool in such fire-evolved ecosystems as varied as those found in Alaska and Montana.

The last part of the almost two-hour panel session was designed specifically to engage the audience in one-on-one participation with the panelists, as well as with fellow audience members. At the end of the panelists' presentations, the audience was asked to pair-up with someone sitting next to them to take a few minutes to discuss what they'd just heard and digested. *Did the panelists' thoughts "make sense?" Can history actually be useful to on-the-ground, field-going fire managers? Or, were the thoughts expressed on this panel a lot of mumbo-jumbo, with history possessing little "cash value" for them?*

We would like to think that Harry Gisborne would have been delighted in our panel and in the audience's follow-up discussion on this afternoon in Spokane, Wash. A day when those specializing in history and sociology and communications and forestry joined hand-in-hand with practitioners to see if, together, they could make sense and locate the "cash value" of this often bewildering but always fascinating theme—the uses of history.



Steve Pyne Presentation Summary Highlights

Reconciling Those Who Believe in History with Those Who Don't

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I'm a historian. I've seen the past—and it works.

I believe that if you want to understand why the world looks the way it does around us—including the fire escapes that we are now dealing with—we have to understand how they were historically created.

But I'm also a member of the fire community, which shares—with Henry Ford—the dismissal of history as more or less: bunk.

What he (Ford) meant by that, was he was interested in the *future*—not the *past*.

My experience with the fire community is that your historical horizon is about three years.

I have spent my career trying to reconcile these two communities . . .

”



Photo Courtesy National Park Service

The Fire Community Wants Data and Lessons

“

I think in the fire community when we turn to history, we look to it as a depository of useful information . . . To turn history and other forms of knowledge into what William James called the ‘cash value’ of experience and practice.

I think what the fire community wants is data and lessons. It wants meaning.

Fire practitioners are trained that fire is an exercise in applied science that should be science-informed and not science-driven. We want to look to the past for data to expand the realm of what we can know and use.

After all, we can data mine cyber space—why not the past? . . .

Unfortunately, it doesn’t work that way. Because the past, while experimental, is not controlled, it doesn’t produce information in a coded form that we can instantly slog in. It requires a lot of sorting. It requires a lot of judgment. It requires a lot of evaluation. So in that sense, you’re liable to find it disappointing.

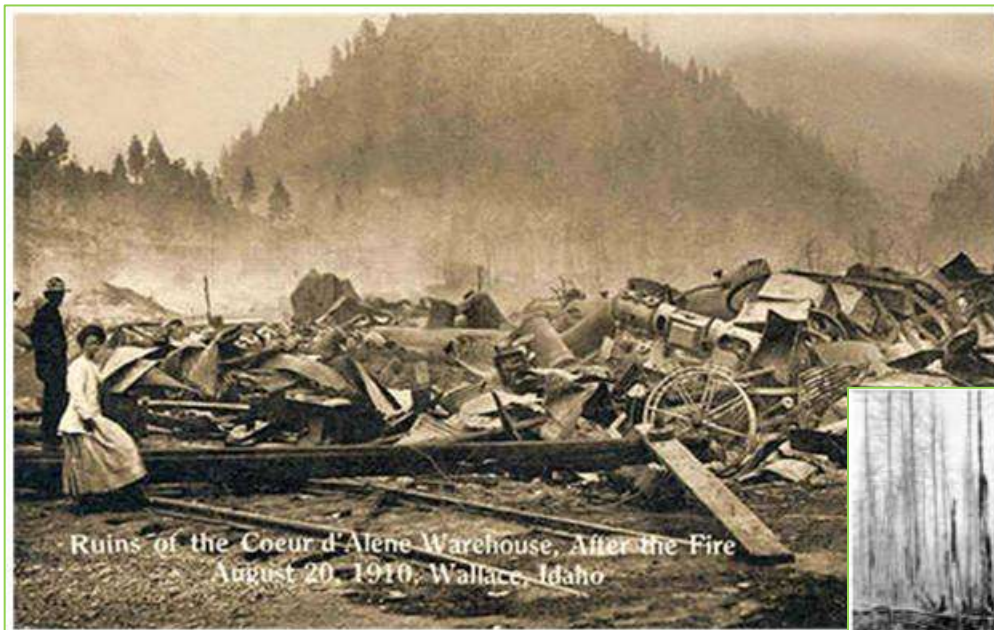
Well, if ‘data’ doesn’t work, what about ‘lessons’?

I mean, isn’t history mostly ‘stories’? And, aren’t we suppose to learn from experience, draw lessons from the past, and code these lessons in the form of stories that we can understand and pass on?

But lessons tend to be very much a technological process. That is to say, we learn from the past to improve behavior or performance—in the same way that we could better design an automobile u-joint or perform open heart surgery. We’re looking for a set of protocols, we’re looking to refine and improve them. And it works very well in this form. But part of the difficulty with thinking of ‘lessons’ in that way is that they require a controlled environment.

I don’t think ‘wildland’ is a dictionary definition of a ‘controlled’ environment. . .

”



A Digital Junkyard

“ The other difficulty with ‘lessons’—as with ‘data’—is there tends to be too much or too many—particularly too many. Are there lessons and stories possible? There are showers of stories like sparks coming off a crown fire. They’re all over the place. We could assimilate thousands of fireline experiences.

But there must begin to be some process of sifting, vetting, and judging. We have to have some way to evaluate and make sense out of these.

Otherwise, the past just becomes a digital junkyard—filled with everything there but you can’t find anything, you can’t use anything, you can’t do anything with it. ”

Humility Matters as Much as Knowhow

“ We have to have some way of sorting through this—some, in effect, ‘checklist’ of stories. And we still need judgment to match stories with lessons, and lessons with probable fire line experience. They do not present themselves in an obvious way.

So I would also argue that the concept of lessons is difficult, as most of us would like to see it play out. Because the lessons of history are really about human character, not natural laws. . .

The appreciation of wisdom relies on character rather than information. Flawed judgment is more often the source of error than faulty equipment or protocol. Humility matters as much as knowhow.

”

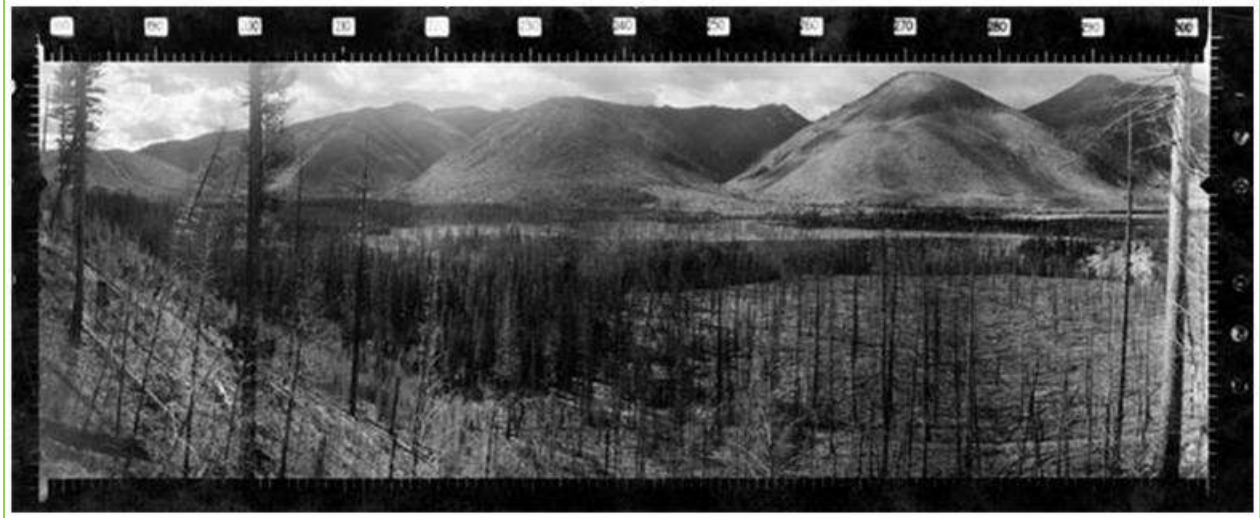


Photo Courtesy National Park Service

We Need Lots of Narratives, Just as We Need Lots of Models

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Historians preserve and celebrate the deeds of the clan. Beyond their role as chroniclers and court poets, they are critics who ponder, evaluate, and select.

So the past then becomes usable in this way. Not just as datasets or scrolls of lessons, but because they are informed by some kind of judgment—and, for historians, this usually means recasting that judgment in the form of the narrative.

The idea of the ‘usable’ past is not a new one . . . It recognizes that narratives have their frames and they have their boundaries, just as scientific models have . . .

The primary exercise for historians is deciding when to begin and when to end. Because that will determine what the narrative arc is; that will determine what your theme is; that will determine what kind of meaning will be conveyed.

If you start the American fire story in 1492, you get one kind of outcome—one kind of narrative. If you begin that story in 1910, you get another outcome. And if you start that story in 1960, you’re going to get still another outcome.

Is one story true and the other false? No. They’re all true; they’re all usable. But they all do different things; they answer different purposes. So we need lots of narratives, just as we need lots of models.

”



The immediate aftermath of the tragic Mann Gulch Fire.

Maclean Brought Mann Gulch to Our Cumulative Attention

“ I find that very little happened as a result of the Mann Gulch (fire fatalities) in 1949 and the aftermath. It was a regional story. It was primarily a smoke jumper story—maybe a Region One story. It didn’t seem to do much beyond that . . .

It’s entirely possible to write a fire history of the United States without a reference to Mann Gulch. Or, it was until 1992 when Norman Maclean wrote a book about it.

Suddenly, Mann Gulch becomes an indispensable part of our contemporary history. And that is a classic exercise of how this kind of informed judgment can reflect back

on the past and make impact. In a quest for cash value—Norman Maclean won the lottery.

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We Need Both Science and Humanities

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I want to argue that we need both science and humanities. Science verifies data and humanities verify meaning. And, it is meaning that will ultimately guide practice because we must judge what we do by what we value and we value only what we can endow with significance.

It is through constructive meaning that we assess best practices and decide what is right and what is proper—and then determine what it is that we ought to aspire to.

Science helps make better pumps and pulaskis; history helps tell us what to do with them. And that’s worth real money.

”

Steve Pyne

Karen Cerulo Presentation Summary Highlights

The complete text of Karen Cerulo's panel talk is available at:
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Recognizing Key Obstacles is Critical to Overcoming Them

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The failure to use history to its utmost in planning for catastrophes is the product of three cultural patterns that firefighters, just like everybody else, have been socialized to.

What are these patterns?

The First Pattern:

Our culture is future oriented. We're taught to be planners, we're taught to set goals, we're taught to dream. Those are tasks that aren't anchored in the past. In fact, they are not even anchored in the present—they demand a future orientation.

In thinking about this idea I couldn't help but be reminded of work by social psychologist Phillip Zimbardo. You probably recognize his name. Years ago, Zimbardo did a very famous study at Stanford University called the 'Prison Experiment.' It was a study of the misuse of power. The study was referenced quite a lot during the Abu Ghraib incidents. In recent years, Zimbardo has been studying individuals, personality, and the project itself. He has been particularly interested in ways our present, past, and future selves interact with one another. Zimbardo treats those three selves as three distinct entities . . . In his many studies, the questions and answers he presents are fascinating—especially with regard to the use of the past in building “who we are.”

For example, which self do people best identify with: past, present, or future? And how do these preferences influence behavior? Zimbardo and his colleagues find that those who most strongly identify with their present self often enjoy the moment, but disregard risk. Those who most strongly identify with their past self often seek the status quo; they're reluctant to deal with new and unfamiliar situations. Further, those who relate to the past are likely to suffer more emotional instability, depression, health problems, etcetera. Those who most strongly identify with their future self often engage in good goal setting and good self-control. And those who are anchored in the future are more successful at overcoming health obstacles and recovering from disease.

Zimbardo's work confirms what we have been told so many times before: 'Don't live in the past.'

The Second Pattern:

Here's the second one, on how culture discourages us from using history to avoid future catastrophes. We live in a culture that rewards ingenuity.

We value ingenuity. Our culture lauds originality; it lauds autonomy. It loves the next big thing. And often, all those characteristics require that individuals see themselves as the starting point, as the beginning of the turn, as the seed of the idea. And in that way, ingenuity is—by definition—free of history.

I did a small content analysis of essays written by people identified as innovators in their field. I wanted to see what advice such people gave to others. One recommendation kept coming up. If you want to innovate, don't look back.

Steve Jobs has been quoted repeatedly on this matter. 'Apple went rotten in the Nineties,' he argues, 'because the company became fixated with the past rather than the future.' He commands his Apple army to look forward rather than back.

In another arena, Jesse Jenkins, Director of Energy and Climate Policy at the Breakthrough Institute, has advised President Obama on economic innovation, saying: 'It's time to stop looking backwards to 2007 and instead look forward toward the new century unfolding before us.'

I think of the 'don't look back' strategy a lot in reading the papers of some of my younger colleagues. In fact, it often becomes an issue in people's tenure reviews. Many of the most innovative scholars are chided by those who evaluate them for failing to acknowledge the role of past work in their new ideas. The young, in turn, often argue that they need to break free from the past if people are to fully understand what is new and innovative about their ideas.

The Third Pattern:

And the third cultural pattern that I think is worth noting is that culture tells us that speed is good. Our culture values speed. We like fast cars, we like fast food, we like speedy service. We hate lines. We hate waiting. We're a 24/7 society. And we like quick fixes to problems . . .

Speed is something that is completely incompatible with history. History takes time. History requires us to be deliberate. In fact, good history requires us to wait and see, it requires us to step back—you have to gain perspective. Because, as the story unfolds, you may have to recode events, you have to rephrase context, you have to rethink conclusions . . . Speed is counter to productive history.

In many ways, I guess what I'm saying is that those who want to consult history and who want to learn from it and who want to apply it are fighting a difficult battle. It's not an impossible battle. But it requires us to understand the counter messages to which we're all being socialized. Messages that we're all carrying around in our heads: *'Don't live in the past. Don't look back. Move forward now.'*

I think that recognizing those obstacles is critical to overcoming them.



Karen Cerulo



Jennifer Ziegler Presentation Summary Highlights

The complete text of Jennifer Ziegler's panel talk is available at:
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Looking Outside Fire Management for Ways to Rethink Our Old Tools

In response to the question, '*Can History Help Guide Our Fire Management Futures?*' my answer is an optimistic: Yes we can. But, specifically, I'd like us to focus on the 'management' part of that question. I think that this requires a deep understanding of the 'people' management context of whatever past that we're looking at—the people management context of the present—and then engaging the two in a productive way for the sake of the future. In some cases, this might actually mean looking outside of fire management for new tools—or, outside of fire management for ways to rethink our old tools.

Escaping the Tyranny of the Present

My message today has three parts. First, we should cultivate the stories of the past for management lessons—but not take them too literally. Second, we should use the stories of the past to understand the management narrative or narratives in which we work today. Third, we should use the comparison between the past and present to escape what I call the 'tyranny of the present' by importing new management tools or rethinking old ones in ways that tell a different kind of story about how people managing fire can relate to one another.

The Current Management Paradigm Probably Won't Last Very Long

I study organizational communications. My interests intersect somewhere between communications and management. So, what I'm talking about are management regimes or management paradigms as a kind of parallel as a business history approach to what Steve Pyne has done from a fire history management approach. We can think about recent history as having regimes of people management.

If you don't like the phrase 'management paradigms', you can call these management 'fads'. Because whatever the current management paradigm is, it probably won't last very long. Furthermore, the current management paradigm often becomes what I call 'the tyranny of the present.' But, thankfully, a coup will usually emerge to overthrow the current tyranny and the new paradigm will reign.

What Should Fire Managers Today Learn From the Ed Pulaski Story?

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To clarify, for history to guide our fire management futures, we need to understand the people management paradigms of the past and present. We are not to become stuck in the tyranny of the present, but to do our best to refashion the people management paradigm.

First, let's see how we can cultivate the stories of the past from management lessons, but not too literally, because they're born of a different age. But also not too dismissively, because the contrast to today can help us understand both then and now.



The War Eagle Mine in northern Idaho where Ed Pulaski and 42 firefighters survived the "Big Blowup" of Aug. 20-21, 1910.

For example, what do we do today with the story of Ed Pulaski when we think about Ed as leader on the fireline? As Steve Pyne pointed out, Ed became the cultural folk hero of the 1910 Fires and the Big Blowup. But he also continued on as a ranger. Therefore, in other ways, he was a rather mundane figure.

So what might fire managers and leaders learn today from this hero story?

... I think we can glean all kinds of information about the people management paradigm at the time that Pulaski did what he did. So in this pre-organized era of fire management, black-and-white thinking prevailed about firefighting goals. The stories are sprinkled with winners and losers/heroes and villains. You won if you put the fire out; you lost if you didn't. We're beyond that narrative today.

Being on the fireline then was a survive-or-die proposition. The management model then was a very simple model of command and control. In fact, I think the sociologists would call it a model of 'simple control'—literally one person controlling another. . .

It seems to me that there are lessons in the Ed Pulaski story about the value of improvisation, the importance of knowing the landscape, the importance of the ethic of caring about the safety of the others, thinking ahead, or even the terror of being entrapped by a fire when your escape route gets cut off . . .

But there's also a sense that this scene might not happen today because nowadays we might take steps farther upstream to prevent this scene from happening at all.

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The Historical Meaning of the Ten Standard Firefighting Orders

“ In some of my work I’ve looked at how lists like the Ten Standard Firefighting orders have been used in accident investigations. One of the things that I have seen is the tenacity of lists like the fire orders. They have been so difficult to change because they have been imbued with so much historical meaning.

One of the meanings of the fire orders is kind of like a memorial to the dead—particularly to the Mann Gulch firefighters. Therefore, if we remove or reject the fire orders, they’re sort of like a sacred cow. What happens to the promise that we made to the dead firefighters whose lives helped to bring the orders about? ”

Recasting the Idea of Managing Risk

“ Wouldn’t it be nice to get away from the tyranny of total quality management where we have to prove that this time we’ll now achieve perfection once and for all so that we can assure that this (a bad fireline outcome) will never happen again?

If you think about it, that promise was from a different time and place. It’s from the rhetoric of total quality management where perfection was thought to be desirable and possible.

So we might think about how we would recast the idea of managing risk—which is an emerging discourse in the fire community—in different ways.

But however the conversation does change, we need to look out for the new tyranny of the present when it does arrive. In the meantime, I think if we can change the conversation about the tools that we have and even import discourses from other cultures—who think differently about their work—there might be a benefit to this. ”

Jennifer Ziegler

Jim Roessler Presentation Summary Highlights

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Three Short Decades Prove That Site Prep and Reforestation Have Been Successful

The Bureau of Indian Affairs (BIA) Flathead Agency offered me my first year-round position in December 1979 as a forester-fuels management officer responsible for planning, organizing, and managing a state-of-the-art fuels management program on the reservation.

Forestry at the time included even-aged patch harvesting of 'mixed and lethal' forest lands in 8- to 20-acre patches to treat root-rot, insect and mistletoe pockets. Uneven or all-age forest management was also the norm in non-lethal and mixed-fire regime forests. The forestry program had a backlog of prescribed broadcast burning to complete prior to hand-planting harvested stands.

The tribal forestry and BIA staff made excellent progress burning these stands from 1980 through 1985. In October 1985, I transferred to Alaska, where I worked the next 16 years for the BIA and BLM-Alaska Fire Service. In 2006, I returned to the Flathead Indian Reservation to work directly for tribal forestry as a timber sales forester. The Confederated Salish and Kootenai (CSK) Tribes 'compacted' forestry services from the BIA in 1995 through self-governance laws passed by the U.S. Congress.

These short three decades proved to me that the silviculture and subsequent site preparation and reforestation on the tribes' forest have been successful. Every day in the field I witness tribal forested landscapes that recently (within the last three to seven years) experienced large forest fires that crossed onto the reservation from adjacent U.S. Forest Service lands to the west.

I see the forest-harvested stands of 30 years ago where I worked to harvest, burn, and plant. These 30-year-old young forest stands of serial conifer species have survived the onslaught of large high-intensity and high-severity fires—such as the 2007 Chippy Creek Fire—which mostly kill the surrounding older cohort stands. . .

A Landscape's Complete History is Missing from Our Land Management Plans

In working in Alaska with the Indians, the State, with BLM Alaska Fire Service, the National Park Service and the U.S. Fish and Wildlife Service, we had a broad array of land management plans that were very well written. But, in a lot of cases, we were missing the big picture in terms of history.

“Jim Roessler was purposely selected for this panel. We felt it was important to have somebody here who still has one foot in the black.”

Dave Thomas
Panel Moderator

For example, you can go into the archives and find information, such as a recon of Alaska in 1885. [*Editor’s Note: Roessler holds up this actual reference book*]. There’s a great amount of information in these books in terms of disturbance history—I’m talking landscape ecology—in terms of what shaped the landscapes and what’s there today . . .

(When you do the extra archival research) it becomes obvious that there is evidence of all kinds of disturbance (to landscapes) that is not documented in current modern day management plans.

So we took this information and we approached the various land management agencies and said, hey, we can do a better job with our plans.

”

On Firefighter Safety

“

In terms of how things have changed regarding firefighter safety, my most recent bad experience was the I-90 Fire [2005 shelter deployment wildfire in Montana]. I was called there as a Fire Behavior Analyst. For safety purposes, every day around 2:30 p.m., I didn’t want to be anywhere up those canyons [where suppression actions were occurring]. I talked to Safety, Ops, other FBANS, and a roving fire safety guy and expressed my concerns—but I couldn’t get anywhere. It was like: ‘*they’re doing LCES—everything is fine.*’ But in my book, things weren’t fine.

I was also trying to get them to put in the shift plans that ‘blow up’ conditions are here. But I couldn’t get that in there. And, as you probably know, we ended up almost having some fatalities there.

”

Jim Roessler

Q & A

“I can guarantee that humanity did not survive and make the world inhabitable through fire by doing prescribed burning the way that we do it now.”

Steve Pyne

In response to panel Q&A question

Q

How Do We Make an Effective Narrative from a Complex Event?

“If we want to talk about the importance of history and narrative being useful, one of the limitations of that is that it needs to be a good narrative to be engaging. But a lot of the topics that we’re dealing with are very complex—or they may not be optimistic. So if narrative is necessary for us to make history useful, how do we deal with the fact that maybe the stories that are the most important to learn from are not easily put into a narrative form?”

A

Steve Pyne:

“I think that’s where the art and craft and history come in. That’s the charge. We would ask the same thing of science. You’ve got a difficult phenomenon out there, how are you going to model it? How are you going to make sense out of it? If we had masterpieces coming out every time, they wouldn’t be masterpieces. It’s a very small fraction that actually succeeds. Think about how many books have had the impact of Maclean’s *Young Men and Fire*. So I would say that that’s the challenge—and there are ways to solve this.

There are literary strategies. The rules are very simple: You don’t make anything up, you don’t leave out anything that really needs to be there—and it needs to be there if it changes the story. Other than that, you’re at liberty, I think, to shape the narrative anyway that it makes sense.

Twenty people can look at the same story and we’re all going to write it differently. And they all tell us something. If you stay by the rules, you’ve done your job. So I think that’s the challenge.

What Fire Implementation Lessons Can We Learn from Native Americans?

Q

"It occurs to me that we have a whole bunch of geographic ancestors—Native Americans—who lived with fire and intentionally set fire for thousands of years. So I'm wondering what kind of lessons we can learn from their history and the extent to which we tend not to look at that very much. How did those people live with fire, how did they use it, and what can we learn from them culturally?"

A

Jim Roessler:

"I work for tribal forestry. Indian forestry has been going on since 1855 on the Flathead Indian Reservation. They were doing forester silviculture with fire ever since then. They've been burning a long time—ten thousand years."

Steve Pyne:

"Actually, it's longer than that. In all of our existence as a species we've used fire. Increasingly, the evidence suggests that goes back to *Homo erectus*. We are so adapted to fire that we are physiologically unable to survive without cooked food. We cannot live on raw food alone. That's how long we have been in association with fire . . .

I think that there are a lot of things that we can learn from the past. For one thing, people succeeded in burning on landscape scales, not on set pieces as we do now—but by being, in effect, foragers over long periods of time. Starting early in the season, burning bits and pieces, following the snow up, burning around wet areas, and letting them dry, and then going back and burning these areas. It is a continuous process over a fairly long period of time. You can still see this in operation in parts of the world today.

But that is not how we do it today. The way that we do it, we're always going to lose because there's something that will cancel it and there's nothing that will put it back up and replace it. So we have a formula which is calculated to fail over the long run. We will continue to erode. We seem unable to learn from the past. How did they (the Native Americans) manage to do that? I would have crews out on some of these landscapes for two-week periods just foraging fire. Burning in bits and pieces. Following the snow up, following the weather. Adjusting it in very different ways.

That requires us to rethink how we do prescribed fire. I can guarantee that humanity did not survive and make the world inhabitable through fire by doing prescribed burning the way that we do it now."

Concluding Remarks

Can History Help Guide Our Fire Management Futures? Panel

"First, I would like to thank the panel.

Steve (Pyne), you said there's value but limitations.

Karen (Cerulo), I think you said that it takes time to filter through history.

For me, Jennifer (Ziegler), you reemphasized the importance of stories.

And, Jim (Roessler), you validated it."

Marty Alexander

Program Committee Chair

3rd IAWF Fire Behavior and Fuels Conference

Moderator Dave Thomas concluded the panel session by reading the following poem from John D. Guthrie's 1929 book *Forest Fire and Other Verse* whose 321 pages feature poems written by U.S. Forest Service employees. Will C. Barnes notes in the book's Foreword: "*A book of verses by and about the men and women of the United States Forest Service! What a fine idea to round them all up and present them for future foresters to read and wonder what manner of men and women they were—these pioneers of the early days.*"

IT IS NOT EASY

To go to a fire at night.

To keep fire tools branded right.

To keep co-operators on their toes.

To listen to the permittee's woes.

To keep the tourists from leaving fires.

To keep from arousing the public's ire.

To keep timber operators up to the scratch.

To watch the smoker and the dangerous match.

To make the camper clean up his camp.

To courteously route the auto tramp.

To make a speech.

BUT IT ALWAYS PAYS.

--Paul Gilbert

1929