If you live in the West today, especially in the late summer months, it is difficult to ignore the presence of forest and rangeland fires on the landscape and their effect on our daily lives.

However, as much as fire affects us, the country’s evolving priorities and values have influenced fundamentally our relationship with fire and fire science. For the past one hundred years, since the U.S. Forest Service essentially invented wildland fire science and first developed policies to deal with fire, larger trends in American society including changes in national culture and politics have significantly shaped the direction of the science and subsequent policies.

Similar to the creation of the Forest Service and the implementation of Gifford Pinchot’s conservation ideology, wildland fire science had its origins in the Progressive Era. After years of unchecked corporate expansion, the country found itself with outdated infrastructure, sewage-ridden cities, and crowded urban areas that were incapable of providing its residents with basic services. Reaction to these conditions gave rise to the Progressive Era, which ushered in many reforms. One of the themes common to the reforms was pursuit of efficiency.

So when the Forest Service was created to protect the nation’s dwindling natural resources, it did so in the image of Progressivism. Pinchot and his followers believed that forests could be logged sustainably and that there was a way to extract its resources in a way that would be efficient and allow future generations to continue to do the same in perpetuity. Fire science grew out of this same mantra. Progressives considered fire an enemy because it wasted the public’s resources, and after the 1871 Peshtigo Fire in Wisconsin and the 1910 Big Burn in the Northern Rockies, the public supported this cause as well. Americans did not yet understand fire’s ecological benefits, so they believed its control and eradication was necessary to control nature’s destructive tendencies. 1

In 1914, Regional Forester Coert DuBois, the grandfather of fire science, published Systematic Fire Protection in the California Forests, which established the template for fire science for the next generation of researchers. DuBois was a faithful adherent of Gifford Pinchot’s brand of conservation and believed that fire control was the best means of fighting deforestation. As
Donations Support
Telling the Forest Service Conservation Story
By Gray Reynolds, President

Every day, your Museum staff is working to collect, display and interpret the history of the Forest Service. We came to understand the value of this monumental task in 2013, when a record number of retirees brought attention to the USDA’s plan to eliminate the Forest Service Shield. Ultimately, the USDA exempted the pine tree badge from its re-branding effort, so this historic symbol of America’s commitment to conserving our forests and grasslands remains the badge of the Forest Service. Conservation history is about understanding how the past has shaped our present allowing people to make informed choices about the future.

With your support we continue to expand our efforts to share the legacy of the Forest Service and conservation history with people across the country. Each year we see increasing requests from researchers, Forest Service employees and organizations for information and to borrow artifacts for displays. Here are some recent examples of how the Museum is sharing the legacy:

- In Missoula, we unveiled a 10 foot tall wooden statue of a Forest Service Ranger. This icon of the West was hand-carved by volunteers. The forest ranger symbolizes America’s commitment to conserving our forests and grasslands. Now on display at Missoula International Airport, the Ranger and the interpretive sign introduce travelers to the legacy of the people and partners of the Forest Service, and to the Museum’s work to share this rich history. See photographs page 7.

- Our traveling exhibit, Minerals We Use Every Day: Mined from Our National Forests, was unveiled in September 2012 at the MinExpo Convention in Las Vegas, this spring and summer it reached visitors at the IDEA Place at Louisiana Tech University, and today it can be enjoyed at the Sawmill Museum in Clinton, Iowa. Next stops for the exhibit are the Northwest Mining Association convention in Reno, Nevada and in 2014, the exhibit will share the legacy at the North Carolina Museum of Forestry, Whiteville, NC

- A University of Missouri graduate student working on his dissertation will visit our archives to research how Woodsy Owl and Smokey Bear raised conservation and environmental awareness of American youth.

- Our artifact collection continues to grow through donations by members and friends. We have cataloged over 29,000 items of the more than 50,000 in our care. We continue to loan materials, including a set of antique radios on display at the Siskiyou Smokejumpers Base Museum in Oregon.

Your financial support makes it possible for the Museum to collect, preserve and interpret the history of the Forest Service. The result is a more informed public, scholars and Forest Service employees—all fascinated by our conservation legacy.

We thank you for your past and continued support as a member of the National Museum of Forest Service History. Please consider a year-end donation to support the Museum's Collection, Archives and Education Program. Your gift will help increase our ability to tell the story of Forest Service and conservation history and respond to the next phone call, email and knock at the door from those, who share our interest in storytelling through exhibits, publications and education programs.
Museum News

The Board of Directors in September approved a 3-year plan to increase operating income to support an already active archives, research and education programs and the eventual transition to paid Executive Director and Curator staff positions. Increased income is expected to come from new memberships, annual corporate giving and foundation grants.

The Museum’s near-term campaign goal is to attract partnership support of $5.5 million in bricks and mortar funding. The campaign committee is working to contact several individual donors. Investments in construction will leverage Planning Phase donations and position the Museum to attract grants and gifts in support of exhibits and multimedia.

Phil Aune elected to Board of Directors

Phil spent his career in the Forest Service working on California National Forests and the Pacific Southwest Research Station. Silviculture was his field. He attended the first class of the silviculture certification program and later became a Regional Foresters Representative in the silviculture certification program. After retiring from the Forest Service, he was the vice president of the California Forestry Association for 5 ½ years. He was a forestry consultant for the American Forest Resource Council for the past 6 years. Phil was general chairman of the 2012 national SAF convention in Spokane. He now serves as treasure for the Lake Spokane Parks and Recreation District. He lives in Nine Mile Falls, Washington near Spokane.

Annual Membership Meeting September 26, 2013

The annual meeting in Missoula was attended by 45 people. Vice President Dave Stack introduced Bill Whitsitt, a member of the Museum’s National Council. Board Member Lynn Sprague was the only out-of-town Board member to attend. Dave began by noting that 2013 is the 25th anniversary of the Museum. We must always thank Gary Stensatter and Gary G. Brown for the foresight to establish and lead the Museum for many years.

Dave discussed how the Museum Program is moving ahead. Significant Museum accomplishments for 2013 are:

- Advocate for the Forest Service History Program — Since 2007 we have continuously called attention to the Forest Service their responsibility to care for and manage historic items. In May 2012 Chief Tidwell announced a decision to build and manage a repository in Missoula. This would not have happened without the Museum!
- Affiliate Program — We support several small non-profits that support Forest Service through maintenance of historic buildings and visitor information.
- Completed Site Plan for the 36-acre Museum site
- Traveling Exhibit — Minerals We Use Every Day: Mined from the National Forest will be displayed at three locations in 2013.
- Ranger Statue Carving — completed and on display the Missoula Airport.
- Collection — Cataloged over 29,000 items. Several Unusual Items; Wedding Dress; 1929 Cobbler’s Outfit and a 1929 Forest Service Poster in Polish.
- Artifact Loans — Most recent loan to the Siskiyou Smokejumpers Base Museum
- Capital Campaign status — Goal $14.5 million - increased because of construction costs; Near term goal - $5.5 million for bricks & mortar
- Current donations: $3.8 million; Proposals pending $1.2 million

After the meeting many attendees traveled to see the Ranger Carving in person at the Missoula Ace Hardware store.

Ranger Station Photo Identified

Thanks to the Forest History Society for identifying the photograph in the August Newsletter as the Baldwin Ranger Station, Manistee National Forest, Baldwin, Michigan.
Conservation’s mantra dictated, efficiency meant everything needed to be justified economically, so DuBois and his followers argued that fires should only be fought in areas that were to be logged.  

The following year, the Forest Service created its Branch of Research, and for the next fifty years, the Forest Service would have a monopoly on wildland fire science. Most historians end the Progressive Era somewhere around 1920, but the associated values continued to influence the Service’s fire research program for the next twenty years. Along with the principles set forth by DuBois, early researchers developed the hour control program and “fire fundamentals,” which helped establish a fire danger rating system. In the 1930s, the Forest Service instituted the 10am Policy, which mandated all fires to be put out by 10am the day after they were discovered. These programs were products of Conservation’s inflexible adherence to mathematics and scientific certainty. Only through these definitive and rigid programs could fire’s harmful effects could be mitigated.

By the end of the 1930s, scientists and naturalists started to learn more and more about the complex relationship between nature’s disparate elements, and they called for greater protection of the country’s natural resources. Certain government officials began to realize agriculture’s devastating effect on the Great Plains and its part in the Dust Bowl. Similarly, men like Aldo Leopold and Bob Marshall began to push for increased protection of roadless areas that would one day become Wilderness.

A few researchers and land managers started to discover that fire could be beneficial for an ecosystem, but the Forest Service’s leadership, and other government bureaucrats suppressed these findings because they contradicted Conservation’s traditional ideology.

In the 1930s, the New Deal ushered in an era of big liberal government in which spending at the federal level increased exponentially. The federal government sponsored large and varied building projects including the Civilian Conservation Corps work on National Forests, took a renewed interest in economic regulation and assumed increased responsibility for its citizens’ welfare. Following World War II, President Truman continued the liberal policies of his predecessor. Spending in all government sectors increased, and the start of the Cold War meant that defense spending received an especially large bump.

In 1948, the Forest Service created the Division of Forest Fire Research, which greatly expanded the program that had remained relatively small over the previous thirty years. Like all defense programs in this era of a large liberal government, the Forest Service began to devote more funds and resources to fire research. In this era, fire researchers also developed Project Fire Scan (see note below), which helped managers map fires using infrared sensing technology. Traditionally, the Forest Service had staffed lookouts to do this job, but by the 1950s, the country was increasingly utilizing technology and mechanization, and the Forest Service did likewise. Operation Firestop and Project Sky Fire were similar programs designed to prevent and
control mass fire that relied on technology, namely radar and advanced mapping.6

When the Soviet Union detonated its first nuclear bomb, fire research and management became linked to the Cold War effort and benefitted from the massive amounts of defense spending. Not only did fire researchers acquire airplanes and other technologies developed during the war, but the amount of wildfire research increased dramatically. Fire researchers began focusing on fire behavior under the belief that the Soviets could possibly attack the United States by burning its forests.3

In the early 1960s, as the Cold War escalated, funding for fire research increased accordingly. By 1963, the Forest Service had fire research labs in Missoula, Montana, Macon, Georgia, and Riverside, California. This expansion represented the Forest Service’s commitment to fire research and its recognition of research as the means to improve fire control efficiency. Also, the money that went into these research centers was part of the expansion of the federal government during the mid-1960s.

In addition to the expansion of government spending, fire science also benefitted from an improved understanding of the natural world. Fire science had been considered a problem of forestry and its practitioners did not try to incorporate principles from other disciplines, but this began to change. By the late 1960s, fire scientists were incorporating principles from physics, chemistry and meteorology. Additionally, scientists became more willing to experiment and use new research methodologies.

Prescribed burns became an increasingly common tool used by fire managers. At the Northern Lab, physicists and engineers worked on fire modeling and later examined it as an ecological process in order to better understand its role in nature, and the Southern Fire Lab in Georgia operated Project Fire Model, which used mathematical and physical models to study the aerodynamics of burning. The increased awareness of the relationship between fire and other elements of the natural world was also a product of the environmental movement, which urged Americans to appreciate the complex relationship between diverse parts of an ecosystem.8

The 1970s ushered in more change. The protracted war in Vietnam, social unrest, the Watergate Scandal and a stagnant economy caused Americans to become disillusioned with big, liberal government. The federal government became smaller and funding for things like research declined. Between 1979 and 1989, the Forest Service cut the budget of its main fire science program, Forest Fire and Atmospheric Sciences Research, by 45%. In the process, it lost its virtual monopoly in this field. By the late 1970s, Canada, Australia, the U.S. National Park Service, universities and the privately owned Tall Timbers Research Station in Florida were engaged in fire research.9

In the twenty-first century, wildland fire science and fire policy have continued to evolve and reflect the larger debates and themes in American society. Starting in the 1960s, the environmental movement and environmentalism took the reins of federal natural resource policy, but by the late 1970s, conservatives challenged environmentalism’s hegemony through the Sagebrush Rebellion and Wise-Use Movement. This has rekindled a debate between preservation and conservation. Fire research in this era has shifted to focus especially on the role of fuels and climate change. It has spurred debates on their relative importance of fuels management, prescribed fire, natural fire, and aggressive suppression and how to balance them. Every summer, as fires rage through the West, this debate is rekindled, and as other aspects of American society slowly change with the times, the debate over fire will as well.

Over the past century much has changed in America from our relationship to the natural world to the role of the federal government in our everyday lives. Fire science is no different. It is mostly an American made discipline and thus has been subjected to currents in American society. Although fire science may initially appear insulated from these larger developments, it has in fact evolved along with them.

References
1 For Pinchot’s Conservation philosophy, see Timothy Egan, The Big Burn: Teddy Roosevelt and the Fire that Saved America (New York: Mariner Books, 2009), 51-52.
3 Pyne, Fire in America, 473.
6 Pyne, Fire in America, 481.
7 Pyne, Introduction to Wildland Fire, 259.
8 Pyne, Introduction to Wildland Fire, 260.
9 Pyne, Introduction to Wildland Fire, 263.

When Did Forest Fires Become Wildfires?
Question: I noticed that in TV spots Smokey Bear now says, "Only You Can Prevent Wildfires" instead of "forest fires." When did that change, and why?
Answer: In 2001, according to Ellyn Fisher of the Advertising Council which originated the campaign in 1944, "Wildfires' includes all unwanted, unplanned fires in natural areas, such as grass fires or brush fires."
Source: Parade Magazine, February 14, 2010
Unrestricted Donations
08/7/2013 to 11/20/13

Jim & Jan Abbott  
Deen Boe  
William Charlton  
Tom Coston  
Wendell M. Doty  
Carol J. Ede  
Dale L. Farley  
Shirley Green  
Carol W. Guthrie  
Mike Hallisey  
Sam Halverson  
Rex Hartgraves  
Terry Hoffman  
Marcia Hogan  
Lewis Kearney  
Stephen Kelley  
W. David Kolb  
Mike Landram  
Douglas R. Leisz  
Elizabeth M. Madison  
Kent A. McDonald  
Milo McLeod  
Peyton W. Owston  
Duane Packer  
Susan Prentiss  
Louis D. Romero  
Harry Siebert  
Kay Sylvester  
Archer W. Wirth  
Thaddeus Yarosh

Capital Campaign Donations
08/7/2013 to 11/20/13

Diane Bauer  
Johnny & Ellen Hodges  
Del Radtke  
Bobbie Sherrod  
Al & Nancy Smith  
Robert P. Spivey  
Los Compadres Retirees Group

New Members
08/7/2013 to 11/20/13

Paul F. Curtis  
Carl Gidland  
Don Hansen  
Ed Levert  
Lee Lewis  
Paul Libner  
Ralph Meyer  
Ken Showalter  
John R. Swanson  
Dave Thom  
Kent T. Wellner

New Life Member
08/7/2013 to 11/20/13

Larry Cabodi  
Johnny and Ellen Hodges  
Ernest B. Price, Jr.

Honor Roll Names
08/7/2013 to 11/20/13

Daniel B. Abraham  
Gary G. Brown  
Bill "Coop" Cooperrider  
Max H. Dommer  
John C. "Jack" Fisher  
Robert E. Harris  
Gene Kemble  
Jim Lotan  
Janet MacChesney  
John H. Murray  
John C. Sherrod

Honor Roll Donations
08/7/2013 to 11/20/13

Claudia Brown  
Joseph Church  
Hank & Patricia Clow  
Earl & Anne Reinsel, Jr.  
Ronald A. Schaufler  
Kay Sylvester  
Pacific Southwest FSX Club

Thank You Members!

Your annual dues and gifts provided 45% of all operating support for your National Museum of National Forest History in 2012. If you would like to make a gift or nominate someone for the Honor Roll in 2013, there is still time. Please visit our website, [http://www.nmfs-history.net/involved/donate.html](http://www.nmfs-history.net/involved/donate.html), to learn more.

"I joined the Museum to be a part of helping to preserve and interpret our culture and history."

-Rolf Anderson, Museum member and retired Forest Service Ranger

The National Museum of Forest Service history gratefully accepts cash, checks, securities and real estate to carry out our mission to preserve and interpret the history of conservation in the U.S. and in support of the Capital Campaign. Donations of appreciated stocks, bonds, and mutual funds may have additional tax advantages.

Planned gifts ensure the conservation legacy of the Forest Service is passed on to the next generation. For more information, please contact the Museum directly at 406.541.6374

The Museum is a 501(c)3 organization. All gifts are tax deductible to the fullest extent allowed by law. The Museum tax identification number is: 81-0454269.
Clarence Haeg, Potlatch Forests, Inc., presented his paper on cook house costs. The cost of maintaining camp cook houses has steadily increased until everyone in the logging industry is much concerned. The costs of operating camp cook houses by this company were increasing tremendously, and cook house losses as shown in the logging costs statement were not in the thousands of dollars, but tens of thousands.

The first cookhouse study report was made for the Clearwater Unit camps in November, 1947, and the first study report was made for the Potlatch Unit in May, 1948. When these studies were started the camps served:

Clearwater: (November and December, 1947) 65,721 meals.
Potlatch: (May, 1948) 11,770 meals.
These meals were costing an average of $.877 per meal.
During the year 1949- the camps served 77,075 meals at an average cost of $0.798 per meal. A difference of $.079 per meal. Food Consumption: 1948 - 7.66 pounds per man per day

When the camps began hiring girls for dining room work it was thought that 5 girls should replace 4 men flunkies. The men flunkies had always been required to take care of 40 men and 5 tables. The girl flunkies now take care of 5 tables, but it is hard to hold the work to this average. If the tables are too wide food is constantly put on the table to fill in the vacant places. He thought the larger tables always presented the chance to waste food by putting too much on the table.  

Richard Pomponio Collection

Thanks to the Forest Ranger Carvers
This 10 foot tall, hand-carved figure captures the pioneering spirit of rangers and symbolizes the connection Montanans have both to our great outdoors and to the legacy of the National Forests.
Read more about this project on our website at: http://www.nmfs-history.net/news/ranger.html

The Carvers — Front: Chuck Kaparich and Phil Bain; Back: Alex McDonald, Steve Weiler, and Jerry Covault (L-R)
Note: Your mailing label shows the date your membership expires. Please mail dues payment, 1 month prior to the date listed above. This space is blank for complementary copies of the newsletter. Please renew EXPIRED memberships as soon as possible to continue support of the Museum program.

Membership Application

Fill out, detach, and mail to: National Museum of Forest Service History, P.O. Box 2772
Missoula, MT 59806-2772

Mr._Ms._Dr._ Name:_________________________________________ Address_________________________________________

City/State/Zip:_________________________________________ Daytime Ph.: ___________________________

E-mail:__________________________ □ New □ Renewal □ GIFT

□ YES—Start sending my newsletter to the email address above.

**Membership Categories**

<table>
<thead>
<tr>
<th>Category</th>
<th>Annual Dues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student</td>
<td>$15 or more</td>
</tr>
<tr>
<td>Individual</td>
<td>$30 or more</td>
</tr>
<tr>
<td>Family</td>
<td>$55 or more</td>
</tr>
<tr>
<td>Contributing</td>
<td>$150 or more</td>
</tr>
<tr>
<td>Sustaining</td>
<td>$300 or more</td>
</tr>
<tr>
<td>Organization</td>
<td>$100 or more</td>
</tr>
<tr>
<td>Life</td>
<td>$1000 or more</td>
</tr>
</tbody>
</table>

**IRA Charitable Rollover**

Through December 31, you have a unique opportunity: a rollover from your Individual Retirement Account to the National Museum of Forest Service History. Until the end of 2013, the IRS allows individuals age 70½ and older to make direct transfers of up to $100,000 to charities — without counting them as income for federal taxes. This tax benefit ends on December 31, 2013.