

OBSERVATIONS OF A WILDERNESS LOOKOUT

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HELLS HALF ACRE LOOKOUT

Infrastructure

Since 1980, my wife (Rhett) and I have served as USFS lookouts in the Blue Range Primitive Area, Escudilla Wilderness, Frank Church River of No Return Wilderness, Selway-Bitterroot Wilderness, and adjacent to the Bear Wallow Wilderness Area.

Our first lookout, *Bear Mountain*, was comprised of a group of structures: a cabin for living, an older cabin for tool and animal feed storage, and 7'x7' cab atop a 46' tower. Consequently, the work of detection was physically separated from most other aspects of life. The other five lookouts were live-in towers, which incorporated work and life together and fulfilled an early concept of the lookout:

"The lookout man's dwelling, office and workroom should be centered in one house, on one floor, and in one room. The room can not be less than 12 feet square, and must be so constructed that at any moment of the day, with the turn of the head, he can see his whole field. He must be fixed so that while he is cooking, eating, reading, writing, dressing, washing his clothes, walking about, or sitting down, he can not help but be in the best position to see."¹

¹ Coert DuBois, *Systematic Fire Protection in the California Forests* (Washington: Government Printing Office, 1914), 55.



Fig. 1
Bear Mountain Lookout "Complex."
Photo by Don Stevenson.



Fig. 2
Interior of Bear Mountain's
LX-25 tower. Photo by
Don Stevenson.



Fig. 3
Interior of the CCC-built one-room log
cabin. Photo by Don Stevenson.



Fig. 4-6
 Bear Mountain tower, Reno &
 Escudilla Lookouts (below L-R).
 Apache-Sitgreaves National
 Forests, Arizona. Photo by Don
 Stevenson (fig. 4).



Fig. 7
Hells Half Acre Lookout. Bitterroot National Forests, Idaho.



Fig. 8-9
Spot Mountain and
Salmon Mountain
Lookouts (below L-R).
Bitterroot National
Forests, Idaho.





Fig. 10-11
L-R: Interiors of Hells Half (above) and
Spot Mountain (below).
Both are variations of the R-6 design:
Hells Half is the 1959 and Spot is the
1964 model. These interiors are similar
to Reno's and Escudilla's CL-100 design,
except for their bases.



Fig. 12
Salmon Mountain is an L-4 (1936) design and is smaller than the R-6, but for me, the L-4 is the classic lookout design. Though the R-6 has less "class," according to the venerable Ray Kresek, I have found it to be the most livable.



Fig. 13
The Alidade at Bear Mountain. Regardless of plan, the central feature of any lookout is the alidade, which is affixed to a stand or cabinet. The standard alidade is the Osborne firefinder.



Fig 14
Original 1922 Spot
Mountain Lookout struc-
ture. 1934 image from
the Carpenter Collection.
Photo by Kenneth Edwin
Carpenter.

Fig 15
The tower is only part of the lookout infrastructure. The outhouse is very important! Spot Mountain's is the best we've had. Over the years, we've dug new holes at Bear Mountain, Hells Half, and Spot.



Fig. 16
Water is a necessity and a lookout's proximity to a reliable spring is a plus. The spring at Spot Mountain provides very tasty water usually until mid-September. It's a mile below the tower, providing some good exercise as well.



Fig. 17
Snow melt can supplement our water supply, mainly as wash water. But the snow doesn't last long. The 2024 snow water gathering operation at Spot Mountain = 190 gallons.

Fig. 18-19
Showers at Bear Mountain and Hells
Half. The most efficient solar shower
we've used was a design I found in
Mother Earth News. It involved a truck
inner tube, hose, coupling, and garden
sprayer. Photo by Rhett Moak (fig. 18).





Fig. 20

When we—a family of five—moved to Hells Half, we tried to all live and work in a 15'x15' space. That lasted about two weeks until we got a tipi for the kids. But consideration for the children was one reason we chose Hells Half. Every fire season before, they had to live in a cabin—eight miles from our vehicle—in the middle of the woods with their parents all summer. Because Hells Half has a road that is part of the Magruder Corridor and, therefore excluded from the Wilderness, we were all less isolated: pros and cons.



Fig. 21-22

(Right) Rhett, Daniel, and John Snyder (our first packer) on Smokey, with Joe and Duke at Bear Mountain. (Left) Karl and Tiny plus Slim, Matthew, Beth, Murray, Sam, No. 7, and Emily departing Spot Mountain. All lookouts depend on district personnel for all kinds of support. This is doubly true for lookouts in roadless areas. We depend on packers and their animals food, equipment, mail - basically anything material in nature. These are some of the toughest, smartest, and most capable folks we've ever known.

Fire

In the Wilderness, we have seen fire suppression increasingly give way to “managed” fires in many iterations: PNF (Prescribed Natural Fire), WFU (Wildland Fire Use), fire for resource benefit, to more flexibility in LRMPs (land resource management plans) and currently allowing for even more flexible fire decisions in all Wildland Fires.

We have observed that wilderness fires are not prioritized for suppression action; for several years (until 2025), very few were suppressed, though resources were available. (This partially accounts for our being evacuated 10 times.) With the increase of managed Wilderness fires, we have had to reevaluate our purpose as lookouts. In addition to detection—commonly mischaracterized as our sole function—duties have always included being good hosts and public land ambassadors to visitors; observing and reporting weather conditions; learning the land & its creatures; maintenance; communicating with dispatch, the district, other lookouts, crews, and emergency personnel. Who lives in the woods more than lookouts? In this time of increasing remote technology, ground truth is vital and lookouts are actually there to provide it. Our lookout journey has led us to this: helping to keep people safe is our highest duty.



Fig. 23
Our first evacuation: Devil's Storm Fire &
Hells Half Acre Lookout, 1999.
Photo by Daniel Moak.



Fig. 24
Gold Pan Fire from Salmon Mtn Lookout.
8/15/2013. 16:29. Hells Half's wrapped
tower is at upper right. As a result of Gold
Pan, we were moved to Salmon Mtn from
Hells Half, which, though burned over,
did survive.



Fig. 25
Eagle Creek Fire and Spot Mountain
Lookout (partially wrapped).
Photo by Skylar Brown, 9/3/2017.



Fig. 26
Indian Ridge Fire, Moon, and Jupiter. From Spot Mtn.
00:13. 8/18/2022. This fire burned very actively at night.
There is difference between hearing the euphemistic
term, "stand replacement," and witnessing it. The juxta-
position of fleeting pyrotechnic beauty and destruction
leaves me fascinated and troubled.

Flora and Fauna

Living at a lookout has intimately exposed us to the natural world. Wild flowers, insects, birds, and smaller mammals abound. Sightings of larger animals are more rare; it seems it is hard for them “to make a living” on a mountaintop.



Fig. 27
Phlox. Spot Mountain,
6/26/2024.



Fig. 28
Common Wood-nymphs
pollinating Yarrow. Spot
Mountain, 8/3/2023.



Fig. 29
Golden-mantled ground
squirrels and sulfur
flowers Spot Mountain,
7/31/2022.



Fig. 30
American Kestrel. Spot
Mountain, 9/22/2021.



Fig. 31
Trail Cam Image
(6-frame composite). At
Spot Mountain Spring,
June-July 2018.

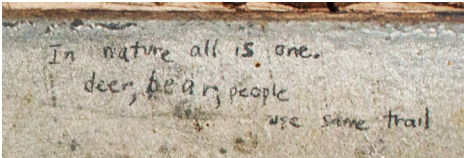


Fig. 32
Graffiti from Bear Moun-
tain Lookout. Before
1980.

The Sky

Living in a tower on a mountaintop is like living between heaven and earth—surrounded by sky and accompanying weather. The sky's phenomena are magical—day and night: myriad cloud forms, sunrises & sunsets, mist, rainbows, glories, halos, Brocken spectre, airglow, crepuscular rays, aurora, lightning! etc. and of course, astral bodies: sun, moon, stars, galaxies, planets, comets, meteors. The lookout truly is an observatory with a front row seat to the universe!



Fig. 33
Storm with corkscrew
"beavertail" over the Bit-
terroot Crest. From Spot
Mountain, 8/25/2023.

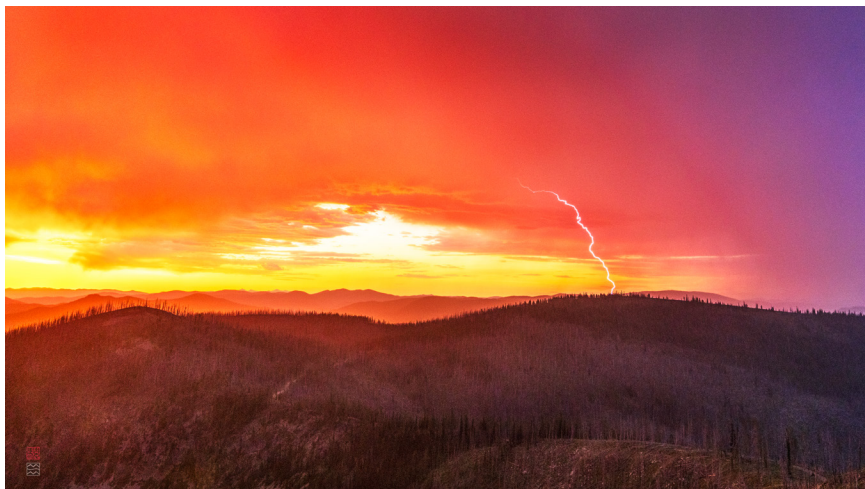


Fig. 34
Lightning at Sunrise from Hells Half,
7/2/2025.



Fig. 35
Lightning in the West Windows. Spot
Mountain, 8/25/2022.



Fig. 36
Airglow with Meteor. From Hells Half,
8/15/2025.



Fig. 37
Comet Neowise from inside Spot Mtn
Lookout, 7/15/2020.

Awe

Our initiation to the lookout was a rebirth... a reawakening to the natural world. I've often said the lookout experience is like living in the book of Psalms... indescribable beauty and sublime terror. I've felt so special and so insignificant simultaneously. Perhaps the word that best describes this is awe.

Paraphrasing Dacher Keltner from an interview on *The Pulse*:
*"When we experience awe... we feel insignificant, small, humble, which paradoxically, can be inspiring, liberating, empowering... as the self fades... our egos become small, allowing us to feel purpose and being connected to larger things..."*²

² Maiken Scott, Dacher Keltner. "Transformative Power of Awe," *The Pulse*, January 13, 2023, WHYY/NPR, Apple Podcasts 13, <https://podcasts.apple.com/us/podcast/transformative-power-of-awe/id772127662?i=1000594265314>.



Fig. 38
Milky Way, Jupiter, Saturn, Perseid Meteor, and Zumi. Spot Mountain, 8/9/2021.

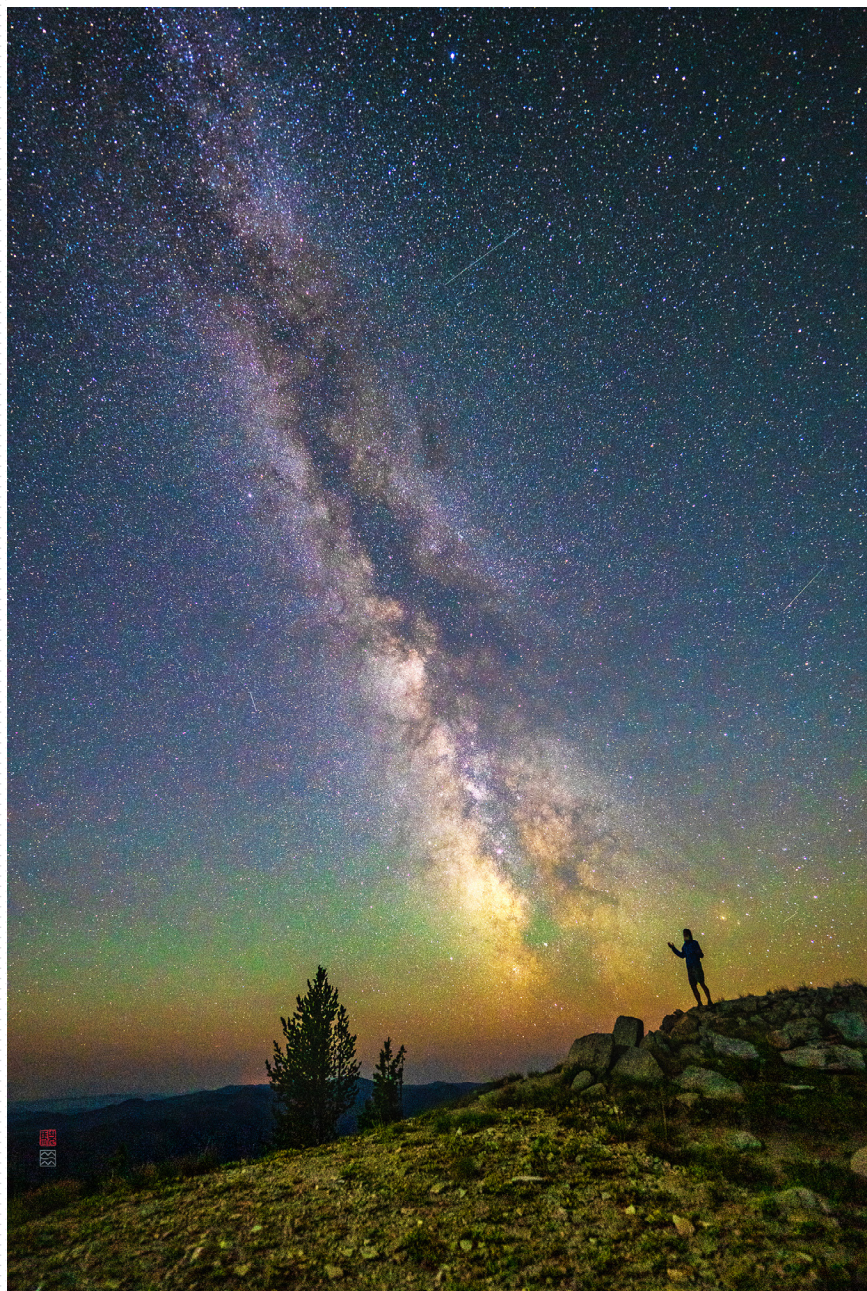


Fig. 39
Under the Milky Way at Spot Mountain,
8/15/2022.

Gratitude

Living on the tops of mountains has changed me. It is a commitment to a place that, though providing few modern amenities along with serious opportunity costs, it is worth it. *“Tis a gift to be simple.”*

No place brings me greater contentment, fulfillment, time to think, and bliss than the lookout.

And to have a constant life partner and companion—sharing equally—makes the experience complete.

But is not only the lifestyle that brings fulfillment: it is the job, too. We feel that we make a difference, that we contribute not only to the human enterprise, but to the earth as well. I would venture to say that the mindset of a lookout is to love and protect the forest and the folks who work in and visit it.

Mark S. Moak, Winter Solstice 2025



Fig. 40
Rhett and Mark, Salmon Mtn Lookout,
9/27/2022.



Fig. 41
Self-portrait under the
Milky Way, Spot Moun-
tain, 2019.



Fig. 42
"Bless you, my Dog,"
Spot Mountain, 2024.

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