Sustainable Management on the Ground

Seven deadly sins and how to avoid them.

By Bob Budd

It is incredible that we are now on the precipice of celebrating the 1st century of the United States Forest Service, both because the organization is so old and, moreover, because it is so young. While asked to speculate on the greatest conservation achievements of the agency in its first 100 years, it is both tempting and hopelessly futile to determine the greatest accomplishments of any entity that reaches a century of service. As we passed the last century mark in this nation, I was both amused and dismayed at the preponderance of wisdom conjured up to select the "best" of the 20th century. We had it all…greatest sex symbol, greatest football team, greatest athlete…pick a category, and we were quick to make lists.

The problem with these lists is that they were all made by people like you and me–folks who had no idea what was going on in 1905 or even 1955, and these lists tend to be overloaded with what might be only average accomplishments by the greatest we have seen in our own timelines. How do you compare the real Babe Ruth you never saw with a Barry Bonds you saw too much? How do we begin to comprehend the thoughts or challenges of Pinchot, Theodore Roosevelt, or those who fought through the Great Depression? By today's standards, Marilyn Monroe was probably overweight (although anyone who has her second or lower on their list of hotties is clearly delusional). Jackie Robinson can be evaluated as a second baseman, among many others, or as a human being, perhaps the toughest man who ever played the game, given the mental and social challenges he confronted and faced largely alone. It is all relative, and we have no way to relate to it all.

One hundred years ago, no one had a clear view of the world in which we live, or in which they lived. The average lifespan of a human was almost exactly the average age of a Forest Service employee today (48), so changes in the environment were either subtle or beyond tomorrow. There were no breaking news briefs, no satellite images of the planet, no hour-by-hour weather reports–what the heck! Most of the maps were drawn in the dirt with a stick. My great-grandmother Budd walked alongside a wagon from Kansas as a girl and watched Neil Armstrong walk on the moon as an elder. At the time she walked across half the continent to an unsure future, the things we now take for granted were *unimaginable*, absolutely beyond comprehension.

Sustainability meant having enough to eat and, in the good years, enough to sell or trade for something else. The calves you sold paid their own way if you were lucky. The hay you made fed the cows that made the calves and the horses that made the hay. Spending money came from the muskrat, beaver, and mink you trapped or the work you could offer someone else. Meat on the table came from elk, moose, and deer. Come spring, after the thaw and before the runoff, a mess of fish was my grandmother's equivalent to live lobsters we now find in Wyoming superstores—an absolute feast, a return from the land, a change of pace and taste. In late summer, the quest became sage grouse—a chance to let work go for a day and provide a delicacy for the table. Sustainability

was more than just food for the table, wood for the fire, and money for clothes and Christmas. Then, as now, there was a need to sustain mind, spirit, and soul. We forget that sometimes, and we often judge our predecessors in the warmth of the world they left us to tend.

Theirs was a world of mixed messages, as is ours today. Religion was a major driver in decisions, to the degree that many cultures were certain that the bounty of the land was solely driven by a benign God, rain followed the plow, and the new land they sought to farm was equivalent to the land they left behind in the fertile Midwest. The Jeffersonian model of yeoman farmer was paramount in the minds of all, and a cornucopian model of economics was not the norm but the rule. The notion that nature could be controlled was manifest, and only a lazy or evil man was incapable of creating the desired mix of patriotism, religion, and business acumen. The resource was limitless, and the notion that anyone, or any multitude, could cut all the trees or drain the streams or build houses on the barren plains was absurd.

And yet, in the absence of geographic information systems, ecological models, fire prescriptions, detailed weather and climate information, grazing management plans, and E-mail, the people on the land a century ago may have offered us a bit of wisdom we should re-embrace. In the absence of all the technological gizmos we have today, they simply followed what they had seen in the natural world.

The motive to graze cattle on the plains of Wyoming came from observation of bison, elk, bighorn sheep, and other ungulates that survived and flourished on the hard grasses of the northern plains. Grazing districts were formed to move cattle from lower ranges to higher country as grasses matured. Irrigation imitated flood regimes that created and maintained river meadows where grasses grew faster and stayed green into the fall. Fire, denounced as "Native burning" by an early Forest Service, was adapted from Indians, who adapted it presumably from what they saw in natural events.

At the time, science was focused mainly on reductionist principles, and the club was pretty much an ordained bunch, confined to the disciplines of physics, chemistry, geology, and basic biology. The Society of American Foresters (SAF) had been formed, but other professional societies, such as the Society for Range Management, Ecological Society of America, and Wildlife Society were not yet created (the Ecological Society was founded in 1915, and the Society for Range Management grew out of the SAF in 1948). In short, we were conflicted by an age of arrogance, enthusiasm, ignorance, and uncertainty.

Out of that world stepped the likes of Theodore Roosevelt, whose hunting diary after the loss of his wife reads like a litany of death; Gifford Pinchot, child of a man who denuded forests of the East; and John Muir, a malcontent who rated both of them inadequate. Their words and their works have been quoted alternately as extractionist and preservationist, taken in the context of our own time (the world of the 10-second sound bite), but in many cases they have been misinterpreted. In many ways, our conservation roots became manifest in creation of the Forest Service. And, within this maelstrom of plunder and preserve, the pioneers of conservation were adamant in the notion that conservation was a fundamental requirement of production and economic prosperity. Later, Aldo Leopold repeated the theme in his many essays about landowners, but the most poignant may be his 1933 essay, *Game Cropping in Southern Wisconsin*.[1]

> *Most of what needs doing must be done by the farmer himself. There is no conceivable way by which the general public can legislate crabapples, or grape tangles, or plum thickets to grow up on these barren fencerows, roadsides, and slopes, nor will the resolutions and prayers of the city change the depth of next winter's snow nor cause cornshocks to be left in the fields to feed the birds. All the non-farming public can do is to provide information and incentives on which farmers may act.*

In spite of Leopold and other's reminders, we find ourselves attempting to regulate behavior and ecological results through negative reinforcement. If we hope to be successful in the next century of conservation, we will have to heed Leopold's advice and focus our efforts on information and incentives. I sense a change at the outset of the 21st century, in which the Farm Bill included programs like the Grassland Reserve. Even the Forest Service was considered a logical partner for distribution of Farm Bill monies, a concept that should be explored more thoroughly. If we want to be successful in conservation of large blocks of habitat, species of concern, and recovery of endangered or threatened species, it is incumbent that we find ways to make those actions profitable. If the private sector fails to create such markets, it is the responsibility of government, and it should be one of the highest priorities.

Perhaps the most pressing need for accomplishing conservation on the ground lies in our ability to function within the cultural constraints we continue to create. Although it is far more pleasant to focus on how to generate responses from the land or the creatures we seek to aid, we must begin to focus as much or more on human systems and their inherent frailties, something I would suggest are the "7 deadly sins" that work against our efforts to conserve natural systems, including natural processes in all their ugliness and glory. Those 7 are blame, fear of failure, perfection, hubris, bias, ridicule, and singularity.

Blame seems to permeate society today—perhaps it always has—but it seems to be more mainstream than ever before. Blame is a poor cousin of responsibility, and although it might salve our own sense of right or wrong, in the end, blame is one of the most destructive forces in our grasp. When we seek to blame, we can become oblivious to seeking results, and in crushing human dignity, we gain nothing at all. Conservation is a team sport. No player is either solely

laudable or liable for the results. Theodore Roosevelt was less without Gifford Pinchot, and Pinchot was less without Henry Graves. If we engage in the conservation of resources by seeking to blame others, we could probably succeed, and in doing so, we will fail the resource miserably.

A recent cartoon by Bil Keane (Family Circus) shows an older brother advising his sibling that "you can learn from your mistakes so be sure to make some." I was taught to ride a bicycle by being pointed down a hill where gravity would assure my progress and crashing into a fence. I was taught to be a gentleman by being slapped, to dance by stumbling on toes, to respect fire by being burned. Those are little lessons, perhaps, but when we *fear to fail*, we fear to succeed, and when we fear to do either, we simply fail. Instead of fearing failure, we must learn to celebrate mistakes with humility and try again.

Recently, I found a nationwide broadcast that tracked the "progress" of a human being who sought to have her breasts enlarged, nose narrowed, chin thinned, belly sucked, lips filled, and cheeks lifted, all in the quest of *perfection*, or someone else's view of such. This process required breaking perfectly good bones, cutting holes in perfectly good skin, stuffing things into the body, and sewing the same human being together again as casually as my 7th grader made a pillowcase. We seem to be obsessed with something other than what we are at times, and often we demand the same of the land on which we work. I once took a group of people to a riparian area that had recovered from an eroded monoculture of bluegrass and weeds to a stand of 6-foot-tall willows with an understory of sedges and rushes and an incredible meadow of tufted hairgrass, only to have one person point out a single dandelion and declare the job "imperfect." All jobs in conservation are imperfect and incomplete. All jobs in conservation are but one hard rain or one long drought from beginning again. As the television ad says, "there is no such place as perfect."

Whether from pride, passion, or otherwise, *hubris* seems to get us into more trouble than most of the sins. We say and hear definitive statements about the natural world that are more often than not pieces of the whole at best. Or, when we find something that works, we tend to overapply the technique. In China, the ebb and flow runs from mandates to cut every tree, then alternatively, cut nothing. We need each other and the knowledge others bring to the table. Arrogance and surety aside, we really do not have a clue about how some of these natural processes work. One of the most important aspects of learning is to admit those things we do not know.

Bias is only deadly when not acknowledged. Clearly, as we deal with natural resource issues in this century, we will be called upon to work with groups that include experts, advocates, detractors, and other interested publics. One of the most important aspects of getting to results lies in simply disclosing bias. When everyone can see where our bias lies, communication and understanding is enhanced. We should also ask ourselves often whether our bias is stronger than the facts at hand.

When we encounter something new, different, or truly scary, one of our best defenses is *ridicule,* and if we happen to be beating the snot out of a monster in a child's closet, it tends to work pretty well. But ridicule is a painful beating to ideas, and most leaders have had their share. Westerners ridiculed Mao's swimming in the Yangtze while he created the largest nation in the world and held it together despite of the mockery. The concept of ecosystem management was ridiculed, as were the ideas of Alan Savory, the shotgun formation in football, and the idea that girls could play basketball or soccer. Yet, in all of those things we choose to ridicule, nearly every one has brought us some greater level of understanding or knowledge, whether the idea itself succeeded or failed.

Finally, in our efforts to "solve" problems, we have allowed ourselves too often to focus on *singular* components of elegant and intricate systems. The Lone Ranger had a silver bullet, but the rest of us do not, so we might as well forget the notion that the simple solution will jump up and whack us on the head (thus allowing us to arrogantly present the answer and avoid blame while hiding our bias and gaining praise for our perfection). The more we look at endangered or troubled species, the more evident it becomes that there is rarely a single factor that will lead to recovery. And, the more singular our focus, the less flexible we become in seeking holistic solutions.

If those are 7 deadly sins, they all simply point to a lack of balance between the fundamental principles of ecology, economy, and culture. There are ways to avoid them or to mitigate their effects.

First and foremost, we must embrace the concept that we are all a part of the system and that simply removing humans from natural systems will not allow them to repair and correct themselves. A classic assessment of this notion is Robert O'Neill's brilliant McArthur Award paper from 2001,[2] in which he analyzes these notions in light of current understanding and concludes in part:

> Homo sapiens *is not an external disturbance, it is a keystone species within the system. In the long term, it may not be the magnitude of extracted goods and services that will determine sustainability. It may well be our disruption of ecological recovery and stability mechanisms that determines system collapse. (p. 3275–3284).*

This view was echoed most recently in *Science*,[3] in which 21 coauthors agreed that:

> *Shifting from a focus primarily on historical, undisturbed ecosystems to a perspective that acknowledges humans as components of ecosystems, together with new research on ecosystem services and ecological design, will lay the groundwork for sustaining the quality and diversity of life on earth. (p. 1251–1252).*

We could argue that this vision is new or merely confirmation of the views of earlier conservation advocates, but the argument would be irrelevant. We got ourselves into this mess, and we will have to figure out how to get out of it.

Second, most of the ecosystems we seek to maintain are disturbance based and greedy for chaotic, often compelling processes. We cannot make a Garden of Eden, and if we could, we could not maintain it. Large-scale process like fire, herbivory, flood, and drought do not defy, but *define* the norms in much of the natural world. Although top-down effects of herbivory might be lost to North America, they remain awe inspiring where systems remain intact in Africa. Although we might have believed we could control fire for a century, that cleansing will continue to occur, and perhaps escalate in intensity and frequency. And, rather than look for someone to blame (preferably someone already dead), we must find ourselves able to embrace the reality and marshal the necessary resources to create and maintain essential disturbance. In doing so, we need to take an experimental approach in our actions.

We like to think we use "adaptive management," but all too often we stop short of results because of fear of failure. If there is a silver bullet out there somewhere, we will never find it if we continue to debate about how to load the gun. Imagine the intrigue we could find and the time we might spend in arguing over the amount of powder, type of casing, grain of bullet, windage, distance, and slope, just to fire the silver bullet! Sometimes you have to shoot the thing and see where it hits, then follow a blood trail, reload, or get back to the firing range.

At the same time we take an experimental view, we should perhaps forsake some of our obsession with "specialization" and seek to become generalists first. Perish the thought, but a roomful of generalists who really care about the resource, regardless of education and background, might be more powerful than an assembly of experts from whom we expect a complete answer. There is an old saying that we should "seek first to understand, not to be understood," and in doing so, we should bring our expertise to the table second, and our passion and larger view of the world first.

All of this points to a learning atmosphere in which we spend equal amounts of time learning and teaching. Our work becomes relevant when we learn from those we aim to teach and teach those from whom we aimed to learn. Essential to achieving this aim is our ability to learn not only from data and experiment, but also from those who have lived on the land. I have been fortunate to have the counsel of Shoshone and Arapaho elders, ranchers, range specialists, hunters, trappers, loggers, and others, whether to interpret and explain, challenge and question, or console. Their data are contained in their heads, to be sure, but more often in their hearts, and we must find ways to retrieve that knowledge. The first step is to value the heartbeat. The second is to seek the data of the mind.

Finally, there is patience. None of us will solve the issues of the day in our own short span on earth. Rather, we should focus on building a human system where we denounce the errors and embrace the challenges. We should seek to offer the next generations heart and hope. If we do nothing more than that, we will have done our part to sustain the lands we love.

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References

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