



## Missouri Compromise

By Stephen Pyne

June, 2009

When Daniel Boone died in 1820 in the Femme Osage district west of St Louis, the Missouri territory remained a marcher land, an unsettled locale between frontiers, of which there were several, each seemingly incommensurate. One frontier was political, the division between slave state and free. One was historical, the place where the old Trans-Appalachian frontier ended, having spilled over the mountains and flooded over a vast interior, and where the Trans-Mississippi frontier was aborn, poised between St Louis and Independence, ready to sweep across the wide Missouri to the Pacific. And one was environmental, where the eastern woodlands thinned and the western grasslands thickened. For all this Boone became a reluctant folk hero thanks to John Filson's 1784 biography. One generation, Boone's, liberated by the American Revolution, had made that long hunt from the hinterlands of the Atlantic to the western tributaries of the Mississippi.

It was their sheer westering that sparked these proliferating frontiers. What had been separated, joined. What had found common cause in expelling the British now split over who would control the West. The progeny of that Great Migration came to rest in Missouri. Those new lands destabilized the old political equilibriums, particularly between slave and free states. The entry of Missouri into statehood nearly stressed the system to the breaking point, and forced an accommodation, the first of several. The Missouri Compromise of 1820 was enacted the year Daniel Boone died.

Something similar may follow America's fire revolution that raged from the mid-1960s to the mid-1970s. Insurgent groups that could unite against a common foe – in this case a hegemonic commitment to suppression – might split when that threat receded and as lands become available to admit to the new regime. So it is that America's fire polity has split into two dominant confederations. One looks to wilderness as a guide, and tolerates human activities insofar as they lead ultimately to their own removal. The other looks to working landscapes for which fire remains an implement for hunting, herding, logging, and other forms of sustenance that serve human economies. There is little common ground between them: a land must ultimately subscribe to one or the other. The lines between, often with legal and political sanction, are rigidly drawn. This time the national polarities do not align North and South but east and west. The wilderness ideal remains firmly anchored in the public domain of the West; the working landscape, in private ownership for the most part, or on the public lands providing recreational services, in the East.

Missouri sits between them, a middle ground; middle geographically, middle thematically, middle politically. It remains fundamentally a landscape of the border, settled when the public domain was being sold off or handed out as quickly as possible and brought into production. Over the past few decades this landscape has become again unsettled, a frontier in the environmental contest between the wild and the working. Out of it perhaps is emerging a new Missouri Compromise.

The Ozarks form a modest uplands, spanning southern Missouri and northern Arkansas, grading into foothills eastward along the Ohio River and westward into eastern Oklahoma. Its core is a granitic dome, long ago leveled, and then raised again into a shallow plateau. That uplift entrenched the major rivers, complete with meanders, and it kindled a new era of erosion that dissected the plateau into an intricate lacework of hills and hollows.<sup>i</sup>

They constitute a distinct landscape for fire. Compared to the Great Plains, they broke down the capacity of fire to free-range. The bluffs, the spring-fed streams, the ravines – all fragment the ability of wind-fetched flame to soar untrammelled. Compared to the eastern plains, etched primarily by streams, they add texture to the terrain, thus doubling the resistance offered to fire's spread. It was possible in the east to amass burned patch by patch into extensive prairie peninsulas and barrens. But the topographic texture of the Ozarks fractured even those features into smaller parcels, many of which were less readily fired or given to grasses. Early observers thought the biota similar to the prairies and the terrain similar to Appalachian hills.<sup>ii</sup>

Both biotic realms, western prairie and eastern woodlands, thrived in the Ozarks but in different settings. The rolling uplands were savanna woodlands; the ravines held the thick forest, tucked away from wind-driven flame. Perhaps a third of such woods was shortleaf pine; the rest, a mixed oak-hickory hardwoods. Dry lightning is rare. Fires are set by people, and like people they have to struggle to overcome the tendency to split and diminish any movement through the hills into ever-tinier tributaries, a kind of reverse stream, splintering into rills and springs of fire as the process proceeds deeper into the plateau.

As the entrenched rivers deepened, and then meandered, mesas were sometimes left within oxbows which further eroded into a still deeper isolation, what became known locally as "lost hills." Geographically and historically, the Ozarks were themselves a lost hills. The Ozarks stand as an outlier and muted echo of the southern Appalachians, much as the Black Hills do for the Northern Rockies.

The Ozarks are not prime farmland, and the interior was shunned by colonizing agriculturalists. It knew the usual sequence of prehistoric inhabitants, from Archaic to Woodland peoples, before feeling the outer touch of the Mississippian civilizations. It lay on the margins of those cultivating civilizations that claimed the humid bottomlands of eastern North America, raising maize and building mounds. While relics remain to testify of these various occupations, those peoples themselves had gone, perhaps through that mysterious collapse that swept away so many societies across 14<sup>th</sup>- and 15<sup>th</sup>-century North America, from the Anasazi to the Hohokam to the Mississippian Oneota. Throughout, the Ozarks were likely occupied seasonally, part of an annual cycle of hunting and foraging. The hills abounded with game from turkey to bison, deer, and elk. By the time exploring naturalists arrived, and trees in the mid-17<sup>th</sup> century began recording fire scars, permanent occupants had vanished. Their fires left with them. The Ozarks became a fire sink.<sup>iii</sup>

That changed in the early 19<sup>th</sup> century when the Cherokees, dislocated by the border wars in the southern Appalachians, began to arrive. They found a kindred landscape, well suited to their economies of hunting, forest farming, and foraging, but one they set about fashioning into still more usable forms, for which fire served as a universal catalyst. The record of burning ticked upward; and when drought overlay the hills, it became widespread. The burning dappled the Ozarks with prairie pockets and barrens, balds and glades, and where the prevailing westerlies could blow freely, as on the uplands, savannas emerged of varying purity. Early observers reported that "both the bottoms and the high ground" were "alternately divided into woodlands and prairies," that it was overall "a region of open woods, large areas being almost treeless," and that the prevailing cause of this action was fire, for "it was common practice among Indians and other hunters to set the woods and prairies on

fire.” Later naturalists like Curtis Marbut concluded that the open character of the scene was “without doubt, wholly or principally due to the annual burning of the grass.”<sup>iv</sup>

The record of burning waxes with each surge of immigrants and wanes when they decamp. Yet even when thriving, their flames could not propagate everywhere. They constantly ran into ecological baffles and geologic barriers. On that roughened terrain the swells of flame that rolled with the westerlies from the plains broke, like a storm surge against a rocky isle, splashing forward but with spent momentum. Something more would be needed to overcome those internal checks – more people, greater biotic leverage, more firepower. An 1828 treaty sent the Cherokee to Oklahoma. Their forced removal meant a forced eviction of fire. But already a new wave of colonizers was probing into a land partly broken to an agricultural halter before lapsing into fallow.

The largely Scots-Irish peoples who poured over the Cumberland Gap were a footloose culture, well adapted to unsettled places. Theirs was a folk economy and ethos suited to marcher lands, forged in Scotland and northern Ireland. They preferred to keep their larder on hoof rather than planted. In the New World their kinetic economy of herding, hunting, and gardening found ample room to roam, and acquired even greater clout by hybridizing with the hunting and swiddening culture that emerged around New Sweden, as backwoods Finns absorbed selective practices of the indigenous Delawares. The resulting fusion was an ideal alloy for a pioneering society, one that could range widely and break ground for others more inclined to stay and cultivate. It was a loose-jointed, restless society that worked best when moving and became troubled when stuck.<sup>v</sup>

Frontiers are often flaming fronts. Whether or not those marcher lands hold fire of themselves, the violent abrasion of people against people and of people against land kindles flame as swidders slash and burn, pastoralists loose and burn, hunters stalk and burn, travelers clear and burn, and warriors battle with fire and sword. Unsettled places invite fire, and those fires become catalysts for what will follow. Under the impress of settlement the land changed, as new grasses, trees, and creatures, no less than peoples, supplemented and often replaced those before them. The forecast “dark and bloody ground” of Kentucky had its environmental analogue in a dark and burned landscape. What spared such places from full ruin was the intrinsic dynamic of the frontier. It struck, broke, and moved on, leaving to others the tedious task of gathering up the ecological shards and remaking landscapes into viable habitats.

In Missouri the earliest settlements clung to major riverways which served as routes of transport and trade. But the broad Missouri that bisected the state also defined its two biotic realms, the prairie loess to the north and the forested highlands to the south. Vast prairies were not landscapes a backwoods society favored: they were a place for the plow, not the long rifle. The French clung to the rivers; Germans sought out bottomlands and modest hillsides; the Scots-Irish pushed into the interior, where they could hunt, trap, put down maize plots, and loose their herds to fatten on the abundant grassy balds that served as ready-made pastures. In brief, the newcomers favored places akin to those they knew. The floodplains were fever-ridden and prone to cholera; the highlands allowed the newcomers then to scatter, as though the frontier were temporarily suspended. When asked why they settled the Ozarks rather than the farm-lusher plains, the pioneers said simply they liked the hills.

As those before them, they began claiming the land by remaking it in their own image. They hunted, they gardened, they turned out hogs, goats, horses, and cattle onto the Ozarks as an open range, and they burned. The numbers of fires increased, rising with populations of people, cattle, and hogs. Livestock granted biotic leverage, amplifying the effects of fire and more than replacing the fast-hunted indigenous fauna. Free-range grazing, in particular, invited free-range burning. Soon every hollow and hillside found its match.

Not only fire’s numbers but its sites and seasons changed. The Cherokees had preferred setting autumn fires associated with fall hunts on the uplands. This had the added benefit of forcing game to find winter forage in the bottoms and canebrakes, closer to encampments. The newcomers, with livestock to sustain them, burned in the

spring, not wishing to strip the uplands of winter forage and pushing for a quick flush of fodder to plump up the stock after a lean winter's fare. This altered fire regime modified the composition and dynamics of the Ozarks landscape.

Still, such ecological nuances were secondary to the sheer increase in numbers of fires and their propagation throughout the countryside. People and their stock overwhelmed the internal checks that had held fire to grassy patches between bluffs, creeks, and southerly exposures. The rains were good enough to keep growing something, and a fire-catalyzed economy kept the land constantly kindled. The fires filled out every landscape nook and cranny. This repeated firing and quenching tempered the Ozarks into a hardscrabble landscape. The fires worsened as a logging rush after 1890 swept away the shortleaf pine, and as oak thickets replaced savanna woodlands, and as more and more of the flora broke down into biotic rubble and rock. Visiting the hills, Aldo Leopold concluded that many people burned simply to shield themselves from all the burns others were setting. The Ozark candle was burning at both its ends.<sup>vi</sup>

By the 1920s the Ozarks were a shambles. Its chronicle of fire again records a decline, this time not because people had left but because they had stayed, and in fact multiplied along with their livestock, for the land could no longer grow enough to support fodder for both slow-combusting herds and fast-combusting flames. That old economy of frontier burning had no new lands to move into. Resprouting oaks took over sites once under pine, feeding hogs in ways that pine roots could not. Pasture degraded. Erosion worsened. The felled forests left a scalped and furrowed dome. Then drought and Depression forced another emigration, and state and federal governments intervened to acquire significant tracts of land – a new, reversed round of treaties, as it were – and imposed doctrines intended to evict fire from the land. Even as the biota rebounded, fires diminished in number and shriveled in size. The fire history of the Ozarks once more tracked its human history.

This is Ozark fire history as recorded in tree rings, travel journals, scientific surveys, and folk memory. But it is not a history understood by fire science. Fire behavior has no parameter for people, and since fire history must derive from fire behavior, there is no integral role for anthropogenic fire. For prevailing fire theory the Ozarks are an outlier, an interpretive anomaly, a freak of fire history.

Yet this vision of fire scholarship has always been an artificial construction, the bastard child of a wilderness ideology and a physical model of fire. The first proposes that the foundational world for analysis is the uninhabited landscape. Begin with the wild, then add people – that is how you understand history. The second proposes that fire is fundamentally a chemical reaction shaped by its physical circumstances. Start with the physical chemistry of combustion, then add a stratum called biology, and then add another stratum called culture – this is what a science-based scholarship of fire means.

Both approaches are doubly reductionist in that they use reductionism not only to isolate and understand parts but to insist that everything must derive from that most-reduced element. For wilderness, this demand involves a historical reductionism, and for fire behavior, a dynamic reductionism. Accept this reasoning and we remove ourselves from history as we have from geography. If that doesn't appear to be the case, it is because we have also removed ourselves from models of fire behavior. But since fire science has been sponsored by public agencies interested in wildlands, these formulations are the ones that dominate discourse.

It is entirely possible, however, to invert both propositions. Begin with the inhabited landscape and with anthropogenic fire. These conceptual complexes determine the units of analysis, each of which can be analyzed through reductionist techniques. Where people have chosen to remove their agency, subtract them from the equations. Wilderness fire behavior is thus not a core model, to which we can overlay people, but a special case in which one variable, humanity, nature's species monopolist over fire, has been restricted as a factor or set to zero. In this conception there remains ample room for the physical sciences, but the whole, not a hierarchy of parts,

determines their significance. This is in effect the argument advanced by those scrutinizing the presence of fire in the Ozarks.

They have no choice, really. But their necessity suggests a larger opportunity to reform fire theory. It says that you don't begin with wild fire and somehow, someday, maybe, incorporate people. It says you begin with anthropogenic fire – its behavior, its regimes, its landscapes, its history. The old fire-behavior troika of fuel, weather, and terrain can't by itself describe real-world fire on the landscape, and enshrining it perpetuates a sense that if we only remove people we can solve (or at least understand) fire. We can make the formulas true by positing the historic equivalent of ideal frictionless surfaces. Rather than attempt to derive fire history from physics-based fire behavior formulas, we ought to consider such formulas as a special case of general fire history.<sup>vii</sup>

This is a bold bid, for it expands the meaning of fire behavior to include humans. The intervening variable is the topographic texture of the Ozarks, what the group has sought to quantify as "roughness." People determine when and where fires will start, and terrain determines how they will spread. The issue cannot be dodged in the Ozarks, a deeply etched landscape full of rocky bluffs, hollows spared the prevailing winds, creeks and rivers, vegetation shaped by aspect, with north slopes more damp and shaded than south. Those terrain features define the geographic matrix of fire propagation – the landscape's fire behavior pixels, as it were. Hardly can a fire get a head of steam before it runs against a shift in fuels or an outright fuelbreak. The broken landscape makes for broken fire spread. What decides which pixels get burned and what propagates fires across the pixels is people.

This argument can be generalized. A kindled fire will fill up its "natural" landscape matrix pixels, whose dimensions are set by the normal fire-behavior troika. On the High Plains this might extend for hundreds of miles; in the sky islands of the Southwest, it might consist of a side canyon. The size of the pixels and roughness of the matrix determine how many fires are needed to burn over a landscape. There are places where this dynamic plays out under wholly natural circumstances: lightning sparks a fire that rides the passage of a cold front over a vast estate, or so much lightning pummels a corrugated mountain that the burned patches eventually merge. Moreover, it is possible for a fire to creep between old burns, in effect, restarting a blaze within a new unit, sweeping out each in turn. But such processes don't work in the Ozarks where lightning-kindled fire is rare and where the pixel matrix is as intricate as the etched and rocky uplands. Fires occur in the Ozarks because people have chosen directly to ignite them or indirectly to let them happen by not attempting to stop them or by shaping the larger landscape.

The truly revolutionary corollary is that people are essential to propagation: they carry fire from one pixel to another, they determine how the landscape will fill with flame. Where the roughness index is low, a few people can set fires adequate to flood the landscape. Where the index is high, an equivalent burning demands more people or people with other leverage by which to overcome the resistance the landscape offers. Thus fires and the area they burn vary with human population but in accordance to the character of the matrix of fire-behavior pixels, and this is why the fire history in the Ozarks tracks human migration so tightly.

But it is possible to go further with this insight. Richard Guyette, for example, has restated the Arrhenius equation for wildland fire. In his model people provide the critical "activation energy," just as in a lab setting they kindle a Bunsen burner. Across a landscape it is people who start fires and then keep them going. Without someone to ignite that burner, the fuel, oxygen, and other physical parameters are meaningless. So it is with many landscapes capable of burning but that don't burn under wholly natural conditions. In the Ozarks some human has to supply the activation energy to begin the reaction.

In truth, this happens all the time in wildland fire management as fire crews set prescribed fires and backfires, and burn out along control lines or the borders of pre-determined patches. (How much of the 1988 Yellowstone fire complex was the result of failed burnouts?) Historically, giant fires got big not from purely conditions but from

protective burning as settlers rushed to fire around their valued fields and structures; each new smoke column inspired others to burn. A thousand people setting backfires in an afternoon can pump up a thousand-acre wildfire into a million-acre one quickly. Here is a mode of fire propagation far more powerful than radiant heating or even spotting. The firebrands do not have to ride the wind, only reside in nervous, willful hands.

To link fire behavior with fire history, extend this reasoning to account for the movement of fire over time, or the persistence of fire on the land across epochs defined by features other than fire. Consider the lumpiness of history as another roughness index. In this way we can address the chronological patchiness of a place, the sense in which the fire practices of one era can propagate (or not) into another. The Ozarks again offer an exemplary study site. They are a contained landscape feature that has, over the past 600 years, undergone a series of depopulations and repopulations. What this historical model shares with the geographic model is the vital role of people. The comings and goings of people drive the rise and fall of fires. They carry fire across the pixels of history.

In many landscapes people compete against natural fire, and in most, they compete with other species of anthropogenic fire. The Ozarks offer a special case where natural fire is absent and the land has experienced more or less complete cycles of human migration. The historical roughness index is high. What research says is that for history, as for geography, people carry fire from patch to patch. By converting the fire saga of the Ozarks into quantitative date – by tracking fires through the scars they have left on shortleaf pine and bur oak, by translating the converted landscapes into fuel loads through time – researchers including Rich Guyette, Dan Dey, Rose-Marie Muzika, and Mike Stambaugh – have sketched the basis for a general model of anthropogenic fire and have made a case that fire’s behavior on the land cannot be understood apart from human behavior.

That such insights seem novel testifies to the generally baleful status of anthropogenic fire research. For the fire community, “fire behavior” has a specific meaning: it means fire propagating as a purely natural phenomenon; it means the movement of a zone of combustion across a landscape under the influence of weather, fuels, and terrain. People can use these factors to start fires of their own, or to suppress free-burning flames. But they are not themselves an inextricable component of such a model. The point of fire behavior research is to study pure – that is, “natural” – fire. If people start and stop fire, they turn fire science into fire technology. The argument that removing people is the aberration, not only of historical geography but of fire theory, is an idea too radical for most practitioners or funding agencies to contemplate. It violates equally their sense of wildland and of science. Most researchers would thus place the Ozarks as an outlier.

Yet it is possible to stand this perception on its head, to proclaim that inhabited places like the Ozarks are the norm and that wildlands are the exception, not only as places but as theoretical models. Yellowstone or Yosemite can choose to ignore the anthropogenic fires that preceded the park’s establishment, and can dismiss the century-long removal of fire by people as an aberration, and pretend that humanity’s only role now is to assist in regenerating an order in which people will ultimately stand aside. The Ozarks can’t, and by forcing a recasting of fire behavior and fire history around a human presence, they propose a theory of fire’s presence that makes the anthropogenic landscape the vital center and the others as derivative outliers.

Over the past century the Ozarks have experienced another cycle of migration, another reformation of landscapes, and another long-wave cycle of fire. Neither emigration nor immigration is as complete as those of the 19<sup>th</sup> century, and the emergent landscape is fragmented, with large patches still mired in the old order. But the long-rhythm of burning is unmistakable. From 1581-1700, the mean fire interval in the southeast Missouri Ozarks was 15.8 years; from 1700-1820, 8.9 years; for 1820-1940, 3.7 years; but since 1940 it extends to 715 years. Across some 500 years the landscape for burning had blossomed and then disappeared.<sup>viii</sup>

By the 1920s the Ozarks were breaking down, and they crashed during the drought and Depression of the 1930s. Once the orgy of cutting passed, and its slash had burned, fires thinned, and those that survived weakened, due to the sheer accumulation of the human presence. There wasn't enough to burn in the old way. Then people began decamping, lands fell into tax delinquency, and the flinty stubbornness of Ozark political culture cracked. The removal of the human hand created a new frontier, as land changed ownership or acquired a new cover, or both. Missouri came late to conservation but it came with hard-wrought compromises that bequeathed an institutional steadiness.

Between 1929 and 1933 the General Assembly authorized the federal purchase of forest land under the Clarke-McNary Act. Soon the U.S. Forest Service acquired 1.3 million acres to make the Mark Twain National Forest. The election of 1936 established a Missouri Conservation Commission, later renamed the Missouri Department of Conservation (MDC), which oversaw forestry, fish and wildlife, and began acquiring lands of its own, apart from state parks. Decade by decade, slower than activists wished, but with a steady if oft-spasmodic tread, the institutional apparatus for state-sponsored conservation matured. In the 1960s the National Park Service entered seriously into the consortium with the Ozarks National Scenic Riverways. In 1976 and again in 1984 voters approved a sales tax devoted to conservation programs. By 2000, over 13% of Missouri, capturing all the critical conservation elements, were lodged in protected public landscapes.<sup>ix</sup>

Thoughtful observers had long agreed, however, that genuine conservation could only follow from grassroots popular support, not elite control over bureaus. The private sector controlled most of the land and would determine the grand mosaic of Missouri habitats. A spectacular fusion of private ownership and public service commenced when Leo Drey, beginning in 1951, began developing the immense Pioneer Forest. Eventually his holdings grew to 160,000 acres, all dedicated to sustainable forestry through selective cutting and intimate knowledge of its intricate mosaic of sites. That experiment helped establish a pattern, if sometimes grudging, of cooperation between private and public sectors. Subsequently, donated land, private reserves (such as those belonging to The Nature Conservancy), and conservation easements have expanded the realm of rehabilitated hills.<sup>x</sup>

Together they formed a mixed economy of ownership, some private, some state, some federal; but all were working landscapes. The national forests housed CCC camps, which set about stabilizing soils, replanting hillsides, and stopping fires. Peck Ranch, in particular, became a showcase; and when oak decline threatened to spread from Arkansas, the MDC was willing to log off 17 million board feet to halt it in its tracks. MDC brought back the turkey, and even exported its thriving flocks to a dozen other states. But the most potent measure was fire control. The MDC made fire protection a foundational program, assuming that ending the biota-stressing flames would allow the land to recover. Pioneer Forest banned burning of all sorts.

In the early years locals often resented the new order: they regarded fire towers darkly as prison watchtowers, and told of soaking a rope in kerosene, setting it afire, and dragging it behind a galloping horse through the woods. Federal foresters were so exasperated that they arranged for anthropologists to study the local residents as one might Inuit or Trobriand Islanders. But the tide had turned, and that creaky pioneer culture could no more hold its own ebb in place than Knut could stand against the sea's advance. The last blast of fire came in the spring of 1953 when an insurgent outbreak of fire affected an estimated 80% of the Missouri Ozarks. Thereafter fires stayed on private lands, or if they strayed onto the public estate were quickly rounded up. In 1967 Missouri at last banned open range grazing. That reduced the primary motive for continued folk burning to vandalism, a kind of flaming graffiti, unmoored from its economic piers. The old regime collapsed.

Yet after the sighs of relief passed, after the land had recovered sufficiently to regrow pine, oak, and a Midwestern scrub, another, if predictable, fire problem emerged. There was not enough fire to make the landscape habitable according to the definitions of the society that was reclaiming the Ozarks. Left to themselves

the Ozarks would ecologically morph into something people couldn't use and didn't like. The region had been settled on a roughly Midlands border pattern, though a footloose piedmont and mountaineer model replicated neither New England village nor coastal-plains slavocracy. The imprint of those origins endured, as did many progeny of the pioneering generation and a peculiar political culture.

The rebuilt Ozarks would remain a working landscape, not a wild landscape. But "working" acquired a new definition. It meant recreational, not subsistence, hunting; biodiverse habitats, not open-woods pastures and gardens; sustainable logging, not landclearing; exurban visitors, not backwoods pioneers. It meant fire practices suitable to such ambitions - not a restored flaming front, rolling over the hills in a wave of settlement, but a patchy rehabilitation in which varied fires catalyzed diverse habitats. It meant a hard slog of fire reintroduction, feeling what flame might do in the new order. As everywhere, foresters resisted, still locked in ancient blood-feuds with open-range graziers, land-scalping loggers, and fire-promiscuous ruralites. But over the past 20 years they, too, have converted or retired from the scene.

The emerging Missouri consensus features a mixed economy of land ownership and purposes and a fire regime for the working landscapes of a service economy. These are not the practices of the Wild; nor does that vast corpus of fire science devoted to free-burning flame in the Wild hold much pertinence. These are landscapes with people at their core: people set fires, people determine how fire behaves, people decide what species fire will promote or contain, people carry fire across the political roughness of land ownership and the historical roughness of a new era. A new generation wants fall colors from hickory, sycamore, maple, and the 22 species of oak in the state. They want turkey, and otter, and bear. They want prairie patches high with native grasses and thick with forbs. They want glades not overwhelmed by brush and cedar. They want clean streams for floating – the Ozarks National Scenic Riverways was the country's first such protected complex. They want habitat for the endangered Bachman's sparrow, and as a grail quest, enough restored shortleaf pine to reinstate the red-cockaded woodpecker. There are pressures for wilderness, too, but they are tiny tiles (23,000 acres) in a vaster mosaic.

To those who consider expansive wilderness as the paragon of nature protection, the Missouri model will seem slow, flawed, and exhausting. They will want immense public estates, and will long for administration by agency fiat, presidential proclamation, and court rulings. Conservation in Missouri has proceeded differently, never moving much beyond a close-argued public opinion, which has required that advocates convince the body politic, not a court or an agency chief. This means a more tedious pace, often lagging national headlines, but a more thorough political legitimacy. Elsewhere, what one administration can declare a roadless area, another can delist. But in Missouri, public opinion, not simply an appointed official, has approved the measures, and what the public has granted after long deliberation it is not likely to cede casually. Conservation in Missouri must work through multiple owners, varied ambitions, and a deeply plowed field of politics. But when it comes, as it has, it speaks with democratic authority as tenacious as matted oak roots.

The wilderness ideal conveys a purity not only of nature but of politics. It works best on empty public lands. It seeks to deal only with the administering agency, not with the whole messy muddle of civil-society politics, which may not be trusted in the end to make the right choice. And it demands a science as seemingly pristine as the nature it aspires to, one stripped of human agency. That type of politics won't work in Missouri, nor will its science. Both must begin with the anthropogenic landscape, subsequently modified to suit local tastes, not with eco-utopian visions in which humans have vanished and the torch left with the last of the Oneotas.

Across most of America our fire policies, and environmental controversies generally, continue to polarize between the wild and the working. Abolitionists remain intent on banning people from preserves, while traditionalists are keen to defend a way of life whose time has passed and that seems ethically repugnant to much of the national citizenry. As the founding conflict spreads into new landscapes, the prospects ripen for a low-grade civil war, as each side pulls the middle ground apart, forcing it to choose one polarity or the other, all of one or all

of its rival. This time, the contested frontier lies not to the west but between the two fires of either coast. In the 19<sup>th</sup> century that relentless expansion wedged a social fissure into a political chasm. In the 20<sup>th</sup> the growth of environmentalist agendas amid a rapidly unsettled landscape can threaten to do the same.

But the Ozarks suggest an alternative. This time Missouri is not a centrifugal frontier but a centripetal middle. Its experience suggests that consensus is possible, that fire might be reintroduced through human artifice and understood within the context of anthropogenic landscapes, that people can enhance as well as degrade. This time Missouri may compel a compromise that lets the center hold.

**Acknowledgements.** This essay is a species of interpretive journalism that resulted from a two-day field trip to the Missouri Ozarks organized by Rich Guyette, Dan Dey, and Mike Stambaugh, as a prelude for a day-long workshop on human fire history at UM-Columbia. For some years I have followed the fascinating fire-history articles the UM Tree-Ring Lab group had published and leaped at the chance to see them and their sites in person. Others joined in: Tim Nigh, Susan Flader, Dan Drees, and Rose-Marie Muzika. To their research I have tried to provide a larger historic and philosophical context. The data is theirs. The refractive prism is mine. I also thank Mike Dubrasich for a gentle editing of a rough-pixelated manuscript.

**Advances in Fire Practice** is a sub-site of [wildfirelessons.net](http://www.wildfirelessons.net) and is focused on bringing efforts and ideas to the forefront that leaders in the fire management, practice, and research communities have identified as innovative and widely applicable. It provides access to critical and proven fire information and resources. Advances in Fire Practice section can be reached directly by going to <http://www.wildfirelessons.net/AFP.aspx> or through the main Wildland Fire Lessons Learned Center website at [www.wildfirelessons.net](http://www.wildfirelessons.net).

**The Wildland Fire Lessons Learned Center** actively promotes a learning culture for the purpose of enhancing safe and effective work practices in the entire U.S. wildland Fire community. It is located at the National Advanced Fire & Resource Institute in Tucson, Arizona.



---

<sup>i</sup> The classic introduction remains Carl O. Sauer, *The Geography of the Ozark Highland of Missouri* (Greenwood Press, 1968; reprint of 1920 edition).

<sup>ii</sup> See, for example, Curtis Marbut: “The whole region and its vegetation was more closely allied to the western prairies than to the timber-covered Appalachians.” Quoted in Tim A. Nigh, “Missouri’s Forest Resources – An Ecological Perspective,” in Susan L. Flader, ed., *Toward Sustainability for Missouri Forests. Proceedings of a Conference*, General Technical Report NC-239 (U.S. Forest Service, 1999)

<sup>iii</sup> See Michael J. O’Brien and W. Raymond Wood, *The Prehistory of Missouri* (University of Missouri Press, 1998), pp. 295-296, 331-333.

<sup>iv</sup> Sauer, *Geography of the Ozark Highland*, pp. 52, 54. Quotes on Indian burning and from Marbut from Nigh, “Missouri’s Forest Resources,” p. 11.

<sup>v</sup> On the character of settlement generally, see Malcolm J. Rohrbough, *The Trans-Appalachian Frontier* (Oxford University Press, 1978), and on its syncretic fusion of practices, Terry Jordan and Matti Kaups, *The American Backwoods Frontier* (Johns Hopkins University Press, 1989). Sauer, as always, gives many useful particulars.

<sup>vi</sup> Leopold quote from Susan L. Flader, “History of Missouri Forests and Forest Conservation,” in Flader, ed., *Toward Sustainability for Missouri Forest*, p. 20.

<sup>vii</sup> The UM-Columbia group under Richard Guyette has produced an ever-lengthening literature on these topics. Perhaps the central paper is R.P. Guyette, R.M. Muzika, and D.C. Dey, “Dynamics of an Anthropogenic Fire Regime,” *Ecosystems* 5 (2000): 472-486. I take considerable liberties in extrapolating their concepts into a more general critique of fire scholarship.

<sup>viii</sup> See E.R. McMurry et al, “Initial effects of prescribed burning and thinning on plant communities in the southeast Missouri Ozarks,” See E.R. McMurry et al, “Initial effects of prescribed burning and thinning on plant communities in the southeast Missouri Ozarks,” *Proceedings of the 15<sup>th</sup> Central Hardwood Forest Conference*, U.S. Forest Service e-GTR-SRS-101 (2006), p. 241. The most comprehensive summary of contemporary fire statistics is Steve Westin, “Wildfire in Missouri” (Missouri Department of Conservation, 1992).

<sup>ix</sup> Details of conservation history from Flader, “History of Missouri Forests and Forest Conservation.”

<sup>x</sup> See Susan Flader, “Missouri’s Pioneer in Sustainable Forestry,” *Forest History Today* (Spring/Fall 2004), pp. 2-15.