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The Law of the American West: A Critical Bibliography of the Nonlegal Sources

Charles F. Wilkinson

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THE LAW OF THE AMERICAN WEST: A CRITICAL BIBLIOGRAPHY OF THE NONLEGAL SOURCES†

Charles F. Wilkinson*

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I dedicate this piece to Wallace Stegner, who has depicted the native home of hope in its truest hues.

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I. INTRODUCTION

We ordinarily associate regionalism with history and literature, not with law. Conceptualizations of legal systems within the United States typically rest on the idea that law comes in three layers — federal, state, and local. In fact, there are at least two major examples of regional bodies of law. One is comprised of two centuries of law and policy involving the South's experience with slavery, segregation, and desegregation. The second set of regional laws exists in the American West.

The American West and its distinctive body of law are defined by the combination of several characteristics of climate, terrain, and political geography. Wallace Stegner, whom I count as the wisest observer of this region, has said that the two most influential factors of society in the West are its aridity and its high concentration of federal public lands.¹ Western water, or the lack of it, has determined agricultural, ranch, and mineral development; built financial empires; shaped and limited municipal growth patterns; and inspired recreationists, poets, and citizens of all stripes who are drawn to the rivers, streams, creeks, and rivulets coursing down the steep pitches of western canyons. The public lands matter because of their abundance (they constitute about fifty percent of all land in the eleven western states and nearly ninety percent of Alaska land); their economic value; their intrinsic tendency to create a pattern of dispersed population; and their extraordinary stores of wildlife and beauty.

The West has other key characteristics of natural and political geography. The terrain is variously chopped up by rugged mountains and spread out by high plains and desert country. Further, the region holds most of the nation's Indian lands. The Native American acreage is more than many Americans realize — almost six percent of the eleven western states and, after ongoing transfers of public land to Alaska Natives are completed, twelve percent of Alaska. In addition to the effects of their land holdings and cultural traditions, the tribes also have influenced the region during the last quarter-century by their successes in Congress and the courts, which have solidified Indian resource rights and political power. The rejuvenation of the reservations has sharpened the age-old, uneasy blend of morality, guilt, and melting-pot pragmatism that makes Indianness, and its future, a palpable presence in the West. Some of the same cultural issues are raised in regard to Hispanic and Mormon settlements, although large land holdings are not involved.

The aridity, the federal public lands, the Indian lands, the mountains, the deserts, and the plains combine to create a final influencing factor on western society: open space. Population is moving west but,

1. W. STEGNER, *THE SOUND OF MOUNTAIN WATER* 33 (1969).

in a sense, the region is not filling up. The people are settling in the cities, not in the hinterlands — the American West has a higher percentage of its population, approximately eighty-three percent, residing in metropolitan areas than does any other region.² To be sure, the empty quarter is feeling the press of growth, but the awesome space persists. Its tomorrows will be a focal point of the West's law and policy.

By the American West, I mean the area west of the 100th meridian, except Hawaii, which has a separate set of historical and legal developments. The region includes the western parts of the states straddling the 100th meridian (North Dakota, South Dakota, Nebraska, Kansas, Oklahoma, and Texas), the Rocky Mountain states (Montana, Idaho, Wyoming, Colorado, Utah, Nevada, Arizona, and New Mexico), and the Pacific Coast states (Alaska, Washington, Oregon, and California).

The special qualities of the American West have a more pronounced effect in some areas within the region than in others. The states along the 100th meridian lack the high percentages of federal public lands that are such a key determinant in the West. This applies even to Texas — so archetypally western in some respects — for Texas has only a few parcels of public lands, all acquired since statehood.³ In other parts of the broadly defined region, certain characteristics of the American West also are attenuated. Much of the Pacific Northwest beyond the Cascades has abundant rainfall, thus making water law and policy somewhat less important. Similarly, Alaska has not yet faced water shortages. California has traditionally shared in the common heritage of the American West; indeed, it has been especially influential, a main platform from which people and ideas have spread throughout the region. During the last generation, however, the coastal area of Southern California and the Bay Area farther north have become so heavily urbanized that the traditional regional flavor has been lost to a greater extent than in, say, Salt Lake City, Albuquerque, Phoenix, or Denver. Another way to define the American West, then, is to see it as a heartland consisting of the mountain West — the western slopes of the Cascades and the Sierra Nevada east to the eastern slopes of the Rockies — but with strong influence zones reaching out to the 100th meridian and to the Pacific Coast, including Alaska.⁴

2. BUREAU OF THE CENSUS, U.S. DEPT. OF COMMERCE, COUNTY AND CITY DATA BOOK 2 (1977).

3. All other western states were carved out of the public domain and most land remained federal after statehood, but Texas obtained title to nonprivate land within state boundaries. Texas was able to achieve that result because it came to the statehood negotiations as an independent republic, owning most of the land within its boundaries, rather than as a federally created territory.

4. Robert Athearn agrees that the eastern boundary of the American West is at about North

The law of the American West has grown up organically from the land and the people who have inhabited it. Walter Prescott Webb, in his superb book *The Great Plains*,⁵ concluded that there is an "institutional fault" running down the heart of the nation from north to south, west of which rainfall is less than twenty inches annually in most areas. This cultural fault line demarcating the eastern edge of the dry country weaves along the 100th and 98th meridians. West of there, Webb concluded, societies built a number of distinctive institutions to meet the demands of the land. Webb specifically directed his attention to law, detailing the water laws and federal land disposition laws that were created to conform to the needs of the region. But now we can add many others to Webb's list. In addition to water law and the various homesteading laws, we can identify several other bodies of legal doctrine that operate solely in the West or that apply there in a heavily disproportionate fashion: the hardrock mining laws, federal mineral leasing laws, Indian law, the statutes dealing with Pacific salmon and steelhead, grazing law, federal timber law, the endangered species laws (especially as they relate to large mammals such as grizzly bear, wolves, and bighorn sheep), and the wilderness laws. Immigration law and ocean and coastal law might also be included, although they are less distinctly western than the bodies of law just mentioned.

The rules in the statutes and court-made doctrines constituting the law of the American West often are disconnected and arbitrary if they are studied in a vacuum. This is particularly true of a phenomenon that pervades the law of the American West — the dominance of nineteenth-century laws that seem to be outmoded by today's lights. Some of these laws (water, mining, grazing, and Indian law are perhaps the best examples) may be outmoded but they are not arbitrary: they arose for good reason out of specific, compelling circumstances.⁶ Per-

Platte, Nebraska, where "towns change, and farming subtly gives way to cattle ranching, the countryside has a dryer scent, and the horizon takes on a Charley Russell pastel hue." R. ATHEARN, *THE MYTHIC WEST IN TWENTIETH-CENTURY AMERICA* 18 (1986). In his definition, however, he refuses to include the West Coast:

[E]qually open to question was the matter of where the West ended. The Pacific Ocean certainly ought to have supplied a definitive stopping point, but here again the West as a state of mind intervened. The Sierra Nevadas and the Cascades curtailed off a West Coast people who had developed an economic and cultural empire of their own. They enjoyed greater rainfall, raised different crops than did those who farmed farther east, looked seaward in their thinking, and came to constitute a separate if somewhat provincial society that was more eastern than western, if one accepts the "frontier" as a way of life.

. . . [The population of the Pacific Slope] was a modern, urban-oriented, rapidly growing body that had acquired far more quickly those eastern cultural and material characteristics so long envied and mimicked by the newer West. A widely read author . . . called the coastal states the new East and remarked that places such as Portland or Seattle had little about them that was western.

Id. at 19. Other commentators define the West as the 17 states west of the 98th meridian. See, e.g., *WATER SCARCITY: IMPACTS ON WESTERN AGRICULTURE* 2-3 (E. Engelbert ed. 1985).

5. W. WEBB, *THE GREAT PLAINS* 8-9 (1931).

6. Two leading examples of laissez-faire laws arising out of the needs of the nineteenth-century West are the prior appropriation doctrine in water law (the "first in time, first in right" rule

haps these laws ought to be changed — and a key facet of western law and policy involves exactly that question — but would-be reformers had better be informed to the teeth with an understanding of the historical pressures that created the old laws and the contemporary forces that have kept them in place.

Further, leaving aside the revision of antiquated laws, analysis of the making of new law and policy can proceed in a rational, principled way only with a firm understanding of the West's subcultures, traditions, institutions, and natural systems. And, too, one must have a feel for the passion that westerners bring to these issues and for other intangibles, such as what I call the texture of the ground. The furor over, and the ultimate rejection of, the proposal to locate the MX missile system in a vast, sparsely populated area of western Utah and eastern Nevada can be appreciated only through an understanding of the ranch cattle industry, the scarcity of water in the region (130,000 acre-feet would have been required to make concrete shelters for the MX system), the subtle beauty of those high sagebrush plains, and, not inconsequentially, the political might of the Mormon Church. The intensity of the Indian fishing rights dispute in the Pacific Northwest can be mystifying without a sense of the tenacity with which the tribes cling to hundred-century-old traditional ways; the economic importance of the non-Indian commercial salmon fishing industry; and the near-religious zeal with which hundreds of thousands of sportfishers pursue the region's prime game fish, the steelhead. The fierce and drawn-out legislative campaign to regulate (or protect) "illegal aliens" (or "undocumented workers") must be viewed in the setting of the reliance of western agribusiness on Mexican labor; the fluid, transboundary culture of contemporary Hispanic families; and the open wound caused when the United States tore off the top half of Mexico during the Manifest Destiny era of the mid-nineteenth century. The pitched battle over federal reserved water rights to instream flows in remote Colorado wilderness areas must be placed in the context of Denver's holy crusade to obtain water, the desperate campaign by western irrigators to protect their first call on western water, the ethereal quality of the backcountry in the high Rockies, and the saga of more than a hundred years of combat over the West's most contested resource.

This article is an attempt to collect some of the books, fiction as

granting to senior water users a vested property right superior to all subsequent appropriators) and the General Mining Law (Hardrock Act) of 1872, 30 U.S.C. §§ 22-39 (1982) (granting to hardrock miners the right to enter the public domain and, upon discovery of a valuable deposit, to obtain a vested right in the minerals and the overlying twenty acres of land, without payment of any royalty to the United States). For the historical development of those laws, see generally R. DUNBAR, *FORGING NEW RIGHTS IN WESTERN WATERS* (1983); J. LESHY, *THE MINING LAW: A STUDY IN PERPETUAL MOTION* (1986). For a collection of essays on the legal history of the American West, see *Law in the West*, 24 J. WEST (1985).

well as nonfiction, that deal with the true sources of the law of the American West. My effort is only to identify readily available works, not the myriad government documents, diaries, doctoral theses, and out-of-print books that afford invaluable depth on individual topics. Nor is there any pretension to complete coverage. Inevitably, there will be omissions when the sweep is as broad as this article's. But I will omit none of my personal favorites, those many books that have enriched my life and allowed me one of life's high luxuries: blending my profession with an adopted place that I have come to love.

This piece, too, attempts to set out a rough organization of the central forces that have influenced the law of the American West. Among other things, my approach reflects a view that law and policy have been made in a fragmented way; usually we have dealt with parts of a larger problem, pretending that the parts are not connected to the whole. This is surely true as to the laws relating to the different commodity resources. Traditional western water law, for example, has treated only the consumptive value of water, ignoring wildlife, recreation, and beauty. But there are other kinds of ways in which we have isolated issues. Questions relating to the State of Alaska and to American Indians both raise some separate and distinct problems but both also need to be considered as part of the main intellectual bloodstream of the American West; when that is not done, the specialized areas and the greater body both fail to receive valuable nourishment. In an even larger sense, I am satisfied that we must progress toward making policy by watershed, the logical decisionmaking unit in the West. We need much better mechanisms for dealing with the multifaceted effects of most development decisions (whether the decision is to develop or not to develop) on a wide range of economies, cultures, land forms, watercourses, animals, and other relevant aspects of a watershed. Thus, ultimately, I hope that my groupings will play some role in demonstrating the many legitimate concerns, human and natural, that need to be given dignity in order to build a principled, integrated policy approach in the American West. To this end, the impressive body of western writing during the last two decades or so has made great strides toward identifying the region's constituent parts and their relationship to each other, toward creating a consciousness of the American West as a distinctive place. The law now needs to follow.

The West, and the forces that have built the law of the American West, are so spread out that a considerable amount of reading is necessary before the bits and pieces even begin to fall together. As a starting dozen, a reader could look to the following, which are not necessarily the best books on the West but which give, in their totality, a spirited and comprehensive sense of historical developments, personalities, cultures, landscapes, and contemporary events. They could logically be read in this order: *Beyond the Hundredth Meridian: John Wesley Powell and the Second Opening of the West*, by Wallace

Stegner;⁷ *The Year of Decision: 1846*, by Bernard DeVoto;⁸ *The Lands No One Knows*, by T.H. Watkins and Charles Watson;⁹ *The Great Plains*, by Walter Prescott Webb;¹⁰ *Angle of Repose*, also by Stegner;¹¹ *Conservation and the Gospel of Efficiency*, by Samuel P. Hays;¹² *Wilderness and the American Mind*, by Roderick Nash;¹³ *Coming Into the Country*, by John McPhee;¹⁴ *Custer Died for Your Sins*, by Vine Deloria, Jr.;¹⁵ *A River No More*, by Philip Fradkin;¹⁶ *The Milagro Beanfield War*, by John Nichols;¹⁷ and *Basin and Range*, also by McPhee.¹⁸ To make it a baker's dozen, and to guarantee the reader's outrage (different brands of outrage for different readers), one could include *The Monkey Wrench Gang*, by Edward Abbey.¹⁹ A person also ought to subscribe to the award-winning newspaper of the West, the bimonthly *High Country News*, published in Paonia, Colorado. But those fine sources are just a beginning point, and students of the region and its body of law will want to proceed with many of the additional books that are discussed throughout this article.

II. THE EVENTS

No one book collects the history of the American West. There has been too great a dispersal of geography and events for one canvas. There are three standard sources. The Turner thesis on the end of the frontier in the late nineteenth century²⁰ is a classic. Ray Allen Billington's book on the westward expansion²¹ provides a detailed text, and great structural clarity, on that subject. The Turner-Billington approach, however, ultimately is incomplete because of its rigidity in fix-

7. W. STEGNER, *BEYOND THE HUNDREDTH MERIDIAN: JOHN WESLEY POWELL AND THE SECOND OPENING OF THE WEST* (1954).

8. B. DEVOTO, *THE YEAR OF DECISION: 1846* (1943).

9. T. WATKINS & C. WATSON, *THE LANDS NO ONE KNOWS: AMERICA AND THE PUBLIC DOMAIN* (1975).

10. W. WEBB, *supra* note 5.

11. W. STEGNER, *ANGLE OF REPOSE* (1971).

12. S. HAYS, *CONSERVATION AND THE GOSPEL OF EFFICIENCY: THE PROGRESSIVE CONSERVATION MOVEMENT, 1890-1920* (1959).

13. R. NASH, *WILDERNESS AND THE AMERICAN MIND* (3d ed. 1982). A more recent book on conservation thought may well grow to the stature of Nash's work. See S. FOX, *THE AMERICAN CONSERVATION MOVEMENT: JOHN MUIR AND HIS LEGACY* (1985).

14. J. MCPHEE, *COMING INTO THE COUNTRY* (1977).

15. V. DELORIA, JR., *CUSTER DIED FOR YOUR SINS: AN INDIAN MANIFESTO* (1969).

16. P. FRADKIN, *A RIVER NO MORE: THE COLORADO RIVER AND THE WEST* (1981).

17. J. NICHOLS, *THE MILAGRO BEANFIELD WAR* (1974).

18. J. MCPHEE, *BASIN AND RANGE* (1981).

19. E. ABBEY, *THE MONKEY WRENCH GANG* (1975).

20. F. TURNER, *THE FRONTIER IN AMERICAN HISTORY* (1937). For critiques of Turner's work, see, e.g., TURNER AND THE SOCIOLOGY OF THE FRONTIER (R. Hofstadter & S. Lipset eds. 1968).

21. R. BILLINGTON & M. RIDGE, *WESTWARD EXPANSION: A HISTORY OF THE AMERICAN FRONTIER* (5th ed. 1982).

ing 1890 — the supposed end of the frontier — as the determinative moment in western history. In fact, the history of the American West is far better understood in terms of continuity, of the deep-rooted influence of nineteenth-century events on a pluralistic modern society.²² Paul Gates's study of the history of public land law and policy²³ is comprehensive on most issues in that field (it slights recreation and wilderness) but is more of a reference tool than a readable history. More recently, the high level of current interest in the West has been exemplified by several histories on various aspects of western resource policy, most of them sharply critical of what the authors view as the exploitative policies of the past and present.²⁴ These sources will help

22. Turner's pronouncement that the frontier had ended was premised on a finding in the 1890 Census that population in the West had reached the figure of at least two persons per square mile and that "there can hardly be said to be a frontier line." See F. TURNER, *supra* note 20, at 1. Such reasoning might well reflect the view from Cambridge, but it would surely seem curious, for example, in late nineteenth-century Nevada, where the population lay mainly in a thin fringe along the western border; in Montana, Idaho, and Wyoming, all of which were real outposts even though they managed to achieve statehood in 1889 or 1890; in Utah, which remained in territorial status until 1896; or in Arizona and New Mexico, which were not admitted into the Union until 1912. Wallace Stegner is quite certain that the Saskatchewan and Montana country that he lived in as a boy in the 1910s was still a frontier. See W. STEGNER, *WOLF WILLOW* (1962). Further, the frontier thesis lacks full coverage of the West. It offers little insight into Indian country, Hispanics in the United States-Mexico borderland, Mormon country, or the place of women in the westward expansion. And the thesis does not even purport to encompass Alaska.

I am far more persuaded by scholars such as Patricia Nelson Limerick: "Let the car break down in the desert, or let the Indians file a lawsuit to reassert an old land claim and . . . the frontier is suddenly reopened. Frontier [as viewed by Turner and Billington] is an unobtrusive concept in a subtle world." P. LIMERICK, *LEGACY OF CONQUEST: THE UNBROKEN PAST OF THE AMERICAN WEST* (forthcoming). Limerick's brightly written book, which I have read in galleys, is utterly masterful. It blends the old, the new, the land, and the subcultures of the American West and, to my eye at least, finally disproves the usefulness of the frontier thesis as the lens through which to view western history. Of course, Turner and Billington have many valuable things to say about the frontier and its impact on the human spirit and imagination; of course, they remain basic sources; of course, they ought to be read — and with real care and respect. But the West is, and always has been, too variegated to be reduced to any single formula.

I have had my own internal struggle with *Legacy of Conquest*: the temptation has been great to list it among my "first dozen" books on the American West. See notes 7-19 *supra*. My reason for not doing so is simply an innate reluctance to make such a sweeping judgment on a book that I have not lived with for a while. In any event, readers will surely find *The Legacy of Conquest* to be enormously provocative and insightful. For another recent piece critical of the Turner thesis, see R. SLOTKIN, *THE FATAL ENVIRONMENT: THE MYTH OF THE FRONTIER IN THE AGE OF INDUSTRIALIZATION 1800-1890* (1985).

23. P. GATES, *HISTORY OF PUBLIC LAND LAW DEVELOPMENT* (1968). For a shorter, and more interpretive, account of public lands policy, see S. DANA & S. FAIRFAX, *FOREST AND RANGE POLICY* (2d ed. 1980).

24. See, e.g., P. FRADKIN, *supra* note 16; M. REISNER, *CADILLAC DESERT: THE AMERICAN WEST AND ITS DISAPPEARING WATER* (1986); P. WILEY & R. GOTTLIEB, *EMPIRES IN THE SUN: THE RISE OF THE NEW AMERICAN WEST* (1982); D. ZASLOWSKY & THE WILDERNESS SOCIETY, *THESE AMERICAN LANDS: PARKS, WILDERNESS, AND THE PUBLIC LANDS* (1986); J. LESHY, *supra* note 6; W. WYANT, *WESTWARD IN EDEN: THE PUBLIC LANDS AND THE CONSERVATION MOVEMENT* (1982); B. SHANKS, *THIS LAND IS YOUR LAND: THE STRUGGLE TO SAVE AMERICA'S PUBLIC LANDS* (1984); R. LAMM & M. MCCARTHY, *THE ANGRY WEST: A VULNERABLE LAND AND ITS FUTURE* (1982); D. WORSTER, *RIVERS OF EMPIRE: WATER, ARIDITY, AND THE GROWTH OF THE AMERICAN WEST* (1985); F. TURNER, *BEYOND GEOGRAPHY: THE WESTERN SPIRIT AGAINST THE WILDERNESS* (1980).

in fitting the puzzle together, but ultimately a reader will find it best to go at western history by subregions, eras, movements, personalities, and episodes. The following approach is one way to go about it. In this section, and elsewhere in this essay, I sometimes use metaphors. Thus some of my categories—examples include Hoover Dam, the Mussel Slough Tragedy, and the Johnson County War — are important in their own right but also symbolize broader developments.

A. *The Turning Points*

1. *The California Gold Rush*

To be sure, the history of the West hardly began in 1848. Indian people had lived in the region for thousands of years, Spanish missions had been settled as early as the sixteenth century, the Louisiana Purchase of 1803 had laid the groundwork for the westward movement, the fur trappers had made explorations west of the Continental Divide, and the Oregon and California trails had brought settlers west. The ferment in the region as of the mid-1840s, including the Bear Flag Revolt in California and the Mormon migration to Utah, is told well in Bernard DeVoto's *The Year of Decision: 1846*.²⁵

But the course of events was dramatically accelerated and expanded by the chain reaction set off by James Marshall's discovery of gold on January 24, 1848 at Sutter's Mill on the American River not far from Sacramento. The leading work on the Gold Rush is the careful, straightforward history by Rodman Paul, *California Gold*,²⁶ which analyzes the effects of this movement that apparently was the largest migration of human beings in world history. Population then radiated out from the California gold country as finds were made in Nevada, Oregon, Alaska, and most other western states.

A much-acclaimed first-hand sketch of the early California mining camps is by Louise Amelia Knapp Smith Clappe, under the nom de plume "Dame Shirley," who wrote letters from Rich Bar on the Feather River to her sister back east.²⁷ *The Shirley Letters* are an accurate and detailed, yet inevitably colorful, description of life in the mining camps during this remarkable time. The small, independent miner tended to have a brief moment in the sun before mining turned

25. See B. DEVOTO, *supra* note 8. *The Year of Decision* is the final installment in DeVoto's trilogy. Earlier eras are covered in B. DEVOTO, *THE COURSE OF EMPIRE* (1952); B. DEVOTO, *ACROSS THE WIDE MISSOURI* (1947). For prior settlement by Indians and Hispanics, see Sections II.B.1, III.B.1, and III.B.2 *infra*. Richard Henry Dana's account of his visit to California in 1834 is a classic. R. DANA, *TWO YEARS BEFORE THE MAST* (1840).

26. R. PAUL, *CALIFORNIA GOLD: THE BEGINNING OF MINING IN THE FAR WEST* (1947). Another outstanding account is J. HOLLIDAY, *THE WORLD RUSHED IN: THE CALIFORNIA GOLD RUSH EXPERIENCE* (1981).

27. *THE SHIRLEY LETTERS FROM THE CALIFORNIA MINES, 1851-1852* (C. Wheat ed. 1970).

corporate,²⁸ but the region continued to be spectacularly wild and woolly, as reflected in Mark Twain's luscious *Roughing It*.²⁹ The Gold Rush produced several people of stature, including Supreme Court Justice Stephen J. Field.³⁰ Senator William Stewart of Nevada, who led the way for the Hardrock Act of 1872,³¹ wrote an appropriately boisterous, if not always believable, autobiography covering his two generations in public life.³²

2. *The Opening of the Public Domain*

For most of the 1800s, there was virtually no federal restraint on private uses of public land and resources. The public domain was simply left open for ranching, mining, homesteading, water diversions, and hunting and fishing. Beginning in the late nineteenth century, the national forests and national parks were set aside and put under management, but there was no such action taken with respect to the remaining hundreds of millions of acres of public domain until the Taylor Grazing Act³³ was passed in 1934.

The results were mixed. The homesteading policy, as novels by Hamlin Garland³⁴ and O.E. Rølvaag³⁵ showed so well, was a bitterly frustrating, dirt-in-your-teeth, wind-in-your-face challenge to honest, individual westering people; the struggle continued well into this century when, as vividly portrayed by John Steinbeck, Woody Guthrie, and others, the Dust Bowl of the early 1930s drove farmers and workers west to California.³⁶ To those not so honest, the federal land laws were the sturdy levers by which rag-tag migrants and future magnates pried loose uncountable tens of millions of acres of land from public ownership through a kaleidoscopic array of fraudulent schemes.³⁷

28. See, e.g., R. LINGENFELTER, *THE HARDROCK MINERS: A HISTORY OF THE MINING LABOR MOVEMENT IN THE AMERICAN WEST, 1863-1893* (1974).

29. M. TWAIN, *ROUGHING IT* (1871). See also R. PAUL, *MINING FRONTIERS OF THE FAR WEST, 1848-1880* (1963); W. GREEVER, *THE BONANZA WEST: THE STORY OF THE WESTERN MINING RUSHES, 1848-1900* (1963).

30. See, e.g., C. SWISHER, *STEPHEN J. FIELD: CRAFTSMAN OF THE LAW* (1930). See also C. MCCURDY, *LAW OVER POLITICS: STEPHEN J. FIELD AND THE GROWTH OF THE JUDICIAL POWER IN AMERICA* (forthcoming).

31. 30 U.S.C. §§ 22-39 (1982).

32. W. STEWART, *REMINISCENCES OF SENATOR WILLIAM M. STEWART OF NEVADA* (1908). For another autobiography by a leading congressional figure involved in mining issues, see G. JULIAN, *POLITICAL RECOLLECTIONS, 1840 TO 1872* (1884).

33. 43 U.S.C. §§ 315-315r (1982).

34. H. GARLAND, *A SON OF THE MIDDLE BORDER* (1917).

35. O. RÖLVAAG, *GIANTS IN THE EARTH: A SAGA OF THE PRAIRIE* (1927).

36. J. STEINBECK, *THE GRAPES OF WRATH* (1939); W. GUTHRIE, *BOUND FOR GLORY* (1943); D. LANGE & P. TAYLOR, *AN AMERICAN EXODUS: A RECORD OF HUMAN EROSION* (1939) (with Dorothea Lange's wonderful photographs).

37. For a careful survey, and an exhaustive bibliography, of this blend of frontier ingenuity and criminal conduct, see E. DICK, *THE LURE OF THE LAND: A SOCIAL HISTORY OF THE PUBLIC LANDS FROM THE ARTICLES OF CONFEDERATION TO THE NEW DEAL* (1970). For

The hands-off federal policy toward the majority of all western land has left us with, among other things, an overgrazed range, extraordinary soil erosion problems, outmoded classes of rights, and a checkerboard, inefficient land-ownership pattern across the rural West. On the other hand, the homesteaders program held out hope to little people: it was one of the most progressive land distribution policies ever undertaken by any nation. Walter Prescott Webb, writing in 1931, called the ranch cattle industry "perhaps the most . . . distinctive institution that America has produced."³⁸

Two major pieces, Louise Peffer's *The Closing of the Public Domain*³⁹ and Philip Foss's *Politics and Grass*,⁴⁰ examine the opening and closing of the public rangelands. They are the kind of full, sensibly presented treatments that both bind together specific historical movements and draw out general lessons. A different but equally valuable source is *The Lands No One Knows*,⁴¹ coauthored by T.H. Watkins, a stellar words craftsman with a fine knowledge of the West, and Charles Watson, a former Bureau of Land Management employee with twenty-some-odd years of card files and inside knowledge. The result is a lusty, irreverent exposé of the "Two Gun Desmonds" who captured public domain policy. Some academics may frown at this colorful piece, but there *were* Two Gun Desmonds and it is probably best that their story be told with élan, as is the case with *The Lands No One Knows*.

3. *Yellowstone National Park*

In 1872, Congress set aside the fabulous high plateau in the northern Rockies as a "pleasuring-ground for the benefit and enjoyment of the people."⁴² The creation of Yellowstone is a monument in western history for a number of reasons. The permanent protection of this exquisite land of cauldrons, lakes, and headwaters is important in its own right.⁴³ In addition, Yellowstone was this country's (and the world's) first national park and, as such, became a model for the modern national park system.⁴⁴

joyous reading, see S. PUTER, *LOOTERS OF THE PUBLIC DOMAIN* (1908), written by an expert, the self-styled "king of the Oregon land fraud ring," while serving time in prison.

38. See W. WEBB, *supra* note 5, at 224.

39. E. PEFFER, *THE CLOSING OF THE PUBLIC DOMAIN: DISPOSAL AND RESERVATION POLICIES, 1900-50* (1951).

40. P. FOSS, *POLITICS AND GRASS: THE ADMINISTRATION OF GRAZING ON THE PUBLIC DOMAIN* (1960).

41. T. WATKINS & C. WATSON, *supra* note 9.

42. Act of Mar. 1, 1872, ch. 24, 17 Stat. 32 (codified as amended at 16 U.S.C. §§ 21-22 (1982)).

43. For sources on the Yellowstone ecosystem, see notes 208-11 *infra*.

44. There has been somewhat less writing on the National Park System than one might expect. Park policy is treated ably in A. RUNTE, *NATIONAL PARKS: THE AMERICAN EXPERIENCE* (1979). The standard history is J. ISE, *OUR NATIONAL PARKS POLICY — A CRITICAL*

In an even broader sense, Yellowstone symbolizes the beginnings of an important set of new ideas in the law of the American West. As Roderick Nash shows in his leading work on preservation history and theory, *Wilderness and the American Mind*,⁴⁵ there were other early stirrings of preservation policy. Still, the creation of Yellowstone is the most fitting milestone. In the heart of the era of the exploitation of the West's natural resources, Yellowstone signalled very different kinds of aspirations that would themselves come front and center in years to come.

4. *Indian Allotment*

By about 1880, homesteaders, ranchers, timber companies, miners, and other settlers came to see Indian reservations as major obstacles to the westward expansion. The General Allotment, or Dawes, Act of 1887⁴⁶ allowed the transmutation of tribally owned lands into individual parcels, or allotments. Great amounts of these allotted lands were sold to non-Indians or lost at tax sales. The 1887 Act also authorized large areas of some reservations to be designated as "surplus" to tribal needs; such lands were then added to the public domain for disposition. Allotment helped open the West for settlement by non-Indians, but it was devastating to Indian interests. In all, the total Indian land estate dropped from 140 million acres in 1887 to 50 million acres by 1934, thus transferring about seven percent of all land in the forty-eight states to non-Indian settlers and corporations.

Two fine studies, Francis Paul Prucha's *American Indian Policy in Crisis*⁴⁷ and Fredrick Hoxie's *A Final Promise*,⁴⁸ treat this major set of

HISTORY (1961), which is more descriptive than analytical. For a solid biography of the first Park Service Director, see R. SHANKLAND, STEVE MATHER OF THE NATIONAL PARKS (1951). For reflections by the second director, see H. ALBRIGHT, THE BIRTH OF THE NATIONAL PARK SERVICE: THE FOUNDING YEARS, 1913-33 (1985). For useful histories of individual parks, see, e.g., R. RIGHTER, CRUCIBLE FOR CONSERVATION: THE CREATION OF GRAND TETON NATIONAL PARK (1982); C. BUCHHOLTZ, ROCKY MOUNTAIN NATIONAL PARK: A HISTORY (1983). The excellent study by Joseph Sax, J. SAX, MOUNTAINS WITHOUT HANDRAILS: REFLECTIONS ON THE NATIONAL PARKS (1980), is about the wilderness ideal rather than the parks per se.

45. R. NASH, *supra* note 13. See also J. SAX, *supra* note 44.

46. 25 U.S.C. §§ 331-334, 339, 341, 342, 348, 349, 354, 381 (1982).

47. F. PRUCHA, AMERICAN INDIAN POLICY IN CRISIS: CHRISTIAN REFORMERS AND THE INDIAN, 1865-1900 (1976). Father Prucha has also written the definitive history on federal Indian policy. See F. PRUCHA, THE GREAT FATHER: THE UNITED STATES GOVERNMENT AND THE AMERICAN INDIANS (1984) (two volumes). *The Great Father* is now available in an abridged, paperback edition. Prucha has also published two bibliographies of federal Indian policy. One is quite short and excellent for the beginning reader. See F. PRUCHA, UNITED STATES INDIAN POLICY: A CRITICAL BIBLIOGRAPHY (1977). The other is exhaustive. See F. PRUCHA, A BIBLIOGRAPHICAL GUIDE TO THE HISTORY OF INDIAN-WHITE RELATIONS IN THE UNITED STATES (1977). For short histories of Indian affairs, see W. WASHBURN, THE INDIAN IN AMERICA (1975); B. DIPPY, THE VANISHING AMERICAN: WHITE ATTITUDES AND U.S. INDIAN POLICY (1982).

48. F. HOXIE, A FINAL PROMISE: THE CAMPAIGN TO ASSIMILATE THE INDIANS 1880-1920 (1984).

developments, analyzing the allotment program as well as other aspects of assimilationist policy, such as the creation of the federal Indian boarding schools and the work of Christian missionaries.⁴⁹ The ambiguities at play during this period, as in other eras of federal Indian policy, are evident in a collection of essays written by the "Friends of the Indians," who generally favored allotment as the best available option for the tribes.⁵⁰

5. Hoover Dam

After private and state efforts to fund large water projects had proved inadequate, Congress enacted reclamation legislation in 1902, thus assuring federal funding for big-scale western water development. Although the dam-building program was active from the beginning, allowing millions of acres of land to be opened for irrigated agriculture, the largest projects were not completed until the 1930s and later, with the construction of such giant dams as Hoover and Glen Canyon on the Colorado, Shasta on the Sacramento, and Grand Coulee and Bonneville on the Columbia. Reclamation helped remake the West. No governmental program has mattered more to the region.⁵¹

Wallace Stegner's *Beyond the Hundredth Meridian*⁵² tells the story of the visionary, John Wesley Powell, who understood aridity and its key role in the West. This is a great book — perhaps the very first that one should read to learn of the region. *Hail Columbia*⁵³ is an account by a devout New Dealer who believed in the big dams. John McPhee's *Encounters with the Archdruid*⁵⁴ relates a raft trip down the Colorado River and the heated discussions between David Brower, the dynamic executive director of the Sierra Club, and Floyd Dominy, the resourceful Reclamation Commissioner. Robert Dunbar, an historian, has written a solid account of the development of western water law.⁵⁵

I use Hoover Dam as the metaphor for the reclamation program because it was the first of the really big dams. Wiley and Gottlieb, in *Empires in the Sun*,⁵⁶ identify Hoover's pivotal role in the West and

49. For other leading accounts of this era, see J. KINNEY, *A CONTINENT LOST, A CIVILIZATION WON: INDIAN LAND TENURE IN AMERICA* (1937); D. OTIS, *THE DAWES ACT AND THE ALLOTMENT OF INDIAN LAND* (rev. ed. 1973); H. FRITZ, *THE MOVEMENT FOR INDIAN ASSIMILATION, 1860 TO 1890* (1963); M. YOUNG, *REDSKINS, RUFFLESHIRTS AND REDNECKS: INDIAN ALLOTMENTS IN ALABAMA AND MISSISSIPPI* (1961).

50. *AMERICANIZING THE AMERICAN INDIANS: WRITINGS BY THE "FRIENDS OF THE INDIAN," 1880-1900* (F. Prucha ed. 1973).

51. For an understanding of the idealism and spirit of the early reclamation movement, see W. SMYTHE, *THE CONQUEST OF ARID AMERICA* (1905).

52. W. STEGNER, *supra* note 7.

53. G. SUNDBORG, *HAIL COLUMBIA: THE 30-YEAR STRUGGLE FOR GRAND COULEE DAM* (1954).

54. J. MCPHEE, *ENCOUNTERS WITH THE ARCHDRUID* (1971).

55. R. DUNBAR, *supra* note 6.

56. P. WILEY & R. GOTTLIEB, *supra* note 24.

recount the formation of the Six Companies (including Bechtel, Kaiser, and Utah International) that, with financing from the young Bank of America, were in charge of construction. Philip Fradkin's *A River No More*⁵⁷ is a splendid examination of water policy in the Colorado River basin and serves as a primer on western resources in general. Two recent pieces are angry exposés. Donald Worster's *Rivers of Empire*⁵⁸ is an extraordinarily ambitious venture that sees western water development as having created a "hydraulic society" in the desert — a society doomed to crumble under its own weight. Worster's book may try to prove too much — the crumbling is not nearly as certain for me as it is for Worster, nor the hats as black as he paints them — but the book is valuable reading for its treatment of the subsidy-ridden, overbuilt system of western water development. *Cadillac Desert*,⁵⁹ by Marc Reisner, is another important contribution of roughly the same genre. All of the authorities discussed here contain bibliographies on the transcendent matter of water development — a core issue one must have in hand to understand the American West.

6. *The Post-World War II Boom*

Leaving aside a few population centers on the Pacific Coast, the American West was mostly a backwater area as World War II drew to a close. A major segment of the region's history has occurred since. Jet planes and the interstate highway system made the West accessible to easterners seeking recreation or permanent residence. The population explosion after the war created a demand for housing that the government sought to meet by sharply increased timber sales from the old-growth stands in the national forests of Oregon, Washington, and southeast Alaska. The uranium boom of the 1950s and, to a much greater extent, the energy boom of the 1970s remade cities such as Denver, Salt Lake City, Anchorage, Casper, and Billings and, when it tailed off in the 1980s, raised the specter of yet another "boom and bust" cycle. The climate of the Sun Belt of the Southwest drew population in droves. The powder snow and winter sun in the Rockies have caused the construction of the largest ski resorts in the nation, which have been magnets for winter visitors the world over.

The arrival of the post-war immigrants and the stresses on the land and its people have been the subject of an increasing stream of books on the new West, several of which are discussed elsewhere.⁶⁰ Gerald D. Nash, in *The American West Transformed*,⁶¹ sees World War II as

57. P. FRADKIN, *supra* note 16.

58. D. WORSTER, *supra* note 24.

59. M. REISNER, *supra* note 24.

60. See, e.g., note 24 *supra*.

61. G. NASH, *THE AMERICAN WEST TRANSFORMED: THE IMPACT OF THE SECOND WORLD WAR* (1985).

the watershed and examines the resulting changes in the eleven western states. Former Colorado Governor Dick Lamm and Michael McCarthy collaborated on *The Angry West*,⁶² which deals with modern developments in quite a comprehensive way. They argue that the West has been "colonized" by interests outside of the region. An especially thoughtful and personal statement is the posthumously published *The Mythic West*,⁶³ by leading historian Robert Athearn, who looks at the ways in which the old West lives on in the new West.

B. *The Epic Conflicts*

1. *Conquest by Manifest Destiny*

The phrase Manifest Destiny, coined during the Polk Administration, 1845 through 1849, aptly describes the quasi-religious righteousness of United States policy in the American West during the nineteenth and early twentieth centuries. Manifest Destiny operated to impose control both over peoples, most notably American Indians and Hispanics, and over natural resources. The consequences remain with us today and are at the heart of the "legacy of conquest" described by historian Patricia Nelson Limerick.⁶⁴

Often violent Indian-white conflicts led to the settlement of Indian tribes on reservations, allowing the westward movement to proceed. The literature is extensive but necessarily diffuse because several hundred tribes were involved. Father Prucha, in addition to his treatise on federal Indian policy, has produced two bibliographies.⁶⁵ Historians have focused a great deal of attention on Andrew Jackson's removal program that led to the "Trail of Tears" of the 1830s, whereby federal troops forcibly marched the so-called Five Civilized Tribes from their aboriginal lands in the southeast to what is now Oklahoma.⁶⁶ Congress continued the policy in later decades, when more than 100 tribal groups were moved to Oklahoma. Alvin Josephy's *The Nez Perce Indians and the Opening of the Northwest*⁶⁷ deals with just one tribe and its heroic leader, Chief Joseph, but this masterful work helps build a broader understanding of the forces that led to the creation of the reservation system. Robert Trennert, in *Al-*

62. R. LAMM & M. MCCARTHY, *supra* note 24.

63. R. ATHEARN, *supra* note 4.

64. See P. LIMERICK, *supra* note 22.

65. See note 47 *supra*.

66. See G. FOREMAN, INDIAN REMOVAL: THE EMIGRATION OF THE FIVE CIVILIZED TRIBES OF INDIANS (1932); A. DEBO, THE RISE AND FALL OF THE CHOCTAW REPUBLIC (2d ed. 1961); A. DEBO, THE ROAD TO DISAPPEARANCE: A HISTORY OF THE CREEK INDIANS (1941).

67. A. JOSEPHY, THE NEZ PERCE INDIANS AND THE OPENING OF THE NORTHWEST (1965).

ternative to Extinction,⁶⁸ concludes that the reservations actually may have served to benefit the tribes by insulating them from white aggressiveness. Helen Hunt Jackson's classic, *A Century of Dishonor*,⁶⁹ recounts the despair that had enveloped Indian country by the late-nineteenth century.

In the popular imagination, Manifest Destiny is an abstraction, except perhaps as to American Indians. Hispanics, however, were affected in many of the same ways. In 1845, during President Polk's tenure, the United States annexed Texas, then an independent republic. The Mexican-American War, for which there was no clear cause except the Americans' expansionist fervor, culminated in the Treaty of Guadalupe Hidalgo in 1848, in which the United States forced Mexico to cede California, Nevada, Utah, most of Arizona, and parts of New Mexico, Colorado, and Wyoming. In all, the territory of the Republic of Mexico was cut nearly in half.⁷⁰ The 1848 Treaty purported to respect prior Spanish and Mexican land grants, but federal laws and American enterprise managed to separate Hispanics in California and the Southwest from most of their land.⁷¹ The new, arbitrary international border separated family from family and remains the geographical manifestation of an immigration policy that is satisfactory to almost no one — American farmers, federal officials, or Hispanics in, or seeking to migrate to, their former homeland.⁷²

2. *The Mussel Slough Tragedy*

The railroads became transcontinental in 1869 when the golden spike was driven at Promontory Point in Utah where the Central Pacific and Union Pacific lines met. This event created the transportation link that finally made the Pacific Coast readily accessible to easterners. As part of the bargain, Congress transferred to the railroads some 120 million acres of land along the routes — an area as large as California and half of Washington combined. The railroad grants continue to influence western life because of the resultant concentration of wealth and because of the various inconveniences caused

68. R. TRENNERT, *ALTERNATIVE TO EXTINCTION: FEDERAL INDIAN POLICY AND THE BEGINNINGS OF THE RESERVATION SYSTEM, 1846-51* (1975).

69. H. JACKSON, *A CENTURY OF DISHONOR: A SKETCH OF THE UNITED STATES GOVERNMENT'S DEALINGS WITH SOME OF THE INDIAN TRIBES* (1881).

70. See D. WEBER, *THE MEXICAN FRONTIER, 1821-1846: THE AMERICAN SOUTHWEST UNDER MEXICO* (1982); G. BRACK, *MEXICO VIEWS MANIFEST DESTINY, 1821-1846: AN ESSAY ON THE ORIGINS OF THE MEXICAN WAR* (1975); K. BAUER, *THE MEXICAN WAR (1846-1848)* (1974).

71. See *FOREIGNERS IN THEIR NATIVE LAND: HISTORICAL ROOTS OF THE MEXICAN AMERICANS* (D. Weber ed. 1973). For a biography of a main beneficiary of the land title process, see V. WESTPHALL, *THOMAS BENTON CATRON AND HIS ERA* (1973).

72. See C. MCWILLIAMS, *NORTH FROM MEXICO: THE SPANISH SPEAKING PEOPLE OF THE UNITED STATES* (1949); *MEXICAN WORKERS IN THE UNITED STATES: HISTORICAL AND POLITICAL PERSPECTIVES* (G. Kiser & M. Kiser eds. 1979). See also notes 151-55 *infra*.

by the checkerboard land pattern created by the railroad land grants; whether the grants needed to be so extravagant has long been a point of sharp debate.⁷³

The Mussel Slough Tragedy took place in 1880 in the southern San Joaquin Valley. Farmers had settled on railroad grant lands, but a dispute arose over the sale terms. The settlers refused to move out. In a shoot-out with law enforcement officers, seven settlers were killed. The incident is described in a short book on the subject by J.L. Brown⁷⁴ and in Oscar Lewis's *The Big Four*.⁷⁵

Mussel Slough has also attracted the eye of fiction writers. Frank Norris used the incident as the climax of his major novel, *The Octopus*.⁷⁶ Near the end of the book, Norris presents an encounter between Presley, the idealistic young protagonist, and Shelgrim, president of the P. & S.W. Railroad — Shelgrim surely being modeled after Collis P. Huntington, President of the Southern Pacific and one of Oscar Lewis's "Big Four." The dialogue in Shelgrim's office in San Francisco is one of the great moments in the literature of the West. After all of the sorrow in the Valley, Presley is told in no uncertain terms of the inevitability of progress:

"Believe this, young man," exclaimed Shelgrim, laying a thick, powerful forefinger on the table to emphasize his words, "try to believe this — to begin with — *that railroads build themselves*. Where there is a demand sooner or later there will be a supply. Mr. Derrick, does he grow his wheat? The Wheat grows itself. What does he count for? Does he supply the force? What do I count for? Do I build the Railroad? You are dealing with forces, young man, when you speak of Wheat and the Railroads, not with men. There is the Wheat, the supply. It must be carried to feed the People. There is the demand. The Wheat is one force the Railroad another, and there is the law that governs them — supply and demand. Men have only little to do in the whole business. Complications may arise, conditions that bear hard on the individual — crush him maybe — *but the Wheat will be carried to feed the people* as inevitably as it will grow. If you want to fasten the blame of the affair at Los Muertos on any one person, you will make a mistake. Blame conditions, not men."⁷⁷

3. *The Johnson County War*

One by-product of leaving the public domain as a commons, open

73. Several articles on the railroad land grants are excerpted in the helpful anthology, *THE PUBLIC LANDS: STUDIES IN THE HISTORY OF THE PUBLIC DOMAIN* 121-61 (V. Carstensen ed. 1963).

74. J. BROWN, *THE MUSSEL SLOUGH TRAGEDY* (1958).

75. O. LEWIS, *THE BIG FOUR: THE STORY OF HUNTINGTON, STANFORD, HOPKINS, AND CROCKER, AND OF THE BUILDING OF THE CENTRAL PACIFIC* 385-98 (1938).

76. F. NORRIS, *THE OCTOPUS* (1901). For another fictionalized account, see M. MILLER, *FIRST THE BLADE* (1938).

77. F. NORRIS, *supra* note 76, at 285 (emphasis in original).

for the taking, was the violent disputes among cattle ranchers, sheepherders, and homesteaders. The most famous of these conflicts was the Johnson County War of April 1892 in northeastern Wyoming. Homesteaders moved in, under the public land laws, to settle federal lands grazed by cattlemen exercising customary range rights. Threats were issued to the settlers, who were then accused of retaliation by means of cattle rustling. The ranchers brought in fifty-two "regulators" from out of state to shoot down the homesteaders. Two people were killed and ranch property was set afire, but an ultimate showdown — dynamite was about to be employed — was averted by the arrival of federal troops.

The Johnson County War is the subject of Helena Huntington Smith's *The War on Powder River*⁷⁸ and, like Mussel Slough, the incident has been fictionalized.⁷⁹ H. Drago treats the west-wide phenomenon of range conflicts in *The Great Range Wars*.⁸⁰

4. *Water for Los Angeles*

The growth of the largest city in the nation depended on importing water to arid Southern California. At the turn of the century, Los Angeles embarked on a crusade that would transport water from the Trinity and Feather Rivers in Northern California; the Colorado River on the Arizona border; the Owens River some 200 miles to the northeast, on the east side of the Sierra Nevada; and the Mono Lake Basin, north of the Owens Valley.

Los Angeles' reach up into Owens Valley and Mono Lake crippled the local economy and inflamed passions that led to various dynamitings of the aqueduct and, even today, to continuing rounds of litigation and the deployment of an occasional Molotov cocktail in the Bishop offices of the Los Angeles Department of Water and Power. The shenanigans, fraud, tenacity, and municipal planning employed by the big city are set out in *Water and Power*, by William Kahrl.⁸¹ The other leading piece on the Los Angeles-Owens Valley controversy, which is treated in most of the books on west-wide water policy,⁸² is Remi Nadeau's *The Water Seekers*.⁸³

78. H. SMITH, *THE WAR ON POWDER RIVER* (1966). For a colorful, pro-homesteader account, see A. MERCER, *THE BANDITTI OF THE PLAINS* (1954). See also Owen Wister's prototype of the western novel, O. WISTER, *THE VIRGINIAN: A HORSEMAN OF THE PLAINS* (1904).

79. See I. MCPHERREN, *TRAIL'S END* (1938); A. ELSTON, *THE MARKED MEN* (1957).

80. H. DRAGO, *THE GREAT RANGE WARS: VIOLENCE ON THE GRASSLANDS* (1970).

81. W. KAHRL, *WATER AND POWER* (1982).

82. See, e.g., M. REISNER, *supra* note 24; D. WORSTER, *supra* note 24.

83. R. NADEAU, *THE WATER SEEKERS* (1950). See also A. HOFFMAN, *VISION OR VILAINY: ORIGINS OF THE OWENS VALLEY-LOS ANGELES WATER CONTROVERSY* (1981).

5. *Hetch Hetchy*

Many of the epic environmental disputes in the West have involved the construction of dams that flood deep canyons, valuable both for their beauty and their storage capacity. The first such conflict, and still one of the most noteworthy, was the flooding of Hetch Hetchy, a magnificent valley north of Yosemite in the Sierra Nevada, in order to secure water for San Francisco. This was a collision between the leading figures of the time — John Muir and the Sierra Club, on the one side, and Teddy Roosevelt and Gifford Pinchot, on the other. The completion of the Hetch Hetchy project may well have led to the despondent Muir's death in 1914, but it contributed mightily to some of Muir's objectives, including the creation of the National Park Service in 1916.⁸⁴

Other controversies over western dams have stirred deep passions. In the mid-1950s, the Dalles Dam on the Columbia River flooded the historic latticework of Indian fishing platforms at Celilo Falls, one of the great salmon fishing sites in the world. Chief, in Ken Kesey's *One Flew Over the Cuckoo's Nest*,⁸⁵ was a Celilo Falls Indian, and Kesey's masterpiece has long and poignant passages about the inundation. The modern environmental movement cut its teeth on another proposal of the 1950s. A dam at Echo Park on the Green River would have backed water into Dinosaur National Monument, on the Colorado-Utah border. Opponents marshaled new forces and defeated the dam at Echo Park, but the compromise allowed the flooding of Glen Canyon on the Colorado River.⁸⁶

6. *Alaska Land*

Alaska contains 365 million acres stretching from the Aleutian Islands in the west to the rainforests of the panhandle in the east — an east-west reach equal to the distance between California and Florida. The land area exceeds the combined acreage of California, Oregon, Washington, Idaho, and Montana. All of the age-old pressures over land and resources in the Lower Forty-eight have been magnified several times over in Alaska.

Alaska achieved statehood in 1959 and bargained for the transfer to the state of 103 million acres of federal land, by far the greatest amount obtained by any state. United States Senator Ernest Greuning has rendered his first-hand version in *The Battle for Alaska State-*

84. See H. JONES, JOHN MUIR AND THE SIERRA CLUB: THE BATTLE FOR YOSEMITE 82-169 (1965); Richardson, *The Struggle for the Valley: California's Hetch Hetchy Controversy 1905-1913*, 38 CAL. HIST. SOC. Q. 248 (1959).

85. K. KESEY, ONE FLEW OVER THE CUCKOO'S NEST 198-203, 208-09 (1974).

86. See, e.g., E. RICHARDSON, DAMS, PARKS AND POLITICS 56-70, 129-52 (1973); R. NASH, *supra* note 13, at 209-22.

hood,⁸⁷ a colorful, pro-development piece that gives the flavor of the times. The standard scholarly account is by Claus Naske.⁸⁸

In spite of statehood, the United States had never resolved the land claims of Alaska Natives, who objected to surveys conducted by the state and, later, to exploration in connection with the discovery of oil at Prudhoe Bay in 1968. The legal result was the Alaska Native Claims Settlement Act [ANCSA] of 1971,⁸⁹ which provided for the selection of an additional forty-four million acres by the natives. Mary Berry has written an account of the high-stakes conflicts and coalitions leading to the passage of ANCSA and the building of the Alaska Pipeline to carry petroleum south from Prudhoe Bay, the site of the largest producing oil field in United States history.⁹⁰ The politics of the 1971 Act also allowed environmentalists to become main players in Alaska land distribution, the result being the Alaska National Interest Lands Conservation Act of 1980,⁹¹ one of the major natural resources statutes ever adopted.⁹²

Land and resource issues continue to boil in Alaska. John McPhee's outstanding portrait of the state as of the mid-1970s, *Coming Into the Country*,⁹³ captures attitudes and pressures that will persist for the foreseeable future. Thomas Berger, Canadian judge and scholar, conducted a two-year, foundation-supported series of hearings in Native villages in the style of a Canadian commission. His report, *Village Journey*,⁹⁴ is a beautifully crafted analysis, with recommendations, of the issues relating to Native land and political rights that continue to be matters of front-line importance in Alaska.

III. THE PEOPLE

A. *The Leaders*

1. *Lewis and Clark and the Mountain Men*

Jefferson's decision to explore the Louisiana Purchase lands and to find a land route to the Pacific Coast punctuated the young nation's determination to claim the West. Meriweather Lewis and William Clark headed the expedition of 1803-1805 that, then as now, captured the public imagination. The Lewis and Clark journals have been con-

87. E. GREUNING, *THE BATTLE FOR ALASKA'S STATEHOOD* (1967).

88. C. NASKE, *AN INTERPRETIVE HISTORY OF ALASKAN STATEHOOD* (1973).

89. 43 U.S.C. §§ 1601-1628 (1982).

90. M. BERRY, *THE ALASKA PIPELINE: THE POLITICS OF OIL AND NATIVE LAND CLAIMS* (1975). See also R. ARNOLD, *ALASKA NATIVE LAND CLAIMS* (rev. ed. 1978).

91. 16 U.S.C. §§ 3101-3233 (1982).

92. See, e.g., R. CAHN, *THE FIGHT TO SAVE WILD ALASKA* (1982); ALASKA GEOGRAPHIC SOCIETY, *ALASKA NATIONAL INTEREST LANDS* (1981).

93. J. MCPHEE, *supra* note 14.

94. T. BERGER, *VILLAGE JOURNEY: THE REPORT OF THE ALASKA REVIEW COMMISSION* (1985).

densed by Bernard DeVoto, who added his own commentary.⁹⁵ Another standard source is by Bakeless,⁹⁶ and Washington Irving's *Astoria*⁹⁷ offers an account of the era. Gary Holthaus's inspired collection of poetry, *Circling Back*,⁹⁸ is based on journals of the early West, including those of Lewis and Clark.

Perhaps no area of western history can match the rich and extensive treatment given to the mountain men. White explorers had gone west before 1822, but a brightly drawn, although brief, era dawned on February 13th of that year when William Henry Ashley advertised in the *Missouri Gazette & Public Advertiser* to engage "ONE HUNDRED MEN, to ascend the river Missouri to its source, there to be employed for one, two or three years."⁹⁹ Robert Glass Cleland's *This Reckless Breed of Men*¹⁰⁰ and DeVoto's *Across the Wide Missouri*¹⁰¹ are both sparkling, reliable sources on this colorful time, which began to tail off in 1836 when felt hats went out of favor in Paris and the demand for beaver pelts plummeted. Numerous biographies have been written on these rough-hewn wilderness heroes.¹⁰² The best is

95. B. DEVOTO, *THE JOURNALS OF LEWIS AND CLARK* (1953). The Lewis and Clark Journals have been reprinted in full by Arno Press, the publishing service of the *New York Times*, with an introduction by DeVoto. See ORIGINAL JOURNALS OF THE LEWIS AND CLARK EXPEDITION (R. Thwaites ed. 1969) (eight volumes).

96. J. BAKELESS, *LEWIS AND CLARK, PARTNERS IN DISCOVERY* (1947).

97. W. IRVING, *ASTORIA, OR ANECDOTES OF AN ENTERPRISE BEYOND THE ROCKY MOUNTAINS* (rev. ed. 1849). See also W. IRVING, *THE ADVENTURES OF CAPTAIN BONNEVILLE, U.S.A., IN THE ROCKY MOUNTAINS AND THE FAR WEST* (rev. ed. 1849).

98. G. HOLTHAUS, *CIRCLING BACK* (1984).

99. A photocopy of this famous advertisement is reproduced in the handsome collection *THE WEST OF WILLIAM H. ASHLEY, 1822-1838* at the unnumbered page facing page 1 (D. Morgan ed. 1964).

100. R. CLELAND, *THIS RECKLESS BREED OF MEN: THE TRAPPERS AND FUR TRADERS OF THE SOUTHWEST* (1963).

101. B. DEVOTO, *ACROSS THE WILD MISSOURI* (1947). See also D. BERRY, *A MAJORITY OF SCOUNDRELS: AN INFORMAL HISTORY OF THE ROCKY MOUNTAIN FUR COMPANY* (1961).

102. See, e.g., L. HAFEN, *BROKEN HAND: THE LIFE OF THOMAS FITZPATRICK, MOUNTAIN MAN, GUIDE AND INDIAN AGENT* (rev. ed. 1973); J. ALTER, *JIM BRIDGER* (rev. ed. 1962); B. GILBERT, *WESTERING MAN: THE LIFE OF JOSEPH WALKER* (1983); A. FAVOUR, *OLD BILL WILLIAMS: MOUNTAIN MAN* (rev. ed. 1962), written by a Prescott, Arizona lawyer. For biographies of two of the most colorful mountain men, see F. VICTOR, *THE RIVER OF THE WEST: LIFE AND ADVENTURE IN THE ROCKY MOUNTAINS AND OREGON* (1870) (biography of Joe Meek); T. BONNER, *THE LIFE AND ADVENTURES OF JAMES P. BECKWOURTH* (rev. ed. 1972) (based on original 1856 edition). The Arthur H. Clark Company has published a multi-volume account of the fur trade, including biographical sketches of the participants. See *THE MOUNTAIN MEN AND THE FUR TRADE OF THE FAR WEST* (L. Hafen ed. 1965) (ten volumes). See also L. HAFEN, *MOUNTAIN MEN AND FUR TRADERS OF THE FAR WEST: EIGHTEEN BIOGRAPHICAL SKETCHES* (1982) and L. HAFEN, *TRAPPERS OF THE FAR WEST: SIXTEEN BIOGRAPHICAL SKETCHES* (1983), both of which are published by University of Nebraska Press. For a general history, see also H. CHITTENDEN, *THE AMERICAN FUR TRADE OF THE FAR WEST* (1902 & photo. reprint 1954) (two volumes). Among the journals and diaries, J. CLYMAN, *JOURNAL OF A MOUNTAIN MAN* (L. Hasselstrom ed. 1984), J. CLYMAN, *FRONTIERSMAN, 1792-1881* (C. Camp ed. 1960), and OSBORNE RUSSELL'S *JOURNAL OF A TRAPPER* (A. Haines ed. 1955), are of particular interest. On the role of women in the fur trade, see S. VAN KIRK, *MANY TENDER TIES: WOMEN IN FUR-TRADE SOCIETY, 1670-1870* (1983).

Dale Morgan's work, *Jedediah Smith and the Opening of the West*,¹⁰³ which examines the life of the intrepid Smith, who among many other things led the first recorded crossing of the Sierra Nevada (made, by the way, from west to east); it also affords a solid understanding of the fur trade in general. A.B. Guthrie, Jr.'s *The Big Sky*¹⁰⁴ is a widely praised novel on the mountain men. *Trask*,¹⁰⁵ by Don Berry, deals with the Oregon coast in 1848, but it also catches the spirit of the mountain men.

2. *The Big Four*

The Gilded Age of the nineteenth century fostered the creation of many personal empires but none more extensive than those of the "Big Four" of the Southern Pacific Railroad, all of whose names still adorn financial, educational, and philanthropic institutions in California: Collis P. Huntington, Leland Stanford, Mark Hopkins, and Charles Crocker.¹⁰⁶ The era also produced such magnates as Henry Miller, The Cattle King;¹⁰⁷ Marcus Daly, William A. Clark, and F.S. Heinze of the Butte copper mines;¹⁰⁸ William Ralston, a San Francisco banker who made a fortune out of Nevada's Comstock Lode before his fall;¹⁰⁹ and Thomas B. Catron, a lawyer who built an estate in excess of three million acres from the New Mexico land claims process.¹¹⁰ All of them, and others of their ilk, helped build the West's economy. They also contributed directly to the law of the American West both by making laws to suit their interests and by serving as examples for reform because of their perceived excesses.

3. *John Wesley Powell*

Powell properly can be called a visionary because he so clearly identified the central place of aridity in the future of the West. He explained the constraints on society that aridity made mandatory, saw how policy needed to be tailored to the lack of precipitation, and had the courage to confront the expansionists with the unpopular fact that western resources were finite. Stegner's great biography of Powell is standard reading.¹¹¹ Powell's own reports — recounting his explora-

103. D. MORGAN, *JEDEDIAH SMITH AND THE OPENING OF THE WEST* (1953).

104. A. GUTHRIE, JR., *THE BIG SKY* (1947). Another fine work is J. NEIHARDT, *THE MOUNTAIN MEN* (1971), presented in the form of three heroic songs.

105. D. BERRY, *TRASK* (1960). See also D. BERRY, *MOONTRAP* (1962).

106. See O. LEWIS, *supra* note 75.

107. E. TREADWELL, *THE CATTLE KING* (1931).

108. C. GLASSCOCK, *THE WAR OF THE COPPER KINGS* (1935).

109. G. LYMAN, *THE SAGA OF THE COMSTOCK LODGE: BOOM DAYS IN VIRGINIA CITY* (1934); G. LYMAN, *RALSTON'S RING: CALIFORNIA PLUNDERS THE COMSTOCK LODGE* (1937); O. LEWIS & C. HALL, *BONANZA INN* (1939).

110. V. WESTPHALL, *THOMAS BENTON CATRON AND HIS ERA* (1973).

111. See W. STEGNER, *supra* note 7.

tion of the Colorado River in 1869 and setting out his recommendations on water and land policy to Congress — deserve to be read in their original form.¹¹²

4. John Muir

Muir's writing and advocacy injected preservationist theory into mainstream western resources policy. Muir — named the single greatest Californian in history in a 1976 California Historical Society poll — succeeded in celebrating and communicating wildness, with all of its majesty and unruliness, in ways that cut to the soul: climbing to the top of a high Sierra "Douglas Spruce" during a storm and being "flapped and swished in the passionate torrent . . . like a bobolink on a reed";¹¹³ or struggling out of a glacier field on a stormy Alaska day, accompanied by a courageous little dog, Stickeen.¹¹⁴ Many of Muir's writings are collected by Edwin Way Teale in *The Wilderness World of John Muir*.¹¹⁵ Linnie Marsh Wolfe's Pulitzer Prize-winning biography, *Son of the Wilderness*,¹¹⁶ has been joined by three recent books on Muir,¹¹⁷ who, in addition to his writing, founded the Sierra Club, popularized the preservationists' cause at Hetch Hetchy, and thus became one of the architects of the national park system.¹¹⁸

5. Gifford Pinchot

Pinchot, a contemporary of Muir, approached resources policy from the direction of conservation, rather than Muir's preservation. Pinchot, Forest Service Chief during the Theodore Roosevelt Administration, believed in expert management of natural resources. The nation would achieve "the greatest good for the greatest number" through the use of government policy to harness rivers, regulate grazing on the public range, and control the supply of timber and minerals. This conceptualization meant that federal regulation should be an instrument to achieve a balanced policy of exploiting and conserving resources so that wise economic use could be made of them both for

112. J. POWELL, THE EXPLORATION OF THE COLORADO RIVER AND ITS CANYONS (1895 & photo. reprint 1961); J. POWELL, REPORT ON THE LANDS OF THE ARID REGION OF THE UNITED STATES, Exec. Doc. 73, 45th Cong., 2d Sess. (1878).

113. J. MUIR, THE WILDERNESS WORLD OF JOHN MUIR 186 (E. Teale ed. 1954).

114. *Id.* at 277-96. See also J. MUIR, STICKEEN: THE STORY OF A DOG (1909).

115. J. MUIR, *supra* note 113. See also J. MUIR, THE MOUNTAINS OF CALIFORNIA (rev. ed. 1911); J. MUIR, OUR NATIONAL PARKS (1901); J. MUIR, MY FIRST SUMMER IN THE SIERRA (1911); J. MUIR, THE STORY OF MY BOYHOOD AND YOUTH (1913); J. MUIR, TRAVELS IN ALASKA (1915).

116. L. WOLFE, SON OF THE WILDERNESS: THE LIFE OF JOHN MUIR (1945).

117. See S. FOX, THE AMERICAN CONSERVATION MOVEMENT: JOHN MUIR AND HIS LEGACY (1985); F. TURNER, REDISCOVERING AMERICA: JOHN MUIR IN HIS TIME AND OURS (1985); M. COHEN, THE PATHLESS WAY: JOHN MUIR AND THE AMERICAN WILDERNESS (1984).

118. See notes 44 & 84 *supra*.

current and future generations. The object of Pinchot's policy was "the little man" — the homebuilder, the small farmer and rancher, and local businesses and residents. Thus conservation, in Pinchot's terms, might require that a forested area within a national forest remain uncut, but his justification — contrary to Muir's — was that the value of the wood products contained there would be maximized if harvested by future generations rather than by this one.

Pinchot is so preeminent in natural resources policy that it seems that nearly every interest group, at some point, claims to be the heir to the Pinchot legacy. As just suggested, however, Pinchot did not try to be all things to all people and it is time well spent to understand Pinchot and the ways in which his approach differs from other resource philosophies.¹¹⁹ The autobiography of this brilliant, tenacious, and entirely self assured (or arrogant, take your choice) early leader is *Breaking New Ground*.¹²⁰ His activist personality is showcased in *The Fight for Conservation*,¹²¹ published in 1910, just after his much-publicized firing by President Taft. This polemic, which argued for expansive Forest Service authority, was undoubtedly intended to influence major litigation pending at the time.¹²² One of the major works in resource policy and history is Samuel P. Hays, *Conservation and the Gospel of Efficiency*,¹²³ where the author hones in on Pinchot's ardent faith in expertise and management, and concludes that the nation receded from the Pinchot approach in the decades following the Chief's stormy departure.¹²⁴

6. John Collier

Collier was appointed Commissioner of Indian Affairs by President Franklin Roosevelt in 1933. He was like Pinchot in many respects — able, activist, charismatic, and strong-headed — and succeeded in obtaining congressional approval of a legislative package that changed the face of federal Indian policy. The centerpiece of the "Indian New Deal" was the Indian Reorganization Act of 1934,¹²⁵ which brought the allotment policy to an end and promoted tribal self-government. Other federal initiatives bolstered the progress of Indian

119. Sources on natural resource theory are presented in Section V *infra*.

120. G. PINCHOT, *BREAKING NEW GROUND* (1947).

121. G. PINCHOT, *THE FIGHT FOR CONSERVATION* (1910).

122. See *Light v. United States*, 220 U.S. 523 (1911) (state fencing laws inapplicable to national forests); *United States v. Grimaud*, 220 U.S. 506 (1911) (upholding Forest Service authority to issue administrative fines). Pinchot also had laid plans for test litigation to raise the issues finally decided in *Utah Power & Light Co. v. United States*, 243 U.S. 389 (1917) (laches and estoppel inapplicable against the United States).

123. See S. HAYES, *supra* note 12.

124. Pinchot's career is also discussed in the standard sources on the Forest Service. See notes 176-79 *infra*.

125. 25 U.S.C. §§ 461-479 (1982).

people in such areas as education, health, and economic development. Kenneth Philp¹²⁶ and Lawrence Kelly¹²⁷ have both written able accounts of Collier and his times. Collier's own writing is also useful.¹²⁸

The Indian Reorganization era, for all of its accomplishments, remains controversial. Collier's zeal led him to press tribes to adopt anglo-style constitutions and government councils. On several reservations, this drove traditional councils underground, and, within some tribes, the resulting splits have yet to be healed.¹²⁹ But it is also hard to deny that the Collier program — although interrupted by the termination era of the 1950s — laid the foundation for the resurgence of tribalism that began in about 1960. A retrospective of this rejuvenating era has just been completed.¹³⁰

7. *The Political Figures of the 1960s, 1970s, and 1980s*

The last quarter-century has brought sweeping changes to the law of the American West. Congress has made reforms in areas such as Forest Service and BLM authority, mining, timber harvesting, grazing, water policy, wildlife protection, wilderness and recreation policy, Indian law, immigration policy, and Alaska lands distribution. It has also been a time of great activity at the state level.

Although several recent books offer some evaluations of the congressional leaders,¹³¹ the events are still recent enough that the definitive biographies have yet to be written on most of the principal figures, such as Wayne Aspinall of Colorado, Lee Metcalf of Montana, Henry Jackson of Washington, Mark Hatfield of Oregon, and Morris Udall of Arizona. One happy exception is Richard Baker's book on the career of Clinton P. Anderson,¹³² the independent, conservation-minded New Mexico Senator who will surely be smiled upon by history. Among those who have held high federal administrative positions, perhaps the dominant figures are three Interior Secretaries: Stewart Udall, who held the office from 1961 through 1969, longer than anyone except Harold Ickes during the New Deal, and who authored *The*

126. K. PHILP, *JOHN COLLIER'S CRUSADE FOR INDIAN REFORM, 1920-1954* (1977).

127. L. KELLY, *THE ASSAULT ON ASSIMILATION: JOHN COLLIER AND THE ORIGINS OF INDIAN POLICY REFORM* (1983).

128. See, e.g., J. COLLIER, *THE INDIANS OF THE AMERICAS* (1947); Collier, *The Genesis and Philosophy of the Reorganization Act*, in *INDIAN AFFAIRS AND THE INDIAN REORGANIZATION ACT*, *THE TWENTY YEAR RECORD* 2 (W. Kelly ed. 1954).

129. Some of these issues are raised in a recent popular work, P. MATTHIESSEN, *INDIAN COUNTRY* (1984).

130. *INDIAN SELF-RULE: FIRST-HAND ACCOUNTS OF INDIAN-WHITE RELATIONS FROM ROOSEVELT TO REAGAN* (K. Philp ed. 1986).

131. See note 24 *supra*.

132. See R. BAKER, *CONSERVATION POLITICS: THE SENATE CAREER OF CLINTON P. ANDERSON* (1985). For Anderson's engaging autobiography, see C. ANDERSON, *OUTSIDER IN THE SENATE: SENATOR CLINTON ANDERSON'S MEMOIRS* (1970).

Quiet Crisis,¹³³ an acclaimed call for stronger environmental policies; Cecil Andrus, who presided over the Alaska land distribution; and James Watt, who symbolized the Sagebrush Rebellion. Three multi-term, former western governors, Tom McCall of Oregon, Dick Lamm of Colorado, and Bruce Babbitt of Arizona, have been notably influential.¹³⁴ State administrative officials, such as New Mexico's state engineer, Steve Reynolds, have wielded great power in the resource area. The work of these and other leaders during this dynamic era will undoubtedly prove to be fruitful ground for autobiographies, biographies, and other commentary in upcoming years.

8. Wallace Stegner

Stegner's gigantic and diversified life's work is the mother lode of wisdom on the American West. His nonfiction includes the monumental analysis of water, climate, and political geography, *Beyond the Hundredth Meridian: John Wesley Powell and the Second Opening of the West*,¹³⁵ a compelling history of the Mormon Trail, *The Gathering of Zion*,¹³⁶ a biography of his mentor, Bernard DeVoto, *The Uneasy Chair*,¹³⁷ and a collection of shimmering essays on conservation, *The Sound of Mountain Water*.¹³⁸

In spite of these works, Stegner is first and foremost a novelist, having collected the Pulitzer Prize and the National Book Award (but not yet the Nobel — which specialists in western literature offer as proof positive of outsiders' myopia toward the intellectual accomplishments of the American West). Slowly and steadily, page-by-page, without fanfare, his *Big Rock Candy Mountain*¹³⁹ and *Wolf Willow*¹⁴⁰ (described by Stegner, not as a novel, but as "a history, a story, and a memory") accumulate frank, lucid observations on day-to-day life in the West — offering out images painted with subtlety and indirection.

133. S. UDALL, *THE QUIET CRISIS* (1963).

134. McCall, who was the principal figure in the cleanup of the Willamette River, the adoption of Oregon's statewide land-use legislation, and the state's bottle bill, has written an engaging autobiography. T. MCCALL & S. NEAL, *TOM MCCALL: MAVERICK* (1977). Lamm coauthored *THE ANGRY WEST*, *supra* note 24. Among other things, Babbitt has conceived of the notion of "public use," which he believes will replace "multiple-use" as the basic resource philosophy on federal lands. See, e.g., G. COGGINS & C. WILKINSON, *FEDERAL PUBLIC LAND AND RESOURCES LAW 1055-56* (2d ed. 1987).

135. W. STEGNER, *supra* note 7.

136. W. STEGNER, *THE GATHERING OF ZION: THE STORY OF THE MORMON TRAIL* (1964).

137. W. STEGNER, *THE UNEASY CHAIR: A BIOGRAPHY OF BERNARD DE VOTO* (1974).

138. W. STEGNER, *supra* note 1. Stegner also served as editor for *THIS IS DINOSAUR: ECHO PARK AND ITS MAGIC RIVERS* (W. Stegner ed. 1955), an evocative argument against the proposed Echo Park Dam that was placed on the desk of every congressperson during this controversy of the mid-1950s which, as well as any other, marked the birth of the modern environmental movement. See note 86 *supra* and accompanying text.

139. W. STEGNER, *THE BIG ROCK CANDY MOUNTAIN* (1943).

140. W. STEGNER, *supra* note 22.

*Angle of Repose*¹⁴¹ is even more. This great novel, based on the late-nineteenth-century letters of the remarkable Mary Hallock Foote, is a grand panorama of the West, an epic containing so much that most readers will be left with a head-shaking awe of the talent that produced it.

One logical way to go about reading Wallace Stegner is simply to go through his clean, direct prose, fiction and nonfiction, in chronological order. Then, both as review and as new insight, a person could read *Conversations with Wallace Stegner*,¹⁴² Richard Etulain's far-ranging taped interviews with Stegner. A person will then have the basic literary stock in trade for understanding the American West: a rendering of the flow of history; images both of the region's glory spots and of the staid, dignified plains; accounts of heroism and of the unglamorous daily lives of westerners; repeated calls for cooperation among divisive elements; and principled entreaties to fend off the zeal of the onrushing boosters, whose ventures would homogenize the region, thus stripping it of the common and uncommon qualities that Stegner conclusively proves to be in such abundance beyond the 100th meridian.

B. *The Subcultures*

1. *American Indians*

Many non-Indians are baffled by the fact that Indians press so hard to maintain the reservation system, where poverty seems to be omnipresent, educational services and housing inadequate, and alcoholism rampant. And, to be sure, in spite of the many gains by the tribes during modern times, such stereotypes continue to hold all too much truth. But there are many reasons, tangible and intangible, why Indian leaders see the reservations as the premise for the future progress of their people. Indians are "haves" in just one respect — land — and they consider development of tribal natural resources, including recreation, to be the most logical path toward rebuilding tribal economies. Indian leaders believe that tribal governments can best detect and meet the social needs of Indian people. Then too, reservation life has other aspects to it — a web of family, special backcountry places, tradition, and mysticism — that Indian people are determined to preserve and improve. The reservations are homelands.

In the late 1960s, as Indian tribes were regrouping from the termination era's assault on the reservation system, Vine Deloria, Jr., wrote *Custer Died for Your Sins*,¹⁴³ setting out the modern policy goals of

141. W. STEGNER, *supra* note 11.

142. W. STEGNER & R. ETULAIN, *CONVERSATIONS WITH WALLACE STEGNER ON WESTERN HISTORY AND LITERATURE* (1983). The Winter 1985 issue of the *South Dakota Review* is devoted entirely to Stegner, with essays on various aspects of his life and work.

143. V. DELORIA, JR., *supra* note 15.

Indian tribes. The book is a forceful, poignant, and often humorous call for tribal sovereignty in Indian country and for a substantial federal financial commitment to bolster reservation economies and to fulfill treaty promises. Remarkably, *Custer* has not become dated nearly two decades later. It remains a fine source for gaining a sense of the aspirations of Indian people.

The ambiguities, subtleties, and contradictions of reservation life are explored in objective, insightful fashion by young, award-winning Indian novelists Louise Erdrich,¹⁴⁴ James Welch,¹⁴⁵ Leslie Marmon Silko,¹⁴⁶ and N. Scott Momaday.¹⁴⁷ D'Arcy McNickle¹⁴⁸ and Frank Waters¹⁴⁹ have written piercingly on the deeply traditional pueblos of the Southwest. A number of books offer valuable perspectives on contemporary life among Alaska natives in rural Alaska.¹⁵⁰

2. *Hispanics*

Beginning as early as the sixteenth century, Hispanics moved north into what is now the United States in four main corridors: the California coast, the Santa Cruz River in southern Arizona, the Rio Grande River through New Mexico up into southern Colorado, and southeast Texas, along the coast of the Gulf of California. Some of these missions and settlements have disappeared, some have expanded into major urban areas (Los Angeles, Tucson, Santa Fe, and San Antonio are examples), and others remain distinctly Hispanic communities (towns in northern New Mexico and southern Colorado's San Luis Valley are the most notable). Movement of Hispanic people across the border remains a major domestic and international issue.

Hispanic issues in the Southwest are given broad treatment in two anthologies.¹⁵¹ Recent studies have explored close-knit Hispanic *barrios* where the language, religious traditions, and culture remain in-

144. L. ERDRICH, *THE BEET QUEEN* (1986); L. ERDRICH, *LOVE MEDICINE* (1984).

145. J. WELCH, *WINTER IN THE BLOOD* (1974).

146. L. SILKO, *CEREMONY* (1977).

147. N. MOMADAY, *HOUSE MADE OF DAWN* (1968).

148. D. McNICKLE, *THEY CAME HERE FIRST: THE EPIC OF THE AMERICAN INDIAN* (rev. ed. 1975).

149. F. WATERS, *THE MAN WHO KILLED THE DEER* (1942); F. WATERS, *THE BOOK OF THE HOPI* (1963).

150. See, e.g., T. BERGER, *VILLAGE JOURNEY: THE REPORT OF THE ALASKA NATIVE REVIEW COMMISSION* (1985); D. BOERI, *PEOPLE OF THE ICE WHALE: ESKIMOS, WHITE MEN, AND THE WHALE* (1983); R. NELSON, *MAKE PRAYERS TO THE RAVEN: A KOYUKON VIEW OF THE NORTHERN FOREST* (1983).

151. See *FOREIGNERS IN THEIR NATIVE LAND*, *supra* note 71; *HISPANICS IN THE UNITED STATES: A NEW SOCIAL AGENDA* (P. Cafferty & W. McReady eds. 1985). On immigration, see note 72, *supra*. The Mexican poet and essayist, Octavio Paz, has examined Mexican culture. See, e.g., O. PAZ, *THE LABYRINTH OF SOLITUDE: LIFE AND THOUGHT IN MEXICO* (1961).

tact.¹⁵² John Nichols provides a hard-hitting account of the destruction of Hispanic culture in the not-so-fictitious towns of Milagro and Chamisaville. The first and best of Nichols's three novels, which comprise his New Mexico Trilogy, is *The Milagro Beanfield War*,¹⁵³ a brilliant, often hilarious treatment of the relationship among Hispanic people, land, water law and policy, and the effects of drawing traditional subsistence peoples into the cash economy. The rich traditions of the Hispanic Southwest have provided the fiber for several other outstanding works of fiction, among them Rudolfo Anaya's *Bless Me, Ultima*.¹⁵⁴ George Sanchez's compelling piece, *Forgotten People*,¹⁵⁵ argued for reforms, including a land-grant program, to remedy the bleak situation of rural Hispanic New Mexicans. The book has been called the cornerstone of the modern Chicano movement.

3. *Mormons*

The history and present of the West are fundamentally incomplete without an understanding of the Mormons and their Church of Jesus Christ of Latter-Day Saints. The overland migration of the Mormons from Nauvoo, Illinois, to Salt Lake City in 1846 and 1847 was one of the turning points in the region's history; Brigham Young was one of the most influential personalities; and the LDS Church is one of the West's most powerful institutions. Today, Mormons dominate the government and economy of the State of Utah, exert major influence in Nevada, Idaho, and Arizona, and play key roles on selected political issues in several other western states.

DeVoto recounts the expulsion of the Mormons from Illinois in *The Year of Decision: 1846*,¹⁵⁶ where he considers the event one of the key occurrences in the tumultuous times of the late 1840s. A fuller treatment of the Mormon Trail is Stegner's *The Gathering of Zion*,¹⁵⁷ which includes a thorough bibliography. Two recent works deal with the contemporary influence of the Mormons. *The Mormon Corporate Empire*,¹⁵⁸ by John Heinerman and Anson Shupe, explores the vast

152. See R. ROMO, *EAST LOS ANGELES: A HISTORY OF A BARRIO* (1983); A. CAMARILLO, *CHICANOS IN A CHANGING SOCIETY* (1979).

153. J. NICHOLS, *supra* note 17. The other novels in the trilogy are J. NICHOLS, *THE MAGIC JOURNEY* (1978), and J. NICHOLS, *THE NIRVANA BLUES* (1981).

154. R. ANAYA, *BLESS ME, ULTIMA* (1972); see also R. ANAYA, *THE SILENCE OF THE LLANO* (1982); D. HARTH & L. BALDWIN, *VOICES OF AZTLAN: CHICANO LITERATURE OF TODAY* (1974); W. CATHER, *DEATH COMES FOR THE ARCHBISHOP* (1927).

155. G. SANCHEZ, *FORGOTTEN PEOPLE: A STUDY OF NEW MEXICANS* (1940). *FORGOTTEN PEOPLE* is complemented by the more recent F. SWADESH, *LOS PRIMEROS POBLADORES: HISPANIC AMERICANS OF THE UTE FRONTIER* (1974).

156. B. DEVOTO, *supra* note 8. For a poem by Susan Snively about the 13th wife of Brigham Young, who carried the same name, see S. SNIVELY, *For the Thirteenth Wife (Susan Snively, 13th Wife of Brigham Young)*, in *FROM THIS DISTANCE* (1981).

157. W. STEGNER, *supra* note 136. See also W. STEGNER, *MORMON COUNTRY* (1942).

158. J. HEINERMAN & A. SHUPE, *THE MORMON CORPORATE EMPIRE* (1985).

Mormon political and financial network, but sees those workings only as a means to an end: "[T]he LDS Church's goals have not mellowed or narrowed, even late into this century. The Church is still engaged in a crusade to bring about a theocracy in the United States."¹⁵⁹ But this, like the other sources cited here, is no anti-Mormon tract, for the authors plainly respect the Mormons' seemingly congenital industriousness, thrift, and friendliness. Gottlieb and Wiley¹⁶⁰ ably cover much of the same ground.

4. Asian-Americans

People traveled from China to the Gold Country as early as 1848 and, when the gold played out, Chinese immigrants constituted much of the labor pool for the building of the transcontinental railroads. All the while, whether miners, construction workers, farmers, or urban residents, they suffered the rawest forms of discrimination. In the 1890s, the Japanese were the next group to emigrate in numbers from Asia, mostly becoming laborers and farmers in the first generation. They, of course, were subjected to internment during World War II. Immigrants from Asia have also included Filipinos, Koreans, and the modern Boat People.

The historical experiences of Asian-Americans in the mining camps, on the railroads, on the farms, in the canneries, and in the internment camps all directly raise distinctively western legal issues. More recently, a regional development of considerable importance is the ability of Asian-Americans, most of whom have settled in urban areas on the Pacific Coast, to overcome racial hostility and cultural differences and to achieve success in the majority society.¹⁶¹ The story of Asian-Americans in the Western United States is given broad coverage in *Becoming Americans*, by Tricia Knoll.¹⁶² Jack Chen treats the Chinese experience in depth in *The Chinese of America*.¹⁶³ The leading work on the Japanese internment of the 1940s is Michi Weglyn's *Years of Infamy: The Untold Story of America's Concentration Camps*.¹⁶⁴ The creation of a Chinese and, later, Mexican "peasantry"

159. *Id.* at 4.

160. R. GOTTLIEB & P. WILEY, *AMERICA'S SAINTS: THE RISE OF MORMON POWER* (1984).

161. M. KINGSTON, *THE WOMAN WARRIOR: MEMOIRS OF A GIRLHOOD AMONG GHOSTS* (1976); M. KINGSTON, *CHINA MEN* (1980).

162. T. KNOLL, *BECOMING AMERICANS: ASIAN SOJOURNERS, IMMIGRANTS, AND REFUGEES IN THE WESTERN UNITED STATES* (1982).

163. J. CHEN, *THE CHINESE OF AMERICA* (1980).

164. M. WEGLYN, *YEARS OF INFAMY: THE UNTOLD STORY OF AMERICA'S CONCENTRATION CAMPS* (1976). See also *PERSONAL JUSTICE DENIED: REPORT OF THE COMM. ON WAR-TIME RELOCATION AND INTERNMENT OF CIVILIANS* (1982); J. TATEISHI, AND JUSTICE FOR ALL: *AN ORAL HISTORY OF THE JAPANESE AMERICAN INTERNMENT CAMPS* (1984).

on the big farms in California is the subject of *Bitter Harvest*,¹⁶⁵ by Cletus E. Daniel.

5. *Farmers, Ranchers, and Cowboys*

The ranches and farms of the West have many and diverse impacts on the region. They contribute to overriding resource problems by causing the loss of topsoil and by polluting streams with silt and agricultural chemicals. Because they use ninety percent of all western water, farmers and ranchers created the demand for the large water projects that are at the center of so much controversy. Yet these industries are the foundation for local economies and provide food for the nation and the world. They preserve open space. As a culture, the people of the ranches and farms have settled in so deeply and for so long that for all practical purposes they are indigenous societies.

In his essay, *Cowboys, Indians, and the Land of Promise*,¹⁶⁶ western historian Ray Allen Billington examines the myth and reality of ranch life. Ivan Doig's exquisite *This House of Sky*¹⁶⁷ and *English Creek*¹⁶⁸ are set in small ranching and farming communities in Montana. Gretel Ehrlich's *The Solace of Open Spaces*,¹⁶⁹ which sketches the outlines and the details of modern ranch life, is nothing short of a masterpiece. If there is romanticism there, it is a romanticism bred of hard work, attention to detail, stark plains landscapes, and the steady tendering of personal relationships:

Winter scarified me. Under each cheekbone I thought I could feel claw marks and scar tissue. What can seem like a hardshell veneer on the people here is really a necessary spirited resilience. One woman who ran a ranch by herself had trouble with a neighbor who let his cattle in on her pastures. She rode out one morning to confront him. When he laughed, she shot the hat off his head. He promptly gathered his steers and departed. "When you want that hat back, it'll be hanging over my mantel," she yelled as he loped away. When he suffered a stroke a few months later, she nursed him, though his hat still hangs over the fireplace today.

Living well here has always been the art of making do in emotional as well as material ways. Traditionally, at least, ranch life has gone against materialism and has stood for the small achievements of the human conjoined with the animal, and the simpler pleasures — like listening to the radio at night or picking out constellations. The toughness I was learning was not a martyred doggedness, a dumb heroism, but the

165. C. DANIEL, *BITTER HARVEST: A HISTORY OF CALIFORNIA FARMWORKERS, 1870-1941* (1981).

166. R. BILLINGTON, *Cowboys, Indians, and the Land of Promise in AMERICA'S FRONTIER CULTURE: THREE ESSAYS* (1977).

167. I. DOIG, *THIS HOUSE OF SKY: LANDSCAPES OF A WESTERN MIND* (1978).

168. I. DOIG, *ENGLISH CREEK* (1984).

169. G. EHRLICH, *THE SOLACE OF OPEN SPACES* (1985). See also G. EHRLICH, *TO TOUCH THE WATER* (1981).

art of accommodation. I thought: to be tough is to be fragile; to be tender is to be truly fierce.¹⁷⁰

There are hundreds of western communities dependent on resource-based economies other than farming and ranching — logging, mining, commercial fishing, and recreation. Jim Harrison's *Legends of the Fall*,¹⁷¹ Thomas McGuane's *Nobody's Angel*,¹⁷² and Norman MacLean's *A River Runs Through It*¹⁷³ are fine works of fiction set in such locales. *Sometimes A Great Notion*,¹⁷⁴ Ken Kesey's epic novel, deals with the stresses in a western Oregon timber community.

C. The Organizations

1. The Forest Service

The Forest Service has long been a peculiarly influential western institution because of its high-visibility beginnings under Pinchot and its many powers and responsibilities as the directing agency for the national forests, which are such a basic part of the West's economy and society. The literature is extensive. The sources on Gifford Pinchot have already been discussed.¹⁷⁵ The standard history, by Harold Steen,¹⁷⁶ is thorough and accurate. Glen Robinson has written a fine study of agency processes, *The Forest Service*,¹⁷⁷ completed in 1975 but still highly useful.¹⁷⁸

The forest ranger has always held something of a mystique. Kaufman's *The Forest Ranger*¹⁷⁹ is a classic and two decades later remains an insightful study of institutional behavior and of the place of forest rangers in western communities. Inevitably, the fiction of the region is sprinkled with references to rangers, one good example being Doig's *English Creek*,¹⁸⁰ based on the life of a Montana forest ranger and his family.

170. G. EHRLICH, THE SOLACE OF OPEN SPACES 43-44 (1985). See also S. STEINER, THE RANCHERS: A BOOK OF GENERATIONS (1985); T. JORDAN, COWGIRLS: WOMEN OF THE AMERICAN WEST (1984); E. RANDOLPH, BEEF, LEATHER AND GRASS (1981).

171. J. HARRISON, LEGENDS OF THE FALL (1979).

172. T. MCGUANE, NOBODY'S ANGEL (1981).

173. N. MACLEAN, A RIVER RUNS THROUGH IT AND OTHER STORIES (1976).

174. K. KESEY, SOMETIMES A GREAT NOTION (1964).

175. See notes 120-24 *supra* and accompanying text.

176. H. STEEN, THE UNITED STATES FOREST SERVICE: A HISTORY (1976).

177. G. ROBINSON, THE FOREST SERVICE: A HISTORY IN PUBLIC LAND MANAGEMENT (1975).

178. Other books on the Forest Service include D. LE MASTER, DECADE OF CHANGE: THE REMAKING OF FOREST SERVICE STATUTORY AUTHORITY DURING THE 1970s (1984); D. BARNEY, THE LAST STAND: RALPH NADER'S STUDY GROUP REPORT ON THE NATIONAL FORESTS (1974); and S. DANA & S. FAIRFAX, *supra* note 23.

179. H. KAUFMAN, THE FOREST RANGER: A STUDY IN ADMINISTRATIVE BEHAVIOR (1960).

180. See I. DOIG, *supra* note 168.

2. *The Navajo Nation*

The Navajo Nation, which owns most of northeastern Arizona and reaches into Utah and New Mexico, is far and away the largest Indian tribe. The reservation comprises some sixteen million acres (an area larger than twelve states) and has a population of nearly 200,000 tribal members; over twenty-five percent of all American Indian land is Navajo land and more than ten percent of all American Indians are Navajos. Although, like most tribes, the Navajo is plagued by widespread poverty and high unemployment, the tribe is reasonably prominent in the economy of the Southwest due to its large land base; extensive stores of oil, gas, coal, uranium; and substantial, although unquantified, reserved water rights. Indian tribes across the West are exercising their recently rediscovered powers of self-government, but the Navajo Nation probably has gone further than any other tribe in gaining political control within its boundaries.

Peter Iverson's recent book, *The Navajo Nation*,¹⁸¹ is a thorough and fair treatment of the modern Navajo Nation. Parman's *The Navajos and the New Deal*,¹⁸² is a solid historical account. Other books¹⁸³ cover various aspects of this fascinating tribe, a lens through which one can view many of the obstacles and potentials at work in Indian country today.

3. *The Weyerhaeuser Company*

Fortunes were made during the nineteenth century by those who were able to obtain federal land and resources directly from the federal government. Some engaged in pure fraud; others, such as the railroads, drove hard bargains with Congresses that were profligate with public resources, at least by modern standards; still others, such as the ranch cattle industry, used a combination of lax federal laws and violence, or the threat of it, to build their empires.¹⁸⁴ By the turn of the century, however, federal oversight began to tighten in reaction to corporate abuses and most of the companies that have since risen to positions of power have taken different paths than their predecessors.

The Weyerhaeuser Company, which exerts broad influence over federal timber policy, is a leading example of the modern companies. *Timber and Men*,¹⁸⁵ an overly sympathetic but thorough corporate

181. P. IVERSON, *THE NAVAJO NATION* (1983).

182. D. PARMAN, *THE NAVAJOS AND THE NEW DEAL* (1976).

183. See, e.g., L. KELLY, *THE NAVAJO INDIANS AND FEDERAL INDIAN POLICY, 1900-1935* (1968); P. ZOLBROD, *DINÉ BAHANÉ: THE NAVAJO CREATION STORY* (1984). The detective novels of Tony Hillerman, set in the Four Corners area and based on the exploits of Sergeant Jim Chee of the Navajo Tribal Police, are delightful. See, e.g., T. HILLERMAN, *THE DARK WIND* (1982).

184. See notes 37-41, 78-83 & 106-10 *supra* and accompanying text.

185. R. HIDY, F. HILL & A. NEVINS, *TIMBER AND MEN: THE WEYERHAEUSER STORY* (1963).

history, explains how Frederick Weyerhaeuser came to the Pacific Northwest in the late nineteenth century, after the railroad grants and various federal timber statutes had effectively created a glut on the market. This was exactly the time when the timber stands in the Great Lakes had been mostly logged over and the nation necessarily had begun to look west for its timber supply. In 1900, Weyerhaeuser was able to raise the capital to make one of the largest land purchases in American history — 900,000 acres of timberland at six dollars per acre from the Northern Pacific Railroad. The Weyerhaeuser Company was off and running, and today is admired both for its corporate efficiency and for its leadership in the research and implementation of high-yield forestry.

Of course, numerous other resource-oriented corporations are main players in the lobbying and economic development that pervade the law of the American West. The combination of energy and construction companies that built the Alaska Pipeline in the 1970s — a venture notably reminiscent of the heyday of the railroads — is the subject of *800 Miles to Valdez*.¹⁸⁶ As already noted, the omnipresent matter of water development, beginning with the construction of the Hoover Dam in the 1930s, was the arena for the rise of the Six Companies (including Bechtel, Kaiser, and Utah International) and the Bank of America, as treated in depth in Wiley & Gottlieb's *Empires in the Sun*.¹⁸⁷

4. The Sierra Club

A major constituent element of the modern environmental movement is the national organizations that have either been born since the late 1960s or have boomed in membership to such an extent that they have virtually remade themselves. The Sierra Club exemplifies these groups, which increasingly resemble substantial corporations in many respects, and which wield real influence in the making of resource policy. The history of the Club, founded by John Muir and others in 1892, is detailed in *John Muir and the Sierra Club*,¹⁸⁸ by Holway Jones. Otherwise, there are few treatments of conservation organizations — the best of which is Stephen Fox's outstanding history of the conservation movement and its philosophical premises, *The American Conservation Movement: John Muir and His Legacy*¹⁸⁹ — but one can

186. J. ROSCOW, *800 MILES TO VALDEZ: THE BUILDING OF THE ALASKA PIPELINE* (1977).

187. P. WILEY & R. GOTTLIEB, *supra* note 24.

188. H. JONES, *supra* note 84. For an annotated anthology of articles on the Sierra Club, see A. GILLIAM, *VOICES FOR THE EARTH: A TREASURY OF THE SIERRA CLUB BULLETIN* (1979).

189. See S. FOX, *supra* note 13; see also, e.g., C. ALLIN, *THE POLITICS OF WILDERNESS PRESERVATION* (1982). The organizations comprising the environmental movement's "Group of 10" are: The Wilderness Society, Sierra Club, National Audubon Society, National Wildlife Federation, Natural Resources Defense Council, Environmental Defense Fund, Environmental

be sure that the literature of environmental history will proliferate.

IV. THE TERRAIN

A. *The Natural Systems*

1. *The Major Watersheds*

Political geography in the West — whether the lines are drawn to demarcate states, Indian reservations, or public lands systems — seldom comports with the natural features that would make for the most workable governmental divisions. High mountain divides are eschewed as boundaries in favor of longitude parallels and latitude meridians. The Continental Divide is used as a state line just once, along a short stretch of the Idaho-Montana boundary. This failure to tailor sovereignty with geography assures, for example, continuing multi-jurisdictional combat over rivers. There are no remotely serious pending proposals to redesign state boundaries — it is far too late for that — but a person gains the truest sense of the West by understanding watershed, as well as political, configurations. The major river basins are the upper Missouri, with the Yellowstone and Platte systems as the largest tributaries; the Arkansas; the Rio Grande; the Colorado, which touches Mexico and seven states from Wyoming to Arizona; the Sacramento-San Joaquin system in California; the Klamath of northern California and Oregon; and, far and away largest both in terms of flow and land area, the Columbia, with its main tributary, the Snake, which flows through Wyoming and Idaho before meeting the mainstem.

Perhaps the single most helpful book for looking at the whole culture, economy, and natural system of an entire watershed is Frank Waters' *The Colorado*,¹⁹⁰ done for the Rivers of America series. Waters writes beautifully and, although the piece was published in 1946 and thus fails to include the megapolitics of modern water development, he captures the geography of the Colorado basin and its constituent subcultures, including the strong Indian presence. A more scholarly work is Norris Hundley's valuable history, *Water and the West*.¹⁹¹ Edwin Corle and many others have written evocative pieces on the Colorado Plateau, including the mystical Four Corners Area.¹⁹² Paul Horgan's Pulitzer Prize-winning work on the Rio

Policy Institute, National Parks and Conservation Association, Izaak Walton League of America, and Defenders of Wildlife.

190. F. WATERS, *THE COLORADO* (1946). See also T. WATKINS, *THE GRAND COLORADO: THE STORY OF A RIVER AND ITS CANYONS* (1969).

191. N. HUNDLEY, *WATER AND THE WEST: THE COLORADO RIVER COMPACT AND THE POLITICS OF WATER IN THE AMERICAN WEST* (1975). See also *NEW COURSES FOR THE COLORADO RIVER: MAJOR ISSUES FOR THE NEXT CENTURY* (G. Weatherford & F. Brown eds. 1986); P. FRADKIN, *supra* note 16.

192. E. CORLE, *LISTEN, BRIGHT ANGEL* (1946). See also A. ZWINGER, *WIND IN THE ROCK: A NATURALIST EXPLORES THE CANYON COUNTRY OF THE SOUTHWEST* (1978); R. HENDERSON, *SUN, SAND AND SOLITUDE* (1968).

Grande, *Great River*,¹⁹³ is both great literature and great history. In the Columbia basin, another Rivers of America book, *The Columbia* by Stewart Holbrook,¹⁹⁴ offers a well-written, comprehensive view. In other watersheds, there is a lack of work viewing whole river systems but several pieces are useful.¹⁹⁵

2. The Great Plains

A plains environment — a relatively level and treeless area — extends from the foothills of the Rockies to the eastern hardwood region, and also exists in the Southwest and the Great Basin. The term Great Plains traditionally has been used to describe the arid plains bordered on the west by the Rocky Mountain front and on the east by the ninety-eighth meridian. From north to south, this immense grassland extends well into both Canada and Mexico. The Great Plains has received special attention because of the formidable obstacles it presented both to settlers heading further West and to those who wished to settle in the Great Plains itself; because of the technological innovations spawned in the Great Plains in order to surmount the physical difficulties of the region; because of its relatively large historic and contemporary Indian populations; and because of its subtle beauty.

Walter Prescott Webb's *The Great Plains*¹⁹⁶ remains the standard source. In *The Wild Prairie: A Natural History of the Western Plains*,¹⁹⁷ Tim Fitzharris documents the alteration of the natural plant and animal environment, saying that "today only a fraction of this life remains."¹⁹⁸ Nevertheless, his exquisite photographs prove his other conclusion, that "in many areas the big skies and rolling countryside still have the magic of unspoiled wilderness."¹⁹⁹ The fiction is excellent, with Hamlin Garland, Willa Cather, O.E. Rölvaag, and Edna Ferber being the best-known chroniclers of the region.²⁰⁰ Maria San-

193. P. HORGAN, *GREAT RIVER: THE RIO GRANDE IN NORTH AMERICAN HISTORY* (1954) (two volumes). See also J. MUELLER, *RESTLESS RIVER* (1981) (Rio Grande Basin); M. MEYER, *WATER IN THE HISPANIC SOUTHWEST: A SOCIAL AND LEGAL HISTORY* (1984) (Rio Grande Basin).

194. S. HOLBROOK, *THE COLUMBIA* (1956). The sources on Pacific salmon also deal with the Columbia River basin. See notes 257 & 258 *infra*.

195. See, e.g., E. CORLE, *THE GILA: RIVER OF THE SOUTHWEST* (1951). Northern Lights Institute of Missoula, Montana, has produced a fine overview of the upper Missouri Basin. See *BOUNDARIES CARVED IN WATER: AN ANALYSIS OF RIVER AND WATER MANAGEMENT IN THE UPPER MISSOURI BASIN* (D. Snow ed. 1986).

196. See W. WEBB, *supra* note 5.

197. T. FITZHARRIS, *THE WILD PRAIRIE: A NATURAL HISTORY OF THE WESTERN PLAINS* (1983).

198. *Id.* at 7.

199. *Id.*

200. See, e.g., H. GARLAND, *A SON OF THE MIDDLE BORDER* (1917); H. GARLAND, *A DAUGHTER OF THE MIDDLE BORDER* (1921); W. CATHER, *O PIONEERS!* (1946); W. CATHER,

doz, John Neihardt, and Louise Erdrich have written powerful books on Indian societies of the plains.²⁰¹ Several other worthwhile pieces²⁰² examine this remarkable area, at once both outpost and heartland, wasteland and big sky country.

3. *The Great Basin*

To the uninitiated, the Great Basin is likely to be even harder to fathom than the Great Plains. This landscape, which has no outlet to the sea, is bordered on the east by the Wasatch Range and other mountains of Utah; on the north by the southern edge of the Snake River basin; on the west by the Sierra Nevada; and on the south by a narrowing "V", the bottom of which is the Nevada segment of the Colorado River watershed. As such, this dry, sandy region, where streams dissipate in desert "sinks," includes half of Utah, southeastern Oregon and southwestern Idaho, a long strip of California east of the crest of the Sierra, and almost all of Nevada.

The Great Basin, and often its people, have tended to generate jeers, or, at best, disinterest, by the majority society. The Paiutes were called "digger" Indians by the whites who looked contemptuously on their diets of roots and insects; the migrants apparently never stopped to marvel at the palpable resourcefulness of a people who could subsist under such conditions. The Mormons were able to maintain their civilization at the edge of the Great Salt Lake precisely because no one else wanted it, and continue to receive scarce recognition for their undeniable success in settling such hostile country. Most Americans, to the extent they think of the Great Basin at all, view it as a worthless expanse of sagebrush and sand that must be traversed at seventy miles per hour or more in order to reach Las Vegas, Reno, or the Pacific Coast.

There is, of course, another side to this. John McPhee, in his magnificent *Basin and Range*,²⁰³ explains the geography of eastern Nevada and, in the process, inculcates the reader with the wonders of this scratchy country. Walter Van Tilburg Clark's novels²⁰⁴ and Rob Schultheis' *The Hidden West*,²⁰⁵ set partially in the Great Basin, are

MY ANTONIA (1954); O. RÖLVAAG, *GIANTS IN THE EARTH: A SAGA OF THE PRAIRIE* (1927); E. FERBER, *SO BIG* (1924).

201. See M. SANDOZ, *CRAZY HORSE: THE STRANGE MAN OF THE OGLALAS* (1942); J. NEIHARDT, *BLACK ELK SPEAKS* (1932); L. ERDRICH, *supra* note 144 (both citations).

202. See, e.g., D. PLOWDEN, *FLOOR OF THE SKY: THE GREAT PLAINS* (1972); M. SANDOZ, *LOVE SONG TO THE PLAINS* (1961); C. KRAENZEL, *THE GREAT PLAINS IN TRANSITION* (1955). There is now a *Great Plains Quarterly*, a periodical first put out by the University of Nebraska-Lincoln in 1981.

203. J. MCPHEE, *supra* note 18.

204. See, e.g., W. CLARK, *THE CITY OF TREMBLING LEAVES* (1945); W. CLARK, *THE TRACK OF THE CAT* (1949).

205. R. SCHULTHEIS, *THE HIDDEN WEST: JOURNEYS IN THE AMERICAN OUTBACK* (1983).

outstanding reading. Other sources explain the region in physical and historical terms.²⁰⁶ One of the lesser-known, but most arresting, continuing conflicts between Indians and whites has occurred at Pyramid Lake in Nevada. Irrigators have diverted Truckee River water, the sole source of water for Pyramid Lake, out of the watershed. This has threatened the twenty-five-mile-long lake, the Pyramid Lake Band of Paiutes, whose reservation encompasses the lake, and the cui-ui and Lahontan cutthroat trout, two now-endangered fish species that depend on Truckee River water. There is a standard history of the situation at Pyramid Lake.²⁰⁷

4. *The Yellowstone Ecosystem*

Yellowstone National Park, mainly in Wyoming but also reaching into Idaho and Montana, is one of many instances where the neat lines on the maps fail to comport with the lay of the land or with actual land management needs. Proposed geothermal development outside park boundaries may threaten the famous geysers within the park. Various animals, including grizzly bears and large migrating elk herds, move in and out of the park. Timber harvesting and oil and gas drilling are scheduled for the seven national forests that girdle the park. However, the larger issues of road systems, erosion, habitat disturbance, and noise are the same as if the proposed development were to occur within the park boundaries. Increasingly, there is recognition that resource planning must take into account the greater Yellowstone ecosystem, not just the park.

In *The Yellowstone Story*,²⁰⁸ Aubrey Haines gives a good sense of the whole Yellowstone plateau, bounded by the Absaroka Range on the east and north, the Gallatin Range on the north and west, and various low-lying ridges on the west and south. This comprehensive, two-volume chronicle is loaded with illustrations, maps, and charts, and has a complete bibliography. *Nature's Yellowstone*,²⁰⁹ by Richard Bartlett, is a fine examination of the geological formation of the region over billions of years. *Mountain Time*,²¹⁰ by naturalist Paul Schullery, is a personal account of a love affair with this land. Alston Chase's *Playing God In Yellowstone*,²¹¹ a heated criticism of Park Service pol-

206. See, e.g., S. HOUGHTON, *A TRACE OF DESERT WATERS: THE GREAT BASIN STORY* (1976); G. CLINE, *EXPLORING THE GREAT BASIN* (1963); W. STEGNER, *supra* note 136. For a robust treatment of American deserts from an historian's perspective, see P. LIMERICK, *DESERT PASSAGES: ENCOUNTERS WITH THE AMERICAN DESERTS* (1985).

207. M. KNACK & O. STEWART, *AS LONG AS THE RIVER SHALL RUN: AN ETHNOHISTORY OF PYRAMID LAKE INDIAN RESERVATION* (1984).

208. A. HAINES, *THE YELLOWSTONE STORY: A HISTORY OF OUR FIRST NATIONAL PARK* (1977) (two volumes).

209. R. BARTLETT, *NATURE'S YELLOWSTONE* (1974).

210. P. SCHULLERY, *MOUNTAIN TIME* (1984).

211. A. CHASE, *PLAYING GOD IN YELLOWSTONE: THE DESTRUCTION OF AMERICA'S FIRST NATIONAL PARK* (1986).

icy, was written recently enough that it is still too early to know whether the truth lies with the author's angry charges of mismanagement, the agency's loud denials, or somewhere in between.

5. *The Pacific Coastline*

"A coast," said T.H. Watkins in *On the Shore of the Sundown Sea*,²¹² "marks the boundary between what we know and what we can only guess, and is therefore a proper home for poets."²¹³ Watkins' book, itself often on the vague boundary between prose and poetry, brings out the magic of the California coast, both south and north. Many of Jack London's novels and short stories are set in the turn-of-the-century San Francisco Bay area, and give a sense of that vigorous society, tied in so many ways to the ocean and the bay.²¹⁴ One of the California Natural History Guides is a readable, profusely illustrated treatment of the animals of the northern California seashore.²¹⁵ There are several sources on the coastal area of the Pacific Northwest.²¹⁶ In *Children of the Raven*,²¹⁷ H.R. Hays successfully presents the complex history and contemporary life of the Indian people of the Northwest Coast.

6. *Alaska*

Alaska, of course, is not a discrete natural system: it contains a great many separate natural systems (the state comprises nearly eighteen percent of all land in the United States) and its eastern border with Canada is the 141st meridian, which arbitrarily cuts through major river drainages and mountain ranges. Nevertheless, Alaska raises a set of legal and policy issues that often are treated together, in spite of the conceptual and practical barriers to such an undertaking.

Alaska Geographic is the leading source for information on Alaska's many natural systems.²¹⁸ John McPhee's *Coming Into the Country*²¹⁹ offers insight after insight into the land, people, and animals of Alaska; even old-time Alaskans concede that it is a remarkably

212. T. WATKINS, *ON THE SHORE OF THE SUNDOWN SEA* (1973).

213. *Id.* at 113.

214. *See, e.g.*, J. LONDON, *THE SEA-WOLF* (1904). *See also, e.g.*, H. GILLIAM, *WEATHER OF THE SAN FRANCISCO BAY REGION* (1962).

215. J. HEDGPETH, *INTRODUCTION TO SEASHORE LIFE OF THE SAN FRANCISCO BAY REGION AND THE COAST OF NORTHERN CALIFORNIA* (1962).

216. *See, e.g.*, B. MCCONNAUGHEY & E. MCCONNAUGHEY, *PACIFIC COAST* (1985).

217. H. HAYES, *CHILDREN OF THE RAVEN: THE SEVEN INDIAN NATIONS OF THE NORTHWEST COAST* (1975).

218. *See, e.g.*, *The Kotzebue Basin*, 8 ALASKA GEOGRAPHIC No. 3 (1981); *The Cook Inlet Basin*, 10 ALASKA GEOGRAPHIC No. 2 (1983); *Up the Koyukuk*, 10 ALASKA GEOGRAPHIC No. 4 (1983); *The Chilkat Valley*, 11 ALASKA GEOGRAPHIC No. 4 (1984).

219. J. MCPHEE, *supra* note 14. In *Going To Extremes*, Joe McGinniss attempts to create a book of roughly the same genre as *Coming Into the Country*. J. MCGINNISS, *GOING TO EXTREMES* (1980). McGinniss writes well and the book is lively but — true to its title — it presents

accurate portrait of this Great Land. Barry Lopez has received the American Book Award for *Arctic Dreams*,²²⁰ his lyrical account of the Arctic region. *Make Prayers to the Raven*,²²¹ by Richard Nelson, is an eloquent statement of nature and subsistence living from the point of view of the Koyukon people, Alaska Natives of the Yukon country of central Alaska. Two pieces by major figures in the early preservation movement, *Travels in Alaska*,²²² by John Muir, and *Alaska Wilderness*,²²³ by Bob Marshall, capture the spirit of Alaska's wild country, as does Jack London's novel, *Call of the Wild*.²²⁴ And, while one can understand why some academics dismiss Robert Service's poetry as doggerel, Service is simply too much fun to bypass. Just one example is the saga of Sam McGee, who sought solace from the winter cold "on a Christmas day [while] we were mushing our way over the Dawson trail":

And there sat Sam, looking cool and calm, in the heart of the furnace
roar;

And he wore a smile you could see a mile, and he said: "Please close
that door.

It's fine in here, but I greatly fear you'll let in the cold and storm —
Since I left Plumtree, down in Tennessee, it's the first time I've been
warm."

There are strange things done in the midnight sun

By the men who toil for gold;

The Arctic trails have their secret tales

That would make your blood run cold;

The Northern Lights have seen queer sights,

But the queerest they ever did see

Was that night on the marge of Lake Lebarge

*I cremated Sam McGee.*²²⁵

B. The Commodity Resources

The American West is rich in natural resources and their economic development has always been a central part of the region's economy and society. The sources here provide laypeople an understanding of

somewhat more extreme (and less typical) portraits and is based on more limited personal experiences than is the case with McPhee's book.

220. B. LOPEZ, *ARCTIC DREAMS: IMAGINATION AND DESIRE IN A NORTHERN LANDSCAPE* (1986).

221. R. NELSON, *MAKE PRAYERS TO THE RAVEN: A KOYUKON VIEW OF THE NORTHERN FOREST* (1983).

222. J. MUIR, *TRAVELS IN ALASKA* (1915).

223. R. MARSHALL, *ALASKA WILDERNESS: EXPLORING THE CENTRAL BROOKS RANGE* (1956). See also R. MARSHALL, *ARCTIC VILLAGE* (1933) and *ARCTIC WILDERNESS* (G. Marshall ed. 1956), a collection of Bob Marshall's journals, manuscripts, and letters edited by his brother George.

224. J. LONDON, *CALL OF THE WILD* (1903).

225. See, e.g., R. SERVICE, *The Cremation of Sam McGee*, in *SONGS OF A SOURDOUGH* 69-70 (1962).

how the traditional commodity resources are put to use. Other resources, such as recreation, wilderness, wildlife, and the environmental values of water, are treated elsewhere.

1. *Minerals*

Many of the immigrants at the front end of the California Gold Rush were able to obtain the yellow metal without resorting to sophisticated equipment. Leaving aside those instances in which the gold literally was visible to the naked eye, as it was to James Marshall, early stream-side miners separated the gold from the gravel with an assortment of relatively simple devices, such as gold pans, sluices, and long toms. It was another matter, however, to remove placer deposits (loose minerals in soil) from mineral-bearing lands located away from the streams. Hydraulic hoses were trained on hillsides, which melted away under the powerful blasts of water. Quartz deposits (veins of precious metals embedded in rock) required deep shafts and pick-axe labor. Hardrock mining became mainly a corporate pursuit, a trend that accelerated with the use of open-pit mines to obtain copper and molybdenum.

Today, with most of the West picked over, the emphasis in hard-rock mining is on high-technology processing methods, including the reworking of old tailings, sometimes a profitable enterprise as prices fluctuate. In the case of the organic energy fuels (coal, oil, gas, tar sands, and oil shale), geologists use state-of-the-art methodology to identify land movements that trapped vast plant communities, such as swamp-forests and thick peat deposits, thereby sealing in great supplies of energy — the organic material then decomposed and was converted into fossil fuel. Thus the energy industry places a premium on exploration through plate tectonics analysis, satellite imagery, and aerial photography, in addition to on-the-ground sampling and drilling.

Earth Resources,²²⁶ one volume in the Prentice-Hall series on the foundations of earth sciences, provides a good, basic starting point on the locations and qualities of both metals and energy fuels. The standard introduction-to-geology texts can also be helpful.²²⁷ The specialized material on plate tectonics is difficult reading.²²⁸ The same is true for the advanced sources on the exploration and extraction of minerals,²²⁹ but they are solid resource books for explanations of how, for instance, an oil-drilling operation or an open-pit coal mine operates.

226. D. SKINNER, *EARTH RESOURCES* (3d ed. 1986).

227. See, e.g., F. PRESS & R. SIEVER, *EARTH* (3d ed. 1982); R. DOTT, JR. & R. BATTEN, *EVOLUTION OF THE EARTH* (2d ed. 1976); E. LARSON & P. BIRKELAND, *PUTNAM'S GEOLOGY* (4th ed. 1982).

228. See, e.g., *ECONOMIC GEOLOGY AND GEOTECTONICS* (D. Tarling ed. 1981).

229. See, e.g., F. NORTH, *PETROLEUM GEOLOGY* (1985); W. PETERS, *EXPLORATION MINING AND GEOLOGY* (1978). On geothermal energy, which is likely to be of increased importance

2. Water

Nearly all western development is water intensive. In most parts of the West, farms are built on irrigation water as much as on the land itself. Extensive supplies of water are essential for energy development, whether coal-fired (steam turns the turbines), nuclear (water is used for cooling), or hydroelectric (water power turns the turbines). In urban areas, availability of water is necessary for municipal and industrial growth.

Rodman Paul explains the historic role of water during the Gold Rush days.²³⁰ The physical facts about western water are set out in various government reports.²³¹ *The California Water Atlas*,²³² by William Kahrl, is a monumentally well-conceived and thorough look at water and water resource development in California; one hopes that it will be replicated for other western states and watersheds. The techniques employed in irrigated agriculture are explained in depth in a technical piece by Withers and Vipond.²³³ The matter of urban water use is treated comprehensively in a remarkable survey by John Folk-Williams, Susan Fry, and Lucy Hilgendorf, *Western Water Flows To the Cities*,²³⁴ which takes an in-depth, objective look at the current tensions over water in twenty western cities. The material on water conservation is burgeoning as demands increase.²³⁵

3. Range

The science of range management is treated in several basic texts.²³⁶ With a growing awareness of the consequences flowing from the large percentage of overgrazed rangelands in poor or fair condition, this seems to be a time of ferment and reassessment in public and private range policy. The impact of grazing on the water resource, including the pervasive problem of soil erosion, is treated in the well-

in the future, see, e.g., S. BIERMAN, D. STOVER, P. NELSON & W. LAMONT, *GEOTHERMAL ENERGY IN THE WESTERN UNITED STATES: INNOVATION VS. MONOPOLY* (1978).

230. See R. PAUL, *supra* note 26.

231. See, e.g., U.S. WATER RESOURCE COUNCIL, *SECOND NATIONAL WATER ASSESSMENT: THE NATION'S WATER RESOURCES, 1975-2000* (1978). On groundwater, see also note 270 *infra*.

232. CALIFORNIA STATE OFFICE OF PLANNING AND RESEARCH, *THE CALIFORNIA WATER ATLAS* (W. Kahrl ed. 1979).

233. B. WITHERS & S. VIPOND, *IRRIGATION: DESIGN AND PRACTICE* (2d ed. 1980).

234. J. FOLK-WILLIAMS, S. FRY & L. HILGENDORF, *WESTERN WATER FLOWS TO THE CITIES* (1985).

235. See, e.g., CALIFORNIA DEPARTMENT OF WATER RESOURCES, *WATER CONSERVATION IN CALIFORNIA* (1984); *WATER AND AGRICULTURE IN THE WESTERN UNITED STATES: CONSERVATION, REALLOCATION AND MARKETS* (G. Weatherford & L. Brain ed. 1982); Shupe, *Waste in Western Water Law: A Blueprint For Change*, 61 OR. L. REV. 483 (1982).

236. See J. VALLENTINE, *RANGE DEVELOPMENTS AND IMPROVEMENTS* (2d ed. 1979); H. HEADY, *RANGELAND MANAGEMENT* (1975); L. STODDART, A. SMITH & T. BOX, *RANGE MANAGEMENT* (3d ed. 1975).

illustrated *Rangeland Hydrology*.²³⁷ Recently, there has been considerable attention given to the deterioration of riparian areas due to cattle grazing.²³⁸ The larger question of desertification in the United States, a substantial part of which is caused by poor grazing practices, is the subject of a booklet put out by the Council on Environmental Quality.²³⁹ Two of the most spirited entrants in the policy debate over federal range policy are *Locking Up the Range*,²⁴⁰ by Gary Libecap, who argues for privatizing federal rangelands, and *Sacred Cows at the Public Trough*,²⁴¹ by Denzel and Nancy Ferguson, who advocate much stricter controls on overgrazing by the ranching industry.

4. Timber

The timber resource varies dramatically throughout the West. In general, stands in the southern and central Rockies are of low marketability, although harvesting in easily accessible areas can be profitable because of lower road building costs, a major capital expenditure for timber operators. The resource is considerably more valuable in some areas of northern Idaho, Montana, and the Alaska panhandle. But the commercial bonanza for western timber is in the Pacific Northwest. California's North Coast holds major stands of cedar, spruce, and coast redwood, the tallest living thing in the world. In Washington and Oregon, the largest timber producing states in the country, massive Douglas fir trees are a staple for the homebuilding industry. Half of all standing softwood timber in the nation is found in the national forests.

Marion Clawson, the highly respected economist with Resources for the Future, has written *Forests for Whom and for What?*,²⁴² the quintessential primer on forest policy. Lucid, evenhanded, and comprehensive, this is the kind of short, foundational book that every technical field should be blessed with. The practice of silviculture (managing forests for the production of commercial wood products) is treated in a readable text,²⁴³ which explains all aspects of timber management from thinning to harvesting to slash removal to planting.

237. F. BRANSON, G. GIFFORD, K. RENARD & R. HADLEY, *RANGELAND HYDROLOGY* (2d ed. 1981). See also *WORKING THE RANGE: ESSAYS ON THE HISTORY OF WESTERN LAND MANAGEMENT AND THE ENVIRONMENT* (J. Wunder ed. 1985).

238. See notes 269-71 *infra*.

239. COUNCIL ON ENVIRONMENTAL QUALITY, *DESERTIFICATION IN THE UNITED STATES* (1977).

240. G. LIBECAP, *LOCKING UP THE RANGE: FEDERAL LAND CONTROLS AND GRAZING* (1981).

241. N. FERGUSON & D. FERGUSON, *SACRED COWS AT THE PUBLIC TROUGH* (1983).

242. M. CLAWSON, *FORESTS FOR WHOM AND FOR WHAT?* (1975).

243. See D. SMITH, *THE PRACTICE OF SILVICULTURE* (8th ed. 1986). See also T. DANIEL, J. HELMS & S. BAKER, *PRINCIPLES OF SILVICULTURE* (2d ed. 1979).

Another text, *Forest Ecology*,²⁴⁴ deals with forests as ecosystems. Several government reports provide statistics on the importance of private and public timber.²⁴⁵ A collection of essays on clear cutting explains this controversial practice, environmentally destructive in some respects but necessary for the regeneration of some species, such as Douglas fir, which in most regions will not regenerate in their own shade.²⁴⁶ There are two extensive bibliographies on the timber resource.²⁴⁷

C. *The Animals and Plants*

The commodity resources received attention first and, of course, they continue to be of great importance. Gradually, however, the public has come to acknowledge the worth of other kinds of resources. The following are examples of animals and plants, newly conceived of as "resources" also, that have come to the fore because of their value to hunters and fishers, other recreationists, and scientists; their beauty and spirituality; their intrinsic worth as discrete species or ecosystems; and, in many cases, their considerable economic importance.

1. *The Grizzly Bear, the Wolf, the Bald Eagle, and the Pacific Salmon*

These four animals have several common characteristics. Individuals roam widely and regularly cross numerous jurisdictional lines, including international borders, making coordinated policymaking difficult. Until relatively recently, indiscriminate taking of grizzlies, wolves, eagles, and salmon was allowed, depleting their numbers or exterminating them altogether in some regions. All are sensitive to development, and their native ranges have been greatly reduced as their environments have been altered. These animals are magnificent and inspiring, and they make valuable contributions to the different natural systems within which they exist, but there are trade-offs for protecting them. Pacific salmon have substantial commercial value but so do their chief competitors for habitat, the dams that generate hydroelectric power. Grizzly bears, and perhaps wolves, can jeopardize human lives and both cause stock losses. Eagles prefer as habitat virgin old-growth forests, where the commercial value of timber is

244. See S. SPURR & B. BARNES, *FOREST ECOLOGY* (3d ed. 1980). On old-growth stands, see notes 266-68 *infra*.

245. See, e.g., U.S. FOREST SERVICE, DEPT. OF AGRICULTURE, *FOREST SERVICE, AN ANALYSIS OF THE TIMBER SITUATION IN THE UNITED STATES 1952-2030* (1982).

246. *CLEAR CUTTING: A VIEW FROM THE TOP* (E. Horwitz ed. 1974).

247. CONSERVATION FOUNDATION, *FOREST LAND USE: AN ANNOTATED BIBLIOGRAPHY OF POLICY, ECONOMICS, AND MANAGEMENT ISSUES 1970-1980* (1981); G. OGDEN, *THE UNITED STATES FOREST SERVICE: A HISTORICAL BIBLIOGRAPHY, 1876-1972* (1976).

highest. The four epitomize the difficulties in reconciling powerful cross-currents in resource development, philosophy, and management.

The literature is extensive and much of it is of high quality. On grizzly bears, no single piece stands out but there are several fine books: *The Grizzly Bear: The Narrative of a Hunter-Naturalist*,²⁴⁸ by William Wright, which was first published in 1909 but retains vitality as a balanced, readable, and at times humorous source; *Track of the Grizzly*,²⁴⁹ by Frank Craighead, Jr., a documentary account of scientific field studies in Yellowstone National Park, written for the general public, that is highly critical of Park Service policies; *The Grizzly Bear*,²⁵⁰ by Thomas McNamee, which mixes scientific fact and fiction by tracing the activities of a hypothetical grizzly and her cubs from April, when they wake up from hibernation, to October, when they den for the winter; and David Brown's *The Grizzly in the Southwest*,²⁵¹ a comprehensive treatment of the history of the grizzly in one region, but offering a fine foundation for the general subjects of how grizzlies compete with human beings and of the options available for resolving that competition.

As for eagles, there are several readable scientific works on these animals and their habitat.²⁵² George Laycock's *Autumn of the Eagle*²⁵³ discusses conservation of the species and searches out the more intangible qualities of these soaring, inspiring birds that symbolize our nation's ideals and draw out our ability to wonder.

On the subject of wolves, Barry Lopez has made a major contribution in his compassionate, beautifully written *Of Wolves and Men*.²⁵⁴ The standard text, done in a personal, anecdotal style, is L. David Mech's *The Wolf*.²⁵⁵ Perhaps the most widely read book on wolves is *Never Cry Wolf*,²⁵⁶ the stunningly humorous piece based on the experiences of Canadian biologist and author Farley Mowat.

The wild Pacific salmon is explored in epic terms in Bruce Brown's

248. W. WRIGHT, *THE GRIZZLY BEAR: THE NARRATIVE OF A HUNTER-NATURALIST* (1909).

249. F. CRAIGHEAD, JR., *TRACK OF THE GRIZZLY* (1979).

250. T. MCNAMEE, *THE GRIZZLY BEAR* (1984). Bears, like politicians, seem to make excellent subjects for biographies. See also R. CARAS, *MONARCH OF DEADMAN BAY: THE LIFE AND DEATH OF A KODIAK BEAR* (1969) (a biography of a particular bear — each chapter is a year in the bear's life); E. SETON, *THE BIOGRAPHY OF A GRIZZLY* (1900).

251. D. BROWN, *THE GRIZZLY IN THE SOUTHWEST: DOCUMENTARY OF AN EXTINCTION* (1985).

252. See, e.g., L. BROWN, *EAGLES OF THE WORLD* (1976); J. LOVE, *THE RETURN OF THE SEA EAGLE* (1983).

253. G. LAYCOCK, *AUTUMN OF THE EAGLE* (1973).

254. B. LOPEZ, *OF WOLVES AND MEN* (1978).

255. L. MECH, *THE WOLF: THE ECOLOGY AND BEHAVIOR OF AN ENDANGERED SPECIES* (1981). See also, e.g., S. YOUNG & E. GOLDMAN, *THE WOLVES OF NORTH AMERICA* (1944) (two volumes); E. CLARKSON, *WOLF COUNTRY: A WILDERNESS PILGRIMAGE* (1975).

256. F. MOWAT, *NEVER CRY WOLF* (1963).

expansive *Mountain in the Clouds*.²⁵⁷ It is powerful, thought-provoking reading. Several other books examine these extraordinary fish, whose life journey is thousands of miles long, in some cases all the way from the Idaho Rockies to the Gulf of Alaska and back.²⁵⁸

2. Game and Nongame Species

The fabulous animal populations of the American West were trumpeted to nineteenth-century easterners through the exploits of hunting expeditions such as those led by Prince Maximilian, William Drummond Stewart, and Theodore Roosevelt.²⁵⁹ The concept that this wealth was in fact exhaustible took hold haltingly. Wildlife programs had been instituted in rudimentary form in most states by the late nineteenth century, but modern wildlife management was not born until the 1940s, when Aldo Leopold wrote *Game Management*.²⁶⁰ In this landmark book, Leopold set out a comprehensive philosophy premised on the idea that good wildlife management depends on good habitat management.

The status of wildlife in the eleven western states and Alaska is examined in several books.²⁶¹ Wildlife management continues to focus in substantial part on recreational fishing, bird hunting, and, especially, big game hunting.²⁶² State "wildlife" agencies, in other words, traditionally have tended to be mainly hunting and fishing agencies. There are changes in the wind, however, fueled by powerful philosophical works by Aldo Leopold and others urging a broader look at wildlife.²⁶³ State and federal agencies have begun to heed the admonition of Starker Leopold that "the rewards of a beautiful fall day afield are by no means the exclusive prerogative of hunters. As many or

257. B. BROWN, *MOUNTAIN IN THE CLOUDS: A SEARCH FOR THE WILD SALMON* (1982).

258. See A. NETBOY, *THE COLUMBIA RIVER SALMON AND STEELHEAD TROUT: THEIR FIGHT FOR SURVIVAL* (1980); C. SMITH, *SALMON FISHERS OF THE COLUMBIA* (1979). Also of note is the magnificently illustrated R. CHILDHEROSE & M. TRIM, *PACIFIC SALMON* (1979).

259. The travels of Maximilian and Stewart are discussed in B. DeVOTO, *supra* note 101, and in the sources in DeVoto's bibliography. Roosevelt's observations, set out in typically colorful style, are found in T. ROOSEVELT, *RANCH LIFE AND THE HUNTING-TRAIL* (1888).

260. A. LEOPOLD, *GAME MANAGEMENT* (1942).

261. See, e.g., D. ALLEN, *OUR WILDLIFE LEGACY* (rev. ed. 1962); J. NAYMAN, *ATLAS OF WILDLIFE* (1972); A. SAVAGE & C. SAVAGE, *WILD MAMMALS OF NORTHWEST AMERICA* (1981); A. MURIE, *A NATURALIST IN ALASKA* (1961); A.S. LEOPOLD, R. GUTIERREZ & M. BRONSON, *NORTH AMERICAN GAME BIRDS AND MAMMALS* (1981).

262. See generally M. BEAN, *THE EVOLUTION OF NATIONAL WILDLIFE LAW* (rev. ed. 1983). For bibliographies on wildlife policy and management, see Coggins & Smith, *The Emerging Law of Wildlife: A Narrative Bibliography*, 6 ENVTL. L. 583 (1975); Coggins & Patti, *The Emerging Law of Wildlife II: A Narrative Bibliography of Federal Wildlife Law*, 4 HARV. ENVTL. L. REV. 164 (1980); W. SIGLER, *WILDLIFE LAW ENFORCEMENT* (2d ed. 1972).

263. A. LEOPOLD, *supra* note 260; J. TREFETHEN, *AN AMERICAN CRUSADE FOR WILDLIFE* (1975); C. AMORY, *MAN KIND? OUR INCREDIBLE WAR ON WILDLIFE* (1974); G. CARSON, *MEN, BEASTS, AND GODS: A HISTORY OF CRUELTY AND KINDNESS TO ANIMALS* (1972); P. MATTHIESSEN, *WILDLIFE IN AMERICA* (1959).

more people appreciate watching wildlife, with no intent of capturing or killing it.”²⁶⁴ As a result, professional wildlife management gradually has expanded to include endangered species laws and programs to improve the habitat of nongame species, whether or not endangered.²⁶⁵

3. *Old-Growth Timber Stands*

As forest land has been cut over, attention has begun to focus not just on the amount of forest land per se but also on the dwindling amount of old-growth forest land: old growth is itself a discrete resource with different characteristics than second- or third-growth stands. Among other things, numerous animal species live only in old growth; the virgin stands possess extraordinary beauty; and the soils are spongier and contain more nutrients, because fallen trees blend into the earth rather than being harvested and renewed. These soil characteristics afford optimum watershed conditions for the steady run-off of clear and cool water, thereby producing major benefits for the economic and noneconomic uses of water. Maintaining old-growth stands, as opposed to replacing them with monocultures designed for commercial harvest, also promotes diversity of plant and animal species, which one leading source has described as “the heart and soul of conservation.”²⁶⁶

The depletion of the old-growth resource is the subject of Larry Harris’ important book, *The Fragmented Forest*,²⁶⁷ in which the author analyzes current Forest Service policy in the Pacific Northwest, where most of the remaining commercial old-growth stands are found. He finds that the agency, by assuring the existence of only a limited number of isolated old-growth “islands,” is threatening species diversity and the integrity of the old-growth resource. In *The Klamath Knot*,²⁶⁸ David Raines Wallace has created a brightly etched portrait that extols the virtues of a diverse natural system, the Klamath Mountains, lying astride the western California-Oregon border.

4. *Wetlands*

Wetlands are a distinctive group of habitats intermediate between aquatic and terrestrial ecosystems. These highly productive communities comprised of vegetation, animals, soils, and water include mar-

264. A.S. LEOPOLD & T. BLAKE, *WILD CALIFORNIA: VANISHING LANDS, VANISHING WILDLIFE* 135 (1985).

265. See generally M. BEAN, *supra* note 262.

266. A.S. LEOPOLD & T. BLAKE, *supra* note 264, at 135.

267. L. HARRIS, *THE FRAGMENTED FOREST: ISLAND BIOGEOGRAPHY THEORY AND PRESERVATION OF BIOTIC DIVERSITY* (1984).

268. D. WALLACE, *THE KLAMATH KNOT: EXPLORATIONS OF MYTH AND EVOLUTION* (1983).

shes, swamps, estuaries, and riparian forests. The phrase riparian zone is commonly used to describe a key category of wetlands, the green ribbons of vegetation that accompany streams. Wetlands provide a wide range of benefits. They are crucial to the water resource for, as the visible upper terraces of complex hydrologic systems, they act as sponges and feed groundwater aquifers. The vegetation in riparian zones slows the flow of streams, thus storing water and preventing floods; helps filter the silt-laden run-off, thereby assisting in the purification of water; and stabilizes stream bottoms and banks, thus preventing erosion. In rangeland systems, riparian zones produce twenty or thirty times more forage than the uplands and are prime grazing lands for domestic stock. Wetlands are havens for wildlife, serving as essential habitat for migratory waterfowl and numerous other animals. In the American West, many of these fragile systems have been degraded by logging, grazing, water withdrawals, and land development. Whole wetland environments have been eliminated altogether by landfills or water diversions.

The recent literature reflects the latter-day recognition of the wetlands resource and of its rapid degradation. Straightforward, objective pieces explain wetland ecology.²⁶⁹ Sources on groundwater and waterfowl explain the contributions of wetlands.²⁷⁰ A real find is *Once A River*,²⁷¹ by Amadeo Rea, which examines the ecology and cultural history of the Middle Gila River in Arizona, where water no longer runs. The book views just one stretch of river but it stands as a much broader testament both to the wonders of riparian habitat and to the jeopardy in which western wetlands are placed by overdevelopment.

D. *The Texture of the Ground*

For most newcomers, the West, from the Sonoran Desert to bush Alaska, is something of an acquired taste. For them, most of the West is not Big Sky Country or the Great American Desert: it is just plain desolate. This applies even to the grandeur of areas such as San Francisco Bay and the high Rockies. Transplants often find the dry, summer-brown hills of northern California less than they had expected from the land of milk and honey. The mountains of the West lack lush deciduous trees, and the glow of aspen groves during the fall may be perceived as a pale substitute for the colors of New England. It turns out there is a good deal more of such things as trailer homes,

269. See, e.g., W. NIERING, *WETLANDS* (C. Elliot ed. 1985); J. ETHERINGTON, *WETLAND ECOLOGY* (1983).

270. See, e.g., J. WILSON, *GROUNDWATER: A NON-TECHNICAL GUIDE* (1982); P. JOHNSGARD, *WATERFOWL OF NORTH AMERICA* (1975); D. BROWN, *ARIZONA WETLANDS AND WATER FOWL* (1985).

271. A. REA, *ONCE A RIVER: BIRD LIFE AND HABITAT CHANGES ON THE MIDDLE GILA* (1983).

fast-food strips, and roadside trash than depicted in *Arizona Highways* or the coffee table books.

The western writing of the last two decades has done an outstanding job of simply presenting the modern West — as is, without frills or pretensions. It is this aspect that is the greatness of Edward Abbey's writing. The picaresque monkey wrenching, the high speed chases, and the pro-environment tirades all raise, through hyperbole, justifiable questions about where the West is going — and they make exciting reading — but Abbey is first and foremost a person who loves the Southwest and writes of it with great skill. There is utter honesty in the physical descriptions in *The Monkey Wrench Gang*,²⁷² *Fire on the Mountain*,²⁷³ *Slickrock*,²⁷⁴ and *Desert Solitaire*,²⁷⁵ These masterpieces are exultations of the beauty of high plains, desert, and rock canyons, of solitude, aridity, and space. In *The Brave Cowboy*,²⁷⁶ he manages to draw the reader into his book by his wordwork with a "burnt-out wasteland" consisting of a "rolling mesa of lava," a "rudimentary form of bunch grass," "the tough spiny yucca," and "a degenerate juniper tree . . . an under-privileged juniper tree, living not on water and soil but on memory and hope. And almost alone."²⁷⁷

Other contemporary writers have sketched out the texture of the ground in the many Wests. Several of the young writers are presented in an anthology, *Writers of the Purple Sage*.²⁷⁸ Norman MacLean's *A River Runs Through It*²⁷⁹ is a justly acclaimed, unremitting delight. At various points in this essay I have pointed to works by John McPhee,²⁸⁰ Wallace Stegner,²⁸¹ Gretel Ehrlich,²⁸² Rudolpho

272. E. ABBEY, *supra* note 19.

273. E. ABBEY, *FIRE ON THE MOUNTAIN* (1962).

274. E. ABBEY & P. HYDE, *SLICKROCK: ENDANGERED CANYONS OF THE SOUTHWEST* (rev. ed. 1974).

275. E. ABBEY, *DESERT SOLITAIRE* (1970).

276. E. ABBEY, *THE BRAVE COWBOY* (1956).

277. *Id.* at 1.

278. See *WRITERS OF THE PURPLE SAGE: AN ANTHOLOGY OF RECENT WESTERN WRITING* (R. Martin & M. Barasch eds. 1984), which features the work of such fine writers as William Kittredge and several of the authors mentioned elsewhere in this article. The introduction, *id.* at ix-xx, makes good reading in itself. It discusses trends in western literature and, among other things, thanks writers such as Wallace Stegner, Walter Van Tilburg Clark, Bernard DeVoto, A.B. Guthrie, Jr., Dorothy M. Johnson, Paul Horgan, and Frank Waters: They "had to confront the myths head on, to retell the Western stories in anti-mythological terms, to by God set the record straight." This freed up contemporary Western authors and allowed them to write about the West of today: "It was as if the contemporary region couldn't be addressed until the historical West had been *correctly* divined and defined in fiction." *Id.* at xi-xii (emphasis in original).

279. N. MACLEAN, *supra* note 173.

280. See notes 14, 18 & 54 *supra*, and 329 *infra*.

281. See notes 1, 7, 11, 22, 136-39 & 157 *supra*. WOLF WILLOW, *supra* note 22, is especially pertinent.

282. See notes 169-70 *supra*.

Anaya,²⁸³ David Raines Wallace,²⁸⁴ Louise Erdrich,²⁸⁵ Bruce Brown,²⁸⁶ John Nichols,²⁸⁷ James Welch,²⁸⁸ and Ivan Doig.²⁸⁹ Taken together, these and others have chronicled the land in a real and direct, yet enormously evocative, way. It is a wonderful body of literature.

V. THE IDEAS

The philosophical underpinnings for our society's approach toward the West have shifted over the century-and-three-quarters that federal policy has been at work. This section looks at the ideas that have been, and are, major forces. Some have been in ascendancy during particular eras or in specific fields of law and policy. Some of them regularly war with each other, while others tend to be complementary. In some cases, it is possible to craft resolutions that reflect all of them in a more-or-less satisfactory fashion. With the caveat that different categories can fairly be drawn, it is well worth the while to sort out the basic policy imperatives that have shaped the law of the American West.

A. *Open Access to Public Natural Resources*

Many of the laws of the nineteenth century were characterized by a laissez-faire approach that encouraged individual settlers and corporations, spurred by government subsidies, to obtain private vested rights in western land and resources. The premise — and it was proved correct if the goal was to promote the settlement of the West by non-Indians — was that the public domain ought to be thrown open to private development, free of charge and unfettered by government regulation. These notions have proved influential and hardy. They remain deeply embedded in many areas of law today, especially in regard to mining, water, and grazing. They also help determine federal timber policy and several aspects of wildlife law. The perceived right — not infrequently viewed as divinely inspired — of the new immigrants to obtain western resources also was the driving force for the movements that led to allotment of Indian lands and to the breakup of Spanish and Mexican land grants.

Although numerous older books bugled the virtues of unrestricted

283. See note 154 *supra*.

284. See note 268 *supra*.

285. See notes 144 & 201 *supra*.

286. See note 257 *supra*.

287. See notes 17 & 153 *supra*.

288. See note 145 *supra*.

289. See notes 167-68 & 180 *supra*. See also, e.g., R. PIRSIG, *ZEN AND THE ART OF MOTOR-CYCLE MAINTENANCE* (1974); D. DUNCAN, *THE RIVER WHY* (1983).

and subsidized private development,²⁹⁰ it is now accepted by most that common-pool resources (classic examples being rangelands, water, and wildlife) will be abused and depleted if free and unrestrained public access to them is allowed. This is the message of Garrett Hardin's famous article, *The Tragedy of the Commons*.²⁹¹ Nearly all of the authors in the last decade's spate of writing about western resources examine nineteenth-century laissez-faire policy and almost all of them explicitly reject it.²⁹² An example of how these ideas caused a specific law to be germinated, and then to become outmoded (although still in force), is John Leshy's excellent study of the General Mining Law of 1872.²⁹³ Advocates of private-sector development, of course, continue to press for commodity use of public resources, but legal and policy initiatives must now be pursued in a considerably different policy framework that includes a role for government regulation, market approaches prohibiting or restricting subsidies, and the other ideas that follow.

B. Resource Planning and Management

In the late nineteenth century, Gifford Pinchot and others began to make inroads on the laissez-faire policies. Believing that expert planners and managers should direct the development of public resources, leaders of the conservation movement advocated and established governmental regulatory programs over timber, grazing, water power, and energy fuels.²⁹⁴ Congress enacted sweeping planning and management legislation for the public lands in the 1970s²⁹⁵ and has installed the idea of a substantial degree of direction through federal planning as a major component of current federal policy.

The wisdom of planning and management by federal officials is, and surely will remain, a sharply disputed matter. The writings of Pinchot, Aldo Leopold, and others argue that government direction is needed to prevent exploitation and to assure orderly resource development in generations to come.²⁹⁶ A growing number of resource economists, on the other hand, believe that federal involvement leads mainly

290. See, e.g., notes 53 & 87 *supra*. See generally notes 37-41, 78-83 & 106-10 *supra* and accompanying text.

291. Hardin, *The Tragedy of the Commons*, 162 SCIENCE 1243 (1968).

292. See, e.g., note 24 *supra*.

293. J. LESHY, *supra* note 6. See also R. KELLEY, GOLD VS. GRAIN: THE HYDRAULIC MINING CONTROVERSY IN CALIFORNIA'S SACRAMENTO VALLEY (1959).

294. On Forest Service programs establishing regulatory control over timber and grazing during the early twentieth century, and on the adoption of legislation such as the Federal Power Act of 1920, 16 U.S.C. §§ 791a-823a (1982), and the Mineral Leasing Act of 1920, 30 U.S.C. §§ 181-287 (1982), see generally the authorities cited in notes 12, 120-23 & 176-79 *supra*.

295. See Federal Land Policy and Management Act of 1976, 43 U.S.C. §§ 1701-1784 (1982); National Forest Management Act of 1976, 16 U.S.C. §§ 1600-1614 (1982).

296. See, e.g., notes 120, 121 & 260 *supra*.

to bureaucratic inefficiencies.²⁹⁷ One of the leading books in resource policy and history, Samuel P. Hays's *Conservation and the Gospel of Efficiency*,²⁹⁸ puts these issues in historical context, detailing the rise of conservationist philosophy during the Pinchot era and showing its strengths and limitations. Hays's book is perhaps the best starting point for analyzing the pros and cons of government regulation as opposed to a free-market regime. In the last few years the advocates of a provocative, if still theoretical and unproven, school of thought have proposed an approach that attempts to blend decentralization, environmental protection, and economic growth. The bioregionalism movement argues for local planning according to the carrying capacity of a watershed or other natural configuration in order to achieve sustainable societies based on gentle use.²⁹⁹

C. Land and Species Preservation

Since the establishment of Yellowstone National Park in 1872, the United States has embarked on perhaps the most ambitious governmental preservation program ever undertaken. Among many other things, Congress has enacted sweeping endangered species legislation³⁰⁰ and has declared eighty-eight million acres, about four percent of all land in the nation, as statutorily protected wilderness.³⁰¹

Preservation policy has spawned some of the best writing bearing on the American West. The definitive work on the wilderness idea, and its development, is Roderick Nash's *Wilderness and the American Mind*.³⁰² One of the most intellectually exacting and forceful pieces in all of natural resource philosophy is *Mountains Without Handrails*,³⁰³ where Joseph Sax argues for wilderness preservation based on homocentrism — the notion that, whatever the benefits of wilderness for animals or the land itself, a strong preservation policy has profound benefits for human beings. Aldo Leopold, in his classic and

297. See, e.g., R. STROUP & J. BADEN, *NATURAL RESOURCES: BUREAUCRATIC MYTHS AND ENVIRONMENTAL MANAGEMENT* (1983).

298. See S. HAYS, *supra* note 12.

299. Bioregionalism is discussed, and a comprehensive bibliography offered, in K. SALE, *DWELLERS IN THE LAND: THE BIOREGIONAL VISION* (1985).

300. See Endangered Species Act of 1973, 16 U.S.C. §§ 1531-1543 (1982).

301. See, e.g., Wilderness Act of 1964, 16 U.S.C. §§ 1131-1136 (1982). For a listing of the individual wilderness areas, with their dates of designation, see 16 U.S.C. § 1132 (Supp. III 1985).

302. R. NASH, *supra* note 13. For a valuable compendium of facts on wilderness and wilderness management, see J. HENDEE, G. STANKEY & R. LUCAS, *WILDERNESS MANAGEMENT* (1980).

303. J. SAX, *MOUNTAINS WITHOUT HANDRAILS: REFLECTIONS ON THE NATIONAL PARKS* (1980). On national park policy, see also A. RUNTE, *NATIONAL PARKS: THE AMERICAN EXPERIENCE* (1979).

compelling *Sand County Almanac*,³⁰⁴ places his stock in biocentrism, urging readers to "think like a mountain" and arguing for a "land ethic": "Examine each question in terms of what is ethically and esthetically right, as well as what is economically expedient. A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise."³⁰⁵

In *Progress and Privilege*,³⁰⁶ William Tucker makes a straight-on attack on the modern environmental movement. Tucker agrees that the environmentalists have accomplished needed reforms, and have raised public consciousness, since about 1970. In this sharply written piece, however, he argues that environmentalists are essentially aristocratic and that their conservative, "flighty and nervous" approach has stalled technological progress. It is time, Tucker believes, for the country to move beyond environmentalism: "America can once again become the engine of the world's progress, its brightest and best hope for a better future."³⁰⁷

D. *Market-Based Economics*

There has been a sharp rise in interest in applying economic analysis to western resources issues, especially relating to the public lands and to water. Classic economic theory has been employed by diverse interest groups to numerous aspects of current policy. Some believe that government management of public resources and regulation of private development lead to massive inefficiencies. Others object to the longstanding subsidies to water, timber, range, and mining interests, arguing both that the subsidies are wrong on a distributive basis and that they contribute to the federal deficit. Such subsidies also receive criticism on the ground that they lead to poor conservation practices because the artificially low cost for the use of natural resources gives no incentive to conserve the resources. Others attack subsidies in recreation, preservation, and wildlife policy and believe that such programs ought to be justified in market terms. Still others focus on externalities, such as the costs imposed on society by the pollution and erosion from industrial, mining, irrigation, and ranching operations, and look to the market as a mechanism for imposing environmental charges.

The literature on natural resources economics is expanding apace. Three schools deserve special mention. The Washington, D.C.-based

304. See A. LEOPOLD, *A SAND COUNTY ALMANAC, WITH OTHER ESSAYS ON CONSERVATION FROM ROUND RIVER* (1966).

305. *Id.* at 224-25. See also, e.g., R. DASMAN, *ENVIRONMENTAL CONSERVATION* (5th ed. 1984), and the many articles in the journal *Environmental Ethics*.

306. W. TUCKER, *PROGRESS AND PRIVILEGE: AMERICA IN THE AGE OF ENVIRONMENTALISM* (1982).

307. *Id.* at 284.

Resources for the Future, with leading economists such as Marion Clawson, John Krutilla, and Allen Kneese, has produced a large corpus of highly respected work.³⁰⁸ The Environmental Defense Fund has taken the lead among the environmental groups in applying market analyses to natural resources policy, especially in the area of western water.³⁰⁹ On the conservative side, writers calling themselves "the new resource economists" have produced several provocative pieces arguing, among other things, that the privatization of public lands would serve environmental as well as commodity needs.³¹⁰ One thing is sure: economic theory will continue to be a major factor in law and policy in the American West and, if anything, promises to grow in influence.³¹¹

E. *Ethnic Pluralism*

There have been separatist movements throughout western history. Examples include the Mormons; Hispanic settlements in the Southwest; and the Metis, the French-Indian mixed-bloods along the middle Canadian-United States border.³¹² Issues of ethnic pluralism continue in several contexts today. Hispanics for example, press for bilingual education in the public schools and, especially in the upper Rio Grande Valley, continue to cling to a considerable degree of local political autonomy exercised, among other things, through the *acequia*, the traditional communal mechanism for distributing water.³¹³

American Indians, however, remain the minority group with the strongest legal, historical, and political claim to a substantial degree of governmental independence. Much of federal Indian policy can best be understood in terms of the tension between separatism and assimilation. Separatism was dominant during the establishment of the reservation system throughout most of the nineteenth century and during the "Indian New Deal" of the 1930s and 1940s, while assimilation was in the ascendancy during the allotment era beginning in the late nineteenth century and during the termination era of the 1950s and

308. See, e.g., M. CLAWSON, *supra* note 242; A. KNEESE & F. BROWN, *THE SOUTHWEST UNDER STRESS: NATURAL RESOURCE DEVELOPMENT ISSUES IN A REGIONAL SETTING* (1981); W. MARTIN, H. INGRAM, N. LANEY & A. GRIFFIN, *SAVING WATER IN A DESERT CITY* (1984).

309. ENVIRONMENTAL DEFENSE FUND, *TRADING CONSERVATION INVESTMENTS FOR WATER* (1983).

310. See, e.g., R. STROUP & J. BADEN, *supra* note 297.

311. See also, e.g., R. LECOMBER, *THE ECONOMICS OF NATURAL RESOURCES* (1979).

312. On the Metis, see, e.g., T. BERGER, *FRAGILE FREEDOMS: HUMAN RIGHTS AND DISSENT IN CANADA* 26-57 (rev. ed. 1982).

313. Acequias are discussed at various places in M. MEYER, *WATER IN THE HISPANIC SOUTHWEST: A SOCIAL AND LEGAL HISTORY 1550-1850* (1984), and F. BROWN & H. INGRAM, *WATER AND POVERTY IN THE SOUTHWEST* (forthcoming). See also, e.g., Hutchins, *The Community Acequia: Its Origin and Development*, 31 SOUTHWEST HIST. Q. 261 (1928); Romero, *Las Acequias*, 57 NEW MEXICO MAG. No. 3, at 30 (1979).

1960s.³¹⁴ During modern times, the tribes have made a vigorous push for self-determination in order to achieve control over natural resources, economic development, schools, adoptions, law and order, and religious practices within Indian country. The principle of Indian tribal sovereignty, recognized by the Supreme Court from the days of Chief Justice John Marshall through the 1980s, is explored in three recent books, Deloria and Lytle's *The Nations Within*,³¹⁵ Barsh and Henderson's *The Road*,³¹⁶ and my *American Indians, Time, and the Law*.³¹⁷ An older piece, more supportive of assimilationist philosophy, is Taylor's *The States and Their Indian Citizens*.³¹⁸ The tribes' recent success in establishing a considerable degree of self-government will be tested in future years, and an important element of the traditions and character of the American West will turn on whether Indian people are able to maintain the venerable institution of tribal sovereignty.

F. Cooperation

One of the myths is that the American West was settled by men setting out on their own: a lasting image is of a solitary man heading over a ridge, onward toward the Pacific. In fact, the early vanguards of Anglo-American migrants — the mountain men and the Forty-Niners — may have fit the stereotype, but permanent settlement was accomplished by families, working cooperatively in countless, steady, daily tasks to remake the frontier.

The scholarship on the place of women in the West has begun to mature in recent years. The most extensive treatment is *Westering Women and the Frontier Experience*,³¹⁹ where Sandra Myres treats the experiences of Hispanic, Black, French, and Indian women. Myres rejects polar stereotypical portrayals, both of the oppressed frontier woman and of the "sturdy helpmate," the heroine who

could fight Indians, kill the bear in the barn, make two pots of lye soap, and do a week's wash before dinnertime and still have the cabin neat, the children clean, and a good meal on the table when her husband came in from the fields — all without a word of complaint or even a hint of an ache or a pain.³²⁰

Myres finds that both images are too broad-brush, born of revisionist history. Other leading books in this diverse and essentially new body

314. On the history of federal Indian policy, see generally note 47 *supra*.

315. V. DELORIA, JR. & C. LYTLE, *THE NATIONS WITHIN: THE PAST AND FUTURE OF AMERICAN INDIAN SOVEREIGNTY* (1984).

316. R. BARSH & J. HENDERSON, *THE ROAD: INDIAN TRIBES AND POLITICAL LIBERTY* (1980).

317. C. WILKINSON, *AMERICAN INDIANS, TIME, AND THE LAW: NATIVE SOCIETIES IN A MODERN CONSTITUTIONAL DEMOCRACY* (1987).

318. T. TAYLOR, *THE STATES AND THEIR INDIAN CITIZENS* (1972).

319. S. MYRES, *WESTERING WOMEN AND THE FRONTIER EXPERIENCE, 1800-1915* (1982).

320. *Id.* at 3.

of writing include Susan Armitage's and Elizabeth Jameson's effective attempt to create a multicultural perspective by beginning, not with the nineteenth-century arrival of Anglo woman, but with anthropological accounts of Indian and Hispanic settlements;³²¹ Lillian Schlissel's analysis of more than ninety diaries to present a portrait of women's experience on the Overland Trail;³²² Julie Roy Jeffrey's analysis of the degree to which the personal and social benefits of the frontier flowed to women as well as men;³²³ and John M. Faragher's conclusion, from a Marxist orientation, that western women were the losers in a class, race, and sexual struggle.³²⁴ Two firsthand, nineteenth-century accounts by women have become classics — the *Shirley Letters*³²⁵ and the reminiscences of Mary Hallock Foote.³²⁶ In all, this vigorous field of literature shows that there was a broad range of individual dreams and fears, accomplishments and failures, by a group of people who made largely anonymous but indispensable contributions to the gigantic task of settling a broad and hostile land.

The old stereotypes have been dimmed in another way. To be sure, the West has had far more than its share of violence, whether at Wounded Knee, Mussel Slough, Johnson County, or countless hundreds of other locales. But people worked together, too, and the country could not possibly have been settled otherwise. Today, many western towns are torn internally by new kinds of disputes, such as over whether to develop or preserve natural resources. The subcultures of the West are at combat, with, for example, ranchers and farmers disputing the rights of Indians and rural Hispanics to possess and manage water rights outside of state law. In one of the most profound passages on the American West, Wallace Stegner argues that westerners should look to the truest values of the past and apply them to the challenges of a new age:

Angry as one may be at what heedless men have done and still do to a noble habitat, it is hard to be pessimistic about the West. This is the native home of hope. When it fully learns that cooperation, not rugged individualism, is the pattern that most characterizes and preserves it, then it will have achieved itself and outlived its origins. Then it has a chance to create a society to match its scenery.³²⁷

321. THE WOMEN'S WEST (S. Armitage & E. Jamison eds. 1987).

322. L. SCHLISSEL, WOMEN'S DIARIES OF THE WESTWARD JOURNEY (1982).

323. J. JEFFREY, FRONTIER WOMEN: THE TRANS-MISSISSIPPI WEST 1840-1880 (1979).

324. J. FARAGHER, WOMEN AND MEN ON THE OVERLAND TRAIL (1979).

325. See note 27 *supra*.

326. M. FOOTE, A VICTORIAN GENTLEWOMAN IN THE FAR WEST: THE REMINISCENCES OF MARY HALLOCK FOOTE (R. Paul ed. 1972). Foote's unpublished letters were the basis of Stegner's ANGLE OF REPOSE, *supra* note 11. See also C. LUCHETTI & C. OLWELL, WOMAN OF THE WEST (1982), which includes a memorable array of photographs.

327. W. STEGNER, *supra* note 1, at 38.

G. *Geologic Time*

Resource decisions have traditionally been made in terms of today's needs. A Los Angeles or a Denver is considered expansive by assessing its water needs a generation hence. The fifty-year projections in the forest plans now being developed by the Forest Service are praised for taking the long view but are essentially unreal to us because they push so far out: they try too much.

Not so for the geologist, who is trained to think in geologic time, to spread things out over tens and hundreds of millions of years. In *Basin and Range*,³²⁸ John McPhee has made the concept of geologic time accessible to lay people. In this brilliant, broad-gauged book, one of the leading contributors to the literature of the American West explains plate tectonic theory through the device of travels through, and discussions with geology professor Kenneth Deffeyes about, the basin and range country of Nevada and western Utah. The lyrically written *Basin and Range* is a tour de force in every respect, opening the minds of McPhee's readers, forcing them back into deep time, showing how long it took these unprepossessing mountains and flatlands to grow. Nearly all of his readers will come away imbued with a longer view, a sense that resource decisions are not quite as easy as they once seemed.

The prolific McPhee's most recent book, *Rising from the Plains*,³²⁹ also works with concepts of time. He uses conversations with David Love, a geologist for the U.S. Geological Survey in Laramie, to recreate Love's life in south central Wyoming and to build an understanding of the geology of the region. A third fine piece implicating geologic time is David Raines Wallace's *The Klamath Knot*,³³⁰ which explores the complex, diverse geology and terrain of the Klamath Mountains of northern California and southern Oregon.

This body of work, which articulates the single tick of homo sapiens's presence in the great reach of existence, is more intellectually unsettling, more humbling, more subtly but devastatingly critical of the extent of human arrogance, than any written words I know. Yet geologic time, while it reduces our species, also unshackles us:

A million years is a short time — the shortest worth messing with for most problems. You begin tuning your mind to a time scale that is the planet's time scale. For me, it is almost unconscious now and is a kind of companionship with the earth.

....

If you free yourself from the conventional reaction to a quantity like a million years, you free yourself a bit from the boundaries of human time. And then in a way you do not live at all, but in another way you

328. J. MCPHEE, *supra* note 18. For a readable academic treatment of geologic time, see D. EICHER, *GEOLOGIC TIME* (2d ed. 1976).

329. J. MCPHEE, *RIISING FROM THE PLAINS* (1986).

330. D. WALLACE, *supra* note 268.

live forever.³³¹

VI. CONCLUSION

The modern American West is a mosaic of all of these things, and many more. Some of them have formed and shaped the law of the American West, and others of them will do so in the future. The texture of future laws will not come from the law itself but from these outside forces that, over time, will meld into the public policy consciousness and finally into law.

Over my short legal career — twenty-some years — I have become increasingly fascinated by the ways in which time works in the law of the American West. Certain principles became embedded in the law in the mid-nineteenth century and those *laissez-faire* notions survive yet, surprisingly intact. How powerful must be the forces that have kept those laws in place over so much societal change. Indian people lived in this region at least 12,000 years ago. Their sovereignty, too, remains partially intact in spite of all the wars waged against it by armies, churches, corporations, and legislatures. How powerful must be the passion of native people that has kept the idea of sovereignty alive.

But, for me, the single most forceful concept is geologic time, as explained by John McPhee. Granted, we cannot make policy solely by geologic time. There are hundreds, thousands of other factors. But geologic time helps set the context. It tells us how long it has taken to construct what we have and how long we need to prepare for. It harnesses arrogance, breeds a fit conservatism.

McPhee, Stegner, and dozens of other modern writers, of fiction and non-fiction alike, have made a contribution not yet widely recognized. They have assisted in defining a geographical region, in giving the West a sense of itself. When a people gains a sense of itself, wise laws are likely to follow. Such improvements in the law come in small increments, bit by bit, and it is still an open question whether the law of the American West will evolve quickly enough to outstrip the sheer and daunting numbers of people.

But at least the words and ideas are now there — and more good ones are sure to follow — so that westerners have access to a great amount of information about themselves, their surroundings, their common history, and their possibilities. It is an understanding of exactly those things that is the stuff of the best laws.

331. J. MCPHEE, *supra* note 18, at 129.