

THE “EMPTY” WEST AS URBAN HINTERLAND

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I. INTRODUCTION: A NEW VISION FOR DALE GOBLE’S WEST IN ANTHROPOCENE

Dale Goble’s extraordinarily productive career can be summed up as an effort to secure an effective legal basis for sufficient habitat for biodiversity conservation, especially in the American West. He primarily used the best available legal tool, the federal Endangered Species Act, to do this. The ESA has prevented all but a few of its listed species from extinction, but necessary habitats to support these species and biodiversity generally continue to be under severe stress.¹ Endangered species remain, in Dale’s words, “conservation-reliant.”² To honor Dale’s path-breaking scholarship, I propose a new vision of the western landscape that has four functions which are often in competition.

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1. An early assessment, REED F. NOSS ET AL., ENDANGERED ECOSYSTEMS OF THE UNITED STATES: A PRELIMINARY ASSESSMENT OF LOSS AND DEGRADATION (1995), https://www.fwspubs.org/doi/suppl/10.3996/022015-JFWM-008/suppl_file/022015-jfwm-008.s5.pdf, is still essential reading.

2. Dale Goble et al., *Conservation-Reliant Species*, 62 *BIOSCIENCE* 869, 869 (2012).

The first function is to make more room for the effective conservation of biodiversity. The second is to provide an urban and non-urban landscape that is more suited to adapt to global climate change, or climate destruction as I prefer. Climate destruction puts severe stresses on the West, especially its water-short, arid regions. For example, eleven of the top warming cities are in the West or Texas, and five of the top ten warming states (including Alaska) are in the West.³ The third is to strip away myths that drive the legal regimes that control both the non-urban West⁴ and provide a more accurate picture of the economic and social trends that will chart the region's future. The fourth is to address the pressing social equity issues that plague both the urban and rural West.

This essay proceeds in four parts. First, it briefly sets out the new vision. Second, it describes and criticizes the western myths and the laws, primarily public land laws, that they have produced. Third, it defends the vision. Finally, it sketches out what the West might look like and the benefits of such a West. I recognize that my vision swims against at least three powerful currents. First, we are in a time of political gridlock that began in the 1980s and seems to foreclose all serious effort to change any aspect of the legal status quo. Second, the Trump Administration has rejected any notion that the Western landscape, as reflected in the corpus of public land law, should be balanced between intensive exploitive and relative passive use of these lands.⁵ Third, the idea that rural America can be reinvigorated persists despite so much evidence to the contrary and that the rural and urban West can thrive equally. For this essay, I only acknowledge these problems.

II. THE NON-URBAN WEST AS URBAN HINTERLAND

The vision of the West that I propose is one which consists of two basic regions. The first is coastal and interior the metropolitan areas of the West. The second is their hinterlands. As explained in the next section, this vision flips our popular understanding of the "real" West as wide open space. Hinterland, from the German word for the land behind, has multiple meanings and a pejorative tinge.⁶ Today, it generally refers to the subordinate relationship between an urban area and the rural areas that both supply the urban area and are dependent on it.⁷ In this essay, I use hinterland primarily in a positive sense to reflect the West as it actually is and is likely to develop in the future.

There is also a normative component to looking at the West from an urban rather than a vast, sparsely rural and mountain wilderness perspective. My vision

3. *American Warming: The Fastest-Warming Cities and States in the U.S.*, CLIMATE CENT. (Apr. 17, 2019), <https://www.climatecentral.org/news/report-american-warming-us-heats-up-earth-day>.

4. *See, e.g.*, DAVID HAMILTON MURDOCH, *THE AMERICAN WEST: THE INVENTION OF A MYTH* (2001).

5. The opinion is the author's, but it reflects a widely shared view among students of public land law and policy. *E.g.*, Michael C. Blumm & Olivier Jamin, *The Trump Public Lands Revolution: Redefining "The Public" in Public Land Law*, 48 ENVTL. L. 311 (2018).

6. *See Hinterlands*, MERRIAM-WEBSTER (2020), <https://www.merriam-webster.com/dictionary/hinterland>.

7. Gilles Ballen, Josette Garnier & Sabina Barles, *The History of the Urban Environmental Imprint: Introduction to a Multidisciplinary Approach to the Long Term Relationship Between Western (European) Cities and Their Hinterlands*, 12 REGIONAL ENVTL. CHANGE 249 (2012); *see also* URBANIZING NATURE: ACTORS AND AGENCY (DIS)CONNECTING CITIES AND NATURE SINCE 1500 (Tim Soens et al. eds., 2019).

challenges the enduring legacy of Frederick Jackson Turner's thesis that the frontier brought civilization and democracy to the West.⁸ The thesis has been criticized, among many reasons, because it ignored the major role that cities played in the settlement of frontier and still obscures their importance today.⁹ It also rejects the John Wesley Powell- Wallace Stegner thesis that people should live in smaller, more communitarian environments be they Mormon settlements or smaller cities.¹⁰

III. THE WEST: NOT JUST A LAND OF COWBOYS AND MOUNTAIN CATHEDRALS

To address the challenges that climate change (or destruction as I prefer) poses for the West and to help Dale Goble's critters survive for future generations, we must challenge the two mega visions that drive the use of Western lands, public and private, and replace them. Then others far more qualified than I can take up the challenge of developing legal regimes suited to the modern West.

The dominant mega-vision that drives most of our public land laws and policies as well as the use of private land, urban and rural, is a posited covenant between God and those who left "civilization" to settle an unknown and terrifying wilderness. Just as Jehovah promised the land of Israel to the captive Jews fleeing Egypt, the West belongs to those who settled it in the face of Native American opposition and a harsh climate. This vision has several strains. Most nineteenth and early twentieth century settlers and politicians viewed the West as a treasure chest to be exploited to the maximum. This was supported by the then-dominant Christian view that the earth exists to be exploited, and thus those who exploit to the maximum represent the real West. As we read in the King James Version of Isaiah 40:4: "Every valley shall be exalted, and every mountain and hill shall be made low: and the crooked shall be made straight and the rough places plain."¹¹ A modern translation is more direct: "Fill every valley; level every mountain."¹²

Western settlement also gave us the rugged, romantic cowboy who is the only true steward of the western landscape. To dive deep into the examination of the myths surrounding the cowboy, they are rugged "capitalist mascot[s]" and "emblem[s] of virility, patriarchy, and strength."¹³ True as this may be, the cold reality is that there are well under 10,000 working cowboys and a vast number of Ralph Lauren cowboys in the West.¹⁴ There is a subsidiary narrative within the

8. FREDERICK JACKSON TURNER, *THE SIGNIFICANCE OF THE AMERICAN FRONTIER IN AMERICAN HISTORY* 199 (1894). For an insightful assessment of Turner's legacy by a leading Western American historian, see William Cronon, *Revisiting the Vanishing Frontier: The Legacy of Frederick Jackson Turner*, 18 *WESTERN HIST. Q.* 157 (1987).

9. RICHARD C. WADE, *THE URBAN FRONTIER: THE RISE OF WESTERN CITIES, 1790-1830* (1959).

10. See generally WALLACE STEGNER, *THE AMERICAN WEST AS LIVING SPACE* (1987).

11. *Isaiah* 40:4 (King James).

12. *Isaiah* 40:4 (The Good News Bible), <https://www.biblestudytools.com/gnt/isaiah/passage/?q=isaiah+40:4-14>.

13. Greg Jackson, *Reverse Cowboy*, L.A. REV. BOOKS (July 29, 2018), <https://lareviewofbooks.org/article/reverse-cowboy/>.

14. Precise figures are difficult to find. Many articles of the disappearing cowboy cite a 2003 Bureau of Labor Statistics figure of 9,730. See *The Last Cowboy*, INDEP. LENS, PBS (2017),

covenant vision that also needs to be revised. This is the Jeffersonian ideal that tilling the soil, or at least slaves doing the tilling, was superior to urban living. The persistence of this view makes it hard to deal with what the West is because we continue to believe that all rural areas can or should equally thrive.

These visions are reflected in the laws that govern much of the western landscape. As many have explained, in the late nineteenth century, the costs of unchecked exploitation became clear. Public concern over the loss of valuable natural resources led to the progressive conservation movement.¹⁵ This produced the twentieth century public land laws, primarily based on the ideal that we need a more orderly and efficient exploitation of the area's natural resources. However, we have left in place the post-civil war land laws that allow the transfer of the public domain into private hands through outright title transfers and leases.¹⁶ The Supreme Court has relied on the vision of settle and distribute every acre of arable land in several major public land and water cases.¹⁷ Chief Justice Rehnquist relied on the history of checkerboard land grants to finance the Union Pacific railroad in holding no implied easement to go across a private land originally granted to the railroad to reach landlocked, retained public land.¹⁸

Progressive conservationism modified the covenant vision by substituting efficient regulation for unchecked exploitation and led to a splinter preservation movement.¹⁹ Preservation has given us national parks, monuments and later wilderness areas, and other primarily passive use areas.²⁰ However, the preservation movement did not produce a sufficiently powerful counter vision of the western landscape to the covenant theory and public land law has been unable to transition to effective biodiversity conservation, especially as the West begins to adapt to climate change.²¹

John Muir and John Wesley Powell put forward two counter-visions to the covenant theory. Muir offered a spiritual vision of wilderness and John Wesley Powell proposed a communitarian vision of limited western settlement adapted to a harsh, water-short climate.²² John Muir's quasi-religious vision remains popular

<https://www.pbs.org/independentlens/lastcowboy/cowboys.html>; see also *infra* notes 33–45 for a discussion of the decline in cattle ranching throughout the West.

15. CAROL HARDY ET AL., CONG. RESEARCH SERV., FEDERAL LAND OWNERSHIP: OVERVIEW AND DATA 2–3 (2020), <https://fas.org/sgp/crs/misc/R42346.pdf>.

16. *Leo Sheep Co. v. United States*, 440 U.S. 668, 687 (1979).

17. See generally *id.* at 668–78.

18. *Id.* at 672, 687–88.

19. JOHN D. LESHY, DEBUNKING CREATION MYTHS ABOUT AMERICA'S PUBLIC LANDS (2018). There are many histories of the evolution of public land law. DEBUNKING CREATION MYTHS is a concise up-to-date account of the evolution with emphasis on the tensions among disposal, exploitation, and retention/preservation that have always characterized public land law policy and law.

20. Robert B. Keiter, *Toward a National Conservation Network Act: Transforming Landscape Conservation on the Public Lands into Law*, 42 HARV. ENVTL. L. REV. 61, 62–63 (2018).

21. Nancy B. Grimm et al., *Climate Change Impacts on Ecosystems and Ecosystem Services in the United States: Process and Prospects for Sustained Assessment*, 135 CLIMATIC CHANGE 97, 105–06 (2016); see Keiter, *supra* note 20 (for an analysis of how exiting preservation-based public land laws might be adapted to a broader biodiversity conservation network).

22. *John Muir Biography*, BIOGRAPHY, (June 18, 2019), <https://www.biography.com/scholar/john-muir>; Gregory Lewis McNamee, *John Wesley Powell*, BRITANNICA, (Sept. 19, 2019), <https://www.britannica.com/biography/John-Wesley-Powell>.

among many but, with the possible exception of Native American claims, a national park or wilderness is no more or less a sacred space than a neighborhood coffee shop in Seattle or Boise.²³ Powell's communitarian vision did not shape the settlement of the West. Today, his legacy, stripped of nostalgia, is a plea for more rational, science-based settlement and landscape use.

In response to the environmental movement, the major western religions have "greened" their theology.²⁴ Pope Francis' *Laudato Si: Care of Our Common Home* is a major affirmation of theological rethinking, but its influence remains contested at best.²⁵ The bottom line is that the covenant vision remains dominant, although it does not reflect the likely future of the West landscape and is not good for the conservation of biodiversity.

The scholars represented in this symposium such as Dale Goble, Holly Doremus, Robert Glicksman, Robert Keiter, as well as the late George Coggins and Joe Sax, along with many others, have tried to adapt public land law to species protection and biodiversity conservation. However, they have, sadly, encountered an insurmountable problem. Our public land laws are like the great historian of China, John King Fairbank, who described the histories of the country's successive dynasties: each dynasty wrote its own history and laid it over the previous one with no integration. Likewise, we have unintegrated and inconsistent public land laws from the nineteenth century forward. Put differently, the effort has been an attempt to put round pegs in square holes. It is time, no matter how impracticable, to rethink how we should envision the landscape that these increasing dysfunctional laws were designed to manage.²⁶ In addition, as many have pointed out, the high, cold, often barren lands that make up many large national parks and wilderness areas are not biodiversity hot spots. That is a task for the other participants in this symposium and future scholars.

IV. THE CASE FOR VIEWING THE "EMPTY" AS URBAN HINTERLAND

A. The Changing Western Landscape: Urban Archipelagoes

23. However, most visits by the over 300,000,000 annual visits, are short-term, automobile based. *Annual Visitation Highlights*, NATIONAL PARK SERVICE, (Mar. 13, 2019), <https://www.nps.gov/subjects/socialscience/annual-visitation-highlights.htm>; Stephen Mays, *How Much Time Could You Spend in a National Park?*, U.S. NEWS, (Aug. 19, 2016, 8:26 AM), <https://www.usnews.com/news/articles/2016-08-19/where-national-park-visitors-spent-the-most-time>. I write this with deep regret. My late good friend, Joseph Sax, wrote a powerful meditation on how one should "enjoy" the national parks. JOSEPH L. SAX, *MOUNTAINS WITHOUT HANDRAILS: REFLECTIONS ON THE NATIONAL PARKS* (1980).

24. See generally, WILLIS JENKINS, *ECOLOGIES OF GRACE: ENVIRONMENTAL ETHICS AND CHRISTIAN THEOLOGY* (2008).

25. Pope Francis, *Encyclical Letter Laudato Si' of the Holy Father Francis On Care For our Common Home*, THE HOLY SEE (May 24, 2015), http://w2.vatican.va/content/francesco/en/encyclicals/documents/papa-francesco_20150524_eniclica-laudato-si.html.

26. See generally, Robert B. Keiter & Matthew McKinney, *Public Land and Resources Law in the American West: Time for Another Comprehensive Review?*, 49 *Envtl. L. J.* (2019).

The West's population is concentrating in urban areas. The first reflects the distribution of population in the West. The West is the most urbanized region of the country.²⁷ It now consists of two urban trends. Along the Pacific Coast, there are four, maybe only three, mega regions: San Diego-Santa Barbara, the San Francisco Bay Area, the Eugene-Portland corridor, and the Seattle-Vancouver, British corridor.²⁸ The last may become the Cascadia corridor if the high speed rail plan to speed passengers from Portland to Vancouver in two hours materializes.²⁹ The interior West is now a number of urban archipelagos in the inland West even in the most rural states. This includes the older traditional cities, high-end recreation areas such as Moab, Utah, retirement centers such as Saint George, Utah, and Canadian medical tourism centers such as Coeur d'Alene, Idaho. In most states, over 85% of the population lives in urban areas.³⁰ Excluding Alaska, even the populations for the three states with the lowest population, Montana, Wyoming, and Idaho, the percentage of urban dwellers is relatively high, 55%, 64%, and 70%.³¹ Idaho's 70% reflects the rapid growth of Boise and Twin Falls, respectively.³²

27. In the 2010 census, "the West continued to be the most urban, with 89.8% of its population residing within urban areas, followed by the Northeast, at 85.0%. Press Release, U.S. Census Bureau, Growth in Urban Population Outpaces Rest of Nation (March 26, 2012), https://www.census.gov/newsroom/releases/archives/2010_census/cb12-50.html.

28. See YOAV HAGLER, DEFINING U.S. MEGA REGIONS (2009), http://www.america2050.org/upload/2010/09/2050_Defining_US_Megaregions.pdf.

29. Jack Forrest, *Connecting Cascadia: Regional High-Speed Rail Plans on Track*, DAILY EMERALD (Oct. 31, 2019), https://www.dailymerald.com/news/connecting-cascadia-regional-high-speed-rail-plans-on-track/article_939b7cb4-fb86-11e9-ad1f-076bb8c21a17.html. The original plan to make Eugene the southern terminus has been abandoned as of 2019.

30. Iowa Community Indicators Program, *Urban Percentage of the Population for States, Historical*, IOWA ST. U., <https://www.icip.iastate.edu/tables/population/urban-pct-states> (last visited May 19, 2020).

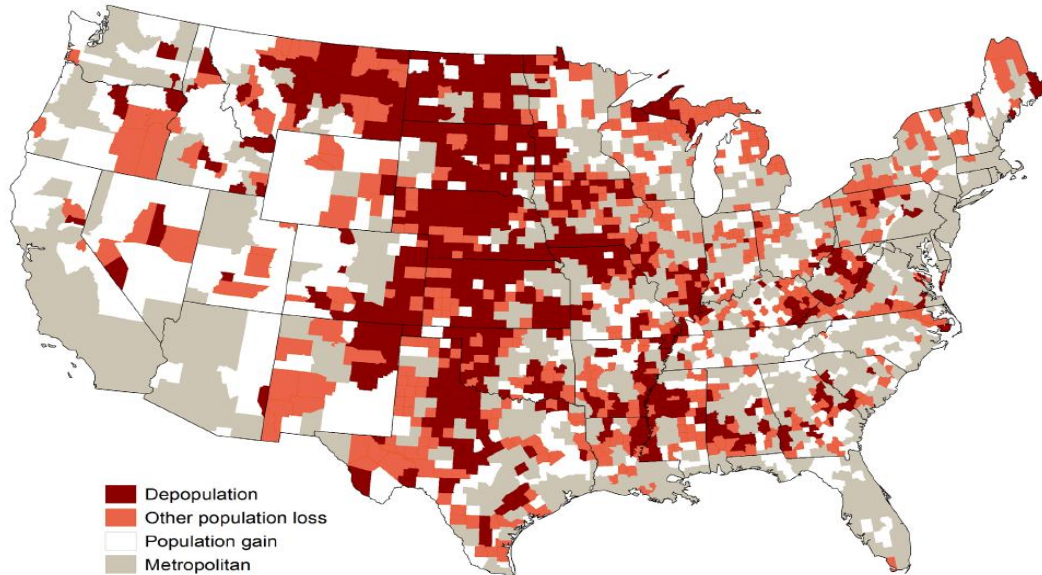
31. *Id.*

32. See PRISCILLA SALANT & ALAN PORTER, IDAHO COMMERCE & LABOR, PROFILE OF RURAL IDAHO 27 (2005), <https://www.uidaho.edu/-/media/UIDaho-Responsive/Files/president/direct-reports/mcclure-center/Idaho-at-a-Glance/IDG-Profile-of-Rural-Idaho.pdf>. (last visited Apr. 13, 2020).

B. The Changing Western Landscape, Retreat

Many parts of the rural West are under the stress of population retreat from the erosion of traditional rural economies.³³ These stresses are driven by changes in the Western and global economy which seem impossible to reverse.

FIGURE 3. DEPOPULATION IN NONMETROPOLITAN AMERICA



Source: Census Bureau, *Census of 1900 to 2010*.

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The three main rural Western activities that contribute to the national or state gross domestic product are agriculture, logging and mining, and recreation.³⁵ By any measure, outdoor recreation outpaces the other contributors, and the "industry" is growing at a rate faster than the national economy.³⁶ The chief use of Western

33. For a prescient examination of this trend, which the author describes as a new removal policy, see James R. Rasband, *The Rise of Urban Archipelagoes in the American West: A New Reservation Policy?*, 31 *Envtl. L. J.* (2001).

34. Kenneth Johnson & Daniel Lichter, *Rural Depopulation in a Rapidly Urbanizing America*, U. N.H. (Feb. 6, 2019), <https://carsey.unh.edu/publication/rural-depopulation>.

35. In the "Columbia River basin . . . harvesting and processing (agriculture, timber) were important employers, especially in the smaller rural towns across the region, with government (Federal and state or local) and travel and tourism also among the region's largest employers." CHARLES HARRIS ET AL., *RURAL COMMUNITIES IN THE INLAND NORTHWEST: AN ASSESSMENT OF SMALL RURAL COMMUNITIES IN THE INTERIOR AND UPPER COLUMBIA RIVER BASINS* (Thomas M. Quigley ed., 2000), https://www.fs.fed.us/pnw/pubs/pnw_gtr477.pdf.

36. Doug Farquhar, *The Biggest Growth Sector in the Rural Economy Is . . .*, THE NCSL BLOG (May 21, 2018), <https://www.ncsl.org/blog/2018/05/21/biggest-growth-sector-in-the-rural-economy-is.aspx>.

public lands, to borrow an analogy from water resources, is now the relative non-consumptive use of lands for recreation.³⁷

These changes are hard for both the ranching and parts of irrigated agricultural sectors. Nonetheless, they reflect the reality that the great experiment to settle the West as an irrigated agricultural and ranching society is no longer viable in many parts of it and that the most rational settlement pattern is the opposite what John Wesley Powell envisioned in his iconic Report on the Arid Lands of the West.³⁸ To take the charged issue of public land grazing, the reality is that only 4% of cattle forage and 9% of sheep forage comes from public land.³⁹ The sheep industry is in decline, both in terms of wool production and meat consumption.⁴⁰ The West still loves its meat, but domestic and world-wide changes in diet preferences do not bode well for beef and lamb.⁴¹ More recently, cotton clothing is now attacked as an unsustainable fashion fabric.⁴²

The reality of retreat is captured in Joe Wilkins' 2019 novel, *Fall Back Down When I Die*, where a resident of Eastern Montana realizes that it is time to stop subduing the land and that one should not blame the Endangered Species Act for the difficulties of making a living off the land: "'It wasn't the EPA or the BLM making it all of a sudden hard,' Wendell realizes. 'It had always been hard. That's why the wolves were coming back. They were built for it. They didn't worry about what was owed to them. They lived how the land demanded.'"⁴³

My vision does, as some recent new visions of the West do,⁴⁴ envision a non-urban West of scenic beauty and endless backpackers. As explained in the final section, it envisions a West of more concentrated agricultural areas, centered around high valued crops, and fewer small towns but large and medium sized urban

37. Intense recreation from cars in national parks to off-road vehicles can cause considerable environmental damage. *E.g.*, DOUGLAS S. OUREN ET AL., U.S. GEOLOGICAL SURVEY, ENVIRONMENTAL EFFECTS OF OFF-HIGHWAY VEHICLES ON BUREAU OF LAND MANAGEMENT LANDS: A LITERATURE SYNTHESIS, ANNOTATED BIBLIOGRAPHIES, EXTENSIVE BIBLIOGRAPHIES, AND INTERNET RESOURCES (2007), <https://pubs.er.usgs.gov/publication/ofr20071353>.

38. J.W. POWELL, REPORT ON THE LANDS OF THE ARID REGION OF THE UNITED STATES WITH A MORE DETAILED ACCOUNT OF THE LANDS OF UTAH WITH MAPS (2d ed. 1879).

39. Neil R. Rimbey, John A. Tanaka & L. Allen Torell, *Economic Considerations of Livestock Grazing on Public Lands in the United States of America*, ANIMAL FRONTIERS, Oct. 2015, at 33, <https://academic.oup.com/af/article/5/4/32/4638743>.

40. Luke Runyon, *The Long, Slow Decline of the US Sheep Industry*, HARVEST PUB. MEDIA (Oct. 8, 2013), <https://www.harvestpublicmedia.org/post/long-slow-decline-us-sheep-industry>.

41. The impact of beef production on greenhouse gas emissions is clear, but whether diets will change is unclear. *See* Gidon Eshel et al., *Land, Irrigation Water, Greenhouse Gas, and Reactive Nitrogen Burdens of Meat, Eggs, and Dairy Production in the United States*, 111 PROC. NAT'L ACAD. SCI. 11996 (2014); Alex Preston, *We Are Weather: Saving the Planet Begins at Breakfast*, GUARDIAN (Oct. 6, 2019), <https://www.theguardian.com/books/2019/oct/06/jonathan-safran-foer-we-are-the-weather-saving-planet-begins-breakfast-review>.

42. *The Issues: Water*, COMMON OBJECTIVE, (Feb. 1, 2018), <https://www.commonobjective.co/article/the-issues-water> (clothing production consumes about 2% of the world's freshwater resources annually); *see* DANA THOMAS, FASHIONOPOLIS: THE PRICE OF FAST FASHION AND THE FUTURE OF CLOTHES (2019) (a broad overview of the environmental and social impacts of clothing production).

43. JOE WILKINS, FALL BACK DOWN WHEN I DIE 393 (2019).

44. *E.g.*, CHRISTOPHER KETCHAM, THIS LAND: HOW COWBOYS, CAPITALISTS, AND CORRUPTION ARE RUINING THE AMERICAN WEST (2019).

areas.⁴⁵ This will allow those who want to live in non-urban centers the option to do so along with the ability to obtain the necessary medical care and social services that are lacking in many rural areas.

C. The Changing Western Landscape, A New Patagonia

The Western landscape used to be divided between private and public, state or federal ownership, although boundaries were much looser than in other areas. Westerners were long accustomed to having access to both public and private lands. This dichotomy is changing as private land is becoming more consolidated for passive use. The region is undergoing Patagonization, if there is such a word, of the West. Wealthy Americans led by the founders of the iconic Patagonia Company had acquired large amounts of land and donated the land to the government of Chile.⁴⁶ These donations and Chilean state lands have created five new national parks in the region.⁴⁷ Roughly one hundred families now own some 42 million acres, much of it devoted to conservation in the contiguous eleven western states and Texas.⁴⁸ This is not an insignificant figure compared to the some 360 million acres of public land in the eleven contiguous Western states.⁴⁹

D. The Changing Western Landscape: John Wesley Powell's Legacy Reclaimed and Recast

John Wesley Powell is the 19th century's most profound thinker about how the West should be settled, but his policy prescriptions were ignored by Congress. Today, he lives on Lake Powell, which commemorates his epic exploration of the Colorado River through the Grand Canyon. But, as Charles Wilkinson has written in an introduction to a collection of essays concentrating on Powell's policy legacy, the legacy is a "vision of the West anchored on science, democracy, and community . . . in which aridity must "be considered in virtually all land and water decisions."⁵⁰

45. *Id.*

46. See Elena Louder & Keith Bosak, *What the Gringos Brought: Local Perspectives on a Private Protected Area in Chilean Patagonia*, 17 *Conservation & Soc'y* 2, 161–72, (2019).

47. *Id.*

48. Julie Turkewitz, *Who Gets to Own the West?: A New Group of Billionaires is Shaking Up the Landscape*, N.Y. TIMES (June 22, 2019), <https://www.nytimes.com/2019/06/22/us/wilks-brothers-fracking-business.html>.

Figures for privately protected land in the West are hard to find. The 2015 Land Trust Alliance survey reports that nation-wide 8,103,562 acres are held by trusts in fee simple and 16,784,077 acres are burdened with conservation servitudes. LAND TR. ALL., 2015 NATIONAL LAND TRUST CENSUS REPORT: OUR COMMON GROUND AND COLLECTIVE IMPACT, 5 (2015), <http://s3.amazonaws.com/landtrustalliance.org/2015NationalLandTrustCensusReport.pdf>.

49. This is a rough calculation based on subtracting the amount of public land in Alaska and the other 38 states with at least a million acres from the total figure of 621 million acres calculated by the Congressional Research Service. HARDY ET AL., *supra* note 15, at 9.

50. Charles Wilkinson, *Forward to VISION & PLACE: JOHN WESLEY & REIMAGING THE COLORADO RIVER BASIN*, xiv (Jason Robison, Daniel McCool & Thomas Minckley eds.) (2020). I am indebted to Professor Anthony Robison of the University of Wyoming College of Law for sharing the draft introduction with me

I would slightly recast the vision as an aridity stressed West reshaped by science and attention to social equity.

V. THE NEW WEST 3:0

The West transitioned from a frontier to a commodity production colony from the end of the nineteenth century to World War II. It then transitioned to a series of rapidly growing cities with diverse economies that led the nation and the world into the digital era. What might the third transition look like?

A. More Sustainable Cities

Western cities are struggling to adapt to climate change,⁵¹ but the challenges to effectively do so are enormous. Western urban areas have comprehensively controlled the use of land for almost a century. However, with the exception of racial and ethnic exclusion, zoning has not overly intruded deeply on the fundamental assumption that people can live where they want and how they want. Climate change requires cities to rethink the assumption that we can continue to allow the geographical separation of work and residence. We must also rethink the assumption that we live in water-short areas, flood plains, and near natural areas by outwitting nature.⁵² In a ranking of 50 U.S. cities for resilience based on water supply, vulnerability to a natural disaster and heat stress only Seattle is in the top ten.⁵³ Heat stress will only get worse for the West. A 2019 study projects that Portland will have a climate similar to Sacramento's by the end of this century.⁵⁴

There is no single definition of a resilient city, but there is a consensus that no city is fully climate resilient.⁵⁵ The best that we can do is to glean the major characteristics from the work of urbanists. These include (1) climate resilient infrastructure such as the greater integration with natural features, such as waterways and tree-covered open space,⁵⁶ (2) less automobile use and greater reliance on a public transportation network, (3) high density development with considerably less land devoted to single family homes and more to useable green space, and (4) an energy grid that relies more on renewable sources of energy. In short, climate adaptive cities must be more compact, denser, less automobile-dependent, and contain more public space and less private space.

and for reminding me that Powell was foremost a scientist who tried to apply the best available science to public policy.

51. See Edward Sullivan & A. Dan Tarlock, *The Western Urban Landscape and Climate Change*, 49 ENVTL. L. 931 (2019).

52. E.g., Stephen R. Miller, *Planning for Wildfire in the Wildland-Urban Interface: A Guide for Western Communities*, 49 URB. LAW. 207, 265 (2017).

53. Jeff Opperman, *Which Cities can Best Adapt to Climate Change?*, GRIST, (June 23, 2011), <https://grist.org/climate-change/2011-06-23-which-cities-adapt-most-resilient-to-global-warming/>. Nine of the cities at the bottom of the list are in the West. *Id.* Miami, Florida was dead last at number 50. *Id.*

54. Matthew C. Fitzpatrick & Robert R. Dunn, *Contemporary Climatic Analogs for 540 North American Urban Areas in the late 21st Century*, 10 NATURE COMM. 1, 4 (2019).

55. David Satterthwaite & David Dodman, *Editorial: Towards Resilience and Transformation for Cities Within a Finite Planet*, 25 ENV'T & URBANIZATION 291 (2013).

56. DAWID SZÉCÍLO, REGULATORY STRATEGIES FOR COOLING DOWN CITIES (2019).

B. Climate Changed Adjusted Agriculture

Western agriculture will face a number of stresses, primarily less available water, temperature-induced changes in the ability of areas to support current crops, crop production in other countries, and changes in dietary preferences. The net result will be a consolidation of growing areas to reflect declines in crop production, new, high-value crop preferences, and the greater integration of crop production and food processing.⁵⁷

Twin Falls, Idaho, is an interesting case because it reflects trends in both urbanization and agriculture. First, the city obtained metropolitan area status earlier than expected.⁵⁸ Second, the area is growing because of two seemingly inexorable trends in agriculture: farm consolidation⁵⁹ and the location of high value food processing close to primary production.⁶⁰ The Magic Valley is booming as a result of Chobani's decision to locate major manufacturing and research facilities in the heart of a dairy industry.

Much of this transition will be market-driven. But, markets are cruel. A more planned approach to agricultural and rural urban consolidation will allow a more orderly transition away from agricultural-biodiversity conflicts such as grazing and wild and feral ungulates⁶¹ in a way that addresses the need to mitigate the human costs of the transition to a new West.

C. Climate Change Adjusted Open (Especially Private) Spaces

As climate change accelerates, public land scholars, including many in this symposium, have tried to match the jigsaw puzzle of public land categories and the laws that govern them with the need to protect endangered species and conserve biodiversity. Society's only option is adaptation.⁶² Nonetheless, efforts—however futile—to reduce greenhouse gas emissions will continue. Thus, public lands will also play a vital role in carbon sequestration. The challenges of adaptation will keep the next generation of Goble-inspired scholars busy for decades.

57. See Alan Bjerga, Cindy Hoffman & David Ingold, *The Consolidation of the American Harvest*, BLOOMBERG (Sept. 18, 2018), <https://www.bloomberg.com/graphics/2018-crop-shift/>.

58. The region expected to gain this status after the 2020 census, but the designation came in 2017. Heather Kennison, *Surprise! Officials Stunned to Learn Twin Falls Area Designated an Official Urban Region*, MAGICVALLEY.COM (Dec. 15, 2017), https://magicvalley.com/news/local/surprise-officials-stunned-to-learn-twin-falls-area-designated-an/article_da6c47a0-b552-5655-a3dc-4ec8a8a279bb.html.

59. See generally ERS Economic Information Bulletin 189, *Three Decades of Consolidation in U.S. Agriculture* (U.S.D.A. 2018), <https://www.ers.usda.gov/webdocs/publications/88057/eib-189.pdf?>.

60. PAUL LEWIN ET AL., *THE ROLE OF AGRICULTURAL PROCESSING IN IDAHO'S ECONOMY: STATUS AND POTENTIAL* (2013), https://digital.lib.uidaho.edu/digital/collection/ui_ep/id/33094/rec/1.

61. See generally Robert L. Beschta et al., *Adapting to Climate Change on Western Public Lands: Addressing the Ecological Effects of Domestic, Wild, and Feral Ungulates*, 51 ENVTL. MGMT. 471 (2012).

62. For an exhaustive pre-Trump era list of efforts to integrate climate change into public land management see Alejandro E. Camacho & Robert L. Glicksman, *Legal Adaptive Capacity: How Program Goals and Processes Shape Federal Land Adaptation to Climate Change*, 87 COLO. L. REV. 711 (2016).

Scientists have mapped out large-scale bioregions throughout the West. This is a starting point to identify biodiversity conservation areas.⁶³ However, these were mapped before the full awareness of climate change's probable adverse ecosystem impacts.⁶⁴ Thus, these aspirational bioregions may not account for the expected climate change-driven migration of flora and fauna and changes that this will cause in "native" and host ecosystems. Moreover, our definitions of biodiversity will change as we find out which species will and will not survive.⁶⁵ Existing conservation areas may have to be managed and modified substantially to preserve their present functions.⁶⁶

63. See generally Keiter, *supra* note 21.

64. In the 1980s, the concern that biodiversity was at risk from poor public and private land management led to the mapping of large ecosystems in the West, such as the Greater Yellowstone Ecosystem. The purpose of identifying these regions was to manage them from an ecosystem perspective rather than from the laws governing the different categories of public and private land that comprised the mapped area. See *THE GREATER YELLOWSTONE ECOSYSTEM: REDEFINING AMERICA'S WILDERNESS HERITAGE* (Robert S. Keiter & Mark S. Boyce eds., 1995). Studies of the landscape impacts of climate change accelerated after 2000, but the Department of Interior only started to develop climate change adaptation policies in 2009. JOEL B. SMITH & WILLIAM R. TRAVIS, *ADAPTING TO CLIMATE CHANGE IN PUBLIC LAND MANAGEMENT* (2010).

65. E.g., Cynthia Carey, *The Impacts of Climate Change on the Annual Cycle of Birds*, 364 *PHIL. TRANSACTIONS ROYAL SOC'Y LONDON B BIOLOGICAL SCI.* 3321 (2009), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2781852/>.

66. Kathryn Hansen, *Natural Beauty at Risk: Preparing for Climate Change in National Parks*, *NASA EARTH OBSERVATORY* (May 12, 2016), <https://earthobservatory.nasa.gov/features/NationalParksClimate>.