Essays of a Peripheral Mind

Creative Destruction

By K. M. Havstad

It was as if someone else had said the words that had come out of my mouth. There must have been some other idiot, unseen, speaking. I had been only 20 min into an early weekend morning bicycle ride out of town, climbing up away from the river and northeast across the desert piedmont toward the mountains. The driver of an older model sports utility vehicle (SUV) had nearly hit me; he not only failed to change lanes to pass me, a viable option given there was no other traffic on the road, but hadn't even made any effort to at least provide me a little room. These kinds of incidences have become increasingly common as this city has grown tremendously at a steady and incessant rate. Lately, I have taken to racing after the offending driver to try to register objection, only to rapidly lose contact; however, that didn't happen on this day. The driver had stopped ahead at a red traffic light, and, winded but determined, I rode up on his right and found the passenger side window slightly and conveniently lowered. Leaning in, I managed to inform him he had nearly hit me and needed to obey the law providing cyclists the right of way. Or, maybe it was a few other words to that effect. Without drawing this out, I will simply recount that the irrational intensity of the discussion escalated. Eventually, he resorted to a common hand gesture informing me I was number one, and I abandoned 22 yr of public and private education to employ colloquialisms common from my Irish/Norwegian/Catholic youth, or maybe just the Irish side of that heritage. In the end, I heard myself telling him that he should get out of his car. It was then that I wondered who had actually made this remark, and finally, acknowledging that it was me, thought that was a really idiotic suggestion. Yes, a beautiful fall morning was being rapidly spoiled by two idiots at an intersection. My size, at nearly 6 feet 5 inches and 230 pounds (but pretty harmless in truth), the now-green traffic light, or the absurdity of it all caused him to drive on. With a sense of relief, I turned to the driver of the lone vehicle who had pulled up at the red light behind the SUV during this encounter, smiled, shrugged my shoulders, and said "Sorry." Not surprisingly, he chose to stay at that green light until I had ridden on. I cycled toward the mountains, again reminded that the town I first moved to in 1975, and returned to in 1988, had crossed a threshold into being a big city and that I needed to seriously rethink the acceptable limits of my behaviors in this changed environment.

Since the 1950s the population of the western United States has grown by more than 46 million people, and is projected to grow by an additional 20 million or so by 2025. The increased stress on the region's natural resources, especially water (for recent descriptions of this stress see http://www.npr.org/programs/atc/features/2003/aug/water/ or http://www.nytimes.com/2007/10/21/magazine/21water-t.html?_r=1&oref=slogin), and the resulting impacts on these landscapes and its species are well recognized. However, the extent to which this population increase has driven a transition of these regional rangelands from the classic provisioning of food and fiber from livestock grazing to a much more diverse nonagricultural set of goods and services is often not so readily grasped. The extent of this

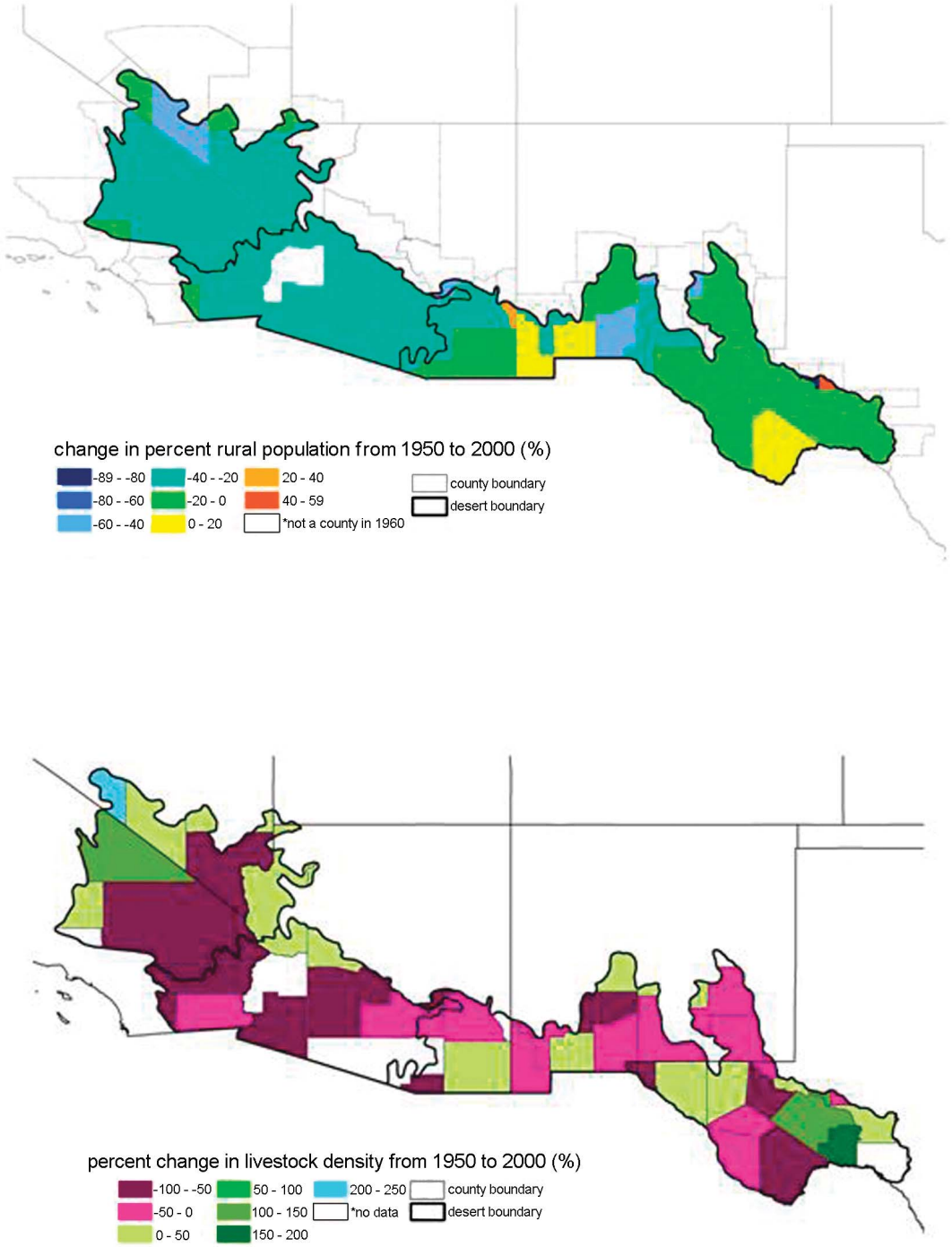

Figure 1. Changes in the southwestern United States in (top) population numbers for major cities in the region from 1950 to 2000 and (bottom) livestock numbers for Bureau of Land Management allotments or districts from 1940 to 2000 (figure developed by Dr Jin Yao, Adams State College, Alamosa, Colorado, from US census data sources).

transition is driven home by an array of available statistics that reflect these changes (for a more complete description of rural transformations in America see the 2006 Carsey Institute Report at http://www.carseyinstitute.unh.edu/documents/Demographics_complete_file.pdf). Some of the statistics that illustrate these changes include the reduction in livestock numbers and increases in urban populations in the southwestern United States during the latter half of the 20th century (Fig. 1); the aging of the nonmetro western US population just in the 10-yr period of 1990–2000 (Table 1); and the diversity of economic dependencies of nonmetro counties in the rural western United States, their population shifts, and their increasing use as a destination for either retirement or recreation in 2000 (Table 2). To further explain, Table 2 shows that only 25% of western US nonmetro counties (72 counties of 286) have a principal economic dependency on agriculture, a number that is strongly influenced by just one state—Montana. Increasingly, these nonmetro areas are destinations for both recreation and retirement (over 47% of these counties are either retirement or recreation destinations, or both).

Alan Greenspan, the former chairman of the US Federal Reserve Bank from 1987 through 2005, in his new book *Age of Turbulence*, repeatedly references the concept of "creative destruction" first articulated by Joseph Schrumpeter in 1942. A Harvard economist, Schrumpeter used this term to capture the concept that market economies such as those in the United States will constantly scrap old and inefficient businesses, rebuilding them into new enterprises through the reallocation of resources. Though the term "creative destruction" has been heavily used in recent years, and probably misused to overhype the next wave of technology that may or will overrun our lives, Greenspan effectively employs the term to explain the march of capitalistic market forces in reshaping lives and economies. Throughout his book he illustrates this idea with numerous examples such as the replacement of the telegraph by the telephone, and then the replacement of the rotary phone with the cellular. This cycle of invention, replacement, and obsolescence is a theme that Greenspan consistently draws from in his observations of world economies that he formulated over nearly 6 decades of close scrutiny and analysis. Figure 1 and Tables 1 and 2 illustrate not only the creative destruction of the western United States as a result of overall regional immigration (most nonmetro counties outside of Montana experienced population increases), but also due to shifts from a rural to a metro-based population and a reconfiguring of rural economic dependencies. On a related side note, it really shouldn't be a complaint that our western US land grant academic institutions have mostly reformed and renamed their rangeland academic departments in recent years in the face of this creative destruction. A failure to do so would doom these programs to irrelevance in the future.

Table 1. Percentage of change by age group of nonmetro populations in the western United States, 1990–2000

Age group	% change
Under 20	2.9
20–34	–8.2
35–54	26.4
55–64	18.5
65–74	–1.8
75 and older	23

Sources: US Census Bureau Decennial Census 1990–2000; "Changing Faces of Rural America," by Annabel Kirschner, E. Helen Berry, and Nina Glasgow in William Kandel and David L. Brown [eds.], *Population Change and Rural Society in the 21st Century.*

In recent years I have often spoken about the concept of sustainability in the management of natural resources. These talks always have an awkwardness because a definition of sustainability has been elusive. Discussion of concepts and definitions of sustainability is actually a very rich field these days with online journals such as *Ecology and Society* and notable scholars such as C. S. Holling offering insights and philosophies. However, any definition is even further compromised if we think of resource management in a setting of a free market economy where the goods and services being requested from that landscape are dynamic, or at least episodically so. Most definitions of rangeland management include the concept of providing "…optimal goods and services…," but if optimum is defined by the human dimensions that prevail across those landscapes, and elements of those dimensions are dynamic, identifying what is optimum is difficult, at best. Obviously, it will be one thing to define optimum for a society dependent upon agriculture, an entirely different concept when considering the interests of retirees, and a more elusive concept in a society that is a complex mixture of dependencies and characteristics. What I have resorted to in these talks is a more realistic definition of sustainability, which is based on employing behaviors that maintain options for the future (see McMichael et al., 2003, *Science* 302:1919–1920 or Kemp and Martens, 2007, *Sustainability: Science, Practice, and Policy*, http://ejournal.nbii.org/archives/vol3iss2/0703-007.kemp.pdf). In the western United States, I cannot realistically think about an optimum level of goods and services over time. I have to think about sustainability as employing behaviors that may maintain options into the future of providing goods and services from these lands. In reality, any discussion about sustainability within this environment of creative destruction is about behavior and choices, starting with my own.

Table 2. Economic dependencies, population dynamics, retirement destination, and recreation destination status of all nonmetro counties in the 11 western US states in 2000

State	No. of nonmetro counties	Principal economic dependency						Population loss	Retirement destination	Recreation destination
		Agriculture	Mining	Manufacturing	Federal/state government	Service	Other			
		(No. of nonmetro counties)								
Arizona	9	0	1	0	4	1	3	0	6	5
California	21	4	0	1	3	4	9	0	3	12
Colorado	46	15	2	0	4	14	11	4	11	22
Idaho	32	9	2	2	7	2	10	2	5	10
Montana	52	26	4	0	9	3	10	21	9	11
Nevada	13	1	6	0	3	1	2	0	4	4
New Mexico	26	5	3	0	11	2	5	4	11	5
Oregon	25	3	0	4	3	1	13	0	6	6
Utah	19	4	4	1	6	2	2	0	9	11
Washington	22	3	1	4	3	1	10	0	10	5
Wyoming	21	2	7	0	1	1	10	0	3	7
Total	286	72	30	12	54	32	85	31	77	98

Note: Metro areas are either central counties with one or more urbanized areas, or outlying counties that are economically tied to the core counties as measured by work commuting. Outlying counties are included if 25% of workers living in the county commute to the central counties, or if 25% of the employment in the county consists of workers coming out from the central counties—the so-called "reverse" commuting pattern. Nonmetro counties are outside the boundaries of metro areas. In the 11 western US states, 68% of all counties are classified as nonmetro.
Agriculture-dependent indicates that either 15% or more of average annual labor and proprietors' earnings derived from farming during 1998–2000 or 15% or more of employed residents worked in farm occupations in 2000; mining-dependent, 15% or more of average annual labor and proprietors' earnings derived from mining during 1998–2000; manufacturing-dependent, 25% or more of average annual labor and proprietors' earnings derived from manufacturing during 1998–2000; federal/state government–dependent, 15% or more of average annual labor and proprietors' earnings derived from federal and state government during 1998–2000; services-dependent, 45% or more of average annual labor and proprietors' earnings derived from services (Standard Industrial Classification System categories of retail trade; finance, insurance, and real estate; and services) during 1998–2000; other, did not meet the dependence threshold for any one of the above industries; population loss, number of residents declined both between the 1980 and 1990 censuses and between the 1990 and 2000 censuses; retirement destination, number of residents 60 and older grew by 15% or more between 1990 and 2000 due to immigration; recreation, classified using a combination of factors, including share of employment or share of earnings in recreation-related industries in 1999, share of seasonal or occasional use housing units in 2000, and per capita receipts from motels and hotels in 1997.
Source: 2004, Economic Research Service at: http://ers.usda.gov/Data/TypologyCodes/.

What I also know is that I will have few options for a sustained future here in the western United States if I continue behaving in a manner that challenges SUV drivers in their vehicles from the seat of my 20-pound bicycle.

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