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FROM SAGEBRUSH TO SUBDIVISIONS:
VISUALIZING TOURIST DEVELOPMENT
IN JACKSON HOLE, WYOMING, 1967-2002

by

Clinton R. Pumphrey

A thesis submitted in partial fulfillment
of the requirements for the degree

of

MASTER OF SCIENCE

in

History

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UTAH STATE UNIVERSITY
Logan, Utah

2009

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ABSTRACT

From Sagebrush to Subdivisions:

Visualizing Tourist Development in Jackson Hole, Wyoming, 1967-2002

by

Clinton R. Pumphrey, Master of Science

Utah State University, 2009

Major Professor: Dr. M. Lawrence Culver
Program: History

Historians have long recognized the tendency of communities to embrace tourism when extractive practices like agriculture, mining, and ranching fail as a dominant economic strategy. Jackson Hole, Wyoming, is a prime example of this phenomenon in the American West. From its origins as a Mormon farming community in the late-nineteenth century, the valley evolved into an extensively developed tourist mecca by the end of the next. While this industry was initially supported by hotel-dwelling auto tourists, by the 1960s wealthy second-home buyers began to descend on Jackson Hole, buying up scenic property and constructing vacation homes. Over the next few decades these neo-natives moved to the valley by the hundreds, initiating dramatic economic, physical, and social consequences which were a direct product of the pace, pattern, and location of development. This thesis explores that relationship, making extensive use of Geographic Information Systems (GIS) to identify spatial themes of development in an effort to enlighten historical themes of Jackson Hole's rapidly changing landscape. On a

basic level, this process presents a local history of tourist development in Jackson Hole between 1967 and 2002, documenting where development occurred and the consequences and controversy that resulted. Its greater contribution, however, is methodological. The use of GIS as a tool of historical research is still in its infancy, and this project suggests another application of the technique involving the spatial integration of historical and contemporary data. Together, these contributions create an informative and inventive examination of Jackson Hole tourism that expands the potential of historical research.

(117 pages)

ACKNOWLEDGMENTS

The title page for this thesis proclaims one author. Separated from text above and below by a quadruple-space, “Clinton R. Pumphrey” stands alone in a sea of 20 lb., 92 brightness white paper, creating a deceiving sense of unaided creation, uninfluenced ability, and unassailable determination. The truth is I could write another thesis about those who have helped make this project happen. Far from a product of individualism, the pages that follow are a financial, intellectual, and emotional collaboration that say almost as much about people’s willingness to lend a hand as it does about tourism in Jackson Hole.

Many people whom I didn’t even know responded to my research requests with offers of their knowledge and time. Among these were president of Greenwood Mapping, Inc. Richard Greenwood, Teton County Assessor Cathy Toolson, Teton County Deputy Clerk Maureen Green, and the staff of the Jackson Hole Historical Society. Through email or in person, their assistance was invaluable.

Few master’s students use the word “enjoyable” to describe their experience in the archives, but that’s exactly how I’d describe my employment at Utah State University’s Special Collections and Archives. With their hospitality and support, Brad Cole, Dan Davis, Steve Sturgeon, Bob Parson, Becky Skeen, Liz Kline, Randy Williams, Ann Buttars, and Rose Milovich made tedious, repetitive tasks pleasant enough to keep me around for three years. I may never again be lucky enough to have a job with such great people who don’t mind if I disappear for a week to hike in the wilderness.

Friends were a significant source of inspiration and support during the completion of this thesis. Their willingness to listen while I worked through problems led to

important breakthroughs, including the GIS methods I hammered out while hiking in the Tetons and the chapter outline I formulated while relaxing at Bear Lake. Friends also helped me maintain my sanity through stresses inherent in thesis-writing and *living la vida Logan*. To my roommates Danny Sadleir, Drew White, and Glenda Yenni, thanks for keeping me from taking myself too seriously. To my colleagues Joel Gillaspie, Kelly Lelegren, and Emily Gurr, thanks for being cool historians who actually talk about things other than history. And to my close friends Christy Meredith, Molly Van Appledorn, and Sarah Mohlman, thanks for the trips, the long chats, the pizza, and *The Office*—basically being there when I needed you most.

I also discovered that no matter how far I move from my family, they somehow manage to show me the same level of love and encouragement they've given me all my life. No one has offered a more positive influence than my parents, Norm and Anita Pumphrey. Whether it's my spirits or my bank account that's low, they always provide me with just what I need. It is their compassion and intellectual achievement that I strive to match every day. I can only hope that putting up with me as a chatty little kid has proven worthwhile. I am also indebted to my grandparents, Norman and Kitty Pumphrey, who saved me hundreds of dollars by letting me stay in their Teton Valley home while I did research in Jackson Hole. As families go, I've got the best.

Finally, overseeing it all was my advisor and fellow southerner, god of Jackson Hole history, Dr. Lawrence Culver. With his "you're-in-grad-school-and-you're-old-enough-to-set-your-own-deadlines" style, he showed the patience of a third grade teacher while guiding me through my graduate degree. But he never gave up on me, and for that I thank him. Thanks also to David Lewis for taking time out of his busy schedule to

serve on my committee and to Dan Davis for jumping in to fill the empty third chair with very little notice.

So to all the people mentioned above and those whom I may have left out, put your names on the title page, too—but below mine and in a smaller font.

Clint Pumphrey

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CHAPTER 1

INTRODUCTION

I stood thirteen miles from the entrance to Grand Teton National Park in one of the most stunning valleys in western Wyoming, the United States of America, and quite possibly, the world. The sky imparted an impenetrable blue, the sun shone with muted warmth, and there was just enough of a cool breeze to rustle the pages of the yellow notepad I carried. It would have been the most pleasant of days were it not for several thousand tourists pounding the wooden boardwalks that lined the streets around me. It was the Fourth of July, and I was standing at the corner of Cache and Broadway in downtown Jackson, Wyoming.¹

Responding to the expectant gestures from a group of Japanese tourists, I tucked my notes under my arm and carefully accepted their miniature Sony camera. I surveyed the image in landscape, but realized the arch of tangled elk antlers behind my Japanese friends was too tall to capture in the viewfinder. A dozen tourists stood patiently outside the frame as I dealt with my brief indecision. I turned the camera sideways, took a few blind steps back, and pushed the button. As I returned the camera to its gracious owner, another group moved under the arch, and I decided to cross Broadway and head west before another photophile drafted me into their service. The intersection would have been congested with only cars or only people, but there were plenty of both Toyotas and

¹ For the purposes of this thesis, the town of Jackson – the commercial center and county seat of Teton County – will be referred to as “Jackson, Wyoming” or simply “Jackson.” The immediate valley that contains Jackson – bounded by the Teton Range to the west and the Gros Ventre range to the east – will be referred to as “Jackson Hole.” These are the currently accepted geographical terms for these places. For a more detailed explanation of how these labels have changed over the last two centuries, see Glenn R. Burkes, “History of Teton County,” *Annals of Wyoming* 44, no. 1 (1972): 73.

tourists, Volkswagons and visitors, Dodges and dudes, vying for safe passage through the gridlock. Finally given permission to cross by the glowing white man, I struggled against the opposing flow of sandaled vacationers as I passed Moose Be Christmas, touted by their website as “unique to our town as...the only Christmas store in Jackson Hole.”² Across the street was Lee’s Tees, the self-proclaimed “Tee-shirt king of the Tee-tons,” whose display included a fishing-themed t-shirt that read, tongue-in-cheek: “The quickest way to a man’s heart is through his fly. Jackson Hole, Wyoming.” Had I continued on a few miles, I would have passed through what was once the most productive agricultural land in Jackson Hole on the road to Hoback Junction or Wilson. But what few hayfields and cow pastures remained were interspersed with million-dollar homes, as common to this valley’s farmland as barns and silos to farmland elsewhere. Instead I doubled back to Broadway and headed north, passing the Million Dollar Cowboy Bar, “famous for its western cowboy flare motif, complete with a large collection of western memorabilia, unique knobbed pine architecture, cowboy murals, animal mounts, and genuine saddle barstools.”³ Several miles ahead was the Jackson Hole Airport – serviced by five commercial airlines – the National Elk Refuge, and Grand Teton National Park. I wondered, as I squeezed past a large man in a Yellowstone hat, how did this happen?

This thesis addresses this broad question by using geographic information systems (GIS) to meticulously recreate commercial and residential land development in Jackson

²*Moose Be Christmas: JTC*, n.d., <http://www.jacksontradingco.com/Merchant2/merchant.mv?Screen=CTGY&Store_Code=jtradeco&Category_Code=Home-S2> (22 September 2008).

³*Million Dollar Cowboy Bar – Jackson Wyoming’s Landmark Watering Hole for Spirits, Beer, and Wine*, n.d., <<http://www.milliondollarcowboybar.com/history.htm>> (22 September 2008).

Hole from 1967 to 2002. The GIS visualization, capable of demonstrating the pace, pattern, and location of development in the valley, is the basis for answering two more specific sets of questions. First, how did tourism manifest itself in Jackson Hole over the last four decades? How rapid was commercial and residential development? Where did this development occur? What do the answers to these questions say about tourists' changing desires? Second, what were the consequences of tourist development? How did tourism change societal relationships and the cultural image Jackson sought to promote? Did development encroach on delicate ecological areas and what have government officials and citizen groups done to encourage environmentally-conscious expansion? In answering these questions, this thesis makes two important contributions: updating the local history of tourist development in Jackson Hole and, more broadly, demonstrating the universal advantages of GIS in the exploration of historical themes. A GIS visualization proves particularly effective for analyzing economic, environmental, and social trends in Jackson Hole, where the spatial characteristics of development played a dominant role over the last four decades.

The following chapters provide background history and an explanation of methodology that offer context for the GIS-based conclusions about tourism in Jackson Hole, which are the central theme of this thesis. This chapter reviews the history of Jackson Hole from the arrival of Native Americans to the establishment of a tourist economy, and evaluates the existing literature concerning this transformation. The second chapter explores the use of GIS in history, addressing its growing acceptance within the discipline and assessing its strengths and weaknesses as a research technique, and explains the process used to construct the GIS visualization in this study. Following

this thorough presentation of background material, chapter three discusses the findings of the computer-generated maps and data using statistical and visual observations to explain the characteristics of development in Jackson Hole and what they say about changing tourist desires. Finally, the fourth chapter examines the economic, environmental, and social consequences of development and the controversy that surrounds them. Together, these chapters offer a detailed local history of tourism in Jackson Hole that takes advantage of both spatial and qualitative sources.

As the primary gateway to Grand Teton National Park, Jackson, Wyoming, has undoubtedly become one of the United States' most popular tourist meccas. Of the park's 2.6 million annual visitors, most find their way into the town's restaurants, shops, hotels, and ski resorts, which have come to dominate the area's economy.⁴ But the foreign tourists, the cluttered t-shirt shops, and peculiar antler-themed landmarks are a relatively new phenomenon in Jackson Hole. Native Americans, fur trappers, explorers, and early settlers long extracted the region's resources for economic gain or mere survival, laying the foundation for the pastoral economy that would come to dominate Jackson Hole by the early 20th century. Though the valley escaped the large-scale mining operations that created lasting environmental problems in much of the West, farming and ranching became widespread. But agriculture proved challenging in the face of the Jackson Hole's unpredictable weather and short growing season, and its failure, coupled with the region's fortunate position in the shadow of the stunning Teton Range, made the valley a prime location for the establishment and rapid growth of a new tourist economy.

⁴ National Park Service Public Use Statistics Office, *NPS Stats*, 2008, <<http://www.nature.nps.gov/stats/>> (23 September 2008).

Like much of the West, Jackson Hole's history of resource extraction began long before Anglo agricultural settlement or tourism. The earliest visitors to the region arrived around 11,000 years ago, following the ripening plants of early spring, which, in the southern part of the valley, included sego lily and arrowleaf balsam root. Though these prehistoric people primarily gathered plants, they also hunted the mule deer, elk, bighorn sheep, and bison that frequented the area in the early spring. Prehistoric people utilized the valley's mineral resources, as well; the most popular obsidian source for early toolmakers was a site at the mouth of Teton Pass, near present-day Wilson, Wyoming.⁵

The most storied resource extractors of Jackson Hole were the fur trappers. From Meriwether Lewis and William Clark's expedition of 1804-06 to the last trapper rendezvous in 1840, "mountain men" traversed the Rocky Mountains in search of beaver pelts. John Colter, a veteran of the Lewis and Clark party, was probably the first of these men to enter Jackson Hole on a winter trek through the region in 1807-08.⁶ He was followed by Wilson Price Hunt and Robert Stuart, sent by Jacob Astor's American Fur Company to locate feasible land routes between St. Louis and the Columbia River. Soon, numerous American, British, French Canadian, and Indian trappers crisscrossed the

⁵ John Daugherty, *A Place Called Jackson Hole: A Historic Resource Study of Grand Teton National Park* (Moose, Wyo.: Grand Teton Natural History Association, 1999), 22-27. For more information about the prehistoric peoples of Jackson Hole, see Gary A. Wright, *People of the High Country: Jackson Hole Before the Settlers* (New York: Peter Lang, 1984). Wright, an archaeologist, is widely considered the foremost expert on the subject.

⁶ Because Colter created no journals or maps, historians have struggled to prove his visit to Jackson Hole with secondhand accounts. For more information on this controversy, see Barry Maps, Grand Teton National Park Files, Moose, Wyoming; Burton Harris, *John Colter: His Years in the Rockies* (Casper, Wyo.: Big Horn Book Company, 1952, reprint, 1977); Paul Lawrence, *John Colter: A New Look at an Old Mystery* (Jackson, Wyo.: Pioneer Press, 1978); and Stallo Vinton, *John Colter: Discoverer of Yellowstone Park* (New York: Edward Eberstadt, 1926).

valley, using what they called the “Trois Tetons” as an important landmark for navigation in their travels. Records show that some of these men, including the legendary Jim Bridger, trapped in Jackson Hole, but often they simply passed through on their way to more productive grounds at the headwaters of the Green, Snake, Yellowstone, Missouri, and Wind Rivers. Because the valley was not heavily trapped, Jackson Hole’s Snake River remained an abundant beaver habitat.⁷

As silk supplanted beaver in European hat fashion in the late 1830s, Anglo activity in Jackson Hole subsided. It remained limited until 1860 when Army Topographical Engineer Captain W.F. Reynolds led the first of a series of military expeditions into the region. Surveying new areas for agricultural and mineral resources, Reynolds became the first to consider large-scale extractive production in Jackson Hole. The most well-known of these military excursions into Jackson Hole was organized by Ferdinand Vandiveer Hayden, an accomplished surveyor and former member of the Reynolds Expedition. James Stevenson, who claimed to have made the first ascent of the Grand Teton with N.P. Langford in July 1872, led the Snake River Division of Hayden’s expedition to Jackson Hole that September.⁸ Hayden himself visited the valley in 1878,

⁷ Daugherty, *A Place Called Jackson Hole*, 43-44; Burkes, "History of Teton County," 81; Bryan Harry and Willard E. Dilley, *Wildlife of Yellowstone and Grand Teton National Parks* (Salt Lake City: Wheelwright Lithographing Company, 1964), 26. For more information about trapping in Jackson Hole, see Elizabeth Wied Hayden, *From Trapper to Tourist in Jackson Hole* (by the author, 1957); Merrill J. Mattes, “Jackson Hole Crossroads of the Western Fur Trade, 1807-1829,” *Pacific Northwest Quarterly* 39 (1948): 87-108; and Merrill J. Mattes, “Jackson Hole Crossroads of the Western Fur Trade, 1830-1840,” *Pacific Northwest Quarterly* 39 (1948): 3-32.

⁸ Hayden reported Stevenson and Langford’s feat in his 1872 report, but it remains unclear whether or not he actually made it to the top. Franklin Spalding, Jack Shive, Frank Petersen, and William O. Owen challenged the legitimacy of the claim after they summited the Grand Teton in 1898. Langford’s account of the climb was published in N. P. Langford, "The Ascent of Mount Hayden," *Scribner's Monthly* 4 (June

joining the famous photographer William H. Jackson, who captured the first photographic images of the Teton Range from Jackson Hole.⁹

These explorers' actions both inspired settlement and foreshadowed the behavior of tourists that would soon find their way to the region. Unlike their fur-trading predecessors, they sought not economic gain, but the adventure and self-promotion derived from government-sponsored exploration. Their companions, like William H. Jackson, behaved even more like modern tourists, unbound by the mandates of government to freely observe and record their surroundings in word and image. Both extracted their experiences for the consumption of curious Easterners: Reynolds and Hayden in government reports and maps, and Jackson in photographs. By providing Americans with their first glimpse of the largely unknown Jackson Hole region through their dramatized experiences, these government agents not only encouraged settlers anxious to develop its resources, but became the first of millions of tourists in the valley.¹⁰

1873):129-137. Owen's claim is outlined in William O. Owen, "The First Ascent of the Grand Teton," *Annals of Wyoming* 10, no. 2 (1938): 79-89. Also see Fritiof Fryxell, *The Teton Peaks and Their Ascents* (Grand Teton National Park, Wyo.: The Crandall Studios, 1932).

⁹ Daugherty, *A Place Called Jackson Hole*, 68, 73, 77. For more information about Hayden and his surveys, see Willard C. Hayden, "The Hayden Survey," *Idaho Yesterdays* 16 no. 1 (1972): 20-25; James G. Cassidy, *Ferdinand V. Hayden: Entrepreneur of Science* (Lincoln: University of Nebraska Press, 2000); and Mike Foster, *Strange Genius: The Life of Ferdinand Vandeveer Hayden* (Niwot, Colo.: Roberts Rinehart Publishers, 1994). For more information about William H. Jackson, see William H. Jackson, *The Pioneer Photographer: Rocky Mountain Adventures with a Camera*, in collaboration with Howard R. Driggs (Yonkers-on-Hudson, N.Y.: World Book Co., 1929); and Peter B. Hales, *William Henry Jackson and the Transformation of the American Landscape* (Philadelphia: Temple University Press, 1988).

¹⁰ The idea that early explorers were also tourists is found in Patricia Nelson Limerick, "Seeing and Being Seen: Tourism in the American West," in *Seeing and Being*

When news of Jackson Hole's beauty and bounty reached an expectant American citizenry, it began to attract settlers. Between 1864 and 1897, numerous gold prospectors and mining companies constructed placer mines along the Snake River, but none found anything more substantial than a golden powder.¹¹ One scorned miner lamented:

Payin gold will never be found here
 No matter how many men tries
 Theres some enough to begile one
 Like tanglefoot paper does flies.¹²

By the time homesteaders began to arrive in 1884, it was clear that the immediate future of Jackson Hole's economy lay not in mining, but in agriculture. The first men to establish year-round residency were Johnny Carnes and John Holland, who built cabins on the banks of Flat Creek, now part of the National Elk Refuge. Like many early settlers in the valley, their main harvest was hay, which fed horses and livestock they ran in the valley. But Jackson Hole's geographic isolation discouraged rapid settlement, and by 1889 the valley boasted only 64 permanent residents – mostly single men. This trend began to change that year when Mormon bishop Sylvester Wilson and his family arrived in the valley, encouraged by their church to settle new areas. Many more followed, and in 1894, fourteen Mormon families funded the construction of Jackson Hole's first church in present-day South Park.¹³ According to the 1900 census, 638 men, women,

Seen: Tourism in the American West, eds. David M. Wrobel and Patrick T. Long, (Lawrence: University of Kansas Press, 2001), 43-44.

¹¹ Little has been written about mining in Jackson Hole, but a few stories are preserved in Grand Teton Natural History Association. *Campfire Tales of Jackson Hole* (Moose, Wyo.: Grand Teton Natural History Association in cooperation with the National Park Service, U.S. Dept. of Interior, 1960).

¹² Fritiof Fryxell, *The Tetons: Interpretations of a Mountain Landscape* (Berkeley: University of California Press, 1946), 34.

¹³ Burkes, "History of Teton County," 94; Elizabeth Arnold Stone, *Uinta Country: Its Place in History* (n.p., 1924), 233; Candy Vyvey Moulton, *Legacy of the*

and children resided in Jackson Hole, an estimated 231 of whom were Latter-day Saint (LDS) Church members. The population also labored almost exclusively in agriculture; of 279 residents who reported their occupations, 237 listed themselves in “farming” occupations.¹⁴ Turn-of-the-century Jackson Hole had evolved from a loose collection of itinerants to a well-established Mormon agricultural community.

By 1909, Jackson Hole’s population had nearly tripled to 1500 as homesteaders arrived in rising numbers. This new wave of settlers increasingly dedicated their efforts to cultivation, straying from ranching which had dominated Jackson Hole’s economy during the first two decades of settlement. But farming proved difficult in Jackson Hole. Land had to be cleared of sagebrush and willow, sloughs and gravel pits had to be drained and leveled, and fields had to be plowed. Longtime Jackson Hole resident Rego Nethercott recalled raising “hay and grain, and some good crops of spuds,” but admitted there was never enough for outside markets. What they didn’t use to support their dairy operation they simply sold to neighbors: “We never shipped anything out,” he said. “It’s all been used right here.” Nethercott’s system – using farming to support more profitable livestock operations – foreshadowed the future of agriculture in Jackson Hole. For the first few decades of the twentieth century, however, many farmers attempted to turn a

Tetons: Homesteading in Jackson Hole (Cheyenne, Wyo.: La Frontera Publishing, 2007), 13-14, 42.

¹⁴ The government conducted the first census in Jackson Hole in 1900. Though religion was not a category of inquiry, John Daugherty places the Mormon population at 231 based on the residents’ place of birth and his knowledge of Mormon families in the region. Also, “farming” as an occupational category must have also included ranchers, who were the dominant part of Jackson Hole’s agricultural landscape at the time.

profit from Jackson Hole's porous soil, engaging in an unwinnable battle with an inhospitable environment.¹⁵

The most significant challenge they faced was a relatively short growing season. Jackson, at an elevation of 6,244 feet, is one of the lower points in the greater Teton-Yellowstone area, but becomes quite cold even during the summer months. The temperature drops below 32° Fahrenheit an average of 17 days during the months of June, July, and August, threatening all but the most hardy crops. At Moran, in the northern part of Jackson Hole, the longest recorded period between freezes was just 44 days. Compounding the stunted growing season was a lack of precipitation caused by the rain shadow effect of the Tetons. Jackson averages about 15 inches of rain a year, just 3.68 of which comes during the three warmest months. Moran fares little better, receiving an average of just 4.03 inches during that same period. The limitations imposed upon farming by Jackson Hole's harsh environment are reflected in the kinds of hardy, drought-resistant crops the settlers ultimately chose to raise. Light production of oats, potatoes, and wheat gave way to a monoculture of barley, a crop used for cattle feed, best suited to long, cool ripening seasons and moderate rainfall (Figure 1-1).¹⁶

As Jackson Hole residents herded cattle and broke soil in search of economic identity, wealthy tourists began to find their way into the valley. One of the most notable

¹⁵ Daugherty, *A Place Called Jackson Hole*, 110; Rego Nethercott, interview by John Stewart, 26 February 1973, Special Collections and Archives, Merrill-Cazier Library, Utah State University, Logan.

¹⁶U.S. Department of the Interior, National Park Service, *The Climate of Yellowstone and Grand Teton National Parks: National Park Service Occasional Paper Number Six*, report prepared by Richard A. Dirks and Brooks E. Martner (Washington: Government Printing Office, 1982), 6-8; U.S. Department of Agriculture, Science and Education Administration, *Barley: Origin, Botany, Culture, Winter Hardiness, Genetics, Utilization, Pests* (Washington: Government Printing Office, 1979), 1.

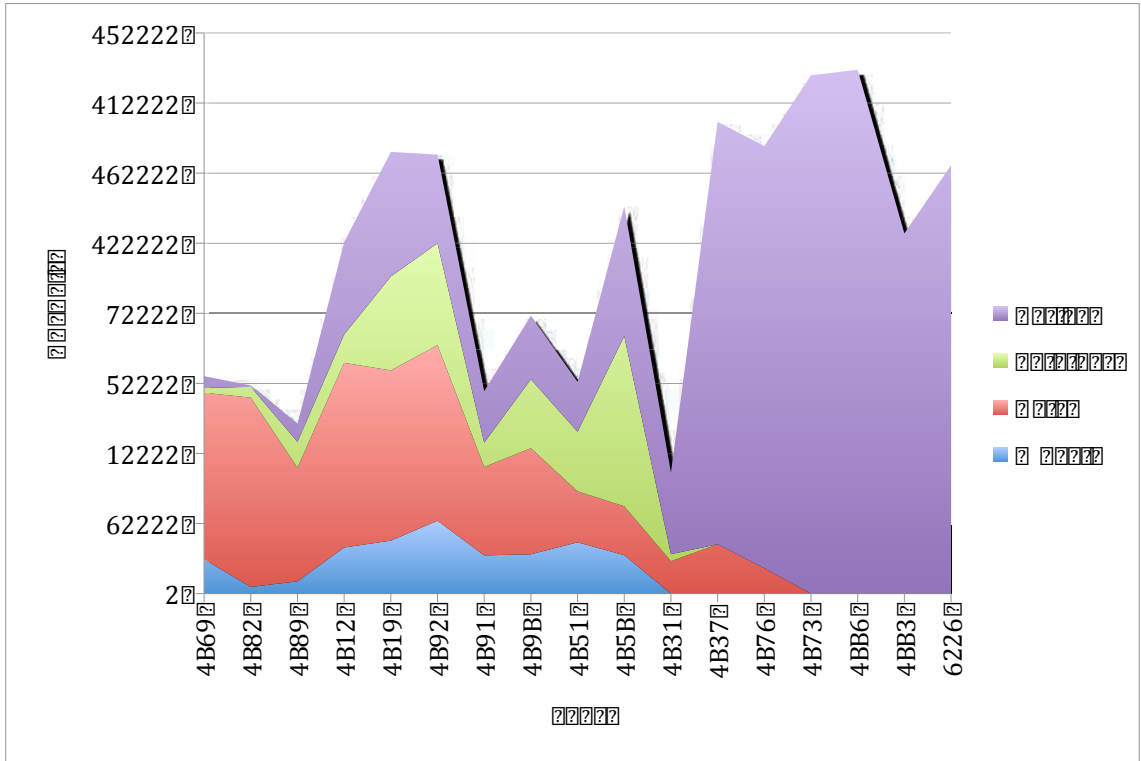


Figure 1-1. Crop production in Teton County, Wyoming, 1925-2002.

of these was a young law student named Owen Wister who had headed West from Harvard on a trip meant to revitalize his ailing health. In August 1887 Wister and his party spent a week traversing the valley from south to north and hunting its plentiful big game. “Great God!” Wister recorded in his journal on August 13. “I’ve just killed a bear, and I’m writing this by his bloody carcass.”¹⁷ But beyond the intense experiences of his hunting adventures, Wister felt moved by the beautiful country that surrounded him:

I looked down towards Jackson Hole and saw the ragged leavings of the thunder cloud prowling up the slopes of pine hills, beyond which the ice-sharp points of the Tetons glittered with snow and sunlight, and over the basin hung a brilliant

¹⁷ Fanny Kemble Wister, ed., *Owen Wister Out West: His Journals and Letters* (Chicago: The University of Chicago Press, 1958), 52.

golden cloud that swam in the rays, while all the other clouds were black or gray.¹⁸

Wister, like the explorers before him, extracted and packaged his experience in *The Virginian*, a book partly set in Jackson Hole and commonly considered the first literary western novel. Widely read throughout the United States, it gave words to William H. Jackson's photographs, further enticing wealthy eastern tourists to make the difficult journey to Jackson Hole.¹⁹

Seeing an opportunity, some Jackson Hole ranchers began to provide accommodations to the wealthy new visitors, or "dudes" as they became known. Dude ranches offered, according to the Dude Ranchers' Association, "lodging, riding, hunting, or other services" to tourists who sought what they perceived to be an authentic western experience. Jackson Hole's first such operation is generally accepted to be the JY Ranch, built by Struthers Burt and Louis Joy in 1908, though many more followed. The industry grew throughout the 1910s and 1920s in response to depressed cattle prices and a boom in domestic tourism caused by World War I. By the 1920s at least sixteen dude ranches were operating in the valley, creating a relatively small but promising foundation for a thriving tourist industry in Jackson Hole.²⁰

¹⁸ Kemble, *Owen Wister Out West*, 52.

¹⁹ Darwin Payne, *Owen Wister: Chronicler of the West, Gentleman of the East* (Dallas: Southern Methodist University Press, 1985), 100-101. See also Gerald Thompson, "Owen Wister and His Critics: Realism and Morality in the Virginian," *Annals of Wyoming* 64, no. 1 (1992): 2-10; John W. Stokes, "Reflections on Owen Wister and the Virginian," *Annals of Wyoming* 74, no. 4 (2002): 2-5.

²⁰ Daugherty, *A Place Called Jackson Hole*, 223-225; Charles G. Roundy, "The Origins of Dude Ranching in Wyoming," *Annals of Wyoming* 45, no. 1 (1973): 5-25; Amanda Rees, "'A Classless Society' Dude Ranching in the Tetons 1908-1955," *Annals of Wyoming* 77, no. 4 (2005): 2-21.

Though some “dudes” found their way to Jackson Hole in the early decades of settlement, the valley remained an isolated agricultural outpost due to its remote location and poor transportation infrastructure. While the Union Pacific and Northern Pacific railroad companies extended lines to the border of Yellowstone National Park in 1902 and 1907 to accommodate an explosion of tourists to that park, the routes bypassed Jackson Hole. This meant that the majority of the 131,446 visitors to Yellowstone between 1905 and 1910 – and their money – also bypassed Jackson Hole. By 1912 the Oregon Shortline Railroad, a subsidiary of the Union Pacific, completed construction on a branch that terminated at Victor, Idaho, twenty miles west of Jackson via the formidable Teton Pass. The new branch soon became an important access point to Jackson Hole, and wagons, and later motorized vehicles began to move loads of people and cargo back and forth across Teton Pass. One enterprising citizen, Howard Hout, established a bus line between the railroad terminus and Moran, Wyoming, before selling his operation to the Union Pacific Railroad Company. But when the valley experienced a devastating agricultural depression after World War I, the service proved unprofitable and was abandoned.²¹

The creation of Grand Teton National Park in 1929 sparked a major increase in tourist interest in Jackson Hole. For thirty years, politicians, Yellowstone officials, and some Jackson Hole residents had suggested that the Tetons might become part of an expanded Yellowstone Park, or become a park of their own. But the plans encountered

²¹ U.S. Department of the Interior. National Park Service Public Use Statistics Office, *NPS Stats*, 2008, <<http://www.nature.nps.gov/stats/>> (23 September 2008); Robert C. Hoyle, "To the Tetons by Train," *CRM: The Journal of Heritage Stewardship*, no. 10 (1999): 24; Robert W. Righter, *Crucible for Conservation: The Struggle for Grand Teton National Park* (Boulder: Colorado Associated University Press, 1982), 58.

resistance from local residents who feared government interference with private land. To avoid this conflict, Senator John Kendrick introduced a bill that protected only the Teton Mountains. Because this land was too rugged for use in agriculture or mining, the Kendrick Bill enjoyed widespread support from Jackson Hole residents, and President Calvin Coolidge signed it into law on February 26, 1929. At 150 square miles, the new park was just a shadow of the 484 square miles it would eventually become, but it attracted 51,500 visitors in its first year of operation and promised many more. The Teton Transportation Company, a subordinate of the John D. Rockefeller, Jr.-owned Snake River Land Company, resumed the shuttle service from the railroad at Victor. In cooperation with the Union Pacific Railroad Company and the Yellowstone Transportation Company, the Teton Transportation Company offered combined tours of Teton and Yellowstone National Parks. Though these railroad tours brought more visitors to Jackson Hole, it would take one final development to enable the full-scale tourist economy that would eventually evolve.²²

With the rapid popularization of the automobile, it was clear that if a significant number of tourists were to descend upon Jackson Hole and the Teton Mountains, they would not arrive by railroad, but by highway. By 1925 the valley was serviced by three primitive highways: the Teton Pass road from the west, the Hoback Road from the south, and the Togwotee Road from the east. Although some improvements had been made to the roads, travel into the valley remained difficult and dangerous in the summer and impossible in the winter. A fourth highway, constructed by the Civilian Conservation

²² U.S. Department of the Interior, National Park Service Public Use Statistics Office, *Acreage Report*, 2008, < <http://www.nature.nps.gov/stats/Acreage/acrebypark07cy.pdf?CFID=2118889&CFTOKEN=93788189>> (13 October 2008); Righter, *Crucible for Conservation*, 40-42, 58; Hoyle, "To the Tetons by Train," 25.

Corp in 1939, promised another route into Jackson Hole via the Snake River Canyon. What finally brought Jackson Hole out of its prolonged geographic isolation, however, was improvement in snow removal technology. In the 1930s Averell Harriman, chairman of the Union Pacific Railroad, briefly considered Jackson Hole as a location for his new ski area, but when the State of Wyoming would not promise to keep Teton Pass open during the winter, Harriman moved on to Sun Valley, Idaho. It was not until the 1940s that improved technology and technique allowed crews to keep the Teton, Hoback, Togwotee, and Snake River roads open all winter. The path was now clear, literally, for the kind of development Harriman first promised a decade earlier. Jackson Hole was finally ready for the commercial, institutionalized pursuit of leisure that writer Edward Abbey termed “industrial tourism.”²³

The transition from a deficient extractive economy to an tourist economy is not a process unique to Jackson Hole. As Anglo settlers migrated to the region in the nineteenth century, they encountered unfamiliar topography and climate that determined the success or failure of their agricultural and mining endeavors. But initial failure often encouraged adaptation, and westerners learned to modify their livelihoods or embrace new ones altogether. Historian William Cronon notably describes this process in terms of production, stating, “[the story of frontier migration] is a long tale of people moving to

²³ Lawrence Culver, "Resorting to Tourism: The Town and the Valley of Jackson, Wyoming, through the 1950s" (M.A. Thesis, Utah State University, 1997), 92-93; Daugherty, *A Place Called Jackson Hole*, 259.

frontier areas, seizing abundance, encountering scarcity, and remaking the land and themselves in the process.”²⁴ The agricultural, commercial, and residential West ultimately owes its condition to this combination of enduring environmental forces and adaptive human agency.

This process notably manifests itself in the development of mass tourism. As extractive industry, farming, and ranching declined in the West, many towns struggled to maintain population and economic momentum. They faced a choice: to embrace the potential economic benefits and cultural threats of tourism, or suffer economic decline and possible failure. Termed a “devil’s bargain” by historian Hal Rothman, this strategy was not guaranteed “to meet the expectations of communities that embrace it as an economic strategy.”²⁵ But it ably demonstrated the adaptive tendency of western settlers, who attempted to compensate for the “scarcity” of resources and unproductive agriculture with the perceived economic “abundance” of large-scale tourism.

Other works reference this relationship between land use and the development of tourism. Patrick T. Long addresses this issue in his economic examination of tourism, “For Residents and Visitors Alike: Seeking Tourism’s Benefits, Minimizing Tourism’s Costs.” “Increasingly,” he writes, “tourism, particularly in the U.S. West, is being looked upon as filling the void left by the decline of traditional resource extraction industries (mining, timber, agriculture, energy) as well as manufacturing, or as a potential avenue

²⁴ William Cronon, “Landscapes of Abundance and Scarcity,” in *The Oxford History of the American West*, eds. Clyde Milner, Carol O’Connor, and Martha Sandweiss (New York: Oxford University Press, 1994), 605.

²⁵ Hal Rothman, *Devil’s Bargains: Tourism in the Twentieth-Century American West* (Lawrence: University Press of Kansas, 1998), 10.

for stimulating new development and economic opportunities.”²⁶ In *Ski Style: Sport and Culture in the Rockies*, Annie Gilbert Coleman recognizes such adaptive economic strategies specifically in ski resort communities. “Mountain towns that had once been developed for mining and ranching took on new identities, as leisure and sport inscribed a different set of economic relationships on their landscapes,” she explains.²⁷ This concept is even hinted at in Early Pomeroy’s foundational work, *In Search of the Golden West: The Tourist in Western America*: “...but in the main they [Westerners] welcome the first of the species [tourists] each year as they welcome spring lambs and winter wheat. He himself is a crop, and he is more than that; he is a link to the rest of the world that their souls need as well as their pocketbooks.”²⁸ By infusing local economies with their money, tourists become a “human crop” that compensates for the failure or shortcomings of their leafy counterparts.

While numerous works have examined the historical significance of tourism in the United States, few have done so for Jackson Hole. The first work to deal specifically with this phenomenon on a local basis was Lawrence Culver’s “Resorting to Tourism: The Town and the Valley of Jackson, Wyoming, through the 1950s.” In this master’s thesis, Culver looks at the evolution of Teton National Park, not from the perspective of institutions and power structures, but from the experiences of local residents and park tourists. Culver used the specific example of Jackson Hole to support what Pomeroy –

²⁶ Patrick T. Long, “For Residents and Visitors Alike: Seeking Tourism’s Benefits, Minimizing Tourism’s Costs,” in *Seeing and Being Seen: Tourism in the American West*, eds. David M. Wrobel and Patrick T. Long (Lawrence: University of Kansas Press, 2001), 72.

²⁷ Annie Gilbert Coleman, *Ski Style: Sport and Culture in the Rockies* (Lawrence: University Press of Kansas, 2004), 6.

²⁸ Earl Pomeroy, *In Search of the Golden West: The Tourist in Western America* (New York: Alfred A. Knopf, 1957), vi.

and later Coleman and Long – observed generally about the West: that when extractive economies falter, people often turn to tourism for renewed prosperity. But also predictive of one of Rothman’s later concerns, Culver noted that, “the citizenry of Jackson Hole learned that tourism might harbor success, but could never ensure stability.”²⁹ Where “Resorting to Tourism” leaves off with the enlargement of Grand Teton National Park in 1950, Journalist Raye C. Ringholz picked up with her books, *Little Town Blues: Voices from the Changing West* and *Paradise Paved: The Challenge of Growth in the New West*. Both works address the modern problems tourism forces onto once-small towns, including rapid development, exploding property values, and environmental degradation. The chapters dealing specifically with Jackson Hole, “How the Wild West Was Lost” and “Those Wide Open Spaces,” take the trend of mass tourism to its most recent manifestation, the second-home phenomenon. Another noteworthy work, Robert W. Righter’s *Crucible for Conservation* deals with a topic central to tourist development in Jackson Hole: the complex legal and political web that was the creation of Teton National Park. These works, which pay special attention to leisure in the Jackson Hole, are the most illuminating for this thesis.³⁰

Other works about Jackson Hole are more general in nature or focus on topics tangential to this work. Foremost among these is the National Park Service’s history of Jackson Hole, *A Place Called Jackson Hole: A Historic Resource Study of Grand Teton National Park*, which offers an excellent overview and research guide for the topic.

²⁹ Culver, “Resorting to Tourism,” 123-124.

³⁰ Raye C. Ringholz, *Little Town Blues: Voices from the Changing West* (Salt Lake City: Peregrine Smith Books, 1992); Raye C. Ringholz, *Paradise Paved: The Challenge of Growth in the New West* (Salt Lake City: University of Utah Press, 1996); Righter, *Crucible for Conservation*,

Others include Fritiof Fryxell's *The Tetons: Interpretations of a Mountain Landscape*, Nathaniel Burt's *Jackson Hole Journal*, Frank Calkins' *Jackson Hole*, Candy Vyvey Moulton's *Legacy of the Tetons: Homesteading in Jackson Hole*, David J. Saylor's *Jackson Hole, Wyoming: In the Shadow of the Tetons*, and Elizabeth Wied Hayden's *From Trapper to Tourist in Jackson Hole*.³¹

This thesis expands upon the theme first presented by Culver's "Resorting to Tourism" by examining not only the development of tourism in Jackson Hole, but analyzing its consequences. As Culver first asserted, Jackson Hole embraced tourism to shore up an agricultural economy stunted by unsuitable environmental conditions. This investigation begins with that conclusion, examining more recent phenomena like rapid commercial expansion and second-home development to bring the history of Jackson Hole into the present. But the real significance of this thesis is its approach; it utilizes GIS technology to augment traditional historical research, an inventive but seldom-used method in the field. The following chapter addresses the growing acceptance of this method in historical scholarship, assesses its benefits and weaknesses as a historical research technique, and explains the process used to construct the GIS visualization in this study.

³¹ Daugherty, *A Place Called Jackson Hole*; Fritiof Fryxell, *The Tetons: Interpretations of a Mountain Landscape* (Berkeley: University of California Press, 1946); Nathan Burt, *Jackson Hole Journal* (Norman: University of Oklahoma Press, 1983); Frank Calkins, *Jackson Hole* (New York: Alfred A. Knopf, 1973); Candy Vyvey Moulton, *Legacy of the Tetons: Homesteading in Jackson Hole* (Cheyenne, Wyo.: La Frontera Publishing, 2007); David J. Saylor, *Jackson Hole, Wyoming: In the Shadow of the Tetons* (Norman: University of Oklahoma Press, 1970); Elizabeth Wied Hayden, *From Trapper to Tourist in Jackson Hole* (by the author, 1957).

CHAPTER 2
GIS, HISTORY, AND METHODOLOGY

In 2002, historical geographer Anne Kelly Knowles edited a book entitled *Past Time, Past Place: GIS for History*, “the first collection of case studies applying geographic information systems (GIS) to the study of history.”¹ Asserting “the ability of GIS to integrate, analyze, and visually represent spatially referenced information,” Knowles hoped to inspire historians “to combine sources in new ways, to make geographical context an explicit part of their analysis, to reexamine familiar evidence, and to challenge long-standing historical interpretations.”² She termed this fresh approach to the study of history “historical GIS.” The very next year, geographer Eric Pawson and environmental policy expert Stephen Dovers penned an article in *Environment and History* encouraging an interdisciplinary approach to the study of environmental history. In the article, “Environmental History and the Challenges of Interdisciplinarity: An Antipodean Perspective,” the authors argued:

Of all substantive foci, past uses of environments and their future sustainability have generated greater quantity and diversity of interdisciplinary ventures than any other, and so offer a source of much needed project narratives, intersections and analyses of interdisciplinary engagement. With more elaborated engagement, environmental history, arguably the environmental ‘interdiscipline’ that attracts the greatest disciplinary variety, may not only improve its own explanations, but become the leading laboratory in the interdisciplinary experiment.³

¹ Anne Kelly Knowles, ed., *Past Time, Past Place: GIS for History* (Redlands, Cal.: ESRI Press, 2002), xi.

² Knowles, *Past Time, Past Place*, xiii.

³ Eric Pawson and Stephen Dovers, “Environmental History and the Challenges of Interdisciplinarity: An Antipodean Perspective,” *Environment and History* 9, no. 1 (2003): 69.

The exploration of “past uses of environments and their future sustainability” necessitated engagement not only with archival sources, but also with scientific scholarship to an extent once discouraged in the positivist-weary field of history. Inevitably, Pawson and Dovers’ call for interdisciplinary research converged with Knowles’ promotion of historical GIS, leading some environmental historians to investigate the viability of GIS analysis in their work.

These authors’ combined vision led to the conceptualization of this thesis: a GIS-based environmental history of tourist development in Jackson Hole, Wyoming, that borrows scholarship and methodology from a number of fields including ecology and tourism studies. While its immediate contribution is to Jackson Hole history, there is a secondary contribution that is perhaps more significant. The injection of GIS analysis into the historical process sets this thesis apart from traditional scholarship in the field, suggesting a new methodology that not only compliments, but provides a versatile new approach to historical research. While the previous chapter addressed the historical and intellectual context for the thesis, this chapter explores the methodological context: the place of GIS in historical study and the specific methodological processes of data collection and analysis used to produce the GIS model.

Because GIS is a versatile system with many uses, its exact definition has been subject of debate. However, Nick Chrisman offers a sufficiently general description in his book *Exploring Geographical Information Systems*:

The organized activity by which people: 1) measure aspects of geographic phenomena and processes; 2) represent these measurements, emphasize spatial themes, entities, and relationships; 3) operate upon these representations to produce more measurements and to discover new relationships by integrating disparate sources; and 4) transform these representations to conform to other frameworks of entities and relationships. These activities reflect the larger

context (institutions and cultures) in which people carry out their work. In turn, the GIS may influence these structures.⁴

Four distinct features facilitate this process. The first is a network, which allows users to share digital information between workstations. On a global scale, this is achieved over the Internet, but individual offices and agencies often have smaller networks that allow localized transfer of information. Second is data, the digital information shared over the network or collected and organized by the user. A considerable amount of data is available for free download on national, state, and local government websites, but some is sold for profit through private agencies. Third is the hardware, the equipment with which the user interacts when performing GIS operations. The most basic form of hardware is the computer, though users may also employ equipment like scanners or digital tablets for data input. The fourth and final component of GIS is software, the program that runs on the computer.⁵ The most widely used GIS software is ArcGIS, produced by Environmental Systems Resource Institute (ESRI), but other main players include Integraph, Autodesk, and GE Energy.⁶

Although maps and other forms of geographic data have existed for thousands of years, GIS in the modern sense has only been around since the 1960s. In 1963 Canadian researchers initiated the development of the Canada Geographic Information System, a computerized system designed to determine area and distance measurements on paper maps. Later that decade the U.S. Bureau of the Census developed the Dual Independent

⁴ Nick Chrisman, *Exploring Geographical Information Systems* (Hoboken, N.J.: John Wiley & Sons, 2003), 13. For a detailed examination of GIS definitions see Nick Chrisman, "What does 'GIS' mean?" *Transactions in GIS* 3, no. 2 (1999): 75-186.

⁵ Paul A. Longley and others, eds., *Geographic Information Systems and Science* (Hoboken, N.J.: John Wiley & Sons, 2005), 18-24.

⁶ Longley, *Geographic Information Systems*, 165-67.

Map Encoding (DIME) program to create a digital record of all U.S. streets, a basic framework on which census data could be attributed. Realizing the innovation in both these programs, developers soon recognized the potential of a computerized system that could manage both measurable and attributable data. This challenge led the Laboratory for Computer Graphics and Spatial Analysis to create the first general-purpose GIS, ODYSSEY, in 1977. Meanwhile, advances in computer-generated maps and data collection tools expanded the possible applications promised by emerging GIS technology. The United Kingdom's Experimental Cartography Unit (ECU) produced the first computer-made map in 1973, and by the end of the decade most cartographic agencies had invested heavily in computerized map production. The United States pioneered large-scale data collection with the launch of the world's first remote sensing satellite, Landsat 1, in 1972, and the installation of the Global Positioning System (GPS) completed in 1985. By the 1980s, advances in computer hardware, software, and network technologies, coupled with the moderating costs for these technologies, led to the proliferation of GIS in the private sector. Soon, fields from engineering to the natural sciences utilized GIS to advance their operational and research agendas.⁷

Historians were slow to realize the potential for GIS analysis in their research, and its use in the field remains limited. This is due in part to the field's long-held fascination with political and military power structures at the expense of more intangible themes like

⁷ Longley, *Geographic Information Systems*, 16-21. For more information about the history of GIS, see T.W. Foresman, *The History of Geographic Information Systems: Perspectives from the Pioneers* (Upper Saddle River, N.J.: Prentice Hall, 1998); R.F. Tomlinson, "The Impact of the Transition from Analogue to Digital Cartographic Representation," *The American Cartographer* 15 no. 3 (1988): 249-261. J.T. Coppock and D.W. Rhind, "The History of GIS," in *Geographical Information Systems: Principles and Applications*, eds. D.J. Maguire, M.F. Goodchild, and D.W. Rhind (London: Longmans Publishers, 1991), 21-43.

place. Among the first historians to consider place, region, and physical environment as historical subjects were the adherents of the *Annales* school, formed in 1920s France.

The *Annalistes'* geography-centered scholarship, known as *geohistoire*, grew out of their general emphasis on social rather than political themes. Another influential field in the development of historical GIS is historical geography, the study of change in rural and urban landscapes and the social and economic factors responsible for that change.

Though many historians are familiar with historical geography, they have been slow or resistant to adopt its methods; the idea that history is the study of when, geography the study of where remains a powerful dichotomy for scholars in both fields. A pioneering attempt to integrate these two approaches was through “spatial history”, a term coined by Australian historian Paul Carter in 1987. This body of literature sought to explain historical themes like poverty, homelessness, and migration in terms of spatial factors like urban growth, transportation development, and geographic accessibility. While these fields provided intellectual context for historical GIS, their analyses were largely textual in nature and lacked the visual component now offered by computer-generated mapping.⁸

Other history-related fields embraced the use of GIS, providing historical GIS with a technological context. Drawn to GIS by its ability to creatively depict human settlement patterns and accurately record site measurements, archaeologists were among the first humanities scholars to use the technology, beginning in the early 1980s. More

⁸ Anne Kelly Knowles, “GIS and History” in *Placing History: How Maps, Spatial Data, and GIS Are Changing Historical Scholarship*, ed. Anne Kelly Knowles (Redlands, Cal.: ESRI Press, 2008), 2-6. The use of geography in *Annales* scholarship is explained in Lucien Febvre and others, *A Geographical Introduction to History* (London: Kegan Paul, Trench, Trubner & Co., 1925). The changing relationship between history and geography is examined in R.H. Baker, *Geography and History: Bridging the Divide* (Cambridge: Cambridge University Press, 2003).

recently, advancements in imaging and Internet technologies have led to the popularity of “visual history” and “digital history”: electronic publications that make extensive use of pictures and maps to enhance textual information. Often these sources are integrated using GIS technology to create an interactive visualization that spatially references documents, images, and data. The intellectual and technological comparison of historical and spatial data has encouraged historians to increasingly consider “where” in their traditionally “when”-centered study, a trend that is beginning to manifest itself in the use of GIS in historical scholarship.⁹

Though many historians had already realized the significance of spatial information in their study, the truly integrated approach termed historical GIS did not gain prominence until 2000. That year the journal *Social Science History* published an entire issue dedicated to the use of GIS in the study of history. Edited and introduced by Anne K. Knowles, the issue offered five GIS-based case studies that addressed issues concerning demography, economy, transportation, culture, and migration in places as varied as China and Wales. The issue ably demonstrated the applicability and versatility of GIS in the study of history and offered an early definition of historical GIS:

In structure, it is the same as other kinds of GIS, which all essentially consist of a spatial database that integrates map-based information about the historical location of certain entities (such as census districts, industrial firms, or rivers) with quantitative or qualitative information about those entities (such as population, product, or level of pollution). The key difference between historical GIS and the vast majority of GIS practiced today is that its source data typically include archival material that must be converted from analog to digital form.¹⁰

⁹ Knowles, "GIS and History," 5-7.

¹⁰ Anne Kelly Knowles, "Introduction," *Social Science History* 24, no. 3 (2000): 452.

Knowles followed the success of the *Social Science History* issue with another edited work, *Past Time, Past Place: GIS for History*, in 2002. Printed in full-color, the book was published by ESRI, the creators of ArcGIS, indicating that perhaps historical GIS was not only gaining respect as an academic practice, but promised to be a profitable market for GIS software companies. Ian Gregory, an English geographer, edited his own collection of historical GIS scholarship in a 2003 edition of Edinburgh University's *History and Computing*. Knowles produced another collection of case studies in historical GIS in 2005, this time for the journal *Historical Geography*. Finally, in 2008 ESRI Press published *Placing History: How Maps, Spatial Data and GIS Are Changing Historical Scholarship*, the most focused and authoritative work on historical GIS to date. More ambitious than Knowles' earlier book, *Placing History* offers more evolved ideas about historical GIS, its lineage, potential, and drawbacks, as well as a supplemental CD containing presentations, animations, and GIS data. It also provides a more concise definition of historical GIS, attributing the following characteristics to its practice:

1. Geographical questions drive a significant part of the historical inquiry.
2. Geographical information provides a good share of the historical evidence.
3. The bulk of evidence, or the evidence that provides the study's key analytical framework, is structured and analyzed within one or more databases that record both location and time.
4. Historical arguments are presented in maps as well as in text, graphs, tables, and pictorial images; maps serve in particular to show patterns of change over time.¹¹

With a foreword composed by eminent Stanford University historian Richard White, *Placing History* serves as a clear indication of historical GIS' emergence as a mainstream methodology in historical study.

¹¹ Knowles, "GIS and History," 7.

The increasing popularity of GIS in the creation of historical scholarship is best attributed to the analytical and visual advantages offered by the method.¹² First, GIS is particularly well adapted for compiling numerous sources into one extensive, informative resource. Today's GIS software operates on the basic concept of data layering. Information from a variety of sources – including political boundaries, satellite imagery, and population statistics – can be imported into the program, given geographic coordinate data, and compared with regard to spatial and temporal relationships.¹³ Another advantage of GIS is its ability to create detailed and informative visualizations from layered data, a function that can add an enlightening visual dimension to the traditionally textual practice of historical research. Archivists in particular have used GIS to enhance their indexing techniques, using a map interface to spatially reference manuscripts, photographs, and other documents. Other scholars have utilized GIS' advanced visualization techniques to view historical maps in three dimensions or recreate past landscapes unrecognizably altered by modern development.¹⁴ In addition to the abilities to compile and visualize data, GIS is particularly adept at analyzing that data. In 1854, Dr. John Snow famously used a simple analysis of spatial patterns to map cases of a cholera outbreak in London and discover its source, but today's GIS software allows historians to examine much more complicated relationships in events as diverse as the Salem witch trials and the Dust Bowl. A versatile system, GIS can make simple

¹² Ian N. Gregory, Karen K. Kemp, and Ruth Mostern, "Geographical Information and Historical Research: Current Progress and Future Directions," *History and Computing* 13, no. 1 (2003): 11-12.

¹³ Ian N. Gregory, *A Place in History: A Guide to Using GIS in Historical Research*. (n.p., 2005), 27; Gregory, Kemp, and Mostern, "Geographical Information and Historical Research," 10.

¹⁴ Gregory, Kemp, and Mostern, "Geographical Information and Historical Research," 12-15; Knowles, *Past Time, Past Place*, 1-18.

measurements of distance and area, but can also perform more advanced spatial operations like interpolation and distribution analysis.¹⁵ According to historian David J. Bodenhamer, such advantages in data analysis, as well as integration and visualization, allow GIS to offer “an alternate view of history through the dynamic representation of time and place within culture.”¹⁶

Although the application of GIS in the study of history looks promising, some scholars question the technique, feasibility, and even necessity of the approach. The technical and mathematical nature of GIS is enough to discourage many historians from embracing the new method. Purveyors of the past in more ways than one, historians are known not only for their study of the past, but their use of its technology. Luddite scholars who still show maps on overhead projectors are unlikely to dive head first into the technical world of computer mapping. If GIS’s long and sometimes difficult learning curve does not deter more savvy historians, the costly investment in hardware and software it requires often does.¹⁷ Another concern is the viability of historical data in GIS visualization and analysis. Historical sources are often complex, uncertain, or incomplete, making it them very difficult to translate into the precise, comprehensive, tabular data necessary for traditional GIS operations. For example, spatial data in historical texts may be expressed as “a day’s walk from town” or “within sight of the

¹⁵ Gregory, Kemp, and Mostern, “Geographical Information and Historical Research,” 15-16; Knowles, *Past Time, Past Place*, 19-34, 93-104.

¹⁶ David J. Bodenhamer, “History and GIS: Implications for the Discipline” in *Placing History: How Maps, Spatial Data, and GIS Are Changing Historical Scholarship*, ed. Anne Kelly Knowles (Redlands, Cal.: ESRI Press, 2008), 231.

¹⁷ Knowles, “GIS and History,” 2; Gregory, *A place in history*, 14-15.

mountains” – hardly enough information to establish specific geographic coordinates.¹⁸ Some historians question the very presence of geographic inquiry, and thus GIS analysis, in historical scholarship. They see a clear divide between history and geography: the former is the study of when while the latter is the study of where. According to these scholars, approaches that attempt to bridge this divide between the narrative and the visual, the emphasis of periodization that of spatial differentiation, fail to adequately address the questions of either discipline. Other historians fear that the increased use of GIS, a traditionally scientific tool, might initiate a reemergence of positivism in historical scholarship, given the roots of the practice in engineering and the natural sciences.¹⁹ But with historical GIS still in its infancy, its promoters are mindful of these concerns and are working to develop a methodology compatible with the demands of the history discipline. “This can be achieved,” notes Ian Gregory and his coauthors, “as long as historians demand that the tools and techniques offered by GIS are appropriate to their research questions and data, and that they use the technology in a careful, informed manner that yields both sound scholarship and interesting methodological challenges.”²⁰

With an interdisciplinary approach that relies heavily on spatial characteristics, this project seeks to supplement the emerging field of historical GIS with an analysis focusing on environment and leisure in Jackson Hole, Wyoming. As mentioned in the first chapter, numerous historians have noted the economic transition from extractive industry to tourism in many western towns, a phenomenon that Hal Rothman termed a

¹⁸ Knowles, "GIS and History," 2; Gregory et. al., "Geographical Information and Historical Research," 17-18.

¹⁹ Knowles, "GIS and History," 3; Gregory, *A Place in History*, 83.

²⁰ Gregory, Kemp, and Mostern, "Geographical Information and Historical Research," 21.

“devil’s bargain.” But outside a textual analysis of a few case studies, little work has been done to show specifically how this economic change occurs and exactly what these changes say about tourism and its environmental impact. Given the spatial characteristics of land development and property boundaries, and the geographic limitations placed on human expansion in Jackson Hole, GIS is particularly well suited to document and examine this change. In many ways it might even be the superior approach for this type of developmental analysis; Knowles argues that “[v]isualization is essential to understanding how elements of the urban fabric change over time” because of its superior ability to display and draw attention to patterns within their geographic context.²¹

The four characteristics of historical GIS suggested in Knowles’ *Placing History* provide an excellent framework in which to explain the methodology of this project. First, Knowles insists that “geographical questions must drive a significant part of the historical inquiry.” In the introductory chapter I posited two main historical questions: How did tourism manifest itself in Jackson Hole during this period and what were the consequences of this development? The first question, which is the basis of chapter three, I sought to answer by asking a number of geographically-oriented questions. How rapid was commercial and residential development? Where did this development occur? What were the spatial characteristics of the developed parcels? I answer the second question, which guides chapter four, in much the same way. How did spatial characteristics influence real estate prices? Did development encroach on delicate ecological areas? At what point did development spark environmentally-conscious policies? Such spatially motivated questions, comprehensively and enlighteningly

²¹ Knowles, “Introduction,” 459-460.

answerable through GIS analysis, do not detract from, but rather enhance the level of historical inquiry in this thesis.

The second characteristic Knowles proposes for historical GIS research is that “geographical information provides a good share of the historical evidence.” Such information is central to the conclusions of this thesis, which are derived almost entirely from a GIS model of land development in Jackson Hole. The conceptualization of this model, however, was no easy task; while current GIS data is abundant and easily accessible online, historical data is scarce and often incomplete. Parcel ownership data, produced by Greenwood Mapping, Inc. on behalf of Teton County, only provides a record of property ownership for the current year. The County Clerk’s office maintains older records dating to the early 1900s, including deed records and subdivision plats, two sources I considered when conceptualizing the GIS model. The deed records list the dates and participants of land transactions, but offer little spatial information. The subdivision plats provide ample spatial information in the form of survey maps, but because they record only property subdivision and not sale, they offer an incomplete record of land provenance in the county. After a complete review of available sources, I decided the most useful data for the purposes of this thesis was a series of historical aerial photographs taken over Jackson Hole from 1967 to 2002. Combining this historical data, already digitized by Greenwood Mapping, Inc. and the United States Geological Survey (USGS), with present-day data, readily available on the Teton County website, created the best balance between breadth of analysis and efficiency of data collection.

GIS data falls into two main categories: raster and vector, both of which I used to construct my computer model. Raster data represents the world as a tiny mosaic of

square cells, or pixels, a form common to satellite photography and other remote-sensing imagery. Aerial photographs of Jackson Hole, dating from 1967 to 2002, represent the largest set of raster data I used in this thesis and the heart of the GIS analysis.²² The only other data of this type I used were Digital Elevation Models (DEMs), satellite images from which the computer can interpret elevation.²³ Vector data, commonly referred to as “shapefiles” represent the world as a series of points, lines, and polygons, and is often used to represent political and environmental data like county boundaries and rivers. All of the vector data used in this project is current; its main function is to supplement and enhance the historical aerial photographs. The most crucial vector layer I employed in my GIS model is Teton County’s 2008 land ownership layer, which displays land ownership polygons and condominium points as well as ownership and address from the Assessor's tax roll.²⁴ Other layers I used include census block groups, bodies of water, highways, public land boundaries, and wetland areas.²⁵ By using both types of data together, I was able to formulate a creative and informative GIS model from which I was able to draw more compelling conclusions.²⁶

Thirdly, Knowles suggests that in historical GIS research, “[t]he bulk of evidence, or the evidence that provides the study’s key analytical framework, is structured and analyzed within one or more databases that record both location and time.” Analytically speaking, this is what makes this thesis so different from a traditional history thesis; the

²² These images can be found online at <<http://maps.tetonconservation.org/>>.

²³ These images can be found online at <<http://www.sdvc.uwyo.edu/24k/dem.html>>.

²⁴ The most current version of this layer can be found online at <<http://www2.tetonwyo.org/gis/download/Default.asp>>.

²⁵ These layers can be found online at <http://wgiac.state.wy.us/scripts/extent/county.aspx?Area_ID=3877>.

²⁶ Longley, *Geographic Information Systems*, 74-76.

primary sources I used are not one-dimensional census figures or quotations from diaries grounded mainly in time. They are aerial photographs that show not only when land development occurred in Jackson Hole, but also where it occurred. And just as duration or frequency can be interpreted from “when,” so can distance, area, or density be determined from “where.” The added spatial dimension, and all the information that can be interpreted from it alone and in conjunction with the temporal dimension, gives this thesis a feature that most environmental histories and tourism histories, and all Jackson Hole histories lack.

Because I was dealing with limited historical data, I had to devise creative ways to extract the most information from what little I did have. I began this process by downloading sets of aerial photographs of Jackson Hole from the following years: 1967, 1977, 1978, 1983, 1989, 1994, and 2002. Greenwood Mapping, Inc., Teton County’s GIS contractor, supplied the first five of these sets, which each contained four to fourteen digitized images in the Wyoming West Zone State Plane projection, North American Datum of 1983, the projection and datum I adopted as the basis for the model. The latter two sets came from the USGS, which provided digitized aerial photography for the most of the United States, including the eleven images that offered complete coverage of Jackson Hole. I supplemented this data with a tourist photograph, taken circa 1965, showing two skiers riding the ski lift above the town of Jackson. This addition was necessary because the collection of aerial photographs from 1967 did not include any coverage of the town, an important center of commercial development in Jackson Hole. However, this photo provided a bird’s-eye view of Jackson as opposed to an aerial image, meaning objects in the foreground of the tourist photo appeared much larger than similar-

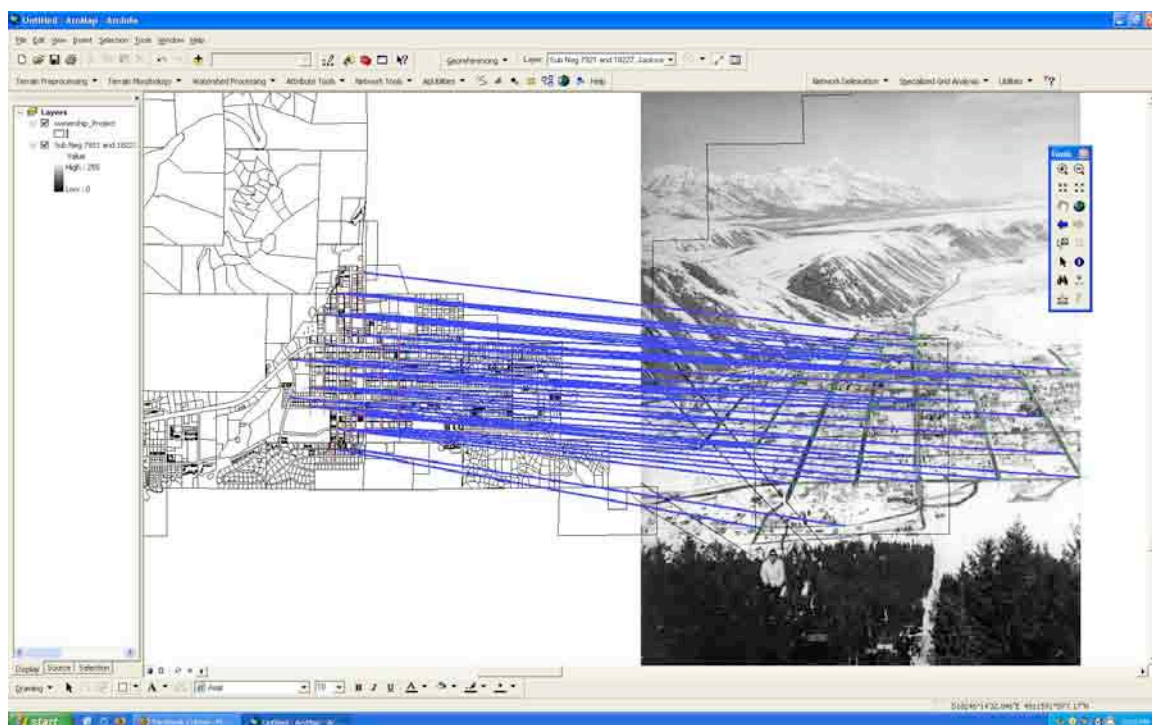


Figure 2-1. Matching intersections in the tourist photograph with intersections on the land ownership map.

sized objects in the background. To compensate for this incompatibility, I used a process called “georeferencing,” a method by which images or other data are assigned geographical information. Using a spatially referenced Teton County land ownership layer, I was able to match street intersections in the photograph with intersections on the ownership map (Figure 2-1). I then snapped the image to the map, using a sinusoidal algorithm to morph the photograph in a manner that narrowed elements of the foreground and expanded elements of the background (Figure 2-2). After completing this process, the bird’s-eye view image represented features in Jackson much same way as the aerial photographs (Figure 2-3). This ordinary tourist photograph is the kind of “less formally structured” data that Ian Gregory observes are “stock in trade for most historians” but “often contain a wealth of spatial information.” “If the location represented in a

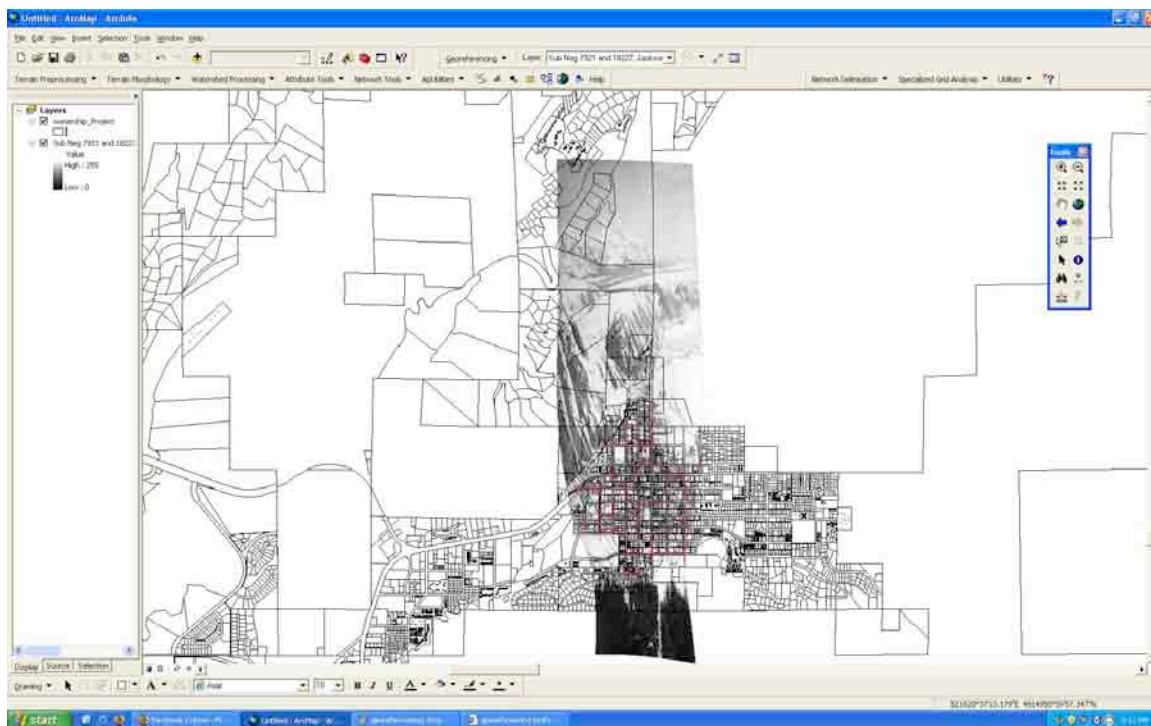


Figure 2-2. Tourist photograph snapped to land ownership map.

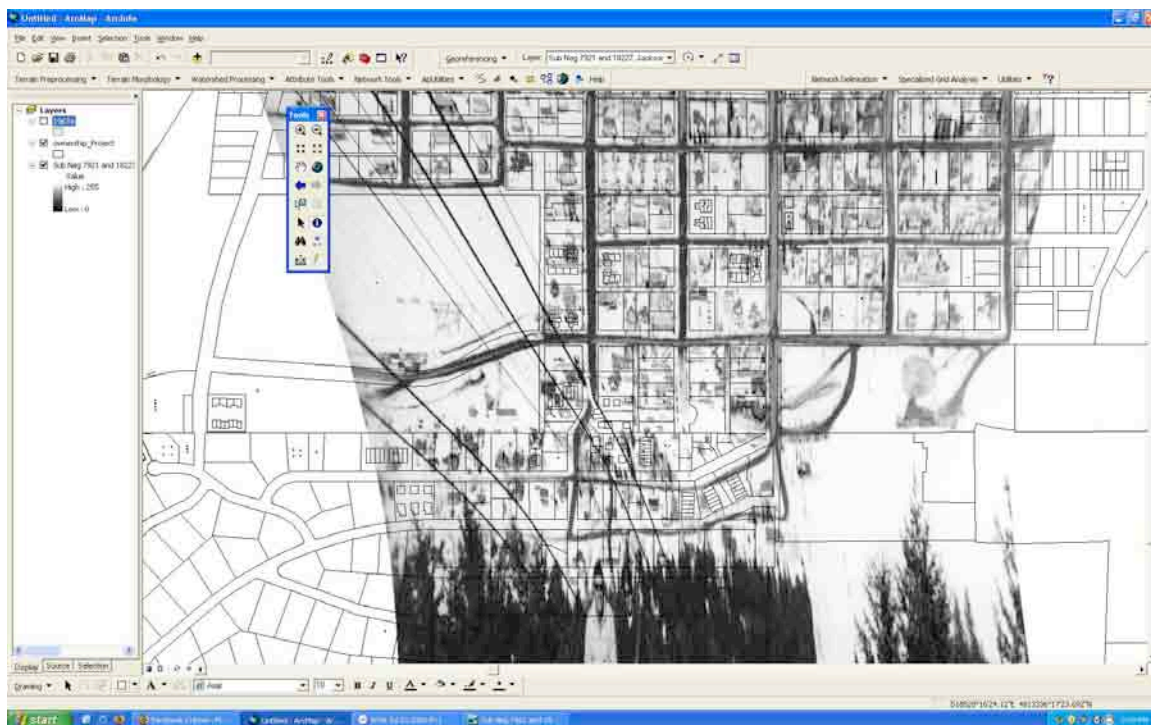


Figure 2-3. Detail of tourist photograph snapped to land ownership map.

photograph can be determined,” he notes, “then the photograph itself is a form of geographical information.”²⁷

Because the coverage for each year was not spatially congruent, I had to determine a study area common to each series of aerial photographs. First, I created seven new vector polygons that outlined the extent of each set of images. Noticing that coverage from 1967 was considerably smaller than any other year, I decided to independently compare that set with 1977 and 1978, allowing me to create a much larger study area for the years 1978 to 2002. To determine the common study area for each of these two groups, I used an overlay operation known as an “intersect,” which produced a new polygon file that indicated where each set of aerial photographs overlapped, or “intersected.”²⁸ I then had two study areas, one for the years 1967 to 1977, and the other for the years 1978 to 2002 (Figures 2-4 and 2-5).

Once I determined the study areas, I began to examine the photographs for changes in land development. To do this, I first imported the Teton County land ownership map, which provided current property boundaries and classified land parcels as commercial, residential, or some type of public land (Figure 2-6). Because the latter category included land that belonged to federal, state, and local governments that did not necessarily represent tourist growth, I left it out of my analyses. I wanted to focus mainly on commercial and residential development, essential indicators of the transition from an agricultural economy to a tourist economy. With the land ownership file layered on top

²⁷ Gregory, Kemp, and Mostern “Geographical Information and Historical Research,” 9.

²⁸ According to ArcGIS Desktop Help, an intersect operation “[c]omputes the geometric intersection of two coverages. Only those features in the area common to both coverages will be preserved in the output coverage.”

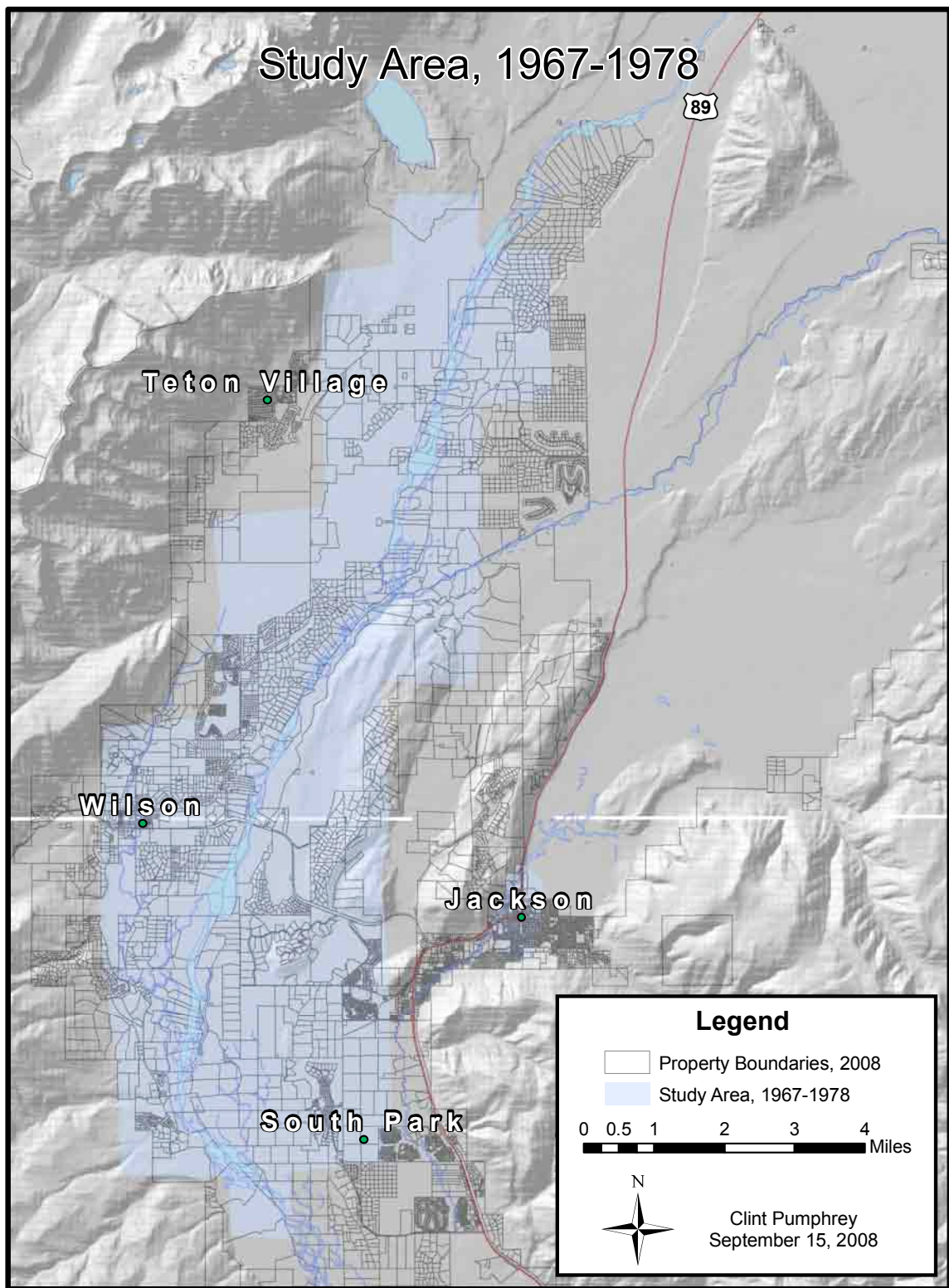


Figure 2-4. Study area, 1967-1978.

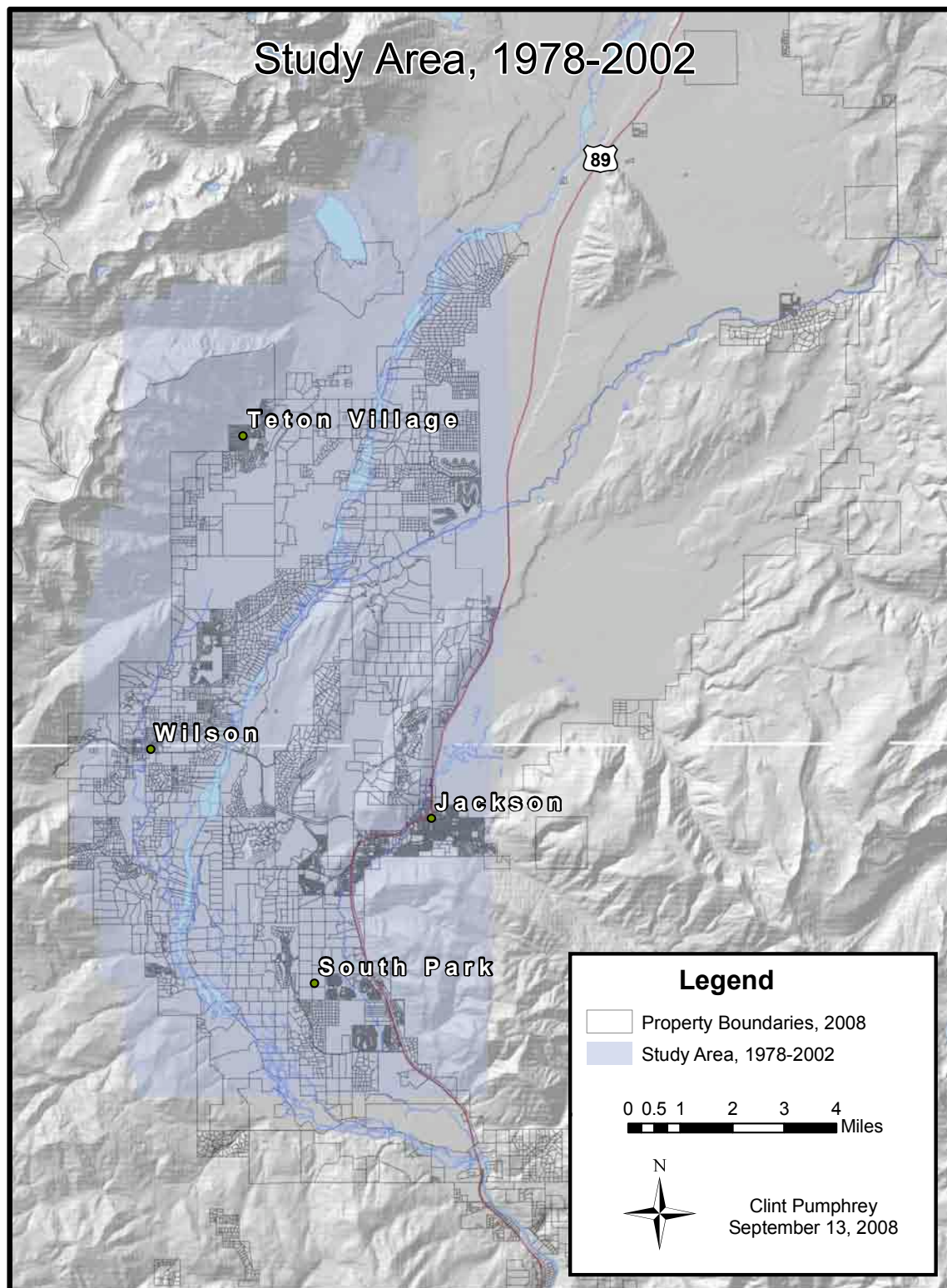


Figure 2-5. Study area, 1978-2002.

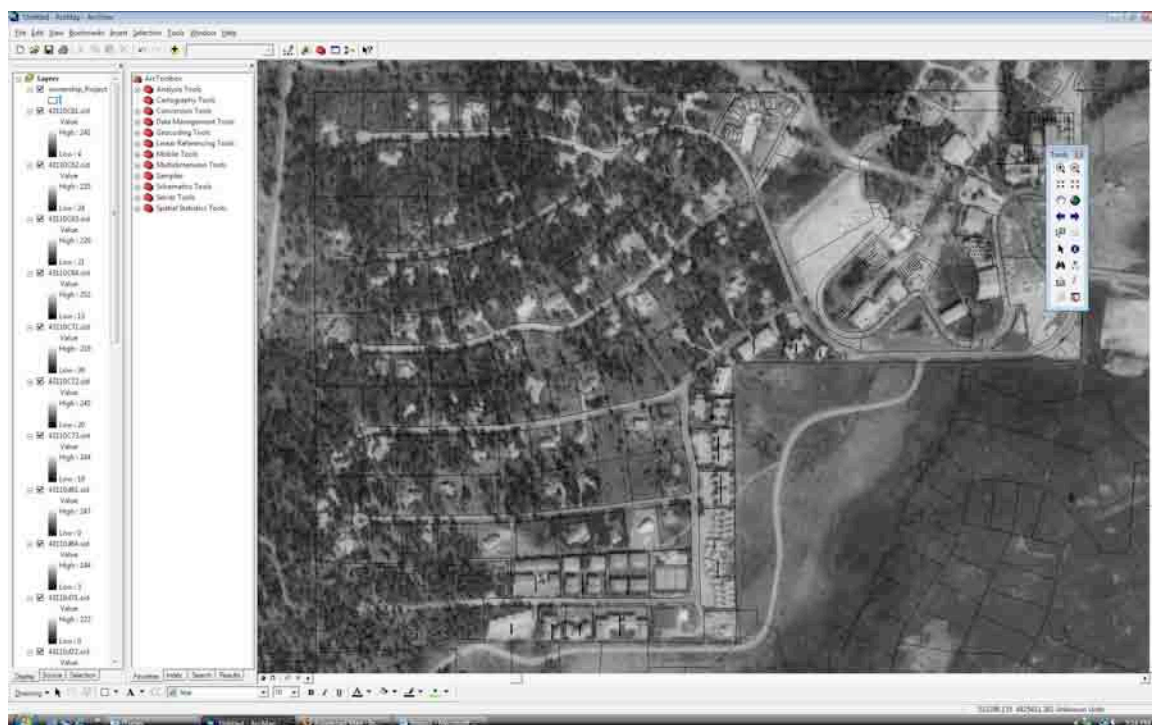


Figure 2-6. Layering the land ownership map over an aerial photograph from 1994.

of the aerial photographs, I was able to see if buildings or houses had been erected inside each land parcel. I then scanned the property boundary map in its entirety looking for such development and when I observed it, I selected the parcel (Figure 2-7). When I finished, I exported the selection to a new shapefile, creating a layer that represented all developed land parcels identified in that particular set of aerial photographs (Figure 2-8). I repeated this process for each year, creating a total of seven development layers from which I could determine the number of newly developed parcels, their area, and their current county zoning designation. This data was characterized not only by location and time, as Knowles suggested, but also by quantitative and qualitative attributes that could be analyzed in a number of creative ways.

While I feel this methodology yielded the most accurate and extensive conclusions possible given the limited availability of data, there were some possible sources of error.

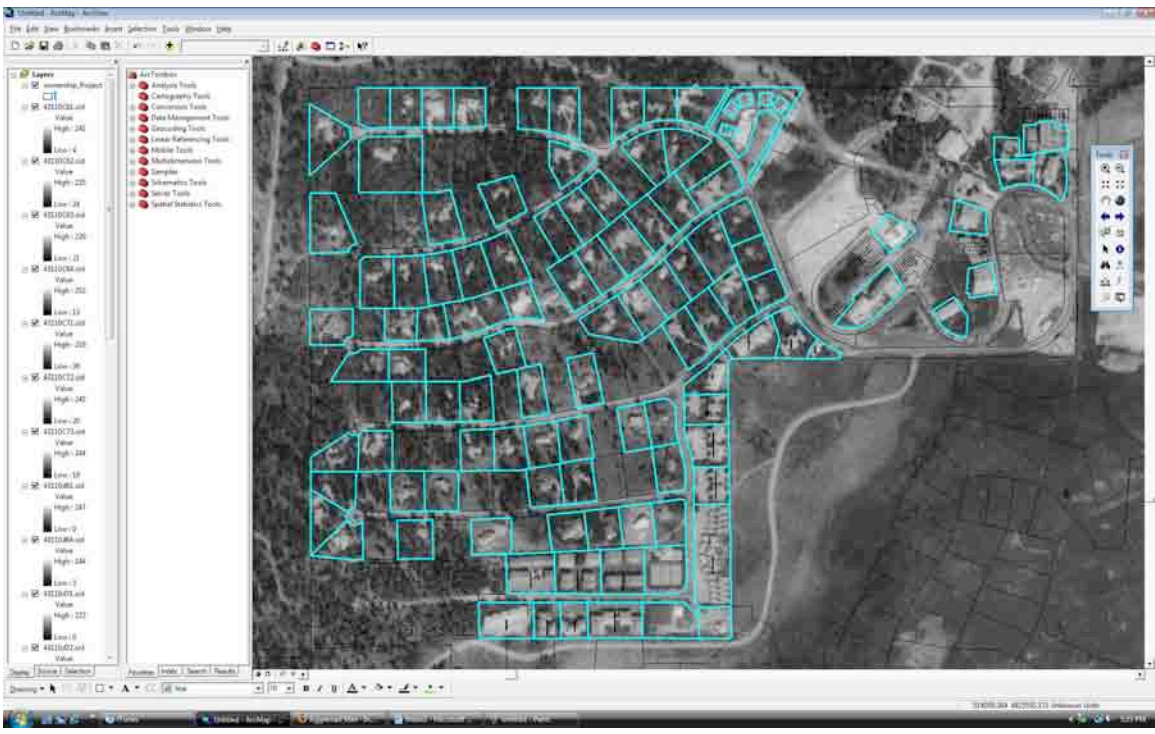


Figure 2-7. Selecting land parcels with observable development.



Figure 2-8. Exporting selected parcels to create a new layer that represents parcels with new development.

One problem was the limited coverage provided by the sets of aerial photography. While at least one set extended to every part of Jackson Hole's public land, the common study area left out some crucial areas of development. This proved most problematic in the 1967-1978 study area, which did not extend to Teton Village or Hoback Junction, and did not include all development in South Park or the Town of Jackson. The coverage for the 1978-2002 study area was much more complete, but still did not reach the southern end of the valley, including Hoback Junction. Another source of error was the actual identification of development on the aerial photographs. Often the presence of homes and other structures was obvious, but on rare occasions low image resolution or physical obstruction by trees or shade made identifying buildings somewhat uncertain. Since I am no expert on the interpretation of aerial photography I cannot verify the complete accuracy of my examination, but I feel my ability is sufficient to yield reliable results. Possibly the most relevant source of error involves the assumption of consistent parcel extent and classification over the last forty years. As mentioned earlier, I used a Teton County land ownership map created in 2008 to determine property development over that last four decades. This means I had to accept two main assumptions: that properties zoned commercial and residential in 2008 were used for similar purposes when they were first developed and that property boundaries also remained relatively consistent after initial development. While these assumptions were admittedly problematic, I believed my methods provided a creative way to accurately interpret a small set of available data.

Knowles' last guideline for historical GIS was that "[h]istorical arguments are presented in maps as well as in text, graphs, tables, and pictorial images; maps serve in particular to show patterns of change over time." As the table, images, and maps in the

first two chapters have already made clear, illustrations are indispensable tools of explanation in this thesis. Illustrating processes or change over time, these figures are not mere supplements to the text, but show actual spatial characteristics that are impossible to exhibit with words. The next chapter, which provides both a visual and textual analysis of Jackson Hole land development as visualized with GIS, relies heavily on such illustrations.

Exploiting the analytical advantages offered by an emphasis on spatial characteristics while remaining mindful of the method's limitations, this project seeks not only to be a significant contribution to the history of Jackson Hole, but also to the general field of leisure and tourism history and historical GIS scholarship. As a history of Jackson Hole, this thesis elucidates the transition of agricultural land to tourist-related commercial and residential development specific to that valley: a shift from potatoes to powder skiing and from hay to houses. But this study has larger implications. While scholars like Earl Pomeroy, Hal Rothman, Patrick Long, and Annie Gilbert Coleman have long explored the social and cultural implications of an emerging tourist economy, none have attempted to analyze the specific spatial characteristics of such a change. This is the goal of this GIS analysis, to observe and dissect, rock by rock, what Rothman called the "tailings" of the tourist industry: "real estate development, the gobbling up of open space in narrow mountain valleys, the traffic and sprawl of expansive suburban communities, and the transformation of the physical environment into roads and reservoirs that provide activity and convenience for visitors."²⁹ While this chapter set the intellectual and methodological framework for this process, the next chapter executes it

²⁹ Rothman, *Devil's Bargains*, 13.

using visual analysis and statistical observations to inform the historical processes at work in Jackson Hole's tourist development over the last four decades.

CHAPTER 3

TOURIST DEVELOPMENT AND THE CHANGING TOURIST

In 2008 the weekly *Jackson Hole News & Guide* invited readers to propose a new welcome slogan for the valley that might replace the outdated greeting at Teton Pass: “Howdy, stranger, yonder is Jackson Hole, the last of the Old West.” Some of the paper’s own suggestions and the responses they solicited provided more economic and social satire than anything the Chamber of Commerce would want to engrave in a faux-rustic billboard. Among the paper’s cheeky recommendations were “Our chai complements your chi,” or “Jackson Hole, where California plays and Mexico works.”¹ Clearly, the image that the tourist industry once sought to portray has largely disappeared under the foundations of sushi bars and three-story vacation mansions. Tourists are often more impressed by hot stone massages at the foot of the Tetons than an “Old West” shootout in downtown Jackson. They prefer snowmobiles to sleigh rides, gourmet restaurants to wild game, and climate-controlled condos to drafty log cabins. At the heart of these changes is a fundamental shift in the kind of tourists who come to Jackson Hole, and the way this has modified tourist communities. This process of change is a central aspect of the “devil’s bargain” described by Hal Rothman:

Tourism complicates; it defines and redefines life after industrialization. It is different yet the same. Western tourism sells us what we as a nation of individuals need to validate ourselves, to make us what we want to be. In that process, we as tourists change all that we encounter.²

¹ Betsy Marston, “Heard Around the West,” *High Country News*, 18 February 2008, <<http://www.hcn.org/issues/364/17529>>.

² Hal Rothman, *Devil's Bargains: Tourism in the Twentieth-Century American West* (Lawrence: University Press of Kansas, 1998), 27-28.

This suggests that specific changes in Jackson Hole's land development are essentially a result of changing tourist characteristics, needs, and desires. Working from this assumption, this chapter examines the tangible growth shown in the GIS model to enlighten the intangible changes in tourist identity. This is the culmination of the historical, intellectual, and methodological context provided in the two previous chapters, a historicized analysis of spatial characteristics in Jackson Hole tourist development over the last four decades.

By the 1960s, tourism already had a firm hold on the Jackson Hole economy, but it was still a very different valley from the one that emerged several decades later. A continued reliance on agriculture, the consistent promotion of Jackson as an "Old West" town, and the dominance of auto tourism are characteristics no longer fully associated with tourism in Jackson Hole. These early features of Jackson Hole's tourist economy are evident through a careful examination of land use patterns and related statistics from this period.

Agriculture maintained an important presence in the valley through 1969, the last year that local farmers harvested a significant yield of potatoes, oats, and wheat. That year these crops accounted for approximately two-thirds of the total agricultural production in the valley; by 1974 their yields dropped to one-third of the total production before essentially disappearing from Jackson Hole's tillage. The national Oil Crisis probably accelerated this decline, drastically increasing the cost of transporting crops to markets outside the valley. Because agriculture was already just a marginally profitable industry in Jackson Hole, the crisis either put farmers out of business or forced them to

grow the only crop in local demand: barley, which fed the valley's remaining cattle.³ But in the 1967 study area, 27,139 of the 27,969 acres of private land, or 97%, remained either agricultural or undeveloped. Commercial and residential development was still centered in and around Jackson and Wilson, leaving much of Jackson Hole sparsely developed or completely void of development.⁴ Such characteristics describe a valley still connected to its original roots as a Mormon agricultural community even as an increasing number of tourists arrived to enjoy its scenery and amenities.

Ironically, local businessmen used Jackson Hole's declining agricultural economy to draw auto tourists to its emerging service economy, invoking images of rugged cowboys and their stampeding cattle to promote tourism in the valley during the 1960s. Many of the valley's businesses embraced this western motif, assuming names like D.D. Camera Corral, The Stirrup Malt Shop, and the Silver Spur Café. Stagecoaches, saddled horses, and gunfighters graced the cartoon tourist maps of the time.⁵ Nowhere was this Old West theme more apparent than in the valley's promotion of dude ranching as one of its primary tourist attractions. A 1997 National Register of Historic Places nomination suggested that Jackson Hole's dude ranches "reflected the deliberate attempt (culturally rather than environmentally imposed) to create a 'Western style' attractive to eastern guests."⁶ This strategy was at its height in the late 1940s when Jackson Hole boasted

³ U.S. Bureau of the Census, *U.S. Census of Agriculture: 1925-2002*, Washington: Government Printing Office, 1926-2003.

⁴ See Appendix for maps showing commercial and residential development between 1967 and 2002.

⁵ *Jackson Hole Guide*, August 1960.

⁶ Amanda Rees, "'A Classless Society'" Dude Ranching in the Tetons 1908-1955," *Annals of Wyoming* 77, no. 4 (2005): 4 quoting United States Department of Interior National Park Service, National Register of Historic Places, Grand Teton National Park Multiple Property Submission, November 20, 1997, p. 70.

around 20 dude ranches where tourists could stay for extended vacations, ride horses, and hunt wild game for \$38 to \$154 per week. The industry was in the early throes of decline during the 1960s, a victim of progressively higher land values in Jackson Hole and increasingly sedentary tourists with rising expectations, but it remained a central tool in the promotion of the valley's "western" flavor.⁷

Tourist development in Jackson Hole during the 1960s was largely a product of post-World War II auto tourism. During the post-war period, the American middle class grew rapidly, providing an increasing number of tourists with the time and money to drive to and stay in vacation destinations throughout the West, including Jackson. Improvements in transportation infrastructure, which were embodied nationally by the construction of the interstate system and locally by the improvement in area highways, further encouraged American vacationers. During the 1930s, both the federal and state government funded significant road improvements in Jackson Hole, including the construction of a road through Togwotee Pass to the east and the Snake River Canyon to the south.⁸ Grand Teton National Park's visitation statistics reflect the significance of increased automobile travel during this period; between 1950 and 1965 the number of tourists entering the park increased dramatically, from 189,286 to 2,507,900.⁹ The national trend toward motel courts was also reflected in Jackson Hole, offering tourists

⁷ University of Wyoming Recreation and Tourism, *Be Our Guest: Dude Ranching in Wyoming*, Spring 2003, <<http://digital.uwyo.edu/webarchive/trgrants/2003/ranch/ranch.htm>> (11 January 2009); John Daugherty, *A Place Called Jackson Hole: A Historic Resource Study of Grand Teton National Park* (Moose, Wyo.: Grand Teton Natural History Association, 1999), 248.

⁸ Lawrence Culver, "Resorting to Tourism: The Town and the Valley of Jackson, Wyoming, through the 1950s" (M.A. Thesis, Utah State University, 1997), 88-90.

⁹ U.S. Department of the Interior, National Park Service Public Use Statistics Office, *NPS Stats*, 2008, <<http://www.nature.nps.gov/stats/>> (23 September 2008).

comfortable accommodations once unaffordable to middle class travelers. The 1960 *Jackson Hole Guide* advertised seven such motels with folksy names like the Pines Motel and the Lazy Bar G Motel. Still, Jackson Hole remained a relatively underdeveloped haven for auto tourists during the 1960s, but an accessible highway infrastructure and modern accommodations laid the foundation for rapid expansion over the next four decades.¹⁰

In other ways 1960s Jackson Hole was beginning to look very much like the modern, developed tourist destination of today. Park visitation rose exponentially during the 1950s and 1960s, leveling off at numbers sustained for the next several decades. Outside investors had just begun to realize the potential of commercialized skiing in Jackson Hole, and at least one airline offered daily flights into the valley. Such characteristics created a foundation for the highly commercialized, rapidly developed brand of industrial tourism that would come to dominate Jackson Hole's economy over the next four decades.

A major catalyst for tourism development in Jackson Hole was the creation of Grand Teton National Park and its popularization as the preferred route to Yellowstone. After World War II, improved road conditions, the end of gasoline rationing, and increased American prosperity brought a flood of tourists to Yellowstone National Park. In 1948 visitation to the park exceeded one million, a truly impressive figure considering only 64,144 tourists entered the park in 1943. When crews completed construction on the road between Grand Teton National Park and the south entrance of Yellowstone in 1951, many tourists chose to travel this route between the two parks, and by 1958 the south

¹⁰ *Jackson Hole Guide*, August 1960.

became the most popular of Yellowstone's four gates. Increased visitation figures for Grand Teton bear out this fact; the number of recreational visitors broke the one million mark in 1954 and the two million mark in 1963. After this initial explosion, park visitation leveled out. The park hosted about 2.5 million visitors in 1965, essentially the same attendance it would experience in 2007. These sustained figures provided Jackson Hole with a significant market to service with essentials like food, lodging, and gasoline, and ideally recreational activities like dude ranching and skiing.¹¹

The development of commercial ski areas also encouraged the development of tourism in Jackson Hole, providing the valley with a wintertime activity to promote. Through the 1950s, Jackson Hole all but shut down with the first snowfall of the year as dude ranches closed down and visitation to Grand Teton National Park waned. As author Donald Hough joked, drinking was the only winter sport in the valley until the commercialization of skiing in the 1960s. This process began with the establishment of Jackson Hole's first real ski area in 1939 which consisted of a rope tow up Snow King Mountain constructed from an old drilling cable and a Ford tractor. The Jackson Hole Winter Sports Association expanded skiing on the mountain in 1945 with the construction of a four-thousand-foot single-chair lift. The lift, built from a reconstructed gold mining tramway at a cost of \$40,000 was indicative of the still-primitive state of skiing in Jackson Hole.¹²

It was not until outside investment entered the valley in the 1960s that skiing became the highly profitable and commercialized industry that it would become at the

¹¹ Culver, "Resorting to Tourism," 110-112; National Park Service Public Use Statistics Office, *NPS Stats*, 2008, <<http://www.nature.nps.gov/stats/>> (23 September 2008).

¹² Rothman, *Devil's Bargains*, 279-280.

end of the century. Such development was first conceptualized in 1961 when transplanted Californian Paul McCollister met developer Alex Morley. The pair convinced the Area Redevelopment Administration, Wyoming Farm Loan Board, Teton Investment Company, and Wyoming Natural Resources Board to contribute a combined \$1.6 million for the construction of a new ski resort on Rendezvous Mountain, just south of the Teton Peaks. The resulting development, the Jackson Hole Ski Area and Teton Village Resort, opened in 1965 and brought Jackson Hole skiing into the national spotlight. The locally-owned Snow King remained in operation, but because they lacked capital and notoriety, they continued to cater to a mostly local crowd. It was developments like Teton Village, with its influx of outside capital and influence, which would advance the change suggested in Rothman's *Devil's Bargain*.¹³

As more people began arriving in Jackson Hole to tour the park or strap on their skis, commercial airlines began to identify the valley as a promising new market. Prior to the 1940s, air travel was little more than a novelty in the valley since the only airstrip was a primitive, 1,000-foot-long clearing in a cow pasture just outside of Jackson. But by 1943 the town of Jackson secured leases from the Interior Department and the Jackson Hole Preserve to build a new landing strip at the airport's current location, just southwest of Blacktail Butte. Soon Western Airlines became the first carrier to offer commercial flights into Jackson Hole, making the valley a stop on summer flights between Salt Lake City, Utah and Billings, Montana, beginning in 1946. Federal grants and private donations funded further improvements to the airport, including a paved and lit runway and a brand new administration building, completed in 1958. By the late 1960s, Frontier

¹³ Rothman, *Devil's Bargain*, 279-281; Raye C. Ringholz, *Little Town Blues: Voices from the Changing West* (Salt Lake City: Peregrine Smith Books, 1992), 95-98.

Airlines offered daily flights into the Jackson Hole Airport, which by that time accommodated more boardings than any airport in Wyoming. Commercial airline service would increase over the coming decades, providing tourists—and outside influence—easier access to Jackson Hole.¹⁴

For seven decades Jackson Hole residents remained relatively free from outside influence, but with the commercialization of tourism in the 1960s the valley became increasingly connected with the outside world. Its residents stood at a juncture. Behind them lay a declining agricultural economy buttressed by transient auto tourists attracted to Jackson Hole by its Old West motif. Ahead of them lay a monolithic tourist economy stimulated by millions of annual visitors to Grand Teton, the commercialization of skiing, and the introduction of regular airline service. This new economy changed not only the fiscal, social, and cultural fabric of the community, it changed the spatial aspects of development in the community; outside investment brought outside developers, outside residents, and ultimately outside businesses. The characteristics of the resulting growth revealed a great deal about the transformation of Jackson Hole's tourist economy and the tourists that supported it.

The explosive growth in Jackson Hole over the next four decades was largely attributable to a phenomenon in residential development: tourists who once stayed for just a few days or weeks began to purchase real estate for vacation homes or permanent residence. Prior to World War II, Americans had a hard enough time purchasing one home much less a second one hundreds of miles away. Few had even travelled that far

¹⁴ Daugherty, *A Place Called Jackson Hole*, 198-199; Glenn R. Burkes, "History of Teton County," *Annals of Wyoming* 44, no. 2 (1972): 260; Culver, "Resorting to Tourism," 112-114.

from home. But improvements to roads and automobiles coupled with postwar affluence allowed an increasing number of Americans to travel the country, discover new places, and if they were wealthy enough, buy a second-home along the way. Astute developers quickly realized the potential in this expanding market, and by the 1960s second-home ski resort developments were popping up all over the West. Steering this new vision for western resorts was William Janss of the Janss Corporation. By 1964, the experienced developer had retooled Aspen, Colorado, and Sun Valley, Idaho, from loosely-controlled hotel-based resorts to tightly-structured communities increasingly invested in condominiums and second homes. To appeal to a more exclusive clientele, he suppressed local character and influence to create cookie-cutter, alpine-style resort villages with a greater affinity to fine wine than blue-collar beer. It was Janss' vision that shaped western resort development for decades to come, including those in Jackson Hole.¹⁵

With these new resort developments came new people, typically very different from the established locals who had come before. In *Devil's Bargains*, Hal Rothman referred to this group as "neo-natives"—people who "are attracted to the places that have become tourist towns by the traits of the transformed place."¹⁶ The term described both segments of the emerging population: the wealthy second-home owners who inspired growth and the low-paid service workers who sought employment in the expanding economy. Because these neo-natives knew little or nothing about the actual history or culture of the place in which they lived, they inevitably fostered change in that place.

¹⁵ Rothman, *Devil's Bargains*, 237-238.

¹⁶ Rothman, *Devil's Bargains*, 11.



Figure 3-1. Residential development.

They kept the things they liked about what their community had become and introduced what they felt it lacked. As a result, rustic wooden fences went up around mansions where wood, fences, and mansions had never been before. Towns where eating out once meant little more than a greasy sandwich and a cup of coffee began to offer international cuisine and cappuccino. Nowhere was this process more evident than in Jackson Hole, where the cultural, economic and social change introduced by rapid development and the resulting influx of neo-natives fundamentally manifested itself in evolving land use patterns.

Residential development began modestly in the 1960s, but by the end of the century consumed the valley like the shadow of the Tetons at sunset. The 1967 study area encompassed just 709 residential parcels occupying an area of about 766 acres, a tiny fraction of the study area's nearly 28,000 acres of private land. The 1978 study area, expanded to include more of Jackson Hole, contained 2,933 residential parcels or 3,263 acres of the 53,400 acres of private land. While this was a significant increase, it pales in

comparison to the growth over the next twenty-five years, which would bring 9,939 parcels and 13,374 acres into residential development (Figure 3-1). Census data, from a time frame roughly parallel to this development data, also indicates impressive growth. In 1970 Teton County, Wyoming, boasted just 4,823 residents, but by 2000 this number ballooned to 18,251, a 278% increase.¹⁷ In such a small, narrow valley, this kind of expansion was difficult to miss. Describing a spike in development during the late 1970s, former chamber of commerce director Mickey Waller recalled, “I would come back each summer on vacation and could not believe my eyes of the changes in a year’s time.”¹⁸ Many of Jackson Hole’s ranchers, discouraged by falling beef prices, found selling out to developers a much more profitable prospect than continuing ranch operations. Other long-time residents, weary of the town’s march toward commercialism, also discovered the inflated offers on their land too good to pass up. Soon new residential developments were going in all over the valley, cashing in on the local desire to sell and the outside desire to buy.

The impact of such developments on Jackson Hole’s population is clearly seen through a more specific examination of the valley’s census places (Figure 3-2, 3-3). Jackson, of course, has been the region’s population center for decades, and in 1967 it contained 553 of the 694 of the residential parcels in Jackson Hole, or almost 80%. But as developers bought and subdivided more old ranches and farmland, this figure fell to just under 53% by 2002. One of the first areas to develop outside of Jackson was Teton Village. As part of his Jackson Hole Ski Area, Paul McCollister, under the auspices of

¹⁷ U.S. Bureau of the Census, *1970 Census of Population*; U.S. Bureau of the Census, *2000 Census of Population*.

¹⁸ Ringholz, *Little Town Blues*, 99.

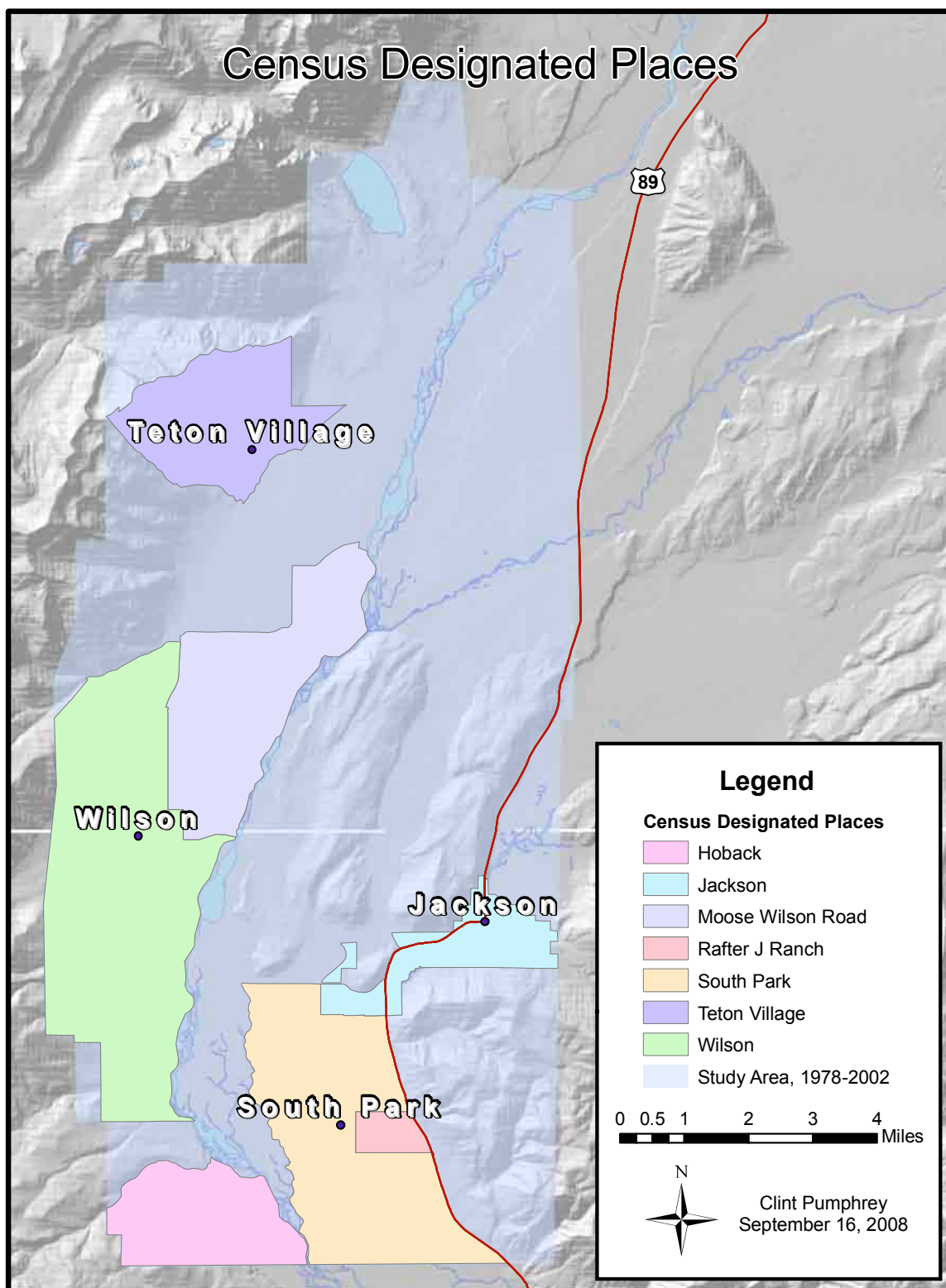


Figure 3-2. Census designated places.

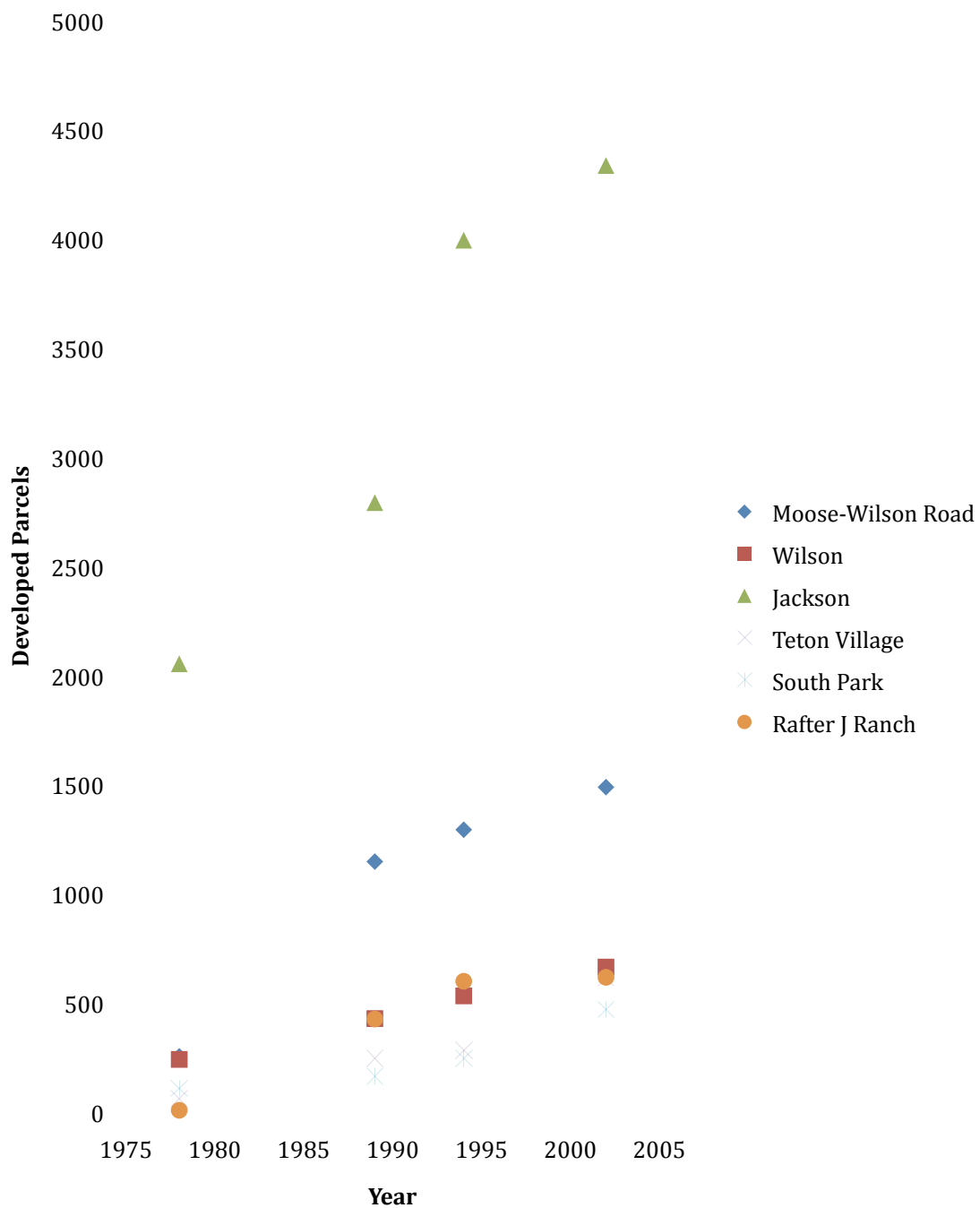


Figure 3-3. Residential development by census places.

the Jackson Hole Ski Corporation, first petitioned the city to subdivide land at the base of Rendezvous Mountain for residential development in 1964. That same year he expanded his efforts to create the Jackson Hole Golf and Country Club Estates, located just south of the Jackson Hole Airport. The development, which fell outside of Jackson Hole's recognized census places, included 160 residential parcels and an eighteen-hole golf course. Such ventures would set the standard for expansion over the next few decades.

Following McCollister's lead, other developers worked to cash in on Jackson Hole's promising real estate market. Subdivided in 1967, the Skyline residential community lay on the south side of Highway 22 between Wilson and Jackson, independent of the valley's census places. The next area to experience significant growth was Moose-Wilson, which expanded from 41 residential parcels in 1967 to 252 in 1978. This was due to the subdivision of two main housing developments: The Aspens in 1971 and the Jackson Hole Racquet Club in 1973. These areas continued to grow over the next fifteen years, giving the Moose-Wilson census place a staggering 1,148 developed residential parcels by 1989; by 2002 it had 1,489, making it the most developed area outside of Jackson. Wilson also obtained two new developments during this decade, beginning with Rivermeadows in 1972 and Indian Paintbrush in 1977. These areas provided Wilson with slow but steady residential growth for three decades. The only area where residential expansion really leveled out was Rafter J Ranch, located south of Jackson on the west side of Highway 89. This small development, which is also a census place, was formed in 1977 and reached its capacity sometime in the mid-1990s. It had no residential parcels in 1967, but boasted 618 by 2002. Also late to develop was the South Park area which grew from two developed parcels in 1967 to 471 by 2002. Residential

parcels nearly doubled in this census place between 1994 and 2002 thanks to the Melody Ranch development created in 1997.¹⁹

While outside developers were clearly driving the location and magnitude of residential development, there is some indication that it was also a product of buyers' aesthetic desires. In an essay based on her book *See America First: Tourism and National Identity, 1880-1940*, Marguerite S. Shaffer noted that "through their touring narratives [early-twentieth-century] tourists celebrated a nostalgic image of America that referred back to a nineteenth-century society of small towns, middle landscapes, and face-to-face interaction objectified by a mythological West."²⁰ This may be the idealized lens that tourists continued to look through when deciding where to buy second homes, making aesthetic qualities such as seclusion and scenic beauty an essential part of their decision-making process. This phenomenon can be examined in measurable ways in Jackson Hole's residential development.

One clear driver in housing development was a tendency to locate in the most secluded space available in Jackson Hole. While residents initially chose to locate their homes along the highways, they still maintained some element of seclusion since development remained sparse in Jackson Hole. As the decades passed, developers and buyers showed an increasing tendency to locate further from the highway and therefore further from existing development (Figure 3-4). While some of this pattern is a simple result of development congestion along the highway corridor, it is important to note that

¹⁹ Teton County Subdivision Plats, available at <<http://www2.tetonwyo.org/clerk/scannedMaps/>>

²⁰ Marguerite S. Shaffer, "Seeing America First: The Search for Identity in the Tourist Landscape" in *Seeing and Being Seen: Tourism in the American West*, eds. David M. Wrobel and Patrick T. Long, (Lawrence: University of Kansas Press, 2001), 187.

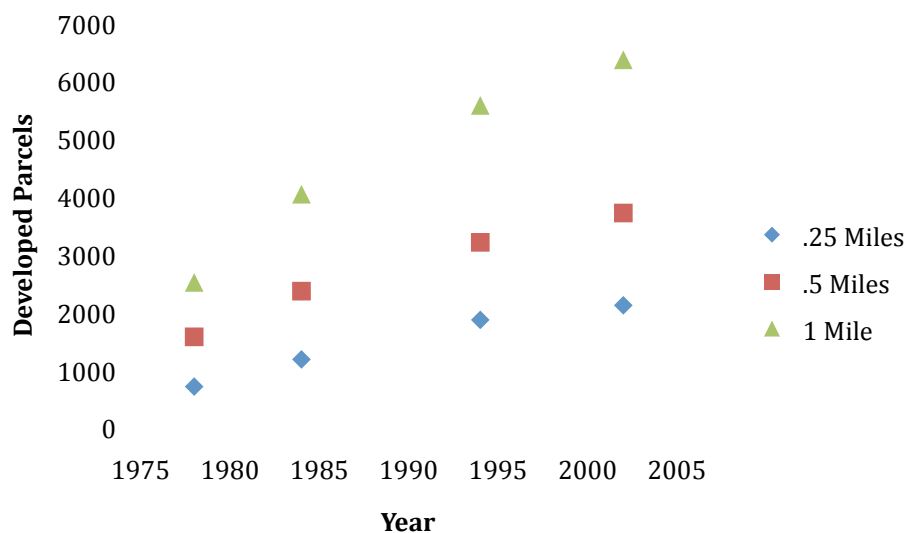


Figure 3-4. Residential development by distance from highways.

of the eight oldest developments discussed in this chapter, six were located along highways. Much of the later development served to fill in the spaces between these areas. Another facet of this propensity toward seclusion was the increasing amount of development along National Forest boundaries. The National Forests, which by law cannot be developed, offered a desirable buffer for second-home buyers from exploding development in Jackson Hole. Between 1978 and 2002 residential development within 100 yards of the National Forest boundary increased from 86 parcels to 534 (Figure 3-5, 3-6). Most of this 621% increase occurred between 1994 and 2002 when growth presented the greatest threat to residential seclusion. Finally, residential parcels themselves have increased in size over the last four decades. Averaging 1.08 acres in 1967, residential lots grew to 1.4 acres by 2002. Considering the increased number of condominiums that skew the 2002 average downward, this is truly a significant observation.

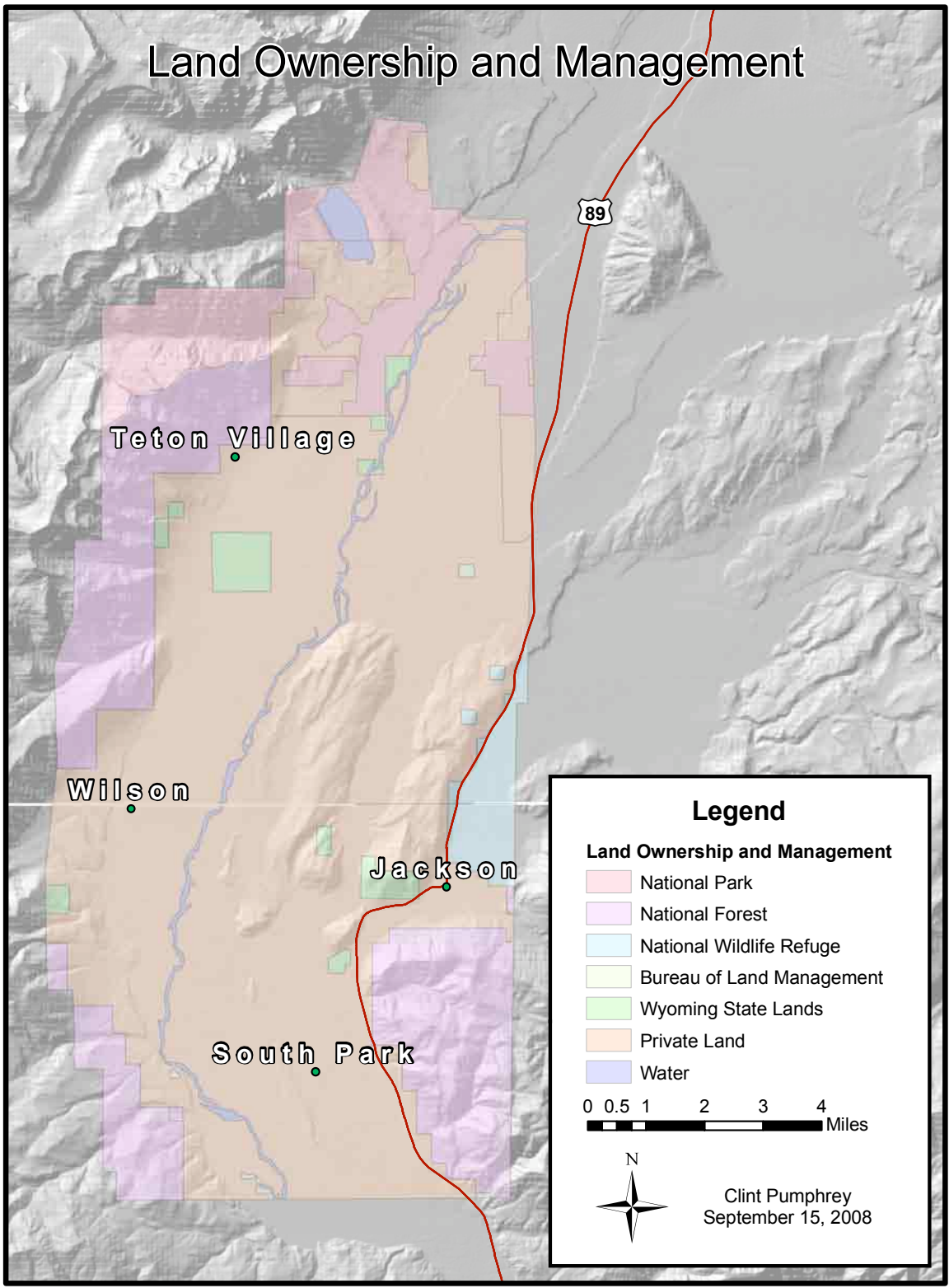


Figure 3-5. Land ownership and management.

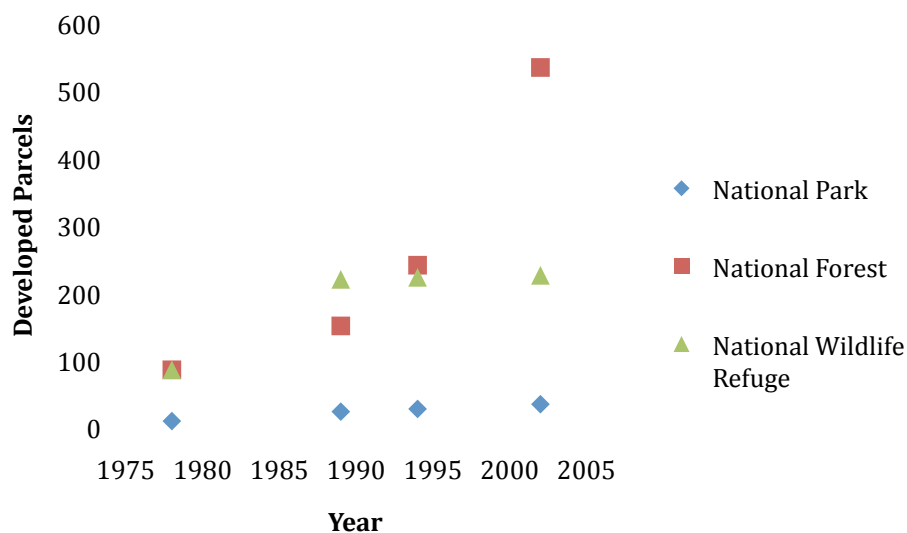


Figure 3-6. Residential development within 100 yards of public land.

The attraction of scenic beauty was also a factor affecting residential development in Jackson Hole. This quality was measurable in two ways in the valley: by indentifying single-family residential parcels by proximity to water and by availability of Grand Teton views. The construction of single-family homes near rivers, streams, or ponds showed a steep rate of growth between 1978 and 1989 before slowing, suggesting that such locations had the most immediate appeal to buyers and developers (Figure 3-7). Single-family parcels with views of the Grand Teton also showed a sharp increase during the first period of the study. This also implies that, at least initially, buyers and developers coveted parcels with Grand Teton views, developing these areas before areas where other terrain obscured their view. By 2002, a full 75% of single-family homes stood in sight of the peak (Figure 3-8, 3-9).

Commerical development in Jackson Hole has remained steady since the mid-1960s as an increasing number of tourists and residents arrived in the valley.

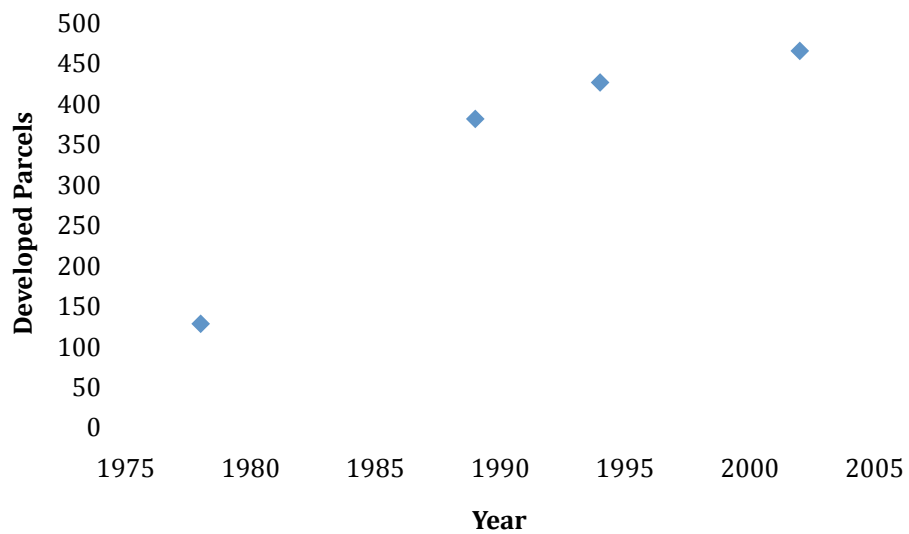


Figure 3-7. Single family residential development within 100 yards of water.

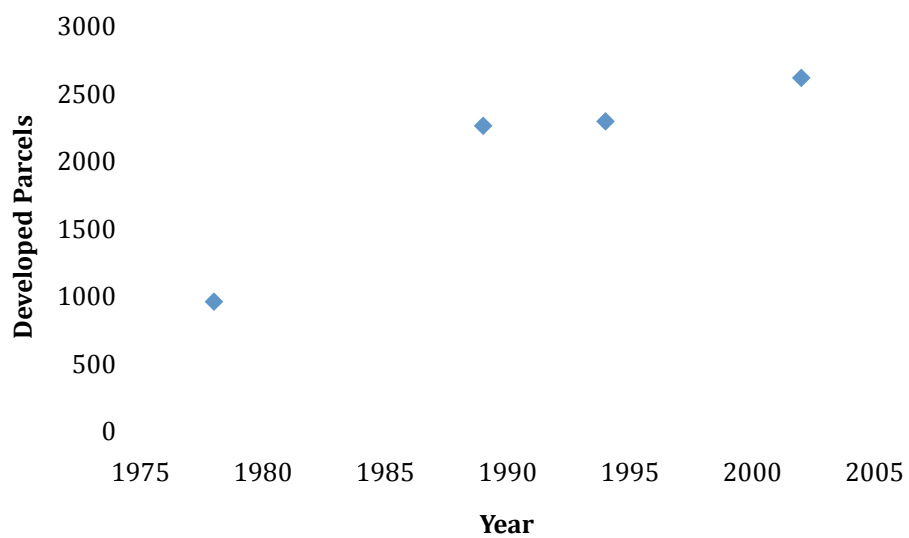


Figure 3-8. Single family residential development with view of Grand Teton.

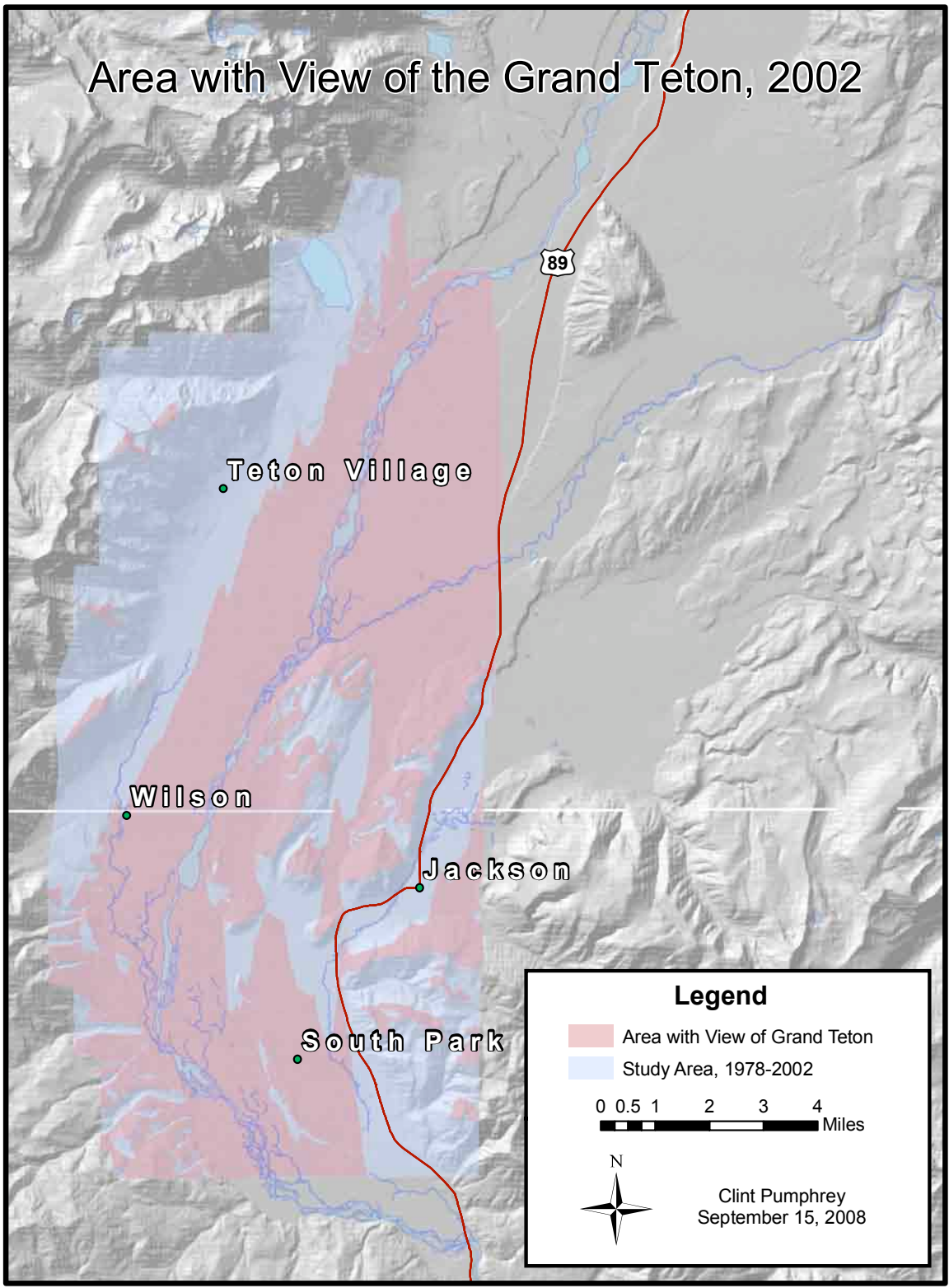


Figure 3-9. Area with view of Grand Teton.

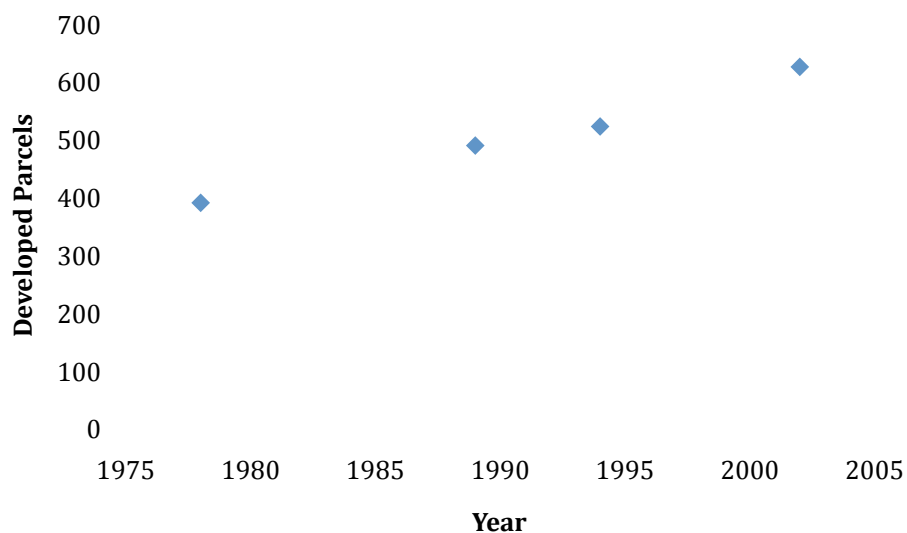


Figure 3-10. Commercial development.

Approximately 192 businesses operated in the 1967 study area, 181 of which were located in the town of Jackson. Some were typical to any small town, like Jackson State Bank, the Gai-Mode Beauty Salon, May's Launderette, the Jackson Hole Guide newspaper office, Lumley Drug, the Ellen G. Walker clothing shop, Imeson Texaco service station, and B&W Grocery. Others catered more specifically to tourists. These included the Teton Boating Company, D.D. Camera Corral, Hertz Rent-a-Car, Hainescraft Gifts and Rock Shop, Jackson Sporting Goods, the Home Ranch Motel, and the Jackson Hole Museum. The expanded study area encompassed 389 commercial parcels in 1978, a number that increased to 624 by 2002, a 60% increase (Figure 3-10). More specific growth patterns were observable in individual census places. Expansion at Wilson and Rafter J Ranch remained relatively flat while initial growth in South Park flattened out after 1994. Teton Village and Moose-Wilson Road, home to several of Jackson Hole's larger developments, experienced sustained growth with periods of relatively rapid commercial expansion. Jackson, which served as the commercial center

of Jackson Hole, encountered steady growth throughout the study period (Figure 3-11, 3-12).²¹

One consistent characteristic of commercial growth in Jackson Hole was its close proximity to the valley's two main roads, U.S. Highway 89 and State Highway 22. In 1967, 165 of 192 commercial parcels, or 86%, were within a quarter mile of these highways. This figure remained relatively unchanged in 1978, when 83% of businesses operated within this narrow buffer. By 2002 the percentage dropped slightly to 79%, probably a simple consequence of the decreased availability of property with highway frontage (Figure 3-13). Admittedly the idea that businesses prefer to locate along major thoroughfares is not a groundbreaking discovery, but this observation does have some important consequences. Because commercial development stretched out along the two main highways in Jackson Hole, these roads inevitably became very congested. Employees commuting to work in these establishments and their customers, as well as through traffic coming to and from Teton National Park, regularly clogged the intersection of these roads at Cache and Broadway in downtown Jackson. This remains the busiest intersection in Jackson Hole, a benefit in terms of exposure for local businesses, but a detriment to the smooth flow of traffic through the narrow valley.

Another noteworthy aspect of business expansion in Jackson Hole is the slow growth of commercial parcels in comparison to that of residential parcels. Commercial parcels accounted for 21% of developed parcels in 1967; this number slipped to 12% in 1978, and by 2002 it was just 6% (Figure 3-14). A couple of factors explain this divergence. First, while the population of Jackson grew rapidly over the last four

²¹ *Jackson Hole Guide*, August 1960.

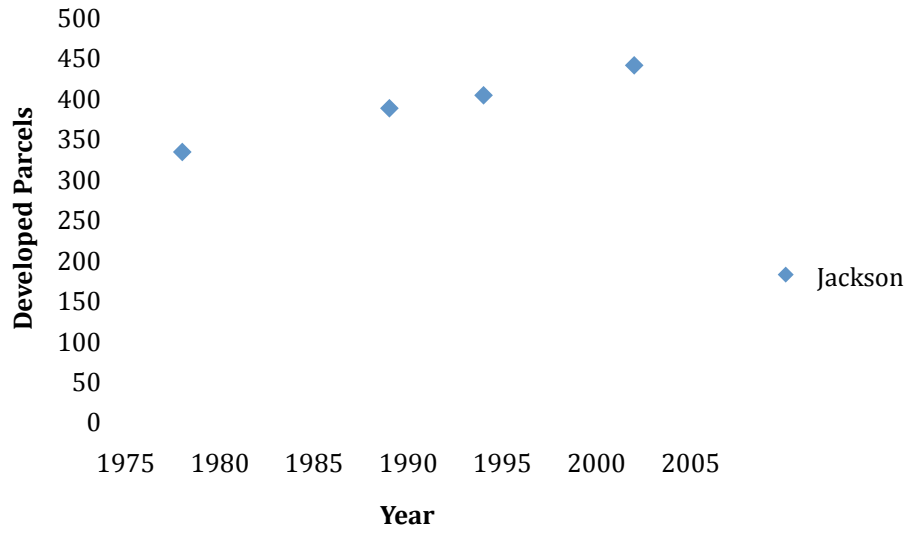


Figure 3-11. Commercial development by census places.

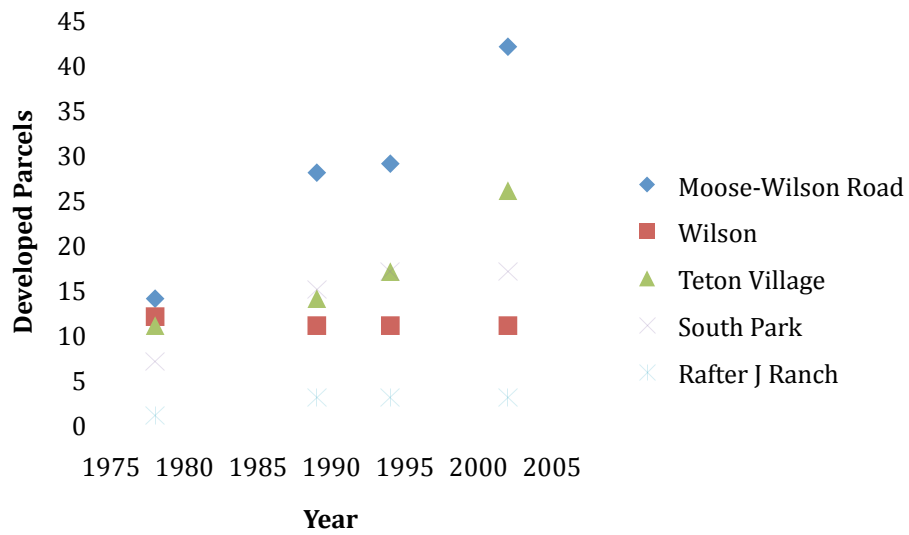


Figure 3-12. Commercial development by census places.

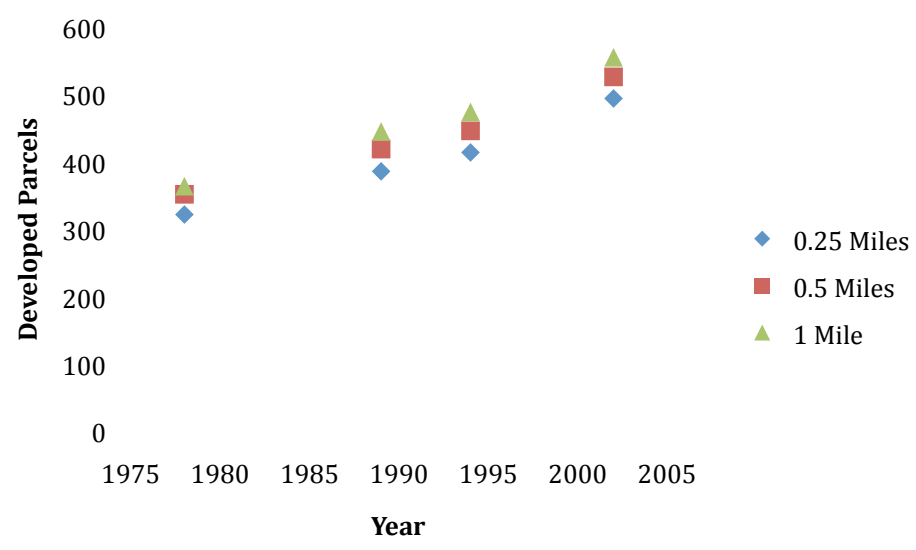


Figure 3-13. Commercial development by distance from highways.

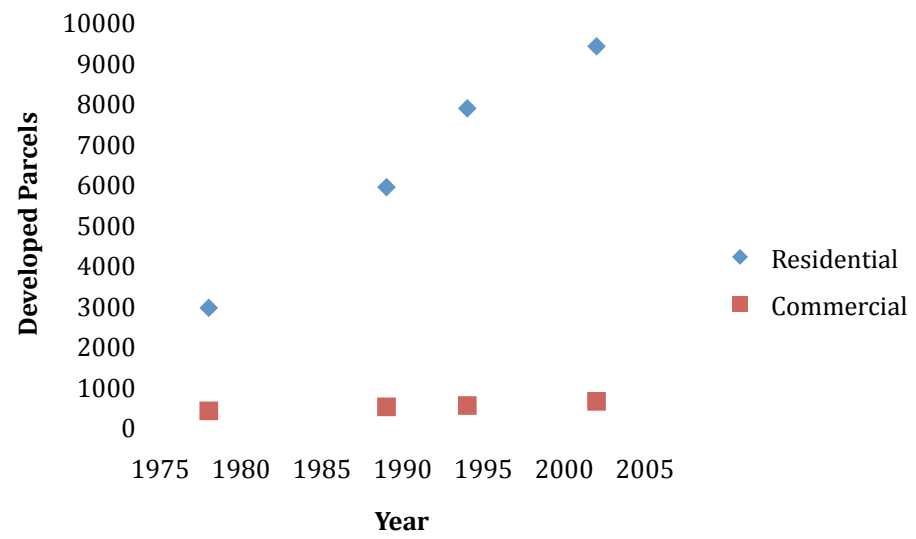


Figure 3-14. Commercial and residential land development.

decades, few of the new residents were permanent. Most maintained condos or second-homes and contributed little to the valley's commerce during most of the year. Second, large, high-volume retailers drove out many of the small, local businesses that were first established in Jackson Hole. During the 1970s, the locally-owned Jackson Hole Mercantile, which provided the community with hardware, toys, furniture, and other necessities, was one of the first establishments to succumb to the competition of outside retailers. Less than a year after the discount retailer Pamida opened a 40,000-square-foot store south of Jackson, the merc went out of business after fifty years of operation. B&W Grocery closed its doors after the arrival of Saveway, which in turn closed when Safeway came to town. The 1980s brought a flood of corporate chains to town including McDonalds, Albertson's Pharmacy, Sizzler, Wendy's, and Kentucky Fried Chicken. This forced long-established Jackson businesses like the Teton Gables Café, Lumley Drugstore, Silver Spur, and Open Range Restaurant to go out of business and indicated an important shift in tourist taste, from a desire for the local to a demand for the familiar. When K-Mart built a store in Jackson in the 1990s, citizen groups insisted that they design the store's exterior in a way that better fit Jackson's Old West feel. The rustic wooden siding installed on the store provided biting symbolism for what Jackson had become: a corporatized tourist town with an Old West façade.²²

Together, the spatial characteristics of commercial and residential growth in Jackson Hole are impressive. Today's visitors, conditioned to expect sprawling growth, heavy traffic, and commercialization in tourist towns, might have difficulty picturing the

²² Raye C. Ringholz, *Paradise Paved: The Challenge of Growth in the New West* (Salt Lake City: University of Utah Press, 1996), 75; Ringholz, *Little Town Blues*, 100-101.



Figure 3-15. Developed parcels as a percentage of total private land.

Jackson Hole that existed just thirty years ago. But all the complex aspects of the valley's rapid development can be boiled down in to one striking statistic: between 1978 and 2002, the developed acreage in Jackson Hole increased from 8% of total private land to a sizable 31% (Figure 3-15). While visitors in 1978 would have seen businesses and homes on just 4,202 acres of the valley, tourists in 2002 saw 16,665 acres of development, an average increase of 519 acres per year and a total increase of nearly 400%. The increase in the number of developed parcels paints a similarly remarkable picture of expansion. In 1978 there were 3,322 developed commercial and residential parcels in the valley, but by 2002 there were 10,017, a 300% increase. Hindered on the perimeter by steep mountains and public land, and on the valley floor by a wide river channel and wetlands, development in Jackson Hole rocketed towards its capacity.

By 2002, few aspects of tourism in Jackson Hole resembled the seasonal, hotel-driven industry of the 1960s. Not one, but five commercial airlines serviced the Jackson Hole Airport with as many as thirteen arrivals and departures to and from cities as distant

as Dallas, Texas, and Atlanta, Georgia. The Jackson Hole Ski Area, renamed the Jackson Hole Mountain Resort, expanded to 10 lifts servicing almost 2,500 acres of mountain terrain. Even Snow King Ski Area, traditionally seen as a resort for locals, began to advertise nationally in an effort to capture some of the tourist market. Agriculture ceased to be a significant facet of the economy as condos and mansions became Jackson Hole's most profitable crop. Dude ranches, a central aspect of the valley's Old West motif, all but disappeared; the 2007 Jackson Hole tourist map did not include a single listing for guest ranches. It did, however, contain sixty-three listings for restaurants, twenty-four for art galleries, nine for coffee shops, eight for t-shirt shops, two for bead shops, and one for "fashion accessories." In perhaps the greatest irony of Jackson Hole's transformation from folksy tourist stop to resort destination, the tourist map contained more entries for "fashion accessories" than dude ranches. With the traditional inspiration for Jackson Hole's Western motif all but a memory, it seemed the last cowboy boots in the valley were on the shelves of Corral West Ranchwear, the last horses in the paintings of the Wild by Nature Gallery, and the last animal pelts on the racks of the Alaskan Fur Gallery.²³

New development and the resulting flood of neo-natives altered not only the spatial landscape of Jackson Hole, they altered the economic, social, and environmental landscape of the valley. As developers erected vacation homes and retail stores all over the valley, construction, finance, and real estate quickly surpassed agriculture in economic significance. By 2007, these three sectors accounted for about one-quarter of the jobs and one-third of the wages in Teton County, Wyoming. As development

²³ Chris King, *Jackson Hole Picture Map*, 2007.

increased, the supply of land in Jackson Hole proved unable to keep pace with demand, resulting in skyrocketing real estate prices. People who had been living in Jackson Hole for years, and people who had come to there to work in the service industry, found themselves unable to afford the exploding rental rates. Development encroached on delicate riparian areas, public land, and wildlife migration routes. By the 1990s, many residents realized that the rate of real estate expansion in the valley, and the economic growth it encouraged, was not sustainable without serious ecological and societal consequences, which are addressed in the following chapter. Jackson Hole had wholly committed to the “devil’s bargain” and began to show some buyer’s remorse.

CHAPTER 4

THE CONSEQUENCES OF DEVELOPMENT

On January 7, 1980, Chuck Lewton stood in front of the Teton County planning commission, wastebasket in hand. Chairman Darrell Hoffman and his fellow commissioners were well acquainted with the rancher-turned-developer, who had proven himself to be defiantly anti-government in past county forums. The subject of this pre-application meeting was Lewton's plan for a 20-story dude ranch to be built on 4.4 acres he owned inside the boundary of Grand Teton National Park. "My main concern is to make it the ugliest building in Teton County," Lewton said mockingly, flanked by developers and other planning opponents. Flipping the wastebasket over in a chair, he smirked, "That's what it will look like, 20 stories high, helicopter pad on the roof, in case Rockefeller's jet doesn't make it across to his little playtoy...red lights, beacons..." After the committee's curt inquiry of Lewton's motives, Hoffman suggested that the wastebasket did not give the commission an accurate depiction of the developer's proposal. "I think you've come before this group today stating that you know you can't do it the way things are now," Hoffman said, recognizing that Lewton's presentation was little more than a show of defiance.¹ Of course, nothing ever came of the high-rise dude ranch development, but its presentation was just one of many bitter debates that would erupt over real estate expansion in the coming decades. The controversy came not only from developers, but also from businessmen, environmentalists, and long-time residents who often had very different opinions about the future of development in Jackson Hole. Through graphs and maps, the previous chapter established clear visual and statistical

¹ *Jackson Hole Guide*, 10 January 1980.

evidence of the rapid tourism-related growth the valley experienced over the last forty years. The following pages address the consequences of this development, many of which can be explained in spatial terms.

Scholars in the tourism studies field have long structured the effects of tourism into three categories: economic, physical, and social. Alister Mathieson and Geoffrey Wall first proposed this framework in *Tourism: Economic, Physical, and Social Impacts*, written in 1982. While the boundaries between these categories are admittedly blurred, they provide a convenient structure for an examination of the consequences of tourist development in Jackson Hole, Wyoming. The previous chapter of this thesis described the catalysts for such consequences: a 60% increase in developed commercial parcels, a 220% increase in developed residential parcels, and a 278% increase in population over the last three decades. This chapter focuses on the resulting consequences. Economically, the valley enjoyed a boom in the construction, finance, and real estate industries, and the county has benefitted tremendously from rising tax revenues. Physically, development encroached on delicate riparian and wetland areas, as well as the borders of protected public land. Socially, a divide evolved between wealthy outsiders and service industry workers who could no longer afford to live in Jackson Hole. Furthermore, external influences muted the Old West identity that residents of the valley had long embraced as their own. These consequences fostered a tremendous amount of controversy that continues to this day, significantly influencing development policies in the valley.²

² Alister Mathieson and Geoffrey Wall, *Tourism: Economic, Physical, and Social Impacts* (New York: Wiley & Sons, 1982), 3.

Jackson Hole, like many areas in the West, embraced tourism mainly for its potentially beneficial economic consequences. Indeed, the promise of a “fast growing industry that generates employment and income in vulnerable communities” has made economic impact the most alluring of Mathieson and Wall’s categories.³ After nearly a century of tourism in Jackson Hole, there is no question that the industry has given the region an economic boost. The greatest benefits resulted from the 200% increase in combined commercial and residential development over the last three decades. This led to massive growth in the real estate, construction, and finance sectors of the Jackson Hole economy. In the 1960s Paul McCollister priced some of the first lots sold in Teton Village at \$12,500, a cost so high that it shocked many locals.⁴ Such a price would soon seem like a steal as real estate prices rose drastically over the next four decades. By 2007 the median home price broke \$1 million for the first time; the cheapest condo on the market that year listed for an incredible \$512,500.⁵ In 2003 the Teton County building department permitted an estimated \$105 million worth of new construction, a figure that nearly doubled just four years later.⁶ With local banks financing much of this construction and many of these real estate purchases, development brought a significant amount of money into the community. This trend was not limited to the private sector; it translated into significant gains for local government in the form of property and sales tax. In 1967, the first year of this study, the total assessed property value in Teton County totaled \$14,931,398, which translated into about \$800,000 in tax revenue. By

³ Lesley France, ed., *The Earthscan Reader in Sustainable Tourism* (London: Earthscan Publications, 1997), 8.

⁴ Raye C. Ringholz, *Little Town Blues: Voices from the Changing West* (Salt Lake City: Peregrine Smith Books, 1992), 99.

⁵ *Jackson Hole News & Guide*, 27 July 2007.

⁶ *Jackson Hole News & Guide*, 18 July 2007.

2008, assessed valuation increased nearly a hundredfold to \$1,292,355,693 with a property tax revenue of just over \$75 million.⁷ While it is clear that the economic impact of tourism was great, it put Jackson Hole's citizens and government in the disadvantageous position of near total reliance on the industry. Real estate, construction, and finance accounted for a quarter of the county's jobs and a third of the wages by 2007. Those who opposed development for physical and social reasons would have a difficult time suggesting an economic alternative for the wealth and jobs created by the tourist industry.⁸

Perhaps the most contentious consequences of development in Jackson Hole were those affecting the physical environment. This is attributable to the spectacular beauty of the region, which visitors from photographer William H. Jackson to novelist Owen Wister to ordinary tourists travelled hundreds of miles to experience. The seemingly instinctive concern for aesthetics made conservationists out of some of Jackson Hole's earliest residents. Later, as scientists gained a greater understanding of human impact on plant and animal habitat, environmentalism became an important force in the protection of the valley's delicate beauty. These aesthetic and ecological concerns became increasingly focused and organized as development in Jackson Hole accelerated.

While development in the first half of the twentieth century seemed innocuous compared to what would come in the second half, an unlikely alliance of dude ranchers, the National Park Service, and John D. Rockefeller, Jr. emerged in opposition to early development projects in Jackson Hole. Dude ranchers provided an important voice against early water development projects and were instrumental in the care of the valley's

⁷ Teton County Mill Levies for 1967, 2008.

⁸ *Jackson Hole News & Guide*, 18 July 2007.

winter elk herds. As the earliest beneficiaries of Jackson Hole's tourist industry, they realized that the valley's greatest asset was not agriculture, but scenic beauty, which they often sought to protect. To accomplish this, dude ranchers sometimes partnered with the National Park Service, which had a deep interest in the protection of Jackson Hole by the 1910s. The service managed to protect the Teton peaks with the creation of Grand Teton National Park in 1929, but not until a land donation from John D. Rockefeller, Jr.'s Snake River Land Company were they able to protect a sizable part of the valley from development. Arguably the valley's first organization committed to conservation, the controversial Snake River Land Company enabled Rockefeller to anonymously purchase 130,000 acres of the valley's private land, which became part of an enlarged Grand Teton National Park in 1950. Together, these groups initiated a conservation ethic in Jackson Hole that would endure as rapid development threatened what little private land remained in the valley.⁹

While the voices of conservation secured the protection of much of the valley inside the borders of Grand Teton National Park, extensive development to the south over the last four decades presented a significant new threat to Jackson Hole's environment. One of the oldest and most noticeable of these threats was the displacement of plant and animal habitat by development. In the winter of 1908-1909, thousands of elk wintering in Jackson Hole died in part because much of their range in the valley had been settled and fenced. Recognizing this problem, local farmers and ranchers pushed for the creation of the National Elk Refuge in 1912 to provide the animals with protected wintering

⁹ Robert W. Righter, *Crucible for Conservation: The Struggle for Grand Teton National Park* (Boulder: Colorado Associated University Press, 1982), 10-12, 121, 140.

grounds along Flat Creek.¹⁰ Despite these early conservation efforts, only one-sixth of the historic elk habitat in southern Jackson Hole remained by the end of the century. Development conflicted similarly with deer and moose populations, which, like the elk, descended on the valley during the winter. While these effects were a general result of development as a whole, specific patterns of development also had important consequences. As second-home buyers showed an increasing propensity to locate near Jackson Hole's rivers, streams, and ponds, their activity disturbed delicate riparian habitat. The 1967 study area showed only 105 residential parcels within 100 yards of water in Jackson Hole. This number rose to just 357 for the enlarged 1978 study area, but by 2002 there were 1,305 residential parcels near water. This sizable increase is small compared to the rise of residential development within 100 yards of wetlands. Parcels in this corridor numbered just 105 in 1967 and 394 in 1978. In 2002, however, a staggering 2,313 residential parcels lay within 100 yards of Jackson Hole's wetlands. Encroachment on these aquatic communities was particularly harmful because together with adjacent cottonwood, meadow, and willow communities, these areas contained the highest concentration of plant and animal species in Jackson Hole.¹¹

Human interference in natural processes was another physical consequence of development in Jackson Hole. The damming of Jackson Lake in 1906 ended much of the flooding along the Snake River. Chemical abatement projects minimized many of the insect outbreaks once common in the valley. With an increasing number of homes

¹⁰ John Daugherty, *A Place Called Jackson Hole: A Historic Resource Study of Grand Teton National Park* (Moose, Wyo.: Grand Teton Natural History Association, 1999), 300.

¹¹ Tim W. Clark, *The Natural World of Jackson Hole: An Ecological Primer* (Moose, Wyo.: Grand Teton Natural History Association, 1999), 37-39, 68.

constructed right up to the edge of the National Elk Refuge, Grand Teton National Park, and Bridger-Teton National Forest, fire control on public lands became a priority. Just 86 developed residential parcels existed within 100 yards of the elk refuge in 1978; this number jumped to 220 by 1989 before leveling out through the end of the century. The refuge, located north of Jackson, actually protected the national park from neighboring development; only 10 parcels existed within 100 yards of the park in 1978, a number that rose to just 35 in 2002. The public land most affected by development was national forest, which like the elk refuge, had just 86 parcels within 100 yards of its borders in 1978. By 1994 this number rose to 241 before rising sharply to 534 in 2002. While this proximity to public land ensured homeowners a view unlikely to be blocked by man-made distractions, it provided little buffer in the event of wildfire. Such development characteristics had important individual and cumulative effects on Jackson Hole's ecology.¹²

Other environmental consequences involved the introduction of foreign species and materials into Jackson Hole's ecosystems. With the increasing number of residents in Jackson Hole came an increasing number of exotic plants and animals. During a period that closely approximates that of this study, non-native plant species in the valley increased 63%, from 72 in 1968 to 117 in 1999. Introduced animals included mountain goats, Norway rats, house mice, domestic livestock and pets, European starlings, and house sparrows. Of particular concern were aquatic communities, which were invaded by bullfrogs, brown trout, rainbow trout, brook trout, lake trout; even tropical aquarium fish were introduced to some of Jackson Hole's warm springs. Domesticated livestock

¹² Righter, *Crucible for Conservation*, 9-10; Clark, *The Natural World of Jackson Hole*, 69.

introduced non-native microorganisms to the valley, including giardia, brucellosis, and bovine tuberculosis. These exotic species threatened the valley's ecosystem by competing with native plants and animals for habitat and resources. More closely related to development was the introduction of toxins into the air and water. While Jackson Hole traditionally boasted some of the cleanest air in the country, in 2006 environmentalists cited wildfires, agriculture, motor vehicles, and snowmobiles for an increase in valley air pollution. The latter two sources in particular suggested that decreasing air quality was due in part to tourist development. Such observations showed that when tourists came to Jackson Hole, they often left much more behind than their money.¹³

Though initially less controversial than environmental impacts but just as consequential were the threats development posed to Jackson Hole's social fabric. When declining beef prices forced many of the valley's ranchers to sell their holdings to developers in the late 1970s, Jackson Hole began to lose not just an industry but also an identity. Since the establishment of a stable dude ranching economy in the 1920s, residents marketed their valley as one of the last holdouts of the Old West. While this portrayal was more an invention of dime novels and cinema than reality, it manifested itself in the valley's architecture, attractions, and décor for the next several decades. The loyalty to this brand was amusingly illustrated by Jackson's 1967 sign ordinance. The law mandated clear limits for sign dimensions, but its stipulation that signs must be "tasteful" was less definite. To Building Inspector Mark Marchus, this meant that signs must have "a western flavor using earth tone colors. Backlit signs are okay, but no stark

¹³ Clark, *The Natural World of Jackson Hole*, 68-69; *Jackson Hole News and Guide*, 17 August 2006.

or fluorescent colors are allowed.”¹⁴ Clearly, the Old West image had become heavily commercialized, but both public agencies and longtime citizens feared its disappearance. A 1975 National Park Service report on Grand Teton National Park expansion warned, “If indiscriminate development is allowed to replace...traditional land uses, the rural character of Teton County will be impaired, and the region’s pastoral setting will be degraded.”¹⁵ Old-time resident W.C. “Slim” Lawrence shared this concern. “I hate to see Jackson get so big, but I don’t see how we can stop it,” he said in 1976. “All we can do is keep it as West as we can for as long as we can.”¹⁶ But as with bustling resort communities in places like Aspen, Colorado, Sun Valley, Idaho, and Park City, Utah, Jackson Hole was still “West”—a New West where the commodification of scenery had replaced extractive agriculture, mining, and ranching.

Another social consequence of development was the segregation of Jackson Hole’s wealthy outsiders, who could afford to live in the valley, from its service workers, who could not. As early as the 1970s, city officials began to worry about the lack of low-cost housing options in the valley. A 1976 article in *National Geographic*, however, featured a photograph of a Pennsylvania college student who summered in Jackson Hole, paying rent by recycling old lumber. This financial plan would be unthinkable three decades later as real estate prices spiked to levels unaffordable to many of those who worked the valley’s low-wage jobs. The reason for this spike was a simple result of increased demand and decreased supply. The growth of the country’s upper class during

¹⁴ *Jackson Hole Guide*, 5 March 1981.

¹⁵ Jean Hocker, “Jackson Hole: Are We Loving It to Death?” *Sierra*, July/August 1979, 16.

¹⁶ Francois Leydet, “Jackson Hole: Good-bye to the Old Days?” *National Geographic*, December 1976, 771.

the 1980s created a new class of wealthy buyers looking for scenic property on which to build their second homes. Many descended on Jackson Hole, buying up what little private property the valley had to offer. When the Pennsylvania student relied on scrap lumber to pay rent, just 8% of the study area's private land was developed. By the end of the 1980s this number had nearly doubled, and would double again by the end of the 1990s. What developable land remained became increasingly valuable, as did existing real estate and even rental property. High prices forced service workers to look beyond Jackson Hole for affordable housing. By 1994 an estimated 400 cars crossed Teton Pass from Victor, Idaho, where the cost of living was a fraction of that in Jackson Hole. The dangerous commute, with its steep grades and frequent avalanches, earned a place as one of *High Country News*' "killer commutes in the rural West," but proved a necessary evil for those workers priced out of Jackson Hole. These circumstances, county officials and community activists feared, would disrupt community cohesion, causing resentment and division between workers and those they served. Low-cost housing development soon became a priority for people like county commissioner Dail Barbour. "I support a working resident population in Teton County," he said. "With no residents, you have no community—you have Disneyland."¹⁷

As development accelerated and its consequences became more noticeable, local citizens, national conservation groups, and politicians engaged in an increasingly contentious debate over the direction of growth in Jackson Hole. Few questioned the existence of economic benefits, rather, they questioned the physical and social price of

¹⁷ *Jackson Hole Guide*, 27 April 1994; Leydet, "Jackson Hole," 774, 777; Alan Kesselheim, "Killer Commutes of the Rural West," *High Country News*, 16 July 2008. <<http://www.hcn.org/wotr/17000>>

those economic benefits. Such concern gained considerable traction in the 1970s, as commercial skiing and real estate speculation began to transform Jackson Hole from an isolated tourist stop to a coveted resort destination. During this decade, events in the valley first attracted the attention of national conservation groups like the Sierra Club, the Audubon Society, and the National Parks and Conservation Association, who mounted legal challenges and published numerous articles in their magazines that brought the issue of commercial and residential expansion at the foot of the Tetons to a national audience. Local residents also showed concern; even those who once opposed the creation and expansion of Grand Teton National Park began to support new conservation and planning measures. “The way the park was first set up, I fought it tooth and nail,” said Mrs. Robert Bertschy, owner of the Triangle X guest ranch, in 1975. “But now, with what I’ve seen them do in Jackson and Teton Village, I say ‘Thank God for Grand Teton National Park!’”¹⁸ This emerging conservation ethic influenced the composition of local government, whose members became increasingly supportive of planning and limited development. As growth in Jackson Hole increased, so did the number of organizations and individuals ready to fight it.

The first development-related issue to gain national attention was the proposed expansion of the Jackson Hole airport to accommodate commercial jet traffic. Located just southwest of Blacktail Butte, the facility was the country’s only airport located completely inside the boundaries of a national park. This condition made the airport an obvious and consistent target for controversy, beginning with the Supplemental Appropriations Act of 1972, which included a provision that “\$2,215,000 shall be

¹⁸ Leydet, “Jackson Hole,” 776.

available for airport planning, development, or improvement at the Jackson Hole airport.”¹⁹ The earmark resulted from a four-year effort by the Jackson Hole Airport Authority to secure funding for a parallel taxiway to relieve airstrip congestion, an instrument landing system, and extension of the runway from 6,300 feet to 8,000 feet—the minimum length necessary for a Boeing 737 jet to operate. Support for the expansion came mainly from Jackson Hole businessmen and the ski industry, which saw the prospect of increased air traffic as necessary for future commercial expansion. Frontier Airlines, the main provider of airline service to the valley at the time, also supported the extension. As part of a plan to standardize its fleet with Boeing 737s to reduce maintenance costs, the airline wanted to phase out its use of the twin-prop Convair 580 in flights to Jackson. Before construction could begin, the proposed expansion faced scrutiny from the 135-page environmental impact statement, a requirement of the newly-passed National Environmental Policy Act of 1969. The report detailed two significant environmental effects of airport expansion: the increased noise from jet traffic, which would disturb wildlife and tourists alike, and the visual intrusion from approach lighting, which would be a distraction for those visitors viewing the mountains from the highway. Citing such reasons, the Sierra Club and other environmentalists mounted a decade-long legal battle against jet service to the valley, which they eventually lost. On April 14, 1981, the United States Circuit Court of Appeals in Washington, D.C., ruled in favor of Frontier Airlines, and jet service began just six weeks later.²⁰

¹⁹ Robert Belous, “Grand Teton’s Centennial Jetport,” *National Parks and Conservation Magazine*, April 1972, 8.

²⁰ Constance Stallings, “Flyway to Tourist-Trapdom,” *Audubon Magazine*, January 1974, 107-109; Rip Woods, *Jackson Hole Guide*, 16 April 1981.

Meanwhile, Teton County initiated its first attempt to create a master plan for development in Jackson Hole. This effort began in 1968 when the county planning committee, with the input of local citizens, began drafting a proposal to control subdivided development in the valley. Implemented in 1972, the master plan proved largely ineffective as county commissioners soon overrode the planning commission and approved non-compliant development projects. However, pro-planning forces were given a boost in 1975 with the passage of the Wyoming Land Use Planning Act, which required each county in the state to draft master plans. In June 1975 county officials hired the San Francisco planning firm Livingston and Blayney to develop a comprehensive land-use plan. It passed in 1978, limiting the density of development to one house per three acres, setting quality standards for construction, and establishing administrative procedures for development proposals. But because the plan could only restrict development for issues of public health, safety, and welfare, and could not require that land remain in agriculture or that wildlife habitat remain undeveloped, it possessed inadequate authority to control the explosive growth of the 1980s.²¹

Like those opposed to airport expansion, pro-planning advocates eventually fought development on the national level. Recognizing the shortcomings of the 1978 master plan even before it was approved, county officials and local residents wrote legislation that sought federal intervention in the development debate. Introduced by Wyoming congressman Teno Roncalio in 1977, the Jackson Hole Scenic Area bill proposed \$200 million in federal funds to buy development rights from ranchers. This

²¹ Leydet, "Jackson Hole," 786; Raye C. Ringholz, *Paradise Paved: The Challenge of Growth in the New West* (Salt Lake City: University of Utah Press, 1996), 71; Hocker, "Jackson Hole," 16.

“conservation easement” would not give the federal government actual ownership of the land, rather, they would retain veto power over its use, even if it were sold. The bill ran into significant opposition from local landowners, who feared government limitation of their property rights and worried that any restrictions on land use might artificially deflate the value of their holdings. The bill passed the House in 1978 but failed to garner adequate support in the Senate, eventually stalling in committee. Though the bill did not ultimately pass, its consideration concerned local residents, many of whom felt threatened by the law’s big-government approach. In response, voters ejected two pro-planning county commissioners in 1978 in favor of more pro-development officials. Still, the bill’s concept of conservation easements would surface in future efforts to slow development in Jackson Hole.²²

The struggles against development in the 1970s led to the creation of numerous grassroots conservation organizations based in Jackson Hole. The first of these, the Jackson Hole Alliance for Responsible Planning, emerged from a meeting of 100 local residents on December 5, 1978. Dissatisfied with the election of the pro-development commissioners, the group assumed two main goals: “to monitor and protect a responsible planning process” and to develop “a scenic easement program to insure a measure of open space in the valley.”²³ Story Clark, a founding member of the Alliance, sought to accomplish the latter objective with the creation of the Jackson Hole Land Trust in 1980. Using the main tactic of the Jackson Hole Scenic Area bill, this organization attempted to create conservation easements through the sale or donation of land use rights.

²² Hocker, “Jackson Hole,” 16; “A Bold Bid to Preserve Scenery,” *Business Week*, 21 November 1977, 94; “When Washington ‘Grabs’ Land Out West,” *U.S. News & World Report*, 12 March 1979, 55.

²³ *Jackson Hole Guide*, 3 April 1980.

Landowners, who would retain the right to live and raise crops or cattle on the property, earned a charitable tax deduction for the difference in the value of their land with and without the conservation easement. The idea gained traction through the 1980s as rapid growth caused some longtime property owners to worry about the future appearance of Jackson Hole. Among the first large grantors were Howard and Sara Stern, owners of the Lazy R Ranch, and the Hardeman family, owners of 137 acres of meadowland east of Wilson on Highway 22. The 1990s proved even more successful for the Jackson Hole Land Trust, which acquired its largest easement on the 1,800-acre Walton Ranch, and set a new conservation precedent by purchasing the development rights to 19 acres of state-owned land. By the turn of the century, the Jackson Hole Land Trust held more than 100 conservation easements encompassing over 10,000 acres of valley real estate. After failing as federal legislation, the idea of conservation easements proved relatively successful as a tool of the private Jackson Hole Land Trust. The environmental effects of the organization's efforts were explainable in spatial terms: conservation easements ultimately protected 19 miles of scenic highway frontage, 1,893 acres of critical bald eagle nesting and wintering habitat, 281 acres of critical mule deer winter range, 3,673 acres of critical moose winter range, 140 acres of elk calving ground, and 21.9 miles of trout streams and rivers. "What we're trying to do here is preserve the myth," said Trust founder Story Clark. "And what that myth really involves is the landscape and the beauty of the area."²⁴

²⁴ Ringholz, *Paradise Paved*, 79-80; Jackson Hole Land Trust, *The Campaign for Our Valley: Protecting the Open Lands of Jackson Hole, Wyoming*, promotional pamphlet, c. 2003.

But for many, the preservation of the “myth” Clark mentioned also necessitated social change, including the continued promotion of Jackson Hole as a rustic remnant of the Old West and a quiet, rural community of resident-workers. Concern over the Jackson Hole’s image came to a head when big box stores like Walmart and Kmart attempted to locate in the valley. “What’s all the fuss about?” Wilson resident Kent Wagener sarcastically implored in a 1989 editorial.

Hey, let’s face it, people don’t come to Jackson for the mountains and the wildlife, they come here to shop-till-they-drop. That is why I am proposing to tear down those ugly ranch buildings and pave those stupid hayfields and put in the largest discount shopping center outside of L.A. We could get K mart, Freddy’s, Shopko, Pic and Save, Target, and all the rest. As the tourists drive into Jackson they don’t think about horses, fishing or the “Old West,” they think about shopping, and this would fulfill their dreams....Who cares about the Jackson Hole “image” anyway?”²⁵

Residents also struggled with the increasingly unaffordable cost of living in Jackson Hole, a problem that activists and county officials recognized as early as the 1970s, but did little to avert. The debate reemerged when Paul McCollister of the Jackson Hole Ski Corporation announced his intentions to tear down the Chalet, an affordable housing unit inhabited mainly by resort employees. In its place McCollister planned to build condominiums for the skiing elite. “But the workers who will be displaced won’t be thinking about skiing,” suggested a 1989 *Jackson Hole Guide* editorial. “They’ll all be leaving town because there are virtually no dwellings available to rent in the valley. And that’s a fact even during the ‘off’ season.”²⁶ Such comments filled the editorial pages of the late 1980s and early 1990s, a period that marked a turning point in the county’s planning ethic. With a 92% increase in developed parcels between

²⁵ *Jackson Hole Guide*, 10 May 1989.

²⁶ *Jackson Hole Guide*, 5 April 1989.

1978 and 1989, residents finally observed the growth that had been predicted for decades. But more importantly, they experienced its consequences, and began to demand updated planning regulations to address contemporary problems.

By the 1990s, residents and government alike began to take a more proactive approach towards planning in Jackson Hole. Conservationists praised the community's initiative when the Jackson Hole Alliance invited Project for Publish Spaces, Inc., to run a two-day planning workshop in March 1989. Two years later county officials began drafting a new master plan with more enforceable safeguards against negative environmental and social consequences. The plan promoted a spatial approach to conservation by the identification and creation of two zones, each subject to restrictive design standards: the Natural Resource Overlay, meant to protect wildlife habitat, and the Scenic Resource Overlay, meant to protect key scenic vistas. Drafters addressed social concerns mostly through regulations designed to preserve open space and ranching in Jackson Hole. These rules, meant to protect the valley's "rural character," included a 35-acre minimum lot size in undeveloped areas zoned Rural, and exemptions and incentives for ranchers who chose to keep their property in ranching. However, some participants like County Commissioner Grant Larson, felt that the plan did not adequately address the affordable housing issue. His vote was the lone dissension when Teton County approved the bill on May 9, 1994, by a vote of four to one. The city followed suit in November, giving pro-planning groups tenuous victory.²⁷

²⁷ *Jackson Hole Guide*, 29 March 1989; Jackson Hole Alliance, *Creating a Community in Balance: An Overview of the County Land Use Plan*, 1994; *Jackson Hole Guide*, 11 May, 1994; Ringholz, *Paradise Paved*, 76.

While most residents agreed that the new master plan was a drastic improvement over the ineffective plan passed in 1978, rapid development continued and major problems remained unresolved. Developed acreage as a percentage of private land increased from 22% to 31% in the eight years after the 1994 plan took effect and forced real estate prices still higher. Workers continued looking to Teton Valley, Idaho, and Star Valley, Wyoming, for affordable housing. In 1999 the Jackson town council attempted to address this problem with a plan to annex the 822-acre Hereford Ranch, creating 1,850 houses, apartments, and condos, 326 of which would be affordable units. In a pattern that would become familiar for such proposals, the town council approved the plan four to one in March, but voters rejected it in a May referendum more than two to one. Four years later, the town of Jackson introduced a new plan known as “town as heart of region.” It eased zoning and height restrictions on new downtown construction with hopes of preventing sprawl and creating an updated downtown with affordable upper-floor apartments for workers. Again, the town council approved the plan in September 2003, but voters rejected it by a two to one margin. In both cases residents feared that the plans would encourage too much development, damaging the town’s “rural character” and creating more new jobs than affordable housing units. “If we don’t go out, and we don’t go up, where do we go?” asked a frustrated Jackson Mayor Mark Barron after voters rejected the 2003 plan. “That will be the question for this community to answer.”²⁸

²⁸ *Jackson Hole News & Guide*, 10 December 2003; Bryan Foster, “No Ranchettes for the Rest of Us in Jackson,” *High Country News*, 8 July 2002 <<http://www.hcn.org/issues/230/11321>>; Rob Marin, “Jackson Can’t Agree on Growth,” *High Country News*, 10 May 2004. <<http://www.hcn.org/issues/274/14735>>

The spatial characteristics of development in Jackson Hole provided a clear explanation for the physical and social consequences the valley faced and the controversy that ensued. By 2002, Jackson Hole boasted over 624 developed commercial parcels and an astounding 9,939 developed residential parcels, an increase since 1978 of 60% and 239%, respectively. The economic benefit of this growth for the valley's construction, finance, and real estate industries, as well as the county tax revenue, were indisputable. But as Jackson Hole's acreage in development increased from 8% in 1967 to 31% in 2002, environmental and social consequences proved inevitable. Growth near delicate ecological areas and in scenic corridors concerned those mindful of both biology and aesthetic. The sheer rate and scale of growth created real estate prices so high that tourist industry workers could no longer live in Jackson Hole. The form this growth took worried longtime residents who observed the valley change drastically from what it was and neo-natives who observed it change from what they thought it should be. For these reasons, as the number of developed parcels increased and the area of land in development expanded, so did the controversy. But with government officials, residents, and conservation groups unable to compromise as a new century dawned, many people had the same question Mayor Barron asked in 2003: "where do we go?"

CHAPTER 5

CONCLUSION

Because the history of Jackson Hole is intertwined with the characteristics of development, the process of extracting historical information from spatial data proves just as significant as the historical narrative itself. On a basic level, this thesis is a local history of tourist development in Jackson Hole between 1967 and 2002. It thoroughly documents not only the way that development occurred, but also the consequences and controversies that resulted. Its greater contribution, however, is methodological. The use of GIS as a tool of historical research is still in its infancy, and this project suggests another application of the technique involving the spatial integration of historical and contemporary data. Together, these contributions create an informative and inventive examination of Jackson Hole tourism that expands the parameters of historical research.

As a local history, this thesis is an extension of existing historical scholarship. Broadly, it is a facet of historian William Cronon's notion that the West was defined by settlers' continuing tendency to seize abundance and encounter scarcity. In Jackson Hole, isolation, a short growing season, and falling crop prices created an economic scarcity that residents sought to deflect with the abundance promised by tourism. While this industry remained small and manageable for several decades after its inception in the 1920s, an influx of commercial development and second-home construction created unforeseen consequences. The resulting controversy was the inevitable result of what Hal Rothman termed the "devil's bargain," since tourism failed to meet many residents' expectations as an economic strategy. Finally, this thesis brings the history of tourism in Jackson Hole into the present, completing the work of Lawrence Culver's "Resorting to

Tourism” by documenting the valley’s rapid development after its initial embrace of tourism.

Through informative maps and graphs, this work offers a particularly detailed history of Jackson Hole’s development over the last four decades. Together, the 1967 study area, encompassing 27,139 acres of private land, and the study area for 1978 to 2002, encompassing 53,400 acres of private land, offer a broad area in which to document real estate expansion. The numbers are striking. In 1967, aerial photos showed just 901 developed commercial and residential parcels, occupying 830 acres. The larger study area showed an increase in development from 3,322 parcels in 1978 to 10,017 in 2002, which translates to an increase in developed acreage from 4,202 to 16,665. Commercial development did not keep pace with residential development during this period, suggesting an increasingly non-permanent population that created less commercial demand. But the numbers are just one measure of Jackson Hole’s land development history; the location of development is also enlightening. While developers subdivided land in Teton Village as early as the mid-1960s, other areas—like the Moose-Wilson Road and Rafter J Ranch census places—experienced significant growth throughout the 1970s and 1980s. South Park did not encounter its most rapid period of development until the 1990s. The location of development also documents the changing desires of Jackson Hole’s developers and second-home buyers. Seeking aesthetic beauty, buyers initially located near bodies of water or in areas with views of the Grand Teton; later, seeking seclusion, they located near public land boundaries and purchased lots of increasing size. Such characteristics of development proved to be a critical part of

Jackson Hole's history as they prompted numerous consequences and instigated heated controversy over the last four decades.

The consequences of development in Jackson Hole fall into three categories: economic, physical, and social, the latter two of which fostered considerable debate in the decades leading up to the twenty-first century. Economically, the valley benefitted greatly from the boost development gave the construction, finance, and real estate industries, as well as the increased property tax revenue. Significantly more controversial were the physical and social consequences. Development had a significant impact on the environmental characteristics of Jackson Hole, a long-isolated sagebrush flat tucked between the Gros Ventre and Teton ranges. While a coalition of dude ranchers, the National Park Service, and John D. Rockefeller, Jr. managed to protect much of the valley with the creation of an enlarged Grand Teton National Park in 1950, increasing human activity to the south disrupted a significant amount of plant and animal habitat. In their efforts to conform Jackson Hole to their liking, residents and tourists interfered in natural processes, controlling flooding, insect swarms, and fires that had previously been common in the valley. They also introduced foreign plant and animal species—which competed with native species for resources—and polluted the air with their cars and snowmobiles. The social qualities of Jackson Hole also changed dramatically. The increasing density of development in the valley caused real estate prices to skyrocket, pushing many service workers to housing in neighboring valleys. As dude ranches faded from the new tourist economy, the valley's Old West motif survived only in rustic architecture and folksy marketing strategies. As development accelerated, its consequences became more noticeable, fostering controversy between residents, citizen

groups, and government officials. This debate resulted in three development master plans, none of which slowed development or completely satisfied any party involved. This story of consequences and controversy, coupled with the spatial documentation of development in the valley, offers a significant contribution to the local history of Jackson Hole.

While this thesis focuses its analysis specifically on tourist development in Jackson Hole, it is not simply a local history; its methodological process is an important contribution to the body of environmental and leisure history as a whole. Engineers and ecologists have been using GIS for the last forty years, but its use as a tool of historical research is barely a decade old. After the publication of a GIS-themed issue of *Social Science History* in 2000, some historians began to realize the benefits offered by GIS methodology, which are both analytical and visual. Using GIS, historians can assign specific value, time, and location attributes to historical data layers, then compare them both statistically and visually. Maps, graphs, and three-dimensional effects add an exciting visual dimension to the traditionally textual practice of history. Still, there are doubters. Some historians fear the application of a scientific tool to the practice of history, pointing to the threat that incomplete or vague historical data might pose to accurate GIS analysis. Others simply fear the technical nature of the method, which requires specific training not offered in most history programs. Mindful of such challenges, this thesis seeks to contribute to the evolution of this new historical methodology.

Central to this process are several creative techniques used to extract a comprehensive historical narrative from limited historical data. Layering several sets of

historical aerial photographs—and a tourist photograph—with modern GIS data creates a more analytically versatile model that retains its fundamental accuracy. This process produces information about tourist development in Jackson Hole more complete and detailed than any past printed or firsthand accounts. Ultimately, it is the combination of the computer mapping with traditional historical sources that elevates this process above traditional historical research methods. By offering an unbiased portrayal of development in Jackson Hole, GIS analysis provides data by which to validate all other accounts, which in turn provide a more descriptive context for change observed in the computer visualization. The history of tourist development in Jackson Hole is enhanced by this combination of qualitative and spatial analysis.

* * *

Several months after my initial visit to downtown Jackson, I returned on my final research mission: to peruse thirty years of *Jackson Hole Guide* microfilm without becoming nauseated by the erratic whirl of text and images streaking past my eyes. Unable to afford ski-season hotel rates, I had spent the previous night at my grandparents' cabin in Teton Valley and, like hundreds of Jackson employees, arose to a sunrise behind the Tetons before making the 45-minute trip across Teton Pass to work. Through the mountains Highway 22 looked more like a bobsled course than a road, its banked curves slickened by several layers of compacted snow. After sliding into Wilson, I passed through the snowy fields of the Hardeman Ranch, purchased by the Jackson Hole Land Trust in 1989. Beyond its bounds was a checkerboard of million-dollar

homes, black dots on a grand, whitened landscape. I wound around West Gros Ventre Butte to the Highway 89 junction where I turned left in front of the commercial strip development that citizen groups, environmentalists, and some government officials had fought so hard to avoid. I could have been in any city had I not been reminded by rustic wooden storefronts and folksy business names that I was in Jackson, Wyoming, the last of the “Old West.” As I accidentally passed my turn and entered downtown, it occurred to me how intentionally this place had developed. Each empty field, parking lot, and countrified sign was a product of forty years of extensive debate and legislation intended to encourage economic growth while protecting Jackson Hole’s unique environment and society. The valley’s development *was* its history, the details of which developers and their opponents encoded in the qualitative and spatial characteristics of commercial and residential expansion.

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APPENDIX

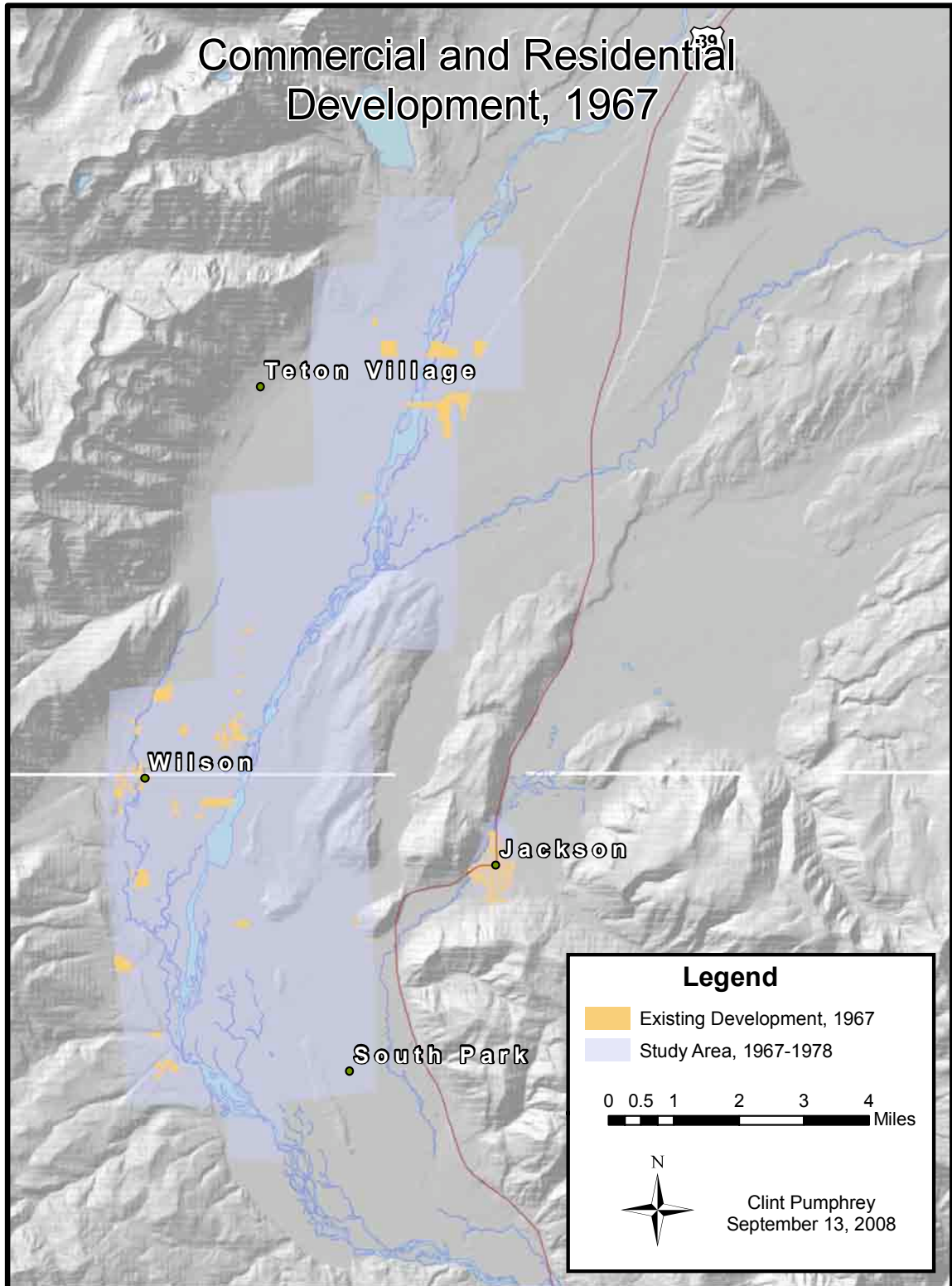


Figure 1. Commercial and residential development, 1967.

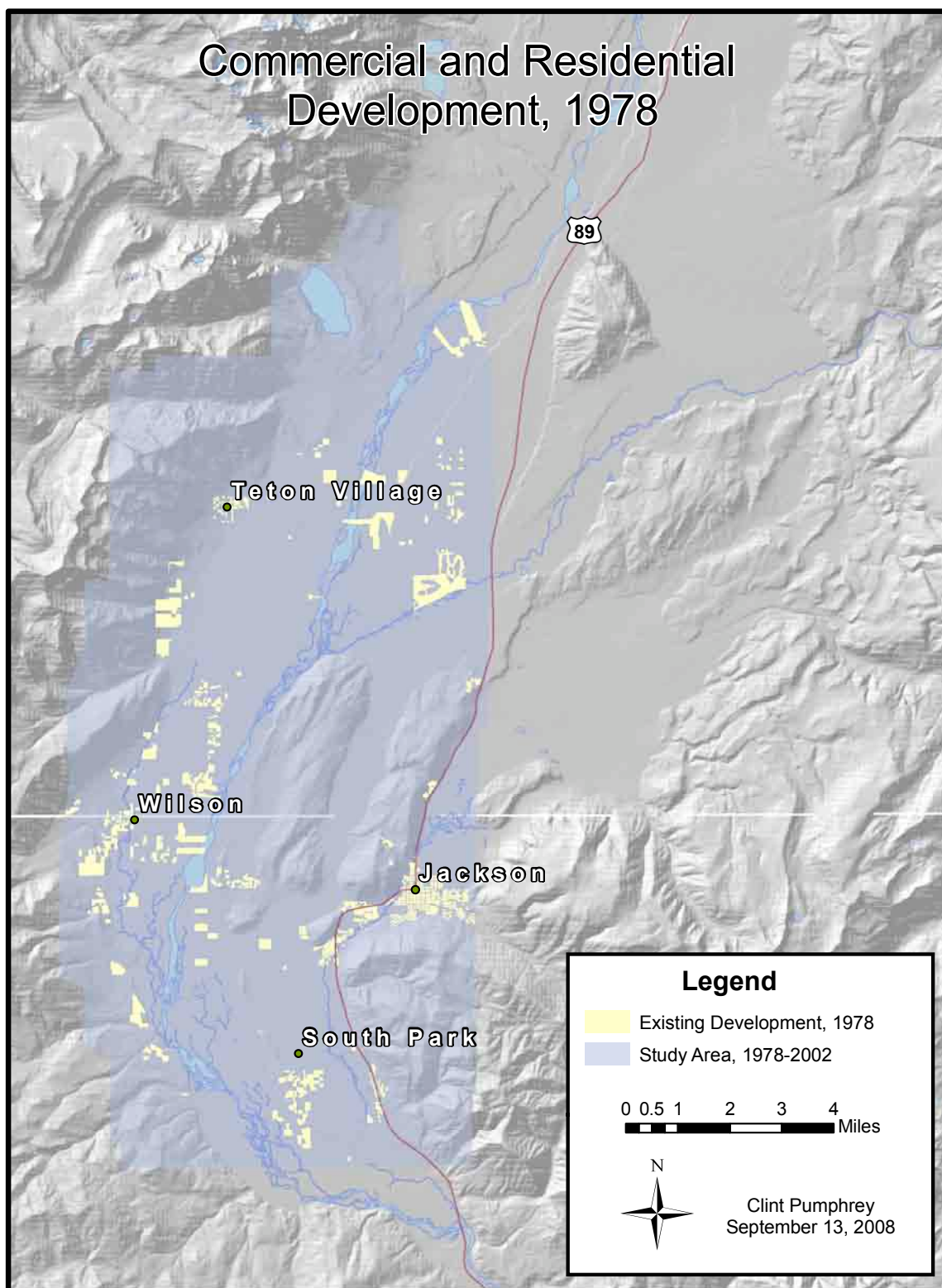


Figure 2. Commercial and residential development, 1978.

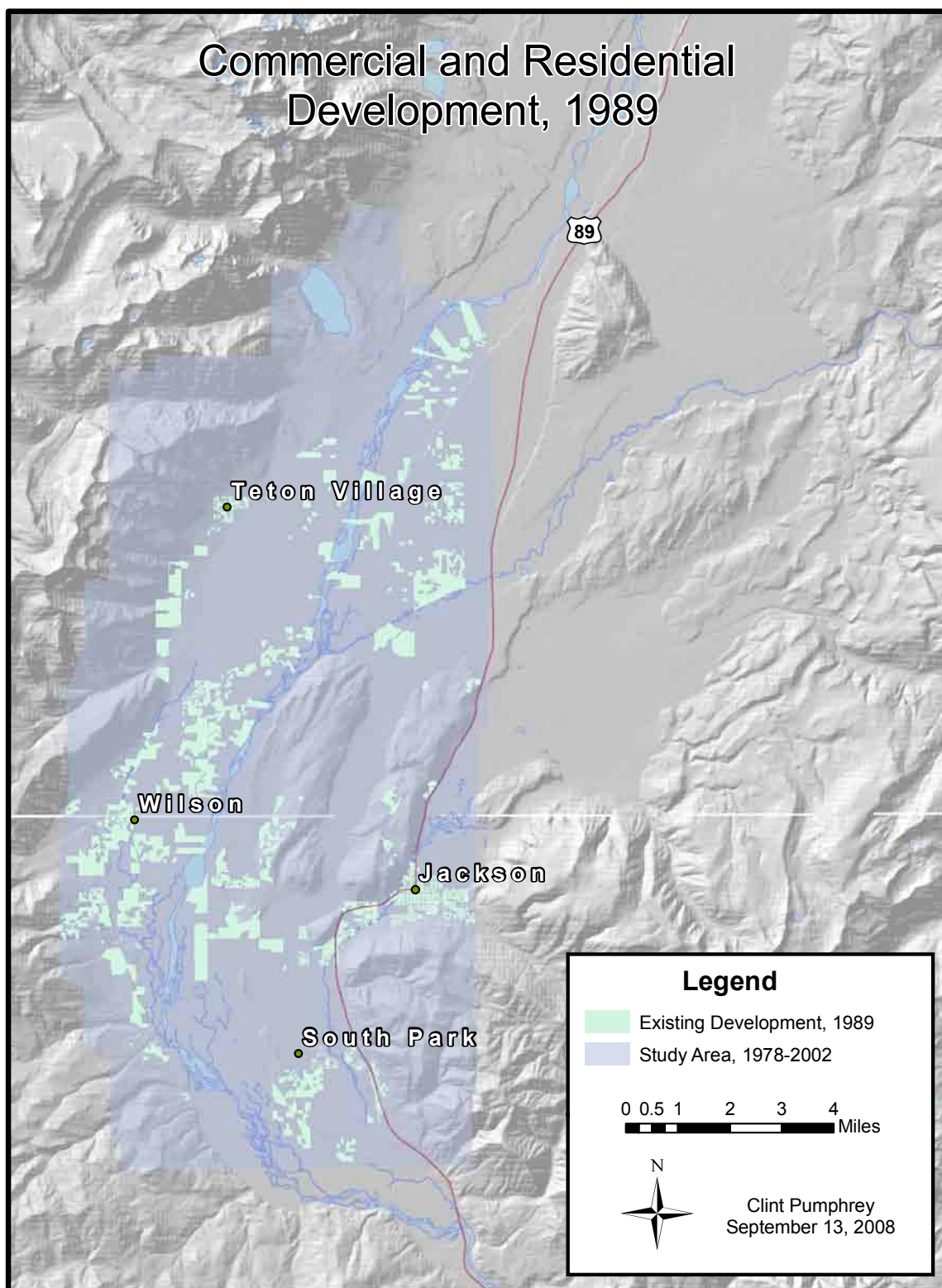


Figure 3. Commercial and residential development, 1989.

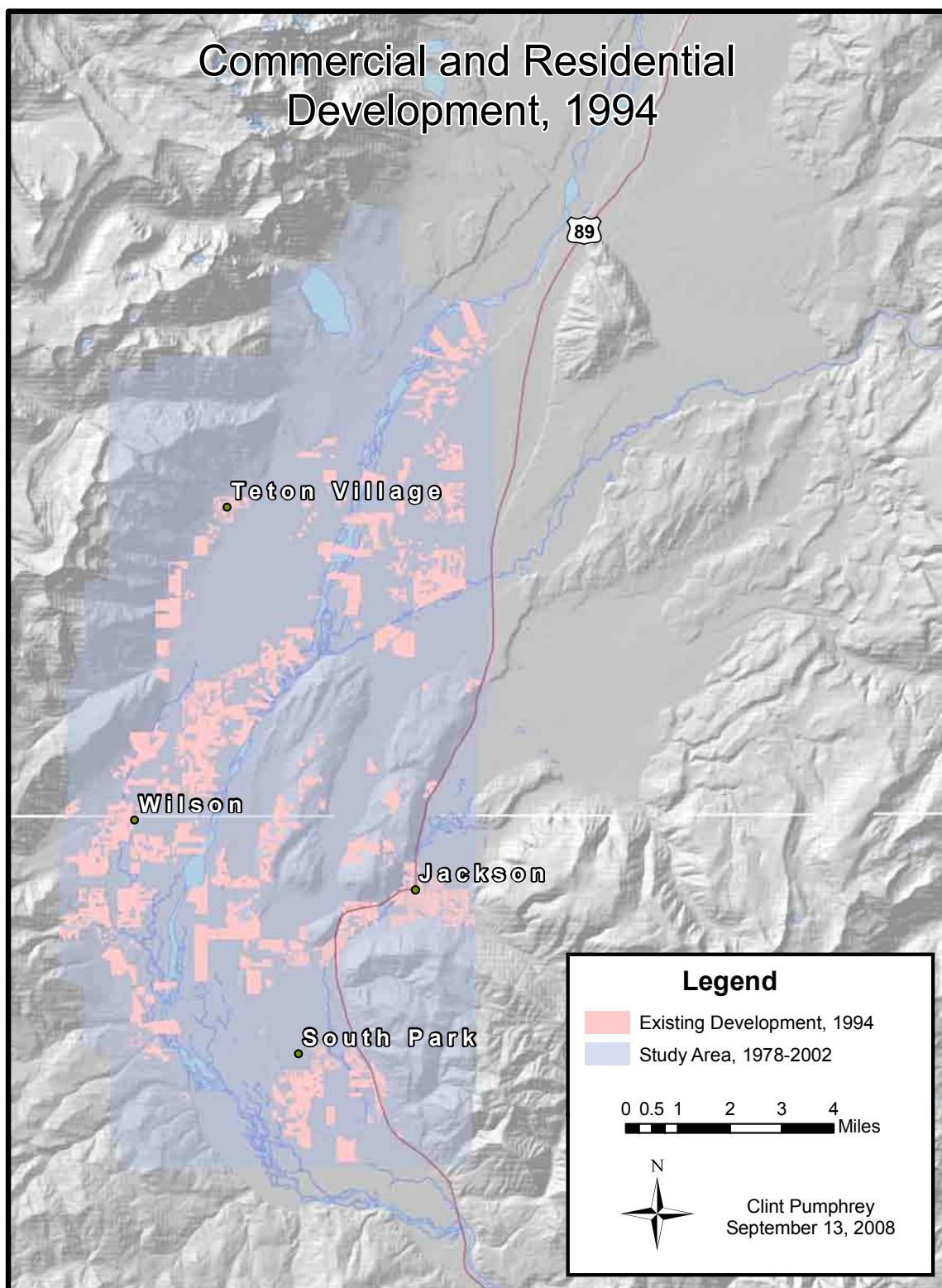


Figure 4. Commercial and residential development, 1994.

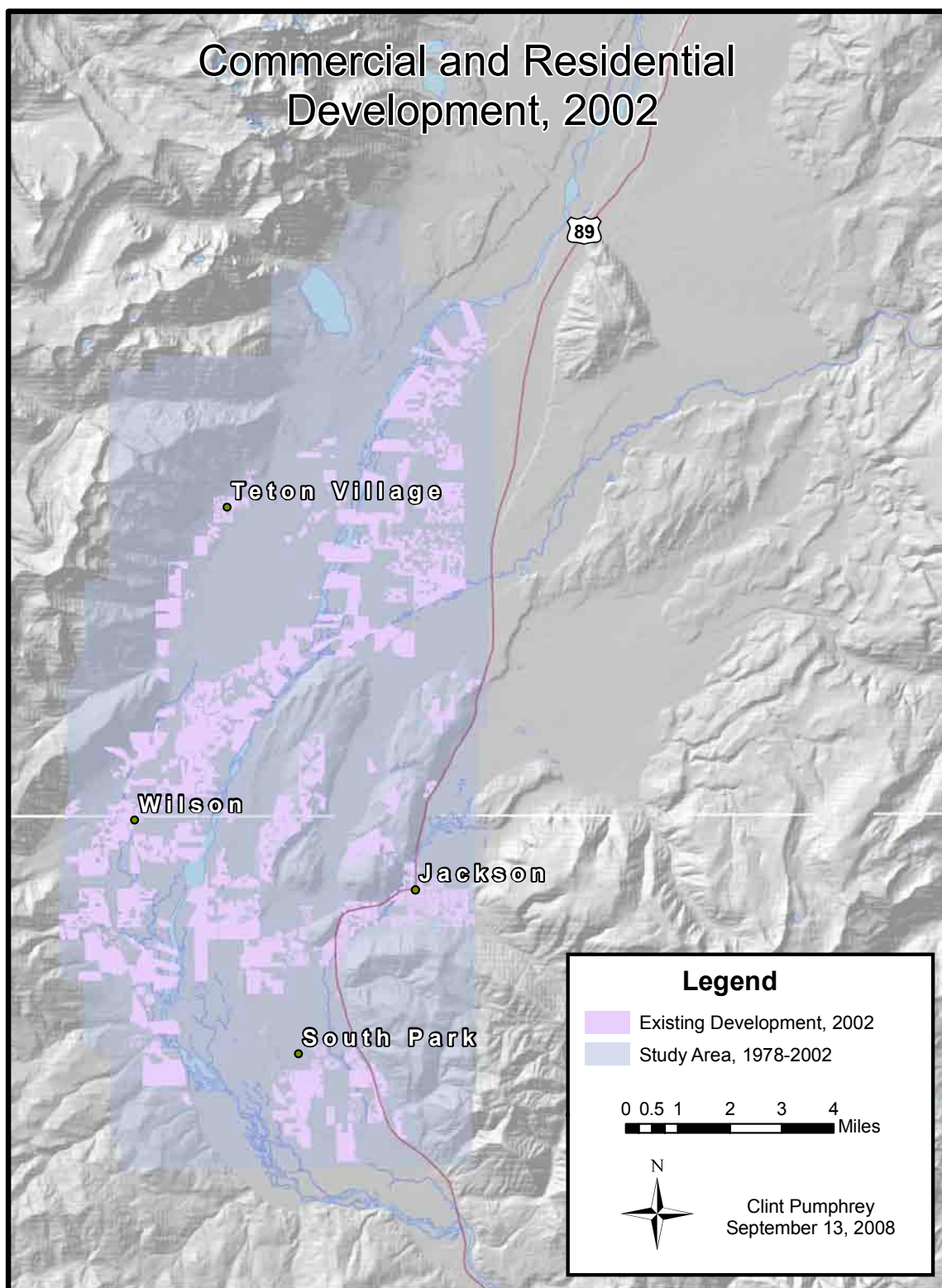


Figure 5. Commercial and residential development, 2002.