

WHEELS OF PRESERVATION: MOBILE STRUCTURES AND THE NATIONAL
REGISTER OF HISTORIC PLACES

by

JOSHUA H. BAUM

(Under the Direction of MARK REINBERGER)

ABSTRACT

This thesis was written to provide evidence and justification for the inclusion of historically significant automobiles on the National Register of Historic Places (NRHP). During the first half of the twentieth century, the automobile transformed American culture and reshaped America's landscape. The NRHP includes thousands of individual listings of road-related resources which owe their significance to the automobile. Automobiles themselves, however, are not represented. Arguing for their inclusion, this thesis begins by examining the early history of automobiles in the United States and the history of the NRHP. Mobile structures listed on the NRHP, such as ships and aircraft, are then evaluated for similarities with automobiles. Finally, a privately-run register for historic automobiles is evaluated for compatibility with the NRHP.

INDEX WORDS: Automobile, History, Historic Preservation, National Register of Historic
 Places

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JOSHUA H. BAUM

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by

JOSHUA H. BAUM

Major Professor:	Mark Reinberger
Committee:	Scott Messer
	Scott Nesbit
	James K. Reap

Electronic Version Approved:

Suzanne Barbour
Dean of the Graduate School
The University of Georgia
May 2017

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CHAPTER 1

INTRODUCTION

I think that cars today are almost the exact equivalent of the great Gothic cathedrals: I mean the supreme creation of an era, conceived with passion by unknown artists, and consumed in image if not in usage by a whole population which appropriates them as a purely magical object.¹

-Roland Barthes, *Mythologies*, 1957

Motocycle, polycycle, or road machine; buggy, breezer, flivver, or chariot; horseless carriage, hotrod, hay burner, or jalopy. However it is named, the automobile is a singularly transformative technology. Physically and culturally, in little more than a century, it has profoundly shaped and reshaped the industrialized world. The United States, for much of the twentieth century, was the center of this change.

The National Register of Historic Places repeatedly recognizes the automobile's significance, serving as a repository for examples of its impact on the built environment. In addition to historic districts that owe their significance to the automobile, thousands of individual listings represent road-related resources. At the same time, the National Register is obviously able to accommodate mobility. The listing of ships, locomotives, rail cars, and aircraft provides

¹ Roland Barthes, *Mythologies*, trans. Annette Lavers (New York, Farrar, Straus & Giroux, 1972), 88. This paragraph introduces a brief essay on the recently introduced Citroen DS, a car whose name, in French, shares a pronunciation with the word "goddess." Coincidentally, and tragically, Barthes died in 1980 at the age of 64 as a result of injuries sustained from being struck by an automobile.

proof. National Register Bulletins dealing with ships and aircraft seem to indicate that the listing of these structures is not so much tolerated as it is encouraged.

Where are the automobiles? Are any listed on the National Register? Should they be? Aside for a stray mention in a National Register bulletin, the Park Service provides little guidance.² Online searches of the National Register database are little help. Additionally, the field of historic preservation is curiously mute when it comes to the preservation of automobiles themselves. Academic databases can be searched and indexes can be scoured. The inclusion of automobiles on the National Register has not been the subject of significant research or thought.

This thesis is an attempt to answer a seemingly simple question: Should automobiles be included in the National Register? In the absence of relevant research, arguments are built from the ground up. Acknowledging that a superficial answer depends on how the reader defines both “automobile” and “National Register,” the broader meaning of both terms is established by investigating their origins and use. Additionally, an attempt is made to locate automobiles in the context of similar structures—particularly aircraft—that are already listed on the National Register. No list of these structures could be found, so one was assembled.³

The chapters that follow argue that the answer is yes: historically significant automobiles can and should be listed in the National Register. The final chapter shifts to a secondary question: Does anyone care? Ten to twenty years ago, an affirmative answer would have been a stretch. Now, however, the answer is a definite yes. Only recently, mainstream American car collecting has adopted new ideas about the recognition and treatment of historically significant

² In National Register Bulletin 15, a list that gives examples of structures includes “automobile.” This bulletin is cited several times in this thesis and discussed in detail in Chapter 5.

³ Grouped by type of structure, this list is presented as a series of tables in Appendix 1.

vehicles. It may not be easy or immediate, but broader inclusion of automobiles in the National Register would provide one the best ways of honoring their significance in American history.

CHAPTER 2

THE EARLY AUTOMOBILE IN AMERICA

Come away with me, Lucille,

In my merry Oldsmobile.

Down the road of life we fly,

AutoMap-bubbling, you and I.

- "In My Merry Oldsmobile"

Lyrics by Vincent P. Bryan

Frederick Jackson Turner, addressing a meeting of the American Historical Association in 1893, informed his assembled colleagues that "The existence of an area of free land, its continuous recession, and the advance of American settlement westward, *explain American development.*" Turner was presenting his seminal essay, "The Significance of the Frontier in American History." The essay introduces what became known as the "Frontier Thesis," arguing that the American Frontier was the principle shaping force behind American character, American democracy, and American institutions. It was, according to one of Turner's descriptions, "the line of most rapid Americanization."⁴

Turner's essay was occasioned by the frontier's official disappearance. The census bureau had determined that the frontier, no longer an unbroken line, "cannot, therefore, any longer have a place in the census reports." To Turner, "This brief official statement marks the

⁴ Martin Ridge, "The Life of an Idea: The Significance of Frederick Jackson Turner's Frontier Thesis," *Montana: The Magazine of Western History* 41, no. 1 (Winter 1991): 7-10.

closing of a great historic movement.” Without a frontier, Turner asked, what would happen to the United States?⁵

Automotive historian James Flink makes the observation that the frontier, as Turner defined it, “offered Americans a unique form of geographic and social mobility that centrally influenced the development of nineteenth-century institutions and values.” In 1893, when Turner presented his paper, “neither Turner nor anyone else foresaw that a new form of mobility was to become even more significant in shaping the lifeways of twentieth-century Americans.”⁶

Turner had presented his work in Chicago, Illinois, during the World’s Columbian Exposition. In Springfield, Massachusetts, 772 miles to the east, a different, but no less impactful, kind of frontier was struggling into existence. In 1893, brothers Charles and Frank Duryea introduced the marriage of a carriage body and a four-horsepower, two-stroke, internal combustion engine to the streets of Springfield. Their invention is commonly accepted as the first practical American automobile.⁷ “From these inauspicious beginnings,” Flink writes, referring to the Duryeas, “automobility was rapidly to develop into a force with deeper and broader influence than Turner’s frontier.”⁸ What would happen to the United States without the frontier? The automobile would happen.

⁵ Ridge, 10.

⁶ James Flink, *The Car Culture* (Cambridge, MA: MIT Press, 1976), 1.

⁷ Mark S. Foster, *Nation on Wheels: The Automobile Culture in America Since 1945* (Belmont, CA: Thomson, Wadsworth, 2003), 8.

⁸ Flink, *Car Culture*, 2. “Automobility,” as defined by Flink in a footnote to the quote cited, “sums up the combined impact of the motor vehicle, the automobile industry, and the highway plus the emotional connotations of this impact for Americans.”

By Adoption: America's Introduction to the Automobile

A cliché, familiar to anyone with at least a passing interest in the history of the automobile, dictates that the “automobile was European by birth, American by adoption.”⁹ Although parallel development of self-propelled vehicles occurred in Europe and the United States during the latter half of the nineteenth century, early American experimentation primarily centered on steam powered propulsion. The first United States patent for a self-propelled, steam-powered vehicle was granted in 1787 to Oliver Evans, an engineer who built high-pressure steam engines for industrial pumping and millwork.

Commissioned by the City of Philadelphia to build a steam powered dredge in 1804, Evans drafted plans to create a flat-bottomed vessel with four wheels that could move under its own power, with a top speed of four miles-an-hour, by a belt connecting the rear axle to the steam engine. On August 12, 1805, Evans piloted his new invention, dubbed the *Oruker Amphibolos* (Amphibious Digger), around the streets of Philadelphia. Although Evans' invention merits the distinction of being the first American automobile, it was no match for Philadelphia's rough cobblestone streets. Illustrating the vulnerability of early automotive technology, none of the *Oruker's* wheels or axles survived its maiden voyage.¹⁰

Primitive steam engines were heavy, imposing machines. Vehicle components, limited by contemporary engineering and metallurgy, were frail and imprecise. The smooth, unobstructed operating surfaces required by these components were rare on early, unsophisticated roadways. Early, high-pressure steam engines also had a reputation for catastrophic failure, with explosions resulting in significant damage and deaths. Although such failures were rare, the public

⁹ John Alfred Heitmann, *The Automobile and American Life* (Jefferson, NC: McFarland, 2009), 9.

¹⁰ Clay McShane, *Down the Asphalt Path: The Automobile and the American City* (New York: Columbia University Press, 1994), 79-83.

perception deemed steam engines a safety risk and sought to limit their use on public land. Although a number of innovators would continue to build and improve upon steam-powered road vehicles throughout the rest of the nineteenth century, and into refinement in the early twentieth century, the majority of engineers working in steam power turned their attention to the marine and locomotive industries.¹¹

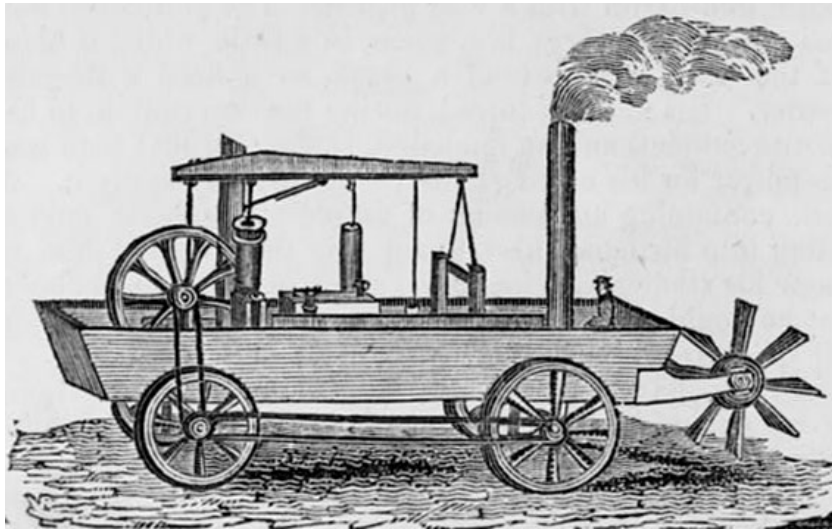


Figure 1. Rendering of Oliver Evans Oruker Amphibolos

It would take the development of a new technology, the internal combustion engine, to transform the automobile from mere novelty and spectacle to a serious contender to the horse and carriage. Credit for the invention of the modern internal combustion engine is generally given to Belgian inventor J. J. Étienne Lenoir. In 1860, Lenoir patented a two-stroke engine powered by the ignition of gasoline by a spark via a coil and battery pack.¹² In the following 15 years, German engineers Nicholas Otto and Gottlieb Daimler refined Lenoir's design, developing a reliable, lightweight, four-cycle engine. Introduced to America at the Philadelphia

¹¹ McShane, 83.

¹² Heitmann, 14.

Centennial Exposition in 1876, the “Silent Otto” engine would sell more than fifty thousand units by 1894.¹³

In 1886, German manufacture Karl Benz constructed what is generally recognized as the first internal combustion automobile, a single-cylinder, gasoline-powered tricycle. The Benz Patent-Motorwagen, exhibited at the 1889 Paris Exhibition, demonstrated the commercial feasibility of an internal combustion automobile. By 1890, Benz was manufacturing automobiles in quantity for the commercial market and by 1898 more than 100 Benz vehicles had been sold, some to buyers in the United States.¹⁴



Figure 2. 1886 Benz Patent-Motorwagen.



Figure 3. 1893 Duryea Motor Wagon.

By 1895, European manufactures had sold over 500 motor vehicles. In the United States, where there were still just a handful of prototype vehicles on the roads, the popular media, trade journals, and a number of inventors and innovators took notice. The American automobile, as an idea and a material fact, would have an important year.

In 1895, the Duryea brothers established the first American automobile company. Meanwhile, the United States Patent office received a deluge of over 500 applications for patents

¹³ McShane, 103.

¹⁴ Heitmann, 14-15.

relating to the automobile.¹⁵ Emulating a newly popular European practice, *Chicago Times-Herald* publisher Herman Kohlsaat sponsored the first American automobile exhibition race. Held on Thanksgiving Day and named after Kohlsaat's newspaper, the *Times-Herald* contest produced national publicity and praise for the new technology.¹⁶ November also saw the release of a new periodical, *The Horseless Age*. Its first issue begins with a kind of mission statement, declaring that news about automobiles would soon be in high demand and *Horseless Age* would be there to provide it. The authors acknowledge that "The appearance of a journal devoted to a branch of industry yet in an embryonic state, may strike some as premature." However,

Those who have taken the pains to search below the surface for the great tendencies of the age, know what a giant industry is struggling into being there. All signs point to the motor vehicle as the necessary sequence of methods of locomotion already established and approved. The growing needs of our civilization demand it; the public believe in it, and await with lively interest its practical application to the daily business of the world.¹⁷

The opening paragraph of *Horseless Age* proved to be more of a prophecy than a mission statement. In 1896, Henry Ford—at the time, a 33-year-old engineer employed by the Edison Company—tested his first prototype vehicle on his family farm near Dearborn, Michigan. As the decade progressed, a number of American entrepreneurs entered the automobile business. Included in their ranks were Ransom Eli Olds, Alexander Winton, Henry Leland and William C. Durant.¹⁸ Although the Europeans were the dominating force in the development of the automobile, American manufacturers were quickly catching up.

In 1899, the first year that figures were compiled by the *U.S. Census of Manufactures*, it is estimated that thirty American companies had produced 2,500 motor vehicles. In 1903 Henry Ford established The Ford Motor Company and in 1908 William C. Durant founded General

¹⁵ James J. Flink, *The Automobile Age* (Cambridge, MA: MIT Press, 1990), 435.

¹⁶ McShane, 107.

¹⁷ "Salutatory," *Horseless Age*, November 1895, 7.

¹⁸ Foster, 8.

Motors, absorbing the Buick, Oldsmobile, Cadillac, Oakland (Pontiac) and later Chevrolet marques. By 1907, American manufactures had caught up with their European contemporaries. That year, 44,000 motor vehicles were manufactured in the United States. Meanwhile, the combined motor vehicle production of Great Britain, France, and Germany numbered 42,150. In 1913, the last full year of peace before World War One, 606,124 motor vehicles were produced worldwide. Four out of five—485,000 motor vehicles—were made in the United States.¹⁹ The automobile, whatever its parentage, had become an American phenomenon.

A Vehicle for the Masses

The first decade of the twentieth century saw widespread acceptance of the automobile and a massive surge in its popularity. In 1900 approximately 8,000 vehicles were registered in the United States. By 1910, this number had grown to over 458,000.²⁰ Between 1900 and 1908, some 485 independent automobile manufactures were established. In 1905, the year that New York's annual automobile show became the nation's leading industrial exhibition, "In My Merry Oldsmobile" was America's most popular song.²¹ Glamorized in melody, print and early motion pictures, the mystique of the automobile had captured the American fascination. The obstacle for the vast majority of Americans was that real prospect of automobile ownership was financially still out of reach.

Before the early 1900s, automobiles were manufactured to customer specifications and hand crafted. The vast majority of components were engineered and tooled in house, in small quantities. Due to the extensive time and manpower required for their completion, and

¹⁹ Flink, *Automobile Age*, 25.

²⁰ Foster, 10.

²¹ Flink, *Automobile Age*, 25-26.

production numbers that fell short of demand, automobiles were expensive. While the average family's annual income was well below \$1,000, it was not uncommon for an automobile to cost between \$3,000 and \$6,000.²² Scorned by contemporary social critics as an appalling display of "conspicuous consumption" and a "plaything for the wealthy," the automobile quickly came to symbolize personal status and wealth. Early adopters included wealthy sportsmen, doctors, businessmen, and other members of the upper class. Industrialist John Jacob Astor was quoted as bragging that "a stable of cars is coming to be recognized as the proper thing for a man of wealth!"²³ Sinclair Lewis satirically summarized this sentiment in the 1922 novel *Babbitt*. "A family's motor car," Lewis wrote, "indicated its social rank as precisely as the grades of the peerage determined the rank of an English family."²⁴ It took the adoption and the development of another technology, the assembly line, to extend the novelty of the automobile ownership to the average American.



Figure 4. John Jacob Astor seated in an early automobile, his chauffeur is pictured at right.

²² Foster, 8.

²³ McShane, 130.

²⁴ Sinclair Lewis, *Babbitt* (New York: Harcourt, Brace & Co., 1922), quoted in David Gartman, *Auto Opium: A Social History of American Automobile Design* (London: Routledge, 1994), 59.

Invention of the assembly line is often misattributed to Henry Ford. Ford, far from inventing the assembly line, was not even the first to make use of it for the manufacture of automobiles. The assembly line was first utilized in automobile manufacturing by Ransom E. Olds in the production of the curved-dash Oldsmobile Runabout in 1901. The curved-dash Oldsmobile, powered by a one-cylinder gasoline engine, was a four-wheel, tiller-steered, open-top surrey style carriage. Selling for \$650, it was the first automobile within reach of an upper-middle class American consumer. Olds manufactured 425 curved-dash models in 1901. In 1902, after a curved-dash Oldsmobile completed an endurance run from Olds' Detroit factory to the New York automobile show, 750 units were sold in New York alone. Annual production rose to 5,508 units in 1904, surpassing the production numbers of any previous automaker. It is estimated that at the end of the curved-dash production run in 1907, over 19,000 units had been built.²⁵

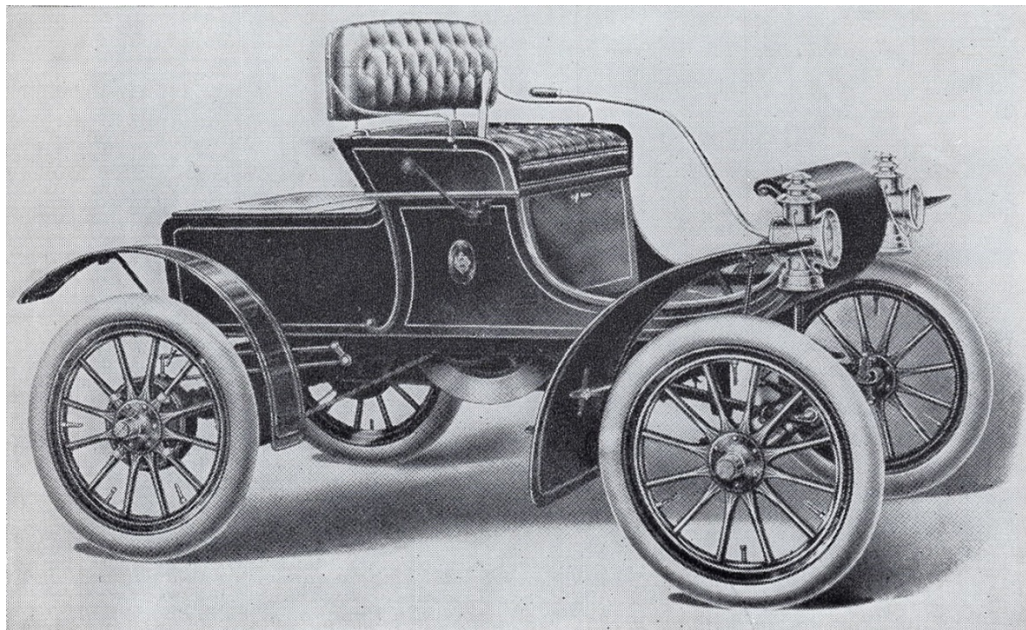


Figure 5. 1901 Curved-dash Oldsmobile Runabout.

²⁵ Flink, *Automobile Age*, 31-32.

Mr. Ford's "Tin Lizzy"

While Ransom Olds holds earned the distinction of being the first person to successfully mass-produce a low-priced, American automobile, it was Henry Ford's introduction of the Model T in 1908 that ensured the spread of mass-automobility to an eager American public. Ford brought his "Tin Lizzie" to the market in October of 1908 with a campaign that bluntly turned its face against the lure of luxury and status employed by his competitors. It was Ford's intention to build an automobile for the average American and in doing so he relied on price (50% below most competitors) and reliability to sell the car. Considered an engineering marvel, the Model T was an exceptionally rugged, utilitarian, and powerful vehicle. At the same time, its simplicity allowed individuals with even basic mechanical abilities to perform service and repairs.²⁶

Reconciling consumers' conflicting demands for reliability and affordability, Ford concentrated on volume high production to drive down cost. To speed up production, Ford constantly improved upon already innovative mass-production techniques. Between 1913 and 1914, at his newly opened Highland Park assembly plant, Ford added a moving conveyor belt to the assembly line. Within two years, production time of a Model T was down from 12 hours to 93 minutes. By 1925, Ford was producing a car every 30 seconds with a daily output of over 9,000 vehicles.²⁷ Although the national cost of living more than doubled between 1910 and 1920, Ford continued to drop prices. In 1908, the introductory price for a new Model T was \$850. By 1926, a new Model T could be purchased for a little as \$290.²⁸

²⁶ McShane, 135.

²⁷ Ibid.

²⁸ Flink, *Automobile Age*, 458.

In order to retain production numbers and profits, Ford recognized that mass production required mass consumption and a standardized workforce. In 1914, in a move denounced as radical and fiscally reckless by other manufacturers, Ford instituted a five-dollar, eight-hour work day for employees that had been with him for six months and provided satisfactory service. Paying nearly twice the going rate for industrial labor and offering a shorter work day, the initiative defied the economic wisdom of the day. While industry experts and economists foresaw his imminent bankruptcy, Ford's actions created a loyal workforce with a higher standard of living, increased leisure time, and newfound expendable income.²⁹ The five-dollar day established the industrial middle-class and with it a completely new, consumer-driven market segment. Ford's social and economic experiment paid off, with profits nearly doubling over the next two years. Nearly everyone, even the workers on his production line, could afford to put a Model T in their driveway.³⁰

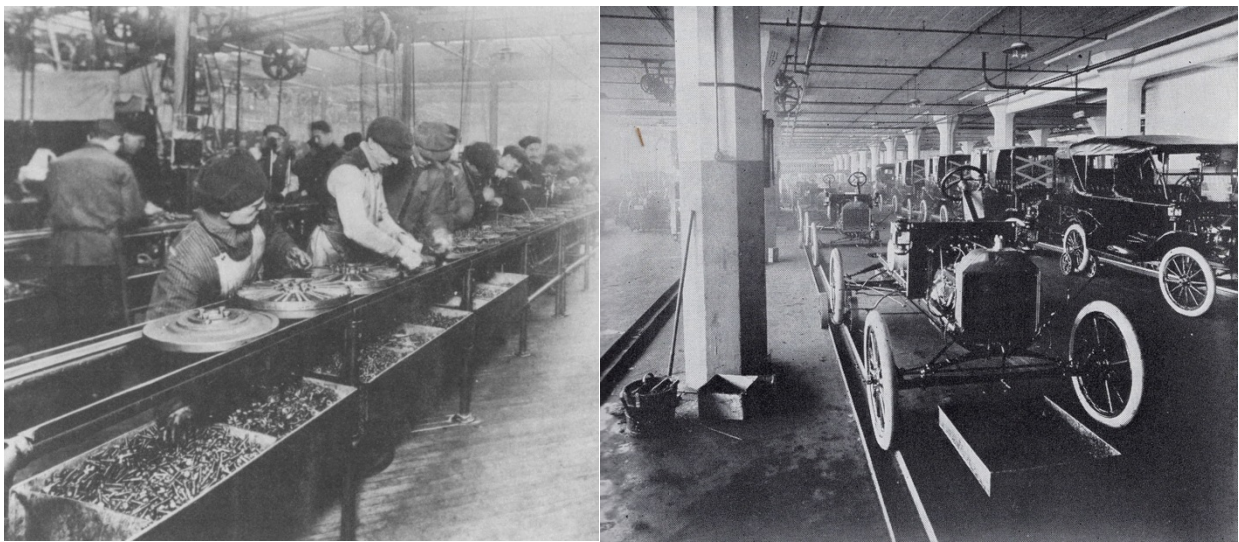


Figure 6. Ford Highland Park plant assembly line and workforce.

²⁹ Ibid., 459.

³⁰ Heitmann, 42.

By the mid-1920s roughly half of all cars on American roads were a Model T. Proliferating across urban and rural landscapes, the Tin Lizzy had become a ubiquitous sight. Model T annual production peaked in 1923 with 1,817,891 units produced.³¹ Ford's domination of the market continued well into the mid-1920s, though market saturation was quickly approaching and other manufacturers, borrowing from Ford's innovations in mass-production and his application of scientific management principals, had begun to produce models that rivaled the Model T in both quality and price.

General Motors and the Invention of Planned Obsolescence

Formulating a strategy to entice the dwindling number of first time buyers, General Motors' president Alfred P. Sloan envisioned a car "for every purse and purpose." Challenging Ford's approach of producing a single model with an ever-decreasing price, General Motors released models at multiple price points that were available with a wide array of color combinations and optional features.³² Furthering this strategy—and, to some degree, inventing the concept of planned obsolescence—General Motors introduced the Annual Model Change. Consumer dissatisfaction was engineered into the product by slightly modifying a model's cosmetic accoutrements on an annual basis and a giving it a major restyling every three years. Buyers were constantly lured into showrooms for the newer, sleeker, more expensive models.³³ To ensure that GM marques and models were distinguishable and establish brand identities, Sloan hired Hollywood automobile customizer Harley J. Earl to head the newly-established Art and Colour Section in 1927. As the industry's first in-house styling department its development

³¹ Foster, 10.

³² Heitmann, 60.

³³ Ibid., 60.

forever changed the way manufacturers went about producing automobiles. Not only did they need to be affordable and reliable, now they also needed to look good.³⁴



Figure 7. Harley Earl designed 1927 LaSalle 303 Roadster.

When challenged over his deeply rooted opposition to change, Ford ostensibly countered that buyers could have a Model T in “any color they choose, as long it was black.” Facing diminishing sales and increasing corporate pressure, Ford reluctantly ceased production of the Model T. During a production run that spanned two decades, the Ford Motor Company built more than 15 million Model Ts. Relatively unchanged since its introduction, it was discontinued in 1927 for the release of the updated, and much anticipated, Model A.³⁵

In addition to the astounding advances in mass-production, the early twentieth century witnessed a number of engineering innovations that furthered the ease and appeal of automobile ownership. First appearing on the 1912 Cadillac, Charles F. Kettering’s Delco electric starter ended the arduous and sometimes dangerous task of hand-crank starting.³⁶ The electric windshield wiper first appeared in 1917 and four-wheel hydraulic brakes were introduced in 1920. Firestone introduced the first low pressure corded balloon tires in 1922, greatly improving

³⁴ Flink, *Automobile Age*, 234.

³⁵ Foster, 11.

³⁶ Flink, *Automobile Age*, 212.

ride quality and reducing the common occurrence of tire blowouts.³⁷ By the late 1920s, manufactures had shifted away from open touring cars in favor of closed sedans, allowing for more comfortable and private year-round motoring. The automatic transmission was invented in 1937 and, by 1939, Packard & Nash offered an optional, primitive, air-conditioning system.³⁸

Over time, automobiles were becoming easier and more comfortable to use.

Manufacturers were also making them easier to buy. With the creation of the General Motors Acceptance Corporation (GMAC) in 1919, General Motors became the first automobile producer to allow consumers to finance vehicles on credit. By 1925, three out of four new vehicles were purchased on installment plans, creating a framework for the purchase of expensive consumer goods that extends to this day.³⁹ Henry Ford, who considered the practice foolish and immoral, held off consumer financing until 1928.⁴⁰

By the time the stock market crashed in 1929, the American automobile industry consumed some 85% of the national rubber output, 67% of all plate glass produced, and 19% of iron and steel production. The number of people employed in the making, selling and servicing of automobiles stood at 1.5 million.⁴¹ The number of registered automobiles totaled over 26.7 million, enough seats for every living American. In 1929 alone, US production exceeded 5.3 million units, a number that would not be equaled again until 1949.⁴² For the vast majority of Americans, a plaything for the wealthy had become an essential component of daily life. The automobile was here to stay.

³⁷ Foster, 11.

³⁸ Ibid.

³⁹ Flink, *Automobile Age*, 461.

⁴⁰ Foster, 10.

⁴¹ John A. Jakle and Keith A. Sculle, *Remembering Roadside America: Preserving the Recent Past as Landscape and Place* (University of Tennessee Press, 2011), 8-9.

⁴² Flink, *Automobile Age*, 460.

From Great Depression to Arsenal of Democracy

On October 29, 1929, a decade of immense prosperity was brought to grinding halt. As stocks collapsed, banks shuttered their doors, and unemployment lines grew, the Great Depression ravaged the country as the worst financial crisis of the twentieth century. The toll of the Depression was not unfelt by the booming automotive industry. Over 1,000 automobile manufacturers were active between 1900 and 1930. In 1931, only 19 manufacturers were still in business, producing approximately 40 different models.⁴³ By end of the 1930s, that number would dwindle even further, leaving General Motors, Ford and Chrysler responsible for 80% of the industry output.⁴⁴

An irony the of the era, noticeable to those who lived through it, was the production of extravagant luxury cars for the few who could afford them. The most monumentally extravagant coach-built automobiles ever constructed, and still unrivaled, were built during the 1930s. Illustrious marques included Pierce-Arrow, Marmon, Cord, Packard, Stutz, Auburn and Duesenberg. The Duesenberg Model J, introduced in 1929, was arguably the most glamorous automobile of the era. The Model J typically sold for between \$13,000 and \$20,000, some 20 times the price of the least expensive Model A.⁴⁵ Idolized as the pinnacle of luxury, Hollywood royalty the likes of Jean Harlow, Errol Flynn and Clarke Gable boastfully showcased their rolling works of coach-built art, while those still holding on to the American dream aspired to own them. Consistent with the economic atmosphere of the era, few of these opulent marques endured without introducing lower priced models appealing to a wider market.⁴⁶

⁴³ Heitmann, 101.

⁴⁴ Flink, *Automobile Age*, 462.

⁴⁵ Heitmann, 103.

⁴⁶ *Ibid.*, 101-104.

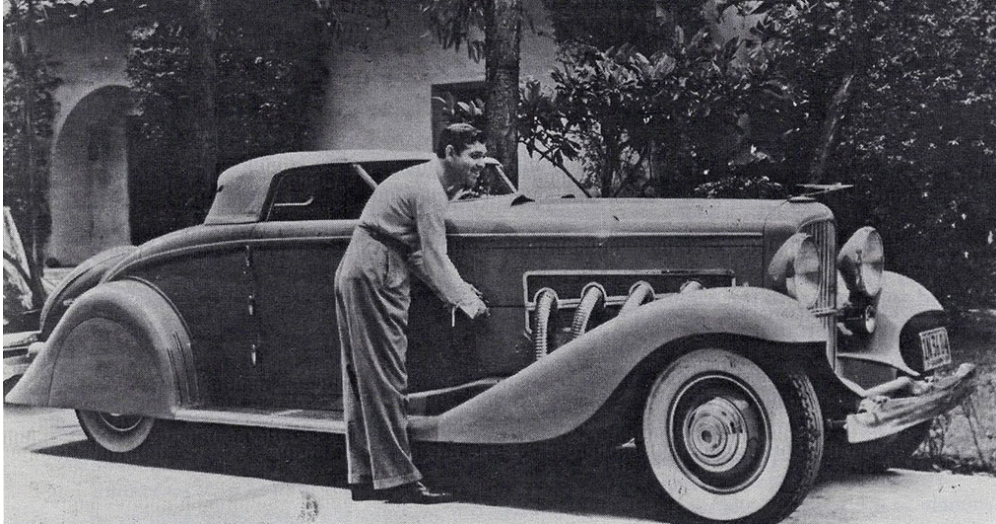


Figure 8. Clark Gable with his 1935 Duesenberg Model JN, coachwork by Rollston.

Enthusiasm for the automobile remained high throughout the Great Depression. The physical and social mobility, individuality, and independence provided by the automobile became a bastion of hope to a despondent nation. The overloaded, dilapidated Hudson used by the Joads on their westward journey is practically a central character in John Steinbeck's *The Grapes of Wrath*.⁴⁷ The *Middletown* studies, carried out by sociologists Robert and Helen Lynd in Muncie, Indiana, highlighted a strong symbolic relationship with the automobile. The studies documented families in Muncie who would forgo food, new clothing, and entertainment, deplete bank accounts, and even mortgage their homes to keep their cars running.⁴⁸ When a United States Department of Agriculture inspector asked on a Muncie farm women why her family had chosen to purchase an automobile before equipping their home with indoor plumbing, she replied "Why, you can't go to town in a bathtub!"⁴⁹

While Americans held onto their mobility with fierce tenacity throughout the Great Depression, continued growth of the automotive industry during the 1930s can be attributed to

⁴⁷ Foster, 14.

⁴⁸ *Ibid.*, 15.

⁴⁹ *Ibid.*

another key factor: it kept Americans employed. In addition to tens of thousands of manufacturing jobs, automobility required an elaborate network of ancillary support industries including dealerships, mechanical shops, filling stations, parts stores and a multitude of tourist services. Throughout the decade government agencies added thousands of personnel in traffic engineering, automobile licensing, registration, law enforcement and driver education.⁵⁰

Programs drafted as part of President Franklin Delano Roosevelt's New Deal recognized the centrality of the automobile and mobility in recovery efforts. The National Industrial Recovery Act (NIRA) of 1933 encouraged strong trade unionism amongst automotive manufacturers. Meanwhile, road building projects became cornerstones of both the newly founded Public Works Administration (PWA) and Works Progress Administration (WPA). In the decade following 1933, more than \$4 billion was channeled through relieve and recovery efforts in road infrastructure alone.⁵¹

Over the next decade the national economy began slowly rebounding, and the growing network of streets and highways improved the ease of mass-automobility. While production numbers had suffered at the onset of the Great Depression, General Motors President Alfred P. Sloan could boast that "in no year did the corporation fail to earn a profit."⁵² In 1941, 4.43 million automobiles rolled off the assembly line, the largest production number since the beginning of the recovery.⁵³ This would change with the United States' formal entry into World War II.

On February 22, 1942, automobile production in the United States ceased, but the assembly lines kept rolling in Detroit. The industry transformed itself into the "Arsenal of

⁵⁰ Ibid., 16.

⁵¹ Foster, 14.

⁵² Flink, *Automobile Age*, 232.

⁵³ Foster, 29.

Democracy.” Industry resources were converted to the manufacturing of military essential items including tanks, Jeeps, planes, bombs, helmets and ammunition. By the war’s end, the automobile industry had produced over \$29 billion in wartime goods. Responsible for one fifth of the nation’s military hardware, the automobile industry produced over 4 million engines, 3 million tanks and trucks, 6 million guns, and 27,000 airplanes. The automobile industry comprised a great reservoir of skill and production methods needed to produce the largest number of items possible in the shortest amount of time. Despite a delayed entry, by 1943 the United States was out producing all of the Axis powers.⁵⁴ Many scholars argue that the automotive industry was one of, if not the most, vital homeland components to our victories overseas.⁵⁵

During the war, American consumers were required to stretch their resources as far as possible. Strict rationing of consumer goods limited supplies of petroleum-based products such as tires, belts and hoses. Civilians were issued gas rationing cards, and a 35-mph national speed limit was imposed to reduce fuel consumption and strain on automobiles. By the time the Japanese surrendered in August of 1945, the majority of the 28 million registered vehicles in the United States rolled on bald tires, held together with “bailing wire and prayer.”⁵⁶ As G.I. forces came home to a nation of newfound optimism and prosperity, pent up demand for new automobiles was brimming.

⁵⁴ Ibid., 29-30.

⁵⁵ Flink, *Automobile Age*, 467.

⁵⁶ Foster, 2.



Figure 9. Military trucks awaiting delivery outside of a Detroit General Motors plant.

Passenger car production resumed in 1945 with the manufacture of nearly 84,000 units. 1.8 million units were produced in 1946. Production numbers rose to 3.4 million the following year. Despite these numbers, auto producers struggled to keep up with dealership backorders. In 1950, American manufactures produced 6.7 million vehicles, a number that would continue to grow throughout the decade. By 1955, vehicle registrations would exceed 52 million.⁵⁷ The golden age of the automobile arrived in the 1950s as America's relationship with the motor vehicle blossomed into a full-blown love affair.

⁵⁷ Ibid., 37.

CHAPTER 3

THE ROAD TO MODERN AMERICA

In the iconic 1985 film *Back to the Future*, Christopher Lloyd's character Dr. Emmitt Brown proclaims, "Where we're going, we don't need roads!" At the beginning of the twentieth century, ever-growing ranks of motorists proclaimed the opposite. Where they were going—or, at least, where they wanted to go—they badly needed roads. During the summer of 1903, Horatio Nelson Jackson completed the first coast-to-coast trip via automobile in a two-cylinder Winton.⁵⁸ The drive took sixty-three days, twelve hours, and forty minutes to complete. By comparison, modern coast-to-coast records have been completed in under thirty hours.⁵⁹ The roads Jackson encountered—where they even existed—ranged from deeply-rutted wagon trails that rain had transformed into impassable pits of mud, to crudely-surfaced paths of gravel and sand.⁶⁰

The development of our road systems and roadside support industries has been the automobile's greatest and most distinguishable impact on the American landscape. The roadway liberated Americans from rural social isolation, allowed urban dwellers to explore our National Parks, changed the way we planned our cities, and changed the way we engaged in commerce. The automobile and the open road gave us motor courts, drive-in theaters, roadside diners, audacious roadside architecture, and the family road trip to absorb it all. This chapter looks at the

⁵⁸ Jakle and Sculle, 27.

⁵⁹ David Shaftel, "Tale of Outlaw Racing, With the U.S. As a Course," *New York Times*, October 17, 2007.

⁶⁰ Jakle and Sculle, 27.

automobile's role in the development of early American roads, the spread of suburbia, and the rise of roadside commerce.

The Search for Better Roads

The Good Road Movement

Although the widespread acceptance and use of the automobile generated the greatest impetus for the campaign for better roads, the movement's origins were much more diverse. The earliest push for a system of improved roadways was comprised of automotive lobbyists, manufacturer and trade organizations, farmers, rural postal-delivery advocates, and a seemingly unlikely ally, cyclists.

The low-wheeled "safety bicycle," introduced in the late 1800s, established the bicycle as a viable form of transportation compared to the earlier high-wheeled velocipedes that preceded it. The ease of use and utility of the new design set off a bicycling craze that spread throughout the nation's cities.⁶¹ Cyclists desiring long-range touring quickly realized that the roadways outside of city centers were inadequate for travel. In 1880, the League of American Wheelmen was established in Newport, Rhode Island to lobby for road improvement and "to ascertain, defend, and protect the rights of wheelmen to encourage and facilitate touring."⁶² The league launched the Good Roads Movement in 1892 as a national campaign for the construction of improved roadways. In 1893, the first Good Roads convention was held in Washington, DC.

⁶¹ John B. Rae, *The Road and the Car in American Life* (Cambridge, MA: MIT Press, 1971), 28-31.

⁶² Heitmann, 73.

Following the convention, the Office of Road Inquiry, located in the Department of Agriculture, was established to collect data on the state of the nation's highway system.⁶³



Figure 10. Members of the Los Angeles Wheelmen Club who joined the Good Roads Movement to lobby for road improvements in Los Angeles County.

With the publication of *Good Roads Magazine* beginning in 1892 and a series of informational pamphlets and books, the movement began to gain traction and appeal to broader groups. The Good Roads Movement saw a second wave of activism during the 1890's spurred by rural farmers. A growing sense of agrarian discontent had developed in the latter half of the nineteenth century, and farmers, who embraced the automobile as "the most versatile power unit on the farm," had begun to demand improved roadways.⁶⁴ Road improvements would allow farmers to convey larger loads of produce to market and bypass the high cost of rail freight. They would also ease the burden of physical and social isolation associated with rural living.⁶⁵ Many populist leaders also backed the movement. Seeing an increasing trend in rural to urban migration, they regarded improved roads as a means to quell the erosion of the rural

⁶³ Ibid., 74.

⁶⁴ L. Goldstein and D. L. Lewis, *The Automobile and American Culture* (Ann Arbor: University of Michigan Press, 1996), 45.

⁶⁵ Heitmann, 73-74.

population.⁶⁶ The push for improved rural roadways was further expanded in 1896 when the United States Postal Service implemented free rural delivery. Rural carriers became fierce advocates. For the rural mail carrier, “poor roads doubled his work and sometimes meant a forfeiture of part of his pay if because of them he omitted a part of his route, whose wages were dependent upon full delivery.”⁶⁷



Figure 11. Typical conditions of early unimproved roads for motorists.

The Good Roads movement was further aided by the political pressure exerted by a multitude of early manufacturing and trade organizations such as the American Road Makers (ARM), National Automobile Chamber of Commerce (NACC), and the Association of Licensed

⁶⁶ Foster, 11-12.

⁶⁷ Wayne E. Fuller, "Good Roads and Rural Free Delivery of Mail," *The Mississippi Valley Historical Review* 42, no. 1 (June 1955): 72.

Automobile Manufactures (ALAM).⁶⁸ Additionally, as the presence of automobiles continued to spread over the country, social organizations were formed around their use. The most influential of these groups were the Automobile Club of America (ACA), established in New York City in 1899, and the Automobile Associations of America (AAA), organized in Chicago in 1902. These organizations oversaw smaller regional chapters and clubs and arranged road contests, leisure drives, and other events for their members. Their primary purpose, however, was to lobby for the protection of drivers' legal rights and the improvement of public highways.⁶⁹

In response to the movement's growing influence, the Office of Road Inquiry performed its first systematic review of the American roadway with their 1904 road census. The results were telling. Of 2,151,570 miles of highway, only 153,622 miles, or 7%, were considered "improved." Improved road surfaces included gravel, sand and shell. Of that number, only 141 miles could truly be considered "finished surfaces": 123 miles of brick and 18 miles of asphalt.⁷⁰

Private Highway Associations

Prior to World War I, lacking adequate state and federal aid or oversight, road building efforts were largely uncoordinated and inefficient. Impatient with the lack of forward progress, a number of private road associations organized as collaborations between private financiers and automobile interests.⁷¹ The most notable of these was the Lincoln Highway Association.

The brainchild of Indiana businessman Carl G. Fischer, founder of the Presto-Lite Company and a promotor of the Indianapolis Speedway, the Lincoln Highway Association was organized on July 1, 1913. The Lincoln Highway was planned as the first transcontinental, hard-

⁶⁸ Heitmann, 20-22.

⁶⁹ Ibid., 22.

⁷⁰ Ibid., 74.

⁷¹ Foster, 12.

surface motorway. New York City would be connected to San Francisco by “the shortest, best, and most direct route.” The concept garnered enthusiastic support from both the motoring community and automobile industry leaders including Roy D. Chapin of the Hudson Motor Car Company, and Packard Motor Car president Henry B. Joy.⁷²



Figure 12. Nebraska Lincoln Highway billboard.

Prior to commencing any formal construction, the organization published numerous tour and travel guides urging the public to seek adventure and hit the open road.⁷³ Donations from high-profile supporters were heavily publicized, including checks written by Theodore Roosevelt and Thomas Edison, both friends of Fischer. To raise construction funds, the Lincoln Highway Association issued membership certificates for a donation of five dollars. The first certificate, and membership number “1”, was issued to President Woodrow Wilson through a donation arranged by “a friendly Member of Congress.” Copies of President Wilson’s membership card

⁷² Flink, *Automobile Age*, 10.

⁷³ Heitmann, 75.

were quickly distributed to the press.⁷⁴ By 1920, more than 2,000 miles of the Lincoln Highway (later U.S. Highway 30) were completed. However, facing high cost overruns and difficulties with various state and local authorities, the Lincoln Highway Association disbanded after the passing of the Federal Highway Act of 1921.⁷⁵

Between 1912 and 1925, over 250 private, regional highway associations established corridors across the country including the National Old Trails Highway (Baltimore to Los Angeles), the Dixie Highway (Michigan to Florida) and the Jackson Highway (Chicago to New Orleans).⁷⁶ Through the combined efforts of private and state Good Road associations, segmented, primitive roadways were transformed into an interconnected system of finished highways. Although progress had been slow, by 1915 some 276,000 miles of the United States highway system consisted of finished surfaces. By 1921, that number would rise to 447,000 miles.⁷⁷

Federal Action: Highway Acts of 1916 & 1921

By 1916, the need for improved infrastructure had been markedly expressed. The first federal recognition of this need came in the form the 1916 Federal Aid Road Act. The act appropriated \$75 million to be spent over a five-year period by the Secretary of Agriculture for the improvement of rural roads. The money, distributed to state highway departments, was granted on a matching basis of up to 50% and not more \$10,000 per mile. For many states that

⁷⁴ Federal Highway Administration. "The Lincoln Highway - General Highway History - Highway History - Federal Highway Administration," Richard F. Weingroff, <https://www.fhwa.dot.gov/infrastructure/lincoln.cfm> (accessed January 23, 2017).

⁷⁵ Rae, 36.

⁷⁶ Jakle and Sculle, 31-32.

⁷⁷ Foster, 12.

lacked a formal highway department, the act served as an impetus for their development.⁷⁸ For western states, whose populations and tax bases were insufficient to raise adequate funds for matching grants, gas taxes were implemented to cover the costs. The first gas taxes appeared in Oregon, New Mexico and Colorado in 1919. Gasoline taxes were embraced as an equitable user tax, demonstrating that users were willing to “pay their own way for the almost infinite expansion of their automobility.” By 1929, all states and the District of Columbia had begun collecting gasoline taxes that amounted to some \$431 million in revenue for highway expenditures.⁷⁹

The 1916 Federal Aid Road Act recognized that improved rural roads were essential to national welfare, though little actual construction occurred before the United States entered World War I in April of 1917. During wartime preparations, it became abundantly clear that a truly coherent system of interconnected highways was also essential to the nation’s defense. The country’s rail system, which was used to ship millions of tons of food and supplies to seaports, was nearly brought to a halt by increased traffic. Boxcars, some stocked with perishable goods, stacked up in freight yards that lacked adequate service roads and were often fifty or sixty miles from major seaports.⁸⁰

Realizing that no alternative system of transportation existed to relieve the railroads, the Council for National Defense created the Highway Transport Committee in November 1917, appointing Roy D. Chaplin as its lead. Until that point, trucks destined for France were sent by the factories to port by rail. Chapin, with the cooperation of the Army, sought to relieve this strain by having trucks move under their own power to port while carrying a payload in the

⁷⁸ Ray, 36-37.

⁷⁹ Fink, 170.

⁸⁰ Foster, 12-13.

process. Of the first thirty trucks sent from Detroit to Baltimore, twenty-nine completed the “daring adventure across the Alleghenies in winter on unimproved roads.” By the end of the war, some 18,000 trucks made their own way to the seaports.⁸¹ Upon the war’s end, military officials expressed that if the war had been fought on United States soil, efforts would have been severely crippled by the inadequate highway system.⁸²

By the end of the war, it was obvious that action in road building was necessary. Highway systems were seen as crucial to United States defense and, during the span of the war, the number of vehicles on American roads had grown from two to nearly ten million. Congress responded with the Federal Highway Act of 1921. The act provided that “such projects will expedite the completion of an adequate and connected system of highways, interstate in character.”⁸³ The new act required states to designate seven percent of road mileage as “primary” roads, and provided matching funds on a fifty-fifty basis. The first appropriation under the law was made in 1922 for \$75 million. That year, some 10,247 miles of federally financed highways were built, nearly 3.5 times more than the preceding five years under the 1916 act.⁸⁴

From 1921 forward, road building was rapid. 447,000 miles of finished roads increased to 854,00 by 1930. By 1945, nearly half of the nation’s roads, or 1.71 million miles, were surfaced.⁸⁵ In 1923, the Bureau of Public Roads had planned a tentative network of arterial highways connecting every city with a population of 50,000 or more. In 1925 highway

⁸¹ Ray, 37-38.

⁸² Foster, 13.

⁸³ Ibid.

⁸⁴ Flink, *Automobile Age*, 172.

⁸⁵ Foster, 13-14.

numbering and marking was standardized and nation's first genuine national highway system, eventually totaling more than 350,000 miles, was in progress.⁸⁶



Figure 13. Construction of a highway interchange.

Out of the Mud and into the Suburb

At the turn of the century, while the Good Roads Movement was “pulling farmers out of the mud” with improved roadways, advances in road building and the broadening adoption of the automobile were significantly altering the face of the American city. The automobile, along with other technologies which came of age in the late nineteenth and early twentieth century, altered the way in which cities could utilize urban space. Advances in structural steel construction and electric lighting, along with the development of the elevator, allowed cities to grow vertically.

⁸⁶ Rae, 39.

The automobile allowed them to grow horizontally.⁸⁷ The President's Research Committee on Social Trends stated in 1933 that "by reducing the scale of local distance, the motor vehicle extended the horizon of community... Moreover, formerly independent towns and villages and also rural territory have become part of the enlarged city complex."⁸⁸ The result of this capacity for horizontal growth was the creation of the modern suburb.

During the early twentieth century growing acceptance of the automobile and rapid expansion of suburban development happened simultaneously. This was not coincidental, although the concept of suburbia well predated the automobile's existence. The earliest American suburbs trace their origins to steam rail and, later, electric trolley lines. The corridor-like developments spread from the city center like fingers from a palm following the rail lines. The individual mobility provided by the automobile greatly increased the habitable space between these lines. New housing developments were no longer dependent upon access to commuter rail.⁸⁹ According to Flink, "as early as 1922, some 135,000 suburban homes in 60 cities were already wholly dependent on automobile transportation. During the 1920s, suburbs grew twice as fast as did the cities they encircled, and by 1940 some 13 million Americans lived in communities lacking public transportation."⁹⁰

Suburban growth would continue to outpace that of cities, slowing only slightly during the Great Depression and through World War II when non-military housing and highway construction were significantly curtailed.⁹¹ Following the war, America saw an unprecedented boom in suburban development. A number of factors set the stage for this growth, primarily the

⁸⁷ Goldstein and Lewis, 34.

⁸⁸ Flink, *Automobile Age*, 150.

⁸⁹ Foster, 53.

⁹⁰ Flink, *Automobile Age*, 150.

⁹¹ Rae, 225.

creation of the Federal Housing Administration (FHA) in 1934 and the passing of the GI Bill in 1944. The impact of FHA-backed loans and the GI Bill on suburban development was swift and significant. The demand for post-war housing mirrored the demand of the post-war automobile market. In 1944, 114,000 single-family housing projects were developed. That number rose to 937,000 in 1946 and 1,692,000 in 1950.⁹²



Figure 14. Families moving into newly constructed suburban homes in Van Nuys, California.

The automobile was central to virtually every element of suburban life. As the heads of families commuted to work, many families purchased a second or third automobile. In the years between 1954 and 1963 the total number of households with more than one car rose from 4,000,000 to almost 9,000,000.⁹³ Children were chauffeured to school and then Little League and Girl Scouts in the family station wagon. Shopping habits in the suburbs were also completely transformed and dominated by the automobile. Instead of corner grocers, major department stores, and mail order catalogs, suburban commerce was decentralized from the city center with

⁹² Ibid., 58.

⁹³ Ibid., 228.

shopping centers clustered on the outskirts of communities. These centers, anchored by satellite branches of department stores like Sears & Roebuck or large supermarkets, housed ancillary specialty stores, pharmacies, restaurants and, of course, parking lots of epic scale.⁹⁴

It should be noted that the growth of suburbia from the 1940s to the 1960s did not occur without significant objection. Critics of suburbanization, both historical and contemporary, argue that suburban sprawl defaced the countryside with monotonous ribbon development, blighted central cities and nearly led to the death of public transportation. Further objections have been made that the uniformity of suburbia disrupted a sense of community and unfair lending practices, favoring suburban development over investment in urban cores, reinforced segregation on racial and socioeconomic lines.⁹⁵ Many of these arguments are valid, though further discussion is beyond the breadth of this document. Despite the long-term social and economic ramifications, the emergence of the automobile suburb in the post-war years was a dominant force in reshaping the American landscape. For many of the millions of Americans who emigrated to the suburbs during this period, home ownership represented upward mobility and a portion of the American dream. To a remarkable extent, that dream would not have been possible without the automobile.

⁹⁴ *Ibid.*, 229.

⁹⁵ Foster, 57-62.

Auto-Leisure: Motels, Road Food, and Drive-In Theaters

In the midst of the great suburban boom of the 1950s, Americans tuned their televisions to the popular show *Hit Parade* to be serenaded by hostess Dinah Shore encouraging them to “See the USA in their Chevrolet.” Annually, millions of Americans took to the roads for leisure and the tourist, hotel and fast-food industries thrived.⁹⁶ As vacationing families headed towards National Parks or the California coast via Route 66, commercialized roadside strips of filling stations, motor courts, and diners provided all of the conveniences of home—often in an amusement park like setting—enticing families to pull over and hopefully spend a little money along the way.⁹⁷

Although the family road trip might be idealized with images of mid-century America, leisure travel by automobile has existed since motorcars were first introduced. It was found that by 1927, some 29 million Americans, or one third the population, had taken pleasure trips by automobile.⁹⁸ The nation’s National Parks were some of the first tourist destinations to take advantage of vacationers’ new found mobility. In his biography of Stephen T. Mather, first director of the National Park System, Robert Shankland writes, “The automobile reached swarming ubiquity fast—faster than people now remember. As the auto prospered so did the national parks.” Automobiles were allowed in Mount Rainer National Park as early as 1908, followed by General Grant in 1910, Crater Lake in 1911, Glacier in 1912, Yosemite and Sequoia in 1913, Mesa Verde in 1914, and Yellowstone in 1915. As early as 1916, more visitors entered

⁹⁶ Ibid., 65.

⁹⁷ Jakle and Sculle, 105.

⁹⁸ Ibid., 8.

Yellowstone by automobile than rail, and the largest source of park revenue was derived from automobile admission fees.⁹⁹



Figure 15. Automobile visitors at Yosemite National Park's Wawona Tree.

A Place to Rest: Auto Camping and Motels

Regardless of the destination, or if the trip was the destination itself, vacationing motorists needed a place to stop for the night. Many automobile-touring families found traditional rail-hotels to be expensive and overly formal. In the decade between 1910-1920, many families escaped this expense by auto “gypsying” with their cars. Travelers would stop by the side of the road, setting up tents and cooking the evening meal by campfire, often on private property.¹⁰⁰ By 1920, municipalities began setting up camping facilities near towns. These auto camps were the result of pressure from local merchants, wishing to capitalize on the growing

⁹⁹ Flink, *Automobile Age*, 173.

¹⁰⁰ Heitmann, 183.

number of automobile tourists. Auto camps also provided control over social and sanitation problems, including altercations with property owners that resulted from gypsying. By the mid-1920s, it is estimated that the number of auto-campers ranged from 10-20 million annually and that somewhere between 3,000 to 6,000 municipal auto camps had been established.¹⁰¹

Between 1925 and the early 1930s, many municipal camps closed in favor of private, fee-based camps in order to discourage the misuse of camp facilities and those taking advantage of auto camps for long-term residency. To attract a higher-class patronage, some campgrounds began providing cabins for travelers who sought more privacy. The cabin camps, primarily “mom and pop” operations, set the stage for the first motor courts which combined the advantages of a cabin camps with hotel-type amenities such as indoor plumbing and private bathrooms. The first of these motor courts to use the word “motel” was James Vail’s Motel Inn, opened in San Luis Obispo, California in 1925.¹⁰²

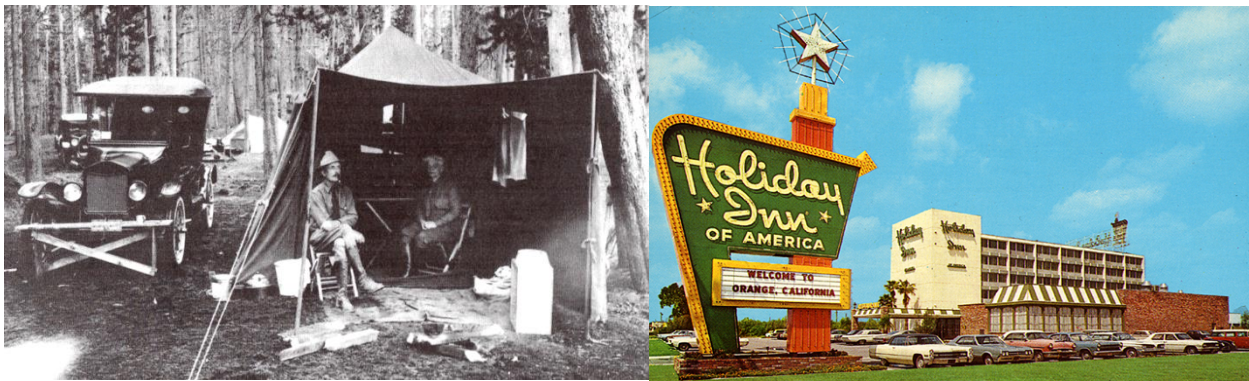


Figure 16. Left: Early auto campers, Right: Holiday Inn motor hotel.

As late as 1948, 98 percent of motels were still “mom and pops.”¹⁰³ The price, attentiveness of staff, and cleanliness of units varied between locations. To insure travelers had a pleasant and uniform experience, referral chains began appearing in the late 1930s which set

¹⁰¹ Flink, *Automobile Age*, 183-184.

¹⁰² *Ibid.*, 184-185.

¹⁰³ Foster, 96.

minimum standards of quality and allowed members to use common logos and trade names. The first widespread referral chain was Best Western. Founded in California in 1946 by motel owner M. K. Guertin, Best Western grew from 50 member motels to over 2,700 affiliates worldwide by 1980.¹⁰⁴ Referral chains would soon be followed by franchised chains, establishing the modern motel as we know it today. Motel franchising was pioneered by Holiday Inn, which opened its first location—three one-story buildings clustered around a swimming pool—on the outskirts of Memphis, Tennessee in 1952. The following year, Howard Johnson opened the first motel adjacent to one of his roadside restaurants, which he had begun franchising as early as 1935. By the late 1950s there were some 500 Howard Johnson restaurants—many standing beside newly standardized motels—serving identical menus, 28 flavors of ice-cream, quality, and consistency to American travelers.¹⁰⁵

Roadside Food: The Drive-In Restaurants & Fast Food

The orange roofs of Howard Johnsons were not the first eating establishments to proliferate along American roadsides. Throughout the 1920s and 1930s, thousands of food stands were built along the American roadside. In 1921, Royce Hailey opened what is recognized as the first American drive-in restaurant: The Pig Stand in Dallas, Texas.¹⁰⁶ Drive-ins offered hot dogs, hamburgers and barbeque sandwiches washed down with shakes and soft drinks at service windows to take back and enjoy in the car. A&W drive-ins, which opened in 1924, introduced

¹⁰⁴ Flink, *Automobile Age*, 186.

¹⁰⁵ *Ibid.*, 186-187.

¹⁰⁶ *Ibid.*, 161.

the carhop to deliver burgers and a frosty mug of root beer right to the car window. At the height of the drive-in craze in the 1960s, some 35,000 drive-ins operated from coast to coast.¹⁰⁷

Drive-in restaurants allowed motorists to get their food on the go, but roadside food would soon be revolutionized. In 1940, brothers Richard and Maurice McDonald opened a burger stand in San Bernardino, California, fifty miles east of Los Angeles. In 1948 the brothers dismissed their carhops, opened a drive through self-service window where motorists could order and collect their food, streamlined their menu, and began utilizing assembly line techniques for food preparation. By 1952, McDonald's was selling one million fifteen-cent hamburgers, one million twenty-cent shakes, and 160 tons of ten-cent french fry orders a year. The combination of a hamburger, fries, and a drink could be served to customers in twenty seconds.¹⁰⁸ In 1954 Ray Kroc, a former milk-shake machine salesman, began franchising the McDonalds platform and name. The concept caught on quickly and Kroc set up a chain of 228 restaurants over the next five years.¹⁰⁹ From the drive-in, fast food was born and by the 1960s thousands of limited menu roadside franchises were selling everything from tacos to doughnuts along American roads.



Figure 17. Left: Royce Hailey Pig Stand #2, Right: A&W car-hop.

¹⁰⁷ Ibid.

¹⁰⁸ Ibid., 166.

¹⁰⁹ Foster, 93.

The Drive-in Theater

The family automobile was transformed into the dining room by the drive-in restaurant, and with the drive-in theater it became the living room as well. The first drive-in movie theater was opened in Camden, New Jersey on June 6, 1933 by Richard M. Hollingshead Jr. Hollingshead, with his cousin Willis Warren Smith who owned a chain of parking lots, formed Park-In Theaters and opened their second location on Pico Boulevard in Los Angeles in 1934. After receiving a patent for the concept, they soon began selling the idea to other entrepreneurs for a fee of \$1,000 plus five percent of gross receipts.¹¹⁰ Consisting of a giant picture screen, rows of parking, and a projection booth with a snack stand, the drive-in theater appealed to families or those on a budget. Due to lower overhead, drive-in theaters were less expensive than downtown theaters and most included special provisions to amuse children such as a playground or animal park. At the peak of their popularity in 1958, there were 4,063 drive-in theaters across the country.¹¹¹ As hosts of unruly teenagers turned them into “passion pits,” and more homes purchased televisions, the appeal of the drive-in slowly declined. Today, drive-in theaters are few and far between, but those still operational beckon to an era when the automobile was king.



Figure 18. Drive-in Theater admission line and parking.

¹¹⁰ Flink, *Automobile Age*, 161.

¹¹¹ *Ibid.*, 161-162.

In the mid-1980s, French social critic Jean Baudrillard stated in his book *America* that, “drive ten thousand miles across America and you will know more about the country than all the institutes of sociology and political science put together.”¹¹² The American roadside and its iconography have become symbolic of American culture and values. From its humble beginnings as a novelty contraption crafted in the back of carriage and bicycle shops, to the tool that mobilized a nation, the automobile was a central driving force in shaping the American identity.

¹¹² Jean Baudrillard, *America*, trans. Chris Turner (London: Verso, 2010), 54.

CHAPTER 4
THE NATIONAL REGISTER OF HISTORIC PLACES

*There is only one National Register. Consequently, the official federal definition of what is historic is that which is included in the National Register.*¹¹³

-Ernest Allen Connally, first Director of the Office
of Archeology and Historic Preservation

*It is true of old roads; it is true of old houses; it is true of the appreciation of architecture, and it is true of the appreciation of any form of domestic history. Unless those things are saved, we are going to get so far away from a real appreciation of the route that the American people have traveled in arriving at their present development that it will be almost impossible to recreate the picture in time to come.*¹¹⁴

-Verne Chatelain, first Chief Historian of the
National Park Service

¹¹³ Ernest Allen Connally, "Origins of the National Historic Preservation Act of 1966 – Part II," *CRM Bulletin* 9, no. 2 (April 1986): 9.

¹¹⁴ House Committee on Public Lands, *Preservation of Historic American Sites, Buildings, Objects, and Antiquities of National Significance: Hearings on H.R. 6670 and H.R. 6734*, 74th Cong., 1st sess., 1935, 16.

Defining the National Register

Through its website, the first place one might look, the National Park Service offers at least two definitions of the National Register of Historic Places. On the home page, it is “the official list of the Nation's historic places worthy of preservation.”¹¹⁵ A few clicks away, it is “the official Federal list of districts, sites, buildings, structures, and objects significant in American history, architecture, archeology, engineering, and culture.”¹¹⁶

To the layperson, these definitions might seem discordant. “Historic places worthy of preservation” does not sound like a synonym for “districts, sites, buildings, structures, and objects significant in American history, architecture, archeology, engineering, and culture.” Should automobiles be included on the National Register? If one looks only at the first definition, the answer is probably “no.” Automobiles are not usually thought of as a place. If one looks only at the second definition, the answer is almost certainly “yes.” An automobile can be thought of as an “object” or a “structure,” and the automobile’s significance in American history, engineering, and culture is beyond debate.

As Jerry L. Rogers—a former Keeper of the National Register and Associate Director of the Park Service—noted, the National Register was “deliberately anchored... in the bedrock of National Park Service experience.”¹¹⁷ Any serious attempt to define the National Register and, in doing so, provide answers about the place it might hold for automobiles, has to include an account of historic preservation as carried out by the Park Service between 1933 and 1969. This

¹¹⁵ National Park Service, “National Register of Historic Places Official Website--Part of the National Park Service, U.S. Department of the Interior,” <https://www.nps.gov/nr/> (accessed February 3, 2016).

¹¹⁶ National Park Service, “Frequently Asked Questions: National Register of Historic Places Official Website--Part of the National Park Service,” <https://www.nps.gov/nr/faq.htm> (accessed February 3, 2016).

¹¹⁷ Jerry L. Rogers, “The National Register of Historic Places: A Personal Perspective on the First Twenty Years,” *The Public Historian* 9, no. 2 (Spring 1987): 92.

era saw the passage of two pieces of federal legislation that greatly expanded Park Service responsibilities. In 1935, one provided the “bedrock” for the Register. In 1966, the other called for its existence.

Building Bedrock: Preservation and the Park Service before 1966

Historic preservation, in some form, has been practiced in the United States since at least the 1850s. Before the early 1930s, it was almost entirely carried out by the private sector, often taking the form of house museums run by historical or genealogical societies.¹¹⁸ Limited federal participation began with the Antiquities Act of 1906, when preservation of historical and archeological sites on federally-owned land became a responsibility of the Department of the Interior. Established in 1916, the National Park Service assumed the Department of the Interior’s preservation responsibilities. Seven national monuments and one national park were placed in its care. By 1928, the Park Service was responsible for 16 archeological and historic areas.¹¹⁹

Though historic preservation was a responsibility of the Park Service for its first 15 years, John Sprinkle can accurately characterize the agency as “primarily a western land management agency concerned solely with the scenic and scientific values of what were considered economically useless landscapes.” Before 1931, the agency did not employ a single professional historian.¹²⁰

¹¹⁸ Barry Mackintosh, *The Historic Sites Survey and National Historic Landmarks Program: A History* (Washington, DC: History Division, National Park Service, Department of the Interior, 1985), 2.

¹¹⁹ Harlan D. Unrau and G. Frank Williss, “To Preserve the Nation’s Past: The Growth of Historic Preservation in the National Park Service during the 1930s,” *The Public Historian* 9, no. 2 (Spring 1987): 19-20.

¹²⁰ John H. Sprinkle, *Crafting Preservation Criteria: The National Register of Historic Places and American Historic Preservation* (New York: Routledge, 2014), 8.

In 1933, thanks in part to a fortuitous personal conversation between Parks Service Director Horace Albright and President Franklin Roosevelt, 60 historical parks and monuments were transferred to the Parks Service via executive order, putting it “firmly in command of federal historic preservation activity.”¹²¹ The transfer forced the creation of the “first federally supported history office” and, in turn, created the “new field” of historical technician.¹²² It also revealed a need for new legislation. Existing legislation had not been able to produce anything like a well-rounded selection of historic sites. Such a selection had never been sought, and a systematic evaluation of the nation’s historic resources had never been attempted.¹²³

Also in 1933, the Parks Service began to oversee Civilian Conservation Corps (CCC) work on state and federal preservation projects, and it began to administer the Historic American Buildings Survey (HABS).¹²⁴ “One of the most important documentation programs in the historic preservation movement,” HABS employed out-of-work architects, draftsmen, and photographers to document to nation’s architectural heritage, with special consideration given to building threatened by imminent destruction or alteration.¹²⁵

HABS and the CCC were both emergency relief programs. Both programs further expanded the role of the NPS in historic preservation, but there was no guarantee that they would continue. “Their activities,” Mackintosh writes, “were administrative improvisations, lacking specific legal authority. To ensure that it could continue its broad-based involvement the Service needed the sanction of law.”¹²⁶ The “sanction of law,” along with a broad set of mandates and

¹²¹ Mackintosh, *Historic Sites Survey*, 3.

¹²² Sprinkle, 7.

¹²³ Unrau and Willis, 29-30.

¹²⁴ Mackintosh, *Historic Sites Survey*, 4.

¹²⁵ Sprinkle, 29.

¹²⁶ Mackintosh, *Historic Sites Survey*, 4.

powers, was granted to the Park Service on August 21, 1935 with the passage of the Historic Sites Act (HSA).

The Historic Sites Act of 1935

In April of 1935, President Roosevelt wrote to the Chairman of the House Committee on Public Lands in support of the legislation that would become the HSA. Advocating for legislation to “lay a broad legal foundation for, and to develop and carry on, a national program for the preservation and interpretation of the physical and cultural remains of our history,” he believed that, “the preservation of historic sites for the public benefit, together with their proper interpretation, tends to enhance the respect and love of the citizen for the institutions of his country, as well as strengthen his resolution to defend un-selfishly the hallowed traditions and high ideals of America.”¹²⁷ In the midst of the Great Depression’s economic and civil strife, preserving the past was seen as a way to inspire patriotism and hope. “Preserving the places that illustrated American history,” as Sprinkle writes, “helped to preserve the future of the present society, culture, and government.”¹²⁸ The preamble to the HSA distills these ideas by making inspiration the first goal of preservation: “Be it enacted... That it is hereby declared that it is a national policy to preserve for public use historic sites, buildings and objects of national significance for the inspiration and benefit of the people of the United States.”¹²⁹

The HSA provided the legal foundation for a federal program of historic preservation administered by the Parks Service.¹³⁰ “Armed with this sweeping legislation, the National Park Service was in a position to exert a major influence on historic preservation, interpretation, and

¹²⁷ House Committee, *Preservation of Historic American Sites*, 63.

¹²⁸ Sprinkle, 7.

¹²⁹ *Historic Sites Act of 1935*, Public Law 74-292, *U.S. Statutes at Large* 49 (1935): 666.

¹³⁰ Mackintosh, *Historic Sites Survey*, 4-5.

development on a nationwide basis. Broad and flexible, the new law promised much for the future of the preservation movement in the United States.”¹³¹

Section 2 of the HSA made the Park Service broadly responsible for the selection, acquisition, preservation, and interpretation of nationally significant sites, buildings, and objects. Sections 2(b) and 2(c), in particular, authorize activities that would, in time, provide the foundation of the National Register. Those sections directed the Park Service to:

(b) Make a survey of historic and archaeological sites, buildings, and objects for the purpose of determining which possess exceptional value as commemorating or illustrating the history of the United States.

(c) Make necessary investigations and researches in the United States relating to particular sites, buildings, or objects to obtain true and accurate historical and archaeological facts and information concerning the same.¹³²

The act also authorized the continuation of HABS, established the National Park System Advisory Board, and created a new category of federal recognition with National Historic Sites.¹³³ To carry out Sections 2(b) and 2(c), the Park Service established the National Survey of Historic Sites and Buildings, more commonly called the Historic Sites Survey (HSS).¹³⁴

The Historic Sites Survey

With the HSS, the Park Service attempted to design and implement a survey covering all of American history and prehistory. The survey was to discover and inventory sites, buildings, and objects that were important to the nation as a whole. In doing so, it would allow the Park Service to make informed decisions about which sites to acquire.¹³⁵ Once acquired, these sites

¹³¹ Unrau and Willis, 34-35.

¹³² *Historic Sites Act*, 666.

¹³³ Sprinkle, 12.

¹³⁴ Mackintosh, *Historic Sites Survey*, v.

¹³⁵ *Ibid.*, 4-7.

would form what Verne Chatelain, the first Chief Historian of the National Park System, called “an effective presentation of the complete narrative of American history.”¹³⁶

The survey formally began in July of 1936 and followed a three-step process. First, inventories of potentially important properties were prepared. Second, field studies and research were conducted for the most promising properties. Third, with the assistance of the newly founded National Park System Advisory Board, properties were classified according to national or non-national significance.¹³⁷ To facilitate comparisons between properties, a framework was used that initially divided American history into three time periods and 23 themes. For example, under “Period from 1783-1830,” themes included “The War for American Independence” and “The Advance of the Frontier.” The framework divided American prehistory according to 13 “Archeological Culture Groupings,” including “Southeastern Cultures” and “Ohio Valley Cultures.”¹³⁸

Findings of the HSS were extremely sensitive and remained a secret until the President declared a new National Historic Site. The Advisory Board feared that a premature declaration of national significance would inspire false hope, or provoke unnecessary fear, that a site would be acquired by the federal government.¹³⁹ By 1943, 560 historic sites, representing 15 themes, had been inventoried. Of those sites, 229 were considered nationally significant and 18 had become National Historic Sites. At the time, the Advisory Board recommended that a final selection of sites not be made until every theme had been addressed. However, incomplete and with its findings mostly confidential, the HSS came to a halt as America became more involved in World

¹³⁶ Sprinkle, 15.

¹³⁷ Mackintosh, *Historic Sites Survey*, 13.

¹³⁸ *Ibid.*, 139.

¹³⁹ *Ibid.*, 14.

War II.¹⁴⁰ Following World War II, despite continued advocacy by its historical office, the Parks Service did not resume the HSS. Resuming the survey meant hiring regional staffs.

Unfortunately for survey proponents, CCC-funded professionals no longer existed and budgets were stagnant.¹⁴¹ The survey, once halted, “remained moribund” until 1957.¹⁴²

Mission 66 and National Historic Landmarks

In 1956, the Eisenhower Administration approved Mission 66, a billion-dollar, ten-year program to reconstruct and expand a National Park System whose facilities were neglected during World War II, then subjected to an unprecedented number of visitors during the decade that followed.¹⁴³ Parks Service historical staff were able to persuade Director Conrad Wirth to revive both the HSS and HABS on a modest scale as part of Mission 66.¹⁴⁴

Ronald Lee, a veteran of the history division, was a longtime advocate for making the findings of the HSS public. Other efforts having failed, he saw an opportunity when survey activities resumed. In a memo written in April 1958 to Director Wirth, he proposed making the list public when the survey was completed. He stated the reason simply: “The publication of the list would help preservation.” Making the list public, he argued, would help public and private preservation groups focus their efforts. It would encourage owners to care for their properties. It

¹⁴⁰ Ibid., 20.

¹⁴¹ Ibid., 27.

¹⁴² Unrau and Williss, 40.

¹⁴³ Ernest Allen Connally, “Origins of the National Historic Preservation Act of 1966” *CRM Bulletin* 9, no. 1 (February 1986): 8.

¹⁴⁴ James A. Glass, *The Beginnings of a New National Historic Preservation Program, 1957 to 1969* (Nashville, TN: American Association for State and Local History, 1990), 6.

would discourage “thoughtless encroachments and other indiscriminating threats to preservation.”¹⁴⁵

Wirth approved this memorandum, and Lee and his staff began to devise a way to make the HSS Public. Their solution, approved by Secretary of the Interior Frederick Seaton in November of 1959, was the creation of a new category of federal recognition: National Historic Landmarks. National Historic Landmark (NHL) status was given to all nationally significant sites identified by the HSS. Not wanting individual owners to feel singled out, NHLs were announced in large numbers as phases of the survey were completed. The NHL designation, owners were assured, did not mean that the federal government had any intention of acquiring their property. The program, along with 92 eligible sites, was announced on October 9, 1960. Seventy additional sites were announced in December of 1960, followed by an announcement of fifty-one sites in January of 1961.¹⁴⁶ By 1965, the Registry of National Historic Landmarks listed 673 properties. These properties, along with the historic units of the National Park System, formed the foundation of the National Register of Historic Places.¹⁴⁷

The New Preservation: Preservation Challenges Outside of the Park

Beginning in the late-1950s, with the Park Service absorbed in Mission 66, the preservation movement witnessed growing public support. At the same time, preservation professionals were deliberately reshaping their field to be more inclusive, more effective, and more responsive to contemporary preservation challenges.

¹⁴⁵ Mackintosh, *Historic Sites Survey*, 38.

¹⁴⁶ *Ibid.*, 40-47.

¹⁴⁷ Sprinkle, 19.

The Federal Bulldozer

The growth in public support for historic preservation was, in part, a response to two federally-funded programs that endangered historic properties: construction of the interstate highway system, and large scale urban renewal. In 1986, Jerry L. Rogers—a former Keeper of the National Register and Associate Director of the Park Service—wrote, “It is hard to believe that federally-sponsored destruction of our nation’s cultural heritage was the order of the day only twenty years ago.” As he characterized it, “America was on a public-funded development binge.”¹⁴⁸

Interstate Highway System

The interstate highway system was requested by President Eisenhower in 1956. Congress wasted little time in approving it, and state highway departments wasted little time in implementing it. The Federal-Aid Highway Act of 1956 authorized \$31 billion in grants to state highway departments for construction of interstate and other highways. As Glass writes, “The impact of the expenditures on the physical fabric of cities was felt almost immediately.”¹⁴⁹

Ernest Allen Connally, who held multiple positions related to the National Register, put it more vividly: “As roads of such overwhelming dimension ripped into urban fabric—shattering modest neighborhoods, violating parks, and destroying old buildings—the horror stories mounted.” With a length of 42,500 miles and a right-of-way taking up a million and a half acres, the interstate highway system became the largest public works project in the history of the world. With the federal government providing 90% of funding, many states and large cities took

¹⁴⁸ Jerry L. Rogers, “National Historic Preservation Act: A Retrospective,” *CRM Bulletin* 9, no. 1 (February 1986): 1.

¹⁴⁹ Glass, 3-4.

advantage by building urban freeways into the interstate system, adding thousands of miles to its intended length.¹⁵⁰

Urban Renewal

Urban Renewal began as part of New Deal Programs to clear slums and build low-cost housing in their place. Similar programs continued during World War II for defense housing. Following World War II, the Housing Act of 1949 altered and expanded these programs. This act provided for large-scale, publicly-funded demolition and private rebuilding. Local authorities could purchase decayed areas with federal funds. The offending areas were demolished, and the land was offered to developers at a reduced price. The housing bills of 1954, 1957, and 1959 provided further support for the practice, “provoking a rising chorus of outrage at the indiscriminate destruction of so many congenial neighborhoods and distinguished old buildings.”¹⁵¹

A New Preservation

Preservation professionals recognized that their field needed to adapt. An international conference, held in 1963 with the goal of formulating a new set of working principles for preservation in the United States, called for an expanded vision of historic preservation. The report produced by this conference envisioned preservation of buildings for their architectural and aesthetic value, not just their historical value.¹⁵² It also envisioned the expansion of historic preservation to include not just buildings, but whole districts and landscapes. To accomplish this,

¹⁵⁰ Connally, “Origins of the NHPA – Part II,” 10.

¹⁵¹ *Ibid.*, 9.

¹⁵² Glass, 9.

it recommended surveys and registers that would extend to the state and local level, along with financial incentives for preservation.¹⁵³ In short, it recognized that the preservation movement needed to change. However, at least on the federal level, change needed to be endorsed and directed by new legislation.

The Rains Committee

“The most decisive turn on the road from 1935 to 1966,” Connally writes, “was the report of the Special Committee on Historic Preservation.” The Special Committee on Historic Preservation, commonly called the Rains Committee after its chairman Albert Rains, was formed in the summer of 1965 to examine preservation practices abroad and make recommendations for historic preservation in the United States. Sponsored by the United States Conference of Mayors, the Rains Committee was underwritten by the Ford Foundation.¹⁵⁴ Rains, a recently retired congressman who had been Chairmen of the House Subcommittee on Housing, was joined on the committee by a group of individuals from both the public and private sectors who were recruited based largely on their political connections and influence. The heads of all federal agencies involved in construction or preservation activities were asked to serve as *ex officio* members.¹⁵⁵ George Hartzog, who replaced Conrad Wirth as director of the Park Service in 1964, represented Secretary of the Interior Stewart Udall on the committee. Ronald Lee joined the committee as a consultant.¹⁵⁶

The committee’s report, an “ambitious and elaborately illustrated document, which starts with a requiem for the past and ends with specific proposals for the future,” was published in

¹⁵³ Connally, “Origins of the NHPA – Part II,” 9.

¹⁵⁴ *Ibid.*, 11.

¹⁵⁵ Glass, 10.

¹⁵⁶ Connally, “Origins of the NHPA – Part II,” 11.

January of 1966 as *With Heritage So Rich*.¹⁵⁷ The “Conclusions to the Findings” of *With Heritage So Rich* echo the preamble to the HSA, declaring that the preservation movement “must attempt to give a sense of orientation to our society, using structures and objects of the past to establish values of time and place.” A “new preservation” was called for and a warning sounded. “If we wish to have a future with greater meaning,” the report cautions, “we must concern ourselves not only with the historic highlights, but we must be concerned with the total heritage of the Nation and all that is worth preserving from our past as a living part of the present.”

Congress Responds: The National Historic Preservation Act

On March 17, 1966, two members of the Rains Committee—Senator Edward Muskie, Democrat of Maine, and Representative William Widnall, Republican of New Jersey—introduced legislation that would expand the federal role in historic preservation. This legislation joined two other sets of similar legislation already being considered by Congress. The Parks Service had introduced preservation bills in September of 1965, while the Johnson Administration had introduced preservation bills on March 7, 1966.¹⁵⁸ Seven months later, the three sets of bills emerged from the legislative process as the National Historic Preservation Act (NHPA). The NHPA was signed into law on October 15, 1966. Its preamble, in part, echoes the legislation that preceded it and the conclusions of *With Heritage So Rich*. “The Congress,” it begins, “finds and declares: (a) that the spirit and direction of the Nation are founded upon and reflected in its historic past; (b) that the historical and cultural foundations of the Nation should

¹⁵⁷ Ada Louise Huxtable, “Program to Save Historic Sites Urged in White House Report,” *New York Times*, January 30, 1966.

¹⁵⁸ Glass, 17.

be preserved as a living part of our community life and development in order to give a sense of orientation to the American people.”¹⁵⁹

The NHPA begins by authorizing the Secretary of the Interior—in practice, the Park Service—to “expand and maintain a national register of districts, sites, buildings, structures, and objects significant in American history, architecture, archeology, and culture, hereinafter referred to as the National Register.” The Park Service, under the NHPA, is similarly authorized to issue matching grants to the states for historical surveys, preservation planning, and the acquisition and development of historic properties. Section 106 of the NHPA, drafted as a direct response to the destruction caused by federally-financed projects like urban renewal and construction of the interstate highway system, requires all federal agencies to consider the effect of their undertakings on properties listed in the National Register. One responsibility of the Advisory Council on Historic Preservation, created by the NHPA, was the review of such undertakings.¹⁶⁰

“The National Register,” Mackintosh writes, “was at the core of the act: nearly everything else was aimed at identifying, preserving, and protecting what would be included in it.” The states, through surveys and nominations, would add properties to the register. Once added to the register, grants would be available to help preserve them and the Advisory Council would have a role in protecting them.¹⁶¹

¹⁵⁹ *National Historic Preservation Act*, Public Law 89-665, *U.S. Statutes at Large* 80 (1966): 915.

¹⁶⁰ Barry Mackintosh, *The National Historic Preservation Act and the National Park Service: A History* (Washington, DC: History Division, National Park Service, Department of the Interior, 1986), viii.

¹⁶¹ *Ibid.*, 20.

Expanding the Register

As Rogers writes, “The National Historic Preservation Act did not establish the National Register of Historic Places. It established instead a requirement for federal agencies to take into account the effects of their undertakings upon historic properties.” In the Registry of National Historic Landmarks, the Park Service already administered a national register. The challenge before the Park Service was not the creation of a register. Rather, they were faced with the challenge of adapting the existing register to a new use.¹⁶²

Throughout the legislative process, Park Service Director George Hartzog insisted on having the NHPA “expand” rather than initiate the National Register. His insistence was, in part, a shrewd political maneuver. It limited the possibility that the Department of Housing and Urban Development, or any other federal agency, would take control of new preservation programs. It also created a direct link between new preservation programs and the HSA.¹⁶³ As Rogers described it, “Authorizing the Secretary of the Interior to ‘expand and maintain’ a National Register, Congress broadened the concept of the Historic Sites Act to include properties of local significance and deliberately anchored the new program in the bedrock of National Park Service experience.”¹⁶⁴

The National Register Defined

The introduction to this chapter offers two definitions of the National Register. First, it is “the official list of the Nation's historic places worthy of preservation,” second, it is “the official Federal list of districts, sites, buildings, structures, and objects significant in American history,

¹⁶² Rogers, “Personal Perspective,” 92.

¹⁶³ Mackintosh, *NHPA*, 20-21.

¹⁶⁴ Rogers, “Personal Perspective,” 92.

architecture, archeology, engineering, and culture.” The introduction also poses a question: Do these definitions leave a place on the register for automobiles?

The first definition, encompassing only “historic places worthy of preservation” refers to the suffix to “National Register” that was added by the Park Service in 1968: “Historic Places.” Mackintosh observes that Park Service staff initially responsible for further defining, expanding, and maintaining the National Register were all involved in the legislative process and were familiar with the testimony of the NHPA’s proponents. “From this legislative history,” Mackintosh writes, “they derived and incorporated certain axioms that were not obvious from the act alone.” It was understood that, “the act was primarily a response to concern about the effect of federal public works on historically significant real estate.” Accordingly, the register was a planning tool meant to protect “historically significant real estate.” What was viewed as the “intended geographic basis” of the National Register was captured by its expanded title.¹⁶⁵ The new title, Mackintosh writes, “was not selected deliberately to exclude objects.”¹⁶⁶ Rather, it was used to “reinforce the intended scope of the Register” and “signify its general content.”¹⁶⁷

In short, the first definition refers to the use of the register as a planning tool. Using this definition, automobiles would have a very narrow place on the register. This definition, though, captures only one aspect of the register. The use of the register as a planning tool, though paramount when the NHPA was enacted, has declined in importance. Glass states that between 1968 and 1990, when his book published, “the National Register was gradually superseded as a

¹⁶⁵ Mackintosh, *NHPA*, 21-22.

¹⁶⁶ In 1966, the Park Service definition of objects encompassed properties like ships, rail cars, and automobiles. The original publication of the National Register in book form defined them as “A material thing of functional, aesthetic, cultural, historical or scientific value that may be, by nature or design, movable yet related to a specific setting or environment.” This definition was still in use in when Mackintosh wrote his history of the NHPA. Later in the text he cites “moored ships” as an example of objects.

¹⁶⁷ Mackintosh, *NHPA*, 22.

planning tool by less formal “determinations of eligibility” made by state historic preservation officers and the federal agencies and by registers of historic properties established by the states.”¹⁶⁸

The second definition is derived from NHPA itself. If “the official Federal list” is replaced with “to expand and maintain a national register of,” the 1966 act is quoted verbatim with the exception of one word. “Engineering,” as an area of significance, was added by a 1980 amendment. In turn, this section of the NHPA refers directly to the HSA of 1935 and its declaration that “it is a national policy to preserve for public use historic sites, buildings and objects of national significance for the inspiration and benefit of the people of the United States.”¹⁶⁹ The second definition refers to the broader, if less concrete, goals of the register: providing connections to the past that can orient the American people, offering inspiration and other, unnamed and innumerable, benefits. Automobiles easily fit within this definition.

The developmental history of the United States in the twentieth century is intrinsically linked to the presence of automobiles. A 1933 presidential commission report on social trends concluded that “It is probable that no invention of such far reaching importance was ever diffused with such rapidity or so quickly exerted influences that ramified through the national culture, transforming even habits of thought and language.”¹⁷⁰ It might not have deemed necessary in 1935 that one needed to account for automobiles in giving “an effective presentation of the complete narrative of American history.”¹⁷¹ It might not have been recognized in 1966 that

¹⁶⁸ Glass, 59.

¹⁶⁹ *Historic Sites Act*, 666.

¹⁷⁰ James J. Flink, “Three Stages of American Automobile Consciousness,” *American Quarterly* 24, no. 4 (October 1972): 454.

¹⁷¹ Sprinkle, 15.

automobiles were part of the “historical and cultural foundations of the Nation.”¹⁷² Today, both are true. Automotive history is American history and historic automobiles justly deserve recognition on the National Register.

¹⁷² *National Historic Preservation Act*, 915.

CHAPTER 5
THE NATIONAL REGISTER CRITERIA FOR EVALUATION

*The setting of criteria, it seems to me, is the instrument through which you insure the integrity of historic preservation.*¹⁷³

-George Hartzog, Director of the National Park
Service, congressional testimony, June 8, 1966.

The National Register Criteria for Evaluation, based on conditions already used by the Historic Sites Survey,¹⁷⁴ were first published in 1969. Though the National Register and its criteria have been subjected to bureaucratic and academic scrutiny ever since, the criteria remain unchanged. Clarified and supplemented by a series of National Register bulletins, they have been used to incorporate a wide range of properties into the National Register.¹⁷⁵

The criteria, which can be found in Table 1, dictate three broad requirements for eligibility. First, the property must be “physically concrete.” Five types of physical entities are listed; the property needs to fit the definition of one of them. Second, the property must possess “significance,” four types of significance are listed, of which the property must possess at least

¹⁷³ Senate Committee on Interior and Insular Affairs, *Preservation of Historic Properties: Hearing before the Subcommittee on Parks and Recreation*, 89th Cong., 2nd sess., 1966, 15. Hartzog was arguing for one set of criteria that would apply on the local, state, and national levels. We believed that the field of historic preservation would lose integrity if different standards were used in different places.

¹⁷⁴ Glass, 24.

¹⁷⁵ Sprinkle, 206.

one. Finally, the property needs to possess “integrity,” seven aspects of integrity are listed. The property needs to possess an appropriate combination of these aspects and it may possess all seven.¹⁷⁶

Property Type

Five property types are eligible for listing in the National Register: districts, sites, buildings, structures, and objects. The National Register does not list cultural events or skilled individuals, as is done in some other countries. Rather, it is “oriented to recognizing physically concrete properties that are relatively fixed in location.” The five types encompass nearly everything that has a relatively stable physical presence.¹⁷⁷

National Register Bulletin 15 defines automobiles as “structures.” They are an example of “functional constructions made usually for purposes other than creating human shelter.” Other examples include aircraft, carousels, bandstands, boats and ships, and bridges. Structures are distinct from buildings, which are “created principally to shelter any form of human activity.”¹⁷⁸

Significance

Significance, according to one definition offered by the Park Service, is “the importance of a property to the history, architecture, archeology, engineering, or culture of a community,

¹⁷⁶ National Park Service, National Register of Historic Places Program, *How to Apply the National Register Criteria for Evaluation*, National Register Bulletin 15 (Washington, DC, 1995), 3-4, <https://www.nps.gov/nr/publications/bulletins/pdfs/nrb15.pdf> (hereafter cited as NRB 15).

¹⁷⁷ NRB 15, 4.

¹⁷⁸ Ibid.

State, or the nation.”¹⁷⁹ Significance, in other words, is importance within the property’s “historic context.” The historic context of a property is defined by a theme or area of significance, a geographic scale and chronological period. Areas of significance are defined as “coherent patterns based on elements such as environment, social/ethnic groups, transportation networks, technology, or political developments that have influenced the development of an area.” A number of significant themes have been identified including art, architecture, engineering, transportation, and entertainment/recreation.¹⁸⁰ The geographic scale of an historic context may be local-city, county, cultural area or region, state or nation. It is possible for a property to be significant in more than one historic context. To be eligible for the National Register, a property’s significance needs to be demonstrated within its historic context for one or more of the Criteria for Evaluation.¹⁸¹

Table 1. National Register Criteria for Evaluation¹⁸²

<p><i>The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:</i></p> <p>A: That are associated with events that have made a significant contribution to the broad patterns of our history; or</p> <p>B: That are associated with the lives of significant persons in our past; or</p> <p>C: That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that</p>
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¹⁷⁹ National Park Service, National Register of Historic Places Program, *Guidelines for Completing National Register of Historic Places Forms*, National Register Bulletin 16A (Washington, DC, 1997), 3, <https://www.nps.gov/nr/publications/bulletins/pdfs/nrb16a.pdf> (hereafter cited as NRB 16A).

¹⁸⁰ NRB 15, 7-8.

¹⁸¹ *Ibid.*, 11.

¹⁸² *Ibid.*, 2.

represent a significant and distinguishable entity whose components may lack individual distinction; or

D: That have yielded or may be likely to yield, information important in history or prehistory.

Criterion A: Event

Under Criterion A, “Properties can be eligible for the National Register if they are associated with events that have made a significant contribution to the broad patterns of our history.” The term “event” is defined broadly to include a specific event, a pattern of events, repeated activities, and historic trends. Regardless of length, the event must be important within the property’s historic context. The property’s specific association with the event must also be considered important. On a local level, the “Red Bug”—a precursor to the modern golf cart—could be deemed significant for its association with the Jekyll Island Club and island transportation on Jekyll Island, Georgia during the 1920s and 1930s.¹⁸³ On a national level, coaches built by the White Motor Company of Cleveland, Ohio—which entered service with the National Parks for touring in 1915—could be deemed significant for their role in park development. In particular, the model 706 open-top buses built for Yellowstone and Glacier National Park have become symbolic of the parks they served.¹⁸⁴

¹⁸³ Tyler E. Bagwell, *The Jekyll Island Club* (Charleston, SC: Arcadia, 2005), 70-71.

¹⁸⁴ Bill Yenne, *Glacier National Park* (Charleston, SC: Arcadia, 2006), 68-69.



Figure 19. Jekyll Island Club member with a “Red Bug”



Figure 20. White 706 bus in Yellowstone N.P.

Criterion B: Person

Under Criterion B, “Properties may be eligible for the National Register if they are associated with the lives of persons significant in our past.” The individual must be important within the property’s historic context. Generally, the property should illustrate, rather than commemorate, a person’s achievements and it needs to be associated with the individual’s “productive life.” Properties that pre- or post-date the individual’s accomplishments are typically not eligible. Finally, when compared to other properties also associated with the person, the property should provide the best representation of the person’s historic contributions.¹⁸⁵ There are numerous examples of automobiles that are potentially eligible for their association with historic figures that include automotive pioneers, race-car drivers, celebrities, and governmental officials. The stolen 1934 Ford in which Bonnie and Clyde met their ultimate fate, Janis Joplin’s

¹⁸⁵ NRB 15, 14-15.

psychedelic 1964 Porsche 356 cabriolet, and J.D. Rockefeller's 1917 Brewster-bodied Crane-Simplex are just a few examples.



Figure 21. Janis Joplin with her 1965 Porsche 356c Cabriolet.

Criterion C: Design/Construction

Criterion C applies to properties that are significant for their design or construction. Under Criterion C, “properties may be eligible for the National Register if they embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.”¹⁸⁶

Most properties eligible under Criterion C “embody the distinctive characteristics of a type, period, or method of construction.” This portion of Criterion C encompasses all architectural styles and construction practices. “Distinctive characteristics” are defined as “the physical features or traits that commonly recur in individual types, periods, or methods of construction.” To be eligible under this portion of Criterion C, a property’s “distinctive characteristics” need to clearly illustrate the following: “The pattern of features common to a

¹⁸⁶ Ibid., 17.

particular class of resources;” “The individuality or variation of features that occurs within the class;” The evolution of that class,” or; “The transition between classes of resources.”¹⁸⁷

Properties that “represent the work of a master” are also eligible under Criterion C. A “master” is defined as “a figure of generally recognized greatness in a field, a known craftsman of consummate skill, or an anonymous craftsman whose work is distinguishable from others by its characteristic style and quality.” To be eligible under this portion of Criterion C, “The property must express a particular phase in the development of the master's career, an aspect of his or her work, or a particular idea or theme in his or her craft.”¹⁸⁸

“Properties possessing high artistic values” are, likewise, eligible under Criterion C. “High artistic values” can be expressed in many ways. “Community design or planning,” “engineering,” and “sculpture” are all offered as examples. A property is eligible under this portion of Criterion C when it “so fully articulates a particular concept of design that it expresses an aesthetic ideal.” It is not eligible if it “does not express aesthetic ideals or design concepts more fully than other properties of its type.”¹⁸⁹

The final portion of Criterion C provides for the eligibility of districts: Properties that “represent a significant and distinguishable entity whose components may lack individual distinction.” Though districts are defined in the context of Criterion C, they can be eligible under all of the National Register Criteria.¹⁹⁰

The guidelines for eligibility under Criterion C could be applicable to a large number of historically significant automobiles. Automobiles are easily categorized and recognized by style, class or era, and represent an ever-flowing evolution of engineering and construction methods.

¹⁸⁷ Ibid., 18.

¹⁸⁸ Ibid., 20.

¹⁸⁹ Ibid.

¹⁹⁰ Ibid., 17.

Many of the bespoke coach-built automobiles of the 1920s and 1930s were hand-crafted by the masters of their field. The 1930 Duesenberg Model J chassis number J287, ordered by eccentric millionaire George Whittell, Jr., could be eligible under Criterion C for its design by Franklin Hershey and hand construction by the Walter M. Murphy Company in Pasadena, California. The Whittell Duesenberg is also significant under Criterion C as one of the earliest automobiles to utilize all aluminum construction without structural woodwork, which would not become standard practice until the 1940s.¹⁹¹

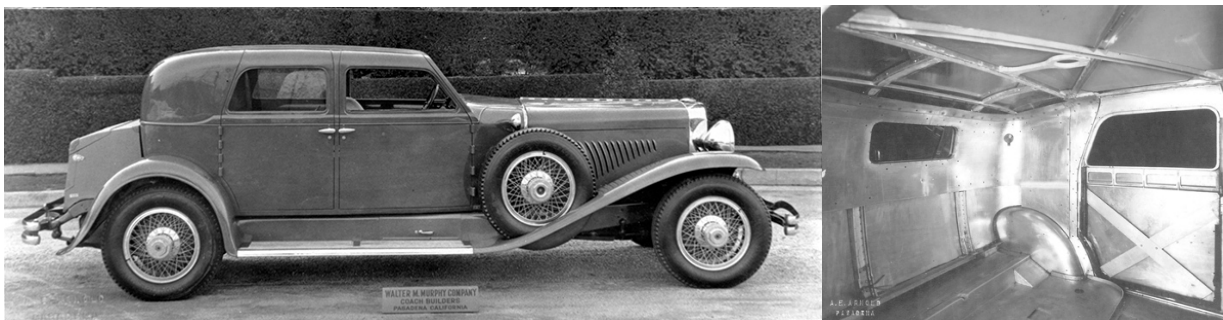


Figure 22. 1930 Duesenberg Model J with aluminum structural framework.

Criterion D: Information Potential

Under Criterion D, “properties may be eligible for the National Register if they have yielded, or may be likely to yield, information important in prehistory or history.” Criterion D is primarily used for properties that “contain or are likely to contain information bearing on an important archeological research question.” In other words, it is primarily used for archeological sites. It can be used for buildings, structures, and objects, but “they themselves must be, or must have been, the principal source of the important information.” A building that exhibits a local variation on a standard design might qualify if it could yield information about local construction

¹⁹¹ J. M. Fenster, "The Private Universe of George Whittell," *Automobile Quarterly* 26, no. 1 (Winter 1988): 96-97.

expertise or the local availability of materials.¹⁹² The circumstances in which an automobile could be considered eligible under Criterion D are very narrow and it is unlikely that the criterion could be applied to automobiles.

Criteria Considerations

Seven kinds of properties are usually excluded from the National Register. Exceptions are made for all seven. To be eligible, these properties need to meet special requirements known as “Criteria Considerations.” Criteria Considerations are included, in full, in Table 2. As they might apply to automobiles, Criteria Considerations are discussed more fully in Chapter 6. In brief, Criteria Consideration G is the only Criteria Consideration that might consistently apply to automobiles. Criteria Consideration B, despite the automobile’s mobility, would rarely apply.

Table 2. National Register Criteria Considerations¹⁹³

Ordinarily cemeteries, birthplaces, graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years shall not be considered eligible for the National Register. However, such properties will qualify if they are integral parts of districts that do meet the criteria or if they fall within the following categories:

- A:** A religious property deriving primary significance from architectural or artistic distinction or historical importance; or
- B:** A building or structure removed from its original location but which is primarily significant for architectural value, or which is the surviving structure most importantly associated with a historic person or event; or
- C:** A birthplace or grave of a historical figure of outstanding importance if there is no

¹⁹² NRB 15, 21.

¹⁹³ Ibid., 2.

appropriate site or building associated with his or her productive life; or

- D:** A cemetery that derives its primary importance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events; or
- E:** A reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived; or
- F:** A property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own exceptional significance; or
- G:** A property achieving significance within the past 50 years if it is of exceptional importance.

Integrity

“Integrity,” according to one definition offered by the Park Service, is “the authenticity of a property's historic identity, evidenced by the survival of physical characteristics that existed during the property's prehistoric or historic period.”¹⁹⁴ More succinctly, it is “the ability of a property to convey its significance.” To be eligible for the National Register, a property must have significance and integrity.

The seven aspects of integrity can be found in Table 3. Eligible properties usually possess most, if not all, of these aspects. To determine which aspects are most important for a particular property, it is necessary to understand when, where, and why a property is significant. Judgements about integrity have to be grounded in an understanding of a property's physical features.¹⁹⁵

¹⁹⁴ NRB 16A, 4.

¹⁹⁵ NRB 15, 44.

Table 3. Seven Aspects of Integrity¹⁹⁶

Location:	The place where the historic property was constructed or the place where the historic event occurred.
Design:	The combination of elements that create the form, plan, space, structure, and style of a property.
Setting:	The physical environment of a historic property.
Materials:	The physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property.
Workmanship:	The physical evidence of the crafts of a particular culture or people during any given period in history or prehistory.
Feeling:	A property's expression of the aesthetic or historic sense of a particular period of time.
Association:	The direct link between an important historic event or person and a historic property.

The aspects of integrity, as they relate to automobiles, are discussed in Chapter 6. In brief, automobiles might not need to possess integrity of location because they are, by nature, mobile. Also, because automobiles have to undergo maintenance and repairs to remain functional, they change over time. A thorough, well-documented understanding of this process by an automotive historian or marque specialist, as it applies to the particular automobile being evaluated, might be necessary to demonstrate integrity of design and materials.

¹⁹⁶ Ibid., 44-45.

CHAPTER 6

MOBILE STRUCTURES ON THE NATIONAL REGISTER

*Some types of resources were designed to be moved. Ships, railroad cars, trolleys, and airplanes are property types that were constructed to be mobile; their significance is inherent in their ability to move.*¹⁹⁷

-National Register Bulletin 43

Terminology, Inventory, and Organization

Automobiles, airplanes, boats, and trains: they are all means of transportation that collectively made great contributions to American history while, to varying degrees, shaping and reshaping America's landscape. They are all examples of what *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation* calls "portable resources" or "properties designed to be moved." Here they are referred to as "mobile structures" because they meet two criteria: first, they are all structures as defined and partially enumerated by *National Register Bulletin 15*;¹⁹⁸ second, they are designed to be mobile. This designed mobility distinguishes them from all other resources listed on the register.

¹⁹⁷ National Park Service, National Register of Historic Places Program, *Guidelines for Evaluating and Documenting Historic Aviation Properties*, by Anne Milbrooke et al., National Register Bulletin 43 (Washington, DC, 1998), 40, <https://www.nps.gov/nr/publications/bulletins/pdfs/NRB43.pdf> (hereafter cited as NRB 43).

¹⁹⁸ NRB 15, 4.

The National Register includes approximately 475 individually-listed mobile structures.¹⁹⁹ There are approximately 323 ships, 125 locomotives or rail cars, 12 airplanes, nine mobile industrial implements, three vehicles used or built for space exploration, and two motor vehicles. There is also a single tank. When listed in 1979, it sat rusting in a field in Guam, its turret and gun recently removed and sold as scrap metal.²⁰⁰

These numbers do not include mobile structures that have been identified by the registration form for a listed property as contributing resources. As defined by National Register Bulletin 16A, a contributing resource is a “building, site, structure, or object [that] adds to the historic associations, historic architectural qualities, or archeological values for which a property is significant.” Contributing resources may independently meet National Register criteria. However, they are not independently listed.²⁰¹

A relevant example is “Cole, Joseph J., Jr., House and 1925 Cole Brouette No. 70611.” Though an automobile, a 1925 Cole Brouette is identified in the official name of the property; the house alone is registered. The automobile is a contributing resource. It is not listed individually and not one of the two motor vehicles counted above.²⁰²

This chapter looks at the following types of mobile structure in turn: motor vehicles, industrial implements, ships, locomotives and rail cars, and aircraft. In each section, an attempt is made to locate lessons that apply directly to the listing of automobiles. The length of each

¹⁹⁹ Counts are accurate through July of 2015. See Appendix A for a discussion of how counts were made.

²⁰⁰ National Park Service, National Register of Historic Places Program, “Light Model Tank No. 95,” Inventory/Nomination Form, National Register #79003107 (December 19, 1979), sec. 7 p. 1, <https://npgallery.nps.gov/NRHP/GetAsset/42118e95-8b66-4ed7-9bbc-70296417d2ba>.

²⁰¹ NRB 16A, 16.

²⁰² National Park Service, National Register of Historic Places Program, “Cole, Joseph J., Jr., House and 1925 Cole Brouette No. 70611,” Inventory/Nomination Form, National Register #97000599 (June 25, 1997), sec. 7 p. 3, <https://npgallery.nps.gov/NRHP/GetAsset/5bd4a4ac-0058-498d-a4a0-f7e4e1801460>.

section is, to some degree, proportional to the number of lessons found. The organization of each section is dependent on the kinds of lessons found. Motor vehicles are given special attention because they provide the closest precedents for listing automobiles. Aircraft are given special attention because they provide clearest policies for listing automobiles. Vehicles used or built for space exploration, along with the single tank mentioned above, are not given their own sections. Lessons provided by these structures are relatively limited.

Historic Motor Vehicles

For the purpose of this chapter, “motor vehicle” is defined as any road vehicle powered by an internal combustion engine. “Automobile” is a subset of “motor vehicle” that refers to a means or personal conveyance, usually capable of carrying a small number of people, and usually four-wheeled.

The presence of two motor vehicles on the National Register—“Boca Raton Fire Engine No. 1” and “Snogo Snow Plow”—indicates that there are circumstances under which it is acceptable and appropriate for an automobile to be listed. What are those circumstances? A close look at both vehicles provides some suggestions.

Boca Raton Fire Engine No. 1

Boca Raton Fire Engine No. 1, affectionately known as “Old Betsy”, was entered in the National Register on November 1, 2001.²⁰³ At the time, it was the National Register’s first and only motor vehicle. Old Betsy was eligible for inclusion under Criterion A in the area of Politics

²⁰³ National Park Service, National Register of Historic Places Program, “Boca Raton Fire Engine No. 1,” Inventory/Nomination Form, National Register #01001195 (November 1, 2001), sec. 4, <https://npgallery.nps.gov/NRHP/GetAsset/b81a6064-7508-4e4e-bed8-16438c84e84f> (hereafter cited as “Boca Raton Fire Engine No. 1”).

and Government. It was deemed locally significant and met criteria considerations B and G. Its period of significance spans 42 years, from 1926 to 1968.²⁰⁴ During this entire period, it stayed in service as a fire engine for the city of Boca Raton, Florida.²⁰⁵

Manufactured by American-LaFrance in Elmira, New York in 1925, Old Betsy is a Type 75 Triple Combination.²⁰⁶ The “Triple Combination”—itself an innovation made possible by the internal combustion engine—indicates that Old Betsy filled the roles of three kinds of fire engine. It was, all at once, a pumping engine, a chemical engine, and a hose wagon.²⁰⁷ Powered by a six-cylinder gasoline engine, it was capable of pumping water at 750 gallons per minute.²⁰⁸ Old Betsy bears some resemblance to automobiles built during the 1920s. The box-like, side-hinged engine compartment is long and tall. Large, circular headlights are mounted to the radiator. Appearing to begin as part of the running boards, prominent front fenders swoop up and over tall, open-spoked wooden front wheels. Other characteristics, such as the ladders, reels of hose, and a large bell, make it instantly identifiable as a fire engine. Old Betsy is right-hand drive and has no windows, doors, or top. A searchlight takes the place of a windshield. At the time of nomination, the engine was still owned by Boca Raton and still housed in an active fire station. Having undergone restoration in the early 1990s, she was “in original factory condition except for the replacement of rims, tires and replacement parts.”²⁰⁹

²⁰⁴ “Boca Raton Fire Engine No. 1,” sec. 8.

²⁰⁵ *Ibid.*, sec. 8 p. 1.

²⁰⁶ *Ibid.*, sec. 7 p. 1.

²⁰⁷ “The Disappearance of the Horse,” *Fire and Water Engineering* 71, no. 2 (January 11, 1922): 98-99.

²⁰⁸ “Boca Raton Fire Engine No. 1,” sec. 7 p. 1.

²⁰⁹ *Ibid.*, sec. 7 p. 3.

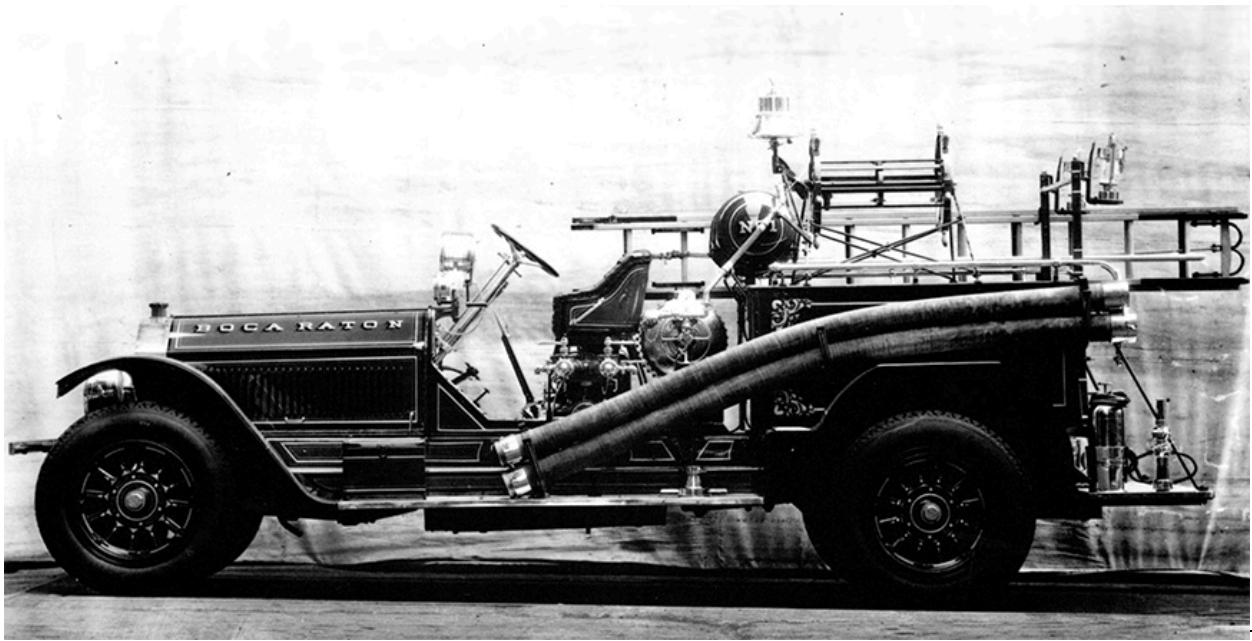


Figure 23. Boca Raton Fire Engine No. 1.

Historic Context and Significance under Criterion A

Old Betsy was retired from active service in 1968 but, as the Fort Lauderdale News Sun-Sentinel reported in July, 1978, “Stories about her never retire.” Those stories never retire because “her history parallels the history of the city which was started in 1925.”²¹⁰

In April of 1926, the city of Boca Raton issued a check for \$1,000 and \$11,500 in notes to American-LaFrance, making Old Betsy one of the earliest, and costliest, investments made by the first town council. When incorporated in 1925, Boca Raton’s population numbered less than 500.²¹¹ When Old Betsy was purchased, the town was counting on rapid growth. The engine owes its significance, in part, to the fact that the city did not grow as planned.

In April of 1925, at the height of the Florida Land Boom—a period of “frenzied” land development that lasted from 1924 to 1926—the architect Addison Mizner announced the formation of the Mizner Development Corporation and its plan to build “the world’s most

²¹⁰ Ibid., sec. 8 p. 2.

²¹¹ Ibid., sec. 8 p. 2.

architecturally beautiful playground” at the small, agricultural community of Boca Raton. The company had acquired 16,000 acres of land and Mizner had planned a complete, modern, resort city.²¹² Described as “the resort hotel for America’s upper crust” and “Addison Mizner’s signature architectural statement,” the Ritz-Carlton Cloister Inn opened for its first winter season in February, 1926. A few months later, on April 20, 1926, studies at Boca Raton Elementary School were temporarily halted “while children rushed from their desks to watch, in wonder, as the gleaming red fire truck with its gold leaf lettering ‘Boca Raton’ on the hood and shiny brass bell was unloaded.”²¹³

Even as Old Betsy was being delivered, the Florida Land Boom was ending. On January 10, 1926, the Prinz Valdemar, a 241-foot steel hulled schooner, capsized in the ship channel of Miami’s harbor. The harbor was closed for more than a month. One hundred ships carrying building supplies including 45 million board feet of lumber waited to be unloaded. This delay, alone, drove many builders to bankruptcy.²¹⁴ Later that year, on September 18, 1926, a hurricane struck south Florida, nearly destroying Miami. The economic bust that followed forced the Mizner Development Corporation in bankruptcy. “The world’s most architecturally beautiful playground” would not be realized. Soon after, the city of Boca Raton defaulted on its notes to American-LaFrance.²¹⁵

²¹² Ibid., sec. 8 p. 1.

²¹³ Ibid., sec. 8 p. 2.

²¹⁴ Florida Department of State, Division of Library and Information Services, “Aerial view of the ‘Prinz Valdemar’ overturned in the ship channel - Miami, Florida,” Florida Memory, <https://www.floridamemory.com/items/show/35982>; Florida Department of State, Division of Library and Information Services, “Capsized ‘Prinz Valdemar’ – Miami, Florida,” Florida Memory, <https://www.floridamemory.com/items/show/28289> (both accessed November 15, 2016).

²¹⁵ “Boca Raton Fire Engine No. 1,” sec. 8 p. 3.

The Mizner holdings—the Cloister Inn and more than half of Boca Raton—were sold to brothers Charles and Rufus Dawes. The former was Vice President of the United States while the latter was a financier. The Dawes, in turn, sold them to utility magnate Clarence H. Geist. Geist transformed the Cloister Inn into the Boca Raton Hotel and Club, a “lavish and opulent monument to ultra-exclusive privilege.”²¹⁶ He also paid off the notes on old Betsy.²¹⁷

For the next twenty years, the city of Boca Raton changed very little. By 1940, its population still lingered around 500. During World War II, the nearby construction of an army training base added modestly to the population and the local economy. After World War II, large-scale real estate development transformed Boca Raton into a sprawling city.²¹⁸ It is the period of little growth, from 1926 to 1946, that established Old Betsy’s significance. During this period, three variables made Old Betsy important to Boca Raton. First, fires were commonplace. Second, there was only one fire engine. Third, the population remained small. The combined result of these variables was that most of the community had some kind of relationship with its only fire engine.

A single paragraph in the registration form gives succinct explanations of the first two factors while hinting at the third:

With fewer than 200 mainly wooden structures, many acres of undeveloped land, a limited number of widely spaced fire hydrants, and a lengthy dry season, both brush and building fires were an ever-present threat in the Boca Raton of the 1920’s and 1930’s. Only the timely arrival of the sole fire engine and the dedicated efforts of the volunteer fire fighters saved many commercial buildings and residences from total destruction.²¹⁹

²¹⁶ Gene M. Burnett, *Florida's Past: People and Events That Shaped the State* (Sarasota, FL: Pineapple Press, 1997), 61-64.

²¹⁷ “Boca Raton Fire Engine No. 1,” sec. 8 p. 3.

²¹⁸ *Ibid.*, sec. 8 pp. 1-2.

²¹⁹ *Ibid.*, sec. 8 p. 3.

The “dedicated efforts of the volunteer fire fighters” are addressed several times by the registration form. It leaves the impression that every citizen of Boca Raton had volunteered or knew someone who had. For example, upon identifying one of the children who watched the unloading of Old Betsy, the registration form states, “Like many of her classmates, she would soon have ties to the engine that fathers, uncles, and older brothers would drive, as they became the town's first volunteer fire fighters.”²²⁰

We also learn that, because of the severity of some fires and the difficulties posed by very widely-spaced fire hydrants, firefighters were sometimes aided by other members of the community. A newspaper article cited by the registration form states that, on one occasion, “All along Boca Raton road the flames were high and jumped the road in many places, but for the prompt assistance of several good citizens [the fire] would have burned these cottages up in short order.” Later, the article asserts that “about half of the town” had helped out.²²¹ Through at least the 1930s, firefighting was a community effort.

Finally, Old Betsy was also part of community life in other ways. “During those years,” the registration form tells us of the 1920s and 1930s,

Fire Engine No. 1 also served as a good will ambassador. Santa Claus would be driven through town on Old Betsy at Christmastime so he could personally deliver candy-filled stockings to the town's youngsters. Candy from wooden barrels loaded on the truck, as well as oranges from the local Butts family farm, would also be given out.²²²

After World War II, many changes contributed to a decline in Old Betsy’s significance. Post-war construction used concrete block and stucco, cutting down on the number of fires. Beginning in 1946, when the position of fire chief became fully paid, Boca Raton shifted from volunteer to professional fire firefighters. The city also began to acquire other firefighting

²²⁰ Ibid., sec. 8 p. 2.

²²¹ Ibid., sec. 8 p. 4.

²²² Ibid.

apparatus: a new pumper and a specialized brushfire truck were added in 1946. These were followed by additional pumpers in 1960 and 1967.²²³

Old Betsy was retired in 1968. It is notable that the engine lasted that long. By the 1950s, few mechanics were able or willing to work on it. She was kept in service thanks to Ray Larabee, a retired fire chief from West Palm Beach. Larabee, knowledgeable about older fire trucks, would visit Boca Raton for days at a time to perform maintenance and repairs.²²⁴

Restoration and Current Use

When Old Betsy was retired, the fire department considered selling, or even giving her away. However, “the firemen decided to keep her and dreamed of restoring her.” The restoration began in 1968 with firefighters tracking down replacements for the wooden rims and hard rubber tires. At retirement, the rims and tires were still original. The restoration was resumed March, 1991 with the help of a professional in Homestead, Florida. Sourcing original parts from antique fire apparatus dealers, and matching original materials for upholstery, running boards, and the steering wheel, the restoration was completed in November, 1993.²²⁵ Since retirement, Old Betsy “has been a mobile ‘Good Will Ambassador,’ used for exhibitions, promotions, and public relations purposes.” She leads the annual parade, and is a crowd favorite during historical celebrations and fire-safety open houses.²²⁶

²²³ Ibid., sec. 8 pp. 5-6.

²²⁴ Ibid., sec. 7 p. 2.

²²⁵ Ibid., sec. 7 pp. 2-3.

²²⁶ Ibid., sec. 8 p. 6.

Snogo Snow Plow

The Snogo Snow Plow was entered in the National Register on October 4, 2006.²²⁷ It was the second and most recent motor vehicle entered in the register. As of July, 2015, no other motor vehicles had been listed. Snogo Snow Plow was eligible for inclusion under Criterion A in the area of Transportation and Criterion C in the area of Engineering. It was deemed locally significant, with a period of significance lasting from 1932 to 1952.²²⁸ Like the Boca Raton Fire Engine No. 1, its period of significance matches its time in active service.

Manufactured by the Klauer Manufacturing Company of Dubuque, Iowa, the Snogo is a 1932 Model F, No. 107.²²⁹ It was delivered to Rocky Mountain National Park in November of 1932. For the next twenty years, the Park Service used it for road clearing.²³⁰ The Snogo bears some resemblance to a period delivery truck that has been stripped of its engine and, except for front fenders, everything else in front of the cab. Mounted in front of the vehicle is a large, “u”-shaped scoop—slightly wider than the vehicle and about half as tall—with two horizontal augers inside. The augers force snow into a blower located just behind the scoop. The blower throws snow to one side of the vehicle.

The Snogo featured a 125-gallon gas tank that, according to the manufacturer, allowed it to operate for 24 consecutive hours. It was equipped with an eight-speed transmission that gave it top speeds of one-quarter mile an hour in the lowest gear, and 25 miles an hour in the highest gear. Its gasoline engine, a massive “Climax Blue Streak,” is located behind the cab. According,

²²⁷ National Park Service, National Register of Historic Places Program, “Snogo Snow Plow,” Inventory/Nomination Form, National Register #06000934 (October 4, 2006), sec. 4, <https://npgallery.nps.gov/NRHP/GetAsset/6e5ef848-2f8f-4a16-a9ef-02bd3aa1bcfe> (hereafter cited as “Snogo Snow Plow”).

²²⁸ “Snogo Snow Plow,” sec 3, sec 8.

²²⁹ *Ibid.*, sec. 7 p. 1.

²³⁰ *Ibid.*, sec. 8 p. 3.

again, to the manufacturer, the Snogo could clear snow up to 35 feet deep and its blower could throw snow up to 100 feet: its registration form states that “park photographs of the plow in action show that these claims are not exaggerated.”²³¹

At the time of nomination, it was still owned by the Park Service and was located among other park equipment and maintenance vehicles in the National Register-listed “Utility Area Historic District” of Rocky Mountain National Park.²³²



Figure 24. 1932 Model F. Snogo Snow Plow

Significance under Criterion C

The Snogo was innovative for its time. Its use of augers and a blower, along with features such as controls that could be operated from within a closed cab, roll-up windows, and an interior heater, were all state-of-the-art in 1932. Today, it is “a rare remaining example of this

²³¹ Ibid., sec. 7 p. 1.

²³² Ibid.

type of equipment, and has all of its original materials and components.” The Snogo “may be the last model of this innovative machine in existence.” Klauer Manufacturing produced 39 Model Fs. Two other Model Fs used by the Park Service at Yosemite and Crater Lake National Parks no longer exist. Nothing is known about the other 36.²³³

Significance under Criterion A

At Rocky Mountain National Park, established in 1915, opening the park to automobile traffic was an early and ongoing priority. As the registration form states:

As an increasingly mobile and automobile-oriented society began to demand access to national parks, the parks were forced to develop roads to accommodate the nature enthusiasts and touring travelers. With the development of roads, the parks also had to deal with maintenance; the Snogo Snow Plow was one of the tools used to provide access to Trail Ridge Road and various other roads within the park.²³⁴

Trail Ridge Road, mentioned above, is described by the registration form as “one of the most important resources in the park and to the state of Colorado.” Dedicated the same year that the Snogo was acquired, Trail Ridge Road crosses the continental divide and, at 12,120 feet, is the highest continuous paved road in the United States. “Accessibility to the high altitude tundra is a major focus of the park's mission and a major visitor experience that is unparalleled in the National Park system.” Trail Ridge Road makes this experience possible and, for twenty years, the Snogo kept Trail Ridge Road open.²³⁵

²³³ Ibid., sec. 8 pp. 2-4.

²³⁴ Ibid., sec. 8 p. 2.

²³⁵ Ibid., sec. 8 p. 3.

Current Use

The Snogo was not operational when it was listed. When it was retired in 1952, it was given to the town of Estes Park. Estes Park used the Snogo until 1979, when the engine's exhaust pipe was left uncovered. The engine filled with water and snow causing it to seize. Estes Park returned the nonfunctioning Snogo to Rocky Mountain National Park later that year. When listed, the Park Service planned to restore the Snogo for use in parades and other events.²³⁶

Lessons for Automobiles

Where their nominations overlap, Boca Raton Fire Engine No. 1 and the Snogo Snow Plow provide possible lessons for the listing of automobiles. First, both vehicles are locally significant. Second, both nominations are able identify and document a compelling historic context. The two points are closely related. They are notable because Boca Raton Fire Engine No. 1 and, to a lesser degree, Snogo Snow Plow are both examples of mass-produced vehicles. Identification and nomination of a locally significant automobile, using a sufficiently narrow historic context, could simplify evaluation of the automobile by reducing or eliminating the need to compare it with other, similar automobiles.

A third point concerns use. Old Betsy and the Snogo, while sharing the same platform as automobiles, were engineered for specific tasks, much like the industrial implements discussed next. Automobiles that were used, even partially, for a purpose other than personal transportation could provide good candidates for nomination if they provided a service, for a particular group of people, during a particular period of time.

²³⁶ Ibid.

Historic Industrial Implements

Of the nine industrial implements that qualify as mobile structures, six could almost be categorized as boats. All six are stacker-type gold dredges that operated in ponds. Though they resemble giant houseboats, they had to be anchored to the ground below and on either side. The “stacker” part of their machinery deposited rock and soil behind them. This moved the pond, and the dredge was moved with it.²³⁷

Of the completely land-based industrial implements on the register, “Marion Steam Shovel” bears the closest resemblance to an automobile. The Marion Steam Shovel was entered into the register of February 22, 2008. With a working weight of 105 tons, it originally moved on short sections of railroad track that the crew picked up and moved as needed. The wheels were removed in the early 1920s and replaced with tractor crawlers. After this modification, it was capable of moving ¼ mile an hour. Resembling a boxcar with a towering arm and digging bucket emerging from its open front, the Marion Steam Shovel was used to quarry limestone that, once crushed, was used in the construction of railroads and, later, the construction of paved roads to accommodate early automobiles. It was eligible under Criterion C as a rare example of technology used by the crushed-rock industry in the late nineteenth and early twentieth century. It was also the last surviving example of the Model 91 Marion shovel, the same model used to excavate the Panama Canal.²³⁸

²³⁷ Douglas Beckstead, *The World Turned Upside Down: A History of Mining on Coal Creek and Woodchopper Creek, Yukon-Charley Rivers National Preserve, Alaska* (Fairbanks, AK: U.S. Department of the Interior, National Park Service, 2003), 72-86.

²³⁸ National Park Service, National Register of Historic Places Program, “Marion Steam Shovel,” Inventory/Nomination Form, National Register #08000038 (February 22, 2008), sec. 7 pp. 4-6, <https://cris.parks.ny.gov/Uploads/ViewDoc.aspx?mode=A&token=MBgqiYHrIIHaPIfYMq1EweIXMXt5qzg/WHS+uMLevfePGoxfae4UECWYOcLg0AxSmXdkOJv9nrcBhlFeK8cygy3rdcbEApvJjeZneckkFf6iK9H0H2omteOHmmdB3QU&q=false>.

Historic Ships

Ships were the first type of mobile structure to be listed on the National Register. By virtue of their status as National Historic Landmarks, eight were placed on the Register in 1966. Among those listed—dating from 1863, 1841, and 1797, respectively—were the oldest iron hulled sailing ship still afloat,²³⁹ the Nation’s only surviving wooden whaleship,²⁴⁰ and “Old Ironsides” herself, the *USS Constitution*.²⁴¹ One more National Historic Landmark was listed in 1967.

Since 1969, at least one ship has been listed every year. Collectively, these ships represent a broad range types, ages, and uses. They are, by far, better represented on the National Register than any other type of mobile structure. As noted above, there are 323 ships listed. Combined, all other mobile structures account for 153 listings. Several factors account for this imbalance: age, precedence, institutional support, and activity on the state level. First, ships were invented long before trains, planes, and automobiles. Individual ships that predate the twentieth century may benefit from rarity and the consensus regarding historical perspective that often accompanies age. Second, ships have been listed on the National Register from the very beginning. There has always been a precedent for listing ships. No other mobile structures were represented in the register’s first printing. Third, ships have benefitted from institutional support, in the form of both financing and cooperation between and among government agencies and

²³⁹ National Park Service, National Register of Historic Places Program, “Star of India,” Inventory/Nomination Form, National Register #66000223 (November 13, 1966), sec. 7. p. 1, <https://npgallery.nps.gov/NRHP/GetAsset/9e2d6949-c13c-4169-8082-89471435b7ac>.

²⁴⁰ National Park Service, National Register of Historic Places Program, “Charles W. Morgan,” Inventory/Nomination Form, National Register #66000804 (November 13, 1966), sec. 7 p. 1, <https://npgallery.nps.gov/NRHP/GetAsset/47d82682-a766-4eed-afd2-6267989b64f5>.

²⁴¹ National Park Service, National Register of Historic Places Program, “U.S.S. Constitution,” Inventory/Nomination Form, National Register #66000789 (October 15, 1966), sec. 2, <https://npgallery.nps.gov/NRHP/GetAsset/131955a4-ee8c-4465-a65d-5b280fef1e71>.

nonprofit groups.²⁴² Finally, ships have benefited from dedication at the state level. Just two states, Maryland and New York, are home to almost one-third of all ships listed on the National Register. Of the 60 ships located in Maryland, 54 were nominated by the state government. In New York, 29 out of 39 ships were nominated by the state government.

Historic Locomotives and Rail Cars

Locomotives and rail cars are the second most common kind of mobile structure on the National Register. As noted, 125 have been listed as of July, 2015. In the previous section, four factors—age, precedence, institutional support, and state-level activity—were offered as explanations for the relatively large number of ships listed on the National Register. Two of those factors, age and state-level activity, have also aided the listing of locomotives and rail cars.

Railcars, though not as old as ships and boats, have been around for much of the history of the United States. One out of every four locomotives and railcars listed on the National Register has a period of significance that predates the twentieth century. For ships, the proportion is closer to 1 out of 5.

For locomotives and rail cars, the importance of activity at the state level is even more pronounced. Almost half of all listings, 60 out of 125, reside in just three states: Pennsylvania, Arkansas, and Colorado. In Pennsylvania, 24 of 24 listings were nominated by the state government. State nominations account for 18 out of 18 listings in Arkansas, and 16 out of 18 listings in Colorado.

Locomotives and railcars, second in number to ships, are also second in tenure. Locomotives became the second type of mobile structure to be listed on June 19, 1973 when The

²⁴² James P. Delgado, “The National Maritime Initiative: An Interdisciplinary Approach to Maritime Preservation,” *The Public Historian* 13, no. 3 (Summer 1991): 75-84.

General and The Texas, both steam locomotives nominated by the state of Georgia, were entered into the register.

The concurrent listing of the two locomotives was not accidental. Both played central roles in what became known as “The Great Locomotive Chase.” The Great Locomotive Chase, also known as the Andrews Raid, began in what is now Kennesaw, Georgia, a northern suburb of Atlanta. On April 12, 1862, a civilian named James J. Andrews and 19 Union soldiers stole The General and headed north, toward Union lines. Their mission was to destroy the railroad and cut off communications to Atlanta. One of three locomotives that pursued The General, The Texas joined the chase 34 miles north of Kennesaw. Running 51 miles in reserve, The Texas caught up to The General after it was abandoned by the raiders and towed it to nearby Ringold, Georgia. The raiders, attempting to make their way back to Union lines on foot, were all captured within a week. Forms for both locomotives note that the Andrew’s Raid “has captured the imagination of Americans,” and that two films about the episode had been made. The General, when nominated, was on display at the Big Shanty Museum in Kennesaw, Georgia. The Texas was on display in Atlanta’s Cyclorama Building.²⁴³

²⁴³ National Park Service, National Register of Historic Places Program, “General, The,” Inventory/Nomination Form, National Register #73000617 (June 19, 1973), sec. 8 pp. 1-2, <https://npgallery.nps.gov/NRHP/GetAsset/765ed990-2e07-46ab-88ce-407cfac43cc0>; National Park Service, National Register of Historic Places Program, “Texas, The,” Inventory/Nomination Form, National Register #73002234 (June 19, 1973), sec. 8 p. 1, <https://npgallery.nps.gov/NRHP/GetAsset/bbd62acc-7d93-4223-8998-8dfe8c3a7598>.

Historic Aircraft

In 1991, Indiana's Division of Historic Preservation and Archeology undertook an inventory and nomination program for historic aircraft that culminated in the successful nomination of a B-17 "Flying Fortress" to the National Register. Paul Diebold, who initiated the program and completed the B-17's registration form, wrote an overview for *CRM*. Diebold observes that "evaluation of aircraft for integrity and significance is challenging" because "aircraft themselves are dissimilar to the majority of resources preservationists encounter. A plane is a mass-produced machine intended to safely transport people and cargo. Operating an aircraft means change." Change, as he meant it, is the continual repair and replacement of parts and materials that aircraft undergo to ensure the safety of crew and passengers.²⁴⁴

The same statements, with variations in emphasis, could be made about automobiles. Automobiles are also dissimilar to the majority of resources preservationists encounter. An automobile is also a mass-produced machine intended to safely transport people and cargo. Operating an automobile also means change and the replacement of sacrificial parts. In short, evaluations of aircraft and automobiles face many of the same challenges. These shared challenges make it worthwhile to examine the aircraft listed on the National Register and explore the guidance offered by the Park Service for nominating aircraft.

Similar Significance: An Overview of Aircraft on the National Register

In terms of their significance, aircraft listed on the National Register are not terribly diverse. Eight aircraft—two out of every three aircraft listed—are significant under Criterion A for their association with some aspect of World War II. Of the four aircraft that do not derive

²⁴⁴ Paul C. Diebold, "Aircraft as Cultural Resources," *CRM* 16, no. 10 (October 1993): 3.

their significance from World War II, two are significant under Criterion A for their association with early “bush flying” in Alaska. The two remaining aircraft were eligible under Criterion A in the area of Transportation. “Douglas DC-3 Airplane, N34,” played, as the registration form states, “a significant role in the development and modernization of flight inspection standards which was essential to the safety of the airspace system.”²⁴⁵ “Wright Flyer III,” the only listed aircraft with National Historic Landmark status, was “the first airplane capable of sustained and controlled flight and suitable for practical application.”²⁴⁶

Questions of Integrity: “Cunningham-Hall Pt-6,” “Pilgrim 100B Aircraft,”
and “B-17G ‘Flying Fortress’ No. 44-83690”

Aircraft listed on the National Register, though fairly uniform with regard to significance, present some very different ideas about how to define aspects of integrity for aircraft. A comparison of “Cunningham-Hall Pt-6, Nc-692W” and “Pilgrim 100B Aircraft” illustrates some of the variations. A discussion “B-17G “Flying Fortress” No. 44-83690” expands on those variations.

“Cunningham-Hall Pt-6” and “Pilgrim 100B Aircraft”

The similarities between “Cunningham-Hall Pt-6” and “Pilgrim 100B” are striking. They were, respectively, the first and second intact airplanes entered into the National Register. Both were nominated by the state of Alaska and built in the early 1930s. Both were rare extant

²⁴⁵ National Park Service, National Register of Historic Places Program, “Douglas DC-3 Airplane, N34,” Inventory/Nomination Form, National Register #97000443 (May 29, 1997), sec. 8 p. 11, <https://npgallery.nps.gov/NRHP/GetAsset/a82ccc72-dadd-459a-9232-b40fbee8f6c6>.

²⁴⁶ National Park Service, National Register of Historic Places Program, “Wright Flyer III,” Inventory/Nomination Form, National Register #90001747 (June 21, 1990), sec. 8 p. 1, <https://npgallery.nps.gov/NRHP/GetAsset/4182133b-6fb3-4696-8425-534db4ff06b9>.

examples of their model. Both derived their significance from their role in “bush flying”—the transport of mail, cargo, and passengers to and from Alaska communities—during the 1930s and 1940s, the period of time when aircraft in Alaska established superiority over dog teams, steamboats, and railroads.²⁴⁷ In some ways, the two aircraft are nearly identical. However, with reference to aspects of integrity—at the very least, location, setting, and materials—they are nearly opposites.



Figure 25. Cunningham-Hall Pt-6.



Figure 26. Pilgrim 100B.

When nominated, Cunningham-Hall Pt-6 was on display outside of the Transportation Museum of Alaska. It had been “entirely rebuilt as a static display using non-airworthy materials.” The engine and airframe were not yet restored. The verbal boundary description for Cunningham-Hall Pt-6 is, in its entirety, “Aircraft shown in attached photograph.”²⁴⁸

The Pilgrim 100-B, when nominated, was owned by “Ball Brothers Fisheries of Bristol Bay” and still in use as a salmon-hauling work plane. The verbal boundary description for

²⁴⁷ National Park Service, National Register of Historic Places Program, “Cunningham-Hall Pt-6,” Inventory/Nomination Form, National Register #78000531 (December 29, 1978), sec. 8 p. 1, <https://npgallery.nps.gov/NRHP/GetAsset/621012ce-1892-4f82-a3ab-e736167561ae> (hereafter cited as “Cunningham-Hall Pt-6”); National Park Service, National Register of Historic Places Program, “Pilgrim 100B Aircraft,” Inventory/Nomination Form, National Register #86002230 (August 7, 1986), sec. 8. p. 1, <https://npgallery.nps.gov/NRHP/GetAsset/37cbffcb-5e34-45b3-baec-3fe29280b21f> (hereafter cited as “Pilgrim 100B”).

²⁴⁸ “Cunningham-Hall Pt-6,” sec. 7 p. 1, sec. 10.

Pilgrim 100-B is, “The aircraft itself. Currently is kept in a small hangar at the Dillingham airport; when in Anchorage, plane is in the Wein hangar at International Airport, Anchorage; or at Lake Hood Runway.”²⁴⁹

B-17G “Flying Fortress” No. 44-83690

“B-17G ‘Flying Fortress’ No. 44-83690,” also referred to as “44-83690,” was entered into the register on June 29, 1993. 44-83690 is the same B-17 mentioned before as the successful product of the Indiana Division of Historic Preservation and Archeology’s project to nominate an airplane to the National Register. The project sought to answer the question, “Can standard historic preservation procedures for survey and registration be applied to historic aircraft?” 44-83690 provided an answer, but the answer was problematic.

44-83690 was eligible under Criterion C as a representative of a significant type. It was also eligible under Criterion A for its association with World War II. Questions about integrity, in this case, begin with the fact that 44-83690 was not used during World War II. Upon receipt, it was put in storage for five years. In 1950, it was heavily modified and for the next ten years used in drone-based testing of missile guidance systems. It was removed from the Air Force inventory in 1960.²⁵⁰

When listed, the exterior of 44-83690 had been altered to produce an approximate replica of a different B-17G—42-31255, or “Miss Liberty Belle”—that crashed during WWII. The

²⁴⁹ “Pilgrim 100B,” sec. 8 p. 2, sec. 10.

²⁵⁰ National Park Service, National Register of Historic Places Program, “B-17G ‘Flying Fortress’ No. 44-83690,” Inventory/Nomination Form, National Register #93000540 (June 29, 1993), sec. 8 pp. 8, 14, <https://npgallery.nps.gov/NRHP/GetAsset/9a653f1e-3955-4a62-8a33-57bb87e400cf> (hereafter cited as “B-17G No. 44-83690”).

interior had been gutted. It was, like the Cunningham-Hall PT-6 discussed above, a static, inoperable display on the grounds of the museum.²⁵¹

For 44-83690, the fact that the museum is adjacent to an Airforce base is used as an argument for integrity of location. Integrity of design, as judged by the nomination form, was not damaged by its transformation into “Miss Liberty Belle” because aircraft undergo major reconstruction as part of their useful lives. Integrity of setting was present because 44-83690 was displayed outdoors in a “simple, dignified manner.”²⁵²

As an overall evaluation of integrity, the nomination form states, “It meets the basic test of integrity for such properties: it still retains its overall identity as a WWII era heavy bomber. Even on the interior, where the cockpit has been stripped, one is still aware of its basic features. The interior still has the feeling of a WWII airplane.”²⁵³

Diebold’s account in *CRM* of 44-83690’s path to the National Register touched off a series of letters and articles that appeared in that publication over the next year and a half. Occasionally very contentious, they all grapple with the same question: what, for an aircraft, is integrity?²⁵⁴ Partially as a result of this debate, *National Register Bulletin 43: Guidelines for Evaluating and Documenting Historic Aviation Properties (NRB 43)*, was published in 1998. The bulletin, itself the product of an unusually lengthy and heated review process, offered some

²⁵¹ “B-17G No. 44-83690,” sec. 7 pp. 5-6.

²⁵² *Ibid.*, sec. 7 p. 5.

²⁵³ *Ibid.*

²⁵⁴ Edward McManus, “Aircraft Restoration Practice and Philosophy,” *CRM* 17, no. 4 (April 1994): 8-10; Richard E. Gillespie, “Aircraft as Cultural Resources: A Long-Neglected Subject,” letter to the editor, *CRM* 17, no. 4 (April 1994): 32-33; Paul C. Diebold, “A Response,” letter to the editor, *CRM* 17, no. 4 (April 1994): 33; Michael S. Binder, “Aircraft as Cultural Resources,” letter to the editor, *CRM* 17, no. 9 (September 1994): 34; Carl Spath, letter to the editor, *CRM* 18, no. 2 (February 1995): 3-5; David B. Whipple, “Aircraft as Cultural Resources: The Navy Approach,” *CRM* 18, no. 2 (February 1995): 10-12.

clarity.²⁵⁵ Beginning with its very first sentence, it offers valuable observations and guidance that could be applied to automobiles as well as aircraft.

Answers: National Register Bulletin 43

The preface to *NRB 43* begins by stating that “Much of America's 20th century history is inextricably linked to aviation.”²⁵⁶ This observation could also be applied to automobiles. If automobiles were erased from history, much of the twentieth century would disappear with them. Echoing Diebold’s observations about mass-production and ongoing change, the bulletin begins its discussion of aircraft by stating:

Aircraft present special challenges to cultural resource managers. The variety of makes and models, the quantities of production, the replacement parts acquired through routine overhaul and maintenance, the conversion of aircraft from one use to another during its operational life, the craft's operational status, its airworthiness, and its mobility affect both the documentation and the evaluation of aircraft as historic properties.²⁵⁷

As before, with variations in emphasis and terminology, this description applies to automobiles. Aircraft and automobiles present similar challenges. Can they benefit from similar solutions?

Criteria Considerations

With regard to their significance under Criterion A, Boca Raton Fire Engine No. 1 and Snogo Snow Plow are similarly situated. Their current locations and settings are very similar to their historic locations and setting. However, only Fire Engine No. 1 needed to meet Criteria Consideration B: Moved Properties.

²⁵⁵ Patrick Andrus, “A New National Register Bulletin,” *CRM* 23, no. 2 (February 2000): 35.

²⁵⁶ *NRB* 43, 5.

²⁵⁷ *Ibid.*, 20.

Similarly, both automobiles had useful lives that ended less than 50 years before their nomination. Fire Engine No. 1 stopped being a functional fire engine in 1968. It was listed 33 years later, in 2001. The Snogo stopped being a functional snow plow in 1979. It was listed 27 years later, in 2006. However, based on the periods of significance provided by their registration forms, only Fire Engine No. 1 needed to meet Criteria Consideration G: Properties That Have Achieved Significance Within the Past 50 Years.

Criteria Consideration B

An earlier publication, *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation (NRB 15)*, offers guidance on when mobile structures need to meet Criteria Consideration B that is somewhat unclear. Essentially, *National Register Bulletin 15* states that Criteria Consideration B should be applied when a move has damaged a mobile structure's integrity of setting or location. Two pages later, it states that mobile structures lacking integrity of setting are not eligible for listing.²⁵⁸

The use Criteria Consideration B is greatly simplified by *NRB 43*. It states, "Aircraft, like ships, are transportation vehicles designed to move during operation. Because aircraft are designed to be moved, they do not need to meet Criteria Consideration B (and the consideration should not be checked on the National Register registration form)."²⁵⁹ As worded, this interpretation applies to all mobile structures, including automobiles. Questions about integrity of setting are addressed later, on their own.

²⁵⁸ NRB 15, 29-31.

²⁵⁹ NRB 43, 32.

Criteria Consideration G

NRB 43 states, “Given that airplanes and the infrastructure of aviation (like navigation aids and hangars) were not designed or constructed for fifty years of operation, Criteria Consideration G deserves special attention.”²⁶⁰ In some ways, this observation applies even more strongly to automobiles. As discussed in Chapter 2, thanks to General Motors’ introduction of the annual model change, automobiles are designed, built, and marketed for frequent replacement.²⁶¹

To meet Criterion Consideration G, a property must possess “exceptional importance.”

Pulling together quotes from *NRB 15*, *NRB 43* defines “exceptional importance” indirectly:

The phrase ‘exceptional importance’ may be applied to the extraordinary importance of an event or to an entire category of resources so fragile that survivors of any age are unusual. Exceptional importance does not require that the property be of national significance. It is a measure of the property’s importance within the appropriate historic context, whether the scale of the context is local, state, or national.

NRB 43 gives two tentative examples of how, or when, aircraft might meet Criteria Consideration G. First, “The retirement and replacement of aircraft by airlines raise preservation issues concerning obsolete jet liners that are less than fifty years old.” Second, “the replacement of private and sport aircraft with newer, higher-technology models poses questions now about the preservation of aircraft less than fifty years old.” The bulletin states that, “Some of these aircraft may qualify for National Register listing.”²⁶²

The relationship between “exceptional importance” and “historical context,” though not discussed in *NRB 43* with reference to aircraft, merits discussion as it relates to automobiles. Exceptional importance is partially a measure by rarity. However, to meet Criteria Consideration

²⁶⁰ *Ibid.*, 33.

²⁶¹ Heitmann, 60.

²⁶² *NRB 43*, 35.

G, an automobile that is significant on a state or local level does not need to be the only example of its type or one of only a few survivors. The registration form for Boca Raton Fire Engine No.1 states that “Old Betsy is remarkable, too, as one of the few survivors of the 61 Type 75’s American LaFrance sold in the southeastern United States in 1925.”²⁶³ Deemed significant locally, with a historical context that begins with south Florida in the mid-1920s, Fire Engine No. 1’s “exceptional importance” is established by this statement. Within the scale and scope of its historical context, it meets Criteria Consideration G. It is not necessary to prove that very few Type 75s still exist nationwide or worldwide.

Aspects of Integrity

An extremely useful template for measuring the integrity of automobiles can be found in *NRB 43*’s description of the aspects of integrity as they are applied to aircraft. Previously unresolved questions about integrity of location and setting are given a simple answer and sensible if labor intensive guidelines for proving integrity of materials and design are also provided.

Location and Setting:

NRB 43’s discussion about integrity of location and setting of aircraft is grounded in the observation that “The National Register recognizes... that some types of resources were designed to be moved. Ships, railroad cars, trolleys, and airplanes are property types that were constructed to be mobile; their significance is inherent in their ability to move.” The argument is made that, if the significance of a structure is inherent in its ability to move, it should not be

²⁶³ “Boca Raton Fire Engine No. 1,” sec. 7, p.2.

disqualified for moving. The bulletin continues, “In many instances, they are today not located in the place where they were constructed or where the historic event(s) with which they are associated occurred. These properties may still be able to convey their importance despite not being at their original location. Thus it is not required that movable objects be at their original location in order to retain integrity.”²⁶⁴

The last statement is especially significant. At the close of *NRB 43*’s discussion of location and setting, it is reiterated in more animated terms. The question is asked, “Does the aircraft have to be located at a facility where it was historically associated to qualify?” The response is emphatic: “The short answer is NO.”²⁶⁵

What is required, instead, is an appropriate setting. “The structure (as the National Register categorizes ships, railroad cars, trolleys, and aircraft) must have an appropriate setting. This requirement applies both to historic aircraft which are still being flown and those which are not.” Museums are singled out as an inappropriate setting.²⁶⁶ Museums are not the setting or location where aircraft, automobiles, or any other mobile structure achieved significance. Museum objects, even when they possess the significance necessary for listing on the National Register, lack sufficient integrity of setting to be listed. Also, if mobile structures found in museums were to be added to the National Register, the gesture would be redundant. Recognition and preservation are inherent parts of a museum’s mission.²⁶⁷ *NRB 43* makes a distinction between aircraft as museum objects and aircraft as part of a collections. Many historic automobiles are a part of private collections. The distinction drawn by the bulletin, and the reasoning behind it, could be more significant for automobiles than it is for aircraft.

²⁶⁴ *NRB 43*, 36.

²⁶⁵ *Ibid.*, 37.

²⁶⁶ *Ibid.*, 36.

²⁶⁷ *Ibid.*

Referring to the disallowance of museums objects, *NRB 43* states, “This general policy would not, however, disqualify an aircraft simply because it is part of a collection. The deciding factor will be appropriateness of setting.” This statement is clarified with a hypothetical case. “If an aircraft is part of a collection and: (a) is important under the National Register criteria, (b) retains integrity of materials, design, workmanship, feeling and association; and (c) is in a setting which is appropriate to an aircraft and allows it to convey its significance as an aircraft, then it will be eligible.”²⁶⁸

What, then, is an appropriate setting? The answer, for aircraft, is worth quoting in full:

An example of an appropriate setting would be an air-related facility where the aircraft is maintained. A historic SBD Dauntless dive bomber parked on an aircraft parking ramp, or inside of a hangar, at a naval aviation station would meet the requirement of integrity of setting, as would a historic DC-3 maintained in a hangar at a municipal airport. Aircraft kept within modern buildings constructed to house a collection could qualify if the building itself were in an appropriate setting. For example, if a period aircraft is situated within a modern building designed to store and display the aircraft, and the building is located near the runways at an airport, it might qualify. As with all other National Register property types, the aircraft must be judged on an individual basis to determine if it is significant and retains integrity.²⁶⁹

This suggests that an appropriate setting for an automobile could be a garage with access to a road. Even if that garage is a modern structure built to house a collection of two, ten, or a hundred cars, it could still be an appropriate setting.

Materials

To define integrity of materials, *NRB 43* quotes directly from *NRB 15*: “A property must retain the key materials dating from its period of its significance. If the property has been rehabilitated, the historic materials and significant features must have been preserved.”

²⁶⁸ Ibid.

²⁶⁹ Ibid., 36-37.

Additionally, “The property must also be an actual historic resource, not a recreation; a recent structure fabricated to look historic is not eligible. Likewise, a property whose historic features and materials have been lost and then reconstructed is usually not eligible.”

These guidelines are as true for aircraft as they are to buildings, however, “An aircraft's integrity of materials cannot be evaluated without an understanding of the nature of aircraft maintenance, and the periodic replacement of parts. With this understanding one can identify the essential components of an aircraft which must be retained for the aircraft to be considered historic.”²⁷⁰ To a lesser degree, these statements also apply to automobiles. They undergo maintenance and periodic replacement of parts, but not to the same extent as aircraft. Aircraft maintenance, to ensure safety of crew and passengers, is more frequent, systematic, and extensive than automobile maintenance. If an automobile breaks down, the driver and passengers are likely to survive. This is not the case for aircraft. Even the replacement of items such as engines, wings, and skin panels can occur as part of routine maintenance.²⁷¹

“So,” *NRB 43* asks, “when does an aircraft stop being the ‘original?’ As long as an aircraft retains the majority of its original structural members, it should be considered the authentic aircraft.” This observation, *NRB 43* makes clear, provides only a starting point for evaluation. Significant alterations, though they might have occurred as part of regular maintenance, always need to be documented.²⁷²

²⁷⁰ Ibid.

²⁷¹ Ibid., 38.

²⁷² Ibid., 39.

Design

NRB 43 states that an aircraft's integrity of design can never be taken for granted. Registration forms for aircraft need to demonstrate a thorough understanding of the aircraft's design history. Why does this knowledge need to be demonstrated? The answer, applicable to automobiles as well as aircraft, is that "Within any given design series there may be numerous modifications and models. The changes that distinguish one model from another may or may not be readily discernible, thus sound research is required."²⁷³ For automobile models whose production runs spanned multiple decades—such as the original Volkswagen Beetle, Austin Mini or Citroen 2CV—this is exceptionally relevant as only minor styling and engineering modifications were introduced over the course of their production.

Workmanship

Workmanship, for aircraft and automobiles, can be particularly evident in examples that predate World War II. For airplanes, rib stitching, propeller carvings, a doped finish, and the placement of reinforcing tape can all provide evidence of both high- and low-quality workmanship. In early coach built automobiles, filigree on knobs and accoutrements, hand formed body panels, custom upholstery and tailored luggage may be present. Workmanship can be seen in post-war, mass-produced vehicles as well. Alterations made to vehicles after they left the factory and even changes in production methods may be evidence this workmanship.²⁷⁴

²⁷³ *Ibid.*, 40.

²⁷⁴ *Ibid.*, 40-41.

Feeling and Association

Feeling and Association are addressed only briefly by *NRB 43*. Both “require the presence of physical features that convey a property's historic character.”²⁷⁵ If materials, design, and workmanship have been properly documented, this requirement has already been met.

Adequate integrity of association, as it is discussed by *NRB 15*, has one other requirement: “A property retains association if it is the place where the event or activity occurred.”²⁷⁶ For aircraft, which do not need to be in their original location to maintain integrity, a different requirement is put forward. “The aircraft,” *NRB 43* states, “either is directly associated with an historic event or person or it is not.”²⁷⁷ If the “place where the event or activity occurred” is the aircraft itself, geographic location loses importance. Once again, “automobile” could easily be substituted for “aircraft.”

Conclusions

Mobile Structures have always been a part of the National Register. They are, and always have been, a small part but they a vital part. Mobile structures often exist to *do* something. Buildings and other static resources often exist to *be* something. Mobile structures, having a different purpose, fill different roles and offer different viewpoints. They are able to illuminate American History in ways that buildings and other static cannot. Put more simply, they tell good stories. A fire engine, for example, can reveal the links between a capsized ship, a former Vice President of the United States, oranges from the Butts family farm, and changes in construction materials following World War II.

²⁷⁵ *Ibid.*, 41.

²⁷⁶ *NRB 15*, 45.

²⁷⁷ *NRB 43*, 41.

This chapter has attempted evaluate the mobile structures already listed on the National Register and identify specific insights into how and why automobiles might be listed as well. Motor vehicles highlight the importance of identifying locally significant automobiles and demonstrate just how crucial historic context is for any kind of listing. Industrial implements, along with motor vehicles, demonstrate the importance of identifying automobiles that served a particular use. Ships, locomotives, and rail cars demonstrate importance of engaging State Historic Preservation Officers. Aircraft, because of specific similarities with automobiles, are able to point out issues of integrity to avoid. The same similarities mean that a starting point, in the form of *NRB 43*, already exists for evaluating automobiles. The presence of 475 mobile structures on the National Register is, itself, an argument for the inclusion of automobiles. The National Register is able to accommodate these mobile structures and highlight their historic significance, it can and should accommodate automobiles and their stories as well.

CHAPTER 7

THE NATIONAL HISTORIC VEHICLE REGISTER

The automobile is specifically identified by *National Register Bulletin 15* as an example of a structure.²⁷⁸ An evaluation of similar structures listed on the National Register—structures that are, like automobiles, mobile—demonstrates that historically significant automobiles could justifiably find a home on the list. The question remains: Do the owners of historically significant automobiles want to see them listed on the National Register?

In the United States, the hobby of car collecting began in the early 1950s. By 1970, the standard treatment of collectible cars was “over-restoration”: pristine, “ground-up” restorations that turned automobiles into gleaming “technical jewelry” while destroying historic integrity. Thanks to more-enlightened judging on show fields and the setting of restoration standards by car clubs this practice began to wane in the late-1990s, though it persists into the present.²⁷⁹

American car collectors—the likely owners of many automobiles that may be eligible for the National Register—have, in general, only recently adopted the belief that historically significant automobiles should be preserved in their original condition.²⁸⁰ This new understanding has been accompanied by a desire for “higher recognition”: ways to honor

²⁷⁸ NRB 15, 4.

²⁷⁹ Miles Morris, “Why We Over-Restore,” in *The Stewardship of Historically Important Automobiles*, ed. Frederick A. Simeone (Philadelphia: Simeone Automotive Foundation, 2012), 118-119.

²⁸⁰ Miles Collier, “Automobile Collecting – The Emerging Ethos,” in Simeone, 14-17.

significant cars, including listing in the National Register.²⁸¹ It has also been accompanied by many questions about what makes an historic automobile significant and what it means to “preserve” rather than “restore” significant vehicles.²⁸² This shift is vividly illustrated and loudly championed by the Historical Vehicle Association (HVA).

The HVA was established by Hagerty Insurance in 2009 “to promote the cultural and historical significance of the automobile and protect the future of our automotive past.”²⁸³ The HVA describes itself as a membership organization that represents a “collaboration of carmakers, owners, insurers, collectors, car clubs, museums, conservators, car show organizers, suppliers and academics.”²⁸⁴

In 2013, the HVA established a National Historic Vehicle Register (NHVR) to “help record this nation’s most significant historic vehicles, preserving their information for future generations and documenting their story in perpetuity.” Echoing the early process of the Historic Sites Survey (HSS), but by no means replicating it, selection of vehicles for the register is a closed process performed by a “group of experts.”²⁸⁵ Just as the HSS sought a broad selection of sites that would, when taken together, form “an effective presentation of the complete narrative of American history,”²⁸⁶ the NHVR selects vehicles that, when taken together, “represent the

²⁸¹ Frederick A. Simeone, “A Better Way to Reward the Owner of an Historically Important Automobile: The National Historic Preservation Act,” in Simeone, 147.

²⁸² Frederick A. Simeone, “Importance: Definition of an Historically Important Automobile,” in Simeone, 18-20.

²⁸³ Historic Vehicle Association, “About the HVA,” <https://www.historicvehicle.org/about-us/> (accessed February 2, 2017).

²⁸⁴ Jim Parker, “Auto Preserve College of Charleston seeks to tie into national group to research notable cars in same vein as historic homes,” *Charleston (SC) Post and Courier*, November 20, 2015.

²⁸⁵ Mark Gessler, “National Historic Vehicle Register Explained,” Historic Vehicle Association, <https://www.historicvehicle.org/national-historic-vehicle-register-explained/> (accessed February 2, 2017).

²⁸⁶ Sprinkle, 15.

broad and extensive impact the automobile has had on all aspects of American culture and history.”²⁸⁷

Vehicles selected for the register are documented in accordance with the Secretary of the Interior's Standards and Guidelines for Architectural and Engineering Documentation. This documentation, submitted to the Library of Congress, becomes part of the Historic American Engineering Record (HAER).²⁸⁸ In addition to HAER documentation, the HVA maintains a record of digital photographs and audiovisual media including recordings of sound of each automobile's exhaust, filmed oral history interviews, and mini-documentaries. The HVA will eventually make their documentation available to the public.²⁸⁹ Table 4 lists all of the automobiles included in the NHVR as of March 10, 2017. It also includes the status of submissions to the Library of Congress. Currently, no NHVR documentation can be retrieved on the internet through the Library of Congress Prints & Photographs Online Catalog. However, all documentation received by the Library of Congress may be special requested.

²⁸⁷ Gessler, “NHVR Explained.”

²⁸⁸ Ibid.

²⁸⁹ Benjamin Preston, “Shelby Cobra Coupe Becomes the First Federally Registered Historic Car,” *New York Times*, February 12, 2014.

Table 4. National Historic Vehicle Register List²⁹⁰

Vehicle Information			Library of Congress Submissions		
Vehicle Year/Make/Model	HAER ID #	Date Added	Historical Report	Photos	Line Drawings
1964 SHELBY COBRA DAYTONA COUPE CSX2287	PA-650	1/2014	NO	-	-
1964 MEYERS MANX "OLD RED"	CA-2312	5/2014	YES	34	1
1938 MASERATI 8CTF "THE BOYLE SPECIAL"	IN-112	5/2014	YES	41	-
1918 CADILLAC U.S. 1257X	WA-225	7/2014	YES	40	-
1947 TUCKER 48 PROTOTYPE "TIN GOOSE"	PA-652	10/2014	NO	-	-
1940 GM FUTURLINER NO. 10	IN-114	1/2015	YES	6	-
1954 MERCEDES-BENZ 300 SL	PA-194	3/2015	NO	-	-
1940 FORD PILOT MODEL GP-NO.1 (PYGMY)	AL-213	12/2015	NO	-	-
9 WHITE MODEL 'M' STEAM CAR	MA-175	4/2016	NO	-	-
1962 WILLYS 'JEEP' UNIVERSAL MODEL CJ-6	CA-2320	4/2016	NO	-	-
1911 MARMON WASP	IN-115	6/2016	NO	-	-
1907 THOMAS FLYER	NV-49	6/2016	NO	-	-
1938 BUICK Y-JOB	MI-417	8/2016	NO	-	-
1967 CHEVROLET CAMARO	KS-11	8/2016	NO	-	-
1920 ANDERSON SIX	SC-44	11/2016	NO	-	-

²⁹⁰ Historic Vehicle Association, "Vehicles on the Register," <https://www.historicvehicle.org/national-historic-vehicle-register/vehicles/> (accessed February 3, 2017).

Comparing the National Registers: Vehicles and Places

Is the NHVR compatible with the National Register? Does it provide a better way of recognizing historically significant automobiles? The National Register of Historic Places provided a point of reference for the HVA when they established the NHVR. This is evidenced by the NHVR’s use of National Register concepts, terminology, and formatting. Areas where this is most obvious—NHVR criteria and documentation—provide starting points for a comparison.

Comparing Criteria

Some of the most obvious examples of the National Register’s influence can be found in the criteria put forward by the NHVR. Table 5 contains a side-by-side comparison of criteria used by both programs.

Table 5. Comparison of Criteria used by the National Register and the NHVR²⁹¹

	National Register of Historic Places National Register Criteria for Evaluation	National Historic Vehicle Register Draft Criteria for Historic Significance
	<i>The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:</i>	-
A:	That are associated with events that have made a significant contribution to the broad patterns of our history; or	<i>Associative Value – Event</i> A vehicle associated with an event or events that are important in automotive or American history.

²⁹¹ NRB 15, 2; Historic Vehicle Association, “Draft Criteria,” <https://www.historicvehicle.org/national-historic-vehicle-register/draft-criteria/> (accessed January 15, 2017).

B:	That are associated with the lives of significant persons in our past; or	<i>Associative Value – Person</i> A vehicle associated with the lives of significant persons in automotive or American history.
C:	That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or	<i>Design or Construction Value</i> A vehicle that is distinctive based on design, engineering, craftsmanship or aesthetic value.
D:	That have yielded, or may be likely to yield, information important in history or prehistory.	<i>Informational Value</i> A vehicle of a particular type that was the first or last produced, has an element of rarity as a survivor of its type, or is among the most well-preserved or thoughtfully restored surviving examples.

An immediately obvious difference between the two sets of criteria is found in their use of opening statements. Before identifying types of significance, National Register criteria identify the basic preconditions for significance by listing the kinds of resources that can be recognized and defining aspects of integrity. NHVR criteria do not make use of an introductory statement. They are solely concerned with types of significance.

Beyond the opening statement, the NHVR criteria are clearly based on National Register criteria. Both identify four types of significance labeled “A,” “B,” “C,” and “D.” For both registers, Criterion A and B identify associative values, Criterion C identifies design and construction values, and Criterion D identifies information value. The criteria definitions, however, vary greatly. This is especially true for criteria C and D.

Viewed by anyone familiar with National Register criteria, NHVR criteria might seem somewhat vague and confusing. Criterion D provides one example. “Informational value,” as it

is defined by the NHVR criteria, is no longer directly tied to the ability to yield information. Instead, it applies to vehicles that are representative of a particular type. This redefinition leads to a second example. Following National Register criteria, representatives of a particular type can be eligible under Criterion C. NHVR criteria remove “type” from Criterion C and reword it as “Design or Construction Value: A vehicle that is distinctive based on design, engineering, craftsmanship or aesthetic value.” The term “distinctive” is borrowed from the National Register criteria, but it is employed differently. “Distinctive” as used by National Register criteria, means something like “distinguishing” or “particular.” As the word is used in the NHVR criteria, it means “unique.” Can mere uniqueness establish a vehicles significance? This is what Criterion C seems to say, but it is possibly not what it means to say.

Comparison of the two sets of criteria yields other points of confusion and contradiction. However, a detailed examination would be somewhat beside the point. The primary difference between the two sets of criteria, though it is evidenced by their language and formatting, cannot be found in the criteria themselves. The primary difference is usage: How, why, and by whom.

NHVR criteria are used only by the HVA. As discussed below, the HVA inserts the criteria into documentation they prepare for HAER. Beyond this, it is not clear how the criteria are used. Whatever shortcomings the criteria might have are of little consequence at this point in time. If they are used by the HVA alone, they do not need to convey a clear meaning to anyone outside the HVA.

The National Register Criteria for Evaluation guide the selection of all properties listed in the National Register. They provide uniform standards by which every property that is nominated to the National Register is judged. Furthermore, they are used by a wide range of people. Responsibility for identification, initial evaluation, and nomination of historic properties

lies with local, state and federal governments, Indian tribes, and private individuals and organizations.²⁹² Without uniform criteria, it is difficult to imagine how the National Register program could function. The myriad groups involved with the program would not be able to communicate and collaborate.

Comparing Documentation

HAER and the National Register serve similar but different purposes. As such, they require similar but different documentation. Historical documentation prepared for NHVR vehicles, while honoring HAER guidelines, makes an attempt to hybridize the two programs. NHVR documentation follows the “Outline Format: Engineering Structures” that is recommended by HAER for vehicles other than watercraft.²⁹³ At least two sections are added by the NHVR: “Race History,” and “Ownership.” Verification of an unbroken chain of ownership for an automobile is seen as one way of verifying the automobile’s authenticity. It is also a starting point for identifying when, and by whom, changes to the automobile were made.²⁹⁴ The outline format recommended by HAER for vehicles includes a section for “Significance” Instructions for completing the “Significance” section state, “This brief statement presents the rationale for recording the structure... It should highlight the relevant historical and engineering aspects that make the structure unique and are defining characteristics.”²⁹⁵ National Register forms make use of similar terminology. A multipart “Statement of Significance” is required. While the terminology is similar, uses and meanings are dramatically different.

²⁹² NRB 15, i.

²⁹³ National Park Service, Heritage Documentation Programs, “Historic American Engineering Record Guidelines for Historical Reports (2015),” 2, <https://www.nps.gov/history/hdp/standards/HAER/HAERHistoryGuidelines.pdf>

²⁹⁴ Simeone, “Importance,” 18-20.

²⁹⁵ “HAER Guidelines for Historical Reports,” 5.

As noted in Table 4, Historical Reports for four NHVR-listed vehicles have been submitted to the Library of Congress. In the “Significance” section, all four reports make use of the same format and same language. The second vehicle added to the NHVR, a 1964 Meyers Manx, provides an example:

The 1964 Meyers Manx, known as Old Red, is nationally significant based on its relation to four criteria for historic significance. First, it is associated with significant trends in automotive history and culture, a significant event. Old Red and the subsequent production of Meyers Manx dune buggies shaped the rise in the popularity of the dune buggy, off-road vehicles, and kit-cars in the United States and abroad beginning in the mid-1960s. Second, it is associated with Bruce F. Meyers, a dune buggy pioneer and a significant person in off-road vehicles and the fiberglass kit-car industry. Third, Old Red features significant design and construction value: it is the first dune buggy built with a fiberglass body and its design and construction techniques helped catalyze the dune buggy industry. Its design has been highly regarded since its inception. Dune buggies that mimicked Old Red played heavily into the pop culture during the 1960s. Fourth, it offers informational value as the first in a series of approximately 7,000 Meyers Manx dune buggies built by B.F. Meyers & Company. The Meyers Manx design was the inspiration for over 250,000 similar cars that were manufactured by other companies, making it the most replicated car in history. The period of significance for Old Red was from its completion in 1964 to the end of the dune buggy era in the late-1970s.²⁹⁶

The obvious model for this and the “Significance” portion of the other reports prepared for NHVR vehicles is the summary paragraph of the narrative portion of a National Register nomination/registration form’s “Statement of Significance” section. Inclusion of a “period of significance” is also borrowed from National Register forms. Use of this format is confusing. There is no explanation of where the criteria come from and they are not mentioned again. It is also unnecessary. Entry into HAER is contingent on submitting acceptable documentation.²⁹⁷ It is not contingent on proving significance.

²⁹⁶ Casey T. Maxon, “1964 Meyers Manx,” HAER No. CA-2312, Historic American Engineering Record (HAER), National Park Service, U.S. Department of the Interior, 2016: 1.

²⁹⁷ Department of the Interior, National Park Service, “Guidelines for Architectural and Engineering Documentation,” Federal Register 68, no. 139 (Monday, July 21, 2003): 43160, https://www.nps.gov/hdp/standards/standards_regs.pdf.



Figure 29. 1964 Meyers Manx “Old Red.”

Outside of the “Significance” sections, the HAER Historical Reports submitted by the HVA are consistently well written and extensively researched. Historical Reports for the 1964 Meyers Manx and 1918 Cadillac could be easily adapted into National Register nominations. For both vehicles, a fuller historic context would need to be presented but their bibliographies suggest that much of the research has already been completed.

Comparison Conclusions

Where the NHVR borrows from the National Register, it does so selectively. Borrowed elements are then redefined or recontextualized to fit the methods and mission of the HVA. The results are somewhat confusing. Despite superficial similarities, the two registers are not readily compatible but based on the documentation produced by the HVA so far they could be building a list well-documented candidates for listing on the National Register. As a stand-alone alternative to the National Register, it’s not clear that NHVR represents an improvement. The NHVR represents an expedient way for a small group of people to recognize a limited number of automobiles. The National Register, on the other hand, represents a way for diverse groups of people to recognize a large number of objects.

One National Register

HVA president Mark Gessler has observed that “America’s automotive heritage has not been sufficiently recognized, the automobile and auto industry have influenced every aspect of American life. We want to elevate that history to the level it deserves.”²⁹⁸ The efforts of the HVA, including the creation of the NHVR, represent significant progress towards this goal. Ultimately, though, the significance of the NHVR might reside less in what it is and more in what it represents: the burgeoning desire of the collector car community to formally recognize the significance of the automobile’s impact on American culture and America’s landscape.

As Ernest Connally stated, “There is only one National Register. Consequently, the official federal definition of what is historic is that which is included in the National Register.”²⁹⁹ Use of a secondary register for automobiles excludes them from “the official definition of what is historic.” Including automobiles on the National Register is, ultimately, the best way to “elevate that history to the level it deserves.”

²⁹⁸ Mark Phelan, “Historians Record Every Bolt, Every Curve on Classic Cars,” *Victoria (BC) Times Colonist*, August 12, 2016.

²⁹⁹ Connally, “Origins of the NHPA – Part II,” 9.

CHAPTER 8

CONCLUSION AND RECOMMENDATIONS

*The history of preservation... demonstrates the ability of the preservation community to come up with remarkable responses in moments of new opportunity. Expanding the boundaries of cultural heritage has strengthened, not diminished, the powers of preservationists.*³⁰⁰

-Paul Bentel, Architect and Architectural Historian

CONCLUSION

This thesis began with two questions. First, do historically significant automobiles have a place on the National Register? Second, is there a desire to see automobiles listed? The preceding chapters provide an affirmative answer to both of these questions. The automobile, more than any other invention or innovation, shaped American culture and the American landscape during the early twentieth century. Automobiles mobilized a nation, brought farmers out of rural isolation, and expanded the horizon of the city. By the middle of the twentieth century, almost every aspect of modern life had been influenced, if not completely transformed, by the automobile.

With their general significance established, and their status as a “structure” endorsed by the Park Service, automobiles fit squarely into the Park Service definition of the National Register: “The official Federal list of districts, sites, buildings, structures, and objects significant

³⁰⁰ Paul Bentel, “Where Do We Draw the Line? Historic Preservation's Expanding Boundaries,” *Future Anterior: Journal of Historic Preservation, History, Theory, and Criticism* 1, no. 2 (Fall 2004): 44.

in American history, architecture, archeology, engineering, and culture.”³⁰¹ They are not disqualified by their ability to move. From inception, the National Register has accommodated mobility. The presence of approximately 475 mobile structures on the National Register, including two motor vehicles, reinforces this point. Structures can move and still retain a relationship with a particular setting or environment.

Historic preservation in America, as clearly captured by the preamble of the Historic Sites Act, has sought to preserve historically significant buildings, sites, structures and objects not only to educate future generations but also provide inspiration and hope. The automobile has long been symbolic of American freedom, ingenuity and prosperity. Surviving examples of historically significant automobiles provide physical manifestations of these values. The history of the preservation movement leading to the formation of the National Register of Historic Places provides a framework for approaching the proper preservation and recognition of historically significant automobiles. Much like early historic sites, the preservation of historic automobiles has been a function of the private sector, devoid of standardized considerations for their care, and a survey to examine and analyze the location and condition of historic automobiles has never been attempted.

The collector car community has only recently recognized the need to preserve historic automobiles in their original condition. This shift in perspective has been accompanied by a desire to recognize and honor significant automobiles. This desire is partially fulfilled by the Historic Vehicle Association’s formation of the National Historic Vehicle Register (NHVR). Vehicles selected for this register, which selectively borrows from the National Register’s criteria, are documented in accordance with HAER guidelines. Though the NHVR is presented

³⁰¹ National Park Service, “Frequently Asked Questions: NRHP.”

as a parallel to the National Register, the two registers are not readily compatible in form or function. The NHVR serves a vital purpose: it illustrates the need and desire to properly recognize the significance of automobiles in American history. It may not, however, represent the best way to do it for a number of reasons. Being closed for public submissions, the scope of the NHVR has the potential of being very narrow, representing a handful of concours eligible vehicles while underrepresenting automobiles significant on local or regional levels. A stand-alone register that is discordant with established preservation practices while utilizing ostensibly similar language to the National Register is also confusing and unnecessary. Automobiles have a place on the National Register, and that is the proper place for their significance to be honored.

RECOMMENDATIONS

The introduction to this thesis recognized that the placing of automobiles on the National Register of Historic Places would not be easy or immediate. Inclusion of automobiles will undoubtedly create a number of challenges, though not all of them will be unprecedented. As a mobile, mass-produced structure that undergoes maintenance and repair during its useful life, automobiles raise questions about how to evaluate integrity and authenticity. Some automobiles with tens of thousands of examples built or surviving, such as the Model T, are significant for their design, engineering or relation to broad social trends and will require further analysis for single vehicle listings or the creation of thematic nominations. As aircraft present similar challenges, *National Register Bulletin 43: Guidelines for Evaluating and Documenting Historic Aviation Properties* provides an excellent starting place for answering these questions. Other challenges, such as how a survey of automobiles could be conducted, might need more effort and attention.

Challenges will be conceptual, not just technical. Collector car owners and automotive heritage specialists harbor misconceptions about the purpose and function of the National Register. They are also largely of ignorant traditional historic preservation policy and practice. The majority of preservation professionals, meanwhile, will undoubtedly be resistant to the idea of automobiles on the National Register. In time, education and collaboration could establish consensus between the two groups. Thankfully, this education would not have to be universal before it became beneficial. As the uneven geographic distribution of ships, locomotives, and railcars suggests, just one or two motivated State Historic Preservation Officers could lead the way.

The inherent mobility of automobiles could introduce other challenges and bureaucratic obstacles which might necessitate the transformation of established practices or introduction of new procedures for preservation practitioners. Long established survey techniques have been designed around the geographically fixed nature of most resources and the location of automobiles and records pertaining to current ownership are not readily published or made publicly available. Collaboration and outreach with collector vehicle organizations such as regional and national clubs could provide a starting place in drafting an accurate survey of available resources. Changes of ownership and geographic location might require additional methods for maintaining resource records or a system of resource tracking. Once again, though difficult, these challenges can be overcome by properly educating and working with the owners of historically significant automobiles and preservation professionals to establish new guidelines or policies.

The history of the automobile and its significant impact on the United States has been well documented by scholars and historians. The National Register includes thousands of

individual listings of road related resources which owe their significance to the automobile, yet strangely the automobile itself is not represented. In an era where technological and safety advances have rendered modern automobiles virtually indistinguishable and autonomous self-driving vehicles are on the horizon, now is the time to celebrate and honor historically significant automobiles on the proper Federal list, the National Register of Historic Places.

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APPENDIX A

MOBILE STRUCTURES ON THE NATIONAL REGISTER: TABLES

The tables that follow attempt to document all mobile structures listed in the National Register as of July, 2015. There are seven tables, one for each of the following categories: Aircraft, Industrial Implements, Locomotives and Rail Cars, Motor Vehicles, Ships and Boats, Space Exploration Vehicles, and Tanks. Tables are arranged alphabetically by type of structure. Within the tables, mobile structures are listed chronologically by the date they were listed in the National Register.

Tables were compiled using two sources: “All_Database.mdb,” a Microsoft Access database of National Register properties that contains full metadata for properties listed from 1966 to early 2014,³⁰² and “Spreadsheet of NRHP List,” a Microsoft Excel spreadsheet that contains limited metadata for properties listed from 1966 to July, 2015.³⁰³ A list of all structures and objects on the National Register was obtained from “All_Database.mdb.” Using this list, mobile structures were identified and classified. Utilizing “Spreadsheet of NRHP List,” mobile structures listed in 2014 and 2015 were identified and categorized. The process used left room for human error. The tables, and information derived from them, are therefore approximate.

³⁰² “All_Database.mdb,” https://npgallery.nps.gov/nrhp/Content/data/All_Database.mdb

³⁰³ “Spreadsheet of NRHP List,”

https://www.nps.gov/nr/research/data_downloads/NRHP_Links_2015.xlsx

Table A1. Guide to Abbreviations.

Other Nominations	
NHL	National Historic Landmark
NMP	National Military Park
NP	National Park
NRA	National Recreation Area
Periods of Significance	
194	1975-2000
193	1950-1974
192	1925-1949
191	1900-1924
184	1875-1899
183	1850-1874
182	1825-1849
181	1800-1824
171	1750-1799
172	1700-1749
Levels of Significance	
L	LOCAL
N	NATIONAL
S	STATE
Applicable Criteria	
A	EVENT
B	PERSON
C	ARCHITECTURE/ENGINEERING
D	INFORMATION POTENTIAL
Criteria Considerations	
A	RELIGIOUS PROPERTY
B	MOVED PROPERTY
C	BIRTH PLACE OR GRAVE
D	CEMETERY
E	RECONSTRUCTED PROPERTY
F	COMMEMORATIVE PROPERTY
G	SIGNIFICANCE OF LESS THAN FIFTY YEARS

Areas of Significance	
AGR	AGRICULTURE
ARC	ARCHITECTURE
ETH-BLA	ETHNIC HERITAGE - BLACK
CMR	COMMERCE
CMN	COMMUNICATIONS
CON	CONSERVATION
ECO	ECONOMICS
EDU	EDUCATION
ENG	ENGINEERING
REC	ENTERTAINMENT/RECREATION
EXP	EXPLORATION/SETTLEMENT
HIS-ABO	HISTORIC - ABORIGINAL
HIS	HISTORIC - NON-ABORIGINAL
IND	INDUSTRY
INV	INVENTION
MAR	MARITIME HISTORY
MIL	MILITARY
OTH	OTHER
ETH-PAC	ETHNIC HERITAGE - PACIFIC-ISLANDER
PER	PERFORMING ARTS
GOV	POLITICS/GOVERNMENT
REL	RELIGION
SCI	SCIENCE
SOC	SOCIAL HISTORY
TRA	TRANSPORTATION

Table A2. Aircraft in the National Register of Historic Places.

Name	Certification Date	NPS Reference Number	State	Other Nominations	Periods of Significance	Levels of Significance	Applicable Criteria	Criteria Considerations	Areas of Significance
Cunningham-Hall Pt-6, Nc-692W	1978-12-29	78000531	AK	-	192	S	A	G	TRA
Temnac P-38G Lightning	1979-06-26	79000406	AK	-	192	N	A	G	ENG, MIL
Atka B-24D Liberator	1979-07-26	79000407	AK	-	192	N	A	G	MIL
Pilgrim 100B Aircraft	1986-08-07	86002230	AK	-	192	S	A	-	CMR, TRA
Wright Flyer III	1990-06-21	90001747	OH	NHL	191	N	A, B, C	E	ENG, INV, TRA
B-17G "Flying Fortress" No. 44-83690	1993-06-29	93000540	IN	-	192, 193	N	A, C	-	ENG, MIL
US Army Aircraft C-53-DO-41-20124	1996-08-01	96000857	IL	-	192	S	A, C	-	ENG, MIL, TRA
Douglas DC-3 Airplane, N34	1997-05-29	97000443	OK	-	192, 193, 194	N	A, C	G	ENG, TRA
US ARMY Aircraft P-51D-25N 44-73287	1999-03-11	99000254	IL	-	192	N	A, C	-	ENG, MIL
TBM-3E "Avenger" Torpedo Bomber Warplane	2003-02-11	03000019	NJ	-	192	N	A, C	-	MIL
Lockheed PV-2 Harpoon No. 37396	2009-04-23	09000234	IN	-	192	N	A, C	-	ENG, MIL
B-29 Serial No. 45-21847 (Heavy Bomber)	2011-04-20	11000212	NV	-	192	N	A, C, D	-	ENG, HIS, IND, INV, MIL, GOV, SCI, TRA

Table A3. Industrial Implements in the National Register of Historic Places.

Name	Certification Date	NPS Reference Number	State	Other Nominations	Periods of Significance	Levels of Significance	Applicable Criteria	Criteria Considerations	Areas of Significance
Vinalhaven Galamander, The	1970-07-01	70000049	ME	-	184, 191	L, S	A	E	IND, TRA
SUMPTER VALLEY GOLD DREDGE (dredge)	1971-10-26	71000676	OR	-	192	S	A	G	IND
Gold Dredge	1971-12-16	71000208	CA	-	192	L	A	G	IND, OTH
F.E. Company Dredge No. 2	1999-06-30	99000763	AK	-	192, 193	L	A, C	G	ENG, IND
Swanberg Dredge	2001-03-12	01000232	AK	-	192	L	A	-	IND
F.E. Company Gold Dredge No. 5	2004-03-18	04000186	AK	-	192, 193	L	A, C	G	ENG, IND
F.E. Company Dredge No. 4	2006-05-18	06000435	AK	-	192, 193	L	A, C	G	ENG, IND
Marion Steam Shovel	2008-02-22	08000038	NY	-	191, 192	L	C	-	ENG
Bay City Walking Dredge	2013-05-29	13000318	FL	-	191, 192	L, S	A, C	-	ENG, TRA

Table A4. Locomotives and Rail Cars in the National Register of Historic Places.

Name	Certification Date	NPS Reference Number	State	Other Nominations	Periods of Significance	Levels of Significance	Applicable Criteria	Criteria Considerations	Areas of Significance
General, The	1973-06-19	73000617	GA	-	183	N	A	-	MIL, TRA
Texas, The	1973-06-19	73002234	GA	-	183	N	A	-	MIL, TRA
Virginia and Truckee RR. Engines No. 18, The Dayton; and No. 22, The Inyo	1973-12-18	73002245	NV	-	183, 184, 191, 192	N	A, C	-	CMR, ENG, IND, TRA
Waiialua Agricultural Company Engine No. 6	1974-08-19	74000719	HI	-	191	L	A, B, C	-	AGR, ENG, TRA
L & N Steam Locomotive No. 152	1974-12-30	74000883	KY	-	191	N	A, C	-	CMR, ENG, TRA
Engine No. 463	1975-05-12	75000502	CO	-	191	L	A, C	-	ENG, IND, TRA
Marcia (pullman car)	1975-06-20	75000526	CO	-	191	S	B	F	IND, TRA
Hercules and Coach No. 2	1975-10-10	75000160	KY	NP	184	S	A, C	-	ENG, TRA
Chapel Emmanuel Railroad Car	1976-09-08	76001740	SD	-	184, 191	N	A	B	REL, SOC, TRA
Lion, The (locomotive)	1976-12-15	76000118	ME	-	182	N	A	-	CMR, ENG, TRA
Texas & Pacific Steam Locomotive No. 610	1977-03-25	77001477	TX		192	N	A, C	-	ENG, INV, TRA
U.S. Car. No. 1	1977-08-24	77000401	FL	NHL	192, 193	N	A, B	G	GOV
Hetch Hetchy Railroad Engine No.6	1978-01-30	78000360	CA	NP	191	L	A	-	TRA
Harding Railroad Car	1978-04-06	78003423	AK	-	191, 192	N	B	B, G	TRA
Yosemite Valley Railroad Caboose No. 15	1978-05-22	78000352	CA	NP	191, 192	L	A	-	TRA
Track Bus No. 19	1978-05-22	78000363	CA	NP	191	L	A	-	REL
Second Railroad Car No. 21	1978-12-01	78003214	NV	-	191	S	A, C	-	CMR, ENG, IND, TRA
Grove Farm Company Locomotives	1979-01-19	79000761	HI	-	184, 191, 192	S	A	-	IND, TRA
Mikado Locomotive No. 4501	1979-03-28	79002440	TN	-	191	L	A	-	TRA

Name	Certification Date	NPS Reference Number	State	Other Nominations	Periods of Significance	Levels of Significance	Applicable Criteria	Criteria Considerations	Areas of Significance
Grant Steam Locomotive No. 223	1979-05-23	79002501	UT	-	184, 191, 192	N	A	B	CMR, ENG, IND, INV, TRA
Rio Grande Engine No. 168	1979-08-10	79000601	CO	-	184	S	A, C	-	ENG, TRA
Locomotive No. 6755	1979-12-17	01000519	PA	-	192	N	A	-	CMR, TRA
Combination Baggage and Mail Car No. 5403	1979-12-17	79002261	PA	-	184	N	A	-	CMR, INV, TRA
Consolidation Freight Locomotive No. 1187	1979-12-17	79002262	PA	-	184	N	A	-	CMR, INV, TRA
Consolidation Freight Locomotive No. 2846	1979-12-17	79002263	PA	-	191	N	A	-	CMR, INV, TRA
Consolidation Freight Locomotive No. 7688	1979-12-17	79002264	PA	-	191	N	A	-	CMR, INV, TRA
Cumberland Valley Car	1979-12-17	79002265	PA	-	183	N	A	-	CMR, INV, TRA
DDI Electric Locomotive No. 36	1979-12-17	79002266	PA	-	191	N	A	-	CMR, INV, TRA
Flat Car No. 473567	1979-12-17	79002267	PA	-	183, 184, 191	N	A	-	CMR, INV, TRA
Freight Locomotive No. 5741	1979-12-17	79002268	PA	-	191	N	A	-	CMR, INV, TRA
Mikado Freight Locomotive No. 520	1979-12-17	79002269	PA	-	191	N	A	-	CMR, INV, TRA
Passenger Coach No. 3556	1979-12-17	79002270	PA	-	184	N	A	-	CMR, INV, TRA
Passenger Day Coach No. 8177	1979-12-17	79002271	PA	-	184	N	A	-	CMR, INV, TRA
Passenger Locomotive No. 1223	1979-12-17	79002272	PA	-	191	N	A	-	CMR, INV, TRA
Passenger Locomotive No. 1737	1979-12-17	79002273	PA	-	191	N	A	-	CMR, INV, TRA
Passenger Locomotive No. 460	1979-12-17	79002274	PA	-	191	N	A	-	CMR, INV, TRA
Passenger Locomotive No. 7002	1979-12-17	79002275	PA	-	191	N	A	-	CMR, INV, TRA
Passenger and Baggage Car No. 4639	1979-12-17	79002276	PA	-	184	N	A	-	CMR, INV, TRA

Name	Certification Date	NPS Reference Number	State	Other Nominations	Periods of Significance	Levels of Significance	Applicable Criteria	Criteria Considerations	Areas of Significance
Steel Hopper Car No. 33164	1979-12-17	79002277	PA	-	184	N	A	-	CMR, INV, TRA
Steel Passenger Coach No. 1650	1979-12-17	79002278	PA	-	191	N	A	-	CMR, INV, TRA
Steel Passenger Coach No. 1651	1979-12-17	79002279	PA	-	191	N	A	-	CMR, INV, TRA
Wooden Baggage Express No. 6	1979-12-17	79002282	PA	-	184	N	A	-	CMR, INV, TRA
Wooden Express Baggage No. 6076	1979-12-17	79002283	PA	-	184	N	A	-	CMR, INV, TRA
Wooden Hopper Gondola No. 1818	1979-12-17	79002284	PA	-	184	N	A	-	CMR, INV, TRA
Maine Trolley Cars	1980-11-14	80000262	ME	-	184, 191, 192	S	A	-	TRA
Glenbrook, The	1981-05-01	81000702	NV	-	184	S	A	-	CMR, TRA
Shay Locomotive	1981-10-26	81000321	MI	-	184	S	B, C	-	ENG, IND, INV, TRA
Fort Collins Municipal Railway Birnery Safety Streetcar No. 21	1984-01-05	84000860	CO	-	191, 192, 193	L	A	-	TRA
Simpson Logging Company Locomotive No. 7 and Peninsular Railway Caboose No. 700	1984-01-12	84003532	WA	-	191, 192	L	A	-	IND, TRA
Western Maryland Railway Steam Locomotive No. 202	1984-06-07	84001884	MD	-	191	L	A	-	TRA
Nickel Plate Road Steam Locomotive No. 587	1984-11-28	84000313	IN	-	191, 192, 193	N	A, C	-	ENG, TRA
Florida East Coast Railway Locomotive #153	1985-02-21	85000303	FL	-	191, 192	S	A	-	CMR, TRA
AT & SF Locomotive	1986-05-14	86001113	AZ	-	192	L	A	-	TRA
Greenwald, I. and E., Steam Engine No. 1058	1987-03-12	87002197	FL	-	191, 192	N	A, C	B	ENG, IND, INV
Niles Car & Manufacturing Company Electric Railway Interurban Combine No. 21	1987-06-19	87000762	OH	-	191	S	A, C	B	ENG, TRA
Denver and Rio Grande Western Railroad Business Car No. 101	1988-06-16	88000740	WA	-	191, 192	L	C	B	ENG
Dinwiddie County Pullman Car	1991-07-03	91000834	VA	-	192	N	A, C	-	ENG, TRA

Name	Certification Date	NPS Reference Number	State	Other Nominations	Periods of Significance	Levels of Significance	Applicable Criteria	Criteria Considerations	Areas of Significance
Southern Pacific Railroad Locomotive No. 1673	1992-01-09	91001918	AZ	-	191, 192	L	A	-	CMR, IND, TRA
East Tennessee & Western North Carolina Railroad Locomotive No. 12	1992-03-12	92000147	NC	-	191, 192	L	A	-	TRA
Soo Line Locomotive 2719	1994-01-10	93001453	WI	-	191	L	C	B	ENG
Birney Safety Streetcar No. 224	1994-05-19	94000465	AR	-	192	S	A, C	-	ENG, TRA
Pere Marquette Railway Steam Locomotive No. 1225	1994-07-31	94000744	MI	-	192, 193	S	A, C	G	ENG, TRA
Eureka Locomotive	1995-01-12	94001575	NV	-	184	L	A, C	B	ENG, TRA
New York Chicago and St. Louis Railroad Steam Locomotive No. 765	1996-09-12	96001010	IN	-	192	S	A, C	-	ENG, TRA
Rio Grande Southern Railroad, Motor No. 2	1997-02-14	97000049	CO	-	192	S	A, C	-	ENG, TRA
Rio Grande Southern Railroad, Motor No. 6	1997-02-19	97000050	CO	-	192	L	A, C	-	ENG, TRA
Chicago, Burlington & Quincy Steam Locomotive No. 710	1997-06-20	97000609	NE	-	191, 192	L	A, C	-	ENG, TRA
MT. BRODERICK Pullman Lounge-Obs-Sleeping Car	1997-11-18	97001345	KY	-	192	L	A	-	SOC, TRA
Southern Pacific Steam Locomotive #745	1998-09-04	98001077	LA	-	191, 192	S	A	-	TRA
Frankfort and Cincinnati Model 55 Rail Car	1998-10-08	97001344	KY	-	191, 192	L	A	-	SOC, TRA
Two Spot Logging Train	1999-09-14	99001066	AZ	-	191, 192	L	A, C	-	ENG, IND, TRA
Southern Pacific Railroad Passenger Coach Car--S.P. X7	2000-03-02	00000101	AZ	-	184, 191, 192	L	A, C	B	CMR, ENG, TRA
Steam Locomotive #1385	2000-05-18	00000524	WI	-	191	L	C	-	ENG
Atchison, Topeka, and Santa Fe Railway Steam Locomotive No. 3751	2000-10-04	00001178	CA	-	192, 193	N	A, C	-	ENG, TRA
Pere Marquette Railway Locomotive #1223	2000-12-07	00001490	MI	-	192, 193	S	A, C	-	ENG, TRA
Rio Grande Southern Railroad Engine No. 20	2000-12-14	00001003	CO	-	184, 191, 192, 193	L	A, C	G	ENG, TRA

Name	Certification Date	NPS Reference Number	State	Other Nominations	Periods of Significance	Levels of Significance	Applicable Criteria	Criteria Considerations	Areas of Significance
Denver and Rio Grande Railroad Locomotive No.169	2001-03-12	01000230	CO	-	184, 191, 192	L	A, C	-	ENG, TRA
Seaboard Air Line Dining Car--#6113	2001-04-05	01000334	FL	-	192	S	A, C	-	ARC, ENG, TRA
Seaboard Air Line Lounge Car--6603	2001-04-05	01000335	FL	-	192	S	A, C	-	ARC, ENG, TRA
United States Army Steam Locomotive No. 4039	2002-03-04	02000108	NJ	-	192	L	A, C	-	ENG, TRA
Chesapeake and Ohio 1308 Steam Locomotive	2003-01-31	02001571	WV	-	192, 193	L	A, C	-	ENG, TRA
St. Louis Southwestern Railway Steam Locomotive #819	2003-05-18	03000401	AR	-	192, 193	S	A, C	-	ENG, TRA
Denver and Rio Grande Western Railroad Caboose No. 0578	2003-11-04	02000678	CO	-	184, 191, 192, 193	L	C	B	ENG
Pennsylvania Railroad GG1 Streamlined Electric Locomotive #4859	2004-05-05	04000399	PA	-	192, 193	N	A, C	B	ARC, TRA
St. Louis San Francisco (Frisco) Railway Steam Locomotive #4003	2004-07-12	04000500	AR	-	191, 192, 193	L	A, C	-	ENG, TRA
Virginia and Truckee Railway Locomotive #27	2004-10-27	04001198	NV	-	191, 192, 193	L	A	-	TRA
Great Northern Railway Steam Locomotive No. 1355 and Tender 1451	2004-12-15	04001352	IA	-	191, 192, 193	N	A, C	-	ENG, TRA
McKeen Motor Car #70	2005-09-06	05000968	NV	-	191, 192	N	A, C	-	ENG, TRA
Spokane, Portland and Seattle Railway Steam Locomotive	2006-01-25	05001557	OR	-	192, 193	N, S	A, C	-	ENG, TRA
Kansas City Southern Railway Locomotive #73D and Caboose #385	2006-02-21	06000072	AR	-	193	S	A, C	-	ENG, TRA
St. Louis Southwestern Railway (Cotton Belt Route) Caboose #2325	2006-03-02	06000074	AR	-	191, 192, 193	S	A, C	-	ENG, TRA
St. Louis San Francisco (Frisco) Railway Coach #661	2006-05-19	06000413	AR	-	184, 191, 192, 193	S	A, C	-	ETH-BLA, ENG, TRA

Name	Certification Date	NPS Reference Number	State	Other Nominations	Periods of Significance	Levels of Significance	Applicable Criteria	Criteria Considerations	Areas of Significance
Maumelle Ordnance Works Locomotive #1	2006-09-20	06000835	AR	-	192, 193	S	A, C	-	ENG, TRA
United States Air Force Locomotive #1246	2006-09-20	06000840	AR	-	193	S	C	-	ENG
Chesapeake and Ohio 2755 Steam Locomotive	2006-09-28	06000900	WV	-	192, 193	L	A, C	-	ENG, TRA
Elk River Coal and Lumber Company #10 Steam Locomotive	2006-09-28	06000901	WV	-	191, 192, 193	L	A, C	-	ENG, TRA
Sheboygan Light, Power and Railway Company Car #26	2006-11-21	06001069	WI	-	191	L	C	B	ENG
Delta Valley & Southern Railway Locomotive #50	2007-01-24	06001263	AR	-	193	S	A, C	-	ENG, TRA
United States Army Snow Plow #SN-87	2007-01-24	06001273	AR	-	193	S	C	-	ENG
St. Louis Southwestern Railway (Cotton Belt Route) Steam Locomotive #336	2007-01-24	06001276	AR	-	191, 192, 193	S	A, C	-	EDU, TRA
Nahma and Northern Railway Locomotive #5	2007-01-30	06001327	MI	-	191, 192	L	A, C	-	ENG, IND
Wabash Alloys Locomotive	2007-05-22	07000444	AR	-	192	S	C	-	ENG
Central Texas Gravel Locomotive #210	2007-05-24	07000442	AR	-	192	L	C	-	ENG
St. Louis Southwestern Railway (Cotton Belt Route) Relief Train	2007-05-25	07000471	AR	-	192, 193	S	A, C	-	ENG, TRA
DODX Guard Car #G-56	2007-06-28	07000441	AR	-	193	L	C	-	ENG
ATSF Locomotive No. 2926	2007-10-01	07000388	NM	-	192, 193	S	C	-	ENG
Railroad Steam Wrecking Crane and Tool Car	2007-12-29	07001301	AZ	-	191, 192, 193	L	C	B	TRA
Tennessee, Alabama & Georgia Railway Steam Locomotive #101	2008-01-24	07001425	AR	-	191, 192	S	A, C	-	ENG, TRA
Denver and Rio Grande Western Railroad Locomotive No. 315	2008-10-24	08001008	CO	-	184, 191, 192	L	A, C	-	CMR, ENG, IND, TRA
Messenger of Peace Chapel Car	2009-01-21	08000998	WA	-	184, 191, 192	N	A	A	REL

Name	Certification Date	NPS Reference Number	State	Other Nominations	Periods of Significance	Levels of Significance	Applicable Criteria	Criteria Considerations	Areas of Significance
Denver & Rio Grande Western Railroad Caboose No. 0577	2009-04-21	09000222	CO	-	184, 191, 192, 193	S	A, C	-	ENG, TRA
Denver & Rio Grande Western Railroad Locomotive No. 278 and Tender	2009-04-21	09000223	CO	-	184, 191, 192, 193	S	A, C	-	ENG, TRA
Soo Line Steam Locomotive 2442	2009-05-13	09000310	WI	-	191	L	C	B	ENG
Southern Pacific Railroad Locomotive No. SP 2562 and Tender No. 8365	2009-07-17	09000511	AZ	-	191, 192, 193	S	A	B	TRA
Denver & Rio Grande Railroad Box Outfit Car No. 04414	2009-07-23	09000568	CO	-	191, 192, 193	S	A, C	-	ENG, TRA
Roald Amundsen Pullman Private Railroad Car	2009-08-06	09000582	AZ	-	192, 193	N	A	B	GOV
Denver & Rio Grande Western Railroad Boxcar No. 3132	2009-09-02	09000669	CO	-	192, 193	S	A	-	ENG, TRA
Denver & Rio Grande Western Railroad Stock Car No. 5620	2010-01-27	09001276	CO	-	192, 193	S	A, C	-	ENG, TRA
Denver & Rio Grande Western Railroad Stock Car No. 5679D	2010-01-27	09001277	CO	-	192, 193	S	A, C	-	ENG, TRA
New York, Susquehanna & Western Railroad ALCO Type S-2 Locomotive #206	2010-03-19	09001072	NJ	-	192, 193	S	C	-	TRA
Kansas City Southern Railway Caboose #383	2010-09-23	10000782	AR	-	193	L	A, C	-	ENG, TRA
Missouri Pacific Railway Caboose #928	2011-05-16	11000303	AR	-	192, 193	L	A, C	-	ENG, TRA
Fort Collins Municipal Railway No. 22	2011-12-15	11000901	CO	-	191	L	C	-	ENG
Denver and Intermountain Railroad Interurban No. 25	2012-01-12	11001016	CO	-	191, 192, 193	L	A, C	-	ENG, TRA
ATSF Steam Locomotive No. 3415	2012-04-16	12000203	KS	-	191, 192, 193	S	A, C	-	ARC, TRA

Table A5. Motor Vehicles in the National Register of Historic Places.

Name	Certification Date	NPS Reference Number	State	Other Nominations	Periods of Significance	Levels of Significance	Applicable Criteria	Criteria Considerations	Areas of Significance
Boca Raton Fire Engine No. 1	2001-11-01	01001195	FL	-	192, 193	L	A	B, G	GOV
Snogo Snow Plow	2006-10-04	06000934	CO	-	192, 193	L	A, C	-	ENG, TRA

Table A6. Ships and Boats in the National Register of Historic Places.

Name	Certification Date	NPS Reference Number	State	Other Nominations	Periods of Significance	Levels of Significance	Applicable Criteria	Criteria Considerations	Areas of Significance
U.S.S. OLYMPIA	1966-10-15	66000692	PA	NHL	184	N	A	-	MIL
U.S.S. CONSTITUTION	1966-10-15	66000789	MA	NHL	172, 181	N	A	-	MIL, GOV
TICONDEROGA	1966-10-15	66000797	VT	NHL	191	N	A	-	CMN, TRA
PHILADELPHIA (gundelo)	1966-10-15	66000852	DC	NHL	172, 192	N	A, D	-	HIS, MIL
U.S.S. CONSTELLATION	1966-10-15	66000918	MD	NHL	172, 181, 182, 183, 184	N	A	-	MIL
STAR OF INDIA	1966-11-13	66000223	CA	NHL	183, 184	N	A	-	CMR
C.A. THAYER	1966-11-13	66000229	CA	NHL	184, 191	N	A	-	CMR, IND
CHARLES W. MORGAN	1966-11-13	66000804	CT	NHL	182, 183, 184, 191	N	A	-	CMR
GOLDENROD	1967-12-24	67000029	MO	NHL	191, 192	N	A	-	PER
SEQUIN (tugboat)	1969-12-02	69000013	ME	-	184	L	A	-	TRA
C.S.S. MUSCOGEE AND CHATTAHOOCHEE (gunboats)	1970-05-13	70000212	GA	-	183	N	A	-	MIL, SOC
DELTA QUEEN (Steamboat)	1970-06-15	70000495	LA	NHL	192	N	A, C	B, G	CMR, ENG, MAR, SOC, TRA
WAWONA (schooner)	1970-07-01	70000643	WA	-	184, 191	L	A	-	CMR, IND
W.P. SNYDER, JR. (steamboat)	1970-11-10	70000522	OH	NHL	191, 192	N, S	A, C	-	CMR, ENG, IND, MAR, TRA
S.S. SAN MATEO	1971-04-07	71000876	WA	-	191	S	A, C	B, G	ENG, TRA
U.S.S. MISSOURI	1971-05-14	71000877	WA	-	192	N	A	G	MIL
U.S.S. CAIRO	1971-09-03	71000068	MS	NMP	183	L, N, S	A	-	MAR, MIL
S.S. VALLEY CAMP	1972-02-01	72000606	MI	-	191	N	A	-	CMR, IND, TRA

Name	Certification Date	NPS Reference Number	State	Other Nominations	Periods of Significance	Levels of Significance	Applicable Criteria	Criteria Considerations	Areas of Significance
W. T. PRESTON (snagboat)	1972-03-16	72001270	WA	NHL	192	L, N	A, C	G	ARC, MAR, GOV
BELLE OF LOUISVILLE (steamer)	1972-04-10	72000535	KY	NHL	191, 192	N	A, C	-	ARC, CMR, ENG, MAR, SOC, TRA
EQUATOR (schooner)	1972-04-14	72001281	WA	-	184, 191, 192	N	A	-	TRA
NENANA (steamer)	1972-06-27	72001581	AK	NHL	192	N, S	A, C	B, G	ARC, MAR, TRA
USS SILVERSIDES (SS 236) National Historic Landmark	1972-10-18	72001566	IL	NHL	192	N	A	G	MIL
U.S.S. NIAGARA	1973-04-11	73001628	PA	-	181	N	A	-	MAR, MIL
WAPAMA	1973-04-24	73000228	CA	NHL	191, 192	N, S	A, C	G	ARC, CMR, IND, TRA
EUREKA	1973-04-24	73000229	CA	NHL	184, 191	N, S	A, C	G	CMR, ENG, TRA
VIRGINIA V	1973-04-24	73001875	WA	NHL	191, 192	N, S	A, C	-	ARC, CMR, MAR, TRA
FALLS OF CLYDE	1973-07-02	73000659	HI	NHL	184, 191	N	A, B, C	-	ARC, CMR, CMN, ENG, MAR, TRA
NOBSKA (steamship)	1974-05-02	74002216	MD	-	192	S	A, C	B	ENG, TRA
ALVIN CLARK (schooner)	1974-05-16	74000996	MI	-	182, 183	L	A	-	CMR, TRA
METEOR (Whaleback carrier)	1974-09-09	74000081	WI	-	184	S	A	-	CMR, IND, INV, TRA
HERCULES (tugboat)	1975-01-17	75000225	CA	NHL	191, 192, 193	N, S	A, C	G	CMR, ENG, IND, TRA
SAN JOSE Shipwreck Site	1975-03-18	75002123	FL	-	171	N	D	-	HIS
RELIEF (lightship)	1975-04-23	75001852	WA	NHL	191, 192	N	A, C	-	ARC, CMR, SOC, TRA
U.S.S. TECUMSEH	1975-05-14	75000306	AL	-	183	L	A	-	MIL
EDNA G (tugboat)	1975-06-05	75002144	MN	-	184, 191	N	A	-	TRA
ALMA (Scow Schooner)	1975-10-10	75000179	CA	NHL	184, 191	N, S	A, C	-	ARC, CMR, TRA

Name	Certification Date	NPS Reference Number	State	Other Nominations	Periods of Significance	Levels of Significance	Applicable Criteria	Criteria Considerations	Areas of Significance
HURON (lightship)	1976-07-12	76001974	MI	NHL	191, 192, 193	N, S	A, C	G	ARC, MIL, GOV, TRA
RELIANCE (Chesapeake Bay skipjack)	1976-07-30	76001013	MD	-	191	N	A	-	CMR, IND, TRA
S.S. CATALINA	1976-09-01	76000495	CA	-	191, 192	S	A, C	G	ENG, MIL, TRA
U.S.S. JOSEPH P. KENNEDY JR. (DD-850)	1976-09-30	76000231	MA	NHL	192	N, S	A	F, G	MIL, TRA
USS MASSACHUSETTS (BB-59) National Historic Landmark	1976-09-30	76002269	MA	NHL	192	N	A	G	MIL
USS LIONFISH (SS0298) National Historic Landmark	1976-09-30	76002270	MA	NHL	192	N	A	G	MIL
MARY W.SOMERS (Chesapeake Bay skipjack)	1976-10-08	76002173	MD	-	191	N	A	-	CMR, IND, MAR, TRA
BALCLUTHA	1976-11-07	76000178	CA	NHL	184, 191, 192	L, N	A	-	CMR, TRA
U.S.S. TEXAS	1976-12-08	76002039	TX	NHL	191, 192	N	A, C	G	ENG, MIL
ALEXANDER HAMILTON (steamship)	1977-03-25	77000887	NJ	-	191	N	A, C	-	ENG, TRA
KESTREL (steam yacht)	1977-08-12	77000873	NJ	-	184	S	A	-	TRA
CAPTAIN MERIWETHER LEWIS (dredge)	1977-10-28	77000833	NE	NHL	192	N	A, C	-	ARC, CMR, INV, TRA
Columbia River Gillnet Boat	1978-02-14	78002783	WA	-	191	S	A	-	IND
ELISSA	1978-03-21	78002930	TX	NHL	184, 191, 194	N	A	G	CMR, MAR, TRA
SIERRA (motor ship)	1978-03-29	78002745	WA	-	191	N	A	-	CMR, TRA
DELTA KING	1978-03-31	78000797	CA	-	192	S	A	-	CMR, TRA
SS JEREMIAH O'BRIEN	1978-06-07	78003405	CA	NHL	192	N	A	G	MIL
WAVERTREE	1978-06-13	78001887	NY	-	184	N	A, C	-	CMR, ENG, TRA
USS BECUNA (SS-319)	1978-08-29	78002458	PA	NHL	192, 193	N	A, B, C	G	ENG, MIL
U.S.S. LING	1978-10-19	78001736	NJ	-	192	N	A, C	G	ENG, MIL
BERKSHIRE NO. 7	1978-12-21	78002837	CT	-	192	N	A	G	TRA

Name	Certification Date	NPS Reference Number	State	Other Nominations	Periods of Significance	Levels of Significance	Applicable Criteria	Criteria Considerations	Areas of Significance
ELMER S. DAILEY	1978-12-21	78002838	CT	-	191	N	A	-	TRA
PRICILLA DAILEY	1978-12-21	78002840	CT	-	192	N	A	-	TRA
USS HAZARD (AM-240) National Historic Landmark	1979-01-01	79003712	NE	NHL	192	N	A	G	MIL
U.S.S. HAZARD and U.S.S. MARLIN	1979-01-17	79001444	NE	-	192, 193	N	A	G	MIL
ISLAND BELLE	1979-03-16	79001141	MD	-	191	L	A	-	CMN, ECO, TRA
STATE OF PENNSYLVANIA (steamboat)	1979-04-20	79000637	DE	-	191	L	A, C	-	ARC, ENG, SOC, TRA
U.S.S. NAUTILUS (submarine)	1979-05-16	79002653	CT	NHL	193, 194	N	A, C	G	ENG, INV, MIL, TRA
BROWN'S FERRY VESSEL	1979-05-18	79002391	SC	-	171	N	D	-	CMR, HIS, TRA
M.V. SANTA ROSA	1979-05-29	79000469	CA	-	192	L	C	-	MAR, TRA
HUME, MARY D.	1979-08-01	79002052	OR	-	184	L	B	B	CMR, IND, TRA
FRANCIS, JOSEPH, IRON SURF BOAT	1979-09-13	79001829	OH	-	183	S	A	-	CMR
COLUMBIA (steamer)	1979-11-02	79001171	MI	NHL	191, 192	N	A, C	-	ARC, MAR, TRA
STE. CLAIRE (steamer)	1979-11-02	79001177	MI	NHL	191, 192	N	A, C	-	ARC, ENG, MAR, TRA
LEWIS ARK (Houseboat)	1979-11-08	79000256	CA	NRA	191, 192	L	C	G	ARC
BARNEGAT (lightship)	1979-11-29	79002317	PA	-	191, 192, 193	S	A	B	CON, ENG, TRA
SHOWBOAT MAJESTIC	1980-01-03	80003085	OH	-	191	N	A	-	PER
BOWDOIN (schooner)	1980-02-12	80000411	ME	NHL	191, 192, 193	N	A, B	G	EDU, EXP, MAR, SCI
ELF, THE (yacht)	1980-03-26	80001807	MD	-	184	N	A	-	MAR
BANCROFT (motor vessel)	1980-03-27	80001780	MD	-	192	S	A	-	MAR
TENNISON, WM. B. (Chesapeake Bay Bugeye)	1980-03-27	80001799	MD	NHL	184, 191	N, S	A, C	-	ARC, CMR, MAR, TRA
CHESAPEAKE BAY BROGAN MUSTANG	1980-04-02	80001778	MD	-	191	S	A	-	CMR, MAR, TRA

Name	Certification Date	NPS Reference Number	State	Other Nominations	Periods of Significance	Levels of Significance	Applicable Criteria	Criteria Considerations	Areas of Significance
CHESAPEAKE (lightship)	1980-08-01	80000349	MD	NHL	192, 193	N, S	A, C	B, G	ARC, CMR, GOV, TRA
Wagner Houseboat	1982-02-19	82004255	WA	-	191	L	A, C	G	ARC, INV
WILLIAM M. BLACK (dredge)	1982-04-12	82002618	IA	NHL	192	N, S	A, C	G	ARC, ENG, MAR, TRA
SPINDRIFT SAILING YACHT	1982-04-22	82003271	NJ	-	184	S	A, B	-	EXP, TRA
M. V. VASHON	1982-04-29	82004241	WA	-	192	S	A	-	TRA
ZODIAC (schooner)	1982-04-29	82004248	WA	-	191	N	C	-	ARC
JOHN W. HUBBARD (sternwheeler)	1982-05-20	82002729	KY	-	192	S	A, C	G	ENG, TRA
BINGHAMTON (ferryboat)	1982-07-09	82003262	NJ	-	191	L	A, C	-	ENG, TRA
USS YORKTOWN (CV-10)	1982-11-10	82001519	SC	NHL	192	N	A	G	MAR, MIL
USS NORTH CAROLINA (BB-55) National Historic Landmark	1982-11-10	82004893	NC	NHL	192	N	A	G	MIL
SAVANNAH (nuclear ship)	1982-11-14	82001518	VA	NHL	193	N	A, C	G	CMR, ENG, MAR, GOV, TRA
USS BOWFIN	1982-11-16	82000149	HI	NHL	192	N	A	G	MIL
ELEANOR (Sailing Sloop)	1982-12-27	82001174	NY	-	191	L	C	-	MAR, TRA
BOECKLING, G.A., (side-paddlewheel steamboat)	1983-03-03	83001959	OH	-	191, 192, 193	S	A	-	TRA
USS LAFFEY	1983-04-12	83002189	SC	NHL	192	N	A, C	G	MAR, MIL
KATHERINE M. LEE (Schooner)	1983-04-25	83001375	DE	-	191, 192	L	A, C	G	ENG
MAGGIE S. MYERS (schooner)	1983-04-25	83001378	DE	-	184, 191, 192	L	A, C	G	ENG
MAMIE S. BARRETT (towboat)	1983-04-28	83002811	KY	-	191, 192	S	A	-	CMR, IND, MAR, TRA
U.S.S. KIDD	1983-08-09	83000502	LA	NHL	192, 193, 194	N	A, C	G	ARC, ENG, MIL
MISSISSIPPI III	1983-09-21	83002066	OH	-	192	S	A	-	MAR, TRA
LUNA (tugboat)	1983-10-06	83004099	MA	NHL	192	L, N	A, C	G	ARC, CMR, ENG, MIL, TRA

Name	Certification Date	NPS Reference Number	State	Other Nominations	Periods of Significance	Levels of Significance	Applicable Criteria	Criteria Considerations	Areas of Significance
MONTGOMERY (snagboat)	1983-11-28	83003521	AL	NHL	192	N	A, C	B	CMR, ENG, MAR, TRA
FIREBOAT NO.1	1983-12-02	83004254	WA	NHL	192	N, S	A, C	-	ARC, ENG, MAR, GOV, SOC
SS CLIPPER	1983-12-08	83003570	IN	NHL	191, 192	N	A, C	G	ARC, ENG, MAR, TRA
WESTERN UNION (schooner)	1984-05-16	84000930	FL	-	192	L	A, C	-	ARC, CMN, TRA
DORIS (Sailing yacht)	1984-05-31	84001108	CT	-	191, 192	N	A, C	-	ARC, MAR
STEPHEN TABER (schooner)	1984-07-30	84001386	ME	NHL	183, 184, 191, 192	N	A, C	G	ARC, CMR, CON, REC, MAR, TRA
HELIANTHUS III (yacht)	1984-08-09	84001343	MD	-	191	N	C	-	ARC
AMBROSE (lightship)	1984-09-07	84002758	NY	NHL	191, 192	L, N	A, C	-	ARC, GOV, SOC, TRA
JOHN A. LYNCH (ferryboat)	1984-09-07	84002775	NY	-	192	L	A	-	TRA
LETTIE G. HOWARD (schooner)	1984-09-07	84002779	NY	NHL	184, 191, 192	L, N	A, C	-	ARC, CMR, IND, MAR
M/V COMMANDER	1984-09-27	84002951	NY	-	191	L	A, C	-	ARC, TRA
WEYMOUTH (schooner)	1985-04-25	85000874	NJ	-	183, 184	L	A, C, D	-	ENG, HIS, TRA
IDA MAY	1985-05-16	85001077	MD	-	191	N	A	-	CMR, TRA
SEA GULL	1985-05-16	85001078	MD	-	191	N	A	-	CMR, TRA
CLARENCE CROCKETT	1985-05-16	85001079	MD	-	191	N	A	-	CMR, TRA
F. C. LEWIS, JR	1985-05-16	85001080	MD	-	191	N	A	-	CMR, TRA
FANNIE L. DAUGHERTY	1985-05-16	85001081	MD	-	191	N	A	-	CMR, TRA
HOWARD (Skipjack)	1985-05-16	85001082	MD	-	191	N	A	-	CMR, TRA
SUSAN MAY	1985-05-16	85001083	MD	-	191	N	A	-	CMR, TRA
THOMAS W. CLYDE	1985-05-16	85001084	MD	-	191	N	A	-	CMR, TRA
CLAUDE W. SOMERS	1985-05-16	85001085	MD	-	191	N	A	-	CMR, TRA
STANLEY NORMAN	1985-05-16	85001086	MD	-	191	N	A	-	CMR, TRA
E.C. COLLIER	1985-05-16	85001087	MD	-	191	N	A	-	CMR, TRA

Name	Certification Date	NPS Reference Number	State	Other Nominations	Periods of Significance	Levels of Significance	Applicable Criteria	Criteria Considerations	Areas of Significance
ELSWORTH	1985-05-16	85001088	MD	-	191	N	A	-	CMR, TRA
HILDA M. WILLING	1985-05-16	85001089	MD	NHL	191, 192	N	A, C	-	ARC, CMR, MAR, TRA
KATHRYN	1985-05-16	85001090	MD	-	191	N	A	-	CMR, TRA
MAGGIE LEE	1985-05-16	85001091	MD	-	191	N	A	-	CMR, TRA
MINNIE V	1985-05-16	85001092	MD	-	191	N	A	-	CMR, TRA
NELLIE L. BYRD	1985-05-16	85001093	MD	-	191	N	A	-	CMR, TRA
RALPH T. WEBSTER	1985-05-16	85001094	MD	-	191	N	A	-	CMR, TRA
REBECCA T. RUARK	1985-05-16	85001095	MD	NHL	184	N	A	-	CMR, TRA
RUBY G. FORD	1985-05-16	85001096	MD	-	184	N	A	-	CMR, TRA
SIGSBEE	1985-05-16	85001097	MD	-	191	N	A	-	CMR, TRA
VIRGINIA W	1985-05-16	85001098	MD	-	191	N	A	-	CMR, TRA
BERNICE J. (skipjack)	1985-09-05	85001946	MD	-	191	N	A	-	CMR, TRA
PATRICIA (log canoe)	1985-09-18	85002246	MD	-	192	N	A, C	G	ENG, TRA
OLIVER'S GIFT (log canoe)	1985-09-18	85002247	MD	-	192	N	A, C	G	ENG, TRA
ISLAND IMAGE (log canoe)	1985-09-18	85002248	MD	-	184	N	A, C	-	CMR, ENG, TRA
SILVER HEEL (log canoe)	1985-09-18	85002249	MD	-	191	N	A, C	-	CMR, ENG, TRA
MYSTERY (log canoe)	1985-09-18	85002250	MD	-	192	N	A, C	-	ENG, TRA
BILLIE P. HALL (log canoe)	1985-09-18	85002251	MD	-	191	N	A, C	-	CMR, ENG, TRA
S. C. DOBSON (log canoe)	1985-09-18	85002252	MD	-	184	N	A, C	-	CMR, ENG, TRA
SANDY (log canoe)	1985-09-18	85002253	MD	-	184	N	A, C	-	CMR, ENG, TRA
ISLAND BIRD (log canoe)	1985-09-18	85002254	MD	-	184	N	A, C	-	CMR, ENG, TRA
ISLAND BLOSSOM (log canoe)	1985-09-18	85002255	MD	-	184	N	A, C	-	CMR, ENG, TRA
JAY DEE (log canoe)	1985-09-18	85002256	MD	-	192	N	A, C	-	ENG, TRA
NODDY (log canoe)	1985-09-18	85002257	MD	-	192	N	A, C	-	ENG, TRA
EDMEE S. (log canoe)	1985-09-18	85002258	MD	-	192	N	A, C	-	ENG, TRA

Name	Certification Date	NPS Reference Number	State	Other Nominations	Periods of Significance	Levels of Significance	Applicable Criteria	Criteria Considerations	Areas of Significance
ISLAND LARK (log canoe)	1985-09-18	85002259	MD	-	191	N	A, C	-	ARC, ENG, TRA
MAGIC (log canoe)	1985-09-18	85002260	MD	-	184	N	A, C	-	CMR, ENG, TRA
PERSISTENCE (log canoe)	1985-09-18	85002261	MD	-	184	N	A, C	-	CMR, ENG, TRA
ROVER (log canoe)	1985-09-18	85002262	MD	-	184	N	A, C	-	CMR, ENG, TRA
FLYING CLOUD (log canoe)	1985-09-18	85002263	MD	-	192	N	A, C	-	CMR, ENG, TRA
WILLIAM S. MITCHELL (dredge)	1985-10-09	85003102	MO	-	192	S	A, C	-	CMR, ENG
USS INTREPID (aircraft carrier)	1986-01-14	86000082	NY	NHL	192	N	A	G	MIL
USS ALABAMA (battleship)	1986-01-14	86000083	AL	NHL	192	N	A	G	MIL
USS CASSIN YOUNG (destroyer)	1986-01-14	86000084	MA	NHL	192	N	A	G	MIL
USS THE SULLIVANS (destroyer)	1986-01-14	86000085	NY	NHL	192	N	A	G	MIL
USS DRUM (submarine)	1986-01-14	86000086	AL	NHL	192	N	A	G	MIL
USS COBIA (submarine)	1986-01-14	86000087	WI	NHL	192	N	A	G	MIL
USS COD (submarine)	1986-01-14	86000088	OH	NHL	192	N	A	G	MIL
USS PAMPANITO (submarine)	1986-01-14	86000089	CA	NHL	192	N	A	G	MIL
USS TORSK (submarine)	1986-01-14	86000090	MD	NHL	192	N	A	G	MIL
PT BOAT 796 (torpedo boat)	1986-01-14	86000092	MA	NHL	192	N	A	G	MIL
EDNA E. LOCKWOOD (Chesapeake Bay bugeye)	1986-02-13	86000258	MD	NHL	184, 191, 192	N	A, C	-	ARC, CMR, MAR, TRA
LITTLE JENNIE (Chesapeake Bay bugeye)	1986-05-12	86001081	NY	-	184, 191, 192	N	A, C	-	ARC, MAR
SAINTE GENEVIEVE (dredge)	1986-08-04	86002232	IA	-	192	S	A, C	-	ENG, TRA
USS POTOMAC (yacht)	1987-02-20	87000068	CA	NHL	192	N	A, B	G	GOV
LOTUS (motor vessel)	1987-05-18	87000715	WA	-	191	S	C	-	ARC
USS SEQUOIA (yacht)	1987-12-23	87002594	DC	NHL	192, 193, 194	N	A	G	GOV
USCGC TANEY (WHEC-37)	1988-06-07	88001826	MD	NHL	192, 193, 194	N	A	G	MIL

Name	Certification Date	NPS Reference Number	State	Other Nominations	Periods of Significance	Levels of Significance	Applicable Criteria	Criteria Considerations	Areas of Significance
Lightship WLV 539	1989-02-16	89000006	DE	NHL	192	N	A	B	MAR
Lehigh Valley Railroad Barge No. 79	1989-04-10	89000151	NJ	-	191, 192	L, N, S	A, C	-	ENG, MAR, TRA
ADVENTURESS	1989-04-11	89001067	WA	NHL	191	N	A, C	-	ARC, MAR
USS ALBACORE	1989-04-11	89001077	NH	NHL	193	N	A, B, C	G	ENG, MIL, SCI
ARTHUR FOSS (tugboat)	1989-04-11	89001078	WA	NHL	184, 191, 192	N	A, C	G	ARC, IND, MAR, MIL
SERGEANT FLOYD	1989-05-05	89001079	IA	NHL	192	N	A, C	-	ARC, MAR, GOV
LIGHTSHIP No. 101, PORTSMOUTH	1989-05-05	89001080	VA	NHL	191, 192	N	A, C	-	ARC, GOV, SOC
USS ARIZONA Wreck	1989-05-05	89001083	HI	NHL	191, 192	N	A, B, D	G	ARC, MIL
USS UTAH Wreck	1989-05-05	89001084	HI	NHL	191, 192	N	A, B, D	G	ARC, MIL
USS CLAMAGORE (SS-343)	1989-06-29	89001229	SC	NHL	192, 193	N	A, C	G	ARC, MIL
DELUGE	1989-06-30	89001427	LA	NHL	191, 192	N	A, C	-	ARC, GOV
HA. 19 (Japanese Midget Submarine)	1989-06-30	89001428	FL	NHL	192	N	A	G	MIL
CITY OF OAKLAND (USS HOGA)	1989-06-30	89001429	CA	NHL	192	N	A	G	MAR, MIL
RALPH J. SCOTT	1989-06-30	89001430	CA	NHL	192	N	A, B, C	-	ARC, GOV
MAYOR ANDREW BROADDUS	1989-06-30	89001446	KY	NHL	192	N	A	-	MAR, GOV, TRA
FIREFIGHTER	1989-06-30	89001447	NY	NHL	192	N	A, C	-	ARC, GOV
DUWAMISH	1989-06-30	89001448	WA	NHL	191, 192	N	A, C	-	ARC, GOV
WILLIAM A. IRVIN (freighter)	1989-07-13	89000858	MN	-	192	S	A, C	-	ENG, MAR, TRA
JEAN (steamboat)	1989-08-08	89001001	ID	-	192	S	A, C	-	ENG, MAR
COASTER II	1989-09-28	89001605	MI	-	192	L	C	-	ARC
ADVENTURE (schooner)	1989-12-11	89002054	MA	NHL	192, 193	L, N, S	A, C	G	ARC, ENG, IND, MAR
MAJESTIC	1989-12-20	89002456	OH	NHL	191, 192	N	A	G	MAR, PER

Name	Certification Date	NPS Reference Number	State	Other Nominations	Periods of Significance	Levels of Significance	Applicable Criteria	Criteria Considerations	Areas of Significance
DONALD B (towboat)	1989-12-20	89002458	OH	NHL	191, 192	N	A, C	-	ENG, IND, MAR, TRA
GEO. M. VERITY	1989-12-20	89002459	IA	NHL	192, 193	N	A, C	G	ENG, IND, MAR, TRA
LONESTAR	1989-12-20	89002461	IA	NHL	183, 184, 191, 192, 193	N	A, C	G	ENG, IND, MAR, TRA
Lightship WAL-605, RELIEF	1989-12-20	89002462	CA	NHL	193, 194	N	A, C	G	ARC, GOV, SOC
Lightship WAL-604, COLUMBIA	1989-12-20	89002463	OR	NHL	192, 193	N	A, C	G	ARC, GOV, SOC
Lightship No. 112, NANTUCKET	1989-12-20	89002464	ME	NHL	192, 193, 194	N	A, C	G	ARC, GOV, SOC
Torpedo Boat PT-617	1989-12-20	89002465	MA	NHL	192	N	A, C	G	ARC, MIL
LA MERCED	1990-04-17	90000588	WA	-	191, 192, 193	N	A, C	G	ARC, CMR, MAR
CORA F. CRESSEY	1990-04-18	90000586	ME	-	191, 192	L	A, C	-	ARC, CMR, MAR
LOTUS (schooner)	1990-05-10	90000694	NY	-	191	S	C	-	MAR
Lightship No. 114	1990-05-30	90000777	MA	-	192	S	A, C	G	ENG, MAR, MIL
ARKANSAS II (riverboat)	1990-06-14	90000899	AR	-	192	L	C	-	ARC
USS EDSON (DD-946)	1990-06-21	90000333	NY	NHL	192	N	C	G	ARC
USS CABOT (CVL-28)	1990-06-21	90000334	LA	NHL	192	N	A, B, C	G	ARC, MAR, MIL
N.K. SYMI (Sponge Diving Boat)	1990-08-02	90001132	FL	-	192	N	A, C	-	ARC, IND, MAR
DUCHESS (Sponge Hooking Boat)	1990-08-02	90001133	FL	-	192	N	A, C	-	ARC, IND, MAR
ST. NICHOLAS VI (Sponge Diving Boat)	1990-08-03	90001134	FL	-	192	N	A, C	G	ARC, REC, IND, MAR
GEORGE N. CRETEKOS (Sponge Diving Boat)	1990-08-03	90001135	FL	-	192	N	A, C	G	ARC, IND, MAR
ST. NICHOLAS III (Sponge Diving Boat)	1990-08-03	90001136	FL	-	192	N	A, C	G	ARC, REC, IND, MAR

Name	Certification Date	NPS Reference Number	State	Other Nominations	Periods of Significance	Levels of Significance	Applicable Criteria	Criteria Considerations	Areas of Significance
SURPRISE (schooner)	1991-06-14	91000771	ME	-	191	L	C	-	ARC
Bethune Blackwater Schooner	1991-08-08	91000948	FL	-	182, 183	S	A, C, D	-	ARC, CMR, HIS
OLIVE JEANETTE	1991-10-03	91001421	LA	-	192	L	A	B	CMR
TRADEWINDS KINGFISHER (Cruiser)	1991-10-29	91001562	OR	-	192	L	A, C	-	ARC, MAR, TRA
USS HURON	1991-11-15	91001625	NC	-	183, 184	N	A, C, D	-	ARC, ENG, HIS, MIL
LEWIS R. FRENCH (schooner)	1991-12-04	82005263	ME	NHL	183, 184, 191, 192	N	A, C	-	REC, MAR
MERCANTILE (schooner)	1991-12-04	82005265	ME	NHL	191, 192	N	A, C	-	ARC, CON, MAR, TRA
NASH (harbor tug)	1991-12-04	91002059	NY	NHL	192	N	A, C	G	ARC, MIL
CHRISTEEN (oyster sloop)	1991-12-04	91002060	CT	NHL	184, 191, 192	N	A, D	-	CMR, MAR
ISAAC H. EVANS (schooner)	1991-12-04	91002061	ME	NHL	184, 191, 192, 193	N	A, C	G	CON, MAR
J. & E. RIGGIN (schooner)	1991-12-04	91002062	ME	NHL	184, 191, 192, 193	N	A, C	G	CON, MAR
GOVERNOR STONE (schooner)	1991-12-04	91002063	FL	NHL	184, 191, 192	N	A, C	-	ARC, CMR, MAR, TRA
AMERICAN EAGLE (schooner)	1991-12-04	91002064	ME	NHL	192, 194	N	A, C	G	CON, MAR
USS HORNET	1991-12-04	91002065	WA	NHL	192, 193	N	A	G	EXP, MAR
CHUGACH (Ranger Boat)	1992-01-21	91001937	AK	-	192	L, S	A, C	-	ARC, MAR, GOV
AFRICAN QUEEN	1992-02-18	91001771	FL	-	193	N	A	B, G	REC
WENDAMEEN (Yacht)	1992-03-26	92000273	ME	-	191	L	C	-	ARC
TIMBERWIND (Schooner)	1992-03-26	92000274	ME	-	191	S	C	-	ARC
INGHAM (USCGC)	1992-04-27	92001879	FL	NHL	192	N	A, C	B	ARC, MAR, MIL

Name	Certification Date	NPS Reference Number	State	Other Nominations	Periods of Significance	Levels of Significance	Applicable Criteria	Criteria Considerations	Areas of Significance
USCGC FIR	1992-04-27	92001880	WA	NHL	192	N	A, C	-	ARC, MAR, TRA
THOMAS WILSON (Whaleback Freighter) Shipwreck	1992-07-23	92000844	MN	-	184, 191	S	A, C	-	ENG, MAR
ONOKO (Bulk Freight Steamer) Shipwreck	1992-07-23	92000845	MN	-	184, 191	N	A, C, D	-	ENG, MAR, TRA
SABINO (steamer)	1992-10-05	92001887	CT	NHL	191, 192	N	A, C	-	ARC, MAR, TRA
MACHIGONNE (ferry)	1992-12-03	92001610	NY	-	191, 192	L	A, C	-	ENG, MAR
RMS QUEEN MARY	1993-04-15	92001714	CA	-	192	N	A	G	REC, MIL, SOC
L. A. DUNTON	1993-11-04	93001612	CT	NHL	191, 192	N	A, C	E	ARC, IND, MAR, TRA
BALTIMORE (tug)	1993-11-04	93001613	MD	NHL	191, 192	N	A, C	-	ARC, MAR, TRA
MALIA (Hawaiian canoe)	1993-12-17	93001385	HI	-	192	L	A, C	-	ARC, REC, ETH-PAC
NELLIE CROCKETT	1994-04-19	94001185	MD	NHL	192	N	A, C	-	ARC, CMR, MAR, MIL, TRA
KATHRYN (Chesapeake Skipjack)	1994-04-19	94001192	MD	NHL	191, 192	N	A, C	-	ARC, CMR, MAR, TRA
S.S. NORTHWESTERN Shipwreck Site	1994-09-12	94001065	AK	-	191, 192	L, S	A	B	CMR, MIL, TRA
EMMA C. BERRY (Fishing Sloop)	1994-10-12	94001649	CT	NHL	183, 184, 191	N	A, C	-	ARC, IND, MAR, TRA
GEN. C. B. COMSTOCK (dredge) Shipwreck Site	1995-07-06	94001119	TX	-	184, 191	S	A, C, D	-	ARC, ENG, HIS, MAR
LAND TORTOISE (radeau) Shipwreck Site	1995-07-10	95000819	NY	NHL	172	N	A, C, D	-	HIS, MAR, MIL
A.J. MEERWALD (Schooner)	1995-11-07	95001256	NJ	-	192	S	A, C	-	ARC, CMR, MAR
TECUMSEH (towboat)	1996-03-13	96000202	LA	-	192	N	A	-	TRA
VICTORY CHIMES (Schooner)	1996-06-24	93000637	ME	NHL	191, 192	N	A, C	G	REC, MAR, TRA
EDWARD M. COTTER (fireboat)	1996-06-28	96000968	NY	NHL	191, 192	N	A	-	GOV

Name	Certification Date	NPS Reference Number	State	Other Nominations	Periods of Significance	Levels of Significance	Applicable Criteria	Criteria Considerations	Areas of Significance
CATAWISSA (tugboat)	1996-08-08	96000828	NY	-	184	N	A, C	-	MAR, SOC
W. O. DECKER (tugboat)	1996-09-13	96000962	NY	-	192	L	A, C	-	ARC, MAR
TOURIST II (auto ferry)	1997-04-15	97000321	WA	-	191, 192	S	A, B	B	MAR, TRA
MV PLOVER (ferry)	1997-06-04	97000551	WA	-	192	S	A, C	-	IND, MAR, TRA
SS JOHN W. BROWN (Liberty Ship)	1997-11-17	97001295	MD	-	192	N	A, C	-	MAR, MIL, TRA
USS Slater (Destroyer Escort)	1998-05-07	98000393	NY	-	192	N	A, C	-	MAR, MIL
SAND MAN (Tug Boat)	1998-08-06	98001018	WA	-	191, 192	L	A, C	-	ENG, MAR, TRA
SIELE (motor yacht)	1998-11-12	98001310	VA	-	192	L	C	-	REC, MIL
FRYING PAN SHOALS LIGHTSHIP NO. 115 (lightship)	1999-01-28	98001615	NY	-	192	N	C	-	MAR
Ha. 62-76 JAPANESE MIDGET ATTACK SUBMARINE	1999-02-03	99001706	GU	-	192	N	A	B	MIL
SS UNITED STATES (Steamship)	1999-06-03	99000609	PA	-	193	N	C	G	ENG
HUNTINGTON (Tugboat)	1999-08-05	99000958	VA	-	192	L	A	-	CMR, TRA
CHANCELLOR (tugboat)	2000-02-18	00000050	NY	-	192	S	C	-	ENG, MAR
JOHN J. HARVEY (fireboat)	2000-06-15	00000576	NY	-	192, 193	L	A, C	-	ENG, MAR
PIRATE (R-Class Sloop)	2000-08-15	00000968	WA	-	192	L	A, B, C	-	ENG, REC, MAR
JOSEPHINE (Shipwreck)	2000-11-22	00001402	MS	-	183, 184	S	C, D	-	ENG, MAR, TRA
SS Red Oak Victory (victory ship)	2001-01-30	00001674	CA	-	192	N	A, C	-	ENG, MAR, MIL, TRA
CSS NEUSE (Ironclad Gunboat)	2001-06-11	00000444	NC	-	183	N	A, D	B	AGR, ENG, MIL
MODESTY (south-sider Sloop)	2001-08-07	01001051	NY	-	-	-	-	-	-
SCHOONER MARTHA	2001-11-05	01001205	WA	-	191	S	A, C	-	ARC, REC, IND, MAR
URGER (canal tugboat)	2001-11-29	01001320	NY	-	191, 192	S	A, C	-	TRA
STANDARD OIL COMPANY NO. 16 (harbor tug)	2001-11-29	01001321	NY	-	191, 192, 193	L	A, C	-	TRA

Name	Certification Date	NPS Reference Number	State	Other Nominations	Periods of Significance	Levels of Significance	Applicable Criteria	Criteria Considerations	Areas of Significance
SS AMERICAN VICTORY (Victory ship)	2002-02-04	01001533	FL	-	192, 193	N	A, C	G	ENG, MAR, MIL
MAJOR WILBUR FR. BROWDER (tugboat)	2002-03-28	02000284	WI	-	192	N	A	-	MIL
USCG Cutter DUANE	2002-05-16	02000494	FL	-	192, 193	N	A, C	-	ARC, MIL
K. WHITTELSEY (Tugboat)	2002-11-21	02001395	NY	-	192	L	C	-	TRA
ADMIRAL DEWEY (tugboat)	2002-12-27	02001619	NY	-	191, 192, 193	L	C	-	TRA
Fishing Tug Katherine V	2003-07-10	03000622	MI	-	192, 193	S	A, C	-	IND, MAR
TAHOE (Shipwreck)	2004-02-11	04000026	NV	-	184, 191, 192	S	A	-	CMR, REC, TRA
CLEARWATER (Sloop)	2004-05-04	04000376	NY	-	193	N	A, C	E, G	EDU, MAR, OTH
CORONET (Wooden Hull Schooner Yacht)	2004-06-03	04000571	RI	-	184, 191	N	A, C	-	ARC, REC
JUDITH ANN (Riverboat)	2004-07-07	04000658	AK	-	193	L	A	-	CMR, MAR, TRA
USS New Jersey (BB-62)	2004-09-17	04000980	NJ	-	192, 193	N	A, B, C	G	MIL
Coast Guard Motor Lifeboat CG 36500	2005-05-27	05000467	MA	-	192, 193	L, N, S	A, C	-	ARC, ENG, MAR, TRA
USS RAZORBACK (SS-394)	2005-09-01	04001502	AR	-	192, 193	N	A, C	-	ENG, MAR, MIL
ELVA C (Deck Boat)	2005-10-04	05001160	VA	-	191, 192, 193	L	A, C	-	ARC, ENG, TRA
CLAUD W. SOMERS (skipjack)	2005-10-07	05000526	VA	-	191, 192	L	A, C	-	CMR, ENG
DAY PECKINPAUGH, (canal motorship)	2005-12-28	05001486	NY	-	191, 192, 193	S	A, C	-	ENG, SOC
F/V CHARLES W (Schooner)	2006-02-06	05000285	AK	-	192, 193	L	A	-	CMR, MAR
Priscilla (Long Island Sound Oyster Sloop)	2006-02-17	06000238	NY	NHL	184, 191, 192, 193	N	A, C	-	ARC, CMR, MAR, TRA

Name	Certification Date	NPS Reference Number	State	Other Nominations	Periods of Significance	Levels of Significance	Applicable Criteria	Criteria Considerations	Areas of Significance
MV KALAKALA (ferry)	2006-03-22	06000177	WA	-	192, 193	S	A, C	-	ARC, ENG, TRA
Memphis Queen II Floating Vessel	2006-07-05	06000550	TN	-	193	L	A, C	-	ARC, REC
USS LCI-713 (Landing Craft)	2007-04-12	07000300	OR	-	192	N	A, C	-	ENG, MAR, MIL
MV WESTWARD (Wooden Motor Vessel)	2007-04-12	07000304	WA	-	191, 192	L	A, C	-	ARC, REC, MAR
USS STEWART	2007-07-12	07000689	TX	-	192	-	A, C	-	ARC, MIL
BENJAMIN NOBLE (Shipwreck)	2007-09-20	07000984	MN	-	191	S	A, C, D	-	CMR, ENG, HIS, IND, MAR, TRA
Dipper Dredge No. 3	2007-12-11	07001257	NY	-	191, 192, 193	S	A, C	-	ENG, TRA
USS CAVALLA (submarine)	2008-05-27	08000477	TX	-	192, 193	N	A, C	-	ARC, MIL
USS CROAKER (submarine)	2008-09-12	08000863	NY	-	192, 193	L	A, C	-	MIL
USS BLUEBACK (submarine)	2008-09-18	08000947	OR	-	193	N	C	G	ENG
MARTHA LEWIS (skipjack)	2008-12-11	08001175	MD	-	193	N	A, C	-	MAR
NEW IBERIA (steamboat) shipwreck	2008-12-24	08001214	LA	-	182, 183, 184, 191	L, S	C, D	-	CMR, ENG, HIS, MAR, TRA
JOHN N. COBB (fisheries research vessel)	2009-02-11	09000047	WA	-	193	L	A, C	-	ARC, MAR, SCI
SHEARWATER (schooner)	2009-03-09	09000135	NY	-	192	L	C	-	MAR
USS LST 325 (tank landing ship)	2009-06-24	09000434	IN	-	192	N	A, C	-	ENG, MIL
DIXIE (sternwheeler)	2009-09-24	09000757	IN	-	192, 193	L	A	-	REC
BAGHEERA (schooner)	2009-11-04	09000878	ME	-	191, 192	L	A, C	-	ARC, REC
S.S. BADGER (carferry)	2009-12-11	09000679	MI	-	193	N	A, C	-	ENG, TRA
MOHICAN II (steamboat)	2010-08-19	10000554	NY	-	191, 192, 193	S	A, C	-	ENG, REC, MAR, TRA

Name	Certification Date	NPS Reference Number	State	Other Nominations	Periods of Significance	Levels of Significance	Applicable Criteria	Criteria Considerations	Areas of Significance
PILOT (Pilot Boat)	2011-01-21	10001160	CA	-	191, 192, 193, 194	L	A	G	CMR, MAR, MIL
WILD GOOSE (yacht)	2011-07-19	11000431	CA	-	-	-	-	-	-
RENOWN (yacht)	2012-01-04	11000990	CA	-	192	L	C	-	ARC
USS WISCONSIN (BB-64) battleship	2012-03-28	12000178	VA	-	192, 193, 194	N	A, C	G	ENG, MAR, MIL
ELVIRA (sloop)	2012-05-23	12000288	NY	-	191, 192, 193	L	A, C	-	ARC, ENG, REC
USCGC BRAMBLE (cutter)	2012-08-01	12000457	MI	-	192, 193	N	A, C	-	ENG, EXP, MAR, MIL, SCI
F.D. CROCKETT (log deck boat)	2012-08-22	12000544	VA	-	191	L	C	-	ARC
WEATHERLY (sloop)	2012-08-28	12000585	RI	-	192, 193	N	A, C	-	ARC, REC, IND
PT-658 (motor torpedo boat)	2012-09-04	12000602	OR	-	192	N	A, C	-	ENG, MIL
MARY A. WHALEN (tanker)	2012-10-03	12000831	NY	-	192, 193	L	A, C	-	MAR, TRA
USCGC STORIS (cutter)	2012-12-31	12001110	CA	-	192, 193	N	A, C	G	CMR, ENG, EXP, MIL, SCI, SOC
CLARA BROWN (sloop)	2013-03-20	13000098	NY	-	192	L	C	-	ARC
LIBBY'S NO. 23 (bristol bay double ender)	2013-06-14	13000379	AK	-	191, 192, 193	S	C	B	MAR
CIRCLE LINE X (sightseeing vessel)	2014-09-22	14000702	NY	-	-	-	-	-	RES

Table A7. Space Exploration Vehicles in the National Register of Historic Places.

Name	Certification Date	NPS Reference Number	State	Other Nominations	Periods of Significance	Levels of Significance	Applicable Criteria	Criteria Considerations	Areas of Significance
Saturn V Space Vehicle	1978-11-22	78000500	AL	NHL	193	N	A	G	ENG, EXP, TRA
Saturn V Launch Vehicle	2003-02-04	02001731	TX	-	193	N	A, C	G	ENG, OTH, TRA
ENTERPRISE (space shuttle)	2013-03-13	13000071	NY	-	194	N	A, C	G	ENG, OTH, TRA

Table A8. Tanks in the National Register of Historic Places.

Name	Certification Date	NPS Reference Number	State	Other Nominations	Periods of Significance	Levels of Significance	Applicable Criteria	Criteria Considerations	Areas of Significance
Light Model Tank No. 95	1979-12-19	79003107	GU	-	192	S	A	G	MIL