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Philadelphia at the Beginning of the Twentieth Century: Incorporating the Automobile into an Urban House Type

Margaret Jane Newman
University of Pennsylvania

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PHILADELPHIA AT THE BEGINNING
OF THE TWENTIETH CENTURY: INCORPORATING THE AUTOMOBILE
INTO AN URBAN HOUSE TYPE

Margaret Jane Newman

A THESIS

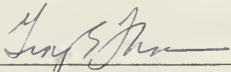
In

Historic Preservation

Presented to the Faculties of the University of Pennsylvania in
Partial Fulfillment of the Requirements for the Degree of

MASTER OF SCIENCE

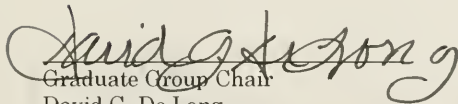
1999



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ACKNOWLEDGMENTS:

*Art
as the
spirit
waned
the
form
appears.*

Charles Bukowski

The fact that I am writing these acknowledgments means I have rounded the bend to the end of my graduate career, a minor miracle indeed. There are many I would like to thank for getting me here (finally). First, to my advisor, George Thomas, who knew when to leave me alone and when to push. Thank you, George, for the topic and for the support. To my reader, Susan Snyder, who really came through in the pinch, I appreciate it. To the boys at 4534 Osage Avenue, full and part time residents, without whom I never would have gotten through this experience: to Scott for making things fun, to Chris for listening and to Kurt for always keeping my life interesting. To my fellow classmates and to my friends, poor creatures, who had to listen to me whine endlessly. To Steve who was always there for me with an encouraging, though distant voice and to Heather who was always a willing participant in getting into trouble. To my mom who was given the arduous task of proofreading this gd thing without whom I would not have finished, a special thank you and to my dad and Julie Belle for their endless support.

Finally, in my last words as a graduate student of the University of Pennsylvania, I again quote Charles Bukowski, my spring favorite, "stay away from god remain disturbed slide."

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Introduction:

THE COBBS CREEK NEIGHBORHOOD: THE CREATION OF A NEW PHILADELPHIA HOUSE TYPE

In 1915, three innovative blocks of rowhouses and twins were constructed in the Cobbs Creek neighborhood of West Philadelphia. Two developers integrated the automobile into a traditional Philadelphia urban house type, forever changing rowhouse design in the city. Done on speculation for a middle class market, these rowhouses accommodated the car either in a rear or basement garage. In the rest of the country, few city planners, architects or developers planned for the automobile until the 1930s. There were some innovative, wealthy clients driving resourceful architects who were building houses with incorporated garages. Until the 1930s, these were the rare exception. However, in the Cobbs Creek neighborhood of West Philadelphia, twenty years ahead of the typical practice, rowhouses were being built with basement garages. Several forces combined that resulted in the Cobbs Creek neighborhood. First, the high number of automobiles on the streets of Philadelphia, early in the history of urban automobile use, created a need for garages. Second, the strong Philadelphia tradition, begun in the seventeenth century, of rowhouse construction and home ownership, perpetuated a demand for affordable housing for the middle class. Finally, the location of the neighborhood itself, created next to the new Cobbs Creek Parkway and isolated from the public transit system, made plans for the automobile necessary.

The automobile became a major force in popular American culture by the late teens. Henry Ford's Model T, with its system of mass production, made the automobile affordable. In Philadelphia, tens of thousands of people bought this new technology. At the same time in Philadelphia, the mass transit system was increasingly viewed as inadequate, driving ridership down after 1915. Once the automobile was brought down in price enough to be affordable to the common worker, it became an especially attractive alternative to public transportation. Rather than deal with the mess that was public transit, Philadelphians increasingly turned to the automobile as their primary source of conveyance. These people needed a place to store their cars: the garage in the rowhouse was born.

In addition, Philadelphia was a technologically advanced city. It was a leading industrial and heavy manufacturing center at the beginning of the twentieth century in the United States, resulting in a Philadelphia workforce who not only could afford the automobile but who were also comfortable with innovation. Houses that integrated new technology—the automobile and the garage—with traditional architecture was ideal for this technologically astute Philadelphia market.

Since the seventeenth century, Philadelphia has had a tradition of rowhouse construction. Today the rowhouse remains the dominant building type as it has been since the founding of the city. The practice of individual house construction resulted in another Philadelphia tradition: home ownership. In the early twentieth century, when developers were building on speculation, this long tradition dictated a continuation of rowhouse construction which the middle class could afford. Thus, when a large swath of vacant land became open, as it did near Cobbs Creek, the typical Philadelphia house type was constructed at prices attractive to the middle

class. In the Cobbs Creek neighborhood, however, the standard rowhouse design was employed with a twist. The automobile was added.

Finally, the location of the Cobbs Creek neighborhood was ideally suited to rowhouse and automobile integration. This was a neighborhood too remote to be considered a streetcar suburb. In addition, when it was developed, there was a movement within the city to create parks and parkways around the rivers and creeks located within the city limits. Cobbs Creek Parkway, a result of this movement, was built to move automobile traffic from West Philadelphia into the center of the city. The neighborhood created next to it and far away from public transit, almost by necessity, had to include the automobile into its design.

The Cobbs Creek neighborhood represents a new idea in linking an urban house type with the automobile. These new rowhouses and twins fused technology with residential design, creating a brand new type of community that was planned around this nascent innovation. This occurred very early in the evolution of the automobile as a transportation necessity. It was done in 1915 in Philadelphia, a city in which home ownership was the norm. The result was a new middle class house type that formed a new type of middle class neighborhood. As this neighborhood evolved, the weaving of the automobile into urban residential architecture was perfected; the designs created here were duplicated throughout the rest of the city. The integration of the automobile into the Philadelphia home began in Cobbs Creek, but its impact was felt throughout the city.

This thesis sets out to establish the significance of the rowhouses constructed on the three blocks of the Cobbs Creek neighborhood. To do this, context is needed, both in Philadelphia and in the United States, to determine if what was going on in

West Philadelphia in 1915 truly was revolutionary. This context is provided in the first three chapters. Chapter One reviews the history of the automobile and its effects on American culture. The second chapter looks broadly at how the automobile affected residential architecture, namely when garages were built and how they grew to be incorporated into the plan for the house and thus, into American lives. Chapter Three focuses on Philadelphia and the history of its tradition of rowhouse design and middle class homeownership. With this context established, the Cobbs Creek area itself is analyzed. What were the factors that came together to create this neighborhood? Who built these early rowhouses? Who bought them? How did the designs established here affect the rest of Philadelphia? Finally, Chapter Five considers historic preservation. These rowhouses fused technology with standard Philadelphia architecture. What should be done with a design that, though innovative for its time, has largely become obsolete?

The Cobbs Creek neighborhood represents a new idea in combining a standard Philadelphia house type with the automobile. Twenty years ahead of the typical practice, rowhouses were being built with basement garages on speculation, geared for a middle class clientele. This design revolutionized residential architecture in Philadelphia. Begun in Cobbs Creek in 1915, rowhouses constructed with a basement garage would spread throughout the rest of the city until by the end of the 1920s, they became the *new* standard Philadelphia house type.

Chapter One:

THE AUTOMOBILE: FROM PLAYTHING TO NECESSITY

"Yesterday, the automobile was the plaything of the few, today it is the servant of many, tomorrow it will be the necessity of humanity."

--"The Horse of the Future and the Future of the Horse," *Harper's Weekly*, 1907

"Speed is the measure of efficiency. Speed marks the line between misery and well-being—the difference between civilization of today and the benighted squalor of the Dark Ages."

--James R. Doolittle, *The Romance of the Automobile Industry*, 1916

The Power of an Invention:

"During America's bicentennial, the Associated Press asked leading journalists to name the most important developments in United States history; 272 responded. They gave first ranking to the Revolutionary War, followed by the drafting of the Constitution, the Civil War, and World War II. Henry Ford's Model T and the rise of the automobile was rated tenth comfortably ahead of the Vietnam war, the New Deal, the Louisiana Purchase, the 1954 Supreme Court decision outlawing school segregation, and such technological advances as the development of television, aviation and the electrification of the nation."¹ From its inception, the automobile has captivated Americans. Not only did the car provide a sense of freedom and newfound mobility, it also appealed to the American fascination with power and technology. No single invention has had such a profound impact on the

¹ *The Automobile and American Culture*, edited by David L. Lewis and Laurence Goldstein (Ann Arbor, Michigan: The University of Michigan Press, 1983), preface

way we live and the way that we inhabit our environment.

In 1885-86, two Germans began work on a small internal combustion engine that could propel a personal vehicle. Almost simultaneously, Karl Benz and Gottlieb Daimler invented the "automobile."² The self-propelled vehicle was a remarkable discovery; one that forever changed the way humans interact with their environment. People could control their own schedules much more than they could before. This self-propelled vehicle allowed for instant mobility. It allowed for personal freedom and personal choice. It expanded the world beyond the confines of home, work and community. The entire landscape could now be "consumed."

Although today we can acknowledge the wonders of the invention of the automobile, during its earliest years it was not seen as the breakthrough it eventually became. Rather, it was a loud, dangerous and annoying contraption which was best avoided. Wild, adventurous and, necessarily, wealthy men were the first to use the new invention. Cars belonged to the daredevils and speed demons (two expressions that had early associations with the automobile). Cross-country treks and other long distance races first tested the innovation. Automobiling was expensive. To buy an automobile was a large investment and the maintenance for these frail constructions was costly. This expense was enhanced by the tests the thrill-seekers put their vehicles through and by the poor conditions in which the automobile was first tested. The automobile replaced the horse but its needs were very different. In the first years, the automobile was used on an infrastructure of roads established in the era of the horse. Difficulties could be expected and they

² Gerald Bloomfield, *The World Automotive Industry* (North Pomfret, Vermont: David and Charles Inc., 1978), 15.

occurred. Automobiling could be a disastrous experience in which one could always count on a punctured tire or some mechanical break down. Because of these problems, the audience for the new invention was narrowed further. In addition to being adventurous, a person who used an automobile (or more accurately, his driver) also needed to be mechanically inclined to solve the problems that continually popped up.

American Innovation:

Seven years after the first automobile was made in Germany, the invention arrived in the United States when Frank Duryea tested a one-cylinder carriage on the back streets of Springfield, Massachusetts in September 1893.³ Though the German and French were the first purchasers of automobiles, after Duryea brought the automobile home to the United States, Americans quickly began their love affair with motor mobility. Again, as in Europe, early users were wealthy adventurers who embarked on city-to-city races and cross-mountain traverses. Car exhibitions frequented by these wealthy patrons began in the 1890s. The first show devoted entirely to the automobile in the United States was in 1900.⁴ With these exhibits, automobile makers made forays into a larger market. As yet, however, the automobile was still a luxury that few could afford. In 1898, there was only one car in operation for every 18,000 people in the United States.⁵

The automobile was a new technology. It was more than just money that

³ Ibid , 63

⁴ Howard Preston, *Automobile Age Atlanta: The Making of a Southern Metropolis, 1900-1935* (Athens: The University of Georgia Press, 1979), 24

⁵ Folke Tkinstedt, "The Automobile and the Transformation of the American House, 1910-1935," *The Automobile and American Culture*, edited by David L. Lewis and Laurence Goldstein (Ann Arbor, Michigan: The University of Michigan Press, 1983), 160.

kept some people away and at the same time attracted others. For some, new technology was scary. (In this case, these automobiles actually *were* frightening. Crashes and fires were common). However, for others, it was the simple fact that it was a technological advancement that made the automobile so appealing: "There is strong evidences that many consumers were simply fascinated with the mechanical appeal of the motor vehicle."⁶ It was an American love of technology and the strong belief that society was improved, necessarily, by technological advances that attracted some first buyers. These early purchasers of the motor vehicle had complete faith that, no matter what, new was always better.⁷ "Ever since its introduction at the turn of the century, Americans have been hopelessly in love with the automobile. Not only for providing greater freedom and mobility but also it appealed to the American fascination for power and technology."⁸ For these people, the automobile was seen as having spectacular possibilities for the present and the future.

In addition to being seen both negatively and positively as a technological machine, the automobile was also viewed suspiciously as yet another thing that exclusively benefited the rich at the expense of the poor. In a 1902 article of *Horseless Age*, a leading periodical devoted to the new industry, the author noted: "Many of the newspapers circulating chiefly among the working class try to make capital out of class hatred and lose no opportunity to hold up the automobile as a

⁶ Mark S. Foster, "The Automobile and the City," *The Automobile and American Culture*, edited by David L. Lewis and Laurence Goldstein (Ann Arbor, Michigan: The University of Michigan Press, 1983), 25.

⁷ *Ibid.*, 26-34

⁸ *The Age of Asphalt: The Automobile, the Freeway, and the Condition of Metropolitan American*, ed. Harold M. Hyman (Philadelphia: J B Lippincott Co., 1975), 7

means of oppression of the poor by the wealthy.”⁹ In 1906, when Woodrow Wilson was president of Princeton University, he refused to ride in an automobile during his inauguration, choosing instead a horse and carriage. For him the automobile was the “picture of the arrogance of wealth.”¹⁰ He also gave another reason for shunning the automobile, “Nothing has spread socialistic feeling in this country more than the automobile.”¹¹ He realized the power an organized group could have over popular opinion and had the foresight to see the leveling capacity of this new technology:

Someone has said that the Asiatic, long accustomed to humiliation at the hands of the lordly white European, will endure it no longer after he has once sat at the controls of a tractor or a bulldozer. Similarly the American who has been humbled by poverty, or by his insignificance in the business order, or by his racial status, or by any other circumstance that might demean him in his own eyes, gains a sense of authority when he slides behind the wheel of an automobile and it leaps forward at his bidding, ready to take him wherever he may personally please.¹²

Price Democratization:

Car ownership as the province of the very rich continued through the first years of the twentieth century. In 1908, the majority of the automobiles cost about \$5,000. Although there were a few models that were closer to \$1,000, the vast majority cost several thousand dollars. These figures are striking when compared to the income of the ordinary worker at this period. In 1904, the average per capita income in Mid-Atlantic States was \$1,763.¹³ When the extravagant costs of

⁹ James L. Flink, *America Adopts the Automobile, 1895-1910* (Cambridge: MIT Press, 1970), 65

¹⁰ Frederick Lewis Allen, *The Big Change: America Transforms Itself 1900-1950* (New York: Harper and Brothers Publishers, 1952), 121

¹¹ *Ibid*

¹² *Ibid*, 130.

¹³ Preston, 24.

maintenance for this as yet unreliable contraption were added to the equation, it is not surprising that automobile ownership was attainable for only a small few.

The early motor pioneers had to be active propagandists for “automobilitis.”¹⁴ This was a word used early on, meaning a marked fondness or obsession with the motor vehicle. It was not, however, a word that lasted but was instead, a sentiment that survives today. The marketers of the early motor vehicles played on people’s frustration with a corrupt and neglected streetcar system, the “unwanted stepchild of technological development”¹⁵ as Carl Condit notes. They also honed in on people’s love of luxury, especially individual luxury: “The demand was for automatic *individual* transportation, and in *luxury*. Luxury was the keynote of it. Flushed with successful work and savings, people wanted to get the same soft seat and swift movement that a Pullman coach gives them--but for *all* of their goings and comings, to *all* places, at their own sweet will.”¹⁶ Although the numbers don’t show the automobile expanding into the middle class realm until the mid-teens, there are references to the automobile as a middle class commodity as early as 1904. By 1906, writers in periodicals began to refer to the automobile as a necessity. “... The automobile is essential to comfort and happiness. Once a man has ever driven an automobile, he will never recover from his love of motoring. There you have the keynote of the situation—he cannot get along without it.”¹⁷ A 1907 article in *Harper’s Weekly* expressed yet another way in which automobile proponents

¹⁴ Bloomfield, 13

¹⁵ Carl Condit. *Chicago, 1910-1929: Building, Planning and Urban Technology* (Chicago: University of Chicago Press, 1973), 235

¹⁶ J. George Frederick, “Automobiles by the Millions,” *The American Review of Reviews* 52, no. 3 (September 1915), 457

¹⁷ Charles L. Palms, “The Automobile Outlook,” *Harper’s Weekly* 51, no. 2651 (Saturday, October 12, 1907), 1499

marketed their product. Automobiling was beneficial to health. It was an elixir. Those who bought an automobile were not just interested in adventure and pleasure, they were concerned about their well being. The automobile was good! Ultimately, with the help of mass production of the mid-teens, the propaganda campaigns triumphed:

The automobile has arrived. It has met the bitterest prejudices and the most deadly scoffing, and come up against stubborn and narrow laws, but in spite of these it has been developed and perfected and has triumphed. Already it has been absorbed into our civilization, even as the trolley, the electric light, and every other luxury that so rapidly crystallized into a necessity.¹⁸

From Custom Cars to Mass Production:

The establishment of car manufacturing as a distinct industry took place in the first decade of the twentieth century. World output of automobiles in 1900 was 9,500 units, most of which were produced and bought in the United States and France. In the second decade of the twentieth century, the automobile entered the mainstream. From a toy for racing thrill-seekers, it was becoming a tool used practically by businessmen, doctors and farmers. Professional men were the first to see the advantages of the automobile as a form of quick transportation, not just as an amusement ride. Doctors used them to rapidly get to a patient in an emergency. Similarly, engineers, men who were used to dealing with advanced technology, took to the automobile early on. Commercial travelers and salesmen were also early adopters; suddenly, with an automobile they could go further and faster in a day

¹⁸ Frank A. Munsey, "The Automobile in America," *Munsey's Magazine* 34, no. 4 (January 1906), 406

than with a horse. This was immediately appealing for people for whom time is money.¹⁹

In 1909, Henry Ford revolutionized the industry. With his Model T, the model that he thought was the best and most marketable of his many models, Ford took control of production away from the client. "... In 1909 I announced one morning, without any previous warning, that in the future we were going to build only one model, that the model was going to be the Model T, and that the chassis would be exactly the same for all cars, and I remarked: Any customer can have a car painted any color that he wants, so long as its black..."²⁰ As the system of manufacturing a single model evolved, Ford added assembly line production in 1913. With this new method, Ford tremendously increased the productivity and efficiency of car manufacturing. Engine assembly labor time dropped from nine hours and fifty-four minutes per unit in October 1913 to three hours and fifty-seven minutes in May 1914. Chassis assembly went from fourteen hours in October 1913 to one hour and thirty-three minutes in May 1914.²¹ The first assembly line was created for the engine and chassis in 1913. By 1914, the whole car was done on the assembly-line principle.²² With the entire automobile being assembled on the line, productivity quickly and dramatically skyrocketed, as costs fell.

In 1900, world output of automobiles was 9,500 most of which were produced and bought in the United States and France. By 1905, just prior to the first Model Ts, the world output was 130,000. Nine years later in 1914, with assembly-line

¹⁹ Bloomfield, 58.

²⁰ Allen, 110.

²¹ Bloomfield, 40

²² Allen, 110.

production just beginning to blossom, over two million (2,050,000) automobiles were produced. Just four years later in 1919, with assembly line production well established that number was doubled. The United States began registering vehicles in 1903-4. In 1905, the number of registered cars was 77,000. The automobile was still a luxury few could afford. This number soared, however, to 1,660,000 in 1914 with the burgeoning assembly line production and by 1924, there were 15,436,000 automobiles in the United States. When these numbers are compared to world numbers, it is obvious how the United States led in automotive consumption. By 1920, the United States had achieved one motor vehicle per thirteen people.²³ These numbers are startling when compared to other countries. In the same year, 1920, there was one motor vehicle per 268 people in England, one automobile per 402 people in France (the world leader before the United States explosion), one per 684 Germans and one per 5,300 in Russia. By 1922, in the United States the number had risen to one automobile per ten people.²⁴

Despite the rapid acceptance of the automobile into American society, the general public remained unconvinced of its permanence. Dealerships, garages and repair shops were slow to arise relative to the rate at which the automobile was purchased. Blacksmiths and livery stables, businesses that were made obsolete with the conversion from horse to motor vehicle and which were already in the transportation and mechanical business, were commonly converted to the motor vehicle industry. Nevertheless, there was little movement in new businesses besides these conversions. Filling stations with curbside pumps did not replace individual

²³ Bloomfield, 24-58

gasoline cans until the 1920s. Similarly, parking garages were a rarity into the 1930s.²⁵ Automobiling began as a sport, as an individual adventurous pastime where “real” men fixed their own engines. It did not begin as a legitimate means of transportation. Therefore, it was slow to convert from a sales-based industry to a service-based one and slow to be seen as a permanent industry.

The most dramatic escalation of automobile ownership occurred between 1910 and 1920. In 1910, there was one motor vehicle per 125.2 people in the United States.²⁶ That number was reduced (or increased as far as numbers of cars) to one in ten by 1922. Henry Ford's Model T had a great impact on this giant leap in numbers of automobile owners. However, there were also other influences at play. First, there was the mass-marketing campaign previously mentioned. Second, many men returned home from World War I having had access to and experience with motorized vehicles and trucks. This contact with the previously alien technology increased the comfort level and made it seem like a more manageable innovation. This added to the automobile's rapid adoption after the war.²⁷ Third, contemporary with assembly line production, there were several technological improvements added to the increase in automobile ownership. Charles F. Kettering's momentous invention of an effective self-starter was installed in the Cadillac in 1912. The demountable rim and the cord tire became common ca. 1915. These greatly improved the usability of the automobile and made them safer. Above all, the innovation that most increased automobile sales was the introduction of the closed

²⁴ J. George Frederick, “Can the Automobile Business Go on Growing,” *The American Review of Reviews* 56, no. 6 (June 1920), 617.

²⁵ Bloomfield, 61

²⁶ Flink, 78.

²⁷ Bloomfield, 59.

car. As late as 1916, only 2% of the cars manufactured in the United States were closed; by 1926, however, 72% of them were closed. Manufacturers had learned to build closed cars that lasted. No longer did they rattle themselves to pieces and most importantly, they were not hideously expensive.²⁸ In addition to these factors, driving became much safer. Regulations were instituted that regularized driving behavior. Traffic signals, that were unknown in 1900, had been developed by the 1920s. Similarly, speed regulations were established.²⁹

The concept of affordability, first introduced by Ford whose primary goal was to create a practical, effort-saving car for ordinary people, was the key to the dispersion of automobile owners from the very rich to the middle class. Technological improvements and increased safety helped. But it was affordability that ultimately caused widespread adoption of the automobile. In 1909, the factory price of the Model T (the cheapest car on the market) was equivalent to twenty-two months of wages in the United States for a factory worker, coal miner or a transportation industry worker. 1914 reduced this to less than eleven months and by 1925, to less than three months of wages.³⁰ The average price of a car plunged from \$2,108 in 1908 to \$604 in 1915.³¹ With mass production of the Model T in 1908, a basic and cheap car evolved that the masses were able to adopt. This reduction in cost in so short a time span was remarkable. It dramatically made the automobile attainable to a large percentage of the population and established it as the leading manufacturing industry in the world by 1920, just six years after the introduction of

²⁸ Allen, 123.

²⁹ Foster, 26-34

³⁰ Bloomfield, 63

³¹ Fredric M. Miller, Morris J. Vogel and Allen F. Davis, *Still Philadelphia: A Photographic History, 1890-1940* (Philadelphia: Temple University Press, 1983), 174

mass production. "Total volume of combined automobile, accessory and supply business is \$4,400,000,000...The demand at the present time indicates that 2,000,000 cars could be sold in the next ten days if the cars were available."³² In 1919, 25,324,652 shares of nine automobile stocks were traded. This number is startling when compared to the trading of the previously leading transportation stock, the railroad. In this same year, 1919, only 12,800,086 stocks were traded in nine leading railway companies.³³ There were twice as many automobile stocks traded as railroad stocks. The great change had occurred.

Impact of the Car:

What was the impact of an affordable and reliable automobile on American society? As we have seen, it meant that there was a sudden explosion of automobile ownership. The automobile increasingly became a factor in everyday life. It began as a plaything of the rich but quickly became a necessity of the middle class. "The automobile,' proclaimed one local car dealer in 1921, 'is 10% pleasure, 90% utility and 100% necessity.'"³⁴ The automobile had made a shift and made a shift quickly. Because of the mass-market appeal of the automobile, American culture was forever changed.

Widespread adoption of the automobile did indeed reshape American lifeways. Patterns of courtship, residence, socialization of children, education, work habits and use of leisure time were all radically altered by the adoption of the automobile. The rise of a standardized, middle class national culture in the United States was greatly encouraged by the

³² Frederick, "Can the Automobile Business Go on Growing?" 617-18

³³ *Ibid.*, 620.

³⁴ Richard Longstreth, *City Center to Regional Mall: Architecture, the Automobile, and Retailing in Los Angeles, 1920-1950* (Cambridge, Massachusetts: The MIT Press, 1997), 13.

contribution of the motor vehicle to the decline of localism, ethnicity and class difference.³⁵

Ford's energetic driving down of prices helped to make the automobile more popular, but similarly responsible, was the shift from the open car to the enclosed, self-contained vehicle. Suddenly, the automobile was private. No longer was it an aspect of the public realm but instead it became:

...a power-driven room on wheels...as innumerable young couples were not slow to learn, to engage in private intimacies. One of the cornerstones of American morality had been the difficulty of finding a suitable locale for misconduct; now this cornerstone was crumbling. And if the car was also a frequent source of family friction ('No, Junior, you are *not* taking it tonight. '), as well as a destroyer of pedestrianism, a weakener of the churchgoing habit, a promoter of envy, a lethal weapon when driven by heedless, drunker, or irresponsible people, and a formidable convenience of criminal seeking a safe getaway, it was nonetheless indispensable.³⁶

Society was changed forever and almost immediately. No longer did family, work and church circumscribe the world. Now, individual movement was possible. Freedom was possible. Convenience was attainable. In a sociological study of American society called *Middletown*, conducted in 1925, two women of Muncie, Indiana expressed their complete dependence on the automobile. One, a mother of nine children said, "We'd rather do without clothes than give up the car." The other, in a spirit of one upmanship, said, "I'll go without food before I'll see us give up the car." At another stage in the study, another housewife, commenting on the fact that her family owned a car but no bathtub said, "Why you can't go to town in a

³⁵ Flink, 3.

³⁶ Allen, 123.

bath tub!"³⁷ The automobile revolution had occurred. Completely.

In addition to changing cultural society, the automobile also changed the physical environment. As the railroad and streetcar had done in the late nineteenth century, the automobile further stretched the physical boundaries of human daily life. In the eighteenth century, a worker walked to work about five blocks; in the nineteenth, he took the streetcar probably about one mile; in the twentieth, he drove his car as far as tens of miles to work one way. The automobile encouraged horizontal growth into new areas where there was no development. Streets had to be widened, traffic signals installed and parking garages erected. Dramatically, the physical world and society changed because of a single innovation.

The automobile came of age in the 1920s. By the end of that decade, it was a regular means of transportation for the commuting middle class. By the 1930s, the automobile had gone from a luxury to a common nuisance.³⁸ Traffic jams and inadequate parking plagued many areas of the United States, especially the cities. However, by then, there was no going back; the automobile was here to stay. In 1929, over six million automobiles were produced worldwide. These numbers fell in the 1930s because of the Depression. After World War II, they again rose exponentially.³⁹

Since 1893, when Duryea tested a one-cylinder carriage in Springfield, Massachusetts, Americans have been living in the era of the automobile. The car has evolved from a luxury to a necessity; an article few live without. Its introduction into society rapidly changed culture. No longer was family, home and community

³⁷ Ibid., 121.

³⁸ Miller, 190.

the only force in life; now with easy transportation, movement was possible and people moved. The automobile became yet another form of social status accouterment; the make, model and style of an automobile served (and still serves) as an expression of its owners status as well as a reflection of his value system. We were and still are attracted to the automobile like few other inventions. "Following our natural bent as an ingenious people who delight in complicated and expensive contrivances for getting there," we love the automobile.⁴⁰

When the Cobbs Creek areas was being developed ca. 1915, the automobile was just beginning to enter the middle class market. Technological improvements, increased regulations and, most importantly, affordability made the automobile an increasing necessity. Philadelphians were early adopters of the new innovation. In addition to being a technologically advanced city with workers who were comfortable with technology and could afford the automobile, Philadelphia had an increasingly obsolete mass transit system. All these factors combined to form an urban center that early recognized the car as a necessary part of its daily routine. This environment of automobile acceptance resulted in the early integration of the automobile in Philadelphia rowhouse design in the Cobbs Creek area of West Philadelphia ca. 1915, early in the timeline of the history of the automobile.

³⁹ Bloomfield, 24

⁴⁰ *The Automobile, Its Province and Problems: The Annals CXVI*, ed Clyde L. King (November 1924), 201

Chapter Two:

THE GARAGE: A MARCH TO PROMINENCE

"The discovery that a garage was not a stable has made it a common practice to include it in the house and express it externally."

--"Planning the Garage," *The Architectural Record*, February 1929

"As with all new building types (such as the skyscraper or railroad depot), there was a period of experimentation with the garage."

--J. Randall Cotton, "The Great American Garage: Part I," *The Old House Journal*,
September 1986

A New Building Type:

In its earliest stages, the automobile was an uncovered contraption that was quite fragile. It needed protection when not in use. The logical place for it, it was believed, was to house it with the other popular mode of transportation of the period, the horse and carriage. Soon, however, it became obvious that the two were incompatible roommates. The fumes from the horse were not good for the brass and ornamental features of the dashing, yet vulnerable, automobile nor was the spark-emitting vapor of the automobile good for the horse. A new building type was needed. From this, the garage emerged. Begun as an isolated building, the garage proceeded in a slow march to the main house. First connected by a breezeway or common wall, it eventually became integrated inconspicuously in the rear of the house. The garage continued its march forward until, not so unobtrusive, it became the dominant feature of the suburban rambler of post-WWII America. The progression of the garage paralleled the automobile's gradual acceptance and then

complete domination of American life. The garage, a vernacular building type that though little studied, has made an important impact on the architectural as well as the cultural way, people live.

Garage. The word comes from the French *garer*, which originally meant to protect, but has evolved, since the advent of the automobile, to mean to park. Emphasizing the romantic origins of the automobile world, the word garage is also related to the English “ware” (as in warehouse). From the English, Americans could have devised “warage.” Instead, they chose the French source, an indication of the exotic feelings surrounding the early automobile culture.¹

As the automobile expanded into the middle-class from the exclusivity of the rich, it became a part of the commute to work and a tool, used daily, for errands and domestic chores. Millions of car owners learned to value their automobile as an increasingly important element in their everyday existence. The automobile went from being a toy for pleasure to an implement of necessity and with it, the garage too became essential. For many people, the chief concern after the purchase of an automobile, was how and where to house the automobile. In the beginning, there was experimentation with the new building type. As with all new types, there was debate about how the garages should look and where it should be located. Should it be a permanent or temporary building? Should it be considered a strictly utilitarian building and therefore physically manifest its mechanical nature? Or was it acceptable to adorn the functional garage with architectural detailing? Finally, where should the garage be located? How close or far away from the house should this new building be? The evolution of the answers to these questions mirrors the

¹ J.B. Jackson, “The Domestication of the Garage,” *Landscape* 20, no. 2 (winter 1976), 11.

evolution of the integration of the automobile into American life. As the automobile became an increasingly accepted part of American life, the garage became an architecturally significant, permanent building that emerged from its banishment in the back yard.

The Automobile Stable:

The first shelter for the automobile was the stable or coach house.² For sanitary reasons, stables were usually isolated at some distance from the dwelling in the rear of the grounds. This arrangement was seen as suitable for the automobile as well because like the horse, it produced noxious fumes, smells, noise and dirt. In addition, the early motor vehicles emitted sparks and used volatile fuel. There was immense fear of combustion; isolation of the automobile was necessary to protect the main house from threat of fire. Because early publications referring to the garage recommended housing the automobile as far away from the house as possible, the stable was seen as the ideal place for the car's storage.³ Soon, however, it became obvious that housing the automobile with the horse was an incompatible grouping. Because the automobile was considered dangerous to humans, it was also, therefore, dangerous for horses. In addition, stables were usually made of wood and this was not an ideal material to surround the spark-emitting, volatile-fuel using machines.⁴

² "English Garage Construction," *Building Age* 34 (July 1912), 92.

³ I. Howard Jones, "The Private Garage Its Design, Arrangement and Cost," *House and Garden* 4, no. 4 (April 1906), 159, "Cement Construction for the Private Garage," *Building Age* 33 (1911), 216, "A Cement-Covered Hollow- Tile Garage," *Building Age* 33 (1911), 521, "A Fireproof Garage," *Building Age* 34 (July 1912), 381 "English Garage Construction," 92

⁴ Folke Tkinlstedt, "The Automobile and the Transformation of the American House, 1910-1935," *The Automobile and American Culture*, edited by David L. Lewis and Laurence Goldstein (Ann Arbor, Michigan: The University of Michigan Press, 1983), 163

The Isolated Garage:

One of the first solutions to this new building type was the portable garage made available early in the twentieth century. "The construction is of sheet metal, there being no wooden framing whatever used. By ingenious architectural and structural methods...producing a building in 'knock-down' form which may be erected without skill and labor at small cost."⁵ These small, partly prefabricated, metal-paneled portable garages were roughly twelve feet by twenty feet and called for a concrete slab or cement block as flooring. Wood, while not recommended, often acted as a flooring material.⁶ In the beginning, portable garages were relegated to the country and suburbs. By 1917, however, the Building Code of New York City allowed for these portable garages with city limits; they were soon seen in urban areas throughout the United States.⁷ The portable garage was a quick, easy and, most importantly, inexpensive and necessary alternative to street parking.

As the automobile became more commonplace, many erected permanent structures, built specifically for housing the automobile. The first permanent garages were often mechanical sheds with no ornamentation. Because the fear of automobile-related fires persisted, garage builders paid attention to the popular press and maintained "fireproof" construction standards. Vitrified brick, cast concrete and hollow tile were used in these simple, utilitarian buildings.⁸ For those who could afford it, however, more elaborate garages were erected.

⁵ "The 'Pruden' Portable Fireproof Garage," *Building Age* 33 (1911), 193

⁶ "Portable Garage of Concrete Construction," *Building Age* 32 (June 1910), 262

⁷ "Sheet Metal Garages within the City Limits," *Building Age* 39 (1917), 37

⁸ "Cement Construction for the Private Garage," 216, "A Cement-Covered Hollow- Tile Garage," 521; "A Fireproof Garage," 381.

As with all new building types, there was experimentation especially on wealthy estates. “The most modern problem that the architect has to face is the garage.”⁹ Some architects and builders created ingenious designs; the possibilities for this new building form were limitless. Many placed chauffeur’s quarters above the garage while others incorporated squash courts and other necessities within them. A workbench was often included in the automobile room.¹⁰ On an estate, the garage was a part of the estate design, meant to be ostentatious, a sign of the owner’s prestige within society. These garages were done by architects as an accompaniment to the architecture of the main house, a Craftsman style house had its accompanying Craftsman style garage.¹¹ These garages remained at a distance from the house and strictly followed the fireproof construction standards as espoused by architecture and building magazines.

The garage as an isolated outbuilding was the mainstream solution to automobile protection. Like stables and carriage houses, the earliest garages whether portable or permanent were physically and psychologically isolated from the house and daily life. In the suburbs, the early garages were often placed towards the rear of the property, hidden behind the main house. Similarly, in cities, garages were usually set on the rear corner of a narrow lot. Alleys that were originally intended for use as secondary roads for horse-drawn service vehicles and garbage removal were now lined with small garages. The backyards of these urban lots had rarely been attractive. Fenced in and dominated by clotheslines, they were

⁸ “Cement Construction for the Private Garage,” 216; “A Cement-Covered Hollow- Tile Garage,” 521; “A Fireproof Garage,” 381.

⁹ Jones, 159.

¹⁰ Jones, 164, “A House and Garage in Milwaukee, Wisconsin,” *Building Age* 42, no. 8 (August 1920), 54.

¹¹ E.J.G. Phillips, “Car Owners Want Convenient Garage Doors,” *Building Age* 41 (April 1919), 119-21

seen as a convenient place to put the trashcan, the ashes from the furnace and of course, the backyard was the place for the dog and his house. Thus, the backyard in cities, was a source of shame. The advent of the garage completed its disgrace.¹²

A Slow Integration:

In addition to the isolated garages, there were some early examples of garage integration into the main house. Before the end of the 1930s, these incorporated garages were the exception to the rule, not an indication of a national trend. They were usually done by architects for wealthy clients and commonly were located in the suburbs. In 1904, Frank Lloyd Wright incorporated a basement garage in the Edwin H. Chevey house in Oak Park. Also in Oak Park, Tallmadge and Watson designed a house with a basement garage for T.S. Estabrook in 1908.¹³ There were early urban examples as well.

...a house which was designed by Allen W. Jackson for himself, and built in Cambridge, Massachusetts. It was necessary in this case, on account of the size of the lot of land, to build a room for a motor car in connection with the house, and as will be seen this was done at the service end of the house. This room is completely isolated from the rest of the house, being enclosed by brick walls and the ceiling and floor are fireproof, being built of Gustavino vaults.¹⁴

Similarly, in St. Louis a physician (doctors were early users of the automobile, as was described in the previous chapter), had a residence built that housed his office as well as a basement garage. This garage,

is approached by a slight incline from an alley in the rear of the dwelling. This arrangement obviates the expense of a separate building for the physician's automobile and enables him to enter and leave his

¹² Jackson, 15.

¹³ Tkinlstedt, 166-67

¹⁴ Jones, 163.

house without being subjected to the inclemency of the weather. The garage is isolated by a brick wall and a fireproof ceiling, the gasoline being stored in an underground tank in the rear of the house.¹⁵

These early examples were integrated under one roof within the house. They were, however, self-contained units. They were deemed radical, but safe, because they adhered to certain rules associated with garage construction. First, they were located in the basement where grade issues ensured the gas vapors stayed at ground level. Second, they were isolated in their own secondary space, usually connected to the house, along with the kitchen, via the service wing. Third, and most important, they were always fireproof. These early examples demonstrate extraordinary foresight and an uncommon willingness to adapt early to new conditions on the part of specific architects and clients.¹⁶

Increasingly, the automobile played a more important role in American lives and similarly, began to be incorporated into the upper class American home more commonly. Unification became the logical choice for those who could afford it. Incendiary fears were appeased by increased precautions by the automobile industry and because of the supporting evidence of early successful examples. Architecture and building magazines were promoting the increased tendency to attach the garage to the house by the late 1920s.

Garages attached to dwellings are not an undue fire risk if reasonable precautions are followed. The garage floor should be non-combustible. The garage should be separated from the rest of the building by unpierced partitions, and the ceiling constructed to meet the one-hour fire test. Walls, windows, and door must be fire

¹⁵ "A Rather Novel Feature," *Building Age* 32 (February 1910), 142

¹⁶ Tkinlstedt, 167.

resistant. A single self-closing fire door leading from garage to house may be used.¹⁷

Until after World War II, fire insurance increased with a connected garage; premiums further increased with a connecting door between the garage and house. In some places, a direct connection between garage and house was not allowed.¹⁸ Because of this, traditional architects were reluctant to incorporate the automobile into the house. Builders, too, were behind the times in realizing the importance of the automobile in their designs.

In the mid-1920s, the car began to complement the house as an indication of social position and prestige. The ultimate high-ranking was achieved with an integrated garage. Although it was more expensive to build and more expensive to insure, houses that had a direct connection from house to garage were seen by the wealthy as a way to ease domestic labor and reduce work in general. In places where fire insurance companies did not allow for this direct connection, garage-house integration was also done for aesthetic reasons: to heighten the interest of the architectural composition by producing striking or picturesque masses or rooflines. There was no ease of labor with this; it was strictly aesthetic.¹⁹ The increased cost along with the aesthetic improvements of the integrated garage and house only further secured the status-improving nature of the attached garage. For the average person, however, the increased cost of garage integration kept it a separate building on the corner of the lot.²⁰

¹⁷ "Planning the Garage," *The Architectural Record* 65 (February 1929), 196.

¹⁸ Philip Langdon, "The Garage, like the Car, Seems Here to Stay," *The New York Times* (Thursday, October 11, 1984), C10

¹⁹ Jackson, 16-19

The House Assimilates the Automobile:

In all these early twentieth century examples, the visual impact of the garage was minimized.²¹ If a garage was connected to the house, it was in the rear of the building or was tucked away in the basement, only the roofline was impacted. It wasn't until after World War II that easy access to the automobile became a key aspect of house design and not just for the well to do.²² With the realization of the innocuous nature of automobile fumes, fire insurance no longer increased. All cities began to allow direct connection from the house to garage. After WWII, the garage was brought to prominence—a huge door as the primary feature of a rambling horizontal façade. Today, however, the garage has again been given a less conspicuous position. Although in many contemporary designs the garage is still evident, often it is placed in the rear or off to the side; its impact is minimized. “This merely indicates that we have so thoroughly accustomed ourselves to living with the car that we no longer feel impelled to give it a place of honor. To put the matter another way, the house has succeeded in assimilating the automobile; it simply refrains from celebrating it.”²³

As the automobile insinuated itself ever more strongly into our lives, it was inevitable that the car would come home to “live” with us. Did this have any affect on the way we live? It obviously affected the physical architecture of a community. But did it not also change the standard layout of a house? And thus, the way we live

²⁰ Tkinstedt, 167.

²¹ J Randall Cotton, “The Great American Garage. Part I,” *The Old House Journal* 14, no. 7 (September 1986), 335.

²² Philip Langdon, “The Garage, Like the Car, Seems Here to Stay,” *The New York Times* (Thursday, October 11, 1984), C10.

²³ *Ibid*

within it? Whereas before there was a front porch and parlor, now there was a garage.

As the car and its garage became integrated into the house proper, it rearranged the plan of the house and displaced the front porch and the parlor. In the earliest years of the automobile, the front porch still functioned as the buffer zone between the privacy of the house and the communality of the neighborhood. Likewise the parlor was always in the front—where people met, socialized and gathered. The parlor and the front porch supported a formal style of life in which the progression of architectural spaces—front porch, hall, parlor, library, dining room—were related to increasing degrees of intimacy. The automobile and the individual mobility it provided contributed to a less formal life- style... The car broke down formal barriers.²⁴

The attached garage disrupted the previously accepted architectural sequence of residential spaces. A house in which the garage served as an entrance was considerably less likely to support a formal life style than one in which the front door opened to a front parlor designed for reception. Whereas the automobile went from an instrument of pleasure to one of utility, with the garage, the house evolved oppositely: it went from a place of the utility of edification to one of the frivolity of fun. The garage, by breaking down physical barriers, and the automobile, by breaking down social barriers, brought about these changes to the house and to society.²⁵ There was more time for fun and there was an easy way to get to the fun with the advent of the automobile. The garage, in addition to enabling the shift from formal to an informal lifestyle, also provided a place to store the equipment that supplemented the fun: the tennis rackets, picnic baskets and bicycles. An indicator of changing social customs, the garage progressed to prominence.

²⁴ Tkinlstedt, 161-162

²⁵ Jackson, 15-16

Although the popular press was speaking of the automobile and the internal garage, there is little physical evidence that architects or planners recognized the existence of the family automobile in the years between WWI and WWII. The internal garage remained confined to the realm of the wealthy until after WWII. Cost largely prohibited the middle-class from enjoying this luxury. Many well-intentioned designs for moderately priced houses were published during the 1920s and not a few of them received awards; yet, scarcely one of them seemed to have thought of the garage or of overnight parking. Radburn, a development in New Jersey designed in 1928, is perhaps the first sign we have of awareness of the garage as an essential adjunct to the dwelling—and even there it was segregated and hidden from view.²⁶ Unusually builders, architects and planners were not establishing the demand, as is usually the case; instead, they were reacting to a demand the public created.

Throughout the early decades of the twentieth century, the garage was a developing building type, a reflection of the American urge to experiment. There were a large variety of forms, styles and locations created in the early years of the garage. A wide range of forces shaped the evolution of this new family building type: new perceptions of the aesthetic and functional relationship of garages to both residence and landscape, the expanding ownership of the automobile from the wealthy to the middle class, changing building codes and insurance requirements, changing attitudes towards car-ownership and the switch from a less formal to a more pleasure-driven American culture. As fears about the safety of automobiles subsided, the garage moved from its isolation in the backyard to integration into the

²⁶ Ibid

main house. In the beginning, this integration belonged exclusively to the wealthy. As building and insurance codes evolved, however, the middle class was able to afford a home with an integrated garage. This didn't happen on a wide spread basis until after WWII. But the affects it had, in further encouraging a more informal society, had begun early and can still be felt today.

It was in this context that the Cobbs Creek rowhouses were erected. It was uncommon to make arrangements for the automobile in 1915. This was especially true given the fact that Philadelphia was an urban environment and that the houses built here were done on speculation for a middle class clientele. It was even more rare to integrate the garage within the main mass of the house until the late 1930s. Yet, in West Philadelphia in the three study blocks, these innovative designs were twenty years ahead of standard practice.

Chapter Three:

PHILADELPHIA: FROM THE CITY OF BROTHERLY LOVE TO THE CITY OF HOMES TO THE MODERN DAY CITY OF NEIGHBORHOODS

"These common names of great cities are seldom given without good reason...the very influence that makes it the "City of Homes" is calculated to perpetuate it as the "City of Brotherly Love."

--Addison B. Burk, "The City of Homes and Its Building Associations," 1881

"After its introduction in the first years of English colonization, the row house grew until its presence dominated the city completely. Even today it constitutes the outstanding architectural feature of the area."

--William J. Murtagh, "The Philadelphia Rowhouse," *Journal of Architectural Historians*, XVI, 4

A Philadelphia Tradition:

From its earliest days in the seventeenth century, Philadelphia has been a city of home ownership, a reputation that since the end of the nineteenth century, has impelled the moniker, "Philadelphia: The City of Homes." Begun with the plan established by Penn and his surveyor Thomas Holme, Philadelphia, unlike other cities, was a city of small dwellings where individual families were housed in individual units. When he founded the city of Philadelphia in the seventeenth century, Penn envisioned a green city in which houses would be nestled into gardens and orchards. His ideal never materialized. Instead, his green city evolved red very quickly; densely packed, individual brick rowhouses lined both sides of the streets and became the standard house type for Philadelphia. From its founding,

Philadelphia was a city in which the average person owned his own home. For several reasons—the ground rent system, building societies and geography—this trend continued through the eighteenth and nineteenth centuries with two and three story rowhouses occupied by a single family dominating the urban landscape. When twentieth century developers began to create the streetcar and automobile suburbs of the city, they maintained this tradition of rowhouse construction by converting undeveloped land into row after marching row of houses. Although some have complained that the endless rows of houses provided little architectural interest, the beauty of rowhouse design in Philadelphia had little to do with aesthetics and everything to do with economics of the design. Building in large quantities, as was the practice at the beginning of the twentieth century, created a cheaper product. The result: the rowhouses of the early twentieth century were affordable for the middle class in Philadelphia. Philadelphia led the country in home ownership since the 1880s. This tradition was established in the seventeenth century and continues today. “Housing in Philadelphia for almost 300 years has spread over the land. We keep our feet on the ground neither burrow underneath, nor wall ourselves away from the sunlight in gloomy rooms, nor aspire to the realms of the smokestacks.”¹

The Penn Plan:

In 1681, William Penn arrived on the shores of the land around the modern day Philadelphia. This area was granted to him from King Charles II of England. Before arriving, he had planned the type of settlement which was to be founded,

¹ Bernard J. Newman, “Homes for \$1 a Day: What the Rest of the Country Can Learn from Philadelphia,” *American Builder* 48, no. 2 (November 1929), 71.

both the social culture and physical make-up of his new community. Since Penn wanted the settlement to be physically different from the congested cityscape of London from where he had come, his surveyor Thomas Holme created an organized gridiron plan set down between the Delaware and the Schuylkill rivers. The city was laid out in large blocks created by broad streets. The blocks themselves were divided into building lots large enough to be healthful and small enough to be within the reach of people of moderate means. Instead of narrow, winding, criss-cross streets so common in early settlements, there was uniformity about the city that Penn planned. Interspersed with these developable blocks were squares set aside for green spaces and parks or breathing areas. From the beginning, however, rapid growth of the area forced changes upon the original plan. Philadelphia quickly became the largest and wealthiest port in the colonies. Because of this explosive growth, Penn's dream of a city of single homes and open gardens was never realized. Instead, traditional building habits and increased land values forced the break up of the super blocks into smaller, narrower lots more suitable to urban rowhouse construction than to single dwellings. The rowhouse became the dominant building type, as it had been in London and the other European cities from which the new inhabitants emigrated. After its initial introduction, the rowhouse grew until its presence dominated the city completely. Although Penn's green dream of gardens and orchards was never realized, the individual home ownership part of his equation was fulfilled.²

² *Philadelphia: Past Achievements, Present Greatness and Future Possibilities* (Philadelphia: The Philadelphia Chamber of Commerce, 1924), 11-12, William John Murtagh, "The Philadelphia Row House," *Journal of Architectural Historians* 16, no 4, 4

Ground Rent:

The second reason for the early and pervasive system of individual home ownership in Philadelphia was the practice of ground rent. Instituted in the seventeenth century, the ground rent system was the primary reason that home ownership was the rule, not the exception. Typically, a landowner would build a house for himself on the front half of his large parcel, as plotted by Penn's plan. Instead of putting a garden in the back portion of his lot, however, most landowners subdivided their land and rented it out in smaller units. Renters could then build rowhouses on these smaller units. Although these houses were usually extremely humble—two story, one room deep dwellings—this system enabled very poor men to acquire title to a plot of ground and erect a home which they owned. The ground was rented; the house owned by the builder. Without this practice, most would have been unable to purchase land and build their own home. Subdivision of larger parcels was done so consistently that rowhouses became the norm. The front part of a lot contained the large, townhouse-style rowhouses of the landowners. The back part of the lots, abutting the secondary streets on which Penn had envisioned gardens and open spaces, instead contained the smaller, more numerous rowhouses. This was usually done with a ratio of two rowhouses in the back to the one in the front. Sometimes, however, the ratio was higher. The land renters were secure against eviction as long as they paid the very moderate rent for their lot. More importantly, though, these land renters were the owners of the homes they built.³ This practice enabled the general public to build, inhabit and *own* its own house.

³ Addison B. Burk, "The City of Homes and Its Building Associations," Abstract of a Paper Prepared by Request of the Philadelphia Society for Organizing Charity (Read Before the American Social Science Association, Saratoga September 9, 1881), 1.

From the beginning in Philadelphia, this, along with Penn's plan, established a precedent of home ownership, as well as a trend towards rowhouse construction, which continues today.

Building Societies:

As Philadelphia expanded into the nineteenth century, the ground rent system ceased to be the norm. It was no longer viable because of increased land values. Building societies, established in the 1840s, filled the gap left by the demise of the ground rent system. Building societies were co-operative savings funds. A number of members would get together and form a society by contributing a small amount of capital, often \$200, into a fund. Members could then borrow from the fund to invest in home construction and improvements. In return, borrowing members agreed to pay interest on the loan to the society as well as put their shares up as collateral on the loan. Members contributed annually; thus, the fund perpetuated. These societies were a win-win situation. Members, who were also investors, got an annual return on their money. While those members who borrowed money were able to build a house, something they could not have done without borrowing money. In addition, the swelling market of homes caused by hundreds of these societies stimulated a substantial increase in the demand for home construction. This further increased the profitability of the building societies. In the nineteenth century, building societies were formed, driven by the local custom of home ownership made increasingly difficult with the demise of the ground rent system. They not only perpetuated home ownership; they also stimulated it. By the

end of the century, Philadelphia led the nation in home ownership,⁴ largely due to these societies.

Geography:

The final reason for the uniquely strong system of home ownership in Philadelphia was its geography. Unlike a city like New York, Philadelphia's boundaries could expand in three directions, permitting horizontal rows rather than high-rise, vertical expansion.⁵ As the city grew, most houses, whether large or small, were built to accommodate one family. Even when property prices had increased with the ever-expanding, industrial city, when rental dwellings had to be provided, fashion, habit and prejudice still impelled each family to have its own dwelling complete in itself. By force of local custom, rental rowhouses were built, not rental apartment buildings, extending block after block in all directions.⁶ "We erect small houses and strive to bring them down to the economic reach of the average family budget, exalting the ideal of the individual home, with its privacy sunlight and ventilation. Philadelphia has not as yet gone up in the air to house the major parts of its population. In no one year in its history has it erected as many as one hundred buildings of this type."⁷

The Rowhouse Tradition:

Philadelphia was not the only city to have rowhouses. In fact, every major city had its own form of the rowhouse; it is an ancient tradition.

⁴ Thomas R. Winpenny, "The Nefarious Philadelphia Plan and Urban America: A Reconsideration" *Pennsylvania Magazine of History and Biography* (January 1977), 108

⁵ John F. Sutherland, "The Origins of Philadelphia's Octavia Hill Association: Social Reform in the 'Contented' City," *The Pennsylvania Magazine of History and Biography* 44, no. 1 (January 1975) 21

⁶ Burk, 2.

⁷ Newman, 71.

The rowhouse has an ancient origin and appears in large areas of cities of all sizes and cultures. The rowhouse can perhaps even be considered the original urban house—a response to the primordial urban conditions of concentration and competition for space. As William Wurster noted on his world travels in 1957 when he saw an immense diversity of the urban rowhouse form, claimed, “The rowhouse is a universal building form. It is a wonderful, low-key tradition that may have more meaning today.” He called attention to the great reliance on row housing as a vernacular tradition in most of the villages and great cities of Europe and Asia.⁸

In Philadelphia, however, the total dominance of this urban house type for three hundred years is, in fact, unique. It was the *Philadelphia* rowhouse that was unveiled at the World’s Colombian Exposition in Chicago in 1893, as the model urban house.⁹ In the first two hundred years of the city of Philadelphia, these rowhouses were usually built singularly. Land would be acquired either through ground rent or purchase and an individual would erect a house for his family. This practice continued into the second half of the nineteenth century when industry began to provide housing for its workers. Like that which had been done in the seventeenth century for mill workers, companies provided housing for their employees. In Philadelphia, swaths of previously open land were converted to rows of workers’ housing. These were usually built about a dozen at a time and were two story brick dwellings, set back with a small front yard and porch. These rowhouse neighborhoods, built by industrial factories, always had a market—the employees of the company—and they maintained the Philadelphia tradition of one family per unit. The newly built-up industrial areas and their associated workers housing

⁸ Dennis J. Dingemans, “A Renaissance for the Row House: Urbanization of Suburbia,” *HUD Challenge* 8, no. 9 (September 1977), 4

caused a great expansion of the city. As before, this expansion was horizontal. In 1880, there were 5.79 people per dwelling in Philadelphia, this as opposed to New York City where there were 16.37 people per dwelling. Ten years later in 1890, there were, on average, 1.10 families per dwelling in Philadelphia.¹⁰

In the last years of the nineteenth century and the beginning of the twentieth century, spectacular technological innovations—in mass transit and electricity—radically altered the shape of the city. The electric trolley was introduced in Philadelphia in 1892; by 1897, all horse drawn trolleys were converted from horse to electricity.¹¹ This, plus the availability of open land, allowed the city to continue the outward expansion begun in the second half of the nineteenth century.¹² This growth occurred radially, along trolley lines. Between 1890-1930, the population of Philadelphia doubled.¹³ The population in 1900 was 1,300,000; by 1920, it was 1,800,000.¹⁴ During the front half of the population boom, the new city inhabitants moved to new streetcar suburbs where there was, for the first time, the ability to deliberately create residential communities that (for men at least) were spatially separated from the workplace.¹⁵ With the advent of the automobile in the latter half of the forty-year population explosion, the new inhabitants moved into new automobile suburbs.

⁹ Tal Golomb, "A West Philadelphia Story: The American Dream and its Aftermath on 52nd Street," Senior thesis (University of Pennsylvania, 1998), 22.

¹⁰ Winpenny, 108-09

¹¹ Fredric M. Miller, Morris J. Vogel and Allen F. Davis, *Still Philadelphia: A Photographic History, 1890-1940* (Philadelphia: Temple University Press, 1983), 171.

¹² *Philadelphia Architecture: A Guide to the City*. Prepared for the Foundation for Architecture, Philadelphia by the Group for Environmental Education Inc. (Cambridge, Massachusetts: The MIT Press, 1984), 88

¹³ Miller, 171

¹⁴ *Philadelphia Architecture*, 88

From Custom Houses to Mass Production:

During the beginning of the twentieth century with the population boom, rowhouse construction for the new streetcar and automobile suburbs was not done individually or even in sets of dozens as it had been with industrial workers' housing. Instead, rowhouses were built, on speculation, in multiples of twenty-five—the number that would typically fit on a small block.¹⁶ Often a single developer built block after block in this fashion, on ground obtained in sections of about five acres, establishing an entire new neighborhood. This dramatically drove down housing prices. Similar to the mass production system of Henry Ford, rowhouse construction became remarkably efficient. For uniform rows of houses, the specifications for each subcontractor were extremely systematized. Because of this, the work could be done at a very low figure when compared to the cost of building a single house. There were impressive savings in both labor and building materials. This was passed down to the buyer, enabling a worker with a modest income in 1910 to purchase a two-story, brick rowhouse with four rooms and a bath for an average price of \$1,750.¹⁷ By 1920, the average price of a house in Philadelphia was \$5,032. This was below the average price for houses in the other top ten large cities in the nation where \$6,582 was the norm. At this time, the home seeker in Philadelphia whose annual income was at least \$1,800, a modest salary then, could find a wide choice of newly built houses of attractive layout and well-equipped at sales prices beginning as low as \$4,000, or \$800 per room.¹⁸

¹⁵ Margaret Marsh, *Suburban Lives* (New Brunswick and London: Rutgers University Press, 1990), 91

¹⁶ Miller, 232

¹⁷ Winpenny, 111

¹⁸ Newman, 72

It is possible in Philadelphia today for home buyers, in the income ranges of \$25.00 to \$40.00 a week to secure modern, attractive well-built dwellings to relieve household drudgery, replete with the conveniences and frills that delight the average housewife, and located in areas within easy reach of car lines to commercial and industrial centers of the city.¹⁹

The highly efficient system of rowhouse construction developed in Philadelphia at the beginning of the twentieth century resulted in neighborhoods of houses that were affordable. People of moderate means could afford to purchase one of these houses built on speculation. Building societies were no longer needed. As with the automobile, mass production of houses brought home ownership within the means of the average citizen.

Philadelphians are pretty well accustomed to being twitted about their mathematically straight streets, crossing each other at right angles, about their red and white houses, so much alike strangers cannot tell one block from another, except by the names of the streets. But he laughs best who laughs last, and Philadelphians dwell in their cleanly, separate dwellings, with complacency, and study the health bulletins that tell them theirs is one of the healthiest cities in the world, without envying their neighbors who think that outside decoration is the only or chief end of architecture.²⁰

In 1910, over a quarter of the families in Philadelphia owned homes with many thousands more paying off relatively short-term mortgages. 90% of these families were housed in the typical two and three story rowhouse. In 1920, there were 1.14 families per dwelling in Philadelphia; 39.5% of these families owned their house, as opposed to the national average in the ten largest cities with an average of 25.3% families owning their own home.²¹ By 1930, with Philadelphia's population

¹⁹ Ibid., 73.

²⁰ Burk, 1.

²¹ Winpenny, 108-09.

having grown to nearly 2,000,000, the percentage of home owners jumped to just over half of Philadelphians owning their own home. There were over 400,000 one family dwellings with over 80% of the families in Philadelphia living in them.²² Only 20% of Philadelphia families lived in apartments. Again, this is striking when compared to the other large cities in the United States where only 40% lived in houses and 49% lived in apartments.²³ In Philadelphia, houses built after 1890 were more commonly owner-occupied. Renters more often lived in the houses built before 1890.²⁴ Thus, the new housing boom further strengthened the custom of home ownership in Philadelphia.

When Philadelphia was founded in the seventeenth century, Penn wanted to create a different city than he had known in Europe. Although physically Philadelphia resembled the old world cities with their rows and rows of houses, it differed because these houses were, from the very beginning, owner occupied. This was result of over three hundred years of custom and tradition. When in the twentieth century developers came along, they continued the established trend of rowhouse construction and designed neighborhoods of houses that the average person could afford. Frank Lloyd Wright once said, "In America each man has a peculiar, inalienable right to live in his own house in his own way."²⁵ In Philadelphia, this was possible.

When the area of West Philadelphia around Cobbs Creek became available for development, given this context of a strong tradition of rowhouses and individual

²² Newman, 71.

²³ Winpenny, 109

²⁴ Miller, 227.

²⁵ Jan Cohn, *The Palace or the Poorhouse: The American House as a Cultural Symbol* (East Lansing, Michigan: The Michigan State University Press, 1979), 89

home ownership, custom drove the construction of rowhouses that were affordable to the middle class. The two developers continued the tradition but did it with a twist. From the front, these twin rowhouses looked like the standard Philadelphia house type. In the rear, however, where accommodations were made for a garage, the difference was evident.

Chapter Four:

THE COBBS CREEK NEIGHBORHOOD: A REVOLUTION IN ROWHOUSE DESIGN

“Architecture is the visible expression of the habits of life, thought and culture of the generation that creates it...”

--George Morgan, *The City of Firsts*, 1926.

“The human desire of a minimum of effort, for conveniences, for companionship, are as strong and compelling today as they were in Franklin’s day, but the automobile apparently has put them within our reach without over crowding.”

-- John Ihlder, “The Automobile and Community Planning,” 1924.

Three Innovative Blocks:

In 1915, three innovative blocks of rowhouses and twins were constructed in the Cobbs Creek neighborhood in West Philadelphia. Two developers incorporated the automobile into a traditional urban house type, forever changing rowhouse design in the city of Philadelphia. These houses with their rear and basement garages were done on speculation and were aimed at a middle class market. Located on the site of the dismantled nineteenth century Sellers’ Burnside Mill along Cobbs Creek on what became the 6200 blocks of Christian and Carpenter Streets and Washington Avenue, these rowhouses incorporated technology with urban residential design and created the beginnings of the first true automobile suburb in Philadelphia.

Suburbanization of West Philadelphia:

Suburbanization, in the sense of deliberate creation of residential communities that were spatially separated from the workplace, came later to Philadelphia than to other large cities. Although Philadelphia had begun to decentralize in the early nineteenth century, the first true residential community within the city was not created until the end of the nineteenth century. This happened in West Philadelphia where the city's first mass dormitory community was created.¹ A result of the enormous population boom at the end of the nineteenth century and the first decades of the twentieth, the city of Philadelphia expanded its boundaries into previously undeveloped territory. The trolley enabled this incredible growth. Electrification of the trolley system, completed by 1897, allowed the system to grow further and more new neighborhoods to be constructed.² In 1907, the Market Street subway-elevated from 69th Street to downtown further stretched the boundaries of West Philadelphia. With the completion of this new line, the area west of 50th Street was transformed from farmland into substantial neighborhoods, offering a quasi-suburban alternative for the city's clerks and skilled laborers.³ The population of Philadelphia dramatically increased in the period between 1900-1930. In West Philadelphia, the population exploded. In a twenty-year period, between 1910-1930, the population doubled.⁴ The spectacular rise in population resulted in a boom in housing construction. Over 100,000 homes were erected in Philadelphia

¹ Margaret Marsh, *Suburban Lives* (New Brunswick and London: Rutgers University Press, 1990), 91.

² Fredric M. Miller, Morris J. Vogel and Allen F. Davis, *Still Philadelphia: A Photographic History, 1890-1940* (Philadelphia: Temple University Press, 1983), 171.

³ Marsh, 92.

⁴ *Philadelphia Architecture: A Guide to the City*. Prepared for the Foundation for Architecture, Philadelphia by the Group for Environmental Education Inc. (Cambridge, Massachusetts: The MIT Press, 1984), 88.

during this time. West Philadelphia gained 50,000 of these homes, the overwhelming majority of which were two-story, brick row or twin houses.⁵

Philadelphia Adopts the Automobile:

The electric trolley was responsible for a certain amount of the expansion of Philadelphia and particularly of the West Philadelphia area. However, ridership of the mass transit system peaked in 1915 and the city continued to grow. Although it was an enormous system which at its apex had eighty-six routes and six hundred miles of track, after 1915 ridership declined. There was an increasing dissatisfaction with the trolley system. Philadelphia's narrow streets and grid layout meant every main street had trolley tracks; it was impossible to escape. Its omnipresence increasingly caused traffic jams. Because it was an expensive system to maintain, prices were continually rising. Trolley cars broke down; there were frequent delays.⁶ In the second decade of the twentieth century, the trolley system began to be seen as inefficient and disruptive. Rather than an asset, the trolley was increasingly seen as an obsolete, unruly octopus whose tentacles had unfortunately enveloped the city.

While dissatisfaction with the trolley system cannot be denied as a factor in the decline in ridership, it was the automobile that truly transformed transportation in the city of Philadelphia. Concomitant with the increasing discontentment with public transportation, the automobile was becoming affordable to a larger segment of the population. Henry Ford's mass production brought the automobile into the realm of the middle class. This was not just happening in Philadelphia but was a

⁵ Miller, 225.

⁶ Ibid , 171-179

national trend. However, in other cities, public transportation ridership did not decrease until after World War II, long after the automobile was made affordable.⁷ In Philadelphia, the increase in the automobile fed off the decrease in the ridership of public transportation. People in Philadelphia could afford cars, bought them and used them. As more and more automobiles tried to join the trolleys on the grid pattern of Philadelphia, there were more traffic jams; more and more delays occurred. This increased the opposition to the trolley system, which ultimately, it cannot be denied, increased the attractiveness of the automobile to the Philadelphia public. The automobile and the trolley had an inverse proportional relationship in Philadelphia; as the use of one went up, namely the automobile, ridership of the other went down. This resulted in many, many automobiles on the streets relatively early in the history of urban automobile use. While in other cities public transportation kept automobile numbers down, in Philadelphia, the opposite occurred. The failing public transportation system helped to increase the numbers of cars on the streets.

The period after 1910 saw the transformation of the automobile from an upper class toy to a middle class necessity. Between the mid-teens and the 1930s, mass transit did not increase while automobile ownership skyrocketed. Philadelphia had its first automobile in 1899. By 1908, there were 25,000 automobiles in Pennsylvania. Philadelphia marketed itself as an automobile destination as early as 1908, when a local mapmaker colored the city's widest streets in red and labeled them automobile routes.⁸ When WWI ended, there were nearly

⁷ George Thomas, "Cobbs Creek Automobile Suburb Historic District," National Register of Historic Places Nomination Form, section 8, 5.

⁸ *The Automobile Road Guide, Official Street Map of Philadelphia* (Philadelphia 1908).

100,000 cars and 7,000 trucks on Philadelphia streets. In 1925, there was roughly one automobile per thirteen people. 1930 raised the number of cars to 250,000 with 40,000 trucks. By 1930, the automobile had come within the reach of all Philadelphia families, including the working class. A 1934 survey claimed that one in seven workers drove to work in Philadelphia. By 1940, there were over 400,000 drivers' licenses in Philadelphia and 50,000 truck licenses.⁹

Between 1918 and 1930 the number of cars in Philadelphia increased from 100,000 to 250,000.¹⁰ Although through the early 1920s, the automobile industry viewed the private car as a rural and suburban vehicle, not as an urban machine, Philadelphians embraced the automobile. The growing number of private cars meant the end of city life as generations had come to know it. The passing of the nineteenth century was viewed with pleasure. It meant that the social costs of the industrial society might be reduced by a means—the automobile—which enabled escape from industry to a residential neighborhood.¹¹ The automobile strengthened the trends first set in motion by the revolution in public transit with the electrification of the trolley system: trends of physical growth, neighborhood specialization and declining density. The city expanded and with this spreading out, density decreased. Neighborhoods became more specialized by use and increasingly isolated. Begun in West Philadelphia, the trend of bedroom communities increased as the automobile allowed for greater division of the city into areas of work and areas of residence:¹² "... more and more who could afford to, moved away from work

⁹ Miller, 174-278

¹⁰ *Philadelphia Architecture*, 89.

¹¹ Paul Barrett, *The Automobile and Urban Transit: The Formation of Public Policy in Chicago, 1900-1930* (Philadelphia: Temple University Press, 1983), 139-40.

¹² Miller, 175.

and set up their homes at a distance made accessible by the new means of transit, the automobile.”¹³

The Cobbs Creek Parkway:

In 1908, the Mayor of Philadelphia, John Reyburn, called for a plan for the future growth of the city. This was the beginning of great growth for Philadelphia and no plan existed to structure this expansion. Reyburn’s announcement resulted in the City Parks Association’s “Comprehensive City Plan of 1909.” Due to the Association’s open space focus, its plan for the city incorporated open spaces into its transportation and future growth model. The plan called for new roads to be constructed in the open areas along many of the rivers and creek beds located within the city limits. Because these new roadways would be a departure from the Philadelphia grid pattern, they were seen as a way to ease the flow of traffic. In addition, the new roads would also be parkways adjacent to and connected with newly established public parks. The Association’s parkway idea was modeled after Frederick Law Olmsted’s nineteenth century plans that linked public parks with the central city by a system of parkways. Olmsted’s plans, done in Minneapolis, Minnesota and Rochester, New York, provided areas of recreation for urban residents while also supplying a means to access them with a corresponding parkway. In Philadelphia, these new parkways would ensure that all city residents, even those in the previously industrial outer areas of the city, would have access to a park.¹⁴ One area chosen for a new park and parkway was the area of West Philadelphia by Cobbs Creek.

¹³ *The Automobile, Its Province and Problems: The Annals* CXVI, ed. Clyde L. King (November 1924), 199

¹⁴ Thomas, “Cobbs Creek Automobile Suburb Historic District,” Section 8, 3-5.

Cobbs Creek derived its name from William Cobb, an early English settler who owned much of the land around the creek. In the seventeenth century, he established a mill along the creek, a tradition that continued through the nineteenth century when the Sellers family operated a prosperous mill in the same location.¹⁵ With technological advancements, the Sellers' Burnside Mill became obsolete and closed its doors. In 1904, the Sellers' family gave some of its land to the Fairmount Park Commission to establish a park. On June 27, 1904, the commission adopted an ordinance "to place upon the City Plan a drive or parkway along the eastern bank of Cobbs Creek and to place upon the plan tracks of ground as open to the public between said avenue and Cobbs Creek for the health and enjoyment of the people."¹⁶ By 1907, much of the park was established.¹⁷

In 1911, the city of Philadelphia sponsored a Comprehensive Plan to follow up on the finding of the 1909 plan done by the City Parks Association. This plan, like the 1909 plan, called for the perpetuation of a number of automobile parkways, including the one along Cobbs Creek with its nascent park. The 1911 plan continued the designs for Cobbs Creek Parkway as a roadway linking West Philadelphia with Center City. Construction began in 1911.¹⁸ In 1924, the Fairmount Park Commission adopted a resolution recommending the acquisition of a thirty-acre tract of land on the Delaware County side of Cobbs Creek between Baltimore and Woodland Avenues to protect the Cobbs Creek Parkway against

¹⁵ *Philadelphia Inquirer* (January 24, 1953), "Cobbs Creek Park" Folder

¹⁶ "Cobbs Creek Park" Folder

¹⁷ *Ibid*

¹⁸ Thomas, "Cobbs Creek Automobile Suburb Historic District," Item 8, 2-7

encroachment. Thus, as the Parkway aged, the city continued to invest in it as a beneficial resource for urban residents.¹⁹

The Cobbs Creek Neighborhood:

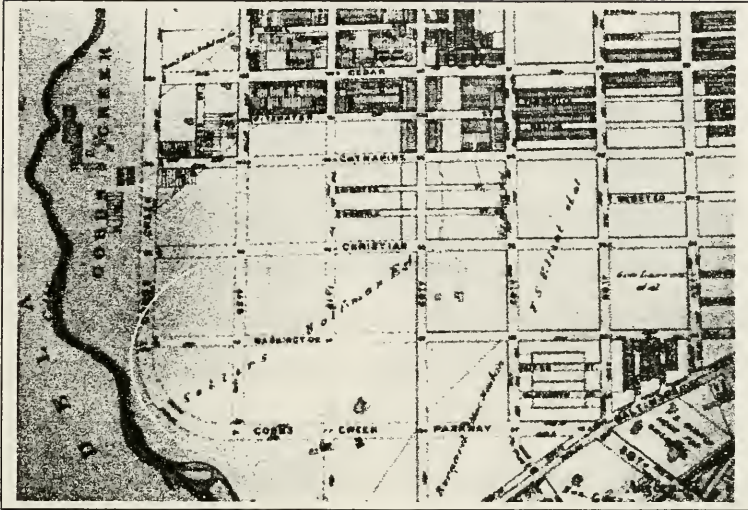


Figure I: G.W. Bromley map of the Cobbs Creek area, 1910. Note the not yet completed Cobbs Creek Parkway and the absence of Carpenter Street between Christian Street and Washington Avenue. Study area is highlighted.²⁰

Once construction began on the Parkway in 1911, the area immediately adjacent to it was ripe for development (see Figure I, above). Between 1913 and 1915, two developers bought the land from the Sellers family to create a new neighborhood. In 1915, in the three-block area of Christian and Carpenter Streets and Washington Avenue (see Figure I, above), two agencies changed Philadelphia rowhouse design forever. One developed forty-four houses; the other built ninety-two. One employed a famous Philadelphia architect; the other did not. The blocks

¹⁹ "Cobbs Creek Park" Folder

were erected simultaneously and all incorporated garages into their designs. As tradition in Philadelphia dictated, rowhouses, or the twentieth century equivalent, twins, were developed. Similarly, as was typical at this stage of development in the city of Philadelphia, these rowhouses were done on speculation and at \$4,000 per house, were aimed at the middle class.

Ca. 1915, Schuylkill Realty Company hired E.A. Wilson, master rowhouse architect, to design a block of twin rowhouses on Christian Street between 62nd and the newly developed Cobbs Creek Parkway. Wilson was a well-known Philadelphia architect who specialized in middle class residences.²¹ He designed hundreds of homes in the Philadelphia area; in fact, today his name is almost synonymous with the West Philadelphia rowhouse.²² On the 6200 block of Christian Street, Wilson created forty-four of the standard Philadelphia two story twin rowhouses. Done in the arts and crafts style in tan, gray and red brick, these houses were ideally suited for a middle class family. The second story bays had pressed metal sheathing while the roofs were of terra cotta or slate. Small, elevated yards accompanied the primary façades. The rear of these twins, however, was what differentiated them from what was being constructed in the rest of the city. On this street, Wilson added a method of housing the automobile within his residential design. On this street, he constructed garages (see Figure II, next page).

²⁰ G W Bromley and Company, *Atlas of the City of Philadelphia, 1910* (Philadelphia: G W. Bromley and Company, 1910), plate 24.

²¹ Pennsylvania Architectural Inventory, 6100 block of Ellsworth.



Figure II: Rear twin garages, in matching arts and crafts style, on the north side of the 6200 block of Christian Street.

On the north side of the street, due to earlier development in the area, Wilson created freestanding garages, accessed by a shared driveway, nestled between each set of twins (see Figure II, above). These paired, single garages were done in the same arts and crafts style as the rowhouses. Because the developer wanted the maximum number of houses on each block, the driveways to each pair of garages were precariously narrow. This solution, if slightly awkward, was forced upon the architect because of the preexisting development. In order to accommodate the automobile, the rear garage was the only solution. As early as 1915, any inclusion of the automobile in planning was rare, especially in an urban environment. This was made even more exceptional by the fact that these twins with rear garages were built on speculation for middle class families. They were not built at the request of a wealthy client, as was usually the case at this time when a garage was built. On the north side of the 6200 block of Christian, Wilson was handicapped by previous

²² Philadelphia Historical Commission Memo, "Cobbs Creek Folder "

development. On the south side, however, he had no such hindrance. Here, as well as on the other two blocks that were developed at the same time, the real design innovation occurred.

On the south side of Christian Street, Wilson not only made accommodations for the automobile; he made them under the same roof as the house. He incorporated rear garages at the basement level that were accessed by an alley, which ran the entire length of the back of the block. As on the north side, these houses looked like the standard two-story twin. They were the same arts and crafts styling of the north side; from the front, they looked identical to what existed across the street. The integrated garage in the back, however, distinguished them from the others. Because there was no previous development adjacent to this side of the street, Wilson created the rear alley that made these garages possible. This service road opened on both sides, at 62nd and at Cobbs Creek Parkway, and allowed for Clarence Siegel, the developer of Carpenter Street and Washington Avenue to the south to similarly incorporate the garage into his designs (see Figure IV, page 57).

H. LeRoy Webb bought the forty-four houses on Christian Street designed by E.A. Wilson in 1916 for \$120,500. Webb then sold them individually for \$4,000 per unit.²³ Many of the initial purchasers of the houses were still residing in the neighborhood in 1920 when the Fourteenth United States Census occurred. The 1920 census showed the 6200 block of Christian as solidly white and middle class. On this street, the residents were born in the United States, as, most commonly, were their parents. All range of occupations were represented on the street including, a construction engineer of a shipyard, a homebuilder, a leather goods

²³ Philadelphia Deed Book JMH, no 93 (December 4, 1916), 456.

manufacturer, a wholesale merchant and a chiropractor, among others. The owners who bought these houses, as the Census information attests, were of the middle class, but they were also probably in the upper middle class segment. They were able to afford these average-priced houses but they were also able to afford the increased insurance that probably went with the integrated garage. A father, mother and children occupied most of the houses although in-laws and grandparents were quite common. There were the occasional servant and/or boarder but largely, a single family occupied the house.²⁴

Simultaneous to the construction of Christian Street, the 6200 block of Carpenter Street and the same block of Washington Avenue were similarly being developed ca. 1915. Clarence R. Siegel, a young developer, bought this undeveloped land from an intermediary, I. Clarence Pennington, who purchased the land from the Sellers family. Siegel paid \$242,800 with the understanding that he would put up at least eighty-eight houses with mortgages of \$4,000-\$4,250.²⁵ The ninety-two buildings he constructed were all the same. Similar to that which was designed by Wilson one block to the north, Siegel developed twin rowhouses that were three stories. Both Siegel and Wilson stuck not only to the standard two and three-story twin rowhouse design, they also remained within the conservative styling that distinguished Philadelphia architecture. Philadelphia designers typically worked in conservative modes based on English and American colonial sources (See Figure III, next page).²⁶

²⁴ Fourteenth Census of the United States, 1920 Population, 46th Ward, Enumeration District 1777.

²⁵ Philadelphia Deed Book ELT, no 520 (August 13, 1915), 465.

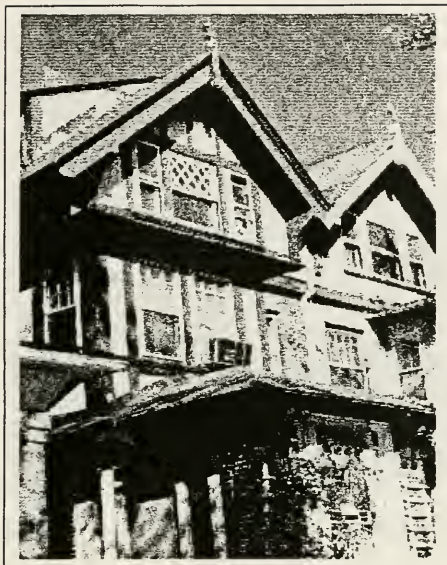


Figure III: The Siegel twin rowhouses of 6200 blocks of Carpenter Street and Washington Avenues.

On Carpenter and Washington Streets, Siegel invoked the arts and crafts style with alternating tan brick, stucco and tile ornamentation and red brick with English half-timber designs (see Figure III, above). Like Wilson, Siegel included a raised front yard and most importantly, a rear basement garage. On the north side of Carpenter Street, the Siegel houses shared the rear alley with Wilson's south side houses. Similarly, the south side of Carpenter and the north side of Washington shared a rear alley. As in the block above, these alleys had access both on the 62nd Street end and on Cobbs Creek Parkway (see Figure IV, next page and Figure V, next page).

²⁶ George E. Thomas, "Garden Court," National Register of Historic Places Inventory—Nomination Form (March 6, 1984), Item 8, 3



Figure IV: Typical rear alley servicing the basement garages.

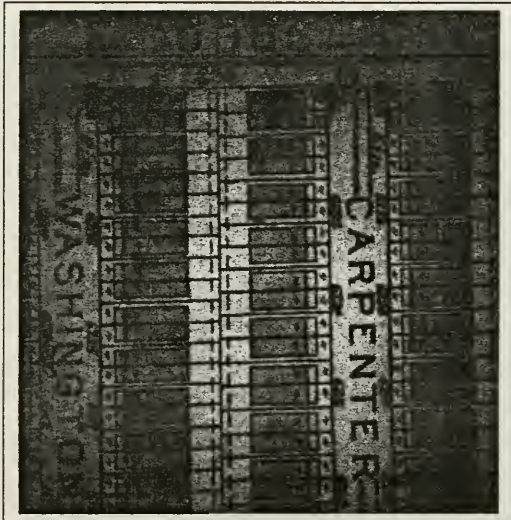


Figure V: Detail of G.W. Bromley map, 1918. The dotted lines indicate the rear alley and basement garages indicative of the new rowhouses. Note the front yards and porches of the front façades.²⁷

²⁷ G W Bromley and Company, *Atlas of the City of Philadelphia 1918* (Philadelphia: G W Bromley and Company, 1918), plate 28



Figure VI: Basement garage off a rear alley in the Cobbs Creek neighborhood.

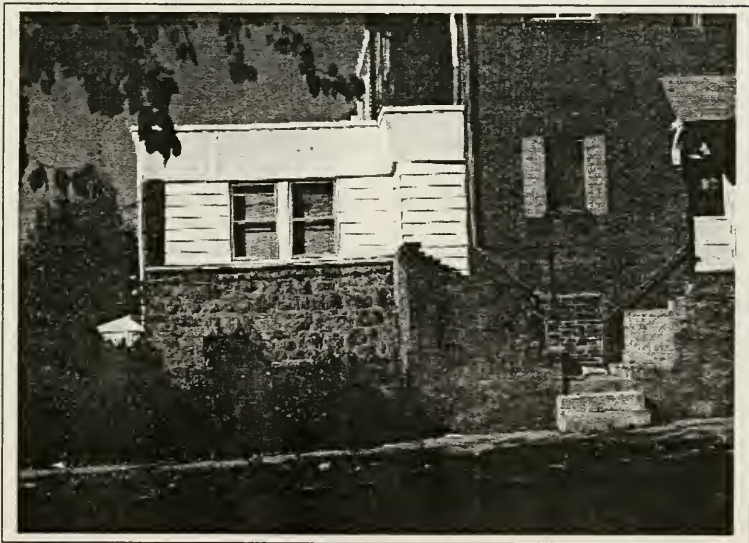


Figure VII: Side view, from 62nd Street, of a basement garage. The lower stone section is the fireproof garage. The room above is a bedroom or sitting room.

Like Wilson, Siegel built rows of identical housing that served a single income and social group.²⁸ The 1920 Census showed a homogenous neighborhood, although on Siegel's blocks there were a small number of immigrants (about 10%), the majority of whom were from Russia. As on the Christian block, Carpenter Street and Washington Avenue attracted a wide range of careers in its residents: there were merchants and manufacturers, engineers and salesmen. There were even some involved in the automotive industries: there was a garage owner, a highway contractor, a salesman of motor trucks, an automobile mechanic and a superintendent of an automobile factory. Again, like the previous block, most of the households on these blocks were made up of a single nuclear family with some extended relatives. Roughly a quarter of the households had a single servant living with the family and an even smaller percentage had boarders (less than 5%).²⁹

In 1920, the average price of a house in Philadelphia was \$5,032.³⁰ The houses on these three blocks were between \$4,000 and \$4,250 and were bought between 1916 and 1918. While today the effect of the row upon row of similar houses that characterize the Cobbs Creek neighborhood may be monotonous, to the rising middle class at the turn-of-the-century Philadelphia, these homes represented the entryway to a life of comfort and the securities of privacy and ownership. In addition, in the Cobbs Creek neighborhood, not only were brand new homes provided but also accommodations for the automobile:

Shall we widen the street and so diminish the building site, or shall we provide on the building site storage space adequate to meet the needs of its occupants?

²⁸ George E. Thomas, "Garden Court," Item 8, 2

²⁹ Fourteenth Census of the United States, 1920 Population, 46th Ward, Enumeration District 1777

³⁰ Bernard J. Newman, "Homes for \$1 a Day: What the Rest of the Country Can Learn from Philadelphia," *American Builder* 48, no 2 (November 1929), 72.

Indications are that the latter will prove our ultimate policy and that those older sections of the city where populous and expensive buildings cannot be remodeled, either near-by accommodations will be found for the cars of tenants or those sections will find themselves in a losing competition with sections more fortunately situated.³¹

The houses built by Wilson and Siegel represented the ultimate in modernity. Although their decorative treatments made historical references, the fact that accommodations for the automobile were made within their design was completely modern. This was significant because, increasingly in the twentieth century, there was a link between dwelling, place and identity.³²

In the seventeenth century, New England houses were conceived not as shelters but as symbols of community success. By the eighteenth century, however, people looked at the house as a sign of the individual with growing frequency. Dwelling places were viewed as emblems of economic rank and personal prosperity.... In these societies, particularly those structured by the market relations of consumer capitalism, individualized consumption tends to enhance prestige. Modernity with its relative openness of social groups, high rates of social and geographic mobility and greater social and cultural heterogeneity in social relations and values makes identification of both self and others increasingly problematic. Under such conditions, dwelling places and household objects—as alternative means of both conveying self-identity and recognizing the identity of others—become increasingly useful signs of identity. Dwellings and material goods are viewed as a symbolic medium for the display of self.³³

The house was viewed as a vehicle to express identity and class: the more extravagant the house, the more wealth its owner possessed. With the houses built

³¹ John Ihlder, "The Automobile and Community Planning," *The Annals of the American Academy of Political and Social Science* 1836 (November 1924), 5.

³² David M. Hummon, "House, Home and Identity in Contemporary American Culture," *Housing, Culture and Design: a Comparative Perspective* edited by Setha M. Low and Erve Chambers (Philadelphia: University of Pennsylvania Press, 1989), 207.

³³ *Ibid.*, 211-212.

in the Cobbs Creek neighborhood, wealth was conveyed but so was a progressive-minded disposition. "Investigations in the late 1920s correlated automobile ownership with the possession of other modern conveniences such as phonographs and radios."³⁴ In Philadelphia, a technologically advanced city, it is not surprising that these early house-garage combinations were built. Philadelphia was the home of Frederick Winslow Taylor, the pioneer of a new scientific management. It was the center of railroading. It was the center of heavy manufacturing for the entire nation. This created a class of workers who not only could afford the automobile and the houses to accompany it but who were also comfortable with technology. In its early days, the automobile was seen by some as a frightening new technology. In Philadelphia, however, because workers were used to using and working with innovation, many Philadelphians were early purchasers of the new automotive technology. A house that integrated this new technology—the automobile and the garage—was ideal for this technologically savvy Philadelphia clientele. To the Housing Association, these homes with basement garages seemed the ideal response of private enterprise to the needs of the average Philadelphia families.³⁵

Architecture is the visible expression of the habits of life, thought and culture of the generation that creates it, as may be seen to day in the ever increasing number of lofty office buildings, apartment houses and in the rows of dwellings in which the basement garage is a prominent feature, while the public garage and service stations which line our highways seem to outnumber and outshine the vanishing barrooms of the past.³⁶

³⁴ Barrett, 140

³⁵ Miller, 232

³⁶ George Morgan, *The City of Firsts* (Philadelphia: Historical Publication Society in Philadelphia, 1926), 311.

In addition, the houses built in this area show the mass-market appeal of the automobile in Philadelphia in the second decade of the twentieth century. Automobile ownership rose early in Philadelphia, quickly moving from a curiosity to a valid form of transportation.³⁷ The location of the Cobbs Creek neighborhood was ideally suited to rowhouse and automobile integration. This was a spatially isolated neighborhood. It was too far from public transit to be considered a streetcar suburb. It was located almost twenty blocks to the south from the nearest subway-elevated line; this was too far for a worker to walk to get to the train. In addition, it was adjacent to the new automobile parkway of Cobbs Creek. Because Philadelphia quickly accepted the automobile, parkways and roads were integrated early into city plans. This further increased the adoption of the automobile by city inhabitants and led to the early integration of the automobile into rowhouse design.

A New Link:

The three block of the Cobbs Creek neighborhood represent a new idea for linking residents to the city using the then new automobile.³⁸ These blocks, for the first time, linked real estate development with the automobile and were an early manifestation of a new type of residential architecture in which accommodations were made for the automobile. These houses were constructed for a middle class community and were part of one the first, if not *the* first, such automobile-based neighborhoods in Philadelphia. The neighborhood's location adjacent to Cobbs Creek Parkway, plus its distance from any form of public transit, created an environment conducive to this form of architecture. This, added to the early

³⁷ Thomas, "Cobbs Creek Automobile Suburb Historic District," Item 8, 5.

³⁸ *Ibid.*, Item 7, 2.

adoption of the automobile by many Philadelphians who were both fed up with public transit and comfortable with technology, resulted in the garage-house combinations that were erected ca. 1915 on Christian and Carpenter Streets and Washington Avenues.

The Impact on Philadelphia:

By 1918, the vast majority of the Cobbs Creek area of West Philadelphia was developed, much of it with this new type of residential architecture that brought together the house with the automobile (see Figure VIII, next page). Clarence Siegel completed development of the Cobbs Creek neighborhood when he filled in the remaining blocks to the south of the study area with more rowhouses with garages on the blocks between Washington Avenue and Cobbs Creek Parkway and 61st Street and the Parkway ca. 1920 (see Figure VIII, next page and Figure IX, next page).³⁹ Karl Otto, a fairly well known Philadelphia architect, also designed some more rows of houses with garages in the neighborhood in 1920.⁴⁰

The basement garage, done by Siegel, Wilson and Otto, with the double access alley in the rear was the most successful design for incorporating the automobile. It was duplicated throughout the city in the years following the Cobbs Creek development. This design greatly impacted the future development of the city and was an early example of bringing home and technology together. The blocks of the resulting “New Philadelphia” were broken up by the driveways to garages and bisected by the rear alley that serviced basement garages (see Figure V, page 57). Others developers picked up this design and spread it throughout the city of

³⁹ G W. Bromley and Company, *Atlas of the City of Philadelphia, 1927* (Philadelphia: G W Bromley and Company, 1927), plate 24.

⁴⁰ Thomas, “Cobbs Creek Automobile Suburb Historic District,” District Inventory, 6.

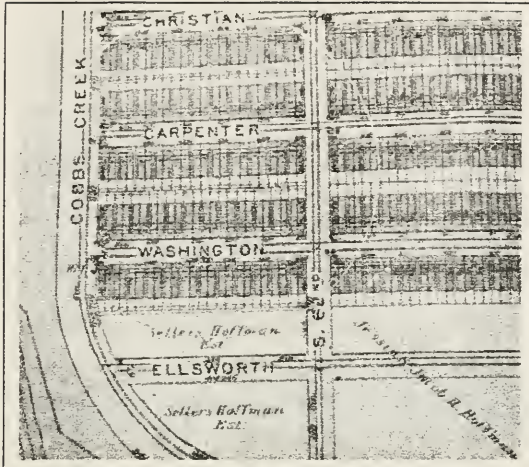


Figure VIII: G.W. Bromley map, 1918. Siegel will develop the blocks to the south of Washington in 1920 with similar rowhouse-garage combination. Again, the study area is highlighted.⁴¹



Figure IX: Streetscape of the 6100 block of Ellsworth built by Clarence Siegel in 1920. These twins also have rear basement garages.

⁴¹ G W Bromley and Company, *Atlas of the City of Philadelphia 1918* (Philadelphia: G W Bromley and Company, 1918), plate 28

Philadelphia. South Philadelphia had rowhouses with garages by the late 1920s, as did many of the city's outlying regions including the Cedarbrook neighborhood along Cheltenham Avenue below Mt. Airy Street.⁴² Northeast Philadelphia was especially impacted by this design. Here, rows of "Air-lite" houses, which had basement garages, made up numerous automobile suburbs. These were developed after World War II.⁴³ By 1929, rowhouses with basement garages were so common that they were dubbed the "Typical Philadelphia Row Home"⁴⁴ (see Figure X, below).

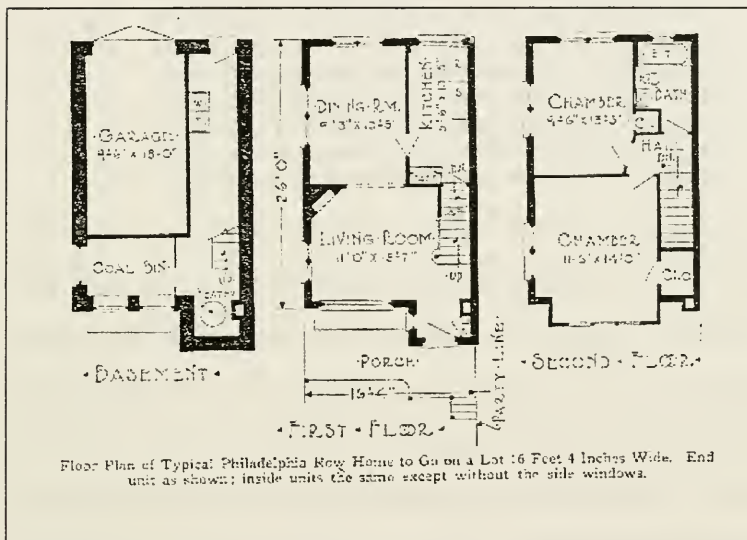


Figure X: By 1929, the rowhouse with the basement garage was so common, it was dubbed "typical."⁴⁵

⁴² G W Bromley and Company, *Atlas of the City of Philadelphia, 1923* (Philadelphia: G W Bromley and Company, 1923), plates 36, 42; G W Bromley and Company, *Atlas of the City of Philadelphia, 1927*, plates 24, 34, 35; Elvino V. Smith, *Atlas of the 26th, 36th and 48th Wards of the City of Philadelphia, 1928* (Philadelphia: Elvino V. Smith, 1928), plates 6; Elvino V. Smith, *Atlas of the 1st and 39th Wards of the City of Philadelphia, 1931* (Philadelphia: Elvino V. Smith, 1931), plates 7, 12

⁴³ Thomas, "Cobbs Creek Automobile Suburb," Section 7, 3

⁴⁴ Newman, 73

⁴⁵ Ibid

Similarly, this design spread across West Philadelphia where Clarence Siegel followed the conventions he had established in the Cobbs Creek neighborhood by integrating basement garages off a rear alley. Beginning in 1919, Siegel began to fill in the undeveloped piece of land on 46th Street above Hazel Street. He called this area Garden Court and due to its spatial isolation from public transit like in the Cobbs Creek blocks, this neighborhood depended on the automobile.

The Garden Court district is a West Philadelphia residential community created in the decades after World War I primarily through the efforts of one man, Clarence Siegel. It was built on land that lay between the rail and trolley lines which had been the principal route of suburban growth after the Civil War. Only with the automobile could the interstices be developed, and then it was only when the car had created its own lifestyle that the region could be marketed effectively.⁴⁶

Garden Court is listed on The National Register of Historic Places. In November 1998, the Cobbs Creek Automobile Suburb Historic District of which the three studied blocks are the beginning, was also put on the Register. This area of West Philadelphia was deemed significant under Criterion A because of its important contribution to the broad patterns of Philadelphia history. The houses developed here greatly changed the standard Philadelphia rowhouse layout. The Cobbs Creek Automobile Suburb Historic District was also listed under Criterion C because the area embodies distinctive characteristics of type, or period and the work of a master, such as E.A. Wilson. These rowhouses are distinctive in their type, as they were some of the first, if not the first, such garage-rowhouse buildings built in the city. Integration of the automobile into urban residential design began on Christian and Carpenter Streets and Washington Avenue. It spread through the Cobbs Creek

⁴⁶ George E. Thomas, "Garden Court," Item 7, 1

neighborhood and then was duplicated throughout the city. These rowhouses are the typical Philadelphia twin rowhouses with a twist, a very important twist. They incorporated into their design a method of housing a rising technology. Done so early, in 1915, for a middle class population in an urban context makes them truly distinctive.

In the Cobbs Creek neighborhood of West Philadelphia, technology was added to the traditional Philadelphia urban house type, creating a brand new style of residential architecture. A result of many factors, this neighborhood was the beginning of the first automobile suburb in Philadelphia. Accommodations for the automobile were first done here but quickly spread throughout the city, until a “New Philadelphia” emerged.

Chapter Five:

HISTORIC PRESERVATION IN THE COBBS CREEK NEIGHBORHOOD: PRESERVATION OF AN OBSOLETE TECHNOLOGY

The Cobbs Creek Automobile Historic District:

In 1915, twin rowhouses constructed on the 6200 blocks of Carpenter and Christian Streets and Washington Avenue in the Cobbs Creek neighborhood revolutionized rowhouse design in the city of Philadelphia. These twin rowhouses incorporated technology with an urban residential house type and created the beginnings of the first true automobile suburb in Philadelphia.

In 1998, the three 6200 blocks were put on the National Register of Historic Places as a part of a larger neighborhood, the Cobbs Creek Automobile Historic District. This district was listed under Criteria A and C. Not only did master architects, like E.A. Wilson and Karl Otto, design some of the rowhouses in the area and thus qualify it for Criterion C, this neighborhood also revolutionized Philadelphia rowhouse architecture. The innovation that began here—incorporating a garage into the mass of the main house at the basement level of an urban house type—was spread throughout the city. The Cobbs Creek Automobile Historic District, therefore, also met Criterion A, for significantly contributing to the broad patterns of Philadelphia history.

Too Small for Modern Cars:

When driving through the Cobbs Creek today, it is surprising how many cars line the streets in a neighborhood that was created under the auspices of accommodating the automobile. The reason for this, unfortunately, is that many of the garages are just too small for modern cars (see Figure XI, below).



Figure XI: Cars, too big to fit into the small garages, must be parked in the alley.

Throughout its history, the automobile has varied in length from today's small compacts to the enormous cars of the 1940s. The car has stretched and receded. The Ford is a good example of this. The length of the Model T, the first popular Ford automobile, was less than eleven feet long. By the late 1920s, the Model A, another Ford product, extended another foot and a half in length to about twelve and a half feet long. In the 1940s, the Fords reached up to seventeen and a half feet long.¹ Other automotive brands similarly grew.

¹ Philip Langdon, "The Garage, like the Car, Seems Here to Stay," *The New York Times* (Thursday, October 11, 1984), C10.

In the first edition of *Architectural Graphic Standards*, the largest cars were nineteen feet long by over six feet wide.² Ten years later, in 1941 when big was considered better, the car reached its apogee in size when the largest automobiles were twenty feet long by over six feet wide.³ Following the oil crisis of the 1970s, many automobile makers again began making small cars, as the smaller the car the more fuel-efficient it was. In 1988, sub-compacts, the smallest car category in that year, were less than fourteen feet long by over five feet wide while the largest cars of that year were over eighteen feet long by six and a half feet wide.⁴ In the 1990s, cars are even smaller but continue to be produced in all shapes and sizes.

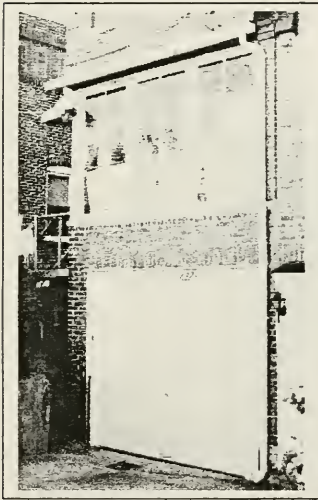


Figure XII: Typical basement garage.

² *Architectural Graphic Standards for Architects, Engineers, Decorators, Builders and Draftsmen*, edited by Charles George Ramsey, AIA and Harold Reeve Sleeper, FAIA (New York: John Wiley and Sons, 1932), 199.

³ *Architectural Graphic Standards for Architects, Engineers, Decorators, Builders and Draftsmen, Third Edition*, edited by Charles George Ramsey, AIA and Harold Reeve Sleeper, FAIA (New York: John Wiley and Sons, 1941), 244.

Many of the garages in the Cobbs Creek District were built ca. 1915. These garages are small (see Figure XII, previous page). In 1912, the dimensions required for a one-car garage were as small as ten feet by fifteen feet.⁵ In 1925, the minimum dimensions required for a one-car garage were ten feet by eighteen feet.⁶ By the 1940s, garages needed to be at least twenty feet long.⁷ This minimum requirement continues today.⁸ With the increase in the size of the automobile, the required dimension for the garage similarly had to increase. Many of today's compacts and subcompacts can be accommodated into these small garages (see Figure XIII, below). However, as William Pulte of the Pulte Home Corporation in suburban Detroit put it, "What if the owner of a Toyota-sized garage wanted to sell the house to a family



Figure XIII: This photograph shows that small cars do indeed fit into these garages.

⁴ Ramsey, *Sleeper Architectural Graphic Standards, Eighth Edition*, editor in chief, John Ray Hoke, Jr., AIA (New York: John Wiley and Sons, 1988), 402

⁵ "A Fireproof Garage," *Building Age* 34 (1912), 381

⁶ *The House Beautiful Building Annual* (Boston: The Atlantic Monthly Company, 1924), 109

⁷ *Architectural Graphic Standards for Architects, Engineers, Decorators, Builders and Draftsmen, Third Edition*, 245

⁸ Ramsey, *Sleeper Architectural Graphic Standards, Eighth Edition*, 403

with two Toronados?⁹ The small garages make these rowhouses in the Cobbs Creek neighborhood unattractive to a segment of the population who is looking to house large automobiles inside. This could pose as a problem in keeping these rooms in use or even in keeping the houses occupied.

Large automobiles do not, however, have to preclude the use of these basement rooms. Obviously, the first choice is to continue using them as garages. The novelty of these houses is that they have, inside them, accommodations for the garage. Continuity of this use is the ideal solution. However, if this is not possible, these garages can be used, like any other room in the house, as a storage or game room. The garage door can be fixed without permanently altering it. Realtors can make these garages into an asset as an additional room when marketing them to prospective homebuyers.



Figure XIV: While not ideal as this building has been permanently altered, this shows the conversion possibilities of making the garage into a useable room.

⁹ Langdon, C10.

Technologically Obsolete:

Another factor to consider with the houses of the Cobbs Creek neighborhood is that Federal mortgage insurance standards insist on a lower appraised value for a one-car garage that measures less than the standard dimensions.¹⁰ The insurance companies see these small garages as a liability and may lower their appraised value of the houses that contain them. The garages in Cobbs Creek are small by today's standards. Some insurance companies may insist on a decrease in the appraised value, although they are viable, working garages. This may be another hindrance to keeping these houses occupied. Again, making these basement garages into another room, converting them from a garage into some other useable space, would nullify the decrease in value. This is not the ideal solution. Unfortunately, this is an issue that cannot be avoided and must be considered a limiting, but not impossible, obstacle.

In addition to the garages in the Cobbs Creek neighborhood, the rowhouses built here—some by master architect, others not—are significant within the Philadelphia context of middle class rowhouse design. They represent a trend of mass production of housing and, although common in Philadelphia, are still an important part of the city's heritage (see Figure XV, next page). In the mid-twentieth century, 30% of the nation's extant rowhouses were in Philadelphia.¹¹ Philadelphia is known for its rowhouses. It is important that its main asset continues to be studied and preserved.

¹⁰ Ibid.

¹¹ Dennis Dingemans, "A Renaissance for the Row House: Urbanization of Suburbia," *HUD Challenge* 8, no. 9 (September 1997), 4.



Figure XV: A streetscape of the Cobbs Creek area, showing the mass produced, middle class, twin rowhouses that exemplify this neighborhood.

What can be done about the Cobbs Creek neighborhood? The garages built here were the ultimate in modernity when they were constructed. They were technologically advanced. Today, however, they are largely obsolete as many of the modern cars cannot fit within them. In addition, the neighborhood, while a strong working class area that is largely occupied, faces all the problems associated with an urban neighborhood struggling to survive in the 1990s. The area adjacent to it to the north, suffers from much abandonment and blight. In a 1994 plan done by the Philadelphia Planning Commission for West Philadelphia, a Neighborhood Conservation Strategy is recommended:

Conservation is recommended because the neighborhoods of Cobbs Creek, Haddington, Carroll Park and Overbrook have reached a crucial stage in their history. The housing, which was built sixty to

ninety years ago, is at a point where conditions could remain strong because of careful and supportive action, or conditions could begin to deteriorate rapidly because of the age of the housing or the spread of blight caused by lack of maintenance...The conservation strategy includes two major types of public intervention: (1) a housing rehabilitation proposal that focuses on the vacant housing stock and responds to the unique characteristics of this area; and (2) intensified marketing of housing rehabilitation programs to the owner occupants of the occupied housing stock.¹²

Obviously, because the housing stock is aging does not necessarily mean it is on the brink of failure, as this plan seems to attest. Social issues, not physical ones, will drive the demise of this neighborhood as it has done throughout the city of Philadelphia. However, because these rowhouses are too important to let dissolve into the urban fabric, the physical issues of maintaining and preserving this neighborhood must be addressed.

The first step towards the preservation of this neighborhood has been accomplished by getting it listed on the National Register of Historic Places as a historic district. Unfortunately, listing on the National Register does nothing to ensure its protection. Listing helps with some tax credits and secures that preservation will be *considered*¹³ but ultimately, it cannot guarantee preservation. To ensure the continuation of this neighborhood, further study is required to be able to market this area as a truly significant historical asset of Philadelphia.

Not everywhere in Philadelphia deserves to be preserved. This area of the city, because of its origins as a middle class neighborhood and its current status as a largely working class area adjacent to troubled areas, could easily be forgotten. In addition, because the garage is a vernacular building that is often discounted in

¹² Philadelphia City Planning Commission, "Plan for West Philadelphia" (June 1994), 82.

scholarly research, the Cobbs Creek neighborhood could disappear without being noticed. It is, however, too significant to let this happen. Because it is one of the first, if not *the* first areas of the city to incorporate the automobile into its plans, it needs to be further studied and preserved.

¹³ The National Historic Preservation Act of 1966, as amended, Section 106 (16 U.S.C. 470f).

Conclusion:

PHILADELPHIA AT THE BEGINNING OF THE TWENTIETH CENTURY: INCORPORATING THE AUTOMOBILE INTO AN URBAN HOUSE TYPE

In 1915, the Cobbs Creek area of West Philadelphia began to be developed. Here, for the first time in the city, accommodations for the automobile were incorporated into the design for an urban neighborhood. Each house had a garage, whether at the back of the lot as a separate building or integrated into the main mass of the house in the basement. Built in an atmosphere conducive to automobile integration and in a location ideal for automobile dependence, the Cobbs Creek neighborhood was the first true automobile suburb in Philadelphia.

The Cobbs Creek neighborhood represents a new idea in combining a standard Philadelphia house type with the automobile. The traditional urban rowhouse design was employed, done on speculation and marketed for the middle class. However, because the garage was added, residential architecture in Philadelphia was revolutionized. These new rowhouses and twins fused technology with urban residential design. The result was a new middle class house type that formed a new type of middle class neighborhood. The designs created here were duplicated throughout the rest of the city. Begun in Cobbs Creek in 1915, rowhouses constructed with basement garages would spread throughout the rest of the city until, by the end of the 1920s, they became the *new* standard Philadelphia house type.

This thesis set out to analyze the Cobbs Creek neighborhood and to prove that what occurred here in 1915 really was radical. Hopefully, the questions raised were answered. Study of a neighborhood like Cobbs Creek reveals a great deal about the development of the city of Philadelphia in the beginning of the twentieth century. In Philadelphia, as the Cobbs Creek neighborhood attests, rowhouses continued to be built into the twentieth century; this shows the strength of the seventeenth century tradition. The rowhouses built in Cobbs Creek were mass-produced by a few developers and were geared for the middle class. This is indicative of development patterns in the first half of the twentieth century in Philadelphia. The people who bought the homes in this neighborhood were largely white and middle class; this was a homogenous neighborhood. Again, this is indicative of a typical early twentieth century neighborhood of Philadelphia. At this time in history, the automobile was working itself into the lives of many Philadelphians. The Cobbs Creek neighborhood was one of the first, if not the first, automobile suburbs in the city. Therefore, study of this neighborhood reveals information about the adoption of the automobile in Philadelphia. It reveals that in Philadelphia the automobile was adopted early when compared to other urban areas and that plans to accommodate the automobile were similarly done early. Study of this area also illuminates how the garage has become a visible marker of the evolution of automobilism in a given area. Automobilism was in its early stages when Cobbs Creek was developed; thus, the garages built here were quietly tucked away in the rear in the basement. As automobilism spread, the garage became more prominent. Because automobilism was still in its infancy in 1915, these significant garages can easily be missed.

In 1915, the Cobbs Creek area of West Philadelphia began to be developed. For the first time in the city, accommodations for the automobile were incorporated into the design of an urban neighborhood. The result was a new type of community that was dependent on the automobile. Begun in the Cobbs Creek area of West Philadelphia, this "New Philadelphia" spread until communities of rowhouses with garages could be seen throughout the city.

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