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Eaglin, History 2710

Essay #1

September 9th, 2018

The Automobile and Its Upbringing

One of the most influential, ingenious, and useful inventions in the history of humankind was introduced to the world less than 150 years ago, around the turn of the century. In America today, just about every home has at least one, and they either are indirectly or directly involved in every aspect of the efficiently functioning world. We use them to get to work or school, to deliver products and resources, or even to transport coffee beans for your morning latte. What is this incredible invention? The gasoline powered automobile. The innovation of the car was not a singular invention on its own, however. For automobiles to properly run, the invention of the motor and many other forms of technology were first necessary. Trains and bicycles were the main mode of transportation before cars, and aspects of their design and usage also contributed to the development of the gasoline automobile. Countries such as Brazil and Germany had driven inventors who assisted in the development of different aspects of automobiles--laying the stepping stones for American innovators Henry Ford and Alfred Sloan. Not long after the car industry was born, Ford and Sloan built the foundation for the expansion and establishment of both the automobile market and industry in America, and subsequently, the World. As the industry first began to expand, the world adopted a car culture--excellently displayed in F. Scott Fitzgerald's The Great Gatsby through Mr. Gatsby's luxurious status associated with the cream yellow colored Rolls Royce. With the newly developed car culture, the industry quickly gained

popularity and free advertisement--good or bad--which further expanded the market. Although America's contributions to the development of the car industry, market and culture, were most influential to the century, Brazil and Germany both contributed their own game-changing innovations to the new world of cars, laying the groundwork for Americans Ford and Sloan.

With each new 19th century invention in the field of transportation and technology, humans took a step closer to the creation of the gasoline powered automobile. An important transportation invention after the age of horses was the steam powered train, dating back to the first commercial train transportation in 1830 (Eaglin, Class notes 8/24). With the usage of steam powered trains, people could--for the first time in history--travel long distances and across the country in substantially less time. Once people realized the advantages to faster transportation, innovators worked on finding an efficient form of individual transportation: the bicycle. With the 1869 introduction of the Velocipe, a large-wheeled bike made of wood and iron, a user could increase their traveling speed without using an excessive amount of effort. Following the Velocipe, the bicycle evolved through multiple styles into the modern day looking 1885 Starley and Sutton Rover Safety Bike--the Model T of bicycles. Nine years earlier, German Nikolaus Otto built the first functioning four-stroke internal combustion engine for milling (Eaglin, Class notes 8/24). Without realizing, Otto invented the technology that would rule the world for the generations to come. Seeing additional potential in Otto's work and inspired by the functionality and efficiency of the bicycle, German Karl Benz built his invention of the gasoline powered automobile in 1885 (Eaglin, Class notes 8/24). Benz's automobile encased an engine with origins in the Otto four-stroke engine, and looked like a large tricycle. Benz's invention amazed anyone who laid eyes on it, and other engineers and innovators saw the product's potential and attempted

to get their own stake in the new market. For example, Wealthy Brazilian pilot and inventor Santos Dumont designed his own car and sold it for a whopping \$2,000 dollars all the way up in Columbus, Ohio (Eaglin, Class notes 9/05). By 1899, there were thirty different car manufacturers which produced 2,500 vehicles in that year (Eaglin, Class notes 8/24). At the time, this magnitude of production seemed efficient; however, Americans Henry Ford and Alfred P. Sloan would soon multiply the industry and market by tens of thousands of units.

Two American automobile pioneers, Henry Ford and Alfred P. Sloan, introduced and applied mass production and mass marketing into the newly established car industry and market--forever changing the processes of mass manufacturing and sales. After multiple outrageously expensive Ford automobile Models were released, Henry Ford finally struck gold with the 1908 production of the Model T which boasted interchangeable parts and a new lighter and more durable vanadium steel (Ingrassa, p. 9). The Model T was first sold for \$850, which was still much too expensive for the ordinary middle class American to afford (Eaglin, Class notes 8/29). Realizing this problem, Ford worked on developing a more efficient way to produce Model T's in order to cut prices and create a "Car for the multitude" (Eaglin, Class notes 8/31). In 1913, Ford introduced the moving assembly line, which would become known in the industry as Fordism, enabling mass production at a more efficient speed in order to maximize production while also cutting production cost. A year later, Ford changed the nine hour, two dollar workday to an eight hour, five dollar day as an incentive for workers (Ingrassa, p.12). The implementation of the new wage and work day further increased production and efficiency because workers worked hard to keep their jobs. Ford continued to cut the price of the Model T, from \$850 in 1908 to \$250 in 1924, stretching the market from the upper class to the working class--where

even his assembly line workers could afford the product they were building (Eaglin, Class notes 8/29). By the discontinuance of the model in 1927, Ford Motor Co. had produced upwards of fifteen million black Model T's, selling them all around the globe. Ford's car was so popular, within seven years of importing his Model T into Brazil, car imports in Brazil were calculated to be 95% American ion 1917 (Eaglin, Class notes 9/05). Despite the success of the Model T that put the Ford Motor Company in the control of the industry, Alfred P. Sloan quickly stole the throne with his application of planned obsolescence, the method of releasing new models with upgrades, and a "car for every purse and purpose" (Eaglin, Class notes 8/31). Sloan, who was President and CEO of General Motor Co. from 1923-1937, remarketed GM to reduce the in-house competition (Eaglin, Class notes 8/31). Sloan also began to shift GM's design focus from usage and convenience to class and aesthetics. By remarketing, Sloan made six car models total, with at least one for each economic class (Ingrassa, p. 21). Through remarketing and planned obsolescence, Sloan was able to simultaneously broaden the market and eliminate competition who could not afford the thirty-five million dollar new model implementation cost. GM's strategies won them the market, and they surpassed Ford Motor Co. sales in 1927 (Eaglin, Class notes 8/31). GM's planned obsolescence also added to the growing car culture, as it promoted style and status with the upgrades to each new model.

At the beginning of the industry, as more and more companies released their variations of the automobile, society began to create a culture which encompassed the luxury, rarity, accessibility and status of automobile ownership. Automobile manufacturers saw an opportunity to market and create cars to satisfy the newly developed culture, such as the curved dash Oldsmobile, for example. The Oldsmobile was first released in 1901 for a relatively cheap price

of \$650. The Oldsmobile adopted the slogan, "A woman's machine is the Oldsmobile" for its convenient use and virtually effortless self-starter, which appealed to the sexist culture of the early 1900's (Eaglin, Class notes 8/29). While companies targeted societal car culture to increase sales, they also targeted economical car culture. For example, in the novel, The Great Gatsby, Mr. Gatsby owned a cream yellow Rolls Royce (Fitzgerald, p. 39). Not only was the car expensive, but it also had all of the bells and whistles. The color, style, and speed of the Rolls Royce made Mr. Gatsby stand out among the majority, as "Everybody had seen it" (Fitzgerald, p. 64). Just like today, the more expensive car one had in the early 1900's, the more they were noticed and envied.

The invention of the gasoline automobile changed the course of history forever, affecting the future factories, businesses, markets, culture and much more. It is amazing to reflect on the world's advancements in the past 150 years, thanks to the car. Without innovators first creating inventions such as the train, bicycle and milling motor, the car may not have been successfully built for many years to come. Thanks to geniuses like Henry Ford and Alfred P. Sloan, the shaky start to the automobile industry was propelled extensively. Fordism expanded the market to classes below the super-rich through the use of assembly lines, reduced prices, and increased worker wages; as result, mass production was now feasible. Sloanism also expanded the market; however, through mass marketing, planned obsolescence and designing cars for certain distinctions of the time's society and economy. Simultaneously, car culture gave automobiles free advertisement and further expanded the market to those who gained envy for the sharp cars they saw on the road. Where the world would be today without the invention of cars is frightening to think about, yet amazing to realize and appreciate the multitude of advancements

since the initial introduction of the automobile in the late 1800's. Today, the internet is the automobile of the 1900's, and who knows where the world will have advanced to in a hundred years from now.