The eotechnic, paleotechnic, and neotechnic phases all changed society forever in many ways. Mumford explains that a new landscape existed, the physical layout of cities had been altered, and a change in the use of resources occurred. These changes when added together and cancelled out, all result in our present mechanical civilization. Some people have begun to call this the machine age. However, our lives are not totally run and ruled by machines. Thus, using the term Machine Age may be slightly misleading at this point. The machine has given society several positive advancements over time; despite these gains resistance to the machine still exists. Some regions across the globe have resisted the machine more then others. For example, Catholic countries have tended to be slower to adapt to the machine then Protestant countries. Differences also exist in individual countries. Most notably, mining regions have tended to adapt quicker to the machine then agricultural regions. Therefore, in the United States the North accepted and integrated the machine into society much quicker then the agricultural South.

The Mechanical Routine

With the acceptance of the machine, mechanical routine begins to drive society. This is known as temporal regularity. The idea that people get up in the morning when the alarm clock rings not when that person is fully rested. People eat lunch at a scheduled time, not necessarily the time that they desire food the most. Employers make use of the new invention, the time clock, to better monitor the entrance and exit of workers during the day. Lateness is now
penalized in many ways, often people are forced to skip breakfast or if lateness becomes habitual they will lose their jobs. It is at this point in society that time becomes similar to money in that it has a value all its own. However, not all activities are best regulated by the clock. For example, recreation can become dull and not as valuable when the clock or even calendar comes to regulate it. In certain instances such as employment the clock is a very efficient way to monitor workers. However, at times the mechanical routine can takes its toll on individuals. Some people who keep to a time schedule too much may find life more stressful and strenuous than his or her peers who do not adhere to such a strict schedule. Health and convenience are often much more important than the time itself.

**Materialism**

Correspondence, communication, and travel have all been blown out of proportion with technological advancements. So much in fact that the economic gains created by these advancements has turned into economic losses. Take for example, a man walking a half an hour to work each morning or a man driving from his suburban home into the city and taking three quarters of an hour. Obviously the one man is using more technology but it still took him longer in the end. Mumford likes to see it that prior to 1850 difficulties in communication and travel acted as a selective screen permitting only a limited amount of interaction between people daily. However, since this time interruptions have become prevalent. The telephone, radio, television, computer, instant messenger, all play important roles in our life and take up time. As society continues to use mechanical “aids” to efficiency the more they are used the more they become obstacles to overcome.

Another aspect to a machine oriented society is materialism. The effort that is placed on the production of material goods is enormous in machine societies. People become willing to
sacrifice time and their current happiness to make money so later they will be able to acquire more goods. A relationship develops between personal well-being and the number of goods a person owns. This relationship is seen in the richest and poorest sectors of society. This actually turns into a consumptive cycle. As the more the machines produce the more people will want to consume. The cycle is a positive, runaway, relationship.

**Skill Devalued**

Another aspect of a machine environment is the devaluation of skill. Mumford uses the example of how originally shaving was left to highly skilled and trained barbers. However, with the invention of the safety razors all men are shaving their own faces nearly everyday. It is important to recognize that the machine created new areas of effort and did not just take jobs away. For instance some manual and operative skills returned that in the past were missing due to slaves and menials. These changes were the most significant in the development of a machine environment.

**Attacks on the Machine**

One would think that there would have been much more outrage against the machine and its inventors. Often when a way of life is forced to change the reactions can be quite hostile. However, these hostile reactions were subdued for several reasons. The war against the machine was unevenly matched. The machine and operators of the machine had all the power. The workers lacked power and organization and were left with no hope of overcoming the machine. In addition the machine was seen as youthful, the thing of the future and thus the battle was slowly aging and weakening in time.
**Romantic vs. Utilitarian**

As the machine environment slowly becomes the most dominant environment in societies two schools of thought develop, romantic and utilitarian. Utilitarian is at one with its purposes. A utilitarian would believe in such things as science, inventions, profits, power, machinery and progress. Utilitarian however, wanted to spread these ideals across the globe to all societies and all sectors of those societies including the working poor. Romantics, on the other hand had simply hoped to return to the more central issues in life. The machine had come in and replaced health and happiness as the central theme in life and romantics aimed to change that. However, the Romantic Movement was very weak served to only lesson the shock of the massive changes that accompanied the machine.

**The Cult of the Past**

The machine has impacted individuals on a personal level throughout its reign over humanity. As a response to the impacts of the machine, the people impacted tried to rebel against it in various ways. One of the main ways that people tried to escape was with the creation of what Mumford calls the cult of the past. The cult of the past embodied the people’s will to resist change and an increased idolization of the elements of their culture that preceded the influx of technology to their country.

The main method of rebellion within the cult of the past was a renewed respect for the local cultures. As opposed to the renaissance when society tried to emulate the older and much different culture of the Greeks, the new look at the past was more introspective. Architects began to respect gothic styles more than ever because it worked against the change to the purely utilitarian edifices of the industrial revolution. Scholars penned local fairy tales because of their desire to record the culture. Local languages developed as the only means of communication and
Latin, the universal language in Europe at the time, began to lose popularity among scholars, the church, and lay peoples alike. On the whole, the change was a new recognition of the value of local society as opposed to the looming conformity that would be placed upon society with the onslaught of the machine.

Although the cult of the past was a resistance to the proliferation of the machine, Mumford acknowledges the fact that the cult eventually worked in the favor of industry. What happened was an increase in regionalism by the people in an area. As the machine had caused an increase in the respect for one’s culture, it had also created a fear of change. The people were afraid that exterior influence would force the ideals of others on them and, in an effort to protect their culture, accepted the machine as a means to do so. The acceptance of industrialism to protect culture was counterproductive for the resistance against the machine and contradicted the efforts of the people who respected the past. Mumford indicates this sort of contradiction being a common theme in the various reversions that were made against the machine.

**The Return to Nature**

Another of the reactions to the machine that Mumford explains is what he calls the return to nature, a “cultivation of nature for its own sake.” In the early forms of the Paleotechnic Phase, the people were relocating from rural to urban areas because they sought the opportunities that were to be had in cities. The mass exodus caused a great deal of congestion and disarray within the areas because at the time the land itself was not able to sustain as many people as were living there. The living conditions within cities were all but deplorable and despite the employment opportunities there was a strong urge to escape to a natural and unadulterated environment.
The desire to leave the cities was realized in different times by pioneers and settlers throughout the western world. Americans moved west and Europeans sought to colonize South America and Africa. The colonization was a return to nature in the purest form. Pioneers had to use technology that was eotechnic at best and had to be as efficient as possible in order to survive. Like the native peoples before them, the ones who colonized had to live off the land and in harmony with it or else perish.

The colonization eventually lead to a certain degree of comfort, however. With the land cleared, the farms ploughed, the homes built, and the livestock corralled the inhabitants of the new colonies had a secure hold on the land. The sense of security brought with it a decrease in the necessity of efficiency and a desire to utilize the energies of the earth to do work that nobody wanted to do. The machine was thus imported from industrialized areas and was able to take hold over what had been a natural environment. Again, the reversions against the machine had backfired.

**Organic and Mechanical Polarities**

The culture of industrialism that had been forced upon everyone within paleotechnic nations was very different from the organic impulses of humanity. The people of the time were compelled to revolt against the pressure to become machines themselves and in doing so effect a change to the more primitive in society. Mumford describes the manifestation of the new culture of primitivism as an interest in “the folk arts and in the products of primitive people, no longer dismissed as crude and barbarous.” He notes that the regression to primitivism was similar to the historical romanticism that was part of the cult of the past, but attributes the change to different roots. Mumford explains that the interest in the exploration of the primitive came from a desire
to reject the research and abstract thought that was responsible for the machine and it took form in various ways.

One of the demonstrations of primitivism in society was what Mumford calls the “sexual relapse” that swept society during the industrial revolution. Native dancers from foreign countries and erotic African music were imported to tantalize and entertain. Sexual gratification that was taken away by the sterility of the machine had returned in the form of fantasy. Another of the ways that industrial cultures returned to the primitive was through sensationalism that was utilized by political, advertising, and media charlatans alike. The primitive fears, hatreds, and impulses of man were exploited by dictators and industrialists for their own purposes.

The return to primitivism characterizes how the societal rejections of industrialization tended to be counterproductive. The sexual primitivism that was a response to the sterilization of intercourse by the machine was simply a frustrating half-measure that resulted in the continuation of sexual debasement. The intellectual primitivism that was due to fear of the fruits of the human mind allowed for power mongers to control society and institute policies of imperialism and militarism. Society’s reaction to industrialization again resulted in the expansion of the machine.

**Sport and the “Bitch-goddess”**

Mumford discusses a fourth major societal reaction to the machine: mass sport. He describes the development of sport as an attempt to account for the leisure and glory that was taken from people by the machine during the industrial revolution. Mumford claims that sport became a popular form of entertainment because it allowed people to live vicariously through the achievements of professional athletes without having to participate. He dismisses sport as a
spectacle designed to shock the observers and compensate for the primitive emotions and aggressions that were lost with the removal of widespread play.

An example of how sport is designed to compensate for the elements of humanity lost during the industrial revolution is the shock it provides. Spectators thrive on the chance of a crash in a car race or an injury in football. The excitement and danger that the players of sport face is transferred to the viewer while the viewer has to do naught but watch. The athletes face all of the emotions that the viewer would like to feel and are paid very well to transfer the feeling to the spectators. Mumford explains that sport was a large industry which profited millions of dollars per year in his time, even in the midst of the Great Depression.

The use of sports to compensate for emotions that would otherwise be derived from actual participation in play is both an effect and a cause of highly mechanized society. As people used sport to regain a sense of glory that was taken by the machine, they were taking back just enough to feel somewhat free again. However, the use of sport to obtain such emotions is just another indicator of an industrialized society where glory, happiness, sex, cultural identification, and consumable products are standardized, packaged, marketed, and purchased.

The Cult of Death

Mumford cites warfare as the most horrific and destructive tactic that was used to reject the influences of the machine. He claims that war compensated for similar things that were taken from the people affected by the industrial revolution. It was used as a method to solidify the regionalism associated with the Cult of the Past, it was a manifestation of the primitivism that overtook the people of the time, and it was an intensification of the aggression in sport.
War was effective and is still effective in providing a sense of unity and glory to the both parties involved. The voluntary soldier is regarded as the personification of courage and honor. To sacrifice one’s life in the name of the freedom or happiness of another is considered the ultimate death in any culture. The sense of duty and glory attached with the call to war became widespread in industrialized society because of the romanticism of history and the increased level of regionalism within countries impacted by the machine. Mumford states that the regionalism and primitivism of the time escalated the exigency for war. The machines of war that had been developed during the industrial revolution made armed conflict all the more devastating, but forced competing nations to develop more powerful weapons.

The necessity for more powerful weapons drove societies to higher levels of mechanization and dependency on the machine. Thus the final and most devastating of the reversions, The Cult of Death, also promoted industrialism.

The Minor Shock-Absorbers

Although the major reversions of society against the industrial revolution have been discussed, there were other minor resistances that merit explanation. Mumford discusses several minor “shock-absorbers,” the most significant of which are fashion and the amusement business. During the Paleotechnic Phase society had various things taken from it including a sense of personal independence but also had various things given in return such as industrial capabilities. Included in the capabilities was the ability to produce an excessive amount of durable goods, which were easily disposed of before the end of their usefulness. Fashion rose out of the desire to declare personal independence and was provided by newly contrived machines. The amusement business rose out of the desire to escape industrial life and, like sport, live adventures
vicariously through the characters even though the capabilities for the motion picture and radio came from industrial advancements.

The distribution of the machine became more widespread as the demand for its products increased. The proliferation of the fashion and amusement businesses resulted in such an increase in demand. Thus even the minor shock-absorbing rejections of the machine resulted in the expansion of its influence and society’s dependence on it.

**Bridging Consuming Power and Technics of Civilization**

Davie E. Nye’s *Consuming Power* and Lewis Mumford’s *Technics and Civilization* are two very different books written about the development of society from a machine standpoint. Although they cover somewhat ideas, chapters 6 from both books are very much related. One main difference between the two books is that *Consuming Power* concentrates solely on America while *Technics and Civilization* concentrates on Europe. *Technics of Civilization* also covers a wider range of topics and references a larger time period. They are similar in that both chapters discuss the late nineteenth to early twentieth centuries and the social change that occurred during that time. Both books explain how the machine aided (or hindered) society. Mumford starts chapter 6 with this: “Each of the three phases of machine civilization has left its deposits in society. Each has changed the landscape, altered the physical layout of cities, used certain resources and spurned others, favored certain types of commodity and certain paths of activity, and modified the common technical heritage. It is the sum total of these phases, confused, jumbled, contradictory canceling out as well as adding to their forces that constitutes our present mechanical civilization.” It is out of these phases that society changed to the modern form it was in the early twentieth century. It is this time period that Nye explains.
Electricity and A Newly Appreciated Leisure Time

Society’s purpose up to this point was to work, period; their purpose at this time was to work only hard enough to be able to have plenty of leisure time left at the end of the day. The “machine” had brought new and exciting advances in technology that helped in shaping a new, modern society. The main ingredient of this fun leisure time was electricity. Once that was found, immeasurable amounts of gadgets, machines, toys, and equipment could be created and used. Between 1915 and 1929 every home was using electricity; and because of this they could buy and make use of the various new electric items out in stores. Most of the new electric items sold in stores were aimed at making life a little easier by requiring less time or energy (people energy). Some of these items included: irons, fans, vacuum cleaners, washing machines, radios, refrigerators, and stoves. When chores require less time, more time can be devoted to leisure time. Some popular leisure time activities of this period were roller-skating, biking, singing in barber shop quartets, playing in brass band, attending world fairs and expos, and going to amusement parks. Amusement parks, like Coney Island, NY, were a place people could go to relax. They contained thrilling rides and entertaining shows. Transportation companies often ran amusement parks using their surplus electric energy. These companies produced electricity for the electric trains and trolleys that moved people throughout the city. They realized they could capitalize on their extra energy by operating amusement parks. With all the new technology it was important to know how to capitalize and make money off of it.
Standardization, Brand Names, and Advertisements

“Late in the nineteenth century, the corporate need to tell people about novelties spawned new institutions—notably the advertising agency, the department store, and the mail-order catalog…” (Nye 168). How were people going to find out about new products? The answer found during this time was advertisements. The quote continues like this, “…each of which depersonalized the transaction between buyer and seller. In antebellum America, commercial relations had been primarily face-to-face. The new market place with its far greater flows of goods and services changed the dynamic of buying, and the word ‘customer’ declined in usage in favor of ‘consumer’” (Nye 168). In the past, customers asked the storeowners what to buy, what was best, etc. Now, stores were larger and impersonal. It was this that started our obsession with brand names. During this time products became standard and one could depend on a product by knowing the brand name. A new razor from Gillette will be just as good as the last one because the same company made it and they are reliable. This was the idea. Name brand companies also had easily identifiable packaging, not only a symbol of their reliability, but an advertisement as well.

The Department Store, Credit, and Conspicuous Consumption

Big department stores replaced the “mom and pop” shops of previous years. This was the beginning of one-stop shopping. Everything could be found in a department store. Sears, Roebuck, and Co, and John Wanamaker’s were some of the original department stores. To aid in their sales, they often offered mail order catalogs for even more convenient shopping. Consumers who frequented these stores built up a reputation with them. Eventually these stores offered them installation plans and what we know today as credit cards. People could still buy
items even if they didn’t have the money to pay for it at that time. What also attracted the consumers to department stores was their “…spectacular architecture, dazzling lighting, elegant tea rooms, playgrounds (some large enough to accommodate 300 children), free lectures, art exhibits, a fascinating group of shoppers, and, of course, alluring displays of the latest products…The department store was the palace of consumption, making shopping pleasurable, even theatrical, as the well-dressed crowds gazed at the chandeliers, rode in the new elevators, or looked at each other, measuring their position.”(Nye 172). They were grand places to go, not only to shop, but to socialize as well. It was these “alluring displays of the latest products” that led to conspicuous consumption. People had to have what was new and improved. They had to have the latest product even if the older version was perfectly fine.

**Pecuniary Decency**

People didn’t buy only to have the new product because it was new, but because if they had the newest version they felt they were a step above the rest. When friends came over they could show off their new version and be the envy of the group. The idea that people consumed in a search for approval was called pecuniary decency. In our society today we still feel this way. We shop for brand names with the belief that they are of higher quality. We also feel the need to have the latest cell phone and the newest computer model. Our ideas about the latest technology came about from the early 1900s.

**The Motorcar**

“The motorcar’s popularity seemed almost synonymous with the new mass culture”(Nye 175. The car too began as a consumer product for the rich elite class and stayed that way until
It All Relates Back to Energy

“Together, electricity and the automobile transformed society…These new possessions both embodied and used energy. The ideal American way of life that had evolved by 1925 included a family car, a suburban house with a full range of appliances, a telephone, a phonograph, a radio and leisure time for high-energy activities outside the home. Success and happiness implicitly meant control of large amounts of energy, and the amount demanded per capita was increasing every year”(Nye 182). Today we still live in a high-energy society. Everything we do consumes energy. The early twentieth century was just the start of our modern, energy intensive society.