

The Paleotechnic Phase
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“We shall never cease from exploration,
And the end of all our exploring,
Will be to arrive where we started,
And know the place for the first time.”
T. S. Eliot

Great physicists have often prophesied higher dimensions, a direction invisible to those of us who inhabit only three. In what direction is the universe curved? The ultimate direction of society is a direction that we cannot see. What is progress? What is advancement? What is truth? To answer these questions is to gaze beyond the limitations of our world into an uncertain future. Our history presents itself in cycles, some upward and some downward, but all forward. The Paleotechnic Phase of the Industrial Revolution appears as a terrible defeat, a decrepit period of moral degradation and ambition driven cruelty, even to the knife of reason. But how does it appear to the higher dimensional onlooker?

“No one travels so high as he who knows not where he is going.”
Einstein

Embracing a period of history in full understanding requires an investigation of intentions. For not only is history contained in the facts, it is also contained in the intentions and the feelings that create the driving forces of change or complacency. When scouring the past for an understanding of the present, then, we should always keep

the knife of reason directed towards ourselves as we qualitatively search, not for the obvious outcomes, but for the subtle beginnings.

Progress: Inch by Inch

“Progress, of the best kind, is comparatively slow. Great results cannot be achieved at once; and we must be satisfied to advance in life as we walk; step by step.” This statement would never have come from the Paleotechnic phase of our modern society: a definition of progress from this era would leave out anything humane, beneficial, or regard for patience. We could have power now, to do with as we wished, and damn anyone who tried to impede your path to success. Society’s definition of progress must change before large-scale changes will occur in the way our society uses both energy from natural resources, and from its workers.

Many societal constructs made it possible for the “steam and coal regime” to take over. Although today more sophisticated technologies are used, the mode of production and consumption from the paleotechnic phase continues to influence our worldview. Morgan made an excellent point when she discussed the differences between core and peripheral processes operating in both industrialized and “developing” countries. Children in trailer courts in State College, let alone rural Appalachia and the bayous of Louisiana; do not have computers, decent wages, or even hot meals. The disregard for safe and healthy working conditions operates even today when workers are treated as machines, when living wages are depleted and workers are stripped of human dignity. An unbalanced drive for production overwhelms cities such as Allentown and Pittsburgh, to quote Billy Joel, “our teachers never told us what was real: Iron and coke,

chromium steel” Arguably, we do as an industrialized country have a higher quality of life than people struggling for basic food and shelter in sub-Saharan Africa. Living in a democratic country is a blessing that some people do not have: we have the freedom to decide what we want to do in life. In Cuba we may be told no, Lauren, you can’t study geography, we need you as an electrician or garbage disposal worker. Freedom and responsibility go hand in hand: we cannot ignore our obligation to provide for the next generation. Parents want their children to have at least as good a chance as they had for survival, shelter, and a family. It is doubtful that anyone would vote for the alternative, extinction of the human species.

When means become less important than ends, societal values favor compartmentalization and a focus on the future. Gone is the respect China had for its ancestors, or the definition of wealth in an island nation as living to see your great-grandchildren grow up. As Josh mentioned in one of his reflective essays, we became more selfish and self-absorbed, concerned with “our little box in the future.” A question of simple quality versus quantity arises: can you enjoy spending \$500,000 during your retirement if you have chronic health problems, strained or broken relationships and little memory of the worthwhile things you did in life? To quote from one of the few movies worth two hours of my life: “...because all the really rich people are nice?” On any fundraising weekend for Penn State’s Dance Marathon, the people who are interested in spending money on themselves for a new Ford Excursion will pass you by, but a person driving by in a pinto will contribute \$5 toward easing the pain of a child. If you can make more money while not sacrificing personal values and quality of life, then go for it. But if consumption is the be-all and end-all, then do we put the same worth on a janitor

as a lawyer? Friedrich Ratzel's theory of the organic state put forth the idea that workers are all part of the functioning of the state, and each one has a niche that is essential to the system. However, some parts are more "equal" than others. Specialization of careers has resulted in only the crème de la crème of poets, baseball players, musicians etc. being marketed to the public and earning enough money to develop their art. I'm sure that Beethoven played a few wrong notes in his life, yet we become frustrated if a skill does not come easily. The gospel of work seems to have the clause: if the going gets tough, take the easy way out. Lie, cheat or steal to get what you want.

The modern definition of progress, then, is conditioned by the emphasis on profit and power from the Paleotechnic phase. Mumford mentions that the war aids groups in "getting something for nothing." To what end does that power lead us? Decisions can often be made in a projected hindsight. When I look back on this in twenty years, will I say good show, chap, or you daft squirrel, what were you thinking? Certainly, a society controlled by fear and motivated by avoiding punishment would be like praying to an angry god who can take away your life as you know it. If a rusted out beemer is going to provide fond memories in your senility, jump on the highway to commercialville. But maybe, fifty years from now it will not matter what kind of car you drove, what kind of house you lived in, or how much money you had in your bank account. But the world may be a little better because you were important in the life of a child. Even indirect actions, such as planting a tree or giving someone a job, can make a tremendous impact on the sustainability of tomorrow. These processes, however, were not operating in the Paleotechnic phase and today are sometimes delegated only to the specified worshipping hours. To give control over to anyone but yourself and your own designs for your life

makes one seem a sucker. Without room for faith, hope and charity, we will have a hard time making it in this world. In times of tragedy there is great unification: giving blood, holding hands with strangers, simple acts of faith in fellow brothers and sisters. Why then, can't such attitudes prevail in our economy? It's not doing so well now, why not try something different? Hope lives as long as we remember the lessons given us from the paleotechnic age; the status quo lives in the temples we built in the paleotechnic phase of greed and dissatisfaction, which must be shaken to their foundations.

Playing With Shadows: The Light and the Dark

At the beginning of the paleotechnic phase there is a considerable increase in population. The increased population made human labor a commodity. Man was forced to compete with others for work leading to a decrease in the wage that was paid. In order for the average family to make ends meet more of the family members would have to be sent to work, including children. This phenomenon can be equated to the value of diamonds. Diamonds are valuable because they are scarce, much like labor during the eotechnic period. If diamonds were to become more abundant then their value to society would decrease and people would be willing to pay much less for the gem, exactly what happen to the average paleotechnic worker. Mumford states, "Labor was a resource to be exploited, to be mined, to be exhausted, and finally to be discarded." (TaC p. 172)

When adult machines were incapable of producing for the family, child machines were used also. In America approximately a quarter of the mineworkers were only boys (Nye, 87). Child labor would not have been employed if there was not a demand for it.

Ure and Arkwright perpetuated this demand and perfected the managerial role for this period.

Andrew Ure traveled around many factory areas in England in 1834 and published a book, *The Philosophy of the Manufacturers*, in 1835. In the preface of the book, Ure stated, "masters, managers, and operatives would follow the straight paths of improvement" and hoped that it would help "prevent them from pursuing dangerous ideas." Ure valued the factory worker as no more than a machine. He believed that a skilled worker would try to better himself and therefore was a major threat to the factory system.

Richard Arkwright owned many textile factories in which the new steam engine was employed. Arkwright was responsible for the new "Industrial Army", a class of workers that followed a regimented workday from six in the morning until seven at night. Over two thirds of his workers were children six and above, and no one over forty was employed. Here the transformation was severe, here it was complete. Man was now an automaton.

These new managerial beliefs were quickly applied in many factories. The manager took skill away from the worker, deprived them of education, disciplined them with starvation, and obtained a land monopoly in the area where the worker lived. The worker became unfit for work outside of the factory. The literal starvation and the starvation of human interaction in combination with the land monopoly kept the workers from being able to migrate in order to escape the inhumane treatment. At the same time, the manager could threaten the worker by replacing him with a machine. Man began to fear the machine because the machine could replace the man.

In 1770, a writer proposed a new way to deal with paupers: the "House of Terror" - "It was to be a place where paupers would be confined at work for fourteen hours a day and kept in hand by a starvation diet." Factory life resembled that of the "House of Terror" by the late 1700s. The worker encountered a life that was riddled with disease, particle inhalation, industrial poisoning and injury and even loss of life. "The world of steam was also a world of sudden accidents and disasters"(Nye. 84). Included in the factory workers' employment was the "assumption of risk", creating a system where the manager was not responsible for factory accidents. In order to make money from the factory, the manager depressed wages, lengthened hours, increased machine speed, and shortened the worker's period of rest. Once machines became universal the only variable that a manager could change to make a profit was the cost of labor: "The laborer sold himself to the highest bidder in the labor market" (Mumford, 185).

The factory environment accentuated and deepened the regimentation of time. The worker wanted the day to pass as quickly as possible. Henceforth a market was opened for the mass production of cheap watches, and organic time was completely replaced with machine rhythms. The machine became greater than nature during the paleotechnic phase. Through all of the darkness and inhumanity of this period, however, people began to rebel against their environment and a specifically paleotechnic art emerged.

"The eye deprived of sunlight and color, discovered a new world in twilight, fog, smoke and tonal distinctions," (Mumford, 199). J.W.M. Turner transformed regular landscape paintings into the first impressionist works. The finest difference between tones defined bridges, barges, and trains. Turners' work inspired Van Gogh, Monet, Sisley, and Pissarro. "What did they seek? A few simple things not to be found between

the railroad and the factory: plain animal self-respect, color in the outer environment and emotional depth in the inner landscape, a life lived for its own values, instead of a life on the make," (Mumford, 204).

The Centennial Exhibition, in Philadelphia showed machines in a new light that was characteristic of this phase. This exhibition displayed machines as artwork to a curious American public. The machine became a medium of artistic expression. Mumford states "And it is in machines that one must seek the most original examples of directly paleotechnic art," (Mumford, 210).

Nice Transition Old Chap

The paleotechnic phase, then, is still reaching its grubby little fingers into the modern cookie jar. We can see it in the re-emergence of the "economic man", in the regimentation of time, and, perhaps most easily, in "gospel of work". Every semester we say, "This spring break I'm actually going to relax" or, "I can't wait for summer, I can relax then." Perhaps relaxation and serenity are independent of outside circumstances and can only really exist if we choose them now, if we lock the cookie jar.

Was the paleotechnic phase merely a transition period as Mumford states? I think not.

"Yeah, I'm going to have to disagree."
Matt Pickett

Never in our cyclical history have we spent an entire century in utter transition. The paleotechnic was necessary and it was progress, from the vantage point of a higher dimension that is. The extreme was necessary and beautiful. How else could we have discovered the magnitude of our own depths? What made Van Gogh so great? Was it

because he cut off his ear? Recognition often comes through the vale of “insanity”. Was it his use of color? Or was it his use of color after emerging from a world of darkness?

"While humanly speaking the paleotechnic phase was a disastrous interlude, it helped by its very disorder to intensify the search for order, and by its special forms of brutality to clarify the goals of humane living. Action and reaction were equal – and in opposite directions."

Mumford