

My research work, over the course of this MA, has gone through somewhat of an unforeseen yet organic process of transformation from the early stages of its proposal. To pinpoint why and when this development arose, one wouldn't need to look further than the location I chose for my placement.

Having initially understood my research to centre on ideas to do with place identity, home, temporal and experiential time related memory, body/object spatiality etc, I opted for a location, I considered, would cover many of these aspects and areas of investigation. A location, that not only had an architectural presence and personal connection (having grown up in its shadow), but also carried a certain weight and association with my own geographical upbringing, that I felt, would help elicit certain emotional responses and recollections. This site was to be the Hydroelectric Power Station in Ardnacrusha, Co Clare.

What quickly transpired however, as I studied the site in greater depth, was, rather than exploring my own personal responses and recollections, I found myself drawn to the culture/nature dichotomy and anthropological relationship with natural resource that a hydro station so perfectly epitomizes. In particular, understanding how modern technology, has contributed in the development of such dichotomies and divisions.

To help comprehend these technological issues, at least from an ontological, metaphysical perspective, I turned to German philosopher, Martin Heidegger. In his essay, *The Question Concerning Technology*, Heidegger employs the hydroelectric power plant as an example of how technology has fundamentally altered man's relationship not only to the earth, but also to Being itself. Being in this instance, is described as the unfolding process of reality, and by unfolding, I mean a process of letting be known that which was first unknown. Heidegger describes it as providing the conditions for the appearance of entities in our own age. However, he argues that in this very age we live in today, it seems that technologies are defining the entities of this world. Furthermore, modern technology defines and reveals the entities in the world as resources, and indeed it will only allow them to exist as resources. It reveals the Being of all entities as purely functional. Heidegger sees this process as a *challenging*. As he explains:

*“as a challenging, modern technology puts to nature the unreasonable demand that it supply energy that be extracted and stored as such”*

In the case of the hydro station, man has set to challenge nature, and therefore, modern technology is the means and activity through which this challenge comes to actuality. Our past understanding of the river remains hidden under the technological model, as it is reduced into the objectlessness of modern technology. The river exists only as resource or by what Heidegger alludes to as *standing reserve*. No longer an object of wonder but an object of human conquest. Referred to as *Enframing*, Heidegger sees this revealing process as the essence of technology, that which drives and motivates humanity to order and challenge the world as standing reserve.

The ramifications for such a process, is that it sets humanity upon a particular path. Upon a path that stimulates the human impulse to put the world 'into boxes'. A path that encloses all of our experiences of the world within categories of understanding, be it mathematical equations, physical laws or sets of classifications that we can control. In other words, to obtain a quantifiable and controllable knowledge of the world.

Obtaining a quantifiable and controllable knowledge of the world, of course, isn't anything new. We can return to the 18<sup>th</sup> century and the period of the Enlightenment. A period that marked a new beginning for the subject as a free thinking rational entity. This new inception, at the time, was based on a system of thought and rationalism where it was believed that advances in knowledge, gained through objective, rational observations and experiments, would bring about an improvement in the human condition. Sentiments echoed at the time by French philosopher Marquis de Condorcet, that:

*“science would promote not only the control of natural forces but also understanding of the world and the self, moral progress, the justice of institutions and even the happiness of human beings”*

What gave great credence, needless to say, to this theory, were Isaac Newton's scientific advancements in understanding the laws of Nature. By discovering cosmic laws which were subject to mathematical proof, he opened up a new method of viewing the world through rationality and natural law as opposed to traditional views that centered on institutionalized traditions such as religion, aristocracy etc. As English philosopher John Locke explains:

*“man has a natural liberty to be free from any superior power on earth, but to have only the law of Nature for his rule”*

This freedom Locke spoke of, led to a Cartesian dualism (named after philosopher and mathematician Rene Descartes) between the mind and body. Descartes argued that the mind and body existed differently, that is, they are two different classes of substances. The body exists in space but the mental properties do not. One of the most important distinctions this idea of dualism helped to validate is the separation of human beings from nature, and more importantly the domination of nature. By championing a disengagement from sensuous knowledge in favor of a knowledge of reason, based on notions of numbers, figures and size, as opposed to colour, taste and sound, a subject/object divide was allowed to occur. A divide that separated people from the earth, allowing us to see the Earth as object and raw resource existing solely for the life and enjoyment of humanity. To quote Val Plumwood:

*“In the rationalist tradition, just as the central feature of human identity comes to be seen as reason, the central feature of nature comes to be seen as its lack...full blown human/nature dualism develops through the development of rationalist thought”*

To return to Heidegger, he attempts to underline the dangers that this philosophy can pose. While technology reigns as the mode of revealing in this age, it has the potential to threaten humanity as well as other possible modes of revealing knowledge and existence. If every entity makes an appearance as only *standing reserve*, then man himself will come to be ordered as *standing reserve*. To be seen as a mere part of a machine, reduced and characterized by absolute availability and sheer manipulability by a technological mindset. To quote Heidegger again:

*“As human beings become progressively more involved as the orderers of a reality conceived as standing reserve, they too become standing reserve at a higher level of organization. In other words, as human beings come to see other human beings in the world only for their potential applications to human disposition, humans themselves come to mirror this shallowness of ‘being’ and to see themselves merely in terms of potential resources to the dispositions of others”*

This argument was supported by a school of philosophy whose adherents were involved in a reappraisal of Marxism, particularly in terms of the cultural and aesthetic dimensions of modern technological and industrial society. The Frankfurt School, as it was known, came to treat the larger conflict between human beings and nature as the fundamental orchestrator of history. Two members of this school, Theodor Adorno and Max Horkheimer, wrote a seminal text, entitled *Dialectic of Enlightenment*, which serves as a critique of modernity and modern technology. They argue that society and culture form an historical totality, such that the pursuit of freedom in society is inseparable from the pursuit of Enlightenment in culture. To quote:

*“Enlightenment understood in the widest sense as the advance of thought, has always aimed at liberating human beings from fear and installing them as Masters. Yet the wholly enlightened earth radiates under the sign of disaster triumphant”*

This ‘sign of disaster triumphant’, they asserted, hides behind an Enlightenment rationality that promised freedom but only delivered oppression and domination. A blind domination of nature by human beings and of some human beings by others, all motivated by an irrational fear of the unknown. To quote again from *Dialectic of Enlightenment*:

*“Humans believe themselves free of fear when there is no longer anything unknown. This has determined the path of demythologization...Enlightenment is mythical fear rationalized”*

This exercise in demythologization prompts a society to continuously pursue so-called progress often at the cost of the ‘other’, whether human or nonhuman, getting shoved aside, exploited or even destroyed. Adorno and Horkheimer saw this all-consuming engine that drove this process as an ever-expanding capitalist economy, fed by scientific research and latest technologies. Heidegger again reiterates the dangers that such a seductive process could take, when stating in *Discourse on Thinking*:

*“the approaching tide of technological revolution in the atomic age could so captivate, bewitch, dazzle, and beguile man that calculative thinking may someday come to be accepted and practiced as the only way of thinking”*

As a product of the Enlightenment, Capitalism itself is a rationalized economic policy, and so is the process of commercialization it utilizes. As James Q Wilson echoes in *The Moral Sense*:

*“We all live in a world shaped by the ambiguous legacy of the Enlightenment”*

The economic rationalist culture of contemporary capitalism draws on many of the classical rationalist narratives and dualisms of the past, such as reason/emotion dualism, nuanced to fit new contexts and institutions such as the commodified form. Intertwined with modern technology, capitalism seeks to order everything so as to achieve greater flexibility and efficiency. However, the danger that this drive for order can pose, needless to say, is in a certain totalizing kind of practice and leveling of our understanding of being, which ultimately results in a loss of liberty and individual autonomy. As reiterated by Adorno and Horkheimer:

*“Industry is interested in people merely as customers and employees, and has in fact reduced mankind as a whole and each of its elements to this all – embracing formulae”*

Sociologist Max Weber, advocated this view of modern rationality manifesting itself in the capitalist economy and in bureaucratic administration. He took a critical vision of the nature of capitalism and its dynamic approach to rationalization and modernization. An approach he felt gave rise to a condition of ‘cultural nihilism’ in which inherent values and creative actions were devalued increasingly to a rational quest for means/end efficiency and control. In this world, the individuals are not seen as ends in themselves but as the instrumental means to a particular end. To quote Max Weber:

*“Bureaucracy develops the more perfectly, the more it is ‘dehumanized’, the more completely it succeeds in eliminating from official business, love, hatred, and all purely personal, irrational and emotional elements which escape calculation”*

What Weber feared most, was that bureaucracies would grow more and more rational and that rational ethics would come to dominate an increasing number of sectors of society. He anticipated a society of people locked into a series of rational structures, who could move only from one rational system to another. A society consisting of nothing more than a seamless network of rationalized structures, were there would be no escape.

Another underlying theme of Weber's narrative of capitalist development, I chose to look at, was the rationalization of the human body in terms of the disciplining of energy and output efficiency. Encouraged by the bureaucratization process, the rationalization of the body brought forth a process of incorporating the body into scientific discourse. This practice was best exemplified by Taylorism and in particular, the work of Frank Gilbreth at the turn of the 20<sup>th</sup> century.

Taylorism, named after Frederick Taylor, an American engineer, was a technique that endeavored with efficiency, strict management of time and elimination of waste in the workplace. Also known as 'scientific management', Taylorism analogized the human body to a machine. It was a method of researching and isolating crucial gestures of a worker, calculating how they could perform most efficiently and time them with a stopwatch, with the aim of reducing the time of a particular operation to a bare minimum.

As a disciple of Taylorism, Frank B. Gilbreth developed this technique further by bringing photography to bear on the body of the worker in search of what he called 'a motion economy'. By attaching a small electric light to the limb of a worker and using a time exposure to photograph the movement as a continuous line in space (which he called a *cyclograph*), he was able to conjure a method of visualizing time in order to conduct an efficient re-engineering of the worker's body. As he explains himself:

*"In the age of Freud and the unconscious, the desire here is for the new empirical vigilance instituted by the camera's gaze to disclose that which is initially hidden, to play upon the solid opaque surfaces of the body, and reveal that which is not privy to the first disclosure of organic sight"*

This practice very much signified the emergence of a new technical elite at the time - the engineer, who personified this instrumental rationalist approach necessary for solving the technical problems besetting the capitalist. Indeed, the technical work of the engineer was little more than the scientific extension of capitalist enterprise. It was through his/her efforts that science was converted into capital. Consequently, engineers began to apply their technical expertise not only to the engineering of materials but also the engineering of people.

Ironically enough, no other country at the time did enthusiasts of Scientific Management enjoy such close contact with and pervasive influence over ruling politicians than in post revolution Russia. During the Revolution, numerous Bolsheviks were attracted by Taylorism's system of efficiency and organization as a solution for Russia's woes. Through the creation of a Central Institute of Labor, a new type of employee would be educated, whose habits and instincts would undergo 'adjustments' to the technical requirement of machinery and tools. Head of this laboratory, Alexei Gastev explains:

*"We assert that to reform contemporary production, one must not only reform organizational processes, but also remake the contemporary human employee; we also believe that the best educator of the contemporary employee is the machine"*

Returning to the present, however, there's a general consensus that we no longer live in this extreme level of modernity. Most will agree we live in a postmodern (or at least a late phase of modernity), post industrial world where ideas of efficiency are seen not to be as obviously or strongly associated in the workplace as they perhaps did in a traditional industrial environment. In fact, Professor Jennifer Alexander argues that efficiency:

*“Seems out of place in a postindustrial world, which emphasizes the plurality of values and is girded underneath by the new global economy, built on networks rather than hierarchies and dependent on flexible organization rather than centralized planning”*

So, if we no longer live in a 'modern' world, does that mean that we no longer live in an efficient world? Efficiency, of course, is just one dimension of what Max Weber saw as the most important aspect of the emergence of the modern world; that of rationalization. It needs to be considered not in isolation, but as one aspect along with calculability, predictability, control and so on. Aspects that very much continue to determine how society still functions today. As was mentioned earlier, the capitalist system, as we know it in western society today, is based on a rationalized economic policy. The process that characterizes the globalizing economy, and which gives the illusion of great flexibility that Jennifer Alexander speaks of, is supported by rigid and rationalized structures. Bureaucratic structures that, by their nature, emphasize control over people through the replacement of human judgment with the imposition of rules and regulations.

Knowledge continues to be a product of reason, and a particular narrow form of it too. A form of knowledge, it has been argued, that remains privatized and instrumentalized. What I mean by narrow, is a form of instrumental rationality that becomes fully autonomous and operates only according to its own internal principles, independent and unconcerned with anything outside of its own operations. A *“form of monological and dualistic thinking”* that Val Plumwood is quick to point out, is becoming a liability to our survival in an era when we are reaching the biophysical limits of the planet.

This mindset of instrumental reason has a propensity to promote its values as the logical basis of our society. Thus, we hear the constant use of buzzwords like growth, job creation, GDP, imports, exports, human resources, stocks and trade and so on. Unconstrained economic growth, no matter what the cost, seems to be the only barometer of public value in our culture today. Social scientist and philosopher Charles Taylor, echoes similar sentiments when he writes:

*“There is a widespread unease that instrumental reason not only has enlarged its scope but also threatens to take over our lives. The fear is that things that ought to be determined by other criteria will be decided in terms of efficiency or ‘cost benefit’ analysis, that the independent ends that ought to be guiding our lives will be eclipsed by the demand to maximize output”*

To counteract this mindset, a modality of existence where culture/nature are united rather than divided has been proposed. A true form of reason, as Edgar Morin describes:

*“True rationality is open and enters into dialogue with a reality that resists it. It shuttles incessantly between the logical and the empirical...A reason that ignores living beings, subjectivity, emotions, and life is irrational...True rationality knows the limits of logic, determinism and mechanism”*

In order to come into the presence of such truth and safeguard it, Heidegger encourages human beings to think. To reflect, even though he feels such an activity is increasingly difficult in a technologically orientated world. To be alive to the importance of awareness, awareness of reality, of nature, of others and of one's very self. Similar reactions I look for in my own practice. To quote sociologist Jacques Ellul:

*“Only when we become conscious of that which determines our life, we attain the highest degree of freedom”*

Finally, on the subject of my practice, my intentions for the MA show, on the back of my research, will be an attempt to play with and subvert the notion of the artwork (both creation and experience of) as being separate from technological and rational understanding.

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