Responding to Technology:
Heidegger and Marcuse on Thinking and Acting at the Technological Turning

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ABSTRACT

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Martin Heidegger's writings on modern technology are an important contribution to twentieth century philosophy. In these works, Heidegger argues that modern technology is a mode of world disclosure that reduces human beings to raw materials. Inherent in these writings are significant social implications, which emerge out of the view that human beings are reduced to raw materials under the influence of modern technology. However, these social issues remain underdeveloped in Heidegger's own work.

This thesis aims to show that Herbert Marcuse's ideas about the social implications of modern technology can be used to supplement Heidegger's writings on modern technology, in order to provide a more complete account of the social issues related to modern technology. It argues that a convergence between the two authors on the subject of modern technology can be established based on the idea that technology sets up a "world", the phenomenological understanding of modern science and the view that modern technology reduces human beings and nature to raw materials. It then proceeds to develop an enriched account of the social sphere based on the idea that modern technology reduces the political sphere to an administrative technocracy.

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Chapter One: Heidegger on Being and Technology

One of the central themes in the later work of Martin Heidegger is modern technology. At first glance, the topic of modern technology seems out of place in the work of a philosopher whose primary philosophical project is an inquiry into the nature of being as such. However, Heidegger does not understand the term modern technology according to its common meaning. For Heidegger, the term modern technology does not signify a group of entities that fall under the genus of the technological or a set of devices produced to meet human needs. In his writings on technology, Heidegger is not interested in technological entities but rather in the essence of technology, which he calls "enframing" (Gestell).

Enframing is the mode of world disclosure that holds sway in modernity. In "The Question Concerning Technology" Heidegger claims that what is distinctive about enframing, as a mode of world disclosure, is that it reveals nature as storehouse of standing energy reserve. Enframing, Heidegger says, "is a challenging [Herausfordern], which puts nature to the unreasonable task that it supply energy that can be extracted and stored as such" (Heidegger 1977: 14). Enframing sets up the world as a coherence of forces that can be ordered and calculated according to the laws of experimental physics as an exact science. Consequently, human beings are set up as the ones who are called upon to command and order beings. Enframing reduces human beings to instruments in the technological conquest of nature, effectively turning human beings into human resources.

Although Heidegger's focus is ontology and not political philosophy, his work on modern technology and the "turning" raises important social and political questions. Among the questions implicitly raised are concerns about domination, the instrumental

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view of human beings, and strategic rationality. A more detailed development of these themes is required in order to address the social questions with which we are confronted at the technological "turning". This is particularly relevant to the practical question of how to respond to the essence of technology and of what practical/political changes will accompany the "turning", i.e. the transition into the post metaphysical era.

In looking at the social concerns associated with enframing and the "turning", one important area that needs to be looked at is the relationship between thinking and acting. Given the interrelation between thinking and acting in Heidegger's work, one must be mindful of their correspondence when examining the issue of how one should think and act at the technological "turning". Heidegger's proposed response to modern technology, releasement (Gelassenheit), appears to answer the question of how one should think at the "turning". By releasement, Heidegger means to let entities enter into their world without appeal to ultimate representations; releasement means to let entities enter into presence only in accordance with polymorphous presencing. However, Heidegger does not sufficiently address the question of how one should act and does not provide an adequate development of what it means to "act" releasement and does not adequately discuss the social and political implications of releasement.

The idea of acting releasement or of acting in accordance with polymorphous presencing is unclear. Heidegger fails to discuss in detail the social and political factors related to releasement. There are several questions that merit further discussion: does "letting entities be" require a change in the political structure or political system? Can we "think releasement" in a society where ultimate representations are still used to justify authority and political practices? Can we "let entities be" if society functions according

to logic of strategic rationality at the political level? Essentially, the question is, does thinking and acting releasement require changes at the political level and, if so, how can we supplement Heidegger's account of modern technology to speculate about what some of these changes might be?

This chapter will argue that Heidegger's account of enframing raises social and political questions that his own works do not sufficiently address. By looking at Heidegger's writings on modern technology and the "turning" and their place within the overall body of his work I aim to show what kinds of social and political questions emerge and how they can be expanded. In developing these questions latent in Heidegger's work I am also concerned with anticipating how Herbert Marcuse's work on technology can be used to supplement Heidegger's.

1.1: Being

One question that emerges from Heidegger's discussion of modern technology is; what is it about modern technology that makes it definitive of modernity? The answer to this question requires an understanding of the origins of western philosophy itself. The writings on technology cannot be understood apart from Heidegger's philosophical project, an inquiry into the nature of being as such, which spans the historical period from the pre-Socratics to the brink of the post-metaphysical era.

Heidegger's philosophical works are a prolonged inquiry into the nature of being and an attempt to revive the forgotten notion of being as presencing. In his early works, Heidegger speaks of the ontological difference. The ontological difference is the difference between being, the temporal linguistic clearing in which entities show

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themselves, and beings, existing entities. According to Heidegger, being has largely been ignored throughout the history of philosophy in favour of beings. Throughout the history of philosophy, philosophers sought to answer questions about being by looking to entities rather than to being as such. This approach to the question of being conceals being, the temporal linguistic clearing of presencing, behind the present entities that serve as the objects of inquiry. In contrast to this approach, Heidegger attempts to answer the question of being without reference to entities.

Early philosophers looked to subsistent entities to answer the question: what is being? Plato believed that the being of an entity as its eidos, or form, and Aristotle identified that the being of an entity as its ousia, or substance. In contrast to the Platonic understanding of being as eidos and the Aristotelian understanding of being as ousia, Heidegger understands being as the temporal linguistic clearing in which entities come to presence. Heidegger understands being according to the pre-Socratic notion of the play of alētheia (unconcealment) and lēthē (concealment). Being is the clearing, in which an entity shows itself as present, lingers, and then withdraws into absence. As Schürmann writes, "For something 'to be', it must occur: enter upon the stage of presencing, linger, and then withdraw" (Schürmann 1987: 170).

According to Heidegger, being is historical. The way being sends itself has changed over the course of history. Entities enter into presence in different ways in different historical eras. Western metaphysics, which originated with Plato and Aristotle, marks the beginning of the self-concealment of being behind present entities. Plato and Aristotle looked to entities to answer the question of being as opposed to pre-Socratic philosophers who viewed being as motion or flux.

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For Heidegger, the history of western philosophy since Plato and Aristotle is the history of the self-concealment of being. The self-concealment of being is twofold. First, presencing conceals itself behind present entities. Presencing itself is never present; it withdraws in favour of present entities. Second, the ancient Greek focus on present entities further conceals the absence inherent in all presencing, as being becomes understood solely in terms of subsistent entities and the notions of absence and concealment begin to disappear from western philosophical thought.

1.2: Technology

Modern technology is the mode of world disclosure that determines how things come to presence in modernity. One of the defining features of modern technology is that it produces the subject/object dichotomy. According to Heidegger, one of the most important aspects of modern technology is that it produces a sharp distinction between the thinking subject and the objective world. The world external to the subject is represented to the subject as objective reality. With the aid of mathematical physics as an exact science human subjects attempt to develop an understanding of the way the physical world works. One consequence of this mode of looking at the world is that a "world picture" is established, which determines in advance how the world can be; the physical world is set up as a coherence of forces, calculable in advance. The real is conceived of as that which is amenable to measurement and calculation. Modes of understanding that do not conform, or run contradictory, to the "world picture" are devalued and marginalised. The totalitarian character of modern technology drives out any revealing that is not an ordering.

The objectifying nature of modern technology reduces nature to "standing energy reserve". Nature is seen as manipulable stock, which can be extracted, stored up and used for subjective purposes. The human subject is called upon to order the standing reserve present in the objective world; nature is presented as a source of raw materials to be dominated and controlled. As the ones who are called upon to extract the resources of nature, human beings are also viewed as manipulable stock. Nature and human beings are reduced to natural and human resources. Modern technology understands things primarily in terms of their usefulness or function. Inevitably, this means that both nature and human beings become raw materials to be used by the technical apparatus for its own sake.

In addition, enframing also involves the quantification of nature. Enframing producing an understanding of nature that speaks in terms of universal units of measurement. The natural world becomes an object to be defined in terms of units of measurement; it becomes comprehensible only in terms of units of mass, energy and force. As units of measure objects lose their qualitative differences and are reduced to homogeneous and interchangeable numerical values.

There is a tendency for human beings to see themselves as the ones in charge – as the ones who are master over nature and extract and transform natural resources in line with their own desires. However, Heidegger argues that this view is dangerous; if human beings are challenged to exploit the energies of nature then they are given over to the standing reserve even more originally than nature. Heidegger asks, "If man is challenged, ordered to do this, then does not man himself belong even more originally within the standing reserve" (Heidegger 1977: 18)? Heidegger is concerned that human

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beings will surrender their "free essence", their place as the ones who attend upon the coming to presence of beings, over to the ordering of enframing.

Because modern technology is a mode of world disclosure, and no mere instrument, it is not entirely under human control. Human beings participate in world disclosure, the process in which things show themselves in unconcealment, but human beings do not control world disclosure. Heidegger writes, "Man does not have control over unconcealment itself, in which at any time the real show itself or withdraws" (Heidegger 1977: 18).

Heidegger's main concern over modern technology is ontological; he is concerned that modern technology obscures being and reduces all revealing to securing and ordering. Modern technology is confined to revealing nature as standing reserve; it cannot reveal nature in any other way. Therefore, things are unable to present themselves in any way other than how they are understood by the laws of physical science.

Heidegger traces the origins of modern technology back to the ancient Greek concept of techne. Techne means the skill or 'know how' involved in the act of production, i.e. of making something. It refers to both crafts and handiwork and to artistic production and poetry. The most important aspect of techne, for Heidegger, is that it is a mode of aletheuein (revealing) (Heidegger 1977: 13). Techne reveals that which is not immediately present and that which does not immediately lie before us. It is a revealing in the sense that it gathers together the different aspects of a handiwork in view of the final product. Heidegger says of techne, "This revealing gathers together in advance the aspect and the matter of a ship or house, with a view to the finished thing envisioned as completed, and from this gathering determines the manner of construction"

(Heidegger 1977: 13). It is important to make clear that the reason techne is a revealing is not that it produces a product that was not present prior to its manufacturing. Techne is a revealing in the sense that it gathers together the different elements that go into the product and determines what they are in view of the end (telos) of production; things become what they are because of their role in production.

An important element of Heidegger's understanding of the concept of techne is Aristotle's theory of causality. According to Aristotle there are four causes; the material cause – the matter out of which a thing is made; the formal cause – the shape the final product will take on; the final cause – the goal of production; and the efficient cause – the agent that brings about the changes that make the raw materials into the finished product. According to Heidegger, Aristotle's four causes are modelled on the human activity of making. What is problematic about Aristotle's concept of causality, for Heidegger, is that its application is not limited to human handiwork; Aristotle also understands nature according to the four causes. Thus, Aristotle divides beings into two groups, those caused by man (artefacts) and those caused by nature, both understood according to the theory of the four causes, which was derived from the observation of manufacturing.

The most important insight that emerges from Heidegger's account of techne is that western metaphysics was modelled after the human understanding of producing artefacts. According to Heidegger, this productionist metaphysics has determined the course of western philosophy from the time of Plato and Aristotle to the present day. The productionist metaphysics initiated by the ancient Greeks marks the beginning of a historical progression of thinking that closes with modern technology.[i] Michael Zimmerman writes, "The history of the West, according to Heidegger, is the story of how

the "productionist metaphysics" of the ancient Greeks gradually degenerated into modern technology" (Zimmerman 1990: xv).

It is perhaps misleading to describe the progression from ancient Greek metaphysics to modern technology as a "degeneration". To say that productionist metaphysics degenerated into modern technology implies that the ancient Greek model is in some way superior to that of modern technology and that modern technology has strayed from the original purity of techne. For Heidegger ancient Greek metaphysics does not possess an innocence that has been lost with modern technology and techne is not a more suitable mode of world disclosure than modern technology. Modern technology is the necessary result of the philosophical tradition that began with the ancient Greeks. Productionist metaphysics and modern technology are, in many ways, inseparable for Heidegger; modern technology is the necessary outcome of productionist metaphysics. As Zimmerman says, "Heidegger in fact maintained that the technological era was prefigured from the very beginning of metaphysics; indeed, modern technology was, so he believed, the inevitable outcome of that history" (Zimmerman 1990: xv).

Heidegger argues that modern technology is the inevitable and final stage of western metaphysics because western metaphysics exhausts its possibilities with Nietzsche. According to Heidegger, Nietzsche's philosophy is inverted Platonism. Nietzsche inverts the relationship between the ideal and the real, giving priority to the real. This is in opposition to Plato, who privileged the ideal over the real. Heidegger believes that with this inversion of Plato the metaphysical tradition initiated by Plato has come full circle and exhausted all its possibilities.[ii]

While the purpose of this chapter is not to provide a detailed account of Heidegger's relationship with the writings of Plato and Aristotle it seems that some discussion of Heidegger's sources is necessary. Michael Zimmerman claims that, for Heidegger, productionist metaphysics begins with Plato. Zimmerman argues that Plato's concept of the forms, the ideal image of a thing, was modelled on the role a blueprint plays in the work of an artisan (Zimmerman 1990: 168). The form is prior to, and exemplifies the absolute perfection of, a sensible object. Similarly, a blueprint serves as a guideline for what the finished product will be and is conceived prior to the object itself.

For Heidegger, one of the most relevant aspects of the forms is that they are permanently present; the forms do not come into existence or pass away nor do they change. The forms are eternal and unchanging. The permanently present Platonic form obscures being, which is understood by Heidegger as the temporal play of concealment and unconcealment, presence and absence. With Plato, a thing's being becomes understood as its form or essence. The inception of the Platonic form causes being to be understood as a property of present entities rather than as the temporal event of presencing itself. Because the forms are eternal (permanently present) and unchanging, the idea of being as the play between presence and absence is concealed. Entities do not appear into presence or withdraw into absence according to the doctrine of the forms because the forms are always present. The Platonic forms gave coherence to the sensible world and became the foundation for finite things and for human knowledge (Zimmerman 1990: 68).

The other thinker Heidegger associates with the inception of productionist

metaphysics is Aristotle. For Aristotle the being of an entity is its ousia or substance.

Ousia denotes both that something exists and "the enduring unconcealment of its outward

appearance" (Zimmerman 1990: 169). Aristotle understands being as "the science of the

composition of sensible substances and the changes that affect them" (Schürmann 1987:

105). A substance is the actuality of an entity as opposed to mere potentiality.

Aristotle's notion of energeia (actuality) is closely related to his notion of telos (end).

The telos is the particular goal or end to which an entity aspires; it is the guiding idea

behind the becoming of the entity.

According to Heidegger, Aristotle understands all becoming according to the

theory of the four causes, which was modelled, as we have seen, on the activity of

production (Schürmann 1987: 98). For Aristotle, becoming is the process through which

the eidos is brought about as a sensible substance. As Schürmann writes, "Aristotle

understands becoming as the process by which the eidos is rendered entirely durable and

visible" (Schürmann 1987: 102). For Aristotle, being is not the eidos, as it is in Plato, but

rather the actuality and the outward appearance of an entity. It is the enduring outward

aspect of the entity, which shows itself and allows the features it holds in common with

other entities to be seen.

The idea of a telos guiding the becoming of an entity, which occurs through a

combination of causes, seems to mirror the process of production. In production the

craftsman brings about the changes that cause an entity to appear, as a material object, in

accordance with some pre-determined idea. Thus, the actuality of an entity is like the

finished product of the craftsman.

Like the notion of being as Platonic form, Aristotle's notion of being as sensible substance, subject to the laws of causality, obscures the notion of being as the play between presence and absence. With the focus on the visible and durable presence of the entity the notion of absence is overlooked and begins to disappear from thought. The notion of becoming as the movement from potential to actual conceals the play of unconcealment and concealment.[iii]

The distinction between eidos and energeia has had a sustained impact on the history of philosophy. The distinction between essence and existence has shaped the development of metaphysics throughout the history of philosophy. As Zimmerman writes, "the subsequent history of metaphysics was determined by the distinction between *eidos* (essence: enduring presence of the form) and *energeia* (existence: lasting presence of the entity)" (Zimmerman 1990: 169).

1.3: Releasement

Having looked at Heidegger's account of modern technology and its origins in the history of philosophy it is now possible to look at the danger posed by technology and the possibility of a response to the essence of modern technology. Modern technology stands at the transition between metaphysical and post-metaphysical thinking, between principial thinking and anarchic thinking. Because it occupies a position of transition, modern technology is both the danger and the saving power for being. In "The Question Concerning Technology", Heidegger cites the following line from the poetry of Hölderlein:

> But where danger is, grows
> The saving power also (Heidegger 1977: 28).

The danger Heidegger sees in modern technology is the total obfuscation of

presencing. Enframing, as the total reification of presencing in present entities, conceals

presencing behind the ordering of present entities and threatens to block other modes of

revealing. Heidegger writes, "The coming to presence of technology threatens revealing,

threatens it with the possibility that all revealing will be consumed in ordering and that

everything will present itself only in the unconcealedness of standing-reserve"

(Heidegger 1977: 33).

However, it appears that it is precisely this threat to being that makes being itself

visible. It is presumably only from the metaphysical closure that we are able to look back

upon epochal history to see the ways in which presencing has withheld itself and to trace

the origins of this withholding back the productionist metaphysics of the ancient Greeks.

It is only through this reflection, made possible by modern technology, that the

possibility of post-metaphysical thinking opens itself up.

To ask how one ought to respond to modern technology, which threatens to block

man from entering into a more original relationship with being, is somewhat misleading.

Enframing cannot be counteracted by any act of the will or by any conscious attempt to

master it. Heidegger says of enframing: "Human activity can never directly counter this

danger. Human achievement alone can never banish it" (Heidegger 1977: 33). Any

attempt by human beings to strategically bring about a change in the relation to being

gives mankind over to enframing even more. To suppose that human action alone can

alter the relationship to being is to fall victim to the hubris that humans beings are more

than merely one element among others in the play of presence and absence that is being.

Heidegger's response to modern technology is not reactionary but rather preparatory. For Heidegger it is not about actively bringing about change but instead about preparing for a new way of thinking – anarchic thinking. According to Heidegger, humans cannot actively overcome enframing but can only "prepare a sort of readiness, through thinking and poeticizing" (Heidegger 1993b: 107). The "turning" cannot be actively willed by any strategic attempt to bring it about; it can only be anticipated – prepared for by contemplating great art and poetry and by reading pre-Socratic philosophers.

The human attitude proper to the "turning" is what Heidegger calls releasement and what Schürmann refers to as anarchic thinking. Releasement means to think in accordance with presencing without appeal to ultimate representations. To think and act in accordance with presencing means to do what presencing itself does; let entities enter into presence.

Heidegger's notion of releasement, letting entities be, is antithetical to modern technology, which is a challenging forth that forces nature to reveal itself as standing energy reserve. Modern technology imposes on nature the demand that it be orderable and calculable according to the laws of physics. It establishes man as the knowing subject for whom objects are represented. In contrast, releasement would mean the revival of the notion of phuein – self-emergence. Entities would enter upon the stage of presence and thinking would be a response to the aletheiological constellations of presence in which entities come to presence. Schürmann writes, "The unity of this double 'letting', dispensation through economies and respondency through thinking, is called releasement" (Schürmann 1987: 75).

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Releasement involves a shift in perspective from situating human beings as the centre of all thinking and knowing to situating humans as one element among others. Heidegger's concept of the fourfold illustrates the de-centring of the role of human beings in knowing and the pluralism that results from heeding to the economies of presence and letting entities be. The fourfold is composed of mortals, Gods, earth and sky. It demonstrates that human beings are merely one participant in the process of presencing, amongst others. It also demonstrates the pluralism that is a necessary result of a presencing without a foundation in an ultimate representation or first principle. Releasement entails plural presencing – presencing through multiple sources. It means the abandonment of any singular way of seeing the world that claims priority over all other modes of presencing.

The most important consequence of releasement is the displacement of any archē or commanding first, which would ground thinking and acting. Releasement, or anarchic thinking, literally means to think without foundation. Without a foundation the question of how to think and act becomes opaque. To the question of how to think and act without foundation, Reiner Schürmann responds, "Love the flux and thank its economic confluences..." (Schürmann 1987: 81). The essence of thinking after the "turning" will not be the ordering and administering of standing reserve, present entities, but will be letting things show themselves as things. Essential thinking does not think entities, it thinks being.

Heidegger's notion of releasement does not easily lend itself to political action or social change. It is difficult to see how "letting entities be" could contribute to any kind of political action or serve as guideline for social change. Heidegger insists that

releasement is not to be taken to mean passivity and that it occupies a place beyond mere

activity or passivity. However, it is difficult to see how releasement alone can serve to

assuage the social and political problems that present themselves as a result of

enframing's holding sway. Conversely, it could be asked if releasement itself requires

certain political or social changes. Can releasement, letting entities be, come to pass in a

society in which human beings are managed as human resources?

1.4: Politics

Given the political nature of the questions being asked it is necessary to look at

the inherent connections between ontology and politics present in Heidegger's own work.

The concealment of being has dominated not only metaphysics but politics and practical

philosophy as well. In *Heidegger on Being and Acting: From Principles to Anarchy*,

Reiner Schürmann explores the consequences of the concealment of being by western

metaphysics for practical philosophy. According to Schürmann, the understanding of

being based on human handiwork influences not only Aristotle's metaphysics but his

politics as well. Aristotle's method for understanding politics is borrowed from his

method for understanding physical phenomena, which was borrowed from his

understanding of production. Schürmann writes, "The affairs of the city are treated

genetically, in a manner analogous to natural growth, and in the last analysis, to human

fabrication" (Schürmann 1987: 86).

Schürmann points out the structural similarity between ontology and political

philosophy. Both politics and metaphysics are grounded in the rule of a first. Schürmann

writes,

Political action originates in the rule (of a commander or of law), quite as movement originates in cause. The analysis of the political domain can no more do without a principle of legitimation than that of becoming can do without a principle of movement, or that of sensible substance without a principle of unity (Schürmann 1987: 40).

The analogy between ontology and politics illustrates the scope of the influence of the model taken from the understanding of technical production. Schürmann writes, "Since the very beginning of politics as a branch of philosophy, its basic patterns have been aligned with the branch that studies technical production" (Schürmann 1987: 87). Aristotle's pros hen schema, according to which seemingly different things derive their meaning through a common nature they share, extends from human fabrication to physical phenomena to politics. Just as being is grounded in the notion of substance, politics is grounded in the city. Schürmann says of Aristotle:

From substance he gains that decisive schema of thinking with whose help the political is made to resemble the physical, the *pros hen* schema. Individual ends and actions are ordered to those of the city, as accidents are to substance and, in general, predicates to the subject (Schürmann 1987: 87).

The pros hen schema establishes a hegemony according to which things can be ordered, whether the things in question are physical or political in nature. Substance is prior to accidents just as the city is prior to the household and the individual. The individual is understood in his participation in the city as the part is understood in terms of the whole – everything is directed toward the one. Schürmann illustrates the analogy between this way of thinking and human fabrication:

The legitimation of the city in relation to its constituents is gained by substantialist criteria that belong properly to the analysis of fabrication. It is in *making* things that all acts of the artisan, all material and 'accidents', must be directed 'towards the one', that is, the finished work (Schürmann 1987: 87).

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Rather than seeking to ground politics, Heidegger seeks to locate the site of politics. He identifies the site of politics as the political. The political is the "public conjunction of things, actions, and speech" (Schürmann 1987: 40). With the view of the political as the public conjunction of things, actions and speech, and the abandonment of the grounding of the political, the question of political thought and action becomes confused. According to this schema the question of political thought and action depends on the answer to the preliminary question: how do things, actions and speech enter into mutual presence today? According to Schürmann, the answer to the question of how one should act is the same as the answer to the question of how one should think – namely, in accordance with polymorphous presencing.

Schürmann refers to this kind of thinking as anarchic thinking. It is anarchic because it lacks any ground or foundation in the form of an ultimate referent or first principle; it lacks an arche. What Heidegger calls the "turning", the transition from the metaphysical to the post-metaphysical (post-technological) era, will be marked by the movement from principial to anarchic thinking. The defining feature of anarchic thinking is that it is marked by the absence of any unshakeable foundation for theory and practice.

The claim that post-metaphysical thinking and acting will be anarchic is perplexing. What exactly does it mean to think without principles and to conform thinking and acting to aletheiological constellations of presencing? How are we to think and act without looking to fundamental principles for justification? Anarchic thinking appears incomprehensible and problematic when viewed from within a philosophical tradition that has depended on ultimate foundations as a prerequisite for knowledge. In order to develop an understanding of anarchic thinking it is first necessary to look at the

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concept of arché and its role in the history of western philosophy. It is, Schürmann

believes, the concept of arché that has dominated philosophy since the time of the ancient

Greeks and only through the withering away of the arché, and its eventual disappearance

from thought, can anarchic thinking emerge.

The arché is the ultimate referent or principle, which grounds thinking and acting

for a period of time. According to Schürmann, it is Aristotle who first used the term

arché to mean both inception and domination (Schürmann 1987: 97). Prior to Aristotle

the term arché meant simply to lead or to begin. With Aristotle arché becomes

understood as the commanding first or "both that out of which becoming develops and

that which rules it" (Schürmann 1987: 98). Aristotle understands arché differently in

different domains. In being the arché is substance, in becoming the archai are the causes

and in knowing the archai are the "premises on which cognition depends" (Schürmann

1987: 98).

Understanding origin in terms of the ontic arché conceals the notion of origin as

presencing. Presencing is not the mythical origin of all things; it is rather that which lets

everything present appear as present. Presencing does not command nor does it ground

thinking in an ultimate referent. Presencing lets entities be, in that it lets entities appear

from absence to show themselves as entities. The origin as presencing imposes no order

on entities and provides no grounds for the legitimisation of thinking and acting. The

origin as presencing is the origin as fragmented; it is polymorphous presencing.

How things come to presence in a given era is displayed in what Schürmann calls

epochal principles. Epochal principles illuminate the arché that grounds an era and

defines the possible ways in which things can come to presence in a given era; the

epochal principles define the possibilities for thought and action in a given historical period. The political is the site in which an epochal order manifests itself. As Schürmann writes, "The political is that domain, that dominium, that clearly marks an epochal principle's scope of rule" (Schürmann 1987: 36).

According to Schürmann epochal principles are best understood through their reversals; an epochal principle becomes comprehensible and available for criticism only when it begins to fade and its rule is threatened. It is when an epochal order has fallen and its principles have withered, when the ideas that grounded an era have faded that presencing itself becomes most visible. The structure of epochal history allows one to read the history of western philosophy through the history of the reversals of epochal principles.

Epochal principles, at their inception, establish the possible ways in which things can enter into presence. As such they define the possibilities of thought and action for a given era as well as delineating the scope of what is knowable in that era. When one only speaks in terms of present entities what remains unspoken is the multiple ways in which a thing can enter onto the stage of presence. The deconstruction of epochal economies, the way in which things come to presence in a given era, allows one to identify the unthought mode of presencing itself – how things come to presence. This deconstruction makes visible the taken-for-granted pre-understanding, which articulates the necessary background assumptions of thinking in a given era.

At the inception of an epochal economy, presencing withdraws in favour of present entities. However, as it withdraws, presencing leaves its stamp on present entities. The mode of presencing itself can be retrieved through the deconstruction of the

ontic referents. However, as previously mentioned, the deconstruction of an economy of presence is only possible after the principles on which it is founded have begun to wither away.

Although there are multiple ways one can observe the rule of the epochal principle of a given era, for Heidegger the most important domain is that of the philosophical text. Schürmann writes, "For Heidegger, the most revealing traces of past historical fields are preserved in philosophical works" (Schürmann 1987: 35). According to Heidegger, it is in philosophical texts that one is able to best identify the past modes of presencing that determined how things entered upon the stage of presence in a given historical period. It is in philosophical texts that one is able to best express the pre-theoretical pre-understanding that serves as a background for intellectual work in a given era.

For Heidegger the four main epochal principles of western history are, in chronological order: ancient Greek, Latin, modern and modern technology. The most important epochal principle for the purposes of this paper is modern technology, although the epochal principle of the ancient Greeks is also important because it marks the beginning of epochal history; a history in which modern technology was prefigured by ancient Greek technē. Modern technology, or enframing, occupies a unique place in epochal history because its withering away will mark the end not only of enframing, as a particular epochal principle, but of epochal history itself. It is also the epochal principle of our time.

1.5: Social Issues

Heidegger's account of modern technology, together with Schürmann's elaboration of the implications of Heidegger's ontology for social philosophy, point to the need for a more developed account of the social and political themes inherent in the account of enframing. In this section I will sketch out some of the ideas that call for further discussion by looking at some of the questions that can be raised based on Heidegger's writings on technology. I will not endeavour to fully develop these questions at present; rather, I will present a rough sketch of a few important issues that will facilitate the discussion of Marcuse.

At least two important questions emerge from Heidegger's account of modern technology. The first is, given the correlation between ontology and politics, are there any social and political issues that present themselves along with the ontological issues identified by Heidegger? The second question is, given the relationship between thinking and acting in Heidegger and Schürmann, what changes in the realm of social philosophy and politics must occur in order to bring about the "turning"?

In response to the first question, it appears as though Heidegger's account of modern technology does raise certain social and political issues. The idea that human beings are also placed among the standing reserve and understood as instruments leads to the understanding of humans as human resources. The claim that humans are challenged more originally than the energies of nature into the process of ordering implies that humans are called upon as the ones who are to do the ordering while at the same time being viewed as raw materials themselves. Human beings become subordinate to the demand that they exploit the resources and energies of nature. Understood as

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instruments, human beings lose sight of their place as the ones who attend upon the coming to presence of being.

Heidegger's writings on modern technology also seem to raise questions about strategic rationality. One of the main features of enframing is that it reveals entities in such a way that they come to be understood only in their use or function. In understanding nature only as a source of raw materials, human beings have a purely instrumental conception of nature. This thinking can also be applied to human beings, when human beings are viewed only as human resources. To view nature and human beings only as instruments limits the ways in which human being are able to think and interact as well as limiting the ways in which human beings are able to think about political and social problems.

Another issue is social inequality. Schürmann's reading of Heidegger is critical of the arché as the commanding first in both thinking and acting. With the withering away of epochal principles and the birth of anarchic thinking after the "turning", the ultimate referents that have served to justify social hegemonies lose their normative force. With this, the ideologies that have justified how wealth and power have been divided seem to lose any grounds for justification.

Schürmann asserts that anarchy of economic presencing does not entail anarchy of power (Schürmann 1987: 290). However, it does seem that how wealth and power are divided will have to be reconsidered, as anarchic thinking seems to erode much of the ground used to justify social inequality. At the very least, the technological "turning" requires that the issue of social inequality be re-examined. It seems unlikely that social

domination would be able to persist after the "turning" when the <u>arche</u>'s domination of thinking and knowing has withered away.

This leads into the second question. Given the relationship between thinking and acting, it seems that releasement will require changes in the realm of acting as well as that of thinking. It seems that anarchic thinking will not be possible as long as social and political domination persists. How is it possible to move towards non-principial thinking when foundational thinking is still used to justify political domination and social hegemonies? How can anarchic thinking emerge when acting is still subject to domination by political institutions and social norms? If action is still dictated by ideologies grounded in principial thinking it seems unlikely that non-principial thinking will be able to emerge. It does not appear that releasement is possible when action is still subject to control and domination.

Although Heidegger claims that no mere action can alter the human relation to modern technology or bring about the "turning", it does appear as though some kind of action is required, along with thinking, in order to move into the post-metaphysical era. According to Schürmann's account of Heidegger's understanding of thinking and acting there is no sharp divide between the two. More importantly, the notion that thinking prescribes how one should act loses its ground. Schürmann writes, "The practical is no longer measured by the theoretical. Thus the very terminology of prescription loses its pertinence. Instead, both theory and practice appear as *regulated* by the way presencing arranges itself for a time" (Schürmann 1987: 34). Thinking loses its priority over acting. The idea that thinking determines acting is replaced by the idea that one thinks as one acts and acts as one thinks. Both thinking and acting are responses to presencing.

The phenomenological insight that underlying theoretical discourse there is a pre-theoretical understanding that is transcendentally and logically prior to it alters the understanding of theory. Theoretical inquiry is only possible against the backdrop of the world set up by pre-theoretical understanding; theory presupposes certain background assumptions, which guide the everyday experience of being in the world. With this insight, theory loses its status as the ultimate authority over thinking and acting. In place of theory, what is required is a phenomenological account of the epochal principles that reveal the way the pre-theoretical understanding sets up a world in a given era. Questions of theory and practice give way to an inquiry into the way presencing sets up a world in a given era.

After the "turning", to think and act in accordance with presencing means to think and act without reference to a commanding first. Along with releasement in the realm of thinking, letting entities be, it seems that some kind of releasement is required in the political domain. Schürmann writes, "The practical task our age: to remove everything that tends to place itself in front of the emergence of things into their world" (Schürmann 1987: 275). This practical task would seem to apply to obstacles in the realm of politics, such as outdated ideologies and institutions, as well as obstacles in the realm of thinking. It seems unlikely that thinking will be able to take the form of releasement as long as society is conceived of as a strategically organised labour force called upon to exploit the resources of nature and to mass-produce consumer products for the sake of profit in a market economy. If the daily lives of individuals consist in the strategic execution of a series of tasks designed to maximise production and profit, it seems unlikely that thinking and acting will take the form of letting entities be.

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Heidegger's response to modern technology, releasement, appears to be aimed at removing the ontological archē – the archē that serves as the foundation for being and beings. However, it appears that Heidegger has little to say about the political archē. Given the structural similarity between ontology and politics, this one sided approach appears to be only a partial response. In order to respond fully to the essence of technology one must address both the ontological and the political aspect of modern technology. It does not seem possible to allow entities to enter into presence without appeal to ultimate referents while ultimate referents (archai) still provide the foundation for political practices.

It should be noted that enframing cannot be countered by any merely political change. The political question of enframing is not so much about replacing one political system with another but about rethinking the political itself. As long as human beings are understood instrumentally, no change in political system can free human beings from the bonds on modern technology. All that can be accomplished by a change in political system, so long as it is only a political change, is an alteration in the structure of the technical administration of human beings. What is required is a rethinking of the political that opens up the possibility of "An acting other than 'being effective' and a thinking other than strategic rationality" (Schürmann 1987: 84). What is needed is a conception of the political in which human beings are no longer viewed as instruments and nature is no longer understood as raw material. In the next chapter I will look at the work of Herbert Marcuse and attempt to show how elements of his social theory can be reconciled with Heidegger's thought.

[i] I will use the term the ancient Greeks to refer to Plato and Aristotle.

[ii] For more on Heidegger's argument for the exhaustion of the possibilities of western metaphysics see "The Word of Nietszche: 'God is Dead'" in Heidegger, Martin. 1977. *The Question Concerning Technology, and Other Essays*. Trans. William Lovitt. New York: Harper and Row and Schürmann, Reiner. 1987. *Heidegger on Being and Acting: From Principles to Anarchy*. Trans. Christine-Marie Gros. Bloomington: Indiana University Press, 182 – 202.

[iii] It should be noted that Heidegger's attitude toward Aristotle is somewhat ambiguous. Some Heidegger commentators, such as Reiner Schürmann, observe that Heidegger finds a kinship with Aristotle because he is the first to raise the question: what is being? However, Heidegger also views Aristotle as one whose treatment of the question of being has proved to be misleading. Schürmann, writes that "From *Being and Time* onward, Aristotle appears like one whose philosophical breath has been sustained by the question of being, but has also given to the elaboration of that question a turn that has proved ill-starred"(Schürmann, 85).

Chapter Two: Marcuse and the Social Implications of Technology

Herbert Marcuse's writings on technology share several important features with Heidegger's. Like Heidegger, Marcuse denies the claim that modern technology is merely a neutral technical instrument for meeting human needs. According to Marcuse, not only is technology a form of ideology, but it is the most important ideology of the twentieth century. Under the influence of modern technology both human beings and nature become raw materials in the technical conquest of nature. Marcuse's work on technology intersects with Heidegger's on a few important points including the reduction of nature to raw materials, the ability of technology to set up a world and the one-dimensional character of reason under the influence of modern technology.

Although there are several common features in the way each thinker understands modern technology, the differences between the two thinkers are perhaps greater. There are deep philosophical and personal tensions between the two thinkers[i]. Heidegger and Marcuse have different philosophical orientations; Heidegger's main philosophical project is an inquiry into the nature of being as such, while Marcuse, as a member of the first generation of the Frankfurt School of critical theory, is interested in social and political themes. While Heidegger is interested in modern technology as an ontological mode of world disclosure, Marcuse is mostly interested in the implications of modern technology for social theory. The most important area of conflict between the two is how each thinker understands being. Marcuse does not follow Heidegger in understanding being as presencing/absencing. Marcuse is committed to an understanding of being indebted to the Hegelian/Marxian tradition, which remains grounded in the productionist metaphysics Heidegger explicitly rejects. Despite these differences, there are elements of

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Marcuse's thought that rely on a phenomenological approach. Marcuse's

phenomenological account of modern science points to the possibility of a convergence

with Heidegger's thought that defies each thinker's self-understanding. It also provides

the resources for a reconciliation of elements of Marcuse's thought with Heidegger's. In

this chapter I will present Marcuse's ideas about modern technology with a view to

showing that Marcuse's ideas can be used to supplement Heidegger's writings on modern

technology.

2.1: Marcuse on Technology

Marcuse's writings on technology are focused on the role of the technical

apparatus of production in providing the basic goods necessary for human life.

According to Marcuse, technological rationality preserves an outdated social order and

mode of thinking, which preserves unnecessary labour time, social controls and social

inequality. Although technological advancements have created the possibility of

reducing the amount of labour time required to meet basic human needs and lessening

social inequality, technological rationality preserves toil and inequality. Marcuse asserts

that the one-dimensional character of instrumental rationality impedes the contemplation

of ends because it is solely focused on means; technological rationality is limited to

securing the most effective means of achieving the ends dictated by technological

apparatus itself.

Marcuse proposes several theses on technology in *One-Dimensional Man* and

Eros and Civilization. In *One-Dimensional Man* Marcuse argues that technological

rationality subdues resistance to the established order by eliminating the negative

(critical) dimension of reason while promoting positive thinking, which comprehends the world only in terms of empirical facts. Advanced industrial society also masks its own inherent shortcomings by effectively and efficiently meeting individual needs, which are projected by advanced industrial society itself. Advanced industrial society not only manufactures commodities but also establishes the need for those commodities; it conceals its own fundamental flaws by appeasing the needs that it has projected onto society, while remaining blind to more basic needs such as the free development of man's rational and creative faculties.

In *Eros and Civilization* Marcuse argues that technological rationality preserves an outdated social structure, which perpetuates domination and toil. The social structure is outdated because it preserves modes of thought that were required at earlier stages of social development when limited technological resources made the work required to meet basic human needs difficult and laborious. In advanced industrial society, technological advancements have greatly reduced the labour time and toil required for the satisfaction of basic human needs. While changes in the means of production have decreased the need for labour and toil, the social structure has not adapted to reduce the amount of work each labourer is required to perform. Although technological advancements have made it possible to pacify the struggle for existence, ideologies grounded in struggle and competition persist. Technological rationality preserves outdated ideas such as competition, scarcity, social inequality and the intrinsic value of hard labour. Though these ideas emerged out of necessity in the struggle for existence, at the current stage of technological development they are no longer necessary for meeting the basic needs of society. Essentially, the idea that existence is necessarily struggle is preserved, when in

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actuality the means exists for pacifying the struggle for existence. No longer must human beings dedicate the majority of their lives to full time labour; the possibility now exists for releasing human beings from the bonds of full time labour so that they may pursue the development of their rational faculties. In the following pages I will take a detailed look at Marcuse's analysis of technology in *One-Dimensional Man*, in order to point out the similarities between Marcuse's and Heidegger's writings on technology.

2.2: One-Dimensional Man

In *One-Dimensional Man* Marcuse examines the one-dimensional nature of technological rationality. Marcuse's discussion of modern technology and technological rationality in *One-Dimensional Man* demands careful examination because of the similarities between his ideas and Heidegger's. One central claim, shared by both, is that technology cannot be understood in strictly scientific or political terms. Technology is not a set of instruments and machines that serve neutral human ends and that can be managed and administered by a political organisation. For both philosophers, what is most definitive of modern technology is its ability to set up a world; technology determines what things are and how we encounter them. Marcuse writes, "When technics becomes the universal form of material production, it circumscribes an entire culture; it projects a historical totality – a 'world'" (Marcuse 1964: 154). For both Marcuse and Heidegger the world projected by modern technology is a world in which nature is conceived of as raw materials. In the world projected by modern technology nature is reduced to a possible object of human manipulation.

Marcuse arrives at the realisation of technology's world projecting power via a different path than Heidegger. Rather than approaching the issue of technology from the perspective of a historical narrative of being like Heidegger, Marcuse follows Marxian theory in asserting that the social mode of production is the basic historical factor. Though Marcuse follows the Marxist tradition, which is indebted to the tradition of productionist metaphysics that Heidegger explicitly rejects, Marcuse's ideas about modern technology converge with Heidegger's on the view that modern technology reduces both nature and human beings to raw materials.

Like Heidegger, Marcuse draws important parallels between ancient Greek and contemporary philosophy and views ancient Greek philosophy as an important point of contrast with modern technology and technological rationality. Though Marcuse affirms rather than rejects productionist metaphysics, his interpretation of the ancient Greeks in *One-Dimensional Man* presents a rich account of the conflict between ancient Greek and contemporary thinking. Because he works in the Marxist tradition, Marcuse's interpretation of the ancient Greeks brings out certain ideas that Heidegger's ontological understanding of the ancient Greeks cannot grasp. According to Marcuse's reading of the ancient Greeks, the pre-theoretical understanding of the world in which productionist metaphysics is grounded contains a social element. There are two interrelated elements in Marcuse's account of the ancient Greeks that merit exploration in view of his writings on technology: 1) the dialectical nature of early reason and 2) the social structure, which allowed for the work of the philosopher.

Like Heidegger, Marcuse understands reason historically; reason changes over the course of history. Marcuse contrasts the dialectical rationality of the ancient Greeks with

contemporary one-dimensional rationality. According to Marcuse, in advanced industrial society reason has lost its negative (critical) force; contemporary thinking is one-dimensional. The focus of thought in contemporary society is primarily the analysis of the empirical facts of the real world. Ideas that cannot be understood in terms of physical phenomena or verified by sense experience are considered to be too speculative to serve as knowledge. Abstract ideas and ideals are viewed as metaphysical spectres that serve as a reminder of a less advanced intellectual era. It is the job of philosophy to purge language of these metaphysical spectres so that they will no longer obscure the truth that presents itself in the form of empirical fact, accessible to the physical sciences. Physical science serves as the paradigm for all knowledge. It comprehends the world in terms of forces, causality, matter and energy; all of which are verifiable and observable.

For Marcuse, the main problem with one-dimensional thinking is that it robs reason of its critical force. Because the ideal is devalued and ignored, the antagonism between the ideal and the real world is concealed. The potential to critique the established order is debilitated because the critical resources of reason have lost their force due to the devaluation of the ideal. Potential alternatives appear as mere utopia or fiction in the face of positive thinking, which appears rational when viewed from within its own logic. This thinking blocks the possibility of alternatives because it is only able to ponder the way things are and not other possible ways in which things could be.

In contrast to the one-dimensional reason of advanced industrial society, Marcuse discusses the dialectical reason of the ancient Greeks. According to Marcuse, in ancient Greek philosophy reason is the "negative" power that establishes truth and order amidst the flux and chaos of reality. Confronted with a world of change and contradiction, Plato

and Aristotle sought to create a world free from the uncertainties of the material world. The ideal world, free from the uncertainties and contradictions of reality, could serve as the basis for knowledge. Reason distinguishes that which really is (truth) from that which merely appears to be; it shows things as they "really are".

This philosophical world is one beset by antagonism and conflict; it is two-dimensional. The ideal world stands in conflict with the real world, just as truth is in conflict with falsity or mere appearance. There are modes of being in which things appear "as they are" and modes in which entities appear "other than they are". The ancient Greeks understood the world according to the opposition between being and non-being, or between potentiality and actuality. The negation of being in non-being entails becoming – the movement from non-being to being.

According to Marcuse, for the ancient Greeks being meant to be in truth, while non-being was to be other than in truth. However, non-being is not merely nothing. Non-being is the potentiality for being; it is dangerous and subversive force against being. The striving for truth is the struggle against non-being. Things appear as they are in themselves and as other than they are; reality is constantly divided between truth and falsity, being and non-being. Marcuse writes, "To overcome these negative conditions is the process of being and thought. Philosophy originates in dialectic; its universe of discourse responds to the facts of an antagonistic reality" (Marcuse 1964: 125).

According to Marcuse, the ancient Greeks found the mediation of antagonistic reality in intuition. It is through intuition that one is able to make the distinction between what is true, the way things really are or being, and what is false, things as other than they are or as non-being. Marcuse says of intuition,

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Classical Greek philosophy relies largely on what was later termed (in a rather derogatory sense) "intuition," i.e., a form of recognition in which the object of thought appears clearly as that which it really is (in its essential qualities), and in antagonistic relation to its contingent immediate situation (Marcuse 1964: 126).

Marcuse claims that intuition is "the result of methodic intellectual mediation. As such, it is the mediation of concrete experience" (Marcuse 1964: 126). Through careful analysis and critical examination the philosopher is able to arrive at the truth. However, the notion of truth also implies a value judgement for the ancient Greeks, as truth is superior to falsity and being to non-being. For the ancient Greeks truth served as a guideline for action; if one knows the true or the good then they will act in accordance with it. Marcuse writes, "If man has learned to see and know what really is, he will act in accordance with truth. Epistemology is in itself ethics, and ethics is epistemology" (Marcuse, 1964, 125).

Further, the ancient Greeks believed that a contemplative life directed to the pursuit of truth, that is, the life of the philosopher, to be the good life for man. A necessary pre-condition for the pursuit of a life of contemplation is freedom from work and toil. However, given the material possibilities at the time, the contemplative life could only be the privilege of a few. In order for the philosopher to lead a life of contemplation others were required to devote their lives to labour as a full time occupation. The others who had to devote their lives to labour and toil were the class of slave labourers. From its very inception, western philosophy requires that a class of people dedicate the length of their lives to securing the necessities of life as a full time occupation. The full time labourer is denied access to truth, and therefore to a truly human existence. This is because, as Marcuse says, "cognition of the truth and true

existence imply freedom from the entire dimension of such an activity *(full time labour)*[ii]" (Marcuse 1964: 128).

The philosopher's quest for truth served as justification for a division of labour that subjected a class of people to the task of securing the necessities of life as a full time occupation. In order for a privileged portion of the population to know truth and to lead the good life, the majority had to lead a life of toil. The freedom of the philosopher justified the unfreedom of the slave. Truth was taken to be more desirable than equality[iii]. According to Marcuse, granting one social class access to the good life at the cost of denying that privilege to another runs contrary to the demands of universal equality. Marcuse writes,

> Philosophy envisages the *equality* of man but, at the same time, it submits to the factual denial of that equality. For in the given reality, procurement of the necessities is the life-long job of the majority, and the necessities *have* to be procured so that truth (which is freedom from material necessities) can be (Marcuse 1964: 129).

From what has been shown, it appears that the philosophy of the ancient Greeks is, by its very nature, committed to class division. For truth to be it was required that the majority live in untruth. The denial of truth and the possibility of the contemplative life to the majority of the population are contradictory to the egalitarian notion that the good life be universally accessible. Marcuse says of the denial of truth to the labouring class, "This state of affairs contradicts the universal character of truth, which defines and "prescribes" not only a theoretical goal, but the best life of man qua man, with respect to the essence of man" (Marcuse 1964: 129). The division of labour in ancient Greece is also an example of early domination. The ruling class forced the labouring class into full

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time labour so that it may have freedom from toil. Truth served as the justification for a division of labour that granted freedom to some while denying it to others.

Both "technological" society, as Marcuse refers to it, and "pre-technological" society perpetuate unfreedom. The difference between "pre-technological" society and "technological" society lies in the way in which society is organised to supply the necessities of life. "Technological" society still denies certain social classes truth, freedom and a truly human life so that other may be granted these privileges. However, while unfreedom may persist in "technological" society, the possibility of freedom is also present. Marcuse contends that in advanced industrial society scientific and technological advancements have made it possible to eliminate full time labour. Technological advancements have reduced the labour time needed to secure the necessities of life; therefore, it is now possible for all people, regardless of class, to be free from procuring the necessities of life. Ironically, modern technology provides the potential for liberation from toil and alienated labour, while at the same time reinforcing the idea that these conditions must be preserved.

In advanced industrial society unfreedom is preserved by the administrative technocracy that governs the productive apparatus. Technological rationality has the effect of reducing human beings to the status of mere objects. Understood in terms of abstract units of labour time, human beings are viewed as mere instruments in the transformation of nature. As instruments or resources, human beings are the object of total administration and control. Marcuse writes, "This is the form of pure servitude: to exist as an instrument, as a thing" (Marcuse 1964: 33). The term "human resource" illustrates the degree to which human beings are perceived as objects. The terminology

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conflates "human resources" with "natural resources", effectively granting human beings the same status as natural objects. A resource, whether human or natural, is viewed instrumentally as a thing that is valuable as a means to something other end. As resources, human beings become instruments to be effectively managed in accordance with subjective purposes. No longer is the purpose of the social division of labour the pursuit of truth; in advanced industrial society the purpose driving labour is the enhancement of the technical apparatus itself. The administrative technocracy governing advanced industrial society preserves the idea that full time labour is still socially necessary for the majority of the population.

The instrumentalisation of human beings and nature is a by-product of the evolution of science and technology. For Marcuse, science and technology play an important role in the struggle for existence. Science and technology are at the centre of the human drive to transform nature into goods for human consumption. Over the course of history, advances in science and technology have improved the means of production, allowing for more goods to be produced while expending less time and energy. However, advancements in science and technology have also altered the way in which we understand the world. The quest for the domination of nature in man's struggle for existence has the effect of reducing matter to a possible object of man's manipulation. Along with technology, the objectivity of science has aided in defining nature as a quantifiable object of manipulation. Thus, science itself appears as technological – as obeying the logos of technics by setting up the world as an object of possible quantification and manipulation. Marcuse says of scientific operationalism:

> To the degree to which this operationalism becomes the center of the scientific enterprise, rationality assumes the form of methodological construction;

organization and handling of matter as the mere stuff of control, as instrumentality which lends itself to all purposes and ends – instrumentality *per se*, "in itself" (Marcuse 1964: 156).

What is particularly troubling for Marcuse is that this understanding of nature is transferred to the social sphere and applied to human beings. Pure instrumentalism, function as an end itself, has the effect of setting up its own specific societal organisation. Marcuse argues that there is no strict separation between contemporary scientific technological rationality and social rationality. The view of nature as an object of human control is also applied in the social sphere, reducing human beings to objects of manipulation. Under the influence of technological rationality human beings relate to each other in abstract and quantifiable terms. Marcuse writes,

> While science freed nature from inherent ends and stripped matter of all but quantifiable qualities, society freed men from the "natural" hierarchy of personal dependence and related them to each other in accordance with quantifiable qualities – namely, as units of abstract labour power, calculable units of time (Marcuse 1964: 157).

In the instrumentalist character of scientific rationality Marcuse sees "technology as a form of social control and domination" (Marcuse 1964: 158). This is a defining characteristic of technological rationality for Marcuse; it is necessarily a form of social control and domination. When both nature and human beings are understood in terms of abstract quantities they become the objects of productive control. Even science and the scientific method contribute to the domination of man and nature. Marcuse writes,

> The scientific method which led to the ever-more-effective domination of nature thus came to provide the pure concepts as well as the instrumentalities for the ever-more-effective domination of man by man *through* the domination of nature (Marcuse 1964: 158).

For Marcuse there is a necessary connection between the conquest and domination of nature and the domination of man. Both the domination of man and the

domination of nature originate in the understanding of matter as a possible object of manipulation. Objective science, in setting up matter as a possible object of human manipulation, displaces teleological with subjective ends. Objective science projects mere form, which can be adapted to any purpose. Marcuse says of technological reality,

> In this reality, matter as well as science is "neutral"; objectivity has neither a telos in itself nor is it structured toward a telos. But it is precisely its neutral character which relates objectivity to a specific historical Subject – namely, to the consciousness that prevails in the society by which and for which this neutrality is established (Marcuse 1964: 156).

The neutral and universal character of science conceals the historical and practical conditions that contributed to the pre-understanding that guided its evolution. The pure concepts of theoretical reason were in part based on an unquestioned pre-understanding of practice. This is illustrated in Marcuse's brief interpretation of Husserl in *One-Dimensional Man*. According to Marcuse's reading of Husserl, the pre-scientific basis of Galilean science in the world of practice was not questioned by Galileo and was concealed by the further development of science (Marcuse 1964: 162). Marcuse writes, "The result was the illusion that the mathematization of nature created an "autonomous (*eigenständige*) absolute truth", while in reality, it remained a specific method and technique for the *Lebenswelt*" (Marcuse 1964: 162).

Mathematics and logic establish a reality freed form the uncertainties of the lifeworld. However, the theoretical world remains grounded in the presuppositions of the practical world and remains committed to its specific projects. The scientific project, which quantifies nature and human beings, is committed to a specific way of seeing the world. According to Marcuse, "The scientific abstraction from concreteness, the quantification of qualities which yield exactness as well as universal validity, involve a

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specific concrete experience of the _Lebenswelt_ – a specific mode of "seeing" the world"

(Marcuse 1964: 164). According to Marcuse, the mode of "seeing" the world, which

serves as the foundation for science and technology, is that of anticipating and projecting.

Science is methodological, systematic anticipation and projection; it is "that which

experiences, comprehends, and shapes the world in terms of calculable, predictable

relationships among exactly identifiable units" (Marcuse 1964: 164). To view the world

in this way is to view the world and the objects in it as manipulable matter or raw

materials. Marcuse continues,

> In this project, universal quantification is a prerequisite for the _domination_ of
> nature. Individual, non-quantifiable qualities stand in the way of an organization
> of men and things in accordance with the measurable power to be extracted from
> them (Marcuse 1964: 164).

Marcuse's discussion of the relationship between science and society relies

heavily on his reading of Husserl. In order to explain the relationship between science

and society, and to dispel the myth that science is neutral and detached from any

particular social setting, Marcuse employs a phenomenological approach. Essentially,

Marcuse argues that theoretical science was guided by a specific pre-theoretical

understanding of the world. Science claims to produce absolute and objective truth,

while it conceals its grounding in a specific pre-theoretical understanding of the world.

Science is tied to society through the pre-understanding of the lifeworld in which science

operates. The pre-theoretical understanding of the world is transcendentally prior to

theory; theoretical science is not possible without the world set up by the pre-theoretical

assumptions of the lifeworld. According to Marcuse,

> Observation and experiment, the methodological coordination of data,
> propositions, and conclusions never proceed in an unstructured, neutral theoretical
> space. The project of cognition involves operations on objects, or abstractions

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from objects which occur in a given universe of discourse and action. Science observes, calculates, and theorizes from a position in this universe (Marcuse 1964: 157).

Further, Marcuse argues that science remains committed to a specific lifeworld and cannot be comprehended apart from the specific lifeworld in which it is based. Therefore, science has a stabilising effect and seeks to preserve the existing universe of discourse and action. Marcuse writes,

> With respect to the institutionalized forms of life, science (pure as well as applied) would thus have a stabilizing, static, conservative function. Even its most revolutionary achievements would only be construction and destruction in line with a specific experience and organization of reality (Marcuse 1964: 165).

Marcuse's critique of science and technology is indebted to the phenomenological method. Its basis in the claim that the scientific reduction of nature to raw materials is grounded in the pre-theoretical understanding of the world reveals a nearness to Heidegger's thinking on modern technology that defies Marcuse's self understanding. Though Heideggerian phenomenology goes beyond Husserl by focusing on ontology, the two methods intersect with their focus on the pre-theoretical understanding of the world. Despite their divergent concerns, Heidegger and Marcuse both find a basis for their understanding of modern technology in the pre-theoretical understanding guiding science. Both Heidegger and Marcuse see modern technology's pre-theoretical understanding as a specific kind of anticipation and projection, which understands the world in terms of measurable and calculable quantities of manipulable matter.

Marcuse's thesis that advanced industrial society is one-dimensional relies on his understanding of science, which is indebted to phenomenology. Objective science produces a one-dimensional world, in which reality is comprehended as quantifiable matter amenable to calculation and measurement, which conceals the pre-theoretical

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understanding that is a transcendentally prior to scientific theory. Further, scientific theory, which relies on a specific pre-understanding of the lifeworld, remains committed to the specific presuppositions of that lifeworld, therefore arresting the possibility of a change that would move beyond the specific limitations of that lifeworld.

Marcuse's phenomenological account of science and technology resembles Heidegger's insofar as Heidegger also conceives of technology as an unthought pre-understanding guiding contemporary techno-scientific thought, which views nature as raw materials. Though Heidegger situates his phenomenology within an historical ontology, a historical narrative of being, his understanding of modern technology remains rooted in the pre-understanding guiding contemporary thought. Despite the focus on ontology, Heidegger's work remains grounded in a phenomenological understanding of the world.

Viewed in this light, Heidegger's claim that modern technology's projection of being is limited and Marcuse's claim that reason is one-dimensional in the technological era appear more coherent. The way Heidegger and Marcuse each understand contemporary society is dependent on a phenomenological approach. Further, their respective phenomenological understandings of modern technology share several common features such as one-dimensionality and a view of nature and human beings as raw materials.

I will now briefly review Marcuse's central thesis in *One-Dimensional Man*. Marcuse argues that the irrational character of advanced industrial society and the enslavement of human beings by the technical apparatus of production are concealed by its own internal logic. Advanced industrial society appears to be rational because it

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conceals its own internal contradictions; viewed from its own internal logic it is perfectly rational. It also conceals the possibility of alternatives by absorbing resistance and rendering it benign and by marginalising alternative modes of thought. Compliance with the demands of the technical apparatus appears rational because participation in the apparatus results in satisfaction of the needs projected by the apparatus itself. Viewed from within the logic of the technical apparatus of production, the structure of cannot be questioned.

Marcuse terms advanced industrial society one-dimensional because any opposition to the status quo is weakened and neutralised. The technical apparatus reconciles the tension between the technical system and forces opposing it. In this light the possibility of qualitative social change is viewed as mere utopian thinking. All of this has the effect of reinforcing the established system, maintaining the status quo and containing social change. As Marcuse says, "This containment of social change is perhaps the most singular achievement of advanced industrial society" (Marcuse 1964: xii).

For Marcuse, the most threatening aspect of the containment of qualitative social change is one-dimensional thinking. Amidst the focus on positive thinking and the reduction of knowledge to empirical facts, reason loses its negative (critical) force. Viewed from the perspective of its own logic, the technical apparatus appears to be perfectly rational. This is a result of the containment of any opposition and the marginalisation of alternative modes of thought. Without the resources to critique the established order of the technical apparatus the irrationality of the apparatus cannot be demonstrated.

A secondary aspect of the containment of social change is the withering away of the revolutionary status of the proletariat. According to Marcuse, as capitalism developed the tension between the proletariat and the bourgeoisie has been eased "in such a way that they no longer appear to be agents of historical transformation" (Marcuse 1964: xiii). The proletariat and the bourgeoisie find themselves united in their commitment to and belief in the established society. Marcuse writes, "An overriding interest in the preservation and improvement of the institutional status quo unites the former antagonists in the most advanced areas of contemporary society" (Marcuse 1964: xiii). This forces Marcuse to look to other sources for revolutionary change. The main source for revolutionary change identified by Marcuse is art and the aesthetic imagination.

2.3: Heidegger and Marcuse

I will now briefly summarise the points of intersection between Heidegger and Marcuse that point to the possibility of reconciling their thinking on the subject of modern technology. There are three central points of convergence between Heidegger and Marcuse: the idea that technology is a way of "seeing" the world, a phenomenological account of the pre-theoretical understanding guiding contemporary science, and the view that modern technology reduces nature and human beings to raw materials. These elements of Marcuse's thought demonstrate a convergence with Heidegger, despite Marcuse's explicit renunciation of any Heideggerian influence on his later work (Marcuse 2005: 176).

Along with the preceding points of convergence, the work of both thinkers displays concern over the social issues related to modern technology, though these concerns are less pronounced in Heidegger's work. For both thinkers one important consequence of the reduction of nature to raw materials is the reduction of human beings to raw materials. For Marcuse, this is one of the most concerning aspects of modern technology's one-dimensionality. Understood as human resources, human beings are effectively reduced to things – instruments. As resources, human beings become objects of management and administration, just as natural resources become potential objects of manipulation. In Marcuse human beings are reduced to instruments in the technological transformation of nature and in Heidegger they are the ones who are called to the task of ordering the standing reserve.

Though, like Marcuse, Heidegger connects the domination of nature by modern technology with the domination of man, Marcuse provides a more developed account of the social issues related to technology. For Marcuse, technological rationality is necessarily a mode of domination and is necessarily the domination of man as well as nature. Science and technology, because of their own internal logic, set up a universe of domination. Marcuse writes, "The point which I am trying to make is that science, by virtue of its own method and concepts, has projected and promoted a universe in which the domination of nature has remained linked to the domination of man" (Marcuse 1964: 166).

According to Marcuse, the instrumental conception of human beings reduces society to an administrative technocracy. Human beings are reduced to human resources, which can be managed in accordance with the demands of the technical apparatus. The

possibility of social change is limited, in part because the instrumental conception of human beings denies the development of the rational and creative faculties, and in part because human beings are bonded to the apparatus through the satisfaction of socially produced needs. Though advanced industrial society has ameliorated the working and living conditions of the worker, effectively stripping the proletariat of its revolutionary status, it has not succeeded in addressing the fundamental issue – the instrumentalisation of human beings.

Another of Marcuse's important insights into modern technology is the idea that the philosopher's quest for truth and the good life necessitated a division of labour that subjected specific classes to a life of toil. In order for truth to be, a class of people had to be free from necessity, which in turn required that the majority devote the length of their lives to securing the necessities of life. The being of truth served as the justification for this division of labour and the unfreedom that it has perpetuated throughout history. Although the way in which the opposing classes are organised changes as time passes, these class struggles persist in changing form throughout the course of history.

Marcuse's insight is that the ancient Greeks, while they were laying the foundations of western thought, were part of a specific social structure and class system. By its very design, reason, given the undeveloped means of production at the time, necessitated that a class of people be free from full time labour in order for truth to be. As Marcuse says, "the societal division of labour obtains the dignity of an ontological condition" (Marcuse 1964: 129). The rationality of the ancient Greeks, which claims to be free from the contradictions and decay of the material world, conceals the historical factors that participated in its genesis.

In the next chapter I will present an account of how Marcuse's thought can be used to supplement Heidegger's account of modern technology by providing an enriched account of the social dimension. This account will help to provide an enhanced understanding of Heidegger's proposed response to the essence of technology, releasement.

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[i] I will not go into to detail about the personal issues between Heidegger and Marcuse, related to Heidegger's involvement with National Socialism. For more on this see Marcuse, Herbert. 2005. *Heideggerian Marxism*. ED. Richard Wolin and John Abromeit. Lincoln: University of Nebraska Press, and Wolin, Richard. 1993. *The Heidegger Controversy: A Critical Reader*. Cambridge: MIT Press.

[ii] My addition in brackets.

[iii] It should be noted that this division of labour could probably also be credited with helping the theoretical, practical and technological advancements that have created the possibility of greater social equality by reducing the amount of labour time to meet basic human needs.

Chapter Three: Developing the Social Dimension

The relationship between Martin Heidegger and Herbert Marcuse remains ambiguous[i]. Scholars are still in the process of determining the extent to which the later works of Marcuse are faithful to his early work under the tutelage of Heidegger. Although Marcuse openly renounced Heidegger's influence on his later works, the analysis of *One-Dimensional Man* in the previous chapter seems to indicate that, at some level Heidegger's teachings had a lasting effect on Marcuse. The convergence of the two thinkers on the issue on modern technology is made evident in the three points of intersection mentioned in chapter two. These points are: technology is a way of "seeing" the world, a phenomenological account of the pre-understanding that guides scientific thought, and the reduction of nature to raw materials. These points of intersection demonstrate a convergence of thought on the topic of modern technology that defies Marcuse's own self-understanding.

I this chapter I will offer an account of how Marcuse's work can be used to provide Heidegger with an enriched understanding of the social issues of enframing. I will first examine Andrew Feenberg's *Heidegger and Marcuse: The Catastrophe and Redemption of History*. Next I will offer my own alternative attempt to remedy the philosophical tensions between the two thinkers, combined with a Heideggerian reading of Marcuse which develops an enriched account of the social dimension. I will conclude by offering some remarks about art and how it provides the possibility of a response to the essence of technology. These remarks are not intended to offer a full account of Heidegger's philosophy of art but rather are meant to briefly show how art provides the resources for responding to technology.

3.1: Feenberg's *Heidegger and Marcuse*

Little has been written on Marcuse's complicated relationship with Martin

Heidegger. To date, the most comprehensive attempt to demonstrate a convergence

between Heidegger and Marcuse is Andrew Feenberg's *Heidegger and Marcuse: The*

Catastrophe and Redemption of History. Feenberg's desire to show that Heidegger and

Marcuse can be reconciled emerges out of his view that the two authors have similar

conceptions of modern technology and that combining ideas from each thinker would

produce a more complete philosophy of technology. Essentially Feenberg wants to

combine Heidegger's account of ancient Greek techne and modern technology with the

more proactive solutions to the problems of technology proposed by Marcuse. Feenberg

believes that Marcuse's work supplies a response to the essence of technology that goes

beyond Heidegger's notion of releasement, which Feenberg believes to be overly passive.

In the book, Feenberg attempts to show that there is a high degree of continuity

between Marcuse's work and Heidegger's despite each philosopher's claims to the

contrary. Feenberg attempts to show that Marcuse's early work shares many common

features with the early Heidegger, which unbeknownst to Marcuse remained central to his

later work as well. Feenberg writes, "Marcuse remained true at some level to an earlier

Heidegger the later Heidegger rejected and concealed" (Feenberg 2005: xiv).

Much of Feenberg's argument for the continuity of thought between Heidegger

and Marcuse is based on Feenberg's claim that Marcuse's interpretation of Hegel in

Hegel's Ontology and the Theory of Historicity is owing to Heidegger's interpretation of

Aristotle's productionist metaphysics. Feenberg claims that the Heideggerian

interpretation of Aristotle reappears in Marcuse's later work on technology: *One-Dimensional Man, Eros and Civilization* and *An Essay on Liberation.* According to Feenberg, Marcuse's interpretation of Aristotle, borrowed from Heidegger, accounts for the confluence of Marcuse's later thinking with Heidegger on the issue of technology.

However, this explanation for the continuity of thought between Heidegger and Marcuse is problematic. Feenberg's main error is that his reading of Heidegger misinterprets Heidegger's understanding of Aristotle. As several critics have noted[ii], Feenberg misinterprets Heidegger as privileging ancient Greek techne over modern technology. Feenberg claims that ancient Greek techne is a mode of production that brings forth a thing out of its own inherent potentialities rather than imposing subjective demands on it from without, as is the case with modern technology. In this light, modern technology appears as a perversion of techne, which Feenberg refers to as a mode of authentic production. However, Heidegger's account of techne and technology was not intended to make the claim that ancient Greek techne is a more authentic mode of production than modern technology. As I have argued in chapter one, Heidegger's central thesis on modern technology is that the productionist metaphysics initiated by the ancient Greeks contains its own closure; modern technology is not the perversion of techne, but rather the necessary conclusion to it. Heidegger's account of technology does not present a choice between techne or modern technology, but a story of how modern technology is the necessary outcome of an historical narrative of being that began with techne. In Heidegger's eyes techne is a deficient mode of world disclosure because it initiates the self-concealment of being behind present entities.

Feenberg's reading of Heidegger also produces another important misunderstanding. Feenberg interprets Heidegger's work on modern technology as dystopian and is critical of Heidegger's supposedly passive answer to the problems posed by technology. Feenberg criticises Heidegger for failing to offer any solution to the problem of technology beyond mere "waiting for new Gods" and for the view that the technological destiny is an unavoidable fate beyond human control. However, once again these criticisms of Heidegger spring from significant misunderstandings of Heidegger's texts.

It is difficult to characterise Heidegger's work as dystopian because Heidegger's work on modern technology and the history of being is intended as a narrative on how the way being sends itself has changed over the course of history. Ancient Greek technē is not presented as a more authentic mode of production or world disclosure but as the origin of modern technology. To interpret modern technology as dystopian implies that Heidegger's historical narrative of being could have followed a different path and that modern technology is the worst of several possible outcomes. However, to say that gradual historical transformation of technē into modern technology could have had a different outcome contradicts the central claim of Heidegger's philosophy of technology, that modern technology was prefigured from the outset of productionist metaphysics.

It is also a mistake to claim that Heidegger's philosophy is dystopian because he believes that human beings are condemned to suffer the bleak fate presented by modern technology. According to Heidegger, modern technology was prefigured by ancient Greek technē. The technological "turning" marks the end of the metaphysical era and the birth of post-metaphysical thinking. Far from an unavoidable fate that humanity cannot

escape, modern technology is a transitional stage in human history. The productionist metaphysics initiated by the ancient Greeks culminates in modern technology and will be followed by post-metaphysical thinking, though the notion of a post-metaphysical world still remains highly ambiguous.

Understanding how Heidegger understands the history of being, the transformation of techne into technology, is essential to understanding Heidegger's response to the essence of technology. Feenberg accuses Heidegger of presenting an overly passive solution, of waiting for the saving power of art to alter our fundamental experience of the world. However, to talk in terms of activity and passivity distorts what Heidegger's notion of releasement signifies. Releasement, Heidegger says, is beyond mere activity or passivity; it is not about surrendering to fate and waiting for a heaven sent solution but about attending upon a new kind of thinking. According to Heidegger, human beings are but one element in the play of presence and absence that is being. As such, the way in which being sends itself is not entirely within human control. To will to overcome the technological fate is to fall even more into the grips of enframing, as willing and overcoming are elements of thinking germane to enframing.

Releasement means to let things enter into presence without recourse to ultimate representations; it is to think and act only in accordance with polymorphous presencing. The essence of releasement is not a mere waiting or surrendering to one's fate but an attending upon a new kind of thinking – thinking without ultimate foundations. It is the abandonment of a single way of viewing the world and the openness to pluralistic presencing. As such, it is not something that can be willed but rather can only be prepared for "through thinking and poeticizing" (Heidegger 1993b: 107). It cannot be

willed because releasement is not an act of taking control or of overcoming but a surrendering to the demands of polymorphous presencing.

Upon further inspection, the concept of releasement is not as mystical as it first appears. The main task of releasement is to recover the forgotten notion of being as presencing through the abandonment of ultimate foundations as the ground for thinking and acting. The difficulty of releasement, and one of the reasons it cannot be strategically willed, is that it is a kind of forgetting – the forgetting of the ultimate representations that have served as the foundation for human knowledge since the ancient Greeks. The practical task of releasement is to remove any obstacles that block the entry of things into their world.

Viewed in this light, releasement does not entail abandoning all hope and resigning oneself to the technological fate. It is the preparation a new mode of thinking – post-metaphysical or anarchic thinking. Heidegger rightly asserts that releasement is beyond mere activity or passivity. Having looked at this enriched understanding of releasement it is difficult to characterize Heidegger's writing as dystopian or passive. Because releasement cannot be understood in terms of mere passivity it is difficult to classify Heidegger as a dystopian thinker who asserts that the only possible response to the essence of technology is to surrender to the technological destiny and wait for a new way of being. Heidegger is rather an anticipatory thinker who attempts prepare the way for a new era of thinking and acting.

3.2: Supplementing Heidegger

The task of reconciling Heidegger and Marcuse is difficult. It does not appear that this can be accomplished by looking at the way each thinker understands Aristotelian metaphysics, as was attempted by Feenberg. However, as I demonstrated in chapter two there are several points of convergence between Heidegger and Marcuse that allow for a Heideggerian appropriation of some of Marcuse's ideas, which would enrich Heidegger's account of the social issues related to enframing. The notion of technology as a way of "seeing" the world, a phenomenological account of the pre-understanding guiding modern science, and the view that technology reduces nature to raw materials are features of both thinkers work, which allow for the possibility of combining ideas from each thinker.

In order to supplement Heidegger's conception of modern technology with the more detailed social account provided by Marcuse I propose a reading of Marcuse from a Heideggerian perspective. The task of this reading is to draw out elements of Marcuse's writing that can enhance Heidegger's conception of the social and the political. Because Marcuse's thesis that technological rationality produces a one-dimensional experience of the world relies on a phenomenological account of the pre-theoretical basis of science, Marcuse's work is not entirely alien to Heideggerian ontology. Marcuse's argument that advanced industrial society is one-dimensional depends on his claim that the pre-understanding guiding modern science produces one-dimensional thinking. This argument relies on a phenomenological account of modern science. Since Marcuse's argument depends on his phenomenological account of modern science, much of Marcuse's discussion of advanced industrial society in *One-Dimensional Man* has a basis in phenomenology. Therefore, there is less distance between the two thinkers then

originally believed and some aspects of Marcuse's account of the social dimension of advanced industrial society may be appropriated by Heidegger's account of modern technology.

Marcuse's work provides Heidegger with the resources for an account of the social sphere in advanced industrial society that would provide increased insight into the social and political changes that would accompany releasement. Heidegger's account of releasement tells us how to think at the turning but he has little to say about the practical task of releasement – "to remove everything that tends to place itself in front of the emergence of things into their world" (Schürmann 1987: 275). Heidegger understands the political as the public conjunction of speech, actions and things[iii]. How Marcuse understands each of these things in advanced industrial society will provide a description of the social/political sphere in advanced industrial society and a starting point for a Heideggerian reading of Marcuse. Marcuse understands speech as reified, actions as constrained and instrumental, and things as raw materials. The conjunction of these elements in the political sphere results in a one-dimensional society in which the possibilities for change are suppressed.

In advanced industrial society speech is reified and functional. For the most part, words derive their meaning from their function or a series of operations. According to Marcuse, operational language limits the realm of possible discourse by reducing language to a means of standardised communication, which conceals any meaning beyond the reified and functional usage of a word. Operational definition robs language of its transcendent, critical and negative powers by limiting discourse to what is immediately given. Anything beyond the immediately present is either concealed or

marginalised. Defining words in terms of pure function also has the effect of eliminating qualitative differences. The focus on function reconciles previously conflicting concepts into a harmony of contradictions. The functional language of advanced industrial society is unable to express the conflict between words.

The reification of language works to constrain the possibility of open discourse and action in the political sphere. Politically charged terms such as "freedom", "equality" and "democracy" become hypostatised and act as tools for political control (Marcuse 1964: 88). They become equated with elections, the free market economy and individual rights. The words themselves serve as forces of social control, which maintain the status quo by limiting discourse and controlling opposition. Any attempt to understand these words beyond the limited realm of discourse is conceived of as "incorrect or propaganda" (Marcuse 1964: 88). Resistance to the established order is contained, in part because the language of the technical apparatus prohibits the expression of alternative possibilities.

Alternative political thought and action finds itself limited because it lacks the means to properly express itself. Political action is restricted by speech because without the means to express itself action lacks coherence and self-understanding. The possible ways of speaking and thinking limit the possible ways of acting. Action that defies the established universe of discourse appears as nonsense or insanity. As a consequence, alternative lifestyles are viewed as deviant or ridiculous from within the logic of the established order.

In advanced industrial society action becomes subject to total administration. Human actors, like nature, become objects of possible control and manipulation.

Technological rationality, which strips actions of anything but their instrumental character, reduces action to the performance of functional tasks. Because the material world presents itself as a quantifiable collection of matter, human actors are called upon to be the ones who transform and manipulate this matter in accordance with subjective purposes. The lack of any qualitative differences in matter or action blocks access to a way of thinking about action as more than securing, transforming and measuring raw materials. The one-dimensional universe of discourse, in which qualitative differences are concealed behind the universal quantification of the material world, understands value only in terms of quantity. Efficiency and productivity serve as practical goals because in a world that knows only quantity the good can be understood only in terms of the maximisation of quantities.

The technical apparatus ensures obedience through visible and invisible constraints. According to Marcuse, one of advanced industrial society's greatest triumphs is its ability to control the population without their knowledge. The possibilities of action are determined in advance by the dictates of technological rationality. Individuals conform to the ways of life most prevalent in advanced industrial society because they believe it to be in their best interests to enter into the workings of society as both producers and consumers. According to Marcuse, the technical apparatus produces "false" needs. They are "false" because they are not genuine biological necessities but rather needs that operate in the interests of repression. The "false" needs produced by the system bond human beings to the alien demands of the productive apparatus. Participation in the productive apparatus, though toilsome, appears as the only valid and rational way of life. Submission to the demands of the technical apparatus is rewarded

with the satisfaction of material needs. Alternative lifestyles, which attempt to transcend

or defy the rules of the established order, are viewed as illegitimate or deviant.

Human beings are treated analogously to things, which are treated as raw

materials. As raw materials, things are essentially conceived of in terms of their function

or usage. Where enframing holds sway, natural things cease to come forth from

themselves out of their own self-emergence, phusis. Natural things are challenged forth

by technology, violated by the demands of the thinking subject, to reveal themselves in

terms amenable to calculation and measurement. They are put to the challenge that they

appear as not as self-emerging entities but as measurable quantities of raw material that

exist for the purposes of mankind. The forest is understood in terms of a given quantity

of lumber that stands ready to be used for fuel or construction and the mountainside is

understood in terms of the heat energy that can be produced from the coal within.

Marcuse's understanding of things in advanced industrial society is very similar

to Heidegger's. According to Marcuse, contemporary science and technology conceives

of things as possible objects of man manipulation. Marcuse contrasts the technological

view with the aesthetic representation of a thing. Marcuse writes,

> Whatever a thing may be (thing or flower, animal or man), it is represented and valued not in terms of its usefulness, not according to any purpose it may serve, and also not in view of its "internal" finality or completeness. In the aesthetic imagination, the object is rather represented as free from all such relations and properties, as freely being itself (Marcuse 1966: 178).

Marcuse's writings on aesthetics attempt to undermine the functional conception

of things. In contrast to the aesthetic representation of a thing, technological rationality

understands things in terms of utility and function. Things are conceived of not as

entities in themselves but as possible objects of human manipulation.

A brief examination of the public conjunction of speech, actions and things reveals the reified and constrained nature of the political. In advanced industrial society, the political becomes the technocratic centre of the extraction and exchange of raw materials. Actions and things become subject to the total administration of the technological-scientific complex. Speech loses its disclosive power and is reduced to a vehicle for the transmission of information. Such a social organisation is not conducive to the letting come to presence of self-emerging entities. Rather, this kind of social organisation lends itself to the domination of human beings and nature through the total administration of things and persons. Technological and scientific rationality, which monopolise knowledge, marginalise other modes of knowing. They lack the means to comprehend things other than as objects of possible manipulation and administration.

The political sphere in advanced industrial society is antithetical to the self-emergence of things into their world. The political, the site of administration and control, is not capable of understanding things other than as quantifiable substances, which can be extracted from the earth and stored up as such. The prevailing political rationality lacks the resources to comprehend polymorphous presencing. One of the defining features of technological rationality is that it confines all knowing to a singular notion of truth; it cannot comprehend the notion of multiple presencing. Enframing understands things only instrumentally, as potential objects of manipulation,

The apparently neutral character of technological and scientific rationality conceals the driving force underlying contemporary thought and action – the preservation and enhancement of the technical apparatus itself. The technical apparatus seeks only its own self preservation and expansion. According to Marcuse, the technical apparatus

continues to seek productivity at the expense of domination and toil, despite advances in the productive apparatus that have reduced the need for toil. Advanced industrial society does not allow for an alternative way of understanding the political because it understands nature and human beings as resources.

In looking at this characterisation of the political it becomes evident that a social structure in which speech is reified, action is subject to total administration and things are conceived of as raw materials is inconsistent with releasement. In a society where social actors are viewed as human resources whose purpose is the transformation of raw materials into socially useful goods, it is not possible to think in accordance with polymorphous presencing. While actions are still constrained by strategic rationality and dictated by the demands of technocratic administration, no amount of thinking and poeticising can usher in a new era of thinking without ultimate foundations. Practical and political measures must also be taken, in order to create the possibility of non-foundational thinking.

The social and political changes required to prepare for releasement would take the form of the removal of barriers to the emergence of things into their world and thinking only in accordance with the economies of presencing. This would mean the removal of administrative structures that control action as well as the removal of outdated political ideologies that justify social inequality. While the result of these changes would most likely be some kind of socialism, I should stress that it is not as much about the suitability of a particular political system over another but about the rethinking of our ideas of authority, legitimacy and the political.

For both ontology and politics the task of releasement is the removal of the _arche_, the commanding first that guides thinking and acting. If, as Schürmann claims, one thinks as one acts and acts as one thinks, then any change in one side of this equation will require a change in the other. When viewed from this perspective thinking begins to lose its authority over action. Without foundation, prescription loses its force, and the hegemony of theory over practice begins to wither.

The destabilisation of the privileging of theory over practice, and of the notion of acting according to what thinking prescribes, calls into question the whole structure of authority itself. One-dimensional thinking conceals the pre-theoretical understanding on which political and social theory are founded. The phenomenological revelation that theory rests on a pre-understanding of the lifeworld calls into question the traditional authority of the theoretical over the pre-theoretical. In the face of the destabilisation of the relationship between theory and the pre-theoretical understanding of the world, the focus shifts from an analysis of theory to thinking in accordance with the economies of presencing that set up a world through the way they reveal entities. Economies of presencing set up a world by laying out the way in which entities are disclosed, which determines how human beings experience the world pre-theoretically. If theory ultimately rests on a pre-theoretical understanding of the world, which is concealed in theoretical discourse, then theory loses its authority over thinking and acting to an examination of the way the world is disclosed in presencing.

In looking at the work of Heidegger and Marcuse, one is able to locate the origin of the rule of theory over practice in the productionist metaphysics of the ancient Greeks. The grounding of truth in theoretical discourse, freed from the uncertainties of practice,

conceals the pre-theoretical engagement with the world on which theory is founded. For Heidegger, the privileging of theory over practice begins when the permanently present idea of the philosopher is given priority over the practical activity of the craftsman, in spite of the fact that the philosopher's thinking was modelled on the production of handicraft. For Marcuse, it is when the philosopher defines the good life as a life of contemplation. The contemplative life, which was seen as incompatible with securing the necessities of life as a full time occupation, was thought to be the only truly "human" mode of existence. The pursuit of theoretical truth required a division of labour that subjected a class of people to full time labour so that others could be free from the realm of necessity. The theoretical pursuits of the philosopher were taken to be better and more truly "human" than the practical pursuits of the labouring class.

The elevation of theory over practice justified a division of labour and a model for knowledge that rely on the archē as the origin of thinking and acting. An unthought pre-understanding guided political theory in the form of ultimate representations, which serve as the foundation of theoretical discourses. At the metaphysical closure the political archē takes the form of administrative technocracy, which rules according to the law of productivity and efficiency. Advanced industrial society is ruled by the drive for organisation and control. Administration itself serves as the source of power and domination, and its only goal is the enhancement of the technical apparatus itself. The source of rule is no longer located in political rulers or even in capitalist owners and managers. According to Marcuse,

> Domination is transfigured into administration. The capitalist bosses and owners are losing their identity as responsible agents; they are assuming the function of bureaucrats in a corporate machine. Within the vast hierarchy of executive and managerial boards extending far beyond the individual establishment into the

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scientific laboratory and research institute, the national government and national purpose, the tangible source of exploitation recedes behind the façade of objective rationality. Hatred and frustration are deprived of their specific target, and the technological veil conceals the reproduction of inequality and enslavement (Marcuse 1964: 32).

In advanced industrial society, individual aspirations are linked to the needs of the technical apparatus. Participation in the system is assured because it guarantees the satisfaction of consumer needs while concealing the structural flaws inherent in its design from its inception. For Marcuse, the fundamental flaw of technocratic society is that it preserves labour and toil while blocking the free development of the creative and rational faculties; it transforms human beings into instruments of labour. For Heidegger, technocratic society is flawed because it produces a way of life that conceals presencing behind the ordering of present entities and conceals the role of human beings as the clearing in which entities come to presence.

The apparent freedom of political choice, and the reification of political language, masks the limited nature of the political structure itself. The reduction of the understanding of the word democracy to the ability to choose between one of several political candidates blocks access to an enriched understanding of political choice. Although the people are given the ability to choose their leaders, they lack the means of enacting any large-scale change. The political process and the structure of government itself favour the maintenance of the status quo. Marcuse writes,

> Today political power asserts itself through its power over the machine process and over the technical organization of the apparatus. The government of advanced and advancing industrial societies can maintain and secure itself only when it succeeds in mobilizing, organizing and exploiting the technical, scientific, and mechanical productivity available to industrial civilization. And this productivity mobilizes society as a whole, above and beyond any particular or group interests (Marcuse 1964: 3).

The interests of the individual are connected with those of the system through the satisfaction of needs. With a rising standard of living, resistance to the system appears irrational. Freedom, a politically charged term, becomes understood as the freedom to participate in the technical apparatus as a producer and consumer. The limited nature of the available choices closes off the possibility of qualitative change. The reification of the political, and of political terminology such as freedom and democracy, blocks access to an understanding of the political as anything other than an administrative technocracy.

Any attempt to displace administrative technocracy is faced with the problem of how to displace a system founded on strategic rationality without employing strategic rationality itself. Any strategic and highly organised attempt to alter the basic structure of the technical apparatus runs the risk of becoming just another form of administrative technocracy. This is why a response to the essence of technology entails more than the replacing of one political system with another. Administrative technocracy can take the form of capitalism, socialism or communism. As long as the structure of the technical apparatus persists no mere change in political system can counter it.

In order to respond to the essence of technology one must look beyond the practical and political resources present in advanced industrial society to a realm that defies the functional character and instrumental rationality of modern technology. For both Heidegger and Marcuse the source of radical change is art. Heidegger writes,

> Because the essence of technology is nothing itself technological, essential reflection upon technology and the decisive confrontation with it must happen in a realm that is, on the one hand, akin to technology and, on the other, fundamentally different from it. Such a realm is art (Heidegger 1977: 35).

3.3: Art

In this last section I will present some closing remarks on art as a response to the essence of technology. Though this work does not allow the space for a complete account of art as a response to technology, I will present of preliminary sketch of the features of art that allow it to respond to the essence of technology. Both Heidegger and Marcuse look to art as a possible means of countering modern technology. For Heidegger, art is both similar to modern technology and yet fundamentally different from it. Like technology art is mode of revealing. Yet unlike technology, art is a bringing forth; it is poiēsis. Art brings forth entities to show themselves; it does not challenge forth entities and force them to reveal themselves as units of measurable standing energy reserve.

According to Heidegger, the technē of the ancient Greeks was not only the skill of the craftsman but also of the artist. Ancient Greek technē is modelled after the fabrication of art as well as of handiwork. Both art and handiwork are modes of poiētic revealing; they are modes of bringing forth that which does not present itself. Over the history of western philosophy the revealing modelled after production has taken priority over the poiētic power of art because the functional nature of handiwork proved itself useful in the transformation of nature. Over time technē evolved into modern technology, a challenging forth, which reveals nature as raw materials. Art, the essence of which is the lack of utility, became gradually marginalised because it lacked the functionality of science and technology.

However, preserved in art is a mode of revealing that is still poiēsis – the bringing forth of that which does not presence itself. While enframing reveals entities as

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instruments or as raw materials, the essence of art is display. According to Heidegger, "The nature of art would then be this: the truth of being setting itself to work" (Heidegger 1971: 36). When Heidegger speaks of the truth of the work of art he is referring to altēheia – unconcealment. For Heidegger, a work of art discloses what a thing is; it brings it into unconcealment so that it may show itself. Heidegger writes, "If there occurs in a work a disclosure of a particular being, disclosing what and how it is, then there is here an occurring, a happening of truth at work" (Heidegger 1971: 36).

The truth of art is not truth in the sense of correctness; it is not a correspondence of language and reality. Truth as unconcealment is rather the letting be of entities so that they may be present. Unconcealment is a necessary pre-condition for truth as correctness because in order for truth as correctness to be there must first be present entities and a world. Art brings forth entities into unconcealment, the lighting of being, so that they may presence themselves.

Heidegger's discussion of a painting of a pair of peasant shoes by Vincent Van Gogh contains one of the most illuminating insights in "The Origin of the Work of Art". According to Heidegger, the painting discloses what the shoes are in truth; it discloses the equipmentality of equipment. The truth of the shoes is concealed in their everyday usage, which hides what the shoes are behind their utility. Equipment and instruments are caught up in use and function; in serving its function a piece of equipment is merely used without disclosing what it is. Heidegger writes, "The equipmentality of equipment first genuinely arrives at its appearance through the work and only in the work" (Heidegger 1971: 36).

In equipment the material is used up. As Heidegger says, "It disappears into usefulness" (Heidegger 1971: 46). In the work of art material is used in such a way that it is used but not used up. The work of art allows it to shine forth. The scientific measurement of nature loses sight of the character of nature itself. Nature is always self-secluding, "It shows itself only when it remains undisclosed and unexplained" (Heidegger 1971: 47). The work of art reveals nature as self-secluding, unmastered and closed up. It defies the scientific world-view, which presents an objective and comprehensive view of nature.

For Heidegger, the most important aspect of art is its ability to set up a world. Art 'worlds' in the sense that it lays out what is in the clearing of unconcealment. It sets up a world by bringing forth what is into unconcealment so that it may be present. Art is a poetic measuring out of what is in unconcealment. However, it is a measuring out that always remains unsecured and inexact. It maintains the self-secluding character of nature by revealing the veiled as veiled. Art prepares the way for human dwelling by setting up a world in which human beings may dwell. This is in contrast to technology, which is an uprooting of human beings, which conceals the world in its objective reduction of nature to measurable quantities. The objectification of nature by modern science conceals the very condition for its possibility, unconcealment. In order for entities to exist as measurable and orderable the must first be present as entities.

Art provides the means for a response to the essence of technology because its revealing is antithetical to the instrumental revealing of nature and human beings. The revealing of art does not demand of nature that it reveal itself in terms of units of measure amenable to calculation and manipulation. Art makes manifest the pre-theoretical

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understanding of the world that is concealed in scientific and everyday discourses. Just as the painting of the peasant shoes reveals the equipmentality of equipment, which remains concealed in everyday usage, art brings out that the unthought presuppositions that guide daily activities. Art counters the totalitarian character of technology, which reduces all revealing to ordering, and instrumental revealing of technology. Art reveals nature's self-secluding character, as nature is never fully transparent and always escapes complete understanding, and brings forth entities into their world as entities.

The details of how art can serve as a response to the ontological and social issues of technology are still to be determined. However, art provides the beginnings for essential reflection upon technology because art is at once akin to technology, as a mode of revealing, and at the same time fundamentally different form it, as a mode of revealing that is a bringing forth. The decisive confrontation with technology through essential reflection on art is still to come.

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[i] For a fuller account of Marcuse's relationship with Heidegger see Wolin's introduction in Marcuse, Herbert. 2005. *Heideggerian Marxism*. ED. Richard Wolin and John Abromeit. Lincoln: University of Nebraska Press.
[ii] See reviews of Feenberg's book by Daniel Dahlstrom and Robert C. Scharff.
[iii] I use Heidegger's concept of the political, i.e. the public conjunction of speech, actions and things, interchangeably with the concept of the social sphere. I do this because Heidegger's understanding of the political is closer to the social dimension than to the realm of politics and organised government.

Conclusion

> The closer we come to the danger, the more brightly do the ways into the saving power begin to shine and the more questioning we become. For questioning is the piety of thought.
>
> -Martin Heidegger, "The Question Concerning Technology"

According to Martin Heidegger it is at the technological "turning" that the danger, as well as the ways into the saving power, are most visible. The proximity to the danger makes possible the retrieval of the forgotten notion of being as presencing, through a re-reading of the history of western philosophy, which is the history of the self-concealment of being by western metaphysics. Modern technology is the culmination of western metaphysics and therefore serves as the best point of reference for re-tracing its development. As the "turning" approaches, the withering away of metaphysical thinking raises new questions for thinking and acting, the most important of which is the question of how to think and act without foundation. Heidegger's response to the essence of technology, releasement, means to think and act only in accordance with polymorphous presencing. Releasement is anarchic thinking; it is thinking without an arche, that is, a commanding first that serves as the ultimate foundation for thinking and acting.

In his writings on modern technology and the "turning", Heidegger's main point of interest is the recovery of being, the temporal linguistic clearing in which entities presence themselves. However, along with this ontological concern, there are also social concerns, in particular the management of human beings in society according to the rule of administrative technocracy. In order to address the social issues surrounding modern technology I turned to Marcuse, whose writings display a concern over the social issues related to viewing human beings as instruments. By supplementing Heidegger's work

with Marcuse's account of the social issues related to modern technology, the scope of Heidegger's thinking on modern technology has been increased to provide a more complete account of the social issues that arise when human beings are viewed as instruments. It also aids in clarifying what kinds of social changes may accompany releasement.

As I have argued throughout, releasement also contains a social dimension. It does not appear that one can think in only in accordance with polymorphous presencing while foundational thinking is still used to justify political rule and social inequality. What is required is not a mere change in political system but a re-thinking of the political. The practical task of releasement is the removal of anything preventing the entry of entities into their world; this includes political ideologies, social inequality and systems of social management with treat human beings as instruments.

Exactly what releasement will entail, for both thinking and acting, is as yet undefined. Releasement remains a mere potentiality. In the face of modern technology, which is an uprooting of human beings, releasement prepares the way for dwelling, the way human beings are on the earth as those who attend upon the coming to presence of being. The path to dwelling is a task for both thinking and politics; it is a path that leads to the rediscovery of dwelling through the removal of obstacles to the presencing of entities into their world, whether those obstacles are ontological or political. According to Heidegger the dwelling of human beings is poetic because human dwelling is a poiētic revealing of what is. Releasement is the path to the rediscovery of poetic dwelling. As Heidegger writes, "The real plight lies in this, that mortals ever search anew for the nature of dwelling, that they *must ever learn to dwell*" (Heidegger 1971: 161).

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